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# THE COMPLETE WORKS 

OF<br>\section*{JOHN RUSKIN}<br>VOLUME XI

ELEMENTS OF DRAWING
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## THE KELMSCOTT SOCIETY PUBLISHERS KOSNEW YORK



## THE ELEMENTS OF DRAWING

 INTHREE LETTERS TO BEGINNERS.

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[" The Elements of Drawing " was written during the winter of 1856. The First Edition was published in 1857 ; the Second followed in the same year, with some additions and slight alterations. The Third Edition consisted of sixth thousand, 1859 ; seventh thousand, 1860 ; and eighth thousand, 1861.

The work was partly reproduced in "Our Sketching Club," by the Rev. R. St. John Tyrwhitt, M.A., 1874; with new editions in 1875, 1882, and 1886.

Mr. Ruskin meant, during his tenure of the Slade Professorship at Oxford, to recast his teaching, and to write a systematic manual for the use of his Drawing School, under the title of "The Laws of Fésole." Of this only vol. i. was completed, 1879 ; second edition, 1882.

As, therefore, "The Elements of Drawing" has never been completely superseded, and as many readers of Mr. Ruskin's works have expressed a desire to possess the book in its old form, it is now reprinted as it stood in 1859.]

## ADVERTISEMENT

## TO <br> THE SECOND EDITION.

As one or two questions, asked of me since the publication of this work, have indicated points requiring elucidation, I have added a few short notes in the first Appendix. It is not, I think, desirable otherwise to modify the form or add to the matter of a book as it passes through successive editions; I have, therefore, only mended the wording of some obscure sentences; with which exception the text remains, and will remain, in its original form, which I had carefully considered. Should the public find the book useful, and call for further editions of it, such additional notes as may be necessary will be always placed in the first Appendix, where they can be at once referred to, in any library, by the possessors of the earlier editions; and I will take care they shall not be numerous.

August 3, 1857.

## PREFACE.

i. It may perhaps be thought, that in prefacing a manual of drawing, I ought to expatiate on the reasons why drawing should be learned; but those reasons appear to me so many and so weighty, that I cannot quickly state or enforce them. With the reader's permission, as this rolume is too large already, I will waire all discussion respecting the importance of the subject, and touch only on those points which may appear questionable in the method of its treatment.
ii. In the first place, the book is not calculated for the use of children under the age of twelve or fourteen. I do not think it adrisable to engage a child in anr but the most roluntary practice of art. If it has talent for drawing, it will be continually scrawling on what paper it can get; and should be allowed to scrawl at its own free will, due praise being given for every appearance of care, or truth, in its efforts. It should be allowed to amuse itself with cheap colors almost as soon as it has sense enough to wish for them. If it merely daubs the paper with shapeless stains, the color-bor may be taken away till it knows better : but as soon as it begins painting red coats on soldiers, striped flags to ships, etc., it should have colors at command; and, without restraining its choice of subject in that imaginative and historical art, of a military tendencr, which children delight in, (generally quite as raluable, bs the war, as any historical art delighted in by their elders, ) it should be gently led br the parents to trs to draw, in such childish fashion as may be, the things it can see and likes,-birds, or butterflies, or flowers, or fruit.
iii. In later jears, the indulgence of using the color should only be granted as a reward, after it has shown care and
progress in its drawings with pencil. A limited number of good and amusing prints should always be within a boy's reach: in these days of cheap illustration he can hardly possess a rolmme of mursery tales without good wood-cuts in it, and should be encouraged to copy what he likes best of this kind; but should be firmly restricted to a few prints and to a few books. If a child has many toys, it will get tired of them and break them; if a boy has many prints he will merely dawdle and scrawl over them; it is by the limitation of the number of his possessions that his pleasure in them is perfected, and his attention concentrated. The parents need give themselves no trouble in instructing him, as far as drawing is concerned, beyond insisting upon economical and neat habits with his colors and paper, showing him the best way of holding pencil and rule, and, so far as they take notice of his work, pointing out where a line is too short or too long, or too crooked, when compared with the copy; accuracy being the first and last thing they look for. If the child shows talent for inventing or grouping figures, the parents should neither check, nor praise it. They may laugh with it frankly, or show pleasure in what it has done, just as they show pleasure in seeing it well, or checrful ; but they must not praise it for being clever, any more than they would praise it for being stout. They should praise it only for what costs it self-denial, namely attention and hard work; otherwise they will make it work for vanity's sake, and always badly. The best books to put into its hands are those illustrated by George Cruikshank or by Richter. (See Appendix.) At about the age of twelve or fourteen, it is quite time enough to set jouth or girl to serious work; and then this book will, I think, be useful to them; and I have good hope it may be so, likewise, to persons of more adranced age wishing to know something of the first principles of art.
iv. Yet observe, that the method of study recommended is not brought formard as absolutely the best, but only as the best which I can at present devise for an isolated student. It is very likely that farther experience in teaching may
enable me to modify it with advantage in several important respects; but I am sure the main principles of it are sound, and most of the exercises as useful as they can be rendered without a master's superintendence. The method differs, however, so materially from that generally adopted by draw-ing-masters, that a word or two of explanation may be needed to justify what might otherwise be thought willful eccentricity.
v. The manuals at present published on the subject of drawing are all directed, as far as I know, to one or other of two objects. Either they propose to give the student a power of dexterous sketching with pencil or water-color, so as to emulate (at considerable distance) the slighter work of our second-rate artists; or they propose to give him such accurate command of mathematical forms as may afterwards enable him to design rapidly and cheaply for manufactures. When drawing is taught as an accomplishment, the first is the aim usually proposed ; while the second is the object kept chiefly in view at Marlborough House, and in the branch Government Schools of Design.
vi. Of the fitness of the modes of study adopted in those schools, to the end specially intended, judgment is hardly yet possible; only, it seems to me, that we are all too much in the habit of confusing art as applied to manufacture, with manufacture itself. For instance, the skill by which an inventive workman designs and molds a beautiful cup, is skill of true art; but the skill by which that cup is copied and afterwards multiplied a thousandfold, is skill of manufacture: and the faculties which enable one workman to design and elaborate his original piece, are not to be developed by the same system of instruction as those which enable another to produce a maximum number of approximate copies of it in a given time. Farther: it is surely inexpedient that any reference to purposes of manufacture should interfere with the education of the artist himself. Try first to manufacture a Raphael; then let Raphael direct your manufacture. He will design you a plate, or cup, or a house, or a
palace, whenerer you want it, and design them in the most convenient and rational way; but do not let your anxiety to reach the platter and the cup interfere with your education of the Iaphael. Obtain first the best work you can, and the ablest lands, irrespective of any consideration of economy or facility of production. Then leave your trained artist to determine how far art can be popularized, or manufacture emobled.
vii. Now, I believe that (irrespective of differences in individual temper and character) the excellence of an artist, as such, depends wholly on refinement of perception, and that it is this, mainly, which a master or a school can teach; so that while powers of invention distinguish man from man, powers of perception distinguish school from sehool. All great schools enforce delicacy of drawing and subtlety of sight: and the only rule which I have, as yet, found to be without exception respecting art, is that all great art is delicate.
viii. Therefore, the chief aim and bent of the following system is to obtain, first, a perfectly patient, and, to the utmost of the pupil's power, a delicate method of work, such as may insure his seeing truly. For I am nearly convinced, that when once we see keenly enough, there is very little difficulty in drawing what we see; but, even supposing that this difficulty be still great, I believe that the sight is a more important thing than the drawing; and I would rather teach drawing that my pupils may learn to love Nature, than teach the looking at Nature that they may learn to draw. It is surely also a more important thing, for young people and unprofessional students, to know how to appreciate the art of others, than to gain much power in art themselves. Now the modes of sketehing ordinarily taught are inconsistent with this power of judgment. No peison trained to the superficial execution of modern water-color painting, can understand the work of Titian or Leonardo; they must forever remain blind to the refinement of such men's penciling, and the precision of their thinking. But, however slight a degree
of manipulative power the student may reach by pursuing the mode recommended to him in these letters, I will answer for it that he cannot go once through the advised exercises without begiming to understand what masterly work means; and, by the time he has gained some proficiency in them, he will have a pleasure in looking at the painting of the great schools, and a new perception of the exquisiteness of natural scenery, such as would repay him for much more labor than I have asked him to undergo.
ix. That labor is, nevertheless, sufficiently irksome, nor is it possible that it should be otherwise, so long as the pupil works unassisted by a master. For the smooth and straight road which admits unembarrassed progress must, I fear, be dull as well as smooth; and the hedges need to be close and trim when there is no guide to warn or bring back the erring traveler. The system followed in this work will, therefore, at first, surprise somewhat sorrowfully those who are familiar with the practice of our class at the Working Men's College; for there, the pupil, having the master at his side to extricate him from such embarrassments as his first efforts may lead into, is at once set to draw from a solid object, and soon finds entertainment in his efforts and interest in his difficulties. Of course the simplest object which it is possible to set before the eye is a sphere; and, practically, I find a child's toy, a white leather ball, better than anything else; as the gradations on balls of plaster of Paris, which I use sometimes to try the strength of pupils who have had previous practice, are a little too delicate for a beginner to perceive. It has been objected that a circle, or the outline of a sphere, is one of the most difficult of all lines to draw. It is so ; * but I do not want it to be drawn. All that his study of the ball is to teach the pupil, is the way in which shade gives the appearance of projection. This he learns most satisfactorily from a sphere; because any solid form, terminated by straight lines or flat surfaces, owes some of its appearance of projection to

[^0]its perspective; but in the sphere, what, without shade, was a flat circle, becomes, merely by the added shade, the image of a solid ball; and this fact is just as striking to the learner, whether his circular outline be true or false. He is, therefore, never allowed to trouble himself about it; if he makes the ball look as oval as an egg, the degree of error is simply pointed out to him, and he does better next time, and better still the next. But his mind is always fixed on the gradation of shade, and the outline left to take, in due time, care of itself. I call it outline, for the sake of immediate intel-ligibility,-strictly speaking, it is merely the edge of the shade; no pupil in my class being ever allowed to draw an outline, in the ordinary sense. It is pointed out to him, from the first, that Nature relieves one mass, or one tint, against another; but outlines none. The outline exercise, the second suggested in this letter, is recommended, not to enable the pupil to draw outlines, but as the only means by which, unassisted, he can test his accuracy of eye, and discipline his hand. When the master is by, errors in the form and extent of shadows can be pointed out as easily as in outline, and the handling can be gradually corrected in details of the work. But the solitary student can only find out his own mistakes by help of the traced limit, and can only test the firmness of his hand by an exercise in which nothing but firmness is required; and during which all other considerations (as of softness, complexity, etc.) are entirely excluded.
x. Both the system adopted at the Working Men's College, and that recommended here, agree, however, in one principle, which I consider the most important and special of all that are involved in my teaching: namely, the attaching its full importance, from the first, to local color. I believe that the endeavor to separate, in the course of instruction, the observation of light and shade from that of local color, has always been, and must always be, destructive of the student's power of accurate sight, and that it corrupts his taste as much as it retards his progress. I will not occupy the reader's time by any discussion of the principle here, but I wish him
to note it as the only distinctive one in my system, so far as it is a system. For the recommendation to the pupil to copy faithfully, and without alteration, whatever natural object he chooses to study, is serviceable, among other reasons, just because it gets rid of systematic rules altogether, and teaches people to draw, as country lads learn to ride, without saddle or stirrups; my main object being, at first, not to get my pupils to hold their reins prettily, but to "sit like a jackanapes, never off."
xi. In these written instructions, therefore, it has always been with regret that I have seen myself forced to advise anything like monotonous or formal discipline. But, to the unassisted student, such formalities are indispensable, and I am not without hope that the sense of secure advancement, and the pleasure of independent effort, may render the following out of even the more tedious exercises here proposed, possible to the solitary learner, without weariness. But if it should be otherwise, and he finds the first steps painfully irksome, I can only desire him to consider whether the acquirement of so great a power as that of pictorial expression of thought be not worth some toil ; or whether it is likely, in the natural order of matters in this working world, that so great a gift should be attainable by those who will give no price for it.
xii. One task, however, of some difficulty, the student will find I have not imposed upon him: namely, learning the laws of perspective. It would be worth while to learn them, if he could do so easily; but without a master's help, and in the way perspective is at present explained in treatises, the difficulty is greater than the gain. For perspective is not of the slightest use, except in rudimentary work. You can draw the rounding line of a table in perspective, but you cannot draw the sweep of a sea bay; you can foreshorten a log of wood by it, but you cannot foreshorten an arm. Its laws are too gross and few to be applied to any subtle form; therefore, as you must learn to draw the subtle forms by the eye, certainly you may draw the simple ones. No great painters ever trouble themselves about perspective, and very few of
then know its laws; they draw everything by the eye, and, naturally enough, disdain in the easy parts of their work rules which cannot help them in difficult ones. It would take about a month's labor to draw imperfectly, by laws of perspective, what any great Tenetian will draw perfectly in fire minutes, when he is throwing a wreath of leaves round a head, or bending the curves of a pattern in and out among the folds of drapery. It is true that when perspective was first discovered, everybody amused themselves with it; and all the great painters put fine saloons and areades behind their Madonnas, mercly to show that they could draw in perspective: but even this was generally done by them ouly to catch the public eye, and they disdained the perspective so much, that though they took the greatest pains with the circlet of a crown, or the rim of a crystal cup, in the heart of their picture, they would twist their capitals of columns and towers of churches about in the background in the most wanton way, wherever they liked the lines to go, provided only they left just perspective enough to please the public.
xiii. In modern days, I doubt if any artist among us, except David Roberts, knows so much perspective as would enable him to draw a Gothic arch to scale at a given angle and distance. Turner, though he was professor of perspective to the Royal Academs, did not know what he professed, and never, as far as I remember, drew a single building in true perspective in his life; he drew them only with as much perspective as suited him. Prout also knew nothing of perspective, and twisted his buildings, as Turner did, into whatever shapes he liked. I do not justify this; and would recommend the student at least to treat perspective with common civility, but to pay no court to it. The best way he can learn it, by himself, is by taking a pane of glass, fixed in a frame, so that it can be set upright before the eye, at the distance at which the proposed sketch is intended to be seen. Let the eye be placed at some fixed point, opposite the middle of the pane of glass, but as high or as low as the student likes; then with a brush at the end of a stick, and a little body-color
that will adhere to the glass, the lines of the landseape may be traced on the glass, as you see them through it. When so traced they are all in true perspective. If the glass be sloped in any direction, the lines are still in true perspective, only it is perspective calculated for a sloping plane, while common perspective always supposes the plane of the picture to be vertical. It is good, in early practice, to accustom yourself to inclose your subject, before sketching it, with a light frame of wood held upright before you; it will show you what you may legitimately take into your picture, and what choice there is between a narrow foreground near you, and a wide one farther off; also, what height of tree or building you can properly take in, etc.*
xiv. Of figure drawing, nothing is said in the following pages, because I do not think figures, as chief subjects, can be drawn to any good purpose by an amateur. As accessaries in landscape, they are just to be drawn on the same principles as anything else.
xv. Lastly: If any of the directions given subsequently to the student should be found obscure by him, or if at any stage of the recommended practice he find himself in difficulties which I have not enough provided against, he may apply by letter to Mr. Ward, who is my under drawingmaster at the Working Men's College ( 45 Great Ormond Street), and who will give any required assistance, on the lowest terms that can remunerate him for the occupation of his time. I have not leisure myself in general to answer letters of inquiry, however much I may desire to do so ; but Mr. Ward has always the power of referring any question to me when he thinks it necessary. I have good hope, however,

[^1]that enough guidance is given in this work to prevent the occurrence of any serious embarrassment; and I believe that the student who obeys its directions will find, on the whole, that the best answerer of questions is perseverance; and the best drawing-masters are the woods and hills.
[1857.]

## THE

## ELEMENTS OF DRAWING.

## LETTER I.

## ON FIRST PRACTICE.

1. My dear Reader,-Whether this book is to be of use to you or not, depends wholly on your reason for wishing to learn to draw. If you desire only to possess a graceful accomplishment, to be able to converse in a fluent manner about drawing, or to amuse yourself listlessly in listless hours, I cannot help you: but if you wish to learn drawing that you may be able to set down clearly, and usefully, records of such things as cannot be described in words, either to assist your own memory of them, or to convey distinct ideas of them to other people; if you wish to obtain quicker perceptions of the beauty of the natural world, and to preserve something like a true image of beautiful things that pass away, or which you must yourself leare; if, also, you wish to understand the minds of great painters, and to be able to appreciate their work sincerely, seeing it for yourself, and loving it, not merely taking up the thoughts of other people about it; then I can help you, or, which is better, show you how to help yourself.
2. Only you must understand, first of all, that these powers, which indeed are noble and desirable, cannot be got without work. It is much easier to learn to draw well, than it is to learn to play well on any musical instrument; but you
know that it takes three or four years of practice, giving three or four hours a day, to acquire even ordinary command orer the keys of a piano; and you must not think that a masterly command of your pencil, and the knowledge of what may be done with it, can be acquired without painstaking, or in a very short time. The kind of drawing which is taught, or supposed to be taught, in our schools, in a term or two, perhaps at the rate of an hour's practice a week, is not drawing at all. It is only the performance of a few dexterous (not always even that) evolutions on paper with a black-lead pencil; profitless alike to performer and beholder, unless as a matter of vanity, and that the smallest possible vanity. If any young person, after being taught what is, in polite circles, called " drawing," will try to copy the commonest picce of real work-suppose a lithograph on the titlepage of a new opera air, or a wood-cut in the cheapest illustrated newspaper of the day,-they will find themselves entircly beaten. And yet that common lithograph was drawn with coarse chalk, much more difficult to manage than the pencil of which an accomplished young lady is supposed to have command; and that wood-cut was drawn in urgent haste, and half spoiled in the cutting afterwards; and both were done by people whom nobody thinks of as artists, or praises for their power; both were done for daily bread, with no more artist's pride than any simple handicraftsmen feel in the work they live by.
3. Do not, therefore, think that you can learn drawing, any more than a new language, without some hard and disagreeable labor. But do not, on the other hand, if yon are ready and willing to pay this price, fear that you may be unable to get on for want of special talent. It is indeed true that the persons who have peculiar talent for art, draw instinctively, and get on almost without teaching; though never without toil. It is true, also, that of inferior talent for drawing there are many degrees: it will take one person a much longer time than another to attain the same results, and the results thus painfully attained are never quite so satisfactory as those got with greater ease when the faculties are
naturally adapted to the study. But I have never yet, in the experiments I have made, met with a person who could not learn to draw at all; and, in general, there is a satisfactory and available power in every one to learn drawing if he wishes, just as nearly all persons have the power of learning French, Latin, or arithmetic, in a decent and useful degree, if their lot in life requires them to possess such knowledge.
4. Supposing then that you are ready to take a certain amount of pains, and to bear a little irksomeness and a few disappointments bravely, I can promise you that an hour's practice a day for six months, or an hour's practice every other day for twelve months, or, disposed in whatever way. you find convenient, some hundred and fifty hours' practice, will give you sufficient power of drawing faithfully whaterer you want to draw, and a good judgment, up to a certain point, of other people's work: of which hours if you have one to spare at present, we may as well begin at once.

## EXERCISE I.

5. Everything that you can see in the world around you, presents itself to your eyes only as an arrangement of patches of different colors variously shaded.* Some of these patches

[^2]of color have an appearance of lines or texture within them, as a picce of eloth or silk has of threads, or an animal's skin shows texture of hairs: but whether this be the case or not, the first broad aspect of the thing is that of a pateh of some definite color; and the first thing to be learned is, how to produce extents of smooth color, without texture.
6. This can only be done properly with a brush; but a brush, being soft at the point, causes so much uncertainty in the touch of an unpracticed hand, that it is hardly possible to learn to draw first with it, and it is better to take, in early practice, some instrument with a hard and fine point, both
appear to us that part of the grass was green, and part a dusty yellow (very nearly of the color of primroses) ; and, if there were primroses near, we should think that the sunlighted grass was another mass of plants of the same sulphur-yellow color. We should try to gather some of them, and then find that the color went away from the grass when we stood between it and the sun, but not from the primroses; and by a series of experiments we should find out that the sun was really the cause of the color in the one.-not in the other. We go through such processes of experiment unconsciously in childhood; and having once come to conclusions touching the signification of certain colors, we always suppose that we see what we only know, and have hardly any consciousness of the real aspect of the signs we have learued to interpret. Very few people have any idea that sunlighted grass is yellow.
Now, a highly accomplished artist has always reduced himself as nearly as possible to this condition of infantine sight. He sees the colors of nature exactly as they are, and therefore perceives at once in the sunlighted grass the precise relation between the two colors that form its shade and light. To him it does not seem shade and light, but bluish green barred with gold.
Strive, therefore, first of all, to convince yourself of this great fact about sight. This, in your hand, which you know by experience and touch to be a book, is to your eye nothing but a patch of white, variously gradated and spotted; this other thing near you, which by experience you know to be a table, is to your eye ouly a patch of brown, varionsly darkened and veined; and so on: and the whole art of Painting consists merely in perceiving the shape and depth of these patches of color, and putting patches of the same size, depth, and shape on cauvas. The only obstacle to the success of painting is, that many of the real colors are brighter and paler than it is possible to put on canvas: we must put darker ones to represent them.
that we may give some support to the hand, and that by working over the subject with so delicate a point, the attention may be properly directed to all the most minute parts of it. Even the best artists need occasionally to study subjects with a pointed instrument, in order thus to discipline their attention: and a beginner must be content to do so for a considerable period.
7. Also, observe that before we trouble ourselves about differences of color, we must be able to lay on one color properly, in whatever gradations of depth and whatever shapes we want. We will try, therefore, first to lay on tints or patches of gray, of whatever depth we want, with a pointed instrument. Take any finely pointed steel pen (one of Gillott's lithographic crowquills is best), and a piece of quite smooth,


Fig. 1.
but not shining, note-paper, cream laid, and get some ink that has stood already some time in the inkstand, so as to be quite black, and as thick as it can be without clogging the pen. Take a rule, and draw four straight lines, so as to inclose a square, or nearly a square, about as large as $a$, Fig. 1. I say nearly a square, because it does not in the least matter whether it is quite square or not, the object being merely to get a space inclosed by straight lines.
8. Now, try to fill in that square space with crossed lines, so completely and evenly that it shall look like a square patch of gray silk or cloth, cut out and laid on the white paper, as at $b$. Cover it quickly, first with straightish lines, in any direction you like, not troubling yourself to draw them much closer or neater than those in the square $a$. Let them quite dry before retouching them. (If you draw three or four squares side by side, you may always be going on with one
while the others are drying.) Then cover these lines with others in a different direction, and let those dry; then in another direction still, and let those dry. Always wait long enough to run no risk of blotting, and then draw the lines as quickly as you can. Each ought to be laid on as swiftly as the dash of the pen of a good writer ; but if you try to reach this great speed at first, you will go over the edge of the square, which is a fault in this exercise. Yet it is better to do so now and then than to draw the lines very slowly; for if you do, the pen leaves a little det of ink at the end of each line, and these dots spoil your work. So draw each line quickly, stopping always as nearly as you can at the edge of the square. The ends of lines which go over the edge are afterwards to be removed with the penknife, but not till you have done the whole work, otherwise you roughen the paper, and the next line that goes orer the edge makes a blot.
9. When you have gone over the whole three or four times, you will find some parts of the square look darker than other parts. Now try to make the lighter parts as dark as the rest, so that the whole may be of equal depth or darkness. You will find, on examining the work, that where it looks darkest the lines are closest, or there are some much darker lines than elsewhere; therefore you must put in other lines, or little seratches and dots, between the lines in the paler parts; and where there are any very conspicuous dark lines, seratel them out lightly with the penknife, for the eye must not be attracted by any line in particular. The more earefully and delicately you fill in the little gaps and holes the better; you will get on faster by doing two or three squares perfectly than a great many badly. As the tint gets closer and begins to look even, work with very little ink in your pen, so as hardly to make any mark on the paper; and at last, where it is too dark, use the edge of your penknife very lightly, and for some time, to wear it softly into an even tone. You will find that the greatest difficulty consists in getting evenness: one bit will always look darker than another bit of your square; or there will be a granulated and sandy look over the
whole. When you find your paper quite rough and in a mess, give it up and begin another square, but do not rest satisfied till you have done your best with every square. The tint at last ought at least to be as close and even as that in b, Fig. 1. You will find, however, that it is very difficult to get a pale tint ; because, naturally, the ink lines necessary to produce a close tint at all, blacken the paper more than you want. You must get over this difficulty not so much by leaving the lines wide apart as by trying to draw them excessively fine, lightly and swiftly; being very cautious in filling in; and, at last, passing the penknife over the whole. By keeping several squares in progress at one time, and reserving your pen for the light one just when the ink is nearly exhausted, you may get on better. The paper ought, at last, to look lightly and evenly toned all over, with no lines distinctly visible.

## EXERCISE II.

10. As this exercise in shading is very tiresome, it will be well to vary it by proceeding with another at the same time. The power of shading rightly depends mainly on lightness of hand and keenness of sight; but there are other qualities required in drawing, dependent not merely on lightness, but steadiness of hand; and the eye, to be perfect in its power, must be made accurate as well as keen, and not only see shrewdly, but measure justly.
11. Possess yourself therefore of any cheap work on botany containing outline plates of leaves and flowers, it does not matter whether bad or good: Baxter's British Flowering Plants is quite good enough. Copy any of the simplest outlines, first with a soft pencil, following it, by the eye, as nearly as you can; if it does not look right in proportions, rub out and correct it, always by the eye, till you think it is right: when you have got it to your mind, lay tracing-paper on the book; on this paper trace the outline you have been copying, and apply it to your own; and having thus ascer-
tained the faults, correct them all patiently, till you have got it as nearly accurate as may be. Work with a very soft pencil, and do not rub out so hard * as to spoil the surface of your paper; never mind how dirty the paper gets, but do not roughen it ; and let the false outlines alone where they do not really interfere with the true one. It is a good thing to accustom yourself to hew and shape your drawing out of a dirty piece of paper. When you have got it as right as you can, take a quill pen, not very fine at the point ; rest your hand on a book about an inch and a half thick, so as to hold the pen long; and go over your pencil outline with ink, raising your pen point as seldom as possible, and never leaning more hearily on one part of the line than on another. In most outline drawings of the present day, parts of the curves are thickened to give an effect of shade; all such outlines are bad, but they will serve well enough for your exercises, provided you do not imitate this character: it is better, however, if you can, to choose a book of pure outlines. It does not in the least matter whether your pen outline be thin or thick; but it matters greatly that it should be equal, not heavier in one place than in another. The power to be obtained is that of drawing an even line slowly and in any direction; all dashing lines, or approximations to penmanship, are bad. The pen should, as it were, walk slowly over the ground, and you should be able at any moment to stop it, or to turn it in any other direction, like a well-managed horse.
12. As soon as you can copy every curve slowly and accurately, you have made satisfactory progress; but you will find the difficulty is in the slowness. It is easy to draw what

[^3]appears to be a good line with a sweep of the hand, or with what is called freedom; * the real difficulty and masterliness is in never letting the hand be free, but keeping it under entire control at every part of the line.

## EXERCISE III.

13. Meantime, you are always to be going on with your shaded squares, and chiefly with these, the outline exercises being taken up only for rest.

As soon as you find you have some command of the pen


FIG. 2
as a shading instrument, and can lay a pale or dark tint as you choose, try to produce gradated spaces like Fig. 2, the

* What is usually so much sought after under the term "freedom" is the character of the drawing of a great master in a hurry, whose hand is so thoroughly disciplined, that when pressed for time he can let it fly as it will, and it will not go far wrong. But the hand of a great master at real work is never free: its swiftest dash is under perfect government. Paul Veronese or Tintoret could pause within a hair's breadth of any appointed mark, in their fastest touches; and follow, within a hair's breadth, the previously intended curve. You must never, therefore, aim at freedom. It is not required of your drawing that it should be free, but that it should be right; in time you will be able to do right easily, and then your work will be free in the best sense; but there is no merit in doing wrong easily.

These remarks, however, do not apply to the lines used in shading, which, it will be remembered, are to be made as quickly as possible. The reason of this is, that the quicker a line is drawn, the lighter it is at the ends, and therefore the more easily joined with other lines, and concealed by them; the object in perfect shading being to conceal the lines as much as possible.

And observe, in this exercise, the object is more to get firmness of hand than accuracy of eye for outline; for there are no outlines in Nature, and the ordinary student is sure to draw them falsely if he draws them at all. Do not, therefore, be discouraged if you find mistakes continue to occur in your outlines; be content at present if you find your hand gaining command over the curves.
dark tint passing gradually into the lighter ones. Nearly all expression of form, in drawing, depends on your power of gradating delicately; and the gradation is always most skillful which passes from one tint into another very little paler. Draw, therefore, two parallel lines for limits to your work, as in Fig. 2, and try to gradate the shade evenly from white to black, passing over the greatest possible distance, yet so that every part of the band may have visible change in it. The perception of gradation is very deficient in all beginners (not to say, in many artists), and you will probably, for some time, think your gradation skillful enough, when it is quite patchy and imperfect. By getting a piece of gray shaded ribbon, and comparing it with your drawing, you may arrive, in early stages of your work, at a wholesome dissatisfaction with it. Widen your band little by little as you get more skillful, so as to give the gradation more lateral space, and accustom yourself at the same time to look for gradated spaces in Nature. The sky is the largest and the most beautiful; wateh it at twilight, after the sun is down, and try to consider each pane of glass in the window you look through as a piece of paper colored blue, or gray, or purple, as it happens to be, and observe how quietly and continuously the gradation extends over the space in the window, of one or two feet square. Observe the shades on the outside and inside of a common white cup or bowl, which make it look round and hollow; * and then on folds of white drapery; and thus gradually you will be led to observe the more subtle transitions of the light as it increases or declines on flat surfaces. At last, when your eye gets keen and true, you will see gradation on everything in Nature.
14. But it will not be in your power yet awhile to draw from any objects in which the gradations are varied and complicated; nor will it be a bad omen for your future progress, and for the use that art is to be made of by you, if the first thing at which you aim should be a little bit of sky. So take

[^4]any narrorr space of evening sky, that you can usually see, between the boughs of a tree, or between two chimneys, or through the corner of a pane in the window you like best to sit at, and try to gradate a little space of white paper as evenly as that is gradated-as tenderly you cannot gradate it without color, no, nor with color either ; but you may do it as evenly; or, if you get impatient with your spots and lines of ink, when you look at the beauty of the sky, the sense you will have gained of that beauty is something to be thankful for. But you ought not to be impatient with your pen and ink; for all great painters, however delicate their perception of color, are fond of the peculiar effect of light which may be got in a pen-and-ink sketch, and in a wood-cut, by the gleaming of the white paper between the black lines; and if you cannot gradate well with pure black lines, you will never gradate well with pale ones. By looking at any common wood-cuts, in the cheap publications of the day, you may see how gradation is given to the sky by leaving the lines farther and farther apart; but you must make your lines as fine as you can, as well as far apart, towards the light; and do not try to make them long or straight, but let them cross irregularly in àny directions easy to your hand, depending on nothing but their gradation for your effect. On this point of direction of lines, however, I shall have to tell you more, presently; in the meantime, do not trouble yourself about it.

## EXERCISE IV.

15. As soon as you find you can gradate tolerably with the pen, take an H . or HH. pencil, using its point to produce shade, from the darkest possible to the palest, in exactly the same manner as the pen, lightening, however, now with in-dia-rubber instead of the penknife. You will find that all pale tints of shade are thus easily producible with great precision and tenderness, but that you cannot get the same dark power as with the pen and ink, and that the surface of the shade is apt to become glossy and metallic, or dirty-looking,
or sandy. Persevere, however, in trying to bring it to evenness with the fine point, removing any single speck or line that may be too black, with the point of the knife: you must not seratch the whole with the knife as you do the ink. If you find the texture very speckled-looking, lighten it all over with india-rubber, and recover it again with sharp, and excessively fine touches of the pencil point, bringing the parts that are too pale to perfect evenness with the darker spots.

You cannot use the point too delicately or cunningly in doing this; work with it as if you were drawing the down on a butterfly's wing.
16. At this stage of your progress, if not before, you may be assured that some clever friend will come in, and hold up his hands in mocking amazement, and ask you who could set you to that " niggling; " and if you persevere in it, you will have to sustain considerable persecution from your artistical acquaintances generally, who will tell you that all good drawing depends on "boldness." But never mind them. You do not hear them tell a child, beginning music, to lay its little hand with a crash among the keys, in imitation of the great masters: yet they might, as reasonably as they may tell you to be bold in the present state of your knowledge. Bold, in the sense of being undaunted, yes; but bold in the sense of being careless, confident, or exhibitory,-no,-no, and a thousand times no; for, even if you were not a beginner, it would be bad advice that made you bold. Mischief may easily be done quickly, but good and beautiful work is generally done slowly; you will find no boldness in the way a flower or a bird's wing is painted; and if Nature is not bold at her work, do you think you ought to be at yours? So never mind what people say, but work with your pencil point very patiently; and if you can trust me in anything, trust me when I tell you, that though there are all kinds and ways of art,-large work for large places, small work for narrow places, slow work for people who can wait, and quick work for people who cannot,-there is one quality, and, I think, only one, in which all great and good art agrees;-it is all delicate art.

Coarse art is always bad art. You cannot understand this at present, because you do not know yet how much tender thought, and subtle care, the great painters put into touches that at first look coarse; but, beliere me, it is true, and you will find it is so in due time.
17. You will be perhaps also troubled, in these first essays at pencil drawing, by noticing that more delicate gradations are got in an instant by a chance touch of the india-rubber, than by an hour's labor with the point; and you may wonder why I tell you to produce tints so painfully, which might, it appears, be obtained with ease. But there are two reasons: the first, that when you come to draw forms, you must be able to gradate with absolute precision, in whatever place and direction you wish; not in any wise vaguely, as the indiarubber does it: and, secondly, that all natural shadows are more or less mingled with gleams of light. In the darkness of ground there is the light of the little pebbles or dust; in the darkness of foliage, the glitter of the leaves; in the darkness of flesh, transparency; in that of a stone, granulation: in every case there is some mingling of light, which cannot be represented by the leaden tone which you get by rubbing, or by an instrument known to artists as the "stump." When you can manage the point properly, you will indeed be able to do much also with this instrument, or with your fingers; but then you will have to retouch the flat tints afterwards, so as to put life and light into them, and that can only be done with the point. Labor on, therefore, courageously, with that only.
18. When you can manage to tint and gradate tenderly with the pencil point, get a good large alphabet, and try to tint the letters into shape with the pencil point. Do not outline them first, but measure their height and extreme breadth with the compasses, as $a b, a c$, Fig. 3, and then scratch in their shapes gradually; the letter A, inclosed within the


Fig. 3.
lines, being in what Turner wonld have called a "state of forwardness." Then, when you are satisfied with the shape of the letter, draw pen-and-ink lines firmly round the tint, as at $d$, and remove any touches outside the limit, first with the india-rubber, and then with the penknife, so that all may look clear and right. If you rub out any of the pencil inside the outline of the letter, retouch it, closing it up to the inked line. The straight lines of the outline are all to be ruled,*

* Artists who glance at this book may be surprised at this permission. My chief reason is, that I think it more necessary that the pupil's eye should be trained to accurate perception of the relations of curve and right lines, by having the latter absolutely true, than that he should practice drawing straight lines. But also, I believe, though I am not quite sure of this, that he never ought to be able to draw a straight line. I do not believe a perfectly trained hand ever can draw a line without some curvature in it, or some variety of direction. Prout could draw a straight line, but I do not believe Raphael could, nor Tintoret. A great draughtsman can, as far as I have observed, draw every line but a straight one.
but the curred lines are to be drawn by the eye and hand; and you will soon find what good practice there is in getting the curred letters, such as Bs, Cs, etc., to stand quite straight, and come into accurate form.

19. All these exercises are very irksome, and they are not to be persisted in alone ; neither is it necessary to acquire perfect power in any of them. An entire master of the pencil or brush ought, indeed, to be able to draw any form at once, as Giotto his circle; but such skill as this is only to be expected of the consummate master, having pencil in hand all his life, and all day long,-hence the force of Giotto's proof of his skill; and it is quite possible to draw very beautifully, without attaining even an approximation to such a power ; the main point being, not that every line should be precisely what we intend or wish, but that the line which we intended or wished to draw should be right. If we always see rightly and mean rightly, we shall get on, though the hand may stagger a little ; but if we mean wrongly, or mean nothing, it does not matter how firm the hand is. Do not therefore torment yourself because you cannot do as well as you would like; but work patiently, sure that every square and letter will give you a certain increase of power; and as soon as you can draw your letters pretty well, here is a more amusing exercise for you.

## EXERCISE VI.

20. Choose any tree that you think pretty, which is nearly bare of leares, and which you can see against the sky, or against a pale wall, or other light ground:" it must not be against strong light, or you will find the looking at it hurt rour eyes ; nor must it be in sunshine, or you will be puzzled by the lights on the boughs. But the tree must be in shade; and the sky blue, or gray, or dull white. A wholly gray or rainy day is the best for this practice.
21. You will see that all the boughs of the tree are dark against the sky. Consider them as so many dark rivers, to
be laid down in a map with absolute accuracy; and, without the least thought about the roundness of the stems, map them all out in flat shade, scrawling them in with pencil, just as you did the limbs of your letters; then correct and alter them, rubbing out and out again; never minding how much your paper is dirtied (only not destroying its surface), until every bough is exactly, or as near as your utmost power can bring it, right in curvature and in thickness. Look at the white interstices between them with as much scrupulousness as if they were little estates which you had to survey, and draw maps of, for some important lawsuit, involving heavy penalties if you cut the least bit of a corner off any of them, or gave the hedge anywhere too deep a curve; and try continually to fancy the whole tree nothing but a flat ramification on a white ground. Do not take any trouble about the little twigs, which look like a confused network or mist; leave them all out,* drawing only the main branches as far as you can see them distinctly, your object at present being not to draw a tree, but to learn how to do so. When you have got the thing as nearly right as you can,-and it is better to make one good study, than twenty left unnecessarily inaccurate,-take your pen, and put a fine outline to all the boughs, as you did to your letter, taking care, as far as possible, to put the outline within the edge of the shade, so as not to make the boughs thicker: the main use of the outline is to affirm the whole more clearly; to do away with little accidental roughnesses and exerescences, and especially to mark where boughs cross, or come in front of each other, as at such points their arrangement in this kind of sketch is unintelligible without the outline. It may perfectly well happen that in Nature it should be less distinct than your outline will make it ; but it is better in this kind of sketeh to mark the facts clearly. The temptation is always to be slovenly and careless, and the outline is like a bridle, and forces our indolence into attention and pre-

[^5]cision. The outline should be about the thickness of that in Fig. 4, which represents the ramification of a small stone pine, only I have not endeavored to represent the pencil shading within the outline, as I could not easily express it in a wood-cut; and you have nothing to do at present with the indication of foliage above, of which in another place. You may also draw your trees as much larger than this figure as you like; only, however large they may be, keep the outline


FIG. 4
as delicate, and draw the branches far enough into their outer sprays to give quite as slender ramification as you have in this figure, otherwise you do not get good enough practice out of them.
22. You cannot do too many studies of this kind: erery one will give you some new notion about trees. But when you are tired of tree boughs, take any. forms whatever which are drawn in flat color, one upon another ; as patterns on any kind of cloth, or flat china (tiles, for instance), executed in two colors only; and practice drawing them of the right shape
and size by the eve, and filling them in with shade of the depth required.

In doing this, you will first have to meet the difficulty of representing deptly of eolor by depth of shade. Thus a pattem of ultramarine blue will have to be represented by a darker tint of gray than a pattern of yellow.
23. And now it is both time for you to begin to learn the mechanical use of the brush; and necessary for you to do so in order to provide yourself with the gradated scale of color which you will want. If you can, by any means, get acquainted with any ordinary skillful water-color painter, and prevail on him to show you how to lay on tints with a brush, by all means do so; not that you are yet, nor for a long while yet, to begin to color, but because the brush is often more convenient than the pencil for laying on masses or tints of shade, and the sooner you know how to manage it as an instrument the better. If, howerer, you have no opportunity of secing how water-color is laid on by a workman of any lind, the following directions will help you:-

## EXERCISE V'II.

24. Get a shilling cake of Prussian bluc. Dip the end of it in water so as to take up a drop, and rub it in a white saucer till you camot rub much more, and the color gets dark, thick, and oily-looking. Put two teaspoonfuls of water to the color yon have rubbed down, and mix it well up with a camel's-hair brush about three quarters of an inch long.
25. Then take a piece of smooth, but not glossy, Bristol hoard or pasteboard; divide it, with your pencil and rule, into squares as large as those of the rery largest chessboard: they need not be perfect squares, only as nearly so as you can quickly guess. Rest the pasteboard on something sloping as much as an ordinary desk; then, dipping your brush into the color you have mixed, and taking up as much of the liquid as it will carry, begin at the top of one of the syuares, and lay a pond or runlet of color along the top edge. Lead this pond
of color gradually downwards, not faster at one place than another, but as if you were adding a row of bricks to a building, all along (only building down instead of up), dipping the brush frequently so as to keep the color as full in that, and in as great quantity on the paper, as you can, so only that it does not run down anywhere in a little stream. But if it should, never mind; go on quietly with your square till you have covered it all in. When you get to the bottom, the color wili lodge there in a great wave. Hare ready a piece of blotting-paper; dry your brush on it, and with the dry brush take up the superfluous color as you would with a sponge, till it all looks even.
26. In leading the color down, you will find your brush continually go over the edge of the square, or leave little gaps within it. Do not endearor to retouch these, nor take much care about them; the great thing is to get the color to lie smoothly where it reaches, not in alternate blots and pale patches; try, therefore, to lead it over the square as fast as possible, with such attention to sour limit as you are able to give. The use of the exercise is, indeed, to enable you finally to strike the color up to the limit with perfect accuracy; but the first thing is to get it even,-the power of rightly striking the edge comes only by time and practice: even the greatest artists rarely can do this quite perfectly.
27. When you have done one square, proceed to do another which does not communicate with it. When you have thus done all the alternate squares, as on a chess-board, turn the pasteboard upside down, begin again with the first, and put another coat over it, and so on orer all the others. The use of turning the paper upside down is to neutralize the increase of darkness towards the bottom of the squares, which would otherwise take place from the ponding of the color.
28. Be resolved to use blotting-paper, or a piece of rag, instead of your lips, to dry the brush. The habit of doing so, once acquired, will save you from much partial poisoning. Take care, however, always to draw the brush from root to point, otherwise you will spoil it. You may even wipe it as
gou would a pen when you want it very dry, without doing harm, provided you do not crush it upwards. Get a good brush at first, and cherish it; it will serve you longer and better than many bad ones.
29. When you have done the squares all over again, do them a third time, always trying to keep your edges as neat as possible. When your color is exhausted, mix more in the same proportions, two teaspoonfuls to as much as you can grind with a drop; and when you have donc the alternate squares three times over, as the paper will be getting very damp, and dry more slowly, begin on the white squares, and bring them up to the same tint in the same way. The amount of jagged dark line which then will mark the limits of the squares will be the exact measure of your unskillfulness.
30. As soon as you tire of squares draw circles (with compasses) ; and then draw straight lines irregularly across circles, and fill up the spaces so produced between the straight line and the circumference ; and then draw any simple shapes of leares, according to the exercise No. II., and fill up those, until you can lay on color quite evenly in any shape you want.
31. You will find in the course of this practice, as you cannot always put exactly the same quantity of water to the color, that the darker the color is, the more difficult it becomes to lay it on evenly. Therefore, when you have gained some definite degree of power, try to fill in the forms required with a full brush, and a dark tint, at once, instead of laying several coats one over another; always taking care that the tint, however dark, be quite liquid; and that, after being laid on, so much of it is absorbed as to prevent its forming a black line at the edge as it dries. A little experience will teach you how apt the color is to do this, and how to prevent it; not that it needs always to be prevented, for a great master in water-colors will sometimes draw a firm outline, when he wants one, simply by letting the color dry in this way at the edge.
32. When, however, you begin to cover complicated forms with the darker color, no rapidity will prevent the tint from
drying irregularly as it is led on from part to part. You will then find the following method useful. Lay in the color very pale and liquid; so pale, indeed, that you can only just see where it is on the paper. Lead it up to all the outlines, and make it precise in form, keeping it thoroughly wet everywhere. Then, when it is all in shape, take the darker color, and lay some of it into the middle of the liquid color. It will spread gradually in a branchy kind of way, and you may now lead it up to the outlines already determined, and play it with the brush till it fills its place well; then let it dry, and it will be as flat and pure as a single dash, yet defining all the complicated forms accurately.
33. Having thus obtained the power of laying on a tolerably flat tint, you must try to lay on a gradated one. Prepare the color with three or four teaspoonfuls of water; then, when it is mixed, pour away about two-thirds of it, keeping a teaspoonful of pale color. Sloping your paper as before, draw two pencil lines all the way down, leaving a space between them of the width of a square on your chess-board. Begin at the top of your paper, between the lines; and having struck on the first brushful of color, and led it down a little, dip your brush deep in water, and mix up the color on the plate quickly with as much more water as the brush takes up at that one dip: then, with this paler color, lead the tint farther down. Dip in water again, mix the color again, and thus lead down the tint, always dipping in water once between each replenishing of the brush, and stirring the color on the plate well, but as quickly as you can. Go on until the color has become so pale that you cannot see it; then wash your brush thoroughly in water, and carry the wave down a little farther with that, and then absorb it with the dry brush, and leave it to dry.
34. If yon get to the bottom of your paper before your color gets pale, you may either take longer paper, or begin, with the tint as it was when you left off, on another sheet; but be sure to exhaust it to pure whiteness at last. When all is quite dry, recommence at the top with another similar
mixture of color, and go down in the same way. Then again, and then again, and so continually until the color at the top of the paper is as dark as your cake of Prussian blue, and passes down into pure white paper at the end of your column, with a perfectly smooth gradation from one into the other.
35. Sou will find at first that the paper gets mottled or wary, instead of evenly gradated; this is because at some places you have taken up more water in your brush than at others, or not mixed it thoroughly on the plate, or led one tint too far before replenishing with the next. Practice only will enable you to do it well ; the best artists cannot always get gradations of this kind quite to their minds; nor do they ever leare them on their pictures without after-tonching.
36. As you get more power, and can strike the color more quickly down, you will be able to gradate in less compass; * beginning with a small quantity of color, and adding a drop of water, instead of a brushful; with finer brushes, also, you may gradate to a less scale. But slight skill will enable you to test the relations of color to shade as far as is necessary for your immediate progress, which is to be done thus:-
37. Take cakes of lake, of gamboge, of sepia, of blue-black, of cobalt, and vermilion; and prepare gradated columns (exactly as you have done with the Prussian blue) of the lake and blue-black. $\dagger$ Cut a narrow slip, all the way down, of each gradated color, and set the three slips side by side; fasten them down, and rule lines at equal distances across all the three, so as to divide them into fifty degrees, and number the degrees of each, from light to dark, $1,2,3$, etc. If your have gradated them rightly, the darkest part either of the red or blue will be nearly equal in power to the darkest pareof the blue-black, and any degree of the black slip will also, accurately enough for our purpose, balance in weight the degree similarly numbered in the red or the blue slip. Then, when

[^6]$\dagger$ Of course, all the columns of color are to be of equal length.
you are dratring from objects of a crimson or blue color, if you can match their color by any compartment of the crimson or blue in your scales, the gray in the compartment of the gray scale marked with the same number is the gray which must represent that crimson or blue in your light and shade drawing.
38. Next, prepare scales with gamboge, cobalt, and vermilion. You will find that you cannot darken these beyond a certain point; * for yellow and scarlet, so long as they remain yellow and scarlet, cannot approach to black; we cannot have, properly speaking, a dark yellow or dark scarlet. Make your scales of full yellow, blue, and scarlet, half-way down ; passing then gradually to white. Afterwards use lake to darken the upper half of the rermilion and gamboge; and Prussian blue to darken the cobalt. You will thus have three more scales, passing from white nearly to black, through yellow and orange, through sky-blue, and through scarlet. By mixing the gamboge and Prussian blue you may make another with green ; mixing the cobalt and lake, another with violet; the sepia alone will make a forcible brown one; and so on, until you have as many scales as you like, passing from black to white through different colors. Then, supposing your scales properly gradated and equally divided, the compartment or degree No. 1 of the gray will represent in chiaroscuro the No. 1 of all the other colors; No. 2 of gray the No. 2 of the other colors, and so on.
39. It is only necessary, however, in this matter that you should understand the principle; for it would never be possible for you to gradate your scales so truly as to make them practically accurate and serviceable; and even if you conld, unless you had about ten thousand scales, and were able to change them faster than ever juggler changed cards, you could not in a day measure the tints on so much as one side of a frost-bitten apple. But when once you fully understand the principle, and see how all colors contain as it were a cer-

[^7]tain quantity of darkness, or power of dark relief from white -some more, some less; and how this pitch or power of each may be represented by equivalent values of gray, you will soon be able to arrive shrewdly at an approximation by a glance of the eyc, without any measuring scale at all.
40. You must now go on, again with the pen, drawing patterns, and any shapes of shade that you think pretty, as reinings in marble or tortoiseshell, spots in surfaces of shells, ete., as tenderly as you can, in the darknesses that correspond to their colors; and when you find you can do this successfully, it is time to begin rounding.

## EXERCISE VIII.

41. Go out into your garden, or into the road, and pick up the first round or oval stone you can find, not very white, nor very dark; and the smoother it is the better, only it must not shine. Draw your table near the window, and put the stone, which I will suppose is about the size of $a$ in Fig. 5 (it had better not be much larger), on a piece of not very white paper, on the table in front of you. Sit so that the light may come from your left, else the shadow of the pencil point interferes with your sight of your work. You must not let the sun fall on the stone, but only ordinary light: therefore choose a window which the sun does not come in at. If you can shut the shutters of the other windows in the room it will be all the better ; but this is not of much consequence.
42. Now if you can draw that stone, you can draw anything; I mean, anything that is drawable. Many things (sea foam, for instance) cannot be drawn at all, only the idea of them more or less suggested; but if you can draw the stone rightly, everything within reach of art is also within yours.

For all drawing depends, primarily, on your power of representing Roundness. If you can once do that, all the rest is easy and straightforward; if you cannot do that, nothing else that you may be able to do will be of any use. For Nature is all made up of roundnesses; not the roundness of
perfect globes, but of variously curred surfaces. Boughs are rounded, leaves are rounded, stones are rounded, clouds are rounded, cheeks are rounded, and curls are rounded: there is no more flatness in the natural world than there is racancy.


The world itself is round, and so is all that is in it, more or less, except human work, which is often very flat indeed.

Therefore, set courself steadily to conquer that round stone, and you have won the battle.
43. Look your stone antagonist boldly in the face. You will see that the side of it next the window is lighter than most of the paper; that the side of it farthest from the window is darker than the paper; and that the light passes into the dark gradually, while a shadow is thrown to the right on the paper itself by the stone: the general appearance of things being more or less as in $a$, Fig. 5, the spots on the stone excepted, of which more presently.
44. Now, remember always what was stated in the outset, that everything you can see in Nature is seen only so far as it is lighter or darker than the things about it, or of a different color from them. It is either seen as a patch of one color on a ground of another; or as a pale thing relieved from a dark thing, or a dark thing from a pale thing. And if you can put on patches of color or shade of exactly the same size, shape, and gradations as those on the object and its ground, you will produce the appearance of the object and its ground. The best draughtsman-Titian and Paul Teronese them-selves-could do no more than this; and you will soon be able to get some power of doing it in an inferior way, if you once understand the exceeding simplicity of what is to be done. Suppose you have a brown book on a white sheet of paper, on a red tablecloth. You have nothing to do but to put on spaces of red, white, and brown, in the same shape, and gradated from dark to light in the same degrees, and your drawing is done. If you will not look at what you see, if you try to put on brighter or duller colors than are there, if you try to put them on with a dash or a blot, or to cover your paper with " vigorous" lines, or to produce anything, in fact, but the plain, unaffected, and finished tranquillity of the thing before you, you need not hope to get on. Nature will show you nothing if you set yourself up for her master. But forget yourself, and try to obey her, and you will find obedience easier and happier than you think.
45. The real difficulties are to get the refinement of the forms and the evenness of the gradations. You may depend upon it, when you are dissatisfied with your work, it is always
too coarse or too uneven. It may not be wrong-in all probability is not wrong, in any (so-called) great point. But its edges are not true enough in outline; and its shades are in blotches, or scratches, or full of white holes. Get it more tender and more true, and you will find it is more powerful.
46. Do not, therefore, think your drawing must be weak because you hare a finely pointed pen in your hand. Till you can draw with that, you can draw with nothing; when you can draw with that, you can draw with a $\log$ of wood charred at the end. True boldness and power are only to be gained by care. Eren in fencing and dancing, all ultimate ease depends on early precision in the commencement; much more in singing or drawing.
47. Now I do not want you to copy my sketch in Fig. 5, but to copy the stone before fou in the way that my sketch is done. To which end, first measure the extreme length of the stone with compasses, and mark that length on your paper; then, between the points marked, leare something like the form of the stone in light, scrawling the paper all orer, round it ; $b$, in Fig. 5, is a beginning of this kind. Rather leare too much room for the high light, than too little; and then more cautiously fill in the shade, shutting the light gradually up, and putting in the dark slowly on the dark side. You need not plague yourself about accuracy of shape, because, till you have practiced a great deal, it is impossible for you to draw the shape of the stone quite truly, and you must gradually gain correctness by means of these various exercises: what you have mainly to do at present is, to get the stone to look solid and round, not much minding what its exact contour is-only draw it as nearly right as you can without vexation ; and you will get it more right by thus feeling your way to it in shade, than if you tried to draw the outline at first. For you can see no outline; what you see is only a certain space of gradated shade, with other such spaces about it; and those pieces of shade your are to imitate as nearly as rou can, by scrawling the paper over till you get them to the right shape, with the same gradations which
they have in Nature. And this is really more likely to be done well, if you have to fight your way through a little confusion in the sketch, than if you have an accurately traced outline. For instance, having sketched the fossil sea-urchin at $a$, in Fig. 5, whose form, though irregular, required more care in following than that of a common stone, I was going to draw it also under another effect; reflected light bringing its dark side ont from the background: but when I had laid on the first few touches $I$ thought it would be better to stop, and let you see how I had begun it, at $b$. In which beginning it will be observed that nothing is so determined but that I can more or less modify, and add to or diminish the contour as I work on, the lines which suggest the outline being blended with the others if I do not want them ; and the having. to fill up the vacancies and conquer the irregularities of such a sketch will probably secure a higher completion at last, than if half an hour had been spent in getting a true outline before beginning.
48. In doing this, however, take care not to get the drawing too dark. In order to ascertain what the shades of it really are, cut a round hole, about half the size of a pea, in a piece of white paper the color of that you use to draw on. Hold this bit of paper with the hole in it, between you and your stone; and pass the paper backwards and forwards, so as to see the different portions of the stone (or other subject) through the hole. Yon will find that, thus, the circular hole lonks like one of the patches of color you have been accustomed to match, only changing in depth as it lets different pieces of the stone be seen through it. You will be able thms actually to match the color of the stone at any part of it, by tinting the paper beside the circular opening. And you will find that this opening never looks quite black, but that all the roundings of the stone are given by subdued grays.*
49. You will probably find, also, that some parts of the stone, or of the paper it lies on, look luminous through the

[^8]opening; so that the little eircle then tells as a light spot instead of a dark spot. When this is so, you cannot imitate it, for you have no means of getting light brighter than white paper: but by holding the paper more sloped towards the light, you will find that many parts of the stone, which before looked light through the hole, then look dark through it; and if you can place the paper in such a position that every part of the stone looks slightly dark, the little hole will tell always as a spot of shade, and if your drawing is put in the same light, you can imitate or match every gradation. You will be amazed to find, under these circumstances, how slight the differences of tint are, by which, through infinite delicacy of gradation, Nature can express form.

If any part of your subject will obstinately show itself as a light through the hole, that part you need not hope to imitate. Leave it white; you can do no more.
50. When you have done the best you can to get the general form, proceed to finish, by imitating the texture and all the cracks and stains of the stone as closely as you can; and note, in doing this, that cracks or fissures of any kind, whether between stones in walls, or in the grain of timber or rocks, or in any of the thousand other conditions they present, are never expressible by single black lines, or lines of simple shadow. A crack must always have its complete system of light and shade, however small its scale. It is in reality a little ravine, with a dark or shady side, and light or sunny side, and, usually, shadow in the bottom. This is one of the instances in which it may be as well to understand the reason of the appearance; it is not often so in drawing, for the aspects of things are so subtle and confused that they cannot in general be explained; and in the endeavor to explain some, we are sure to lose sight of others, while the natural overestimate of the importance of those on which the attention is fixed causes us to exaggerate them, so that merely scientific draughtsmen caricature a third part of Nature, and miss two-thirds. The best seholar is he whose eye is so keen as to see at once how the thing looks, and who need not therefore
trouble himself with any reasons why it looks so: but few people have this acuteness of perception; and to those who are destitute of it, a little pointing out of rule and reason will be a help, especially when a master is not near them. I never allow my own pupils to ask the reason of anything, because, as I watch their work, I can always show them how the thing is, and what appearance they are missing in it; but when a master is not by to direct the sight, science may, here and there, be allowed to do so in his stead.
51. Generally, then, every solid illumined object-for instance, the stone you are drawing-has a light side turned towards the light, a dark side turned away from the light, aud a shadow, which is cast on something else (as by the stone on the paper it is set upon). You may sometimes be placed so as to see only the light side and shadow, sometimes only the dark side and shadow, and sometimes both or either without the shadow; but in most positions solid objects will show all the three, as the stone does here.
52. Hold up your hand with the edge of it towards you, as you sit now with your side to the window, so that the flat of your hand is turned to the window. You will see one side of your hand distinetly lighted, the other distinetly in shade. Here are light side and dark side, with no seen shadow ; the shadow being detached, perhaps on the table, perhaps on the other side of the room ; you need not look for it at present.
53. Take a sheet of note-paper, and holding it edgewise, as you hold your hand, wave it up and down past the side of your hand which is turned from the light, the paper being of course farther from the window. You will see, as it passes, a strong gleam of light strike on your hand, and light it considerably on its dark side. This light is reflected light. It is thrown back from the paper (on which it strikes first in coming from the window) to the surface of your hand, just as a ball would be if somebody threw it through the window at the wall and you caught it at the rebound.

Next, instead of the note-paper, take a red book, or a piece of searlet eloth. You will see that the gleam of light falling
on your hand, as you wave the book, is now reddened. Take a blue book, and you will find the gleam is blue. Thus every object will cast some of its own color back in the light that it reflects.
54. Now it is not only these books or papers that reflect light to your hand: every object in the room on that side of it reflects some, but more feebly, and the colors mixing all together form a nentral * light, which lets the color of your hand itself be more distinctly seen than that of any object which reflects light to it ; but if there were no reflected light, that side of your hand would look as black as a coal.
55. Objects are seen therefore, in general, partly by direct light, and partly by light reflected from the objects around them, or from the atmosphere and clouds. The color of their light sides depends much on that of the direct light, and that of the dark sides on the colors of the objects near them. It is therefore impossible to say beforehand what color an object will have at any point of its surface, that color depending partly on its own tint, and partly on infinite combinations of rays reflected from other things. The only certain fact about dark sides is, that their color will be changeful, and that a picture which gives them merely darker shades of the color of the light sides must assuredly be bad.
56. Now, lay your hand flat on the white paper you are drawing on. You will see one side of each finger lighted, one side dark, and the shadow of your hand on the paper. Here, therefore, are the three divisions of shade seen at once. And although the paper is white, and your hand of a rosy color somewhat darker than white, yet you will see that the shadow all along, just under the finger which casts it, is darker than the flesh, and is of a very deep gray. The reason of this is, that much light is reflected from the paper to the dark side of your finger, but very little is reflected from other things to the paper itself in that chink under your finger.

[^9]57. In general, for this reason, a shadow, or, at any rate, the part of the shadow nearest the object, is darker than the dark side of the object. I say in general, because a thousand aceidents may interfere to prevent its being so. Take a little lit of glass, as a wine-glass, or the ink-bottle, and play it about a little on the side of your hand farthest from the window; you will presently find you are throwing gleams of light all over the dark side of your hand, and in some positions of the glass the reflection from it will annihilate the shadow altogether, and you will see your hand dark on the white paper. Now a stupid painter would represent, for instance, a drinking-glass beside the hand of one of his figures, and because he had been taught by rule that "shadow was darker than the dark side," he would never think of the reflection from the glass, but paint a dark gray under the hand, just as if no glass were there. But a great painter would be sure to think of the true effect, and paint it; and then comes the stupid critic, and wonders why the hand is so light on its dark side.
58. Thus it is always dangerous to assert anything as a rule in matters of art; yet it is useful for you to remember that, in a general way, a shadow is darker than the dark side of the thing that casts it, supposing the colors otherwise the same; that is to say, when a white object casts a shadow on a white surface, or a dark object on a dark surface: the rule will not hold if the colors are different, the shadow of a black object on a white surface being, of course, not so dark, usually, as the black thing casting it. The only way to ascertain the ultimate truth in such matters is to look for it; but, in the meantime, you will be helped by noticing that the cracks in the stone are little ravines, on one side of which the light strikes sharply, while the other is in shade. This dark side usually casts a little darker shadow at the bottom of the crack; and the general tone of the stone surface is not so bright as the light bank of the ravine. And, therefore, if you get the surface of the object of a uniform tint, more or less indicative of shade, and then scrateh out a white
spot or streak in it of any shape; by putting a dark touch beside this white one, you may turn it, as you choose, into either a ridge or an incision, into either a boss or a carity. If you put the dark touch on the side of it nearest the sum, or rather, nearest the place that the light comes from, you will make it a cut or cavity; if sou put it on the opposite side, you will make it a ridge or mound; and the complete success of the effect depends less on depth of shade than on the rightness of the drawing; that is to say, on the erident correspondence of the form of the shadow with the form that casts it. In drawing rocks, or wood, or anything irregularly shaped, you will gain far more by a little patience in following the forms carefully, though with slight touches, than by labored finishing of texture of surface and transparencies of shadow.
59. When you have got the whole well into shape, proceed to lay on the stains and spots with great care, quite as much as you gave to the forms. Very often, spots or bars of local color do more to express form than even the light and shade, and they are always interesting as the means by which Nature carries light into her shadows, and shade into her lights; an art of which we shall have more to say hereafter, in speaking of composition. a, in Fig. 5, is a rough sketch of a fossil sea-urchin, in which the projections of the shell are of black flint, coming through a chalky surface. These projections form dark spots in the light; and their sides, rising out of the shadow, form smaller whiter spots in the dark. You may take such scattered lights as these out with the penknife, provided you are just as careful to place them rightly as if you got them by a more laborious process.
60. When you have once got the feeling of the way in which gradation expresses roundness and projection, you may try your strength on anything natural or artificial that happens to take your faney, provided it be not too complicated in form. I hare asked you to draw a stone first, because any irregularities and failures in your shading will be less offensive to you, as being partly characteristic of the rough stone
surface, than they would be in a more delicate subject; and you may as well go on drawing rounded stones of different shapes for a little while, till you find you can really shade delicately. You may then take up folds of thick white drapery, a napkin or towel thrown carelessly on the table is as good as anything, and try to express them in the same way; only now you will find that your shades must be wrought with perfect unity and tenderness, or you will lose the flow of the folds. Always remember that a little lit perfected is worth more than many scrawls; whenever you feel yourself inclined to scrawl, give up work resolutely, and do not go back to it till next day. Of course your towel or napkin must be put on something that may be locked up, so that its folds shall not be disturbed till you have fimished. If you find that the folds will not look right, get a photograph of a piece of drapery (there are plenty now to be bought, taken from the sculpture of the cathedrals of Rheims, Amiens, and Chartres, which will at once educate your hand and your taste), and copy some piece of that; you will then ascertain what it is that is wanting in your studies from Nature, whether more gradation, or greater watclifulness of the disposition of the folds. Probably for some time you will find yourself failing painfully in both, for drapery is very difficult to follow in its sweeps; luit do not lose courage, for the greater the difficulte, the greater the gain in the effort. If your eve is more just in measurement of form than delicate in perception of tint, a pattern on the folded surface will help sou. Try whether it does or not: and if the patterned drapery confuses you, keep for a time to the simple white one; but if it helps you, continue to choose patterned stuffs (tartans and simple checkered designs are better at first than flowered ones), and even though it should confuse you, begin pretty soon to use a pattern occasionally, copying all the distortions and perspective modifications of it among the folds with scrupulons care.
61. Neither must you suppose yourself condescending in doing this. The greatest masters are always fond of drawing
patterns; and the greater they are, the more pains they take to do it truly.* Nor can there be better practice at any time, as introductory to the nobler complication of natural detail. For when you can draw the spots which follow the folds of a printed stuff, you will have some chance of following the spots which fall into the folds of the skin of a leopard as he leaps; but if you cannot draw the manufacture, assuredly you will never be able to draw the creature. So the cloudings on a piece of wood, carefully drawn, will be the best introduction to the drawing of the clouds of the sky, or the waves of the sea; and the dead leaf-patterns on a damask drapery, well rendered, will enable you to disentangle masterfully the living leaf-patterns of a thorn thicket or a violet bank.
62. Observe, however, in drawing any stuffs, or bindings of books, or other finely textured substances, do not trouble yourself, as yet, much about the wooliness or ganziness of the thing; but get it right in shade and fold, and true in pattern. We shall see, in the course of after-practice, how the penned lines may be made indicative of texture; but at present attend only to the light and shade and pattern. You will be puzzled at first by lustrous surfaces, but a little attention will show you that the expression of these depends merely on the right drawing of their light and shade, and reflections. Put a small black japanned tray on the table in front of some books; and you will see it reflects the objects berond it as in a little black rippled pond; its own color mingling always with that of the reflected objects. Draw these reflections of the books properly, making them dark and distorted, as you will see that they are, and you will find that this gives the luster to your tray. It is not well, however, to draw polished objects in general practice; only you should do one or two in

[^10]order to understand the aspect of any lustrous portion of other things, such as you cannot avoid; the gold, for instance, on the edges of books, or the shining of silk and damask, in which lies a great part of the expression of their folds. Observe also that there are very few things which are totally without luster; you will frequently find a light which puzzles you, on some apparently dull surface, to be the dim image of another object.
63. And now, as soon as you can conscientiously assure me that with the point of the pen or pencil you can lay on any form and shade you like, I give you leave to use the brush with one color,-sepia, or blue black, or mixed cobalt and blue black, or neutral tint; and this will much facilitate your study, and refresh you. But, preliminary, you must do one or two more excrcises in tinting.

## EXERCISE IX.

64. Prepare your color as directed for Exereise VII. Take a brush full of it, and strike it on the paper in any irregular shape; as the brush gets dry, sweep the surface of the paper with it as if you were dusting the paper very lightly; every such sweep of the brush will leave a number of more or less minute interstices in the color. The lighter and faster every dash the better. Then leave the whole to dry ; and, as soon as it is dry, with little color in your brush, so that you can bring it to a fine point, fill up all the little interstices one by one, so as to make the whole as even as you can, and fill in the larger gaps with more color, always trying to let the edges of the first and of the newly applied color exactly meet, and not lap over each other. When your new color dries, you will find it in places a little paler than the first. Retouch it therefore, trying to get the whole to look quite one piece. A very small bit of color thus filled up with your very best care, and brought to look as if it had been quite cren from the first, will give you better practice and more skill than a great deal filled in carelessly ; so do it with
your best patience, not leaving the most minute spot of white; and do not fill in the large pieces first and then go to the small, but quietly and steadily cover in the whole up to a marked limit; then advance a little farther, and so on; thus always seeing distinctly what is done and what undone.

## EXERCISE X.

65. Lay a coat of the blue, prepared as usual, over a whole square of paper. Let it dry. Then another coat orer four fifths of the square, or thereabouts, leaving the edge rather irregular than straight, and let it dry. Then another coat over three fifths; another orer two fifths; and the last over one fifth; so that the square may present the appearance of gradual increase in darkness in fire bands, each darker than the one beyond it. Then, with the brush rather dry (as in the former exercise, when filling up the interstices), try, with small touches, like those used in the pen etching, only a little broader, to add shade delicately beyond each edge, so as to lead the darker tints into the paler ones imperceptibly. By touching the paper very lightly, and putting a multitude of little touches, crossing and recrossing in every direction, you will gradually be able to work up to the darker tints, outside of each, so as quite to efface their edges, and unite them tenderly with the next tint. The whole square, when done, should look evenly shaded from dark to pale, with no bars, only a crossing texture of touches, something like chopped straw, over the whole.*
66. Next, take your rounded pebble; arrange it in any light and shade you like; outline it very loosely with the pencil. Put on a wash of color, prepared very pale, quite flat over all of it, except the highest light, leaving the edge of your color quite sharp. Then another wash, extending only over the darker parts, leaving the edge of that sharp

[^11]also, as in tinting the square. Theu another wash over the still darker parts, and another over the darkest, leaving each edge to dry sharp. Then, with the small touches, efface the edges, reinforce the darks, and work the whole delieately together as you would with the pen, till you have got it to the likeness of the true light and shade. You will find that the tint underneath is a great help, and that you can now get effects much more subtle and complete than with the pen merely.
67. The use of leaving the edges always sharp is that you may not trouble or vex the color, but let it lie as it falls suddenly on the paper: color looks much more lovely when it has been laid on with a dash of the brush, and left to dry in its own way, than when it has been dragged about and disturbed; so that it is always better to let the edges and forms be a little wrong, even if one cannot correct them afterwards, than to lose this fresh quality of the tint. Yery great masters in water color can lay on the true forms at once with a dash, and bad masters in water color lay on grossly false forms with a dash, and leave them false; for people in general, not knowing false from true, are as much pleased with the appearance of power in the irregular blot as with the presence of power in the determined one; but we, in our beginnings, must do as much as we can with the broad clash, and then correct with the point, till we are quite right. We must take care to be right, at whatever cost of pains; and then gradually we shall find we can be right with freedom.
68. I have hitherto limited you to color mixed with two or three teaspoonfuls of water; but, in finishing your light and shade from the stone, you may, as you efface the edge of the palest coat towards the light, use the color for the small touches with more and more water, till it is so pale as not to be perceptible. Thus you may obtain a perfect gradation to the light. And in reinforeing the darks, when they are very dark, you may use less and less water. If you take the color tolerably dark on your brush, only always liquid (not pasty), and dash away the superfluous color on
blotting paper, you will find that, touching the paper very lightly with the dry brush, you can, by repeated touches, produce a dusty kind of bloom, very valuable in giving depth to shadow; but it requires great patience and delicacy of hand to do this properly. You will find much of this kind of work in the grounds and shadows of William Hunt's drawings.*
69. As you get used to the brush and color, you will gradually find out their ways for yourself, and get the management of them. And rou will often save jourself much discouragement by remembering what I have so often asserted,-that if anything goes wrong, it is nearly sure to be refinement that is wanting, not force ; and connection, not alteration. If you dislike the state your drawing is in, do not lose patience with it, nor dash at it, nor alter its plan, nor rub it desperately out, at the place you think wrong; but look if there are no shadows you can gradate more perfectly; no little gaps and rents you can fill; no forms you can more delicately define: and do not rush at any of the crrors or incompletions thus discerned, but efface or supply slowly, and you will soon find your drawing take another look. A very useful expedient in producing some effects, is to wet the paper, and then lay the color on it, more or less wet, according to the effect you want. You will soon see how prettily it gradates itself as it dries; when dry, you can reinforce it with delicate stippling when you want it darker. Also, while the color is still damp on the paper, by drying your brush thoroughly, and touching the color with the brush so dried, you may take out soft lights with great tenderness and precision. Try all sorts of experiments of this kind, noticing how the color behaves; but remembering always that your final results must be obtained, and can only be obtained, by pure work with the point, as much as in the pen drawing.
70. You will find also, as you deal with more and more complicated subjects, that Nature's resources in light and * William Ilunt, of the Old Water-color Society.
shade are so much richer than yours, that you cannot possibly get all, or anything like all, the gradations of shadow in any given group. When this is the case, determine first to keep the broad masses of things distinct: if, for instance, there is a green book, and a white piece of paper, and a black inkstand in the group, be sure to keep the white paper as a light mass, the green book as a middle tint mass, the black inkstand as a dark mass; and do not shade the folds in the paper, or corners of the book, so as to equal in depth the darkness of the inkstand. The great difference between the masters of light and shade, and imperfect artists, is the power of the former to draw so delicately as to express form in a dark-colored object with little light, and in a lightcolored object with little darkness; and it is better eren to leave the forms here and there unsatisfactorily rendererl than to lose the general relations of the great masses. And this, observe, not because masses are grand or desirable things in your composition (for with composition at present you have nothing whatever to do), but because it is a fact that things do so present themselves to the eyes of men, and that we see paper, book, and inkstand as three separate things, before we see the wrinkles, or chinks, or corners of any of the three. Understand, therefore, at once, that no detail can be as strongly expressed in drawing as it is in reality; and strive to keep all your shadows and marks and minor markings on the masses, lighter than they appear to be in Nature; you are sure otherwise to get them too dark. You will in doing this find that you cannot get the projection of things sufficiently shown; but never mind that; there is no need that they should appear to project, but great need that their relations of shade to each other should be preserved. All deceptive projection is obtained by partial exaggeration of shadow; and whenever you see it, you may be sure the drawing is more or less bad: a thoroughly fine drawing or painting will always show a slight tendeney towards flatness.
71. Observe, on the other hand, that, however white an object may be, there is always some small point of it whiter
than the rest. You must therefore have a slight tone of gray over everything in your picture except on the extreme high lights; even the piece of white paper, in your subject, must be toned slightly down, unless (and there are thousand ehances against its being so) it should all be turned so as fully to front the light. By examining the treatment of the white objects in any pictures accessible to you by Paul Veronese or Titian, you will soon understand this.*
72. As soon as you feel yourself capable of expressing with the brush the undulations of surfaces and the relations of masses, you may proceed to draw more complicated and beautiful things. $\dagger$ And first, the boughs of trees, now not in mere dark relief, but in full rounding. Take the first bit of branch or stump that comes to hand, with a fork in it; cut off the ends of the forking branches, so as to leave the whole only about a foot in length; get a piece of paper the same size, fix your bit of branch in some place where its position will not be altered, and draw it thoroughly, in all its light and shade, full size; striving, above all things, to get an accurate expression of its structure at the fork of the branch. When once you have mastered the tree at its armpits, you will have little more trouble with it.
73. Always draw whatever the background happens to be, exactly as you see it. Wherever you have fastened the

* At Marlborough House, [in 1857] among the four principal examples of Turners later water-color drawing, perhaps the most neglected was that of fishing-boats and fish at sunset. It is one of his most wonderful works, though unfinished. If you examine the larger white fishing-boat sail, you will find it has a little spark of pure white in its right-hand upper corner, about as large as a minute pin's head, and that all the surface of the sail is gradated to that focus. Try to copy this sail once or twice, and you will begin to understand Turner*s work. Similarly, the wing of the Cupid in Correggio's large pieture in the National Gallery is focused to two little grains of white at the top of it. The points of light on the white flower in the wreath round the head of the dancing child-faun, in Titian's Bacehus and Ariadne, exemplify the same thing.
$\dagger$ I shall not henceforward number the exereises recommended; as they are distinguished only by inereasing difficulty of subject, not by difference of method.
bougl, you must draw whaterer is behind it, ugly or not, else you will never know whether the light and shade are right; they may appear quite wrong to you, only for want of the background. And this general law is to be observed in all your studies: whatever you draw, draw completely and unalteringly, else you never know if what you have done is right, or whether you could have done it rightly had you tried. There is nothing visible out of which you may not get useful practice.

Tt. Next, to put the leaves on your boughs. Gather a small twig with four or five leaves on it, put it into water, put a sheet of light-colored or white paper behind it, so that all the leaves may be relieved in dark from the white field; then sketch in their dark shape carefully with pencil as you did the complicated boughs, in order to be sure that all their masses and interstices are right in shape before you begin shading, and complete as far as you can with pen and ink, in the manner of Fig. 6, which is a young shoot of lilac.
75. You will probably, in spite of all your pattern drawings, be at first puzzled by leaf foreshortening; especially because the look of retirement or projection depends not so much on the perspective of the leaves themselves as on the double sight of the two eyes. Now there are certain artifices by which good painters can partly conquer this difficulty; as slight exaggerations of force or color in the nearer parts, and of obscurity in the more distant ones; but you must not attempt anything of this kind. When you are first skitching the leares, shut one of your eyes, fix a point in the background, to bring the point of one of the leaves against; and so sketch the whole bough as you see it in a fixed position, looking with one eye only. Your drawing never can be made to look like the object itself, as you see that object with both eyes," but it can be made perfectly like the object

[^12]seen with one, and you must be content when you have got a resemblance on these terms.
76. In order to get clearly at the notion of the thing to be done, take a single long leaf, hold it with its point towards you, and as flat as you can, so as to see nothing of it but its thinness, as if you wanted to know how thin it was; outline it so. Then slope it down gradually towards you, and

watch it as it lengthens out to its full length, held perpendicularly down before your. Draw it in three or four different positions between these extremes, with its ribs as they appear in each position, and you will soon find out how it must be.
77. Draw first only two or three of the leaves; then larger clusters; and practice, in this way, more and more complicated pieces of bough and leafage, till you find you
can master the most difficult arrangements, not consisting of more than ten or twelre leaves. You will find as you do this, if you have an opportunity of visiting any gallery of pictures, that you take a much more lively interest than before in the work of the great masters; you will see that very often their best backgrounds are composed of little more than a few sprays of leafage, carefully studied, brought against the distant sky; and that another wreath or two form the chief interest of their foregrounds. If you live in London you may test your progress accurately by the degree of admiration you feel for the leaves of rine round the head of the Bacchus, in Titian's Bacchus and Ariadne. All this, however, will not enable you to draw a mass of


Fic. 7.
foliage. You will find, on looking at any rich piece of regetation, that it is only one or two of the nearer clusters that you can by any possibility draw in this complete manner. The mass is too rast, and too intricate, to be thus dealt with.
78. You must now therefore have recourse to some confused mode of execution, capable of expressing the confusion of Nature. And, first, you must understand what the character of that confusion is. If you look carefully at the outer sprays of any tree at twenty or thirty yards' distance, you will see them defined against the sky in masses, which, at first, look quite definite; but if you examine them, you will see, mingled with the real shapes of leaves, many indistinct lines, which are, some of them, stalks of leaves, and
some, leaves seen with the edge turned towards you, and coming into sight in a broken way; for, supposing the real leaf shape to be as at $a$, Fig. 7, this, when removed some yards from the eye, will appear dark against the sky, as at $b$; then, when removed some yards farther still, the stalk and point disappear altogether, the middle of the leaf becomes little more than a line; and the result is the condition at $c$, only with this farther subtlety in the look of it, inexpressible in the wood-cut, that the stalk and point of the


Fig. 8.
leaf, though they have disappeared to the eye, have yet some influence in checking the light at the places where they exist, and cause a slight dimness about the part of the leaf which remains visible, so that its perfect effect could only be rendered by two layers of color, one subduing the sky tone a little, the next drawing the broken portions of the leaf, as at $c$, and carefully indicating the greater darkness of the spot in the middle, where the under side of the leaf is.

This is the perfect theory of the matter. In practice we cannot reach such accuracy; but we shall be able to render
the general look of the foliage satisfactorily by the following mode of practice.
79. Gather a spray of any tree, about a foot or eighteen inches long. Fix it firmly by the stem in anything that will support it steadily; put it about eight feet away from you, or ten if you are far-sighted. Put a sheet of not very white paper behind it, as usual. Then draw rery carefully, first placing them with pencil, and then filling them up with ink, every leaf-mass and stalk of it in simple black profile, as you see them against the paper: Fig. 8 is a bough of Phillyrea so drawn. Do not be afraid of rumning the leares into a black mass when they come together; this exercise is only to teach rou what the actual shapes of such masses are when seen against the sky.

S0. Make two careful studies of this kind of one bough of every common tree,-oak, ash, elm, birch, beech, etc.; in fact, if you are good, and industrious, you will make one such study carefully at least three times a week, until you have examples of every sort of tree and shrub you can get branches of. You are to make two studies of each bough, for this reason,-all masses of foliage have an upper and under surface, and the side riew of them, or profile, shows a wholly different organization of branches from that seen in the view from above. They are generally seen more or less in profile, as you look at the whole tree, and Nature puts ler best composition into the profile arrangement. But the view from above or below occurs not unfrequently, also, and it is quite necessary you should draw it if you wish to understand the anatomy of the tree. The difference between the two riews is often far greater than you could easily conceive. For instance, in Fig. 9, $a$ is the upper view and $b$ the profile, of a single spray of Phillyrea. Fig. $S$ is an intermediate ricw of a larger bough ; seen from beneath, but at some lateral distance also.
81. When you lave done a few branches in this manner, take one of the drawings you have made, and put it first a yard away from you, then a yard and a half, then two
yards; observe how the thinner stalks and leares gradually disappear, leaving only a vague and slight darkness where they were; and make another study of the effect at each distance, taking care to draw nothing more than yon really see, for in this consists all the difference between what would be merely a miniature drawing of the leaves seen near, and a full-size drawing of the same leaves at a distance. By full size, I mean the size which they would really appear of if their outline were traced through a pane of glass held at the same distance from the eye at which you mean to hold your drawing. You can always ascertain this full size of any object by holding your paper upright before you, at the distance from your eye at which you wish your drawing to be seen. Bring its edge across the object you have to

b
Fig. 9.
draw, and mark upon this edge the points where the outline of the object crosses, or goes behind, the edge of the paper. You will always find it, thus measured, smaller than you supposed.
82. When you have made a few careful experiments of this kind on your own drawings, (which are better for practice, at first, than the real trees, because the black profile in the drawing is quite stable, and does not shake, and is not confused by sparkles of luster on the leaves,) yoll may try the extremities of the real trees, only not doing much at a time, for the brightness of the sky will dazzle and perplex your sight. And this brightness canses, I believe, some loss of the outline itself; at least the chemical action of the light in a photograph extends much within the edges of the
leaves, and, as it were, eats them away, so that no tree extremity, stand it ever so still, nor any other form coming against bright sky, is truly drawn by a photograph; and if you once succeed in drawing a few sprays rightly, you will find the result much more lovely and interesting than any photograph can be.

S3. All this difficulty, however, attaches to the rendering merely the dark form of the sprays as they come against the sky. Within those sprays, and in the heart of the tree, there is a complexity of a much more embarrassing kind; for nearly all leaves have some luster, and all are more or less translucent (letting light through them) ; therefore, in any given leaf, besides the intricacies of its own proper shadows and foreshortenings, there are three series of circumstances which alter or hide its forms. First, shadows cast on it by other leares,-often very forcibly. Secondly, light reflected from its lustrous surface, sometimes the blue of the sky, sometimes the white of clouds, or the sun itself flashing like a star. Thirdly, forms and shadows of other leaves, seen as darknesses through the translucent parts of the leaf; a most important element of foliage effect, but wholly neglected by landscape artists in general.

S4. The consequence of all this is, that except now and then by chance, the form of a complete leaf is never seen; but a marvelous and quaint confusion, very definite, indecd, in its evidence of direction of growth, and unity of action, but wholly indefinable and inextricable, part by part, by any amount of patience. You cannot possibly work it out in facsimile, though you took a twelvemonth's time to a tree; and you must therefore try to discover some mode of execution which will more or less imitate, by its own variety and mystery, the varicty and mystery of Nature, without absolute delineation of detail.
85. Now I have led you to this conclusion by observation of tree form only, because in that the thing to be prored is clearest. But no natural object exists which does not involve in some part or parts of it this inimitableness, this
mystery of quantity, which needs peculiarity of handling and trick of touch to express it completely. If leaves are intricate, so is moss, so is foam, so is rock cleavage, so are fur and hair, and texture of drapery, and of clouds. And although methods and dexterities of handling are wholly uselcss if you have not gained first the thorough knowledge of the form of the thing; so that if you cannot draw a branch perfectly, then much less a tree; and if not a wreath of mist perfectly, much less a flock of clouds; and if not a single grass blade perfectly, much less a grass bank; yet having once got this power orer decisive form, you may safely-and must, in order to perfection of work-carry out your knowledge by every aid of method and dexterity of hand.

S6. But, in order to find out what method can do, you must now look at Art as well as at Nature, and see what means painters and engravers have actually employed for the expression of these subtleties. Whereupon arises the question, what opportunity you have to obtain engravings? You ought, if it is at all in your power, to possess yourself of a certain number of good examples of Turner"s engraved works: if this be not in your power, you must just make the best use you can of the shop windows, or of any plates of which you can obtain a loan. Very possibly, the difficulty of getting sight of them may stimulate you to put them to better use. But, supposing your means admit of your doing so, possess yourself, first, of the illustrated edition either of Rogers's Italy or Rogers's Poems, and then of about a dozen of the plates named in the annexed lists. The prefixed letters indicate the particular points deserving your study in each engraving.* Be sure, therefore, that your selection

[^13]4
includes, at all events, one plate marked with each letter. Do not get more than twelve of these plates, nor even all the twelve at first; for the more engravings you have, the less attention you will pay to them. It is a general truth, that $m$ mountains, or bold rocky ground.
p) power of general arrangement and effect.
$q$ ( puiet water.
$r$ ruming or rough water; or rivers, even if calm, when their line of flow is beautifully marked.

From the England Series.

| $a \mathrm{efr}$. Arundel. | (if P . Lancaster. |
| :---: | :---: |
| afl. Ashby de la Zouche. | clmr. Lancaster Sands.* |
| alqr. Barnard Castle.* | $a \mathrm{gf}$. Launceston.* |
| fmr. Bolton Abbey. | cflr. Leicester Abbey. |
| $f^{\prime} g$ d Buckfastleigh.* | $f r$. Ludlow. |
| alp. Caernarvon. | afl. Margate. |
| clq. Castle Upnor. | alq. Orford. |
| af $l$. Colchester. | cp. Plymouth. |
| $l q$. Cowes. | $f$. Powis Castle. |
| ef $p$. Dartmonth Cove.* | $l m q$. Prudhoe Castle. |
| clq. Flint Castle.* | flmr. Chain Bridge over |
| afgl. Knaresborough.* | Tees.* |
| $m r$. High Force of Tees.* | $m q$. Ulleswater. |
| afq. Trematon. | $f m$. Valle Crucis. |

From the Keepsake.

| $m p q$. | Arona. |
| :---: | :---: |
| $l m$. Drachenfels.* St. Germain en Laye. |  |
| fl. Marly.* | $l p q$. Florence. |
|  | lm. Ballyburgh Ness.* |

From the Bible Series.
$f m$. Mount Lebanon.
$m$. Rock of Moses at Sinai.
alm. Jericho.
acg. Joppa.
clpq. Solomon's Pools.*
al. Santa Saba.
al. Pool of Bethesda.

From Scott's Works.
cm . Glencoe.
c m. Loch Coriskin.*
a l. Caerlaverock.
the enjoyment dericable from art cannot be increased in quantity, beyond a certain point, by quantity of possession; it is only spread, as it were, over a larger surface, and very often dulled by finding ideas repeated in different works. Now, for a beginner, it is always better that his attention should be concentrated on one or two good things, and all his enjoyment founded on them, than that he should look at many, with divided thoughts. He has much to discover; and his best way of discovering it is to think long over few things, and watch them earnestly. It is one of the worst errors of this age to try to know and to see too much: the men who seem to know everything, never in reality know anything rightly. Beware of handbook knowledge.
87. These engravings are, in general, more for you to look at than to copy; and they will be of more use to you when we come to talk of composition, than they are at present; still, it will do you a great deal of good, sometimes to try how far jou can get their delicate texture, or gradations of tone: as your pen-and-ink drawing will be apt to incline too much to a scratchy and broken kind of shade. For instance, the texture of the white convent wall, and the drawing of its tiled roof, in the vignette at p. 227 of Rogers's Poems, is as exquisite as work can possibly be; and it will be a great and profitable achievement if you can at all approach it. In like manner, if you can at all imitate the dark distant country at p. 7, or the sky at p. 80, of the same volume, or the foliage at pp. 12 and 144 , it will be good gain; and if you can once draw the rolling clouds and rumning river at p. 9 of the Itals, or the city in the vignette of Aosta at p. 25, or the moonlight at p. 223, you will find that even Nature herself cannot

## From the Rivers of France.

a q. Château of Amboise, with large bridge on right. lpr. Rouen, looking down the river, poplars on right.* alp. Rouen, with cathedral and rainbow, avenue on left.
a $p$. Rouen Cathedral.
$f p$. Pont de l'Arehe.
$f l p$. View on the Seine, with a venue.
a c $p$. Bridge of Meulan.
cgpr. Caudebec.*
afterwards rery terribly puzzle you with her torrents, or towers, or moonlight.

S8. You need not copy touch for touch, but try to get the same effect. And if you feel discouraged by the delicacy required, and begin to think that engraving is not drawing, and that copying it cannot help you to draw, remember that it differs from common drawing only by the difficulties it has to encounter. You perhaps have got into a careless habit of thinking that engraving is a mere business, easy enough when one has got into the knack of it. On the contrary, it is a form of drawing more difficult than common drawing, by exactly so much as it is more difficult to cut steel than to move the pencil over paper. It is true that there are certain mechanical aids and methods which reduce it at certain stages either to pure macline work, or to more or less a habit of hand and arm; but this is not so in the foliage you are trying to copy, of which the best and prettiest parts are always etched-that is, drawn with a fine steel point and free hand: only the line made is white instead of black, which renders it much more difficult to judge of what you are about. And the trying to copy these plates will be good for you, because it will awaken you to the real labor and skill of the engraver, and make you understand a little how people must work, in this world, who have really to do anything in it.
89. Do not, however, suppose that I give you the engraving as a model-far from it; but it is necessary you should be able to do as well" before you think of doing better, aud you will find many little helps and hints in the various work of it. Only remember that all engravers' foregrounds are bad; whenever you see the peculiar wriggling parallel lines of modern engravings become distinct, you must not copy; nor admire: it is only the softer masses, and distances, and portions of the foliage in the plates marked $f$, which you may copy. The best for this purpose, if you can get it, is the

[^14]"Chain bridge over the Tees," of the England series; the thicket on the right is rery beautiful and instructive, and very like Turner. The foliage in the "Ludlow" and "Powis" is also remarkably good.
90. Besides these line engravings, and to protect you from what harm there is in their influence, you are to provide yourself, if possible, with a Rembrandt etching, or a photograph of one (of figures, not landscape). It does not matter of what subjeet, or whether a sketchy or finished one, but the sketchy ones are generally cheapest, and will teach you most. Copy it as well as you can, noticing especially that Rembrandt's most rapid lines have steady purpose ; and that they are laid with almost ineonceivable precision when the object becomes at all interesting. The "Prodigal Son," "Death of the Virgin," "Abraham and Isaac," and such others, containing incident and character rather than chiaroscuro, will be the most instructive. You can buy one; copy it well; then exchange it, at little loss, for another ; and so, gradually, obtain a good knowledge of his system. Whenever you have an opportunity of examining his work at museums, etc., do so with the greatest care, not looking at many things, but a long time at each. You must also provide yourself, if possible, with an engraving of Albert Dürer's. This you will not be able to copy; but you must keep it beside you, and refer to it as a standard of precision in line. If you can get one with a wing in it, it will be best. The crest with the eock, that with the skull and satyr, and the "Melancholy," are the best you could have, but any will do. Perfection in chiaroscuro drawing lies between these two masters, Rembrandt and Diirer. Rembrandt is often too loose and rague; and Dïrer has little or no effect of mist or uncertainty. If you can see anywhere a drawing by Leonardo, you will find it balanced between the two characters; but there are no engravings which present this perfection, and your style will be best formed, therefore, by alternate study of Rembrandt and Dürer. Lean rather to Dürer; it is better, for amateurs, to err on the side of precision than on
that of vagneness: and though, as I have just said, you cannot copy a Dürer, yet try every now and then a quarter of an inch square or so, and see how much nearer you can come; you cannot possibly try to draw the leafy crown of the "Melancholia" too often.
91. If you camot get either a Rembrandt or a Dürer, you may still learn much by carefully studying any of George Cruikshank's etchings, or Leech's wood-cuts in Punch, on the free side; with Alfred Rethel's and Richter's* on the severe side. But in so doing you will need to notice the following points:
92. When either the material (as the copper or wood) or the time of an artist does not permit him to make a perfect drawing,-that is to say, one in which no lines shall be promiuently visible,-and he is reduced to show the black lines, either drawn by the pen, or on the wood, it is better to make these lines help, as far as may be, the expression of texture and form. You will thus find many textures, as of cloth or grass or flesh, and many subtle effects of light, expressed by Leech with zigzag or crossed or curiously broken lines; and you will see that Alfred Rethel and Richter constantly express the direction and rounding of surfaces by the direction of the lines which shade them. All these various means of expression will be useful to you, as far as you can learn them, provided you remember that they are merely a kind of shorthand; telling certain facts not in quite the right way, but in the only possible way under the conditions: and provided in any after use of such means, you never try to show your own dexterity; but only to get as much record of the object as you can in a given time ; and that you continually make efforts to go beyond such shorthand, and draw portions of the objects rightly.
93. And touching this question of direction of lines as indicating that of surface, observe these few points:

If lines are to be distinctly shown, it is better that, so far

[^15]as they can indicate anything by their direction, they should explain rather than oppose the general character of the object. Thus, in the piece of wood-eut from Titian, Fig. 10, the lines are serviceable by expressing, not only the shade of the trunk, but partly also its roundness, and the flow of its grain. And Albert Dürer, whose work was chiefly engraring, sets himself always thus to make his lines as valuable as possible; telling much by them, both of shade and direction of surface: and if you were always to be limited to engraving on copper (and did not want to express effects of mist or darkness, as well as delicate forms), Albert Dïrer's way of


Fig. 10.
work would be the best example for you. But, inasmuch as the perfect way of drawing is by shade without lines, and the great painters always conceive their subject as complete, even when they are sketching it most rapidly, you will find that, when they are not limited in means, they do not much trust to direction of line, but will often scratch in the shade of a rounded surface with nearly straight lines, that is to say, with the easiest and quickest lines possible to themselves. When the hand is free, the easiest line for it to draw is one inclining from the left upwards to the right, or vice versâ, from the right downwards to the left; and when done rery quickly, the line is hooked a little at the end by the effort
at return to the next. Hence, you will always find the pencil, chalk, or pen sketch of a very great master full of these kind of lines; and even if he draws carefully, you will find him using simple straight lines from left to right, when an in-


Fig. 1 I.
ferior master would have used curved ones. Fig. 11 is a fair facsimile of part of a sketch of Raphael's, which exhibits these characters very distinctly. Eren the careful drawings of Leonardo da Vinci are shaded most commonly with straight lines; and you may always assume it as a point increasing the probability of a drawing being by a great
master if you find rounded surfaces, such as those of cheeks or lips, shaded with straight lines.
94. But you will also now understand how easy it must be for dishonest dealers to forge or imitate scrawled sketches like Fig. 11, and pass them for the work of great masters; and how the power of determining the genuineness of a drawing depends entirely on your knowing the facts of the objects drawn, and perceiving whether the hasty handling is all conducive to the expression of those truths. In a great man's work, at its fastest, no line is thrown away, and it is not by the rapidity, but the economy of the execution that you know him to be great. Now to judge of this economy, you must know exactly what he meant to do, otherwise you cannot of course discern how far he has done it; that is, you must know the beauty and nature of the thing he was drawing. All judgment of art thus finally founds itself on knowledge of Nature.
95. But farther observe, that this scrawled, or economic, or impetuous execution is never affectedly impetuous. If a great man is not in a hurry, he never pretends to be; if he has no eagerness in his heart, he puts none into his hand; if he thinks his effect would be better got with two lines, he never, to show his dexterity, tries to do it with one. Be assured, therefore (and this is a matter of great importance), that you will never produce a great drawing by imitating the execution of a great master. Acquire his knowledge and share his feelings, and the easy execution will fall from your hand as it did from his: but if you merely scrawl because he scrawled, or blot because he blotted, you will not only never advance in power, but every able draughtsman, and every judge whose opinion is worth having, will know you for a cheat, and despise you accordingly.
96. Again, observe respecting the use of outline:

All merely outlined drawings are bad, for the simple reason, that an artist of any power can always do more, and tell more, by quitting his outlines occasionally, and scratching in a few lines for shade, than he can by restricting him-
self to outline only. Hence the fact of his so restricting himself, whatever may be the oceasion, shows him to be a bad dranghtsman, and not to know how to apply his power econonically. This hard law, however, bears only on drawings meant to remain in the state in which you see them; not on those which were meant to be proceeded with, or for some mechanical use. It is sometimes necessary to draw pure outlines, as an incipient arrangement of a composition, to be filled up afterwards with color, or to be pricked through and used as patterns or tracings ; but if, with no such ultimate object, making the drawing wholly for its own sake, and meaning it to remain in the state he leares it, an artist restricts himself to outline, he is a bad dranghtsman, and his work is bad. There is no exception to this law. A good artist habitually sees masses, not edges, and can in every case make his drawing more expressive (with any given quantity of work) by rapid shade than by contours; so that all good work whaterer is more or less touched with shade, and more or less interrupted as outline.

97 . Hence, the published works of Retzsch, and all the English imitations of them, and all outline engravings from pictures, are bad work, and only serve to corrupt the public taste. And of such outlines, the worst are those which are darkened in some part of their course by way of expressing the dark side, as Flaxman's from Dante, and such others; because an outline can only be true so long as it accurately represents the form of the given object with one of its edges. $a \quad b$ Thus, the outline $a$ and the outline $d$, Fig. 12, are both true outlines of a ball; because, however thick the line may be, whether we take the interior or exterior edge of it, that edge of it always draws a true circle. But $c$ is a false outline of a ball,
Fig. 12. because cither the inner or outer edge of the black line must be an untrue circle, else the line could not be thicker in one place than another. Hence all "force," as it is called, is gained by falsification of the contours; so that no artist whose eye is true and fine could endure to look
at it. It does indeed often happen that a painter, sketching rapidly, and trying again and again for some line which he cannot quite strike, blackens or loads the first line by setting others beside and across it; and then a careless observer supposes it has been thickened on purpose: or, sometimes also, at a place where shade is afterwards to inclose the form, the painter will strike a broad dash of this shade beside his outline at once, looking as if he meant to thicken the outline; whereas this broad line is only the first installment of the future shadow, and the outline is really drawn with its inner edge.* And thus, far from good draughtsmen darkening the lines which turn away from the light, the tendency with them is rather to darken them towards the light, for it is there in general that shade will ultimately inclose them. The best example of this treatment that I know is Raphael's sketch, in the Lourre, of the head of the angel pursuing Heliodorus, the one that shows part of the left eye; where the dark strong lines which terminate the nose and forehead towards the light are opposed to tender and light ones behind the ear, and in other places towards the shade. You will see in Fig. 11 the same principle variously exemplified; the principal dark lines, in the head and drapery of the arms, being on the side turned to the light.
98. All these refinements and ultimate principles, however, do not affect your drawing for the present. You must try to make your outlines as equal as possible; and employ pure outline only for the two following purposes: either (1.) to steady your hand, as in Exercise II., for if you cannot draw the line itself, you will never be able to terminate your shadow in the precise shape required, when the line is absent; or (2.) to give you shorthand memoranda of forms, when you are pressed for time. Thus the forms of distant trees in groups are defined, for the most part, by the light edge of the rounded mass of the nearer one being shown against the darker part of the rounded mass of a more distant one; and to draw this properly, nearly as much work is

[^16]required to round each tree as to round the stone in Fig. 5. Of course you camot often get time to do this ; but if you mark the terminal line of each tree as is done by Dürer in Fig. 13, you will get a most useful memorandum of their arrangement, and a very interesting drawing. Only observe in doing this, you must not, because the procedure is a quick one, hurry that procedure itself. You will find, on copring that bit of Dürer, that every one of his lines is firm, deliberate, and accurately descriptive as far as it gocs. It means a bush of such a size and such a shape, definitely observed and


Fig. 13.
set down ; it contains a true " signalement" of every nut-tree, and apple-tree, and higher bit of hedge, all round that village. If you have not time to draw thus carefully, do not draw at all-you are merely wasting your work and spoiling your taste. When you have had four or five years' practice you may be able to make useful memoranda at a rapid rate, but not yet; except sometimes of light and shade, in a way of which I will tell you presently. And this use of outline, note farther, is wholly confined to objects which have edges or limits. You can outline a tree or a stone, when it rises against another tree or stone ; but you cannot outline folds in
drapery, or waves in water; if these are to be expressed at all, it must be by some sort of shade, and therefore the rule that no good drawing can consist throughout of pure outline remains absolute. You see, in that wood-cut of Dïrer's, his reason for even limiting himself so much to outline as he has, in those distant woods and plains, is that he may leave them in bright light, to be thrown out still more by the dark sky and the dark rillage spire: and the scene becomes real and sunny only by the addition of these shades.
99. Understanding, then, thus much of the use of out-


Fig. 14.
line, we will go back to our question about tree-drawing left unanswered at page 48 .

We were, you remember, in pursuit of mystery among the leares. Now, it is quite easy to obtain mystery and disorder, to any extent; but the difficulty is to keep organization in the midst of mystery. And you will never succeed in doing this unless you lean always to the definite side, and allow yourself rarely to become quite vague, at least through all your early practice. So, after your single groups of leaves, your first step must be to conditions like Figs. 14 and 15 , which are careful facsimiles of two portions of a beautiful wood-cut of Dürer's, the "Flight into Egypt." Copy these carefully,-never mind how little at a time, but
thoroughly; then trace the Diirer, and apply it to your drawing, and do not be content till the one fits the other, else your eye is not true enough to carry you safely through meshes of real leaves. And in the course of doing this, you will find that not a line nor dot of Dürer's can be displaced without harm; that all add to the effect, and either express something, or illumine something, or relieve something. If, afterwards, you copy any of the pieces of modern tree drawing, of which so many rich examples are given con-


Fig. 15.
stantly in our cheap illustrated periodicals (any of the Christmas numbers of last year's Illustrated New's or others are full of them), you will see that, though good and foreible general effect is produced, the lines are thrown in by thousands withont special intention, and might just as well go one way as another, so only that there be enough of them to produce all together a well-shaped effect of intricacy: and you will find that a little careless scratching about with your pen will bring yon very near the same result without an effort; but that $n o$ scratehing of pen, nor any fortunate chance, nor anything but downright skill and thought, will imitate so much
as one leaf of Dürer's. Yet there is considerable intricacy and glittering confusion in the interstices of those vine leares of his, as well as of the grass.
100. When you have got familiarized to his firm manner, you may draw from Nature as much as you like in the same way; and when you are tired of the intense care required for this, sou may fall into a little more easy massing of the leares,


Fig. 16.
as in Fig. 10 (p. 55). This is facsimilëd from an engraring after Titian, but an engraving not quite first-rate in manner, the leaves being a little too formal; still, it is a good enough model for your times of rest; and when you cannot carry the thing even so far as this, you may sketch the forms of the masses, as in Fig. 16,* taking care always to have thorough

* This sketch is not of a tree standing on its head, though it looks like it. You will find it explained presently.
command over your hand; that is, not to let the mass take a free shape because your hand ran glibly over the paper, but because in Nature it has actually a free and noble shape, and you have faithfully followed the same.

101. And now that we have come to questions of noble shape, as well as true shape, and that we are going to draw from Nature at our pleasure, other considerations enter into the business, which are by no means confined to first practice, but extend to all practice; these (as this letter is long enough, I should think, to satisfy even the most exacting of correspondents) I will arrange in a second letter; praying you only to excuse the tiresomeness of this first one-tiresomeness inseparable from directions touching the beginning of any art,-and to believe me, even though I am trying to set you to dull and hard work,

Very faithfully yours,<br>J. Ruskin.

## LETTER II.

## SKETCHING FROM NATURE.

102. Mr dear Reader,--The work we have already gone through together has, I hope, enabled you to draw with fair success either rounded and simple masses, like stones, or complicated arrangements of form, like those of leaves; prorided only these masses or complexities will stay quiet for you to cops, and do not extend into quantity so great as to baffle your patience. But if we are now to go out to the fields, and to draw anything like a complete landscape, neither of these conditions will any more be observed for us. The clouds will not wait while we copy their heaps or clefts; the shadows will escape from us as we try to shape them, each, in its stealthy minute march, still learing light where its tremulous edge had rested the moment before, and involving in eclipse objects that had seemed safe from its influence; and instead of the small clusters of leares which we could reckon point by point, embarrassing enough even though numerable, we hare now leares as little to be counted as the sands of the sea, and restless, perhaps, as its foam.
103. In all that we have to do now, therefore, direct imitation becomes more or less impossible. It is always to be aimed at so far as it is possible; and when you have time and opportunity, some portions of a landscape may, as you gain greater skill, be rendered with an approximation almost to mirrored portraiture. Still, whaterer skill you may reach, there will always be need of judgment to choose, and of speed to seize, certain things that are principal or fugitive; and you must gire more and more effort daily to the observance of characteristic points, and the attainment of concise methods.
104. I have directed rour attention early to foliage for two reasons. First, that it is always accessible as a study;
and secondly, that its modes of growth present simple examples of the importance of lading or governing lines. It is by seizing these learling lines, when we cannot seize all, that likeness and expression are given to a portrait, and grace and a kind of vital truth to the rendering of every natural form. I call it vital truth, because these chief lines are always expressive of the past history and present action of the thing. They show in a monntain, first, how it was built or heaped up; and secondly, how it is now being worn away, and from what quarter the wildest storms strike it. In a tree, they show what kind of fortune it has had to endure from its childhood: how tromblesome trees have come in its way, and pushed it aside, and tried to strangle or starre it; where and when kind trees have sheltered it, and grown up lovingly together with it, bending as it bent; what winds torment it most; what bonghs of it behave best, and bear most fruit; and so on. In a wave or clond, these leading lines show the run of the tide and of the wind, and the sort of change which the water or vapor is at any moment enduring in its form, as it meets shore, or counter-wave, or melting sunshinc. Now remember, nothing distinguishes great men from inferior men more than their always, whether in life or in art, linowing the way things are going. Your dunce thinks they are standing still, and draws them all fixed ; your wise man sees the change or changing in them, and draws them so,-the animal in its motion, the tree in its growth, the clond in its course, the mountain in its wearing away. Try always, whenever you look at a form, to see the lines in it which have had power over its past fate and will have power over its futurity. Those are its auful lines; see that you seize on those, whatever else you miss. Thus, the leafage in Fig. 16 (p. 63) grew round the root of a stone pine, on the brow of a crag at Sestri near Genoa, and all the sprays of it are thrust away in their first budding by the great rude root, and spring out in every direction round it, as water splashes when a heary stone is thrown into it. Then, when they have got clear of the root, they begin to
bend up again; some of them, being little stone pines themselves, have a great notion of growing upright, if they can; and this struggle of theirs to reeover their straight road towards the sky, after being obliged to grow sideways in their early years, is the effort that will mainly influence their future destiny, and determine if they are to be crabbed, forky pines, striking from that rock of Sestri, whose clefts nourish them, with bared red lightning of angry arms towards the sea; or if they are to be goodly and solemm pines, with trunks like pillars of temples, and the purple burning of their branches sheathed in deep globes of cloudy green. Those, then, are their fateful lines; see that you give that spring and resilience, whaterer sou leave ungiren: depend upon it, their chief beauty is in these.
105. So in trees in general, and bushes, large or small,


Fig. 17.
you will notice that, though the boughs spring irregularly and at various angles, there is a tendency in all to stoop less and less as they near the top of the tree. This structure, trpified in the simplest possible terms at $c$, Fig. 17, is common to all trees that I know of, and it gives them a certain plumy character, and aspect of unity in the hearts of their branches which are essential to their beauty. The stem does not merely send off a wild branch here and there to take its own way, but all the branches share in one great fountain-like impulse ; each has a curve and a path to take, which fills a definite place, and each terminates all its minor branches at its outer extremity, so as to form a greater outer curve, whose character and proportion are peculiar for each species. That is to sar, the general type or idea of a tree is not as $a$, Fig. 17, but as $b$, in which, observe, the boughs all carry their
minor divisions right out to the bounding curve; not but that smaller branches, by thousands, terminate in the heart of the tree, but the idea and main purpose in every branch are to carry all its child branches well out to the air and light, and let each of them, however small, take its part in filling the united flow of the bounding curve, so that the type of each separate bough is again not $a$, but $b$, Fig. 18; approxi-


Fig. 18.
mating, that is to say, so far to the structure of a plant of broceoli as to throw the great mass of spray and leafage out to a rounded surface. Therefore beware of getting into a careless habit of drawing boughs with successive sweeps of the pen or brush, one hanging to the other, as in Fig. 19. If you look at the tree-boughs in any painting of Wilson's you will see this structure, and nearly every other that is to be


Fig. 19.
avoided, in their intensest types. You will also notice that Wilson never conceives a tree as a round mass, but flat, as if it had been pressed and dried. Most people in drawing pines seem to fancy, in the same way, that the boughs come out only on two sides of the trunk, instead of all round it: always, therefore, take more pains in trying to draw the boughs of trees that grow towards you than those that go
off to the sides; anybody can draw the latter, but the foreshortened ones are not so easy. It will help you in drawing them to observe that in most trees the ramification of each branch, though not of the tree itself, is more or less flattened, and approximates, in its position, to the look of a hand held out to receive something, or shelter something. If you take a looking-glass, and hold your hand before it slightly hollowed, with the palm upwards, and the fingers open, as if you were going to support the base of some great bowl, larger than you could easily hold; and sketch your hand as you see it in the glass with the points of the fingers towards you; it will materially help you in understanding the way trees generally hold out their hands: and if then you will turn yours with its palm downwards, as if you were going to try to hide something, but with the fingers expanded, you will get a good type of the action of the lower boughs in cedars and such other spreading trees.
106. Fig. 20 will give you a good idea of the simplest way in which these and other such facts can be rapidly expressed ; if you copy it carefully, you will be surprised to find how the touches all group together, in expressing the plumy toss of the tree branches, and the springing of the bushes out of the bank, and the undulation of the ground: note the careful drawing of the footsteps made by the climbers of the little mound on the left.* It is facsimiled from an etching of Turner's, and is as good an example as you can have of the use of pure and firm lines; it will also show you how the particular action in foliage, or anything else to which you wish to direct attention, may be intensified by the adjuncts. The tall and upright trees are made to look more tall and upright still, because their line is continued below by the figure of the farmer with his stick; and the rounded bushes on the bank are made to look more rounded because their line is continued in one broad sweep by the black dog and the boy climbing the wall. These figures are placed entirely with this object, as we shall see more fully hereafter when we

[^17]come to talk about composition ; but, if you please, we will not talk about that yet awhile. What I have been telling you


FIG. 20.
about the beautiful lines and action of foliage has nothing to do with composition, but only with fact, and the brief and
expressive representation of fact. But there will be no harm in your looking forward, if you like to do so, to the account, in Letter III. of the "Law of Radiation," and reading what is said there about tree growth: indeed it would in some respects have been better to have said it here than there, only it would have broken up the account of the principles of composition somewhat awkwardly.
107. Now, although the lines indieative of action are not always quite so manifest in other things as in trees, a little attention will soon enable you to see that there are such lines in ererything. In an old honse roof, a bad observer and bad draughtsman will only see and draw the spotty irregularity of tiles or slates all over; but a good draughtsman will see all the bends of the under timbers, where they are weakest and the weight is telling on them most, and the tracks of the rum of the water in time of rain, where it runs off fastest, and where it lies long and feeds the moss; and he will be careful, however few slates he draws, to mark the way they bend together towards those hollows (which have the future fate of the roof in them), and crowd gradually together at the top of the gable, partly diminishing in perspective, partly, perhaps, diminished on purpose (they are so in most English old houses) by the slate-layer. So in ground, there is always the direction of the run of the water to be noticed, which rounds the earth and cuts it into hollows; and, generally, in any bank or height worth drawing, a trace of bedded or other internal structure besides. Figure 20 will give you some idea of the way in which such facts may be expressed by a few lines. Do you not feel the depression in the ground all down the hill where the footsteps are, and how the people always turn to the left at the top, losing breath a little, and then how the water runs down in that other hollow towards the valley, behind the roots of the trees?
108. Now, I want you in your first sketches from Nature to aim exclusively at understanding and representing these rital facts of form; using the pen-not now the steel, but the quill-firmly and steadily, never scrawling with it, but
saying to yourself before you lay on a single touch,-" that leaf is the main one, that bough is the guiding one, and this tonch, so long, so broad, means that part of it,"-point or side or knot, as the case may be. Resolve always, as you look at the thing, what you will take, and what miss of it, and never let your hand run away with you, or get into any habit or method of touch. If you want a continuous line, your hand should pass calmly from one end of it to the other without a tremor; if you want a shaking and broken line, your hand should shake, or break off, as easily as a musician's finger shakes or stops on a note: only remember this, that there is no general way of doing any thing; no recipe can be given you for so much as the drawing of a cluster of grass. The grass may be ragged and stiff, or tender and flowing; sumburnt and sheep-bitten, or rank and languid; fresh or dry ; lustrous or dull: look at it, and try to draw it as it is, and don't think how somebody " told you to do grass." So a stone may be round or angular, polished or rough, cracked all orer like an ill-glazed teacup, or as united and broad as the breast of Hercules. It may be as flaky as a wafer, as powdery as a field puff-ball; it may be knotted like a ship's hawser, or kneaded like hammered iron, or knit like a Damascus saber, or fused like a glass bottle, or crystallized like hoar-frost, or reined like a forest leaf: look at it, and don't try to remember how anybody told you to " do a stone."
109. As soon as you find that your hand obers you thoroughly, and that you can render any form with a firmness and truth approaching that of Turner's or Dïrer's work,* you must add a simple but equally careful light and shade to your pen drawing, so as to make each study as complete as possible; for which you must prepare yourself thus. Get, if you have the means, a good impression of one plate of Turner's Liber Studiorum; if possible, one of the subjects

[^18]named in the note below.* If you cannot obtain, or even borrow for a little while, any of these engravings, you must use a photograph instead (how, I will tell you presently); but, if you can get the Turner, it will be best. You will see that it is composed of a firm etching in line, with mez-

* The following are the most desirable plates:-

Grande Chartreuse.
Æsacus and Hesperie.
Cephalus and Procris.
Source of Arveron.
Ben Arthur.
Watermill.
Hindhead Hill.
Hedging and Ditching.
Dumblaue Abbey.
Morpeth.
Calais Pier.
Pembury Mill.

Little Devil's Bridge.
River Wye (not Wye and Severn).
Holy Island.
Clyde.
Lauffenburg.
Blair Athol.
Alps from Grenoble.
Raglan. (Subject with quiet brook, trees, and castle on the right.)

If you cannot get one of these, any of the others will be serviceable, except only the twelve following, which are quite useless:-

1. Scene in Italy, with goats on a walled road, and trees above.
2. Interior of church.
3. Scene with bridge, and trees above; figures on left, one playing a pipe.
4. Scene with figure playing on tambourine.
5. Sceue on Thames with high trees, and a square tower of a church seen through them.
6. Fifth Plague of Egypt.
7. Tenth Plague of Egypt.
8. Rivaulx Abbey.
9. Wye and Severn.
10. Scene with castle in center, cows under trees on the left.
11. Martello Towers.
12. Calm.

It is very unlikely that you should meet with one of the original etchings; if you should, it will be a drawing-master in itself alone, for it is not only equivalent to a pen-and-ink drawing by Turner, but to a very careful one; only observe, the Source of Arveron, Raglan, and Dumblane were not etched by Turner; and the etchings of those three are not good for separate study, though it is deeply interesting to see how Turner, apparently provoked at the failure of the beginnings in the Arveron and
zotint shadow laid over it. You must first copy the etched part of it accurately : to which end put the print against the window, and trace slowly with the greatest care every black line; retrace this on smooth drawing-paper; and, finally, go over the whole with your pen, looking at the original plate always, so that if you err at all, it may be on the right side, not making a line which is too curved or too straight already in the tracing, more curved or more straight, as you go over it. And in doing this, nerer work after you are tired, nor to "get the thing done," for if it is badly done, it will be of no use to you. The true zeal and patience of a quarter of an hour are better than the sulky and inattentive labor of a whole day. If you have not made the touches right at the first going over with the pen, retouch them delicately, with little ink in your pen, thickening or reinforeing them as they need: you cannot give too much care to the facsimile. Then keep this etched outline by you in order to study at your case the way in which Turner uses his line as preparatory for the sulsequent shadow; ; it is only in getting the two separate that you will be able to reason on this. Next, copy once more, though for the fourth time, any part of this etching which you like, and put on the light and shade with the

Raglan, took the plates up himself, and either conquered or brought into use the bat etching by his marvelous engraving. The Dumblaue was, however, well etched by Mr. Lupton, and beantifully engraved by him. The finest Turner etching is of an aqueduct with a stork standing in a mountain stream, not in the published series; and next to it, are the umpublished etchings of the Via Mala and Crowhurst. Turner seems to have been so fond of these plates that he kept retouching and finishing them, and never made up his mind to let them go. The Via Mala is certainly, in the state in which Tumer left it, the finest of the whole series: its etching is, as I said, the best after that of the aqueduct. Figure 20 , above, is part of another fine unpublished etching, "Windsor, from Salt Hill." Of the published etehings, the finest are the Ben Arthur, Æsacus, Cephalus, and Stone Pines, with the Girl washing at a Cistern; the three latter are the more generally instructive. Hindhead Hill, Isis, Jason, aud Morpeth, are also very desirable.

* Yon will find more notice of this point in the account of Harding's tree-drawing, a little farther on.
brush, and any brown color that matches that of the plate;* working it with the point of the brush as delicately as if you were drawing with pencil, and dotting and cross-hatching as lightly as you can touch the paper, till you get the gradations of Turner's engraving.

110. In this exercise, as in the former one, a quarter of an inch worked to close resemblance of the copy is worth more than the whole subject carelessly done. Not that in drawing afterwards from Nature you are to be obliged to finish every gradation in this way, but that, once having fully accomplished the drawing something rightly, you will thenceforward feel and aim at a higher perfection than you could otherwise have conceived, and the brush will obey you, and bring out quickly and clearly the loveliest results, with a submissiveness which it would have wholly refused if you had not put it to severest work. Nothing is more strange in art than the way that chance and materials seem to favor you, when once you lave thoroughly conquered them. Make yourself quite independent of chance, get your result in spite of it, and from that day forward all things will somehow fall as you would have them. Show the camel's hair, and the color in it, that no bending nor blotting is of any use to escape your will; that the touch and the shade shall finally be right, if it costs you a year's toil; and from that hour of corrective conviction, said camel's hair will bend itself to all your wishes, and no blot will dare to transgress its appointed border. If you cannot obtain a print from the Liber Studiorum, get a photograph $\dagger$ of some general landscape subject, with high hills and a village or picturesque town, in the middle distance, and some calm water of varied character (a stream with stones in it, if possible), and copy any part of it you like, in this same brown color, working, as I have just directed you to do from the Liber, a great deal with the point of the brush. You are under a twofold dis-

[^19]advantage here, however; first, there are portions in every photograph too delicately done for you at present to be at all able to copy; and, secondly, there are portions always more obscure or dark than there would be in the real scene, and involved in a mystery which you will not be able, as yet, to decipher. Both these characters will be advantageous to you for future study, after you have gained experience, but they are a little against you in early attempts at tinting; still you must fight through the difficulty, and get the power of producing delicate gradations with brown or gray, like those of the photograph.
111. Now observe; the perfection of work would be tinted shadow, like photograply, without any obscurity or exaggerated darkness; and as long as your effect depends in anywise on visible lines, your art is not perfect, though it may be first-rate of its kind. But to get complete results in tints merely, requires both long time and consummate skill; and you will find that a few well-put pen lines, with a tint dashed over or under them, get more expression of facts than you could reach in any other way, by the same expenditure of time. The use of the-Liber Studiorum print to you is chiefly as an example of the simplest shorthand of this kind, a shorthand which is yet capable of dealing with the most subtle natural effects; for the firm etching gets at the expression of complicated details, as leaves, masonry, textures of ground, ete., while the overlaid tint enables you to express the most tender distances of sky, and forms of playing light, mist, or cloud. Most of the best drawings by the old masters are executed on this principle, the touches of the pen being useful also to give a look of transpareney to shadows, which could not otherwise be attained but by great finish of tinting; and if you have access to any ordinarily good public gallery, or can make friends of any printsellers who have folios either of old drawings, or facsimiles of them, you will not be at a loss to find some example of this unity of pen with tinting. Multitudes of photograplis also are now taken from the best drawings by the old masters, and I hope that our Mechanies'

Institutes and other societies organized with a view to public instruction, will not fail to possess themselves of examples of these, and to make them accessible to students of drawing in the vicinity; a single print from Turner's Liber, to show the unison of tint with pen etching, and the "St. Catherine," photographed by Thurston Thompson from Raphael's drawing in the Lourre, to show the unity of the soft tinting of the stump with chalk, would be all that is necessary, and would, I believe, be in many cases more serviceable than a larger collection, and certainly than a whole gallery of secondrate prints. Two such examples are peculiarly desirable, because all other modes of drawing, with pen separately, or chalk separately, or color separately, may be seen by the poorest student in any cheap illustrated book, or in shop windows. But this unity of tinting with line he cannot generally see but by some special inquiry, and in some out of the way places he could not find a single example of it. Supposing that this should be so in your own case, and that you cannot meet with any example of this kind, try to make the matter out alone, thus:
112. Take a small and simple photograph; allow yourself half an hour to express its subjects with the pen only, using some permanent liquid color instead of ink, outlining its buildings or trees firmly, and laying in the deeper shadows, as you have been accustomed to do in your bolder pen drawings; then, when this etching is dry, take your sepia or gray, and tint it over, getting now the finer gradations of the photograph; and, finally taking out the higher lights with penknife or blotting paper. You will soon find what ean be done in this way; and by a series of experiments you may aseertain for yourself how far the pen may be made serviceable to reinforce shadows, mark characters of texture, outline unintelligible masses, and so on. The more time you have, the more delicate you may make the pen drawing, blending it with the tint; the less you have, the more distinct you must keep the two. Practice in this way from one photograph, allowing yourself sometimes only a quarter of an hour for
the whole thing, sometimes an hour, sometimes two or three hours; in each case drawing the whole subject in full depth of light and shade, but with such degree of finish in the parts as is possible in the given time. And this exercise, observe, yon will do well to repeat frequently, whether you can get prints and drawings as well as photographs, or not.
113. And now at last, when you can copy a piece of Liber Studiorum, or its photographic substitute, faithfully, you have the complete means in your power of working from Nature on all subjects that interest you, which you should do in four different ways.

First. When you have full time, and your subject is one that will stay quiet for you, make perfect light and shade studies, or as nearly perfect as you can, with gray or brown color of any kind, reinforced and defined with the pen.
114. Secondly. When your time is short, or the subject is so rich in detail that you feel you camnot complete it intelligibly in light and shade, make a hasty study of the effect, and give the rest of the time to a Düreresque expression of the details. If the subject seems to you interesting, and there are points about it which you camnot understand, try to get five spare minutes to go close up to it, and make a nearer memorandum; not that you are ever to bring the details of this nearer sketch into the farther one, but that you may thus perfect your experience of the aspect of things, and know that such and such a look of a tower or cottage at five hundred yards off means that sort of tower or cottage near; while, also, this nearer sketch will be useful to prevent any future misinterpretation of your own work. If you have time, however far your light and shade study in the distance may have been carried, it is always well, for these reasons, to make also your Düreresque and your near memoranda; for if your light and shade drawing be good, much of the interesting detail must be lost in it, or disguised.
115. Your hasty study of effect may be made most easily and quickly with a soft pencil, dashed over when done with one tolerably deep tone of gray, which will fix the pencil.

While this fixing color is wet, take out the higher lights with the dry brush; and, when it is quite dry, scratch out the highest lights with the penknife. Five minutes, carefully applied, will do much by these means. Of course the paper is to be white. I do not like studies on gray paper so well; for you can. get more gradation by the taking off your wet tint, and laying it on cunningly a little darker here and there, than you can with body-color white, unless you are consummately skillful. There is no objection to your making your Dïreresque memoranda on gray or yellow paper, and touching or relieving them with white; only, do not depend much on jour white touches, nor make the sketch for their sake.
116. Thirdly. When you have neither time for careful study nor for Diireresque detail, sketch the outline with pencil, then dash in the shadows with the brush boldly, trying to do as much as you possibly can at once, and to get a habit of expedition and decision; laying more color again and again into the tints as they dry, using every expedient which your practice has suggested to you of carrying out your chiaroscuro in the manageable and moist material, taking the color off here with the dry brush, scratching out lights in it there with the wooden handle of the brush, rubbing it in with your fingers, drying it off with your sponge, etc. Then, when the color is in, take your pen and mark the outline characters vigorously, in the manner of the Liber Studiorum. This kind of study is very convenient for carrying away pieces of effect which depend not so much on refinement as on complexity, strange shapes of involved shadows, sudden effects of sky, etc.; and it is most useful as a safeguard against any too servile or slow habits which the minute copying may induce in sou; for although the endeavor to obtain relocity merely for relocity's sake, and dash for display's sake, is as baneful as it is despicable; there are a velocity and a dash which not only are compatible with perfect drawing, but obtain certain results which cannot be had otherwise. And it is perfectly safe for you to study
occasionally for speed and decision, while your continual course of practice is such as to insure your retaining an accurate judgment and a tender touch. Speed, under such circumstances, is rather fatiguing than tempting; and you will find yourself always beguiled rather into claboration than negligence.
117. Fourthly. You will find it of great use, whatever kind of landscape scenery you are passing through, to get into the habit of making memoranda of the shapes of shadows. You will find that many objects of no essential interest in themselves, and neither deserving a finished study, nor a


Fig. 21.

Düreresque one, may yet become of singular value in consequence of the fantastic shapes of their shadows; for it happens often, in distant effect, that the shadow is by much a more important element than the substance. Thus, in the Alpine bridge, Fig 21, seen within a few yards of it, as in the figure, the arrangement of timbers to which the shadows are owing is perceptible; but at half a mile's distance, in bright sunlight, the timbers would not be seen; and a good painter's expression of the bridge would be merely the large spot, and the crossed bars, of pure gray; wholly without indication of their cause, as in Fig. $22 a$; and if we saw
it at still greater distances, it would appear, as in Fig. 226 and $c$, diminishing at last to a strange, unintelligible, spiderlike spot of gray on the light hill-side. A perfectly great painter, throughout his distances, contimually reduces his objects to these shadow abstracts; and the singular, and to many persons unaccountable, effect of the confused touches in Turner's distances, is owing chiefly to this thorough accuracy and intense meaning of the shadow abstracts.
118. Studies of this kind are easily made, when you are


## b



## $6 \quad$ 分

Fig. 22.
in haste, with an F . or HB. pencil: it requires some liardness of the point to insure your drawing delicately enough when the forms of the shadows are very subtle; they are sure to be so somewhere, and are generally so everywhere. The pencil is indeed a very precious instrument after you are master of the pen and brush, for the pencil, cunningly used, is both, and will draw a line with the precision of the one and the gradation of the other ; nevertheless, it is so unsatisfactory to see the sharp touches, on which the best of the detail
depends, getting gradually deadened by time, or to find the places where force was wanted look shiny, and like a firegrate, that I shonld recommend rather the steady use of the pen, or brush, and color, whenever time admits of it ; keeping only a small memorandrm-book in the breast-pocket, with its well-cut, sheathed pencil, ready for notes on passing opportunities: but never being without this.
119. Thus much, then, respecting the manner in which you are at first to draw from Nature. But it may perhaps be serviceable to you, if I also note one or two points respecting your choice of subjects for study, and the best special methods of treating some of them ; for one of by no means the least difficulties which you have at first to encounter is a peculiar instinct, common, as far as I have noticed, to all beginners, to fix on exactly the most ummanageable feature in the given scene. There are many things in every landscape which can be drawn, if at all, only by the most accomplished artists; and I have noticed that it is nearly always these which a beginner will dash at; or, if not these, it will be something which, though pleasing to him in itself, is unfit for a picture, and in which, when he has drawn it, he will have little pleasure. As some slight protection against this evil genius of beginners, the following general warnings may be useful:
120. (1.) Do not draw things that you lore, on account of their associations; or at least do not draw them becanse you love them; but merely when you cannot get anything else to draw. If you try to draw places that you love, you are sure to be always entangled amongst neat brick walls, iron railings, gravel walks, greenhouses, and quickset hedges; besides that you will be continually led into some endeavor to make your drawing pretty, or complete, which will be fatal to your progress. You need never hope to get on, if you are the least anxious that the drawing you are actually at work upon should look nice when it is done. All you have to care about is to make it right, and to learn as much in doing it as possible. So then, though when you are sitting in your friend's parlor, or in your own, and have nothing else to do,
you may draw anything that is there, for practice; even the fire-irons or the pattern on the carpet: be sure that it is for practice, and not because it is a beloved carpet, or a friendly poker and tongs, nor because you wish to please your friend by drawing her room.
121. Also, never make presents of your drawings. Of course I am addressing you as a beginner-a time may come when your work will be precious to eserybody: but be resolute not to give it away till you know that it is worth something (as soon as it is worth anything you will know that it is so). If any one asks you for a present of a drawing, send them a couple of cakes of color and a piece of Bristol board: those materials are, for the present, of more value in that form than if you had spread the one over the other.

The main reason for this rule is, however, that its observance will much protect you from the great danger of trying to make your drawings prettr.
122. (2.) Never, by choice, draw anything polished; especially if complicated in form. Aroid all brass rods and curtain ornaments, chandeliers, plate, glass, and fine steel. A shining knob of a piece of furniture does not matter if it comes in your way; but do not fret yourself if it will not look right, and choose only things that do not shine.
(3.) Aroid all very neat things. They are exceedingly difficult to draw, and very ugly when drawn. Choose rough, worn, and clumsy-looking things as much as possible; for instance, you cannot have a more difficult or profitless study than a newly painted Thames wherry, nor a better study than an old empty coal-barge, lying ashore at low tide: in general, everything that you think very ugly will be good for you to draw.
(4.) Aroid, as much as possible, studies in which one thing is seen through another. You will constantly find a thin tree standing before your chosen cottage, or between you and the turn of the river; its near branches all entangled with the distance. It is intensely difficult to represent this; and though, when the tree is there, you must not imaginarily
cut it down, but do it as well as you can, yet always look for subjects that fall into definite masses, not into network; that is, rather for a cottage with a dark tree beside it, than for one with a thin tree in front of it, rather for a mass of wood, soft, blue, and rounded, than for a ragged copse, or confusion of intricate stems.
(5.) Avoid, as far as possible, country divided by hedges. Perhaps nothing in the whole compass of landscape is so utterly unpicturesque and unmanageable as the ordinary English patchwork of field and hedge, with trees dotted over it in independent spots, gnawed straight at the cattle line.

Still, do not be discouraged if you find you have chosen ill, and that the subject overmasters you. It is much better that it should, than that you should think you had entirely mastered it. But at first, and even for some time, you must be prepared for very discomfortable failure; which, nevertheless, will not be without some wholesome result.
123. As, however, I have told you what most definitely to aroid, I may, perhaps, help you a little by saying what to seek. In general, all banks are beantiful things, and will reward work better than large landscapes. If you live in a lowland country, you must look for places where the ground is broken to the river's edges, with decayed posts, or roots of trees; or, if by great good luck there should be such things within your reach, for remnants of stone quays or steps, mossy mill-dams, etc. Nearly every other mile of road in chalk country will present beautiful bits of broken bank at its sides; better in form and color than high chalk cliffs. In woods, one or two trunks, with the flowery ground below, are at once the richest and easiest kind of study: a not very thick trunk, say nine inches or a foot in diameter, with ivy running up it sparingly, is an easy, and always a rewarding subject.
124. Large nests of buildings in the middle distance are always beautiful, when drawn earefully, provided they are not modern rows of pattern cottages, or villas with Ionic and Doric porticoes. Any old English village, or cluster of farm-
houses, drawn with all its ins and outs, and haystacks, and palings, is sure to be lovely; much more a French one. French landscape is generally as much superior to English as Swiss landscape is to French; in some respects, the French is incomparable. Such scenes as that avenue on the Seine, which I have recommended you to buy the engraving of, admit no rivalship in their expression of graceful rusticity and cheerful peace, and in the beauty of component lines.

In drawing villages, take great pains with the gardens; a rustic garden is in every way beautiful. If you have time, draw all the rows of cabbages, and hollyhocks, and broken fences, and wandering eglantines, and bossy roses; you cannot have better practice, nor be kept by anything in purer thoughts.

Make intimate friends with all the brooks in your neighborhood, and study them ripple by ripple.

Village churches in England are not often good subjects; there is a peculiar meanness about most of them and awkwardness of line. Old manor-houses are often pretty. Ruins are usually, with us, too prim, and cathedrals too orderly. I do not think there is a single eathedral in England from which it is possible to obtain one subject for an impressive drawing. There is always some discordant eivility, or jarring vergerism about them.
125. If you live in a mountain or hill country, your only danger is redundance of subject. Be resolved, in the first place, to draw a piece of rounded rock, with its variegated lichens, quite rightly, getting its complete roundings, and all the patterns of the lichen in true local color. Till you can do this, it is of no use your thinking of sketching among hills; but when once you have done this, the forms of distant hills will be comparatively easy.
126. When you have practiced for a little time from such of these subjects as may be accessible to you, you will certainly find difficulties arising which will make you wish more than ever for a master's help: these difficulties will vary according to the character of your own mind (one
question occurring to one person, and one to another), so that it is impossible to anticipate them all; and it would make this too large a book if I answered all that I can anticipate; you must be content to work on, in good hope that Nature will, in her own time, interpret to you much for herself; that farther experience on your own part will make some difficulties disappear; and that others will be removed by the occasional observation of such artists' work as may come in your way. Nevertheless, I will not close this letter without a few general remarks, such as may be useful to you after yon are somewhat advanced in power; and these remarks mar, I think, be conreniently arranged under three heads, having reference to the drawing of regetation, water, and skies.
127. And, first, of regetation. You may think, perhaps, we have said enough about trees already; yet if you have done as you were bid, and tried to draw them frequently enough, and carefully enough, you will be ready by this time to hear a little more of them. You will also recollect that we left our question, respecting the mode of expressing intricacy of leafage, partly unsettled in the first letter. I left it so because I wanted you to learn the real structure of leaves, by drawing them for yourself, before I troubled you with the most subtle considerations as to method in drawing them. And by this time, I imagine, you must have found out two principal things, universal facts, about leaves; namely, that they always, in the main tendencies of their lines, indicate a beautiful divergence of growth, according to the law of radiation, already referred to $; *$ and the second, that this divergence is never formal, but carried out with endless variety of individual line. I must now press both these facts on your attention a little farther.
128. You may, perhaps, have been surprised that I have not yet spoken of the works of J. D. Harding, especially if you happen to have met with the passages referring to them in Modern Painters, in which they are highly praised. They

[^20]are deservedly praised, for they are the only works by a modern* draughtsman which express in any wise the energy of trees, and the laws of growth, of which we have been speaking. There are no lithographic sketches which, for trath of general character, obtained with little cost of time, at all rival Harding's. Calame, Robert, and the other lithographic landscape sketchers are altogether inferior in power, though sometimes a little deeper in meaning. But your must not take even Harding for a model, though you may use his works for occasional reference; and if you can afford to buy his Lessons on Trees, $\dagger$ it will be serviceable to you in various ways, and will at present help me to explain the point under consideration. And it is well that I should illustrate this point by reference to Harding's works, because their great influence on young students renders it desirable that their real character should be thoroughly understood.
129. You will find, first, in the titlepage of the Lessons on Trees, a pretty wood-cut, in which the tree stems are drawn with great truth, and in a very interesting arrangement of lines. Plate 1 is not quite worthy of Mr. Harding, tending too much to make his pupil, at starting, think everything depends on black dots; still, the main lines are good, and very characteristic of tree growth. Then, in Plate 2, we come to the point at issue. The first examples in that plate are given to the pupil that he may practice from them till his hand gets into the habit of arranging lines freely in a similar manner; and they are stated by Mr. Marding to be universal in application; " all outlines expressive of foliage," he says, " are but modifications of them." They consist of groups of lines, more or less resembling our Fig. 23 below; and the characters especially insisted upon are, that they " tend at their inner ends to a common center; " that " their

[^21]ends terminate in [are inclosed by] ovoid curves; " and that " the outer ends are most emphatic."


Fig. 23.
130. Now, as thus expressive of the great laws of radiation and inclosure, the main principle of this method of execution confirms, in a very interesting way, our conclusions respecting foliage composition. The reason of the last rule, that the outer end of the line is to be most emphatic, does not indeed at first appear; for the line at one end of a natural leaf is not more emphatic than the line at the other: but ultimately, in Harding's method, this darker part of the tonch stands more or less for the shade at the outer extremity of the leaf mass; and, as Harding uses these touches, they express as much of tree character as any mere habit of touch can express. But, unfortunately, there is another law of tree growth, quite as fixed as the law of radiation, which this and all other conventional modes of execution wholly lose sight of. This sceoud law is, that the radiating tendency shall be carried out only as a ruling spirit in reconcilement with perpetual individual caprice on the part of the separate leaves. So that the moment a tonch is monotonous, it must be also false, the liberty of the leaf individually being just as essential a truth, as its mity of growth with its companions in the radiating group.
131. It does not matter how small or apparently symmetrical the eluster may be, nor how large or vague. You can hardly havo a more formal one than 6 in Fig. 9, p. 47, nor a less formal one than this shoot of Spanish chestnut, shedding its leaves, Fig. 24; but in either of them, even the general reader, unpracticed in any of the previonsly recommended exercises, must see that there are wandering lines mixed with the radiating ones, and radiating lines with the wild ones: and if he takes the pen, and tries to copy either of these examples, he will find that neither play of hand to left nor to right, neither a free touch nor a firm touch, nor any learnable or describable tonch whatsocver, will enable
him to produce, currently, a resemblance of it; but that he must either draw it slowly or give it up. And (which makes the matter worse still) though gathering the bough, and putting it close to you, or seeing a piece of near foliage against the sky, you may draw the entire outline of the


Fig. 24
leaves, yet if the spray has light upon it, and is ever so little a way off, you will miss, as we have seen, a point of a leaf here, and an edge there; some of the surfaces will be confused by glitter, and some spotted with shade; and if you look carefully through this confusion for the edges or dark stems


Fig. 25.
which you really can see and put only those down, the result will be neither like Fig. 9 nor Fig. 24, but such an interrupted and puzzling piece of work as Fig. 25.*

[^22]132. Now, it is in the perfect acknowledgment and expression of these three laws that all good drawing of landscape consists. There is, first, the organic unity; the law, whether of radiation, or parallelism, or concurrent action, which rules the masses of herbs and trees, of rocks, and clonds, and wares; secondly, the individual liberty of the members subjected to these laws of unity; and, lastly, the mystery under which the separate character of each is more or less concealed.

I say; first, there must be observance of the ruling organic law. This is the first distinction between good artists and bad artists. Your common sketcher or bad painter puts his leaves on the trees as if they were moss tied to sticks; he cannot see the lines of action or growth; he seatters the shapeless clouds over his sky, not perceiving the sweeps of associated curves which the real clonds are following as they fly; and he breaks his mountain side into rugged fragments, wholly unconscious of the lines of foree with which the real rocks have risen, or of the lines of couch in which they repose. On the contrary, it is the main delight of the great draughtsman to trace these laws of goverument; and his tendency to crror is always in the exaggeration of their authority rather than in its denial.
133. Sccondly, I say, we have to show the individual character and liberty of the separate leaves, clouds, or rocks. And herein the great masters separate themselves finally from the inferior ones; for if the men of inferior genins ever express law at all, it is by the sacrifice of individuality. Thus, Salvator Rosa has great perception of the sweep of foliage and rolling of clouds, but never draws a single leaflet or mist wreath accurately. Similarly, Gainsborough, in his landscape, has great feeling for masses of form and harmony of color; but in the detail gives nothing but meaningless touches; not even so much as the species of tree, much less the variety of its leafage, being ever discernible. Now, although both these expressions of government and individuality are essential to masterly work, the individuality
is the more essential, and the more difficult of attainment; and, therefore, that attainment separates the great masters finally from the inferior ones. It is the more essential, because, in these matters of beautiful arrangement in visible things, the same rules hold that hold in moral things. It is a lamentable and unnatural thing to see a number of men subject to no government, actuated by no ruling principle, and associated by no common affection: but it would be a more lamentable thing still, were it possible, to see a number of men so oppressed into assimilation as to have no more any individual hope or character, no differences in aim, no dissimilarities of passion, no irregularities of judgment; a society in which no man could help another, since none would be feebler than himself; no man admire another, since none would be stronger than himself; no man be grateful to another, since by none he could be relieved; no man reverence another, since by none he could be instructed ; a society in which every soul would be as the syllable of a stammerer instead of the word of a speaker, in which every man would walk as in a frightful dream, seeing specters of himself, in everlasting multiplication, gliding helplessly around him in a specchless darkness. Therefore it is that perpetual difference; play, and change in groups of form are more essential to them even than their being subdued by somo great gathering law: the law is needful to them for their perfection and their power, but the difference is needful to them for their life.
134. And here it may be noted in passing, that, if you enjoy the pursuit of analogies and types, and have any ingenuity of judgment in discerning them, you may always accurately ascertain what are the noble characters in a piece of painting by merely considering what are the noble characters of man in his association with his fellows. What grace of manner and refinement of habit are in society, grace of line and refinement of form are in the association of visible objects. What advantage or harm there may be in sharpness, ruggedness, or quaintness in the dealings or conversations of
men; precisely that relative degree of adrantage or harm there is in them as elements of pictorial composition. What power is in liberty or relasation to strengthen or relieve human souls; that power precisely in the same relative degree, play and laxity of line have to strengthen or refresh the expression of a picture. And what goodness or greatness we can conceive to arise in companies of men, from chastity of thought, regularity of life, simplicity of custom, and balance of authority; precisely that kind of goodness and greatness may be given to a picture by the purity of its color, the severity of its forms, and the symmetry of its masses.
135. Youneed not be in the least afraid of pushing these analogies too far. They cannot be pushed too far; they are so precise and complete, that the farther you pursue them, the clearer, the more certain, the more useful you will find them. They will not fail you in one particular, or in any direction of inquiry. There is no moral vice, no moral virtue, which has not its precise prototype in the art of painting; so that you may at your will illustrate the moral habit by the art, or the art by the moral habit. Affection and discord, fretfulness and quietness, feebleness and firmness, luxury and purity, pride and modesty, and all other such habits, and erery conceivable modification and mingling of them, may be illustrated, with mathematical exactness, by conditions of line and color; and not merely these definable vices and virtues, but also every conceivable shade of human character and passion, from the righteous or unrighteous majesty of the king to the innocent or faultful simplicity of the shepherd boy.
136. The pursuit of this subject belongs properly, however, to the inrestigation of the higher branches of composition, matters which it would be quite useless to treat of in this book; and I only allude to them here, in order that you may understand how the utmost noblenesses of art are concerned in this minute work, to which I have set you in your beginning of it. For it is only by the closest attention, and the most noble execution, that it is possible to express these
varieties of individual character, on which all excellence of portraiture depends, whether of masses of mankind, or of groups of leaves.
137. Now you will be able to understand, among other matters, wherein consists the excellence, and wherein the shortcoming, of the tree-drawing of Harding. It is excellent in so far as it fondly observes, with more truth than any other work of the kind, the great laws of growth and action in trees: it fails,-and observe, not in a minor, but in the principal point,--because it cannot rightly render any one individual detail or incident of foliage. And in this it fails, not from mere carelessness or incompletion, but of necessity; the true drawing of detail being for evermore impossible to a hand which has contracted a habit of execution. The noble draughtsman draws a leaf, and stops, and says calmly,That leaf is of such and such a character; I will give him a friend who will entirely suit him: then he considers what his friend ought to be, and having determined, he draws his friend. This process may be as quick as lightning when the master is great-one of the sons of the giants; or it may be slow and timid: but the process is always gone through; no touch or form is ever added to another by a good painter without a mental determination and affirmation. But when the hand has got into a habit, leaf No. 1 necessitates leaf No. 2 ; you cannot stop, your hand is as a horse with the bit in its teeth; or rather is, for the time, a machine, throwing out leares to order and pattern, all alike. You must stop that hand of yours, however painfully; make it understand that it is not to have its own way any more, that it shall never more slip from one touch to another without orders; otherwise it is not you who are the master, but your fingers. You may therefore study Harding's drawing, and take pleasure in it;* and you may properly admire the dexterity

* His lithographic sketches, those for instance in the Park and the Forest, and his various lessons on foliage, possess greater merit than the more ambitious engravings in his Principles and Practice of Art. There are many useful remarks, however, dispersed through this latter work.
which applies the habit of the land so well, and produces results on the whole so satisfactory : but you must never copy it; otherwise your progress will be at once arrested. The utmost you can ever hope to do would be a sketch in Harding's manner, but of far inferior dexterity; for he has given his life's toil to gain lis dexterity, and you, I suppose, have other things to work at besides drawing. You would also incapacitate yourself from ever understanding what truly great work was, or what Nature was ; but, by the carnest and complete study of facts, you will gradually come to understand the one and love the other more and more, whether you can draw well yourself or not.

138. I have yet to say a few words respecting the third law above stated, that of mystery; the law, namely, that nothing is ever seen perfectly, but only by fragments, and under various conditions of obscurity.* This last fact renders the risible objects of Nature complete as a type of the human nature. We have, observe, first, Subordination; secondly, Individuality; lastly, and this not the least essential character, Incomprehensibility; a perpetual lesson, in every serrated point and shining rein which escapes or deceives our sight among the forest leares, how little we may hope to discern clearly, or judge justly, the rents and reins of the human heart; how much of all that is round us, in men's actions or spirits, which we at first think we understand, a closer and more loving watchfulness would show to be full of mystery, never to be either fathomed or withdrawn.
139. The expression of this final character in landscape has never been completely reached by any except Turner; nor can you hope to reach it at all until you have given much time to the practice of art. Only try always when you are sketching any object with a view to completion in light and shade, to draw only those parts of it which you really see definitely; preparing for the after development of the forms by chiaroscuro. It is this preparation by isolated touches for

[^23]a future arrangement of superimposed light and shade which renders the etchings of the Liber Studiorum so inestimable as examples, and so peculiar. The character exists more or less in them exactly in proportion to the pains that Turner has taken. Thus the Asacus and Hesperie was wrought out with the greatest possible care; and the principal branch on the near tree is etched as in Fig. 26. The work looks at first like a scholar's instead of a master's; but when the light and shade are added, every touch falls into its place, and a


Fig. 26.
perfect expression of grace and complexity results. Nay, even before the light and shade are added, you ought to be able to see that these irregular and broken lines, especially where the expression is given of the way the stem loses itself in the leaves, are more true than the monotonous though graceful leaf-drawing which, before Turner's time, had been employed, even by the best masters, in their distant masses. Fig. 27 is sufficiently characteristic of the manner of the old wood-cuts after Titian; in which, you see, the leaves are too much of one shape, like bunches of fruit; and the boughs
too completely seen, besides being somewhat soft and leathery in aspect, owing to the want of angles in their outline. By great men like Titian, this somewhat conventional structure was only given in haste to distant masses; and their exquisite delineation of the foreground, kept their conventionalism from degeneracy: but in the drawings of the Carracei and other derivative masters, the conventionalism prevails everywhere, and sinks gradually into scrawled work, like Fig. 28, about the worst which it is possible to get into the habit of using, though an ignorant person might perhaps suppose it more "free," and therefore better than Fig. 26. Note also, that in noble outline drawing, it does not follow that a bough is wrongly drawn, because it looks contracted unnaturally some-


Fig. 27.
where, as in Fig. 26, just above the foliage. Very often the muscular action which is to be expressed by the line runs into the middle of the branch, and the actual outline of the branch at that place may be dimly seen, or not at all; and it is then only by the future shade that its actual shape, or the cause of its disappearance, will be indicated.
140. One point more remains to be noted about trees, and I have done. In the minds of our ordinary watercolor artists a distant tree seems only to be conceived as a flat green blot, grouping pleasantly with other masses, and giving cool color to the landscape, but differing no wise, in texture, from the blots of other shapes which these painters use to express stones, or water, or figures. But as soon as you have drawn trees carefully a little while, you will be impressed, and impressed more strongly the better you draw them, with
the idea of their softness of surface. A distant tree is not a flat and even piece of color, but a more or less globular mass of a downy or bloomy texture, partly passing into a misty vagueness. I find, practically, this lovely softness of faraway trees the most difficult of all characters to reach, because it cannot be got by mere scratching or ronghening the surface, but is always associated with such delicate expressions of form and growth as are only imitable by very careful drawing. The penknife passed lightly over this careful drawing


Fig. 28.
will do a good deal; but you must accustom yourself, from the beginning, to aim much at this softness in the lines of the drawing itself, by crossing them delicately, and more or less effacing and confusing the edges. You must invent, according to the character of tree, various modes of execution adapted to express its texture ; but always keep this character of softness in your mind, and in your scope of aim; for in most landscapes it is the intention of Nature that the tenderness and transparent infinitude of her foliage should be felt, even at the far distance, in the most distinct opposition to the solid masses and flat surfaces of rocks or buildings.
141. II. We were, in the socond place, to consider a little the modes of representing water, of which important feature of landscape I have hardly said anything yet.

Water is expressed, in common drawings, by conventional lines, whose horizontality is supposed to convey the idea of its surface. In paintings, white dashes or bars of light are used for the same purpose.

But these and all other such expedients are vain and absurd. A piece of calm water always contains a picture in itself, an exquisite reflection of the objects above it. If you give the time necessary to draw these reflections, disturbing them here and there as you see the breeze or current disturb them, you will get the effect of the water; but if you have not patience to draw the reflections, no expedient will give you a true effect. The picture in the pool needs nearly as much delicate drawing as the picture above the pool; except only that if there be the least motion on the water, the horizontal lines of the images will be diffused and broken, while the rertical ones will remain decisive, and the oblique ones decisive in proportion to their stecpness.
142. A few close studies will soon teach you this: the only thing you need to be told is to watch carefully the lines of disturbance on the surface, as when a bird swims across it, or a fish rises, or the emrent plays round a stone, reed, or other obstacle. Take the greatest pains to get the curves of these lines true; the whole value of your careful drawing of the reflections may be lost by your admitting a single false curve of ripple from a wild duck's breast. And (as in other sulbjects) if you are dissatisfied with your result, alwass try for more unity and delicacy: if your reflections are only soft and gradated enough, they are nearly sure to give you a pleasant effect.* When you are taking pains, work the softer reflections, where they are drawn out by motion in the water, with touches as nearly horizontal as may be; but when you are in a hurry, indicate the place and play of the images with vertical lines. The actual construc-

[^24]tion of a calm elongated reflection is with horizontal lines: but it is often impossible to draw the descending shades delicately enough with a horizontal touch; and it is best always when you are in a hurry, and sometimes when you are not, to use the vertical touch. When the ripples are large, the reflections become shaken, and must be drawn with bold undulatory descending lines.
143. I need not, I should think, tell you that it is of the greatest possible importance to draw the curves of the shore rightly. Their perspective is, if not more subtle, at least more stringent than that of any other lines in Nature. It will not be detected br the general observer, if you miss the curve of a branch, or the sweep of a cloud, or the perspective of a building;* but erery intelligent spectator will feel the difference between a rightly-drawn bend of shore or shingle, and a false one. Absolutely right, in difficult river perspectives seen from leights, I beliese no one but Turner ever has been yet; and observe, there is vo rule for them. To develop the curve mathematically would require a knowledge of the exact quantity of water in the river, the shape of its bed, and the hardness of the rock or shore; and even with these data, the problem would be one which no mathematician could solve but approximatively. The instinct of the eye can do it; nothing else.
144. If, after a little study from Nature, you get puzzled by the great differences between the aspect of the reflected image and that of the object casting it; and if you wish to know the law of reflection, it is simply this: Suppose all the objects above the water actually reversed (not in appearance, but in fact) beneath the water, and precisely the same in form and in relative position, only all topsy-turry. Then, whaterer you could see, from the place in which you stand, of the solid objects so reversed under the water, you will see

[^25]in the reflection, always in the true perspective of the solid ohjects so reversed.

If you cannat quite understand this in looking at water, take a mirror, lay it horizontally on the table, put some books and papers upon it, and draw them and their reflections; moving them about, and watching how their reflections alter, and chiefly how their reflected colors and shades differ from their own colors and shades, by being brought into other oppositions. This difference in chiaroscuro is a more important character in water-painting than mere difference in form.
145. When you are drawing shallow or muddy water, you will see shadows on the bottom, or on the surface, continually modifying the reflections; and in a clear mountain stream, the most wonderful complications of effect resulting from the shadows and reflections of the stones in it, mingling with the aspect of the stones themselves seen through the water. Do not be frightened at the complexity; but, on the other hand, do not hope to render it hastily. Look at it well, making ont everything that you see, and distinguishing each component part of the effect. There will be, first, the stones seen through the water, distorted always by refraction, so that, if the general structure of the stone shows straight parallel lines above the water, you may be sure they will be bent where they enter it; then the reflection of the part of the stone above the water crosses and interferes with the part that is seen through it, so that you can hardly tell which is which; and wherever the reflection is darkest, you will see through the water best," and vice versâ. Then the real shadow of the stone crosses both these images, and where that shadow falls, it makes the water more reflective, and where the sunshine falls, you will see more of the surface of the water, and of any dust or motes that may be floating on it: but whether you are to see, at the same spot, most of the bottom of the water, or of the reflection of the objects abore, depends on the position of the eye. The more you look down into the water, the better you see objects through it; the more

[^26]you look along it, the eye being low, the more you see the reflection of objects above it. Hence the color of a given space of surface in a stream will entirely change while you stand still in the same spot, merely as you stoop or raise your head; and thus the colors with which water is painted are an indication of the position of the spectator, and comnected inseparably with the perspective of the shores. The most beautiful of all results that I know in mountain streams is when the water is shallow, and the stones at the bottom are rich reddish-orange and black, and the water is seen at an angle which exactly divides the visible colors between those of the stones and that of the sky, and the sky is of clear, full blue. The resulting purple, obtained by the blending of the blue and the orange-red, broken by the play of innumerable gradations in the stones, is indescribably lovely.
146. All this seems complicated enough already; but if there be a strong color in the clear water itself, as of green or blue in the Swiss lakes, all these phenomena are doubly involved; for the darker reflections now become of the color of the water. The reflection of a black gondola, for instance, at Venice, is never black, but pure dark green. And, farther, the color of the water itself is of three kinds: one, seen on the surface, is a kind of milky bloom; the next is seen where the waves let light through them, at their edges; and the third, shown as a change of color on the objects seen through the water. Thus, the same wave that makes a white object look of a clear blue, when seen through it, will take a red or violet-colored bloom on its surface, and will be made pure emerald green by transmitted sunshine through its edges. With all this, however, you are not much concerned at present, but I tell it you partly as a preparation for what we have afterwards to say about color, and partly that you may approach lakes and streams with reverence,* and study them as carefully as other things, not hoping to express them by a few horizontal dashes of white, or a few tremulons blots. $\dagger$

[^27]Not but that much may be done by tremulous blots, when you know precisely what you mean by them, as you will see by many of the Turner sketches, which are now framed at the National Gallery; but you must have painted water many and many a day-yes, and all day long-before you can hope to do anything like those.
147. III. Lastly. You may perhaps wonder why, before passing to the clonds, I say nothing special about ground. $\dagger$ But there is too much to be said about that to admit of my saying it here. You will find the principal laws of its structure examined at length in the fourth volume of Modern Painters; and if you can get that volume, and copy carefully Plate 21, which I have etched after Turner with great pains, it will give you as much help as you need in the linear expression of ground-surface. Strive to get the retirement and succession of masses in irregular ground: much may be done in this way by careful watching of the perspective diminutions of its herbage, as well as by contour; and much also by shadows. If you draw the shadows of leaves and tree trunks on any undulating ground with entire carefulness, you will be surprised to find how much they explain of the form and distance of the earth on which they fall.
148. Passing then to skies, note that there is this great peculiarity about sky subject, as distinguished from earth subject;-that the clouds, not being much liable to man's interference, are always beautifully arranged. You*camot be sure of this in any other features of landscape. The rock
so as to make the liquid definitely blue: fill a large white basin with the solution, and put anything you like to float on it, or lie in it; walunt shells, bits of wood, leaves of flowers, etc. Then study the effects of the reflections, and of the stems of the flowers or submerged portions of the floating objects, as they appear through the blue liquid; noting especially how, as you lower your head and look along the surface, you see the reflections clearly; and how, as you raise your head, you lose the reflections, and see the submerged stems clearly.
$\dagger$ Respecting Arehitectural Drawing, see the notice of the works of Prout in the Appendix,
on which the effect of a mountain scene especially depends is always precisely that which the roadmaker blasts or the landlord quarries; and the spot of green which Nature left with a special purpose by her dark forest sides, and finished with her most delicate grasses, is always that which the farmer plows or builds upon. But the clouds, though we can hide them with smoke, and mix them with poison, cannot be quarried nor built over, and they are always therefore gloriously arranged; so gloriously, that unless you have notable powers of memory you need not hope to approach the effect of any sky that interests you. For both its grace and its glow depend upon the united influence of every cloud within its compass: they all move and burn together in a marvelous harmony; not a cloud of them is out of its appointed place, or fails of its part in the choir: and if you are not able to recollect (which in the case of a complicated sky it is impossible you should) precisely the form and position of all the clouds at a given moment, you cannot draw the sky at all; for the clouds will not fit if you draw one part of them three or four minutes before another.
149. You must try therefore to help what memory you have, by sketching at the utmost possible speed the whole range of the clouds; marking, by any shorthand or symbolic work you can hit upon, the peculiar character of each, as transparent, or fleecy, or linear, or undulatory; giving afterwards such completion to the parts as your recollection will enable you to do. This, however, only when the sky is interesting from its general aspect; at other times, do not try to draw all the sky, but a single cloud: sometimes a round cumulus will stay five or six minutes quite steady enough to let you mark out his principal masses; and one or two white or crimson lines which cross the sumrise will often stay without serious change for as long. And in order to be the readier in drawing them, practice occasionally drawing lumps of cotton, which will teach rou better than any other stable thing the kind of softness there is in clouds. For you will find when you have made a few genuine studies of sky, and
then look at any ancient or modern painting, that ordinary artists have always fallen into one of two faults: either, in rounding the clouds, they make them as solid and hard-edged as a heap of stones tied up in a sack, or they represent them not as rounded at all, but as rague wreaths of mist or flat lights in the sky; and think they have done enough in leaving a little white paper between dashes of blue, or in taking an inregular space out with the sponge. Now clouds are not as solid as flour-sacks; but, on the other hand, they are ncither spongy nor flat. They are definite and rery beautiful forms of sculptured mist; sculptured is a perfectly accurate word; they are not more drifted into form than they are carced into form, the warm air around them cutting them into shape by absorbing the visible vapor beyond certain limits; hence their angular and fantastic outlines, as different from a swollen, spherical, or globular formation, on the one hand, as from that of flat films or shapeless mists on the other. And the worst of all is, that while these forms are difficult enough to draw on any terms, especially considering that they never stay quiet, they must be drawn also at greater disadrantage of light and shade than any others, the force of light in clonds being wholly unattainable by art; so that if we put shade enough to express their form as positively as it is expressed in reality, we must make them painfully too dark on the dark sides. Nevertheless, they are so beautiful, if you in the least succeed with them, that you will hardly, I think, lose courage.
150. Outline them often with the pen, as you can catch them here and there; one of the chief uses of doing this will be, not so much the memorandum so obtained, as the lesson you will get respecting the softness of the cloud-outlines. You will always find yourself at a loss to see where the outline really is; and when drawn it will always look hard and false, and will assuredly be cither too round or too square, however often you alter it, mercly passing from the one fault to the other and back again, the real cloud striking an inexpressible mean between roundness and squareness in all
its coils or battlements. I speak at present, of course, only of the cumulus cloud: the lighter wreaths and flakes of the upper sky cannot be outlined;--they can only be sketched, like locks of hair, by many lines of the pen. Firmly developed bars of cloud on the horizon are in general easy enough, and may be drawn with decision. When you have thus accustomed yourself a little to the placing and action of clonds, try to work out their light and shade, just as carefully as you do that of other things, looking exclusively for examples of treatment to the vigncttes in Rogers's Italy and Poems, and to the Liber Studiorum, unless you have access to some examples of Turner's own work. No other artist ever yet drew the sky: even Titian's clouds, and Tintoret's, are conventional. The clouds in the "Ben Arthur," "Source of Arveron," and "Calais Pier," are among the best of Turner's storm studies; and of the upper clouds, the rignettes to Rogers's Poems furnish as many examples as you need.
151. And now, as our first lesson was taken from the sky, so, for the present, let our last be. I do not advise you to be in any haste to master the contents of my next letter. If you have any real talent for drawing, you will take delight in the discoveries of natural loveliness, which the studies I have already proposed will lead you into, among the fields and hills; and be assured that the more quietly and singleheartedly you take each step in the art, the quicker, on the whole, will your progress be. I would rather, indeed, have discussed the subjects of the following letter at greater length, and in a separate work addressed to more adranced students; but as there are one or two things to be said on composition which may set the young artist's mind somewhat more at rest, or furnish him with defense from the urgency of illadvisers, I will glance over the main heads of the matter here; trusting that my doing so may not beguile you, my dear reader, from your serious work, or lead you to think me, in occupying part of this book with talk not altogether relevant to it, less entirely or

Faithfully yours,
J. Ruskin.

## LETTER III.

## ON COLOR AND COMPOSITION.

152. My dear Reader,-If you have been obedient, and have hitherto done all that I have told you, I trust it has not been without much subdued remonstrance, and some serious rexation. For I should be sorry if, when you were led by the course of your study to observe closely such things as are beautiful in color, you had not longed to paint them, and felt considerable difficulty in complying with your restriction to the use of black, or blue, or gray. You ought to love color, and to think nothing quite beautiful or perfect without it; and if you really do love it, for its own sake, and are not merely desirous to color hecause you think painting a finer thing than drawing, there is some chance you may color well. Nevertheless, you need not hope ever to produce anything more than pleasant helps to memory, or useful and suggestive sketches in color, unless you mean to be wholly an artist. You may, in the time which other rocations leave at your disposal, produce finished, beantifnl, and masterly drawings in light and shade. But to color well, requires your life. It cannot be done cheaper. The difficulty of doing right is increased-not twofold nor threefold, but a thousandfold, and more-by the addition of color to your work. For the chances are more than a thousand to one against your being right both in form and color with a given touch: it is difficult enough to be right in form, if you attend to that only; but when son have to attend, at the same moment, to a much more subtle thing than the form, the difficulty is strangely increased,-and multiplied almost to infinity by this great fact, that, while form is absolute, so
that you can say at the moment you draw any line that it is either right or wrong, color is wholly relative. Every hue throughout your work is altered by erery touch that you add in other places; so that what was warm a minute ago, becomes cold when you have put a hotter color in another place, and what was in harmony when you left it, becomes discordant as you set other colors beside it; so that every touch must be laid, not with a view to its effect at the time, but with a riew to its effect in futurity, the result upon it of all that is afterwards to be done being previonsly considered. You may easily understand that, this being so, nothing but the devotion of life, and great genius besides, can make a colorist.
153. But though you cannot produce finished colored drawings of any value, you may give yourself much pleasure, and be of great use to other people, by oceasionally sketching with a riew to eolor only; and preserving distinct statements of certain color facts-as that the harrest moon at rising was of such and such a red, and surrounded bs clouds of such and such a rosy gray ; that the mountains at evening were in truth so deep in purple; and the waves by the boat's side were indeed of that incredible green. This only, observe, if you have an eye for color; but you may presume that you lave this, if you enjoy color.
154. And, though of course rou should always give as much form to your subject as your attention to its color will admit of, remember that the whole value of what you are about depends, in a colored sketch, on the color merely. If the color is wrong, everything is wrong: just as, if you are singing, and sing false notes, it does not matter how true the words are. If rou sing at all, you must sing sweetly ; and if you color at all, you must color rightly. Give up all the form, rather than the slightest part of the color: just as, if you felt pourself in danger of a false note, you would give up the word, and sing a meaningless sound, if you felt that so you could save the note. Never mind though your houses are all tumbling down,-though your clouds are mere blots, and your trees mere knobs, and your sun and moon like
crooked sixpences,-so only that trees, clouds, houses, and sum or moon, are of the right colors. Of course, the discipline you have gone through will enable you to hint somothing of form, even in the fastest sweep of the brush; but do not let the thought of form hamper you in the least, when you begin to make colored memoranda. If you want the form of the subject, draw it in black and white. If you want its color, take its color, and be sure you have it, and not a spurious, treacherous, half-measured piece of mutual concession, with the colors all wrong, and the forms still anything but right. It is best to get into the habit of considering the colored work merely as supplementary to your other studies; making your careful drawings of the subject first, and then a colored memorandum separately, as shapcless as you like, but faithful in hue, and entirely minding its own business. This principle, however, bears chiefly on large and distant subjects: in foregrounds and near studies, the color cannot be had without a good deal of definition of form. For if you do not map the mosses on the stones accurately, you will not have the right quantity of color in each bit of moss pattern, and then none of the colors will look right; but it alwars simplifies the work much if you are clear as to your point of aim, and satisfied, when necessary, to fail of all but that.
155. Now, of course, if I were to enter into detail respecting coloring, which is the beginning and end of a painter's craft, I should need to make this a work in three volumes instead of three letters, and to illustrate it in the costliest way. I only hope, at present, to set you pleasantly and profitably to work, leaving you, within the tethering of certain leading-strings, to gather what advantages you can from the works of art of which every year brings a greater number within your reach; -and from the instruction which, every year, our rising artists will be more ready to give kindly, and better able to give wisely.
156. And, first, of materials. Use hard cake colors, not moist colors : grind a sufficient quantity of each on your palette every morning, keeping a separate plate, large and deep, for
colors to be used in broad washes, and wash both plate and palette every erening, so as to be able always to get good and pure color when you need it; and force yourself into cleanly and orderly habits about your colors. The two best colorists of modern times, Turner and Rossetti,* afford us, I am sorry to say, no confirmation of this precept by their practice. Turner was, and Rossetti is, as slovenly in all their procedures as men can well be; but the result of this was, with Turner, that the colors have altered in all his pictures, and in many of his drawings; and the result of it with Rossetti is, that though his colors are safe, he has sometimes to throw aside work that was half done, and begin over again. William Hunt, of the Old Water-color, is rery neat in his practice; so, I beliere, is Mulready ; so is John Lewis; and so are the leading Pre-Raphaelites, Rossetti only excepted. And there can be no doubt about the goodness of the advice, if it were only for this reason, that the more particular you are about your colors the more you will get into a deliberate and methodical habit in using them, and all true speed in coloring comes of this deliberation.
157. Use Chinese white, well ground, to mix with your colors in order to pale them, instead of a quantity of water. You will thus be able to shape your masses more quietly, and play the colors about with more ease; they will not damp your paper so much, and you will be able to go on continualls, and lay forms of passing cloud and other fugitive or delicately shaped lights, otherwise unattainable except by time.
158. This mixing of white with the pigments, so as to render them opaque, constitutes body-color drawing as opposed to transparent-color drawing, and you will, perhaps,

[^28]have it often said to you that this body-color is "illegitimate." It is just as legitimate as oil-painting, being, so far as liandling is concerned, the same process, only without its uncleanliness, its unwholesomeness, or its inconvenience; for oil will not dry quickly, nor carry safely, nor give the same effects of atmosphere without tenfold labor. And if you hear it said that the body-color looks chalky or opaque, and, as is very likely, think so yourself, be yet assured of this, that though certain effects of glow and transparencies of gloom are not to be reached withont transparent color, those glows and glonms are not the noblest aim of art. After many years' study of the rarions results of fresco and oil painting in Italy, and of body-color and transparent color in England, I am now entirely convinced that the greatest things that are to be done in art must be done in dead color. The habit of depending on rarnish or on lucid tints for transparency, makes the painter comparatively lose sight of the nobler translucence which is obtained by breaking various colors amidst each other : and even when, as by Correggio, exquisite play of hue is joined with exquisite transparency, the delight in the depth almost always leads the painter into mean and false chiaroscuro; it leads him to like dark backgrounds instead of luminous ones,* and to enjoy, in general, quality

[^29]of color more than grandeur of composition, and confined light rather than open sunshine: so that the really greatest thoughts of the greatest men have always, so far as I remember, been reached in dead color, and the noblest oil pictures of Tintoret and Veronese are those which are likest frescoes.
159. Besides all this, the fact is, that though sometimes a little chalky and coarse-looking body-color is, in a sketch, infinitely liker Nature than transparent color: the bloom and mist of distance are accurately and instantly represented by the film of opaque blue (quite accurately, I think, by nothing else) ; and for ground, rocks, and buildings, the earthy and solid surface is, of course, always truer than the most finished and earefully wrought work in transparent tints can ever be.
160. Against one thing, howerer, I must steadily caution you. All kinds of color are equally illegitimate, if you think they will allow you to alter at your pleasure, or blunder at your ease. There is no vehicle or method of color which almits of alteration or repentance; you must be right at once, or never; and you might as well hope to catch a rifle bullet in your hand, and put it straight, when it was going wrong, as to recover a tint once spoiled. The secret of all good color in oil, water, or anything else, lies primarily in that sentence spoken to me by Mulready: "Know what you have to do." The process may be a long one, perhaps: you may have to ground with one color; to touch it with fragments of a second; to crumble a third into the interstices; a fourth into the interstices of the third; to glaze the whole with a fifth; and to re-enforce in points with a sixth: but whether you have one, or ten, or twenty processes to go through, you must go straight through them knowingly and foreseeingly all the way; and if you get the thing once wrong, there is no hope
iu such matters; but there can be no question that luster is destructive of loveliness in color, as it is of intelligibility in form. Whatever may be the pride of a young beauty in the knowledge that her eyes shine (though perhaps even eyes are most beautiful in dimness), she would be sorry if her cheeks did; and which of us would wish to polish a rose ?
for you but in washing or scraping boldly down to the whito ground, and beginning again.
161. The drawing in body-color will tend to teach you all this, more than any other method, and above all it will prevent you from falling into the pestilent habit of sponging to get texture; a trick which has nearly ruined our modern watercolor school of art. There are sometimes places in which a skillful artist will roughen his paper a little to get certain conditions of dusty color with more ease than he could otherwise; and sometimes a skillfully rased piece of paper will, in the midst of transparent tints, answer nearly the purpose of chalky body-color in representing the surfaces of rocks or building. But artifices of this kind are always treacherous in a tyro's hands, tempting him to trust in them: and you had better always work on white or gray paper as smooth as silk;* and never disturb the surface of your color or paper, except finally to scratch out the very highest lights if you are using transparent colors.
162. I have said above that body-color drawing will teach you the use of color better than working with merely transparent tints; but this is not because the process is an casier one, but because it is a more complete one, and also because it involves some working with transparent tints in the best way. You are not to think that because you use body-color you may make any kind of mess that you like, and yet get out of it. But you are to arail yourself of the characters of your material, which enable you most nearly to imitate the processes of Nature. Thus, suppose you have a red rocky cliff to sketch, with blue clouds floating over it. You paint your cliff first firmly, then take vour blue, mixing it to such a tint (and here is a great part of the skill neerled) that when it is laid over the red, in the thickness required for the effect

[^30]of the mist, the warm rock-color showing through the blue cloud-color, may bring it to exactly the hue you want (your upper tint, therefore, must be mixed colder than you want it.) ; then you lay it on, rarying it as you strike it, getting the forms of the mist at once, and, if it be riglitly done, with exquisite quality of color, from the warm tint's showing through and between the particles of the other. When it is dry, you may add a little color to retouch the edges where they want shape, or heighten the lights where they want roundness, or put another tone over the whole: but you can take none away. If you touch or disturb the surface, or by any untoward accident mix the under and upper colors together, all is lost irrecorerably. Begin vour drawing from the ground again if you like, or throw it into the fire if you like. But do not waste time in trying to mend it.*
163. This diseussion of the relative merits of transparent and opaque color has, howerer, led us a little beyond the point where we should have begun; we must go back to our palette, if you please. Get a cake of each of the hard eolors named in the note below $\dagger$ and try experiments on their simple com-

[^31]Antwerp blue and Prussian blue are not very permanent colors, but you need not care much about permanence in your work as yct, and they are both beautiful; while Indigo is marked by Field as more fugitive still, aud is very ugly. Hooker's green is a mixed color, put in the box merely
binations, by mixing each color with every other. If you like to do it in an orderly way, you may prepare a squared piece of pasteboard, and put the pure colors in columns at the top and side; the mixed tints being given at the intersections, thus (the letters standing for colors):

| b | c | d | e | f |
| :---: | :---: | :---: | :---: | :---: |
| a a b | a c | a d | a e | a f |
| b | b c | b d | b e | b f |
| c | - | c d | ce | c f |
| d - | - | - | d e | d f |
| e - | - | - | - | e f |

This will give you some general notion of the characters of mixed tints of two colors only, and it is better in practice to confine rourself as much as possible to these, and to get more complicated colors, either by putting the third over the first blended tint, or by putting the third into its interstices. Nothing but watchful practice will teach you the effects that colors have on each other when thus put over, or beside, each other.
164. Then you have got a little used to the principal combinations, place yourself at a window which the sun does not shine in at, commanding some simple piece of landscape: outline this landscape roughly; then take a picce of white cardboard, cut out a hole in it about the size of a large pea; and supposing r is the room, a d the window, and you are sitting at $a$, Fig. 29, hold this cardboard a little outside of the window, upright, and in the direction $b d$, parallel to the side of the window, or a little turned, so as to catcl more light, as at $a d$, never turned as at $c d$, or the paper will be
to save you loss of time in mixing gamboge and Prussian blue. No. 1 is the best tint of it. Violet carmine is a noble color for laying broken shadows with, to be worked into afterwards with other colors.

If you wish to take up coloring seriously you had better get Field's " Chromatography" at once; only do not attend to anything it says about principles or harmonies of color; but ouly to its statements of practical serviceableness in pigments, and of their operations on each other when mixed, etc.
dark. Then you will see the landscape, bit by bit, through the circular lole. Match the colors of each important bit as nearly as you can, mixing your tints with white, beside the aperture. When matched, put a touch of the same tint at the top of your paper, writing under it: "dark tree color," " hill color," " field color," as the case may be. Then wash the tint away from beside the opening, and the cardboard will be ready to match another piece of the landscape." When you have got the colors of the principal masses thus indicater, lay on a piece of each in your sketch in its right place, and then proceed to complete the sketch in harmony with them, by your eye.


FIG. 29.
165. In the course of your early experiments, you will be much struck by two things : the first, the inimitable brillianey of light in sky and in sun-lighted things; and the second, that among the tints which you can imitate, those which you thonght the darkest will continually turn out to be in reality the lightest. Darkness of objects is estimated by us, under ordinary circumstances, much more by knowledge than by

[^32]sight; thus, a cedar or Scotch fir, at 200 yards off, will be thought of darker green than an elm or oak near us; because we know by experience that the peculiar color they exhibit, at that distance, is the sign of darkness of foliage. But when we try them through the cardboard, the near oak will be found, indeed, rather dark green, and the distant cedar, perhaps, pale gray-purple. The quantity of purple and gray in Nature is, by the way, another somewhat surprising subject of discovery.
166. Well, having ascertained thus jour principal tints, you may proceed to fill up your sketch; in doing which observe these following particulars:
(1.) Many portions of your subject appeared through the aperture in the paper brighter than the paper, as sky, sunlighted grass, etc. Leare these portions, for the present, white; and proceed with the parts of which you can match the tints.
(2.) As you tried your subject with the cardboard, you must have observed how many changes of hue took place over small spaces. In filling up your work, try to educate your eye to perceive these differences of hue without the help of the cardboard, and lay them deliberately, like a mosaicworker, as separate colors, preparing each carefully on your palette, and laying it as if it were a patch of colored cloth, cut out, to be fitted neatly by its edge to the next patch; so that the fault of your work may be, not a slurred or misty look, but a patched bed-cover look, as if it had all been cut out with scissors. For instance, in drawing the trunk of a birch tree, there will be probably white high lights, then a pale rosy gray round them on the light side, then a (probably greenish) deeper gray on the dark side, varied by reflected colors, and, over all, rich black strips of bark and brown spots of moss. Lay first the rosy gray, leaving white for the high lights and for the spots of moss, and not touching the dark side. Then lay the gray for the dark side, fitting it well up to the rosy gray of the light, learing also in this darker gray the white paper in the places for the black and
brown moss; then prepare the moss colors separately for each spot, and lay each in the white place left for it. Not one grain of white, except that purposely left for the high lights, must be risible when the work is done, even through a mag-nifying-glass, so cunningly must you fit the edges to each other. Finally, take your background colors, and put them on each side of the tree trunk, fitting them carefully to its edge.
167. Fine work you would make of this, wouldn't you, if you had not learned to draw first, and could not now draw a good outline for the stem, much less terminate a color mass in the outline you wanted?

Your work will look very odd for some time, when you first begin to paint in this way, and before sou can modify it, as I shall tell you presently how; but never mind; it is of the greatest possible importance that you should practice this separate laying on of the hues, for all good coloring finally depends on it. It is, indeed, often necessary, and sometimes desirable, to lay one color and form boldly over another : thus, in laying leares on blue sky, it is impossible always in large pictures, or when pressed for time, to fill in the blue through the interstices of the leares; and the great Venetians constantly lay their blue ground first, and then, haring let it dry, strike the golden brown over it in the form of the leaf, learing the under blue to shine through the gold, and subdue it to the olive-green they want. But in the most precious and perfect work each leaf is inlaid, and the blue worked romed it ; and, whether you use one or other mode of getting your result, it is equally necessary to be absolute and decisive in your laying the color. Either your ground must be laid firmly first, and then your upper color struck upon it in perfect form, forever, thenceforward, unalterable ; or else the two colors must be individually put in their places, and led up to each other till ther meet at their appointed border, equally, thenceforward, unchangeable. Either process, you see, inrolves absolute decision. If you once begin to slur, or change, or sketch, or try this way and that with your color, it is all
over with it and with you. You will continually see bad coprists trying to imitate the Venctians, by daubing their colors about, and retouching, and finishing, and softening: when every touch and every added hue only lead them farther into chaos. There is a dog between two children in a Veronese in the Lonrre, which gives the copyists much employment. He has a dark gromnd behind him, which Veronese has painted first, and then when it was dry, or nearly so, struck the locks of the dog's white hair over it with some half-dozen curling sweeps of his brush, right at once, and forever. Had one line or hair of them gone wrong, it would have been wrong forever; no retouching conld have mended it. The poor copyists daub in first some background, and then some dog's hair; then retouch the background, then the hair; work for hours at it, expecting it always to come right to-morrow-" when it is finished." They may work for conturics at it, and they will never do it. If they can do it with Yeronesc's allowance of work, half a dozen sweeps of the hand over the dark background, well ; if not, they may ask the dog himself whether it will ever come right, and get true answer from him-on Launce's conditions: "If he say 'ay,' it will; if he say 'no,' it will ; if he shake his tail and say nothing, it will."
168. (3.) Whenever you lay on a mass of color, be sure that however large it may be, or however small, it shall be gradated. No color exists in Nature moder ordinary circumstances without gradation. If you do not see this, it is the fault of your inexperience: you will see it in due time, if Yon practice enough. But in general you may sec it at once. In the birch trunk, for instance, the rosy gray must be gradated by the roundness of the stem till it meets the shaded side; similarly the shaded side is gradated by reflected light. Accordingly, whether by adding water, or white paint, or by unequal force of touch (this you will do at pleasure, according to the texture you wish to produce), you must, in every tint you lay on, make it a little paler at one part than another, and get an cven gradation between the two depths.

This is very like laying down a formal law or recipe for you; but you will find it is merely the assertion of a natural fact. It is not indeed physically impossible to meet with an ungradated piece of color, but it is so supremely improbable, that you had better get into the habit of asking yourself invariably, when you are going to copy a tint-not "Is that gradated ?" but " Which way is that gradated ?" and at least in ninety-nine out of a hundred instances, you will be able to answer decisively after a careful glance, though the gradation may hare been so subtle that you did not see it at first. And it does not matter how small the touch of color may be, though not larger than the smallest pin's head, if one part of it is not darker than the rest, it is a bad touch; for it is not merely because the natural fact is so, that your color should be gradated; the preciousness and pleasantness of the color itself depends more on this than on any other of its qualities, for gradation is to colors just what curvature is to lines, both being felt to be beantiful by the pure instinct of every hmman mind, and both, considered as types, expressing the law of gradual change and progress in the limman soul itself. What the difference is in mere beanty between a gradated and ungradated color, may be seen easily by laying an even tint of rose-color on paper, and putting a rose leaf beside it. The victorious beauty of the rose as compared with other flowers, depends wholly on the delicacy and quantity of its color gradations, all other flowers being either less rich in gradation, not having so many folds of leaf; or less tender, being patched and reined instead of flushed.
169. (4.) But obserre, it is not enough in general that color should be gradated by being made merely paler or darker at one place than another. Gencrally color changes as it diminishes, and is not merely darker at one spot, but also purer at one spot than anywhere else. It does not in the least follow that the darkest spots should be the purest; still less so that the lightest should be the purest. Very often the two gradations more or less cross each other, one passing in one direction from paleness to darkness, another in another
direction from purity to dullness, but there will almost always be both of them, however reconciled; and you must never be satisfied with a piece of color until you have got both: that is to say, every piece of blue that you lay on must be quite blue only at some given spot, nor that a large spot; and must be gradated from that into less pure blue, -grayish blue, or greenish blue, or purplish blue,-over all the rest of the space it occupies. And this you must do in one of three ways: either, while the color is wet, mix with it the color which is to subdue it, adding gradually a little more and a little more; or else, when the color is quite dry, strike a gradated touch of another color over it, leaving only a point of the first tint visible; or else, lay the subduing tints on in small touches, as in the exercise of tinting the chessboard. Of each of these methods I have something to tell you separately; but that is distinct from the subject of gradation, which I must not quit without once more pressing upon you the preëminent necessity of introducing it everywhere. I have profound dislike of anything like habit of hand, and yet, in this one instance, I feel almost tempted to encourage you to get into a habit of never tonching paper with color, without securing a gradation. You will not, in Turner's largest oil pictures, perhaps six or seven feet long by four or five high, find one spot of color as large as a grain of wheat ungradated: and you will find in practice, that brilliancy of he, and vigor of light, and even the aspect of transpareney in shade, are essentially dependent on this character alone; hardness, coldness, and opacity resulting far more from equality of color than from nature of color. Give me some mud off a city crossing, some ocher out of a gravel pit, a little whitening, and some coal-dust, and I will paint you a luminous picture, if you give me time to gradate my mud, and subdue my dust: but though you had the red of the rubs, the blue of the gentian, snow for the light, and amber for the gold, you cannot paint a luminous picture, if you keep the masses of those colors unbroken in purity, and unvarying in depth.
170. (5.) Next, note the three processes by which gradation and other characters are to be obtained:
A. Mixing while the color is wet.

You may be confused by my first telling you to lay on the hues in separate patches, and then telling you to mix hues logether as you lay them on: but the separate masses are to be laid, when colors distinctly oppose each other at a given limit; the hues to be mixed, when they palpitate one through the other, or fade one into the other. It is better to err a little on the distinct side. Thus I told you to paint the dark and light sides of the birch trunk separately, though, in reality, the two tints change, as the trunk turns away from the light, gradually one into the other; and, after being laid separately on, will need some farther tonching to harmonize them: but they do so in a very narrow space, marked distinctly all the way up the trunk, and it is easier and safer, therefore, to keep them separate at first. Whereas it often happens that the whole beanty of two colors will depend on the one being continued well through the other, and playing in the midst of it: blue and green often do so in water; blue and gray, or purple and scarlet, in sky: in hundreds of such instances the most beautiful and truthful results may be obtained by laying one color into the other while wet; judging wisely how far it will spread, or blending it with the brush in somewhat thicker consistence of wet bodr-color; only observe, never mix in this way two mixtures; let the color you lay into the other be always a simple, not a compound tint.
171. B. Laying one color over another.

If you lay on a solid touch of vermilion, and after it is quite dry, strike a little very wet carmine quickly over it, you will obtain a much more brilliant red than by mixing the carmine and vermilion. Similarly, if ron lay a dark color first, and strike a little blue or white borly-color lightly orer it, you will get a more beautiful gray than by mixing the color and the blue or white. In very perfect painting, artifices of this kind are continually used; but I would not
have you trust much to them: they are apt to make you think too much of quality of color. I should like you to depend on little more than the dead colors, simply laid on, only observe always this, that the less color you do the work with, the better it will alwars be:* so that if you had laid a red color, and you want a purple one above, do not mix the purple on your palette and lay it on so thick as to overpower the red, but take a little thin blue from your palette, and lay it lightly over the red, so as to let the red be scen through, and thus produce the required purple; and if you want a green hue over a blue one, do not lay a quantity of green on the blue, but a little sellow, and so on, alwars bringing the under color into scrvice as far as you possibly can. If, however, the color beneath is wholly opposed to the one rou have to lay on, as, suppose, if green is to be laid over searlet, you must either remore the required parts of the under color daintily first with your knife, or with water; or else, lay solid white over it massively, and leave that to dry, and then glaze the white with the upper color. This is better, in general, than laying the upper color itself so thick as to conquer the ground, which, in fact, if it be a transparent color, you cannot do. Thus, if you have to strike warm boughs and leaves of trees orer blue sky, and they are too intricate to have their places left for them in laying the blue, it is better to lay them first in solid white, and then glaze with sienna and ocher, than to mix the sienna and white; though, of course, the process is longer and more troublesome. Nerertheless, if the forms of tonches required are very delicate, the after glazing is impossible. You must then mix the warm color thick at onee, and so use it: and this is often necessary for delicate grasses, and such other fine threads of light in foreground work.

[^33]172. C. Breaking one color in small points through or over another.

This is the most important of all processes in good modern* oil and water-color painting, but you need not hope to attain very great skill in it. To do it well is very laborious, and requires such skill and delicacy of hand as can only be acquired by unceasing practice. But you will find advantage in noting the following points:
173. (a.) In distant effects of rich subject, wood, or rippled water, or broken clouds, much may be done by touches or crumbling dashes of rather dry color, with other colors afterwards put cunningly into the interstices. The more you practice this, when the subject evidently calls for it, the more your eye will enjoy the higher qualities of color. The process is, in fact, the carrying out of the principle of separate colors to the utmost possible refinement; using atoms of color in juxtaposition, instead of large spaces. And note, in filling up minute interstices of this kind, that if you want the color you fill them with to show brightly, it is better to put a rather positive point of it, with a little white left beside or round it in the interstice, than to put a pale tint of the color over the whole interstice. Yellow or orange will hardly show, if pale, in small spaces; but they show brightly in firm touches, however small, with white beside them.
174. (b.) If a color is to be darkened by superimposed portions of another, it is, in many cases, better to lay the uppermost color in rather vigorous small touches, like finely chopped straw, over the under one, than to lay it on as a tint, for two reasons: the first, that the play of the two colors together is pleasant to the eye ; the second, that much expression of form may be got by wise administration of the upper dark touches. In distant mountains they may be made pines of, or broken crags, or villages, or stoncs, or whatever you choose ; in clouds they may indicate the direction of the rain,

[^34]the roll and outline of the cloud masses; and in water, the minor waves. All noble effects of dark atmosphere are got in good water-color drawing by these two expedients, interlacing the colors, or retouching the lower one with fine darker drawing in an upper. Sponging and washing for dark atmospheric effect is barbarous, and mere tyro's work, though it is often useful for passages of delicate atmospheric light.
175. (c.) When you have time, practice the production of mixed tints by interlaced touches of the pure colors out of which they are formed, and use the process at the parts of your sketches where you wish to get rich and luscious effects. Study the works of William Hunt, of the Old Water-color Society, in this respect, continually, and make frequent memoranda of the variegations in flowers; not painting the flower completely, but laying the ground color of one petal, and painting the spots on it with studious precision: a series of single petals of lilies, geraniums, tulips, etc., numbered with proper reference to their position in the flower, will be interesting to you on many grounds besides those of art. Be careful to get the gradated distribution of the spots well followed in the calceolarias, foxglores, and the like; and work out the odd, indefinite hes of the spots themsclves with minute grains of pure interlaced color, otherwise you will never get their richness or bloom. You will be surprised to find as you do this, first, the miversality of the law of gradation we have so much insisted upon ; secondly, that Nature is just as economical of her fine colors as I have told you to be of yours. You would think, by the way she paints, that her colors cost her something enormons; she will only give you a single pure touch, just where the petal turns into light; but down in the bell all is subdued, and under the petal all is suludued, even in the showiest flower. What you thought was bright blue is, when you look close, only dusty gray, or green, or purple, or cerery color in the world at once, only a single gleam or streak of pure blue in the center of it. And so with all her colors. Sometimes I have really thought her miserliness intolerable: in a gentian,
for instance, the way she economizes her ultramarine down in the bell is a little too bad.*
176. Next, respecting general tone. I said, just now, that, for the sake of students, my tax should not be laid on black or on white pigments ; but if you mean to be a colorist, you must lay a tax on them yourself when you begin to use true color; that is to say, you must use them little, and make of them much. There is no better test of your color tones being good, than jour having made the white in your picture precious, and the black conspicuous.
177. I say, first, the white precious. I do not mean merely glittering or brilliant: it is easy to scratch white seagulls out of black clouds, and dot clumsy foliage with chalky dew ; but when white is well managed, it ought to be strangely delicious,-tender as well as bright,-like inlaid mother of pearl, or white roses washed in milk. The ere ought to seek it for rest, brilliant though it may be ; and to feel it as a space of strange, heavenly paleness in the midst of the flushing of the colors. This effect you can only reach by general depth of middle tint, by absolutely refusing to allow any white to exist except where you need it, and by keeping the white itself subdued by gray, except at a few points of chicf luster.
178. Secondly, you must make the black conspicuous. Howerer small a point of black may be, it ought to catch the eye, otherwise your work is too heavy in the shadow. All the ordinary shadows should be of some color,-never black, nor approaching black, they should be evidently and always of a luminous nature, and the black should look strange among them; never occurring except in a black object, or in small points indicative of intense shade in the very center of masses of shadow. Shadows of absolutely negative gray, howerer, may be beantifnlly used with white, or with gold; but still though the black thus, in subdued strength, becomes spacious, it should always be conspicuous; the spectator should notice this gray neutrality with some wonder, and
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\text { * See Note } 6 \text { in Appendix I. }
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enjoy, all the more intensely on account of it, the gold color and the white which it relieves. Of all the great colorists Velasquez is the greatest master of the black chords. His black is more precious than most other people's crimson.
179. It is not, howerer, only white and black which you must make valuable; you must give rare worth to every color you use; but the white and black ought to separate themselves quaintly from the rest, while the other colors should be continually passing one into the other, being all evidently companions in the same gay world; while the white, black, and neutral gray should stand monkishly aloof in the midst of them. You may melt your crimson into purple, your purple into blue, and your blue into green, but you must not melt any of them into black. You should, however, try, as I said, to give preciousness to all your colors; and this especially by never using a grain more than will just do the work, and giving each hue the highest value by opposition. All fine coloring, like fine drawing, is delicate; and so delicate that if, at last, you see the color you are putting on, yon are putting on too much. You ought to feel a change wrought in the general tone, by touches of color which individually are too pale to be scen; and if there is one atom of any color in the whole pieture which is unnecessary to it, that atom hurts it.
180. Notice also that nearly all good compound colors are odd colors. You shall look at a hue in a good painter's work ten minutes before you know what to call it. Iou thought it was brown, presently you feel that it is red; next that there is, somehow, rellow in it; presently afterwards that there is blne in it. If you try to cope it you will always find your color too warm or too cold-no color in the box will seem to have an affinity with it; and yet it will be as pure as if it were laid at a single tonch with a single color.
181. As to the choice and harmony of colors in general, if youl cannot choose and harmonize them by instinct, you will never do it at all. If you need examples of utterly harsh and horrible color, you may find plenty given in treat-
ises upon coloring, to illustrate the laws of harmony; and if you want to color beautifully, color as best pleases yourself at quiet times, not so as to catch the eye, nor look as if it were clever or difficult to color in that way, but so that the color may be pleasant to you when you are happy or thoughtful. Look much at the morning and evening sky, and much at simple flowers-dog-roses, wood-hyacinths, riolets, poppies, thistles, heather, and such like,-as Nature arranges them in the woods and fields. If ever any scientific person tells you that two colors are "discordant," make a note of the two colors, and put them together whenever you can. I have actually heard people say that blue and green were discordant; the two colors which Nature seems to intend never to be separated, and never to be felt, either of them, in its full beauty without the other!-a peacock's neck, or a blue sky through green leaves, or a blue ware with green lights through it, being precisely the loveliest things, next to clouds at sunrise, in this colored world of ours. If you have a good eye for colors, you will soon find out how constantly Nature puts purple and green together, purple and scarlet, green and blue, yellow and neutral gray, and the like; and how she strikes these color-concords for general tones, and then works into them with innumerable subordinate ones; and you will gradually come to like what she does, and find out new and beautiful chords of color in her work every day. If you enjoy them, depend upon it you will paint them to a certain point right: or, at least, if you do not enjor them, you are certain to paint them wrong. If color does not give you intense pleasure, let it alone; depend upon it, sou are only tormenting the eyes and senses of people who feel color, whenever you touch it; and that is unkind and improper.
182. You will find, also, your power of coloring depend much on your state of health and right balance of mind; when you are fatigned or ill you will not see colors well, and when you are ill-tempered you will not choose them well: thus, though not infallibly a test of character in individuals, color power is a great sign of mental health in nations;
when they are in a state of intellectual decline, their coloring always gets dull.* You must also take great care not to be misled loy affected talk about colors from people who have not the gift of it: numbers are eager and voluble about it who probably never in all their lives received one genuine color-sensation. The modern religionists of the schoul of Overbeck are just like people who eat slate-pencil and chalk, and assure eversbody that they are nicer and purer than strawberries and plums.
183. Take care also never to be misled into any idea that color can help or display form; color $\dagger$ always disguises form, and is meant to do so.
184. It is a favorite dogma among modern writers on color that "warm colors" (reds and yellows) "approach," or express nearness, and "cold colors" (blue and gray) "retire," or express distance. So far is this from being the case, that no expression of distance in the world is so great as that of the gold and orange in twilight sky. Colors, as such, are absolutely inexpressive respecting distance. It is their quality (as depth, delicacy, ete.) which expresses distance, not their tint. A blue bandbox set on the same

[^35]shelf with a yellow one will not look an inch farther off, but a red or orange cloud, in the upper sky, will alwars appear to be berond a blue cloud close to us, as it is in reality. It is quite true that in certain objects, blue is a sign of distance ; but that is not because blue is a retiring color, but because the mist in the air is blue, and therefore any warm color which has not strength of light enough to pierce the mist is lost or subdued in its blue: but blue is no more, on this account, a "retiring color," than brown is a retiring color, because, when stones are seen through brown water, the deeper thes lie the browner they look; or than sellow is a retiring color, because, when objects are seen through a London fog, the farther off they are the yellower they look. Neither blue, nor yellow, nor red, can have, as such, the smallest power of expressing either nearness or distance: they express them only under the peculiar circumstances which render them at the moment, or in that place, signs of nearness or distance. Thus, vivid orange in an orange is a sign of nearness, for if you put the orange a great way off, its color will not look so bright; but vivid orange in sky is a sign of distance, because you cannot get the color of orange in a cloud near rou. So purple in a violet or a hyacinth is a sign of nearness, because the closer you look at them the more purple you see. But purple in a mountain is a sign of distance, because a mountain close to you is not purple, but green or gray. It mar, indeed, be generally assumed that a tender or pale color will more or less express distance, and a powerful or dark color nearness; but even this is not always so. Heathery hills will usually give a pale and tender purple near, and an intense and dark purple far amar; the rose color of sunset on snow is pale on the snow at your feet, deep and full on the snow in the distance; and the green of a Swiss lake is pale iu the clear wares on the beach, but intense as an emerald in the sunstreak six miles from shore. And in any case, when the foreground is in strong light, with much water about it, or white surface, casting intense reflections, all its colors may be perfectly delicate, pale, and
faint; while the distance, when it is in shadow, may relieve the whole foreground with intense darks of purple, blue green, or ultramarine blue. So that, on the whole, it is quite hopeless and absurd to expect any help from laws of "aërial perspective." Look for the natural effects, and set them down as fully as you can, and as faithfully, and never alter a color because it won't look in its right place. Put the color strong, if it be strong, though far off; faint, if it be faint, thongh close to you. Why should you suppose that Nature always means you to know exactly how far one thing is from another? She certainly intends you always to enjoy her coloring, but she does not wish you always to measure her space. You would be hard put to it, every time you painted the sun setting, if you had to express his $95,000,000$ miles of distance in "aërial perspective."
185. There is, howerer, I think, one law about distance, which has some claims to be considered a constant one: namely, that dullness and heaviness of color are more or less indicative of nearness. All distant color is pure color: it mar not be bright, but it is clear and lovely, not opaque nor soiled; for the air and light coming between us and any earthy or imperfect color, purify or harmonize it ; hence a bad colorist is peculiarly incapable of expressing distance. I do not of course mean that you are to use bad colors in your foreground by way of making it come forward; but only that a failure in color, there, will not put it out of its place; while a failure in color in the distance will at once do away with its remoteness; four dull-colored foreground will still be a foreground, though ill-painted; but your illpainted distance will not be merely a dull distance,-it will be no distance at all.
186. I have only one thing more to advise you, namely, never to color petulantly or hurriedly. You will not, indeed, be able, if you attend properly to your coloring, to get anything like the quantity of form you could in a chiaroscuro sketch; nevertheless, if you do not dash or rush at your work, nor do it lazily, you may always get enough form to be satis-
factory. An extra quarter of an hour, distributed in quietness over the course of the whole study, may just make the difference between a quite intelligible drawing, and a slovenly and obscure one. If you determine well beforehand what outline each piece of color is to have, and, when it is on the paper, guide it without nervousness, as far as you can, into the form required; and then, after it is dry, consider thoroughly what touches are needed to complete it, before laying one of them on; you will be surprised to find how masterly the work will soon look, as compared with a hurried or ill-considered sketch. In no process that I know ofleast of all in sketching-can time be really gained by


Fig. 30.
precipitation. It is gained only by caution ; and gained in all sorts of ways; for not only truth of form, but force of light, is always added by an intelligent and shapely laying of the shadow colors. You may often make a simple flat tint, rightly gradated and edged, express a complicated piece of subject without a single retouch. The two Swiss cottages, for instance, with their balconies, and glittering windows, and general character of shingly eaves, are expressed in Fig. 30 with one tint of gray, and a few dispersed spots and lines of it; all of which you ought to be able to lay on without more than thrice dipping your brush, and without a single touch after the tint is dry.
187. Here, then, for I cannot without colored illustrations tell you more, I must leave you to follow out the subject
for yourself, with such help as you may receive from the water-color drawings accessible to you; or from any of the little treatises on their art which have been published lately by our water-color painters.* But do not trust much to works of this kind. You may get valuable hints from them as to mixture of colors; and here and there you will find a useful artifice or process explained; but nearly all such books are written only to help idle amateurs to a meretricious skill, and they are full of. precepts and principles which may, for the most part, be interpreted by their precise negatives, and then acted upon with advantage. Most of them praise boldness, when the only safe attendant spirit of a beginner is caution;-advise velocity, when the first condition of success is deliberation; -and plead for generalization, when all the foundations of power must be laid in knowledge of speciality.
188. And now, in the last place, I hare a few things to tell you respecting that dangerous nobleness of consummate art,-Composition. For though it is quite unnecessary for you yet awhile to attempt it, and it may be inexpedient for you to attempt it at all, you ought to know what it means, and to look for and enjoy it in the art of others.

Composition means, literally and simply, putting sereral things together, so as to make one thing out of them; the nature and goodness of which they all hare a share in producing. Thus a musician composes an air, by putting notes together in certain relations; a poet composes a poem, by putting thoughts and words in pleasant order; and a painter a picture, by putting thoughts, forms, and colors in pleasant order.

In all these cases, observe, an intended unity must be the result of composition. A parior cannot be said to compose the heap of stones which he empties from his cart, nor the sower the handful of seed which he scatters from his hand.

[^36]It is the essence of composition that everything should be in a determined place, perform an intended part, and act, in that part, adrantageously for everything that is connected with it.
189. Composition, understood in this pure sense, is the type, in the arts of mankind, of the Providential government of the world.* It is an exhibition, in the order given to notes, or colors, or forms, of the adrantage of perfect fellowship, discipline, and contentment. In a well-composed air, no note, however short or low, can be spared, but the least is as necessary as the greatest: no note, however prolonged, is tedious; but the others prepare for, and are benefited by, its duration: no note, however high, is tyrannous; the others prepare for, and are bencfited br, its exaltation: no note, however low, is overpowered; the others prepare for, and sympathize with, its humility : and the result is, that each and every note has a value in the position assigned to it, which, by itself, it never possessed, and of which, by separation from the others, it would instantly be deprived.
190. Similarly, in a good poem, each word and thought enhances the value of those which precede and follow it; and every syllable has a loveliness which depends not so much on its abstract sound as on its position. Look at the same word in a dictionary, and you will hardly recognize it.

Much more in a great picture; every line and color is so arranged as to adrantage the rest. None are inessential, however slight; and none are independent, however forcible. It is not enough that they truly represent natural objects; but they must fit into certain places, and gather into certain harmonious groups: so that, for instance, the red chimney of a cottage is not merely set in its place as a chimney, but that it may affect, in a certain way pleasurable to the eye, the pieces of green or blue in other parts of the picture; and we ought to see that the work is masterly, merely by the positions and quantities of these patches of green, red, and blue, even

[^37]at a distance which renders it perfectly impossible to determine what the colors represent: or to see whether the red is a chimney, or an old woman's cloak; and whether the blue is smoke, sky, or water.
191. It seems to be appointed, in order to remind us, in all we do, of the great laws of Divine govermment and human polity, that composition in the arts slould strongly affect every order of mind, however unlearned or thoughtless. Hence the popular delight in rhythm and meter, and in simple musical melorlies. But it is also appointed that power of composition in the fine arts should be an exclusive attribute of great intellect. All men can more or less copy what they see, and, more or less, remember it : powers of reflection and investigation are also common to us all, so that the decision of inferiority in these rests only on questions of degree. A. has a better memory than B., and C. reflects more profoundly than D. But the gift of composition is not given at all to more than one man in a thousand; in its highest range, it does not occur above three or four times in a centurr.
192. It follows, from these general truths, that it is impossible to give rules which will enable you to compose. You might much more easily reccive rules to enable you to be witty. If it were possible to be witty by rule, wit would cease to be either admirable or amusing: if it were possible to compose melody by rule, Mozart and Cimarosa need not have been born: if it were possible to compose pictures by rule, Titian and Yeronese would be ordinary men. The essence of composition lies precisely in the fact of its being unteachable, in its being the operation of an individual mind of range and power exalted above others.

But though no one can invent by rule, there are some simple laws of arrangement which it is well for you to know, because, though they will not enable you to produce a good picture, they will often assist you to set forth what goodness may be in your work in a more telling way than you could have done otherwise; and by tracing them in the work of good composers, you may better understand the grasp of their
imagination, and the power it possesses orer their materials. I shall briefly state the chief of these laws.

## 1. THE LAW OF PRINCIPALITY.

193. The great object of composition being alwars to secure unity; that is, to make out of many things one whole; the first mode in which this can be effected is, by determining that one feature shall be more important than all the rest, and that the others shall group with it in subordinate positions.

This is the simplest law of ordinary ornamentation. Thus the group of two leaves, a, Fig. 31, is unsatisfactory, because it has no leading leaf; but that at $b$ is prettier, because it has

a

c

Fig. $3^{\text {r }}$
a head or master leaf; and $c$ more satisfactory still, because the subordination of the other members to this head leaf is made more manifest by their gradual loss of size as they fall back from it. Hence part of the pleasure we have in the Greek honeysuckle ornament, and such others.
194. Thus, also, good pictures have always one light larger and brighter than the other lights, or one figure more prominent than the other figures, or one mass of color dominant over all the other masses; and in general you will find it much benefit your sketch if yon manage that there shall be one light on the cottage wall, or one blue cloud in the sky, which may attract the eye as leading light, or leading gloom, above all others. But the observance of the rule is often so cunningly concealed by the great composers, that its force is hardly at first traceable; and you will generally find they are vulgar pictures in which the law is strikingly manifest.
195. This may be simply illustrated by musical melody: for instance, in such phrases as this-

one note (here the upper a) rules the whole passage, and has the full energy of it concentrated in itself. Such passages, corresponding to completcly subordinated compositions in painting, are apt to be wearisome if often repeated. But, in such a phrase as this-

it is very difficult to say which is the principal note. The a in the last bar is slightly dominant, but there is a very equal current of power running through the whole; and such passages rarely weary. And this principle holds through vast seales of arrangement; so that in the grandest compositions, such as Paul Veronese's Marriage in Cana, or Raphael's Disputa, it is not easy to fix at once on the principal figure; and very commonly the figure which is really chief does not eatch the eye at first, but is gradually felt to be more and more conspicuous as we gaze. Thus in Titian's grand composition of the Cornaro Family, the figure meant to be principal is a youth of fifteen or sixteen, whose portrait it was evidently the painter's object to make as interesting as possible. But a grand Madomna, and a St. George with a drifting banner, and many figures more, occupy the center
of the picture, and first catel the eye; little by little we are led awar from them to a gleam of pearly light in the lower corner, and find that, from the head which it shines upon, we ean turn our eyes no more.
196. As, in every good picture, nearly all laws of design are more or less exemplified, it will, on the whole, be an easier way of explaining them to analyze one composition thoroughly, than to give instances from rarious works. I shall therefore take one of Turner's simplest; which will allow us, so to speak, easily to decompose it, and illustrate each law by it as we proceed.


FIG. 32.
Fig. 32 is a rude sketch of the arrangement of the whole subject; the old bridge over the Moselle at Coblentz, the town of Coblentz on the right, Ehrenbreitstein on the left. The leading or master feature is, of course, the tower on the bridge. It is kept from being too principal by an important group on each side of it; the boats, on the right, and Ehrenbreitstein beyond. The boats are large in mass, and more foreible in color, but they are broken into small divisions, while the tower is simple, and therefore it still leads. Ehrenbreitstein is noble in its mass, but so reduced by aërial perspective of color that it cannot contend with the
tower, which therefore holds the eye, and becomes the key of the picture. We shall see presently how the very objects which seem at first to contend with it for the mastery are made, occultly, to increase its preëminence.

## 2. THE LAW OF REPETITION.

197. Another important means of expressing unity is to mark some kind of sympathy among the different objects, and perhaps the pleasantest, because most surprising, kind of sympathy, is when one group imitates or repeats another; not in the way of balance or symmetry, but subordinately, like a far-away and broken echo of it. Prout has insisted much on this law in all his writings on composition; and I think it is even more authoritatively present in the minds of most great composers than the law of principality.* It is quite curious to see the pains that Turner sometimes takes to echo an important passage of color; in the Pembroke Castle for instance, there are two fishing-boats, one with a red, and another with a white sail. In a line with them, on the beach, are two fish in precisely the same relative positions; one red and one white. It is observable that he uses the artifice chicfly in pictures where he wishes to obtain an expression of repose : in my notice of the plate of Searborough, in the scries of the IFarbors of England, I have already had oceasion to dwell on this point; and I extract in the note $\dagger$ one or two sentences which explain the principle. In the composition I have chosen for our illustration, this redu-

[^38]plication is employed to a singular extent. The tower, or leading feature, is first repeated by the low echo of it to the left; put your finger over this lower tower, and see how the picture is spoiled. Then the spires of Coblentz are all arranged in couples (how they are arranged in reality does not matter; when we are composing a great picture, we must play the towers about till they come right, as fearlessly as if they were chessmen instead of cathedrals). The dual arrangement of these towers would have been too easily seen, were it not for the little one which pretends to make a triad of the last group on the right, but is so faint as hardly to be discernible: it just takes off the attention from the artifice, helped in doing so by the mast at the head of the boat, which, howerer, has instantly its own duplicate put at the stern." Then there is the large boat near, and its echo beyond it. That ceho is divided into two again, and each of those two smaller boats has two figures in it; while two figures are also sitting together on the great rudder that lies half in the water, and half aground. Then, finally, the great mass of Ehrenbreitstein, which appears at first to have no answering form, has almost its facsimile in the bank on which the girl is sitting; this bank is as absolutely essential to the completion of the picture as any object in the whole series. All this is done to decpen the effect of repose.
198. Srmmetry, or the balance of parts or masses in nearly equal opposition, is one of the conditions of treatment under the law of Repetition. For the opposition, in a symmetrical object, is of like things reflecting each other: it is not the balance of contrary natures (like that of day and night), but of like natures or like forms; one side of a leaf being set like the reflection of the other in water.

Symmetry in Nature is, howerer, never formal nor accurate. She takes the greatest care to secure some difference between the corresponding things or parts of things; and an

-     * This is obscure in the rude wood cut, the masts being so delicate that they are confused among the lines of reflection. In the original they have orange light upon them, relieved against purple behind.
approximation to accurate symmetry is only permitted in animals, because their motions seeure perpetual difference between the balaneing parts. Stand before a mirror; hold your arms in precisely the same position at each side, your head upright, your body straight; divide your hair exactly in the middle and get it as nearly as you can into exactly the same shape orer each ear ; and you will see the effect of acenrate symmetry : you will see, no less, how all grace and power in the human form result from the interference of motion and life with symmetry, and from the reconciliation of its balance with its changefulness. Your position, as seen in the mirror, is the highest type of symmetry as understood by modern architects.

199. In many sacred compositions, living symmetry, the balance of harmonious opposites, is one of the profoundest sources of their power : almost any works of the early painters, Angelico, Perugino, Giotto, ete., will furnish you with notable instances of it. The Madonna of Perugino in the National Gallery, with the angel Michael on one side and Raphael on the other, is as beautiful an example as con can have.

In landscape, the principle of balance is more or less carried out, in proportion to the wish of the painter to express diseiplined calmness. In bad compositions, as in bad arehitecture, it is formal, a tree on one side answering a tree on the other; but in good compositions, as in graceful statues, it is always easy and sometimes hardly traceable. In the Cohlentz, howerer, you cannot have much difficulty in seeing low the boats on one side of the tower and the figures on the other are set in nearly equal balance; the tower, as a central mass, uniting both.

## 3. TIIE LAW OF CONTINUITY.

200. Another important and pleasurable way of expressing unity, is by giving some orderly succession to a number of objects more or less similar. And this succession is most interesting when it is connected with some gradual change
in the aspect or character of the objects. Thus the succession of the pillars of a cathedral aisle is most interesting when they retire in perspective, becoming more and more obscure in distance: so the succession of mountain promontories oue behind another, on the flanks of a valley; so the succession of clouds, fading farther and farther towards the horizon; each promontory and each cloud being of different shape, yet all evidently following in a calm and appointed order. If there be no change at all in the shape or size of the objects, there is no continuity ; there is only


FIG. 33.
repetition-monotony. It is the change in shape which suggests the idea of their being individually free, and able to escape, if they like, from the law that rules them, and yet submitting to it.
201. I will leave our chosen illustrative composition for a moment to take up another, still more expressive of this law. It is one of Turner's most tender studies, a sketch on Calais Sands at sunset; so delicate in the expression of wave and cloud, that it is of no use for me to try to reach it with any kind of outline in a wood-cut; but the rough sketch, Fig. 33,
is enough to give an idea of its arrangement. The aim of the painter has been to give the intensest expression of repose, together with the enchanted, lulling, monotonous motion of cloud and wave. All the clouds are moving in imnmerable ranks after the sun, meeting towards that point in the horizon where he has set; and the tidal waves gain in winding eurrents upon the sand, with that stealthy haste in which they cross each other so quietly, at their edges; just folding one over another as they meet, like a little piece of ruffled silk, and leaping up a little as two children kiss and clap their hands, and then going on again, cach in its silent hurry, drawing pointed arches on the sand as their thin edges intersect in parting. But all this would not have been enough expressed without the line of the old pier-timbers, black with weeds, strained and bent by the storm waves, and now seeming to stoop in following one another, like dark ghosts escaping slowly from the cruelty of the pursuing sea.
202. I need not, I hope, point out to the reader the illustration of this law of continuance in the subject chosen for our general illustration. It was simply that gradual succession of the retiring arches of the bridge which induced Turner to paint the subject at all; and it was this same principle which led him always to scize on suljeets including long bridges wherever he could find them; but especially, observe, unequal bridges, having the highest arch at one side rather than at the center. There is a reason for this, irrespective of general laws of composition, and connected with the nature of rivers, which I may as well stop a minute to tell you about, and let you rest from the study of composition.
203. All rivers, small or large, agree in one character, they like to lean a little on one side: they cannot bear to have their channels deepest in the middle, but will alwars, if they can, have one bank to sun themselves upon, and another to get cool under; one shingly shore to play over, where they may be shallow, and foolish, and childlike, and another steep shore, under which they can pause, and purify themselves, and get their strength of waves fully together for due oceasion.

Rivers in this way are just like wise men, who keep one side of their life for play, and another for work; and can be brilliant, and chattering, and transparent, when they are at ease, and yet take deep counsel on the other side when they set themselves to their main purpose. And rivers are just in this divided, also, like wicked and good men: the good rivers have serviceable deep places all along their banks, that ships can sail in; but the wicked rivers go scooping irregularly under their banks until they get full of strangling eddies, which no boat can row over without being twisted against the rocks; and pools like wells, which no one can get out of but the water-kelpie that lives at the bottom; but, wicked or good, the rivers all agree in having two kinds of sides. Now the natural way in which a village stone-mason therefore throws a bridge orer a strong stream is, of course, to build a great door to let the eat through, and little doors to let the kittens through; a great arch for the great current, to give it room in flood time, and little arches for the little currents along the shallow shore. This, even without any prudential respect for the floods of the great current, he would do in simple economy of work and stone ; for the smaller your arches are, the less material you want on their flanks. Two arches over the same span of river, supposing the butments are at the same depth, are cheaper than one, and that by a great deal; so that, where the current is shallow, the village mason makes his arches many and low: as the water gets deeper, and it becomes troublesome to build his piers up from the bottom, he throws his arches wider; at last he comes to the deep stream, and, as he cannot build at the bottom of that, he throws his largest arch over it with a leap, and with another little one or so gains the opposite shore. Of course as arches are wider they must be higher, or they will not stand; so the roadway must rise as the arehes widen. And thus we have the general type of bridge, with its highest and widest arch towards one side, and a train of minor arches running over the flat shore on the other: usually a steep bank at the river-side next the large arch; always, of course, a
flat shore on the side of the small ones: and the bend of the river assuredly concave towards this flat, cutting round, with a sweep into the steep bank; or, if there is no steep bank, still assuredly cutting into the shore at the steep end of the bridge.

Now this kind of bridge, sympathizing, as it does, with the spirit of the river, and marking the nature of the thing it has to deal with and conquer, is the ideal of a bridge; and all endeavors to do the thing in a grand engineer's manner, with a level roadway and equal arches, are barbarous; not only because all monotonous forms are ugly in themselves, but because the mind perceives at once that there has been cost uselessly thrown away for the sake of formality.*
204. Well, to return to our continuity. We see that the Turnerian bridge in Fig. 32 is of the absolutely perfect type, and is still farther interesting by having its main arch crowned by a watch-tower. But as I want you to note especially what perhaps was not the case in the real bridge, but is entirely Turner's doing, you will find that though the

[^39]
arehes diminish gradually, not one is regularly diminishedthey are all of different shapes and sizes: you cannot see this clearly in Fig. 32, but in the larger diagram, Fig. 34, over leaf, you will with ease. This is indeed also part of the ideal of a bridge, because the lateral currents near the shore are of course irregular in size, and a simple builder would naturally vary his arches accordingly ; and also, if the bottom was rocky, build his piers where the rocks came. But it is not as a part of bridge ideal, but as a necessity of all noble composition, that this irregularity is introduced by Turner. It at once raises the object thus treated from the lower or vulgar unity of rigid law to the greater unity of clouds, and waves, and trees, and human souls, each different, each obedient, and each in harmonious service.

## 4. Tife law of curyature.

205. There is, however, another point to be noticed in this bridge of Turner's. Not only does it slope away unequally at its sides, but it slopes in a gradual though very subtle curre. And if you substitute a straight line for this curve (drawing one with a rule from the base of the tower on each side to the ends of the bridge, in Fig. 34, and effacing the curve), you will instantly see that the design has suffered grievously. You may ascertain, by experiment, that all beautiful objects whatsoever are thus terminated by delicately cursed lines, except where the straight line is indispensable to their use or stability; and that when a complete system of straight lines, throughout the form, is necessary to that stability, as in erystals, the beauty, if any exists, is in color and transparency, not in form. Cut out the shape of any crystal you like, in white wax or wood, and put it beside a white lily, and you will feel the force of the eurrature in its purity, irrespective of added color, or other interfering elements of beauty.
206. Well, as curves are more beautiful than straight lines, it is necessary to a good composition that its continuities of
object, mass, or color should be, if possible, in curves, rather than straight lines or angular ones. Perhaps one of the simplest and prettiest examples of a graceful continuity of this kind is in the line traced at any moment by the corks of a net as it is being drawn: nearly every person is more or less attracted by the beauty of the dotted line. Now, it is almost always possible, not only to secure such a continuity in the arrangement or boundaries of objects which, like these


Fig. 35 .
bridge arches or the corks of the net, are actually connected with each other, but-and this is a still more noble and interesting kind of continuity-among features which appear at first entirely separate. Thus the towers of Ehrenbreitstein, on the left, in Fig. 32, appear at first independent of each other; but when I give their profile, on a larger scale, Fig. 35 , the reader may easily perceive that there is a subtle eadence and harmony among them. The reason of this is, that they are all bounded by one grand curve, traced by the
dotted line; out of the seven towers, four precisely touch this curve, the others only falling back from it here and there to keep the eye from discorering it too easily.
207. And it is not only always possible to obtain continuities of this kind: it is, in drawing large forests or mountain forms, essential to truth. The towers of Ehrenbreitstein might or might not in reality fall into such a curve, but assuredly the basalt rock on which they stand did; for all mountain forms not cloven into absolute precipice, nor covered by straight slopes of shales, are more or less governed by these great curves, it being one of the aims of Nature in all her work to produce them. The reader must already know this, if he has been able to sketch at all among mountains; if not, let him merely draw for himself, carefully, the outlines of any low hills accessible to him, where they are tolerably steep, or of the woods which grow on them.


Fig. 36.
The steeper shore of the Thames at Maidenhead, or any of the downs at Brighton or Dover, or, cren nearer, about Croydon (as Addington Iills), is easily accessible to a Londoner ; and he will soon find not only how constant, but how graceful the curvature is. Graceful curvature is distinguished from ungraceful by two characters; first in its moderation, that is to say, its close approach to straightness in some part of its course; * and, secondly, by its variation, that is to say, its nerer remaining equal in degree at different parts of its course.

20s. This variation is itself twofold in all good curves.

[^40]A. There is, first, a steady change through the whole line, from less to more currature, or more to less, so that no part of the line is a segment of a circle, or can be drawn by compasses in any way whatever. Thus, in Fig. 36, $a$ is a bad curre because it is part of a circle, and is therefore monoto-


FIG. 37.
nous throughout; but $b$ is a good curre, because it continually changes its direction as it proceeds.

The first difference between good and bad drawing of tree boughs consists in observance of this fact. Thus, when I put leares on the line $b$, as in Fig. 37, you can immediately feel the springiness of character dependent on the changefulnesy


Fig. 38.
's the curve. You may put leaves on the other line for yourself, but you will find you cannot make a right tree spray of it. For all tree boughs, large or small, as well as all noble natural lines whatsocver, agree in this character; and it is a point of primal necessity that your eye shonld always seize and your hand trace it. Here are two more portions of good curves, with leaves put on them at the extremities instead of the flanks, Fig. 3S ; and two showing the
arrangement of masses of foliage seen a little farther off,


Fig. 39.
Fig. 39, which you may in like manner amuse yourself by


Fig. 40. turning into segments of circles-you will see with what result. I hope however you have beside you, by this time, many good studies of tree boughs carefully made, in which you may study variations of curvature in their most complieated and lovely forms.*
209. B. Not only does every good curve vary in general tendeney, but it is modulated, as it proceeds, by myriads of subordinate curves. Thus the outlines of a tree trunk are never as at $a$, Fig. 40, but as at b. So also in waves, clouds, and all other nobly formed masses. Thus another essential difference between good and bad drawing, or good and bad sculpture, depends on the quantity and refinement of minor curvatures carried, by good work, into the great lines. Strictly speaking, however, this is not variation in large curves, but composition of large curves out of small ones; it is an increase in the quantity of the beautiful element, but not a change in its nature.

[^41]
## 5. THE LAW OF RADIATION.

210. We have hitherto been concerned only with the binding of our various objects into beautiful lines or processions. The next point we have to consider is, how we may unite these lines or processions themselves, so as to make groups of them.

Now, there are two kinds of harmonies of lines. One in which, moving more or less side by side, they variously, but evidently with consent, retire from or approach each other, intersect or oppose each other ; currents of melody in music, for different roices, thus approach and cross, fall and rise, in harmony; so the waves of the sea, as they approach the shore, flow into one another or cross, but with a great unity through all; and so various lines of composition often flow harmoniously through and across each other in a picture. But the most simple and perfect connection of lines is by radiation; that is, by their all springing from one point, or closing towards it; and this harmony is often, in Nature almost always, united with the other; as the boughs of trees, though they intersect and play amongst each other irregularly, indicate by their general tendency their origin from one root. An essential part of the beauty of all vegetable form is in this radiation; it is seen most simply in a single flower or leaf, as in a conrolrulus bell, or chestnut leaf; but more beautifully in the complicated arrangements of the large bouglis and sprays. For a leaf is only a flat piece of radiation; but the tree throws its branches on all sides, and even in every profile view of it, which presents a radiation more or less correspondent to that of its leares, it is more beautiful, because varied by the freedom of the separate branches. I believe it has been ascertained that, in all trees, the angle at which, in their leaves, the lateral ribs are set on their central rib is approximately the same at which the branches leare the great stem; and thus each section of the tree would present a kind of magnified view of its own leaf, were it not for the interfering force of gravity on the masses of foliage. This force in proportion to their age, and the
lateral leverage upon them, bears them downwards at the extremities, so that, as before noticed, the lower the bough grows on the stem, the more it droops (Fig. 17, p. 67); besides this, nearly all beautiful trees have a tendency to divide into two or more principal masses, which give a prettier and more complicated symmetry than if one stem ran all the way up the center. Fig. 41 may thus be considered the simplest type of tree radiation, as opposed to


## Fig. 41.

leaf radiation. In this figure, however, all secondary ramification is unrepresented, for the sake of simplicity; but if we take one half of such a tree, and merely give two secondary branches to each main branch (as represented in the general branch structure shown at $b$, Fig. 18, p. 6S), we shall have the form Fig. 42. This I consider the perfect general type of tree structure; and it is curiously connected with certain forms of Greek, Byzantine, and Gothic ormamentation, into the discussion of which, however, we must not enter here. It will be


Fig. 42 observed, that both in Figs. 41 and 42 all the branches so spring from the main stem as very nearly to suggest their united radiation from the root r . This is by no means universally the case; but if the branches do not bend towards a point in the root, they at least converge to some point or other. In the examples in Fig. 43 , the mathematical center of curvature, $a$, is thus, in one case, on the ground, at some distance from the
root, and in the other, near the top of the tree. Half, only, of each tree is given, for the sake of clearness: Fig. 44 gives both sides of another example, in which the origins of curvature are below the root. As the positions of such points may be varied without end, and as the arrangement of the lines is also farther complicated by the fact of the boughs springing for the most part in a spiral order round the tree, and at proportionate distances, the systems of currature which regulate the form of vegetation are quite infinite. Infinite


Fic. 44.
is a word easily said, and easily written, and people do not always mean it when they say it; in this case I do mean it: the number of systems is incalculable, and even to furnish anything like a representative number of types, I should have to give several hundreds of figures such as Fig. 44.*
211. Thus far, however, we have only been speaking of the great relations of stem and branches. The forms of the branches themselves are regulated by still more subtle laws, for they occupy an intermediate position between the form of

[^42]the tree and of the leaf. The leaf has a flat ramification; the tree a completely rounded one; the bough is neither rounded nor flat, but has a structure exactly balanced between the two, in a half-flattened, half-rounded flake, closely resembling in shape one of the thick leaves of an artichoke or the flake of a fir cone; by combination forming the solid mass of the tree, as the leaves compose the artichoke head. I have before pointed out to you the general resemblance of these branch flakes to an extended hand; but they may be more accurately represented by the ribs of a boat. If you can imagine a very broad-headed and flattened boat applied by its keel to the end of a main branch,* as in Fig. 45, the lines which its ribs will take, supposing them outside of its timbers instead of inside, and the general contour of it, as seen


Fig. 45.
in different directions, from above and below, will give you the closest approximation to the perspectives and foreshortenings of a well-grown branch-flake. Fig. 25 abore, p. 89, is an unharmed and unrestrained shoot of healthy young oak; and, if you compare it with Fig. 45, you will understand at once the action of the lines of leafage ; the boat only failing as a type in that its ribs are too nearly parallel to each other at the sides, while the bough sends all its ramification well forwards, rounding to the head, that it may accomplish its part in the outer form of the whole tree, yet always

[^43]securing the compliance with the great universal law that the branches nearest the root bend most back; and, of course, throwing some always back as well as forwards; the appearance of reversed action being much increased, and rendered more striking and beautiful, by perspective. Fig. 25 shows the perspective of such a bough as it is seen from below; Fig. 46 gives rudely the look it would have from above.
212. Tou may suppose, if you have not already discovered, what subtleties of perspective and light and shade are involved in the drawing of these branch-flakes, as you see them in different directions and actions; now raised, now depressed: touched on the edges by the wind, or lifted up and bent back so as to show all the white under surfaces of the leaves shivering in light, as the bottom of a boat rises white


Fig. 46.
with spray at the surge-crest; or drooping in quietness towards the dew of the grass beneath them in windless mornings, or bowed down under oppressive grace of deep-charged snow. Snow time, by the way, is one of the best for practico in the placing of tree masses; but you will only be able to understand them thoroughly by beginning with a single bongh and a few leares placed tolerably even, as in Fig. 38, p. 149. First one with three leaves, a central and two lateral ones, as at $a$; then with five, as at $b$, and so on; directing your whole attention to the expression, both by contour and light and shade, of the boat-like arrangements, which, in your earlier studies, will have been a good deal confused, partly owing to your inexperience, and partly to the depth of shade, or absolute blackness of mass required in those studies.
213. One thing more remains to be noted, aud I will let
yom out of the wood. You see that in every generally representative figure I have surrounded the radiating loranches with a dotted line: such lines do indeed terminate every vegetable form; and you see that they are themselves beantiful curves, which, according to their flow, and the width or narrowness of the spaces they inclose, characterize the species of tree or leaf, and express its free or formal action, its grace of youth or weight of age. So that, throughout all the freedom of her wildest foliage, Nature is resolved on expressing an encompassing limit; and marking a unity in the whole tree, caused not only ly the rising of its branches from a common root, but by their joining in one work, and being bound by a common law. And having ascertained this, let us turn back for a moment to a point in leaf structure which, I doubt not, you must already have observed in your earlier studies, but which it is well to state here, as connected with the mity of the branches in the great trees. You must have noticed, I should think, that whenever a leaf is compound,that is to say, divided into other leaflets which in any way repeat or inntate the form of the whole leaf,-those leaflets are not symmetrical, as the whole leaf is, but alwass smaller on the side towards the point of the great leaf, so as to express their subordination to it, and show, even when they are pulled off, that they are not small independent leaves, hut members of one large leaf.
214. Fig. 47, which is a block-plan of a leaf of columbine, without its minor divisions on the edges, will illustrate the principle clearly. It is composed of a central large mass, $\Lambda$, and two lateral ones, of which the one on the right only is lettered, B. Each of these masses is again composed of three others, a central and two lateral ones ; but obscree, the minor one, $a$ of $A$, is balanced equally hy its opposite ; but the minor $b 1$ of $B$ is larger than its opposite $b 2$. Again, each of these minor masses is divided into three ; but while the central mass, $A$ of $A$, is symmetrically divided, the $B$ of $B$ is unsymmetrical, its largest side-lobe being lowest. Again, in $b 2$, the lobe c 1 (its lowest lobe in relation to ) is larger than $c 2$;
and so also in $b 1$. So that universally one lobe of a lateral leaf is always larger than the other, and the smaller lobe is that which is nearer the central mass; the lower leaf, as it were by courtesy, subduing some of its own dignity or power, in the immediate presence of the greater or captain leaf, and always expressing, therefore, its own subordination and secondary character. This law is carried out even in single leaves. As far as I know, the upper half, towarls the point


Fig. 47.
of the spray, is always the smaller; and a slightly different curve, more convex at the springing, is used for the lower side, giving an exquisite variety to the form of the whole leaf; so that one of the chief clements in the beanty of every subordinate leaf throughout the tree is made to depend on its confession of its own lowliness and subjection.
215. And now, if we bring together in one view the principles we have ascertained in trees, we shall find they may be summed under four great laws; and that all perfect*

* Imperfect vegetable form I consider that which is in its nature dependent, as in runners and climbers; or which is susceptible of continual injury without materially losing the power of giving pleasure by its aspect, as in the case of the smaller grasses. I have not, of course, space
vegetable form is appointed to express these four laws in noble balance of authority.

1. Support from one living root.
2. Radiation, or tendency of force from some one given point, either in the root or in some stated connection with it.
3. Liberty of each bough to seek its own livelihood and lappiness according to its needs, by irregularities of action both in its play and its work, either stretching out to get its required nourishment from light and rain, by finding some sufficient breathing-place among the other branches, or knotting and gathering itself up to get strength for any load which its fruitful blossoms may lay upon it, and for any stress of its storm-tossed luxuriance of leaves; or playing hither and thither as the fitful sunshine may tempt its roung shoots, in their undecided states of mind about their future life.
4. Imperative requirement of each bough to stop within certain limits, expressive of its kindly fellowship and fraternity with the boughs in its neighborhood; and to work with them according to its power, magnitude, and state of health, to bring out the general perfectness of the great curre, and circumferent stateliness of the whole tree.
5. I think I may leave you, umhelped, to work out the moral analogies of these laws; you may, perhaps, however, be a little puzzled to see the meaning of the second one. It typically expresses that healthy human actions should spring radiantly (like rays) from some single heart motive; the most beantiful systems of action taking place when this motive lies at the root of the whole life, and the action is clearly seen to proceed from it; while also many beautiful secondary systems of action taking place from motives not so deep or central, but in some beautiful subordinate connection with the central or life motive.

The other laws, if you think over them, you will find equally significative ; and as you draw trees more and more in here to explain these minor distinctions, but the laws above stated apply to all the more important trees and shrubs likely to be familiar to the student.
their rarious states of health and hardship, you will be erery day more struck by the beauty of the types they present of the truths most essential for mankind to know;* and you will see what this vegetation of the earth, which is necessary to our life, first, as purifying the air for us and then as food, and just as necessary to our joy in all places of the earth,what these trees and leaves, I say, are meant to teach us as we contemplate them, and read or hear their lovely language, written or spoken for us, not in frightful black letters nor in dull sentences, but in fair green and shadowy shapes of waving words, and blossomed brightness of odoriferous wit, and sweet whispers of unintrusive wisdom, and plavful morality.
217. Well, I am sorry myself to leave the wood, whatever my reader may be ; but leare it we must, or we shall compose no more pictures to-day.

This law of radiation, then, enforcing unison of action in arising from, or proceeding to, some given point, is perhaps, of all principles of composition, the most influential in producing the beauty of groups of form. Other laws make them forcible or interesting, but this generally is chief in rendering them beautiful. In the arrangement of masses in pictures, it is constantly obeyed by the great composers; but, like the law of principality, with careful concealment of its imperativeness, the point to which the lines of main

[^44]curvature are directed being very often far away out of the picture. Sometimes, however, a system of curves will be employed definitely to exalt, by their concurrence, the value of some leading object, and then the law becomes traceable enough.
218. In the instance before us, the principal object being, as we have seen, the tower on the bridge, Turner has determined that his system of eurvature should have its origin in the top of this tower. The diagran Fig. 34, p. 145, compared with Fig. 32, p. 137, will show how this is done. One curve joins the two towers, and is continued by the back of the figure sitting on the bank into the piece of bent timber. This is a limiting curve of great importance, and Turner has drawn a considerable part of it with the edge of the timber very carefully, and then led the eye up to the sitting girl by some white spots and indications of a ledge in the bank; then the passage to the tops of the towers cannot be missed.
219. The next curve is begun and drawn carefully for half an inch of its course by the rudder; it is then taken up by the basket and the heads of the figures, and leads accurately to the tower angle. The gunwales of both the boats begin the next two curves, which meet in the same point; and all are centralized by the long reflection which continues the vertical lines.
220. Subordinated to this first system of curves there is another, begun by the small crossing bar of wood inserted in the angle behind the rudder; continued by the bottom of the bank on which the figure sits, interrupted forcibly beyond it,* but taken up again by the water-line leading to the bridge foot, and passing on in delicate shadows under the arches, not easily shown in so rude a diagram, towards the other extrem-

[^45]ity of the bridge. This is a most important curve, indicating that the force and sweep of the river have indced been in old times under the large arches; while the antiquity of the bridge is told us by a long tongue of land, either of carted rubbish, or washed down by some minor stream, which has interrupted this curre, and is now used as a land-ing-place for the boats, and for embarkation of merchandise, of which some bales and bundles are laid in a heap, immediately beneath the great tower. A common composer would have put these bales to one side or the other, but Turner knows better; he uses them as a foundation for his tower, adding to its importance precisely as the sculptured base adorns a pillar; and he farther increases the aspect of its height by throwing the reflection of it far down in the nearer water. All the great composers have this same feeling about sustaining their rertical masses: you will constantly find Prout using the artifice most dexterously (see, for instance, the figure with the wheelbarrow under the great tower, in the sketch of St. Nicholas, at Prague, and the white group of figures under the tower in the sketch of Augsburg*) ; and Veronese, Titian, and Tintoret continually put their principal figures at bases of pillars. Turner found out their secret very early, the most prominent instance of his composition on this principle being the drawing of Turin from the Superga, in Hakewell's Italy. I chose Fig. 20, already given to illustrate foliage drawing, chiefly because, being another instance of precisely the same arrangement, it will serve to convince you of its being intentional. There, the vertical, formed by the larger tree, is continued by the figure of the farmer, and that of one of the smaller trees by his stick. The lines of the interior mass of the bushes radiate, under the law of radiation, from a point behind the farmer's head; but their outline curres are carried on and repeated, under the law of continuity, by the curves of the dog and boy-by the way, note the remarkable instance in these of the use of darkest lines towards the light-all more or less guiding the

[^46]eye up to the right, in order to bring it finally to the Fieep of Windsor, which is the central object of the picture, as the bridge tower is in the Coblentz. The wall on which the boy climbs answers the purpose of contrasting, both in direction and character, with these greater curves; thus corresponding as nearly as possible to the minor tongue of land in the Coblentz. This, however, introduces us to another law, which we must consider separately.

## 6. THE LAW OF CONTRAST.

221. Of course the character of everything is best manifested by Contrast. Rest can only be enjoyed after labor; sound to be heard clearly, must rise out of silence; light is exhibited by darkness, darkness by light; and so on in all things. Now in art every color has an opponent color, which, if bronght near it, will relieve it more completely than any other; so, also, every form and line may be made more striking to the eye by an opponent form or line near them ; a curved line is set off by a straight one, a massy form by a slight one, and so on; and in all good work nearly double the ralue, which any given color or form would have uncombined, is given to each by contrast."

In this case again, howerer, a too manifest use of the artifice vulgarizes a picturc. Great painters do not commonly, or very visibly, admit violent contrast. Ther introduce it by stealth, and with intermediate links of tender change; allowing, indeed, the opposition to tell upon the mind as a surprise, but not as a shock. $\dagger$

[^47]222. Thus in the rock of Ehrenbreitstein, Fig. 35, the main current of the lines being downwards, in a convex swell, they are suddenly stopped at the lowest tower by a counter series of beds, directed nearly straight across them. This adrerse force sets off and relieves the great currature, but it is reconciled to it by a series of radiating lines below, which at first sympathize with the oblique bar, then gradually get steeper, till they meet and join in the fall of the great curre. No passage, howerer intentionally monotonous, is erer introduced by a good artist without some slight counter current of this kind; so much, indeed, do the great composers feel the necessity of it, that they will even do things purposely ill or unsatisfactorily, in order to give greater value to their well-doing in other places. In a skillful poet's rersification the so-called bad or inferior lines are not inferior because he could not do them better, but because he feels that if all were equally weighty, there would be no real sense of weight anywhere; if all were equally melodions, the melody itself would be fatiguing; and he purposely introduces the laboring or discordant verse, that the full ring may be felt in his main sentence, and the finished sweetness in lis chosen rhytlm.* And continually in painting, inferior artists destroy their work by giving too much of all that they think is good, while the great painter gives just enough to be enjored, and passes to an opposite kind of enjorment, or to an inferior state of enjorment: he gives a passage of rich, involved, exquisitely wrought color, then passes away into slight, and pale, and simple color; he paints for a minute or two with intense decision, then suddenly becomes, as the spectator thinks, slovenly; but he is not slovenly: you could not have taken any more decision from him just then; you have had as much

[^48]as is good for you: he paints orer a great space of his picture forms of the most romded and melting tenderness, and suddenly, as you think by a freak, gives you a bit as jagged and sharp as a leafless blackthorn. Perhaps the most exquisite piece of subtle contrast in the world of painting is the arrow point, laid sharp against the white side and anong the flowing hair of Correggio's Antiope. It is quite singnlar how very little contrast will sometimes serve to make an entire group of forms interesting which would otherwise have been valueless. There is a good deal of picturesque material, for instance, in this top of an old tower, Fig. 48 , tiles and stones


Fig. 48.
and sloping roof not disagreeably mingled; but all would have been unsatisfactory if there had not happenel to be that iron ring on the inner wall, which by its vigorous black circular line precisely opposes all the square and angular characters of the battlements and roof. Draw the tower without the ring, and see what a difference it will make.
223. One of the most important applications of the law of contrast is in association with the law of continuity, causing an unexpected but gentle break in a continuous series. This artifice is perpetual in music, and perpetual also in good illumination; the way in which little surprises of change are prepared in any current borders, or chains of ornamen-
tal design, being one of the most subtle characteristies of the work of the good periods. We take, for instance, a bar of ornament between two written columns of an early fourteenth century MS., and at the first glance we suppose it to be quite monotonous all the way up, composed of a winding tendril, with alternately a blue leaf and a scarlet bud. Presently, however, we see that, in order to observe the law of principality, there is one large searlet leaf instead of a bud, nearly half-way up, which forms a center to the whole rod; and when we begin to examine the order of the leaves, we find it varied carefully. Let a stand for searlet bud, $b$ for blue leaf, $c$ for two blue leaves on one stalk, $s$ for a stalk without a leaf, and a for the large red leaf. Then, counting from the ground, the order begins as follows:
$b, b, A ; b, s, b, A ; b, b, A ; b, b, A ;$ and we think we shall have two $b$ 's and an a all the way, when suddenly it becomes $b, A ; b, a ; b, A ; b, A ; b, A ;$ and we think we are going to have $b$, a continued ; but no: here it becomes $b, s ; b, s ; b, \mathrm{~A} ; b$, $s ; b, s ; c, s ; b, s ; b, s$; and we think we are surely going to have $b, s$ continued, but behold it runs away to the end with a quick $b, b, \Delta ; b, b, b, b!^{*}$ Very often, however, the designer is satisfied with one surprise, but I never saw a good illuminated border. without one at least; and no series of any kind was ever introduced by a great composer in a painting without a snap somewhere. There is a pretty one in Turner's drawing of Rome with the large balustrade for a foreground in the Hakewell's Italy series: the single baluster struck out of the line, and showing the street below throngh the gap, simply makes the whole composition right, when otherwise it would have been stiff and absurd.

224 . If you look back to Fig. 48 you will see, in the arrangement of the battlements, a simple instance of the use of such variation. The whole top of the tower, though actually three sides of a square, strikes the eye as a continuous series of five masses. The first two, on the left, somewhat

[^49]square and blank, then the next two higher and richer, the tiles being seen on their slopes. Both these groups being couples, there is enough monotony in the series to make a change pleasant ; and the last battlement, therefore, is a little higher than the first two,-a little lower than the second two, -and different in shape from either. Hide it with your finger, and see how ugly and formal the other four battlements look.
225. There are in this figure several other simple illustrations of the laws we have been tracing. Thus the whole shape of the walls' mass being square, it is well, still for the sake of contrast, to oppose it not only by the clement of currature, in the ring, and lines of the roof below, but by that of sharpness; hence the pleasure which the eve takes in the projecting point of the roof. Also, because the walls are thick and sturdy, it is well to contrast their strength with weakness; therefore we enjoy the evident decrepitude of this roof as it sinks between them. The whole mass being nearly white, we want a contrasting shadow somewhere; and get it, under our picee of decrepitude. This shade, with the tiles of the wall below, forms another pointed mass, necessary to the first by the law of repetition. Hide this inferior angle with your finger, and see how ugly the other looks. A sense of the law of symmetry, thongh you might hardly suppose it, has some share in the feeling with which you look at the battlements; there is a certain pleasure in the opposed slopes of their top, on one side down to the left, on the other to the right. Still less would you think the law of radiation had anything to do with the matter: but if you take the extreme point of the black shadow on the left for a center, and follow first the low curve of the caves of the wall, it will lead yon, if you continue it, to the point of the tower cornice; follow the sccond curre, the top of the tiles of the wall, and it will strike the top of the right-hand battlement: then draw a eurve from the highest point of the angled battlement on the left, through the points of the roof and its dark echo ; and you will sce how the whole top of the tower radiates from this
lowest dark point. There are other curvatures crossing these main ones, to keep them from being too conspicuous. Follow the curve of the upper roof, it will take you to the top of the highest battlement; and the stones indicated at the right-hand side of the tower are more extended at the bottom, in order to get some less direct expression of sympathy, such as irregular stones may be capable of, with the general flow of the curves from left to right.
226. You may not readily believe, at first, that all these laws are indeed involved in so trifling a piece of composition. But, as you study longer, you will discover that these laws, and many more, are obeyed by the powerful composers in every touch: that literally, there is never a dash of their pencil which is not carrying out appointed purposes of this kind in twenty various ways at once; and that there is as much difference, in way of intention and authority, between one of the great composers ruling his colors, and a common painter confused by them, as there is between a general directing the march of an army, and an old lady carried off her feet by a mob.

## 7. THE LAW OF INTERCHANGE.

227. Closely connected with the law of contrast is a law which enforces the unity of opposite things, by giving to each a portion of the character of the other. If, for instance, you divide a shield into two masses of color, all the way downsuppose blue and white, and put a bar, or figure of an animal, partly on one division, partly on the other, you will find it pleasant to the eye if you make the part of the animal blue which comes upon the white half, and white which comes upon the blue half. This is done in heraldre, partly for the sake of perfect intelligibility, but yet more for the sake of delight in interchange of color, since, in all ornamentation whatever, the practice is continual, in the ages of good design.
228. Sometimes this alternation is merely a reversal of
contrasts; as that, after red has been for some time on one side, and blue on the other, red shall pass to blue's side and blue to red's. This kind of alternation takes place simply in four-quartered shields; in more subtle pieces of treatment, a little bit only of each color is carried iuto the other, and they are as it were dovetailed together. One of the most curious facts which will impress itself upon you, when you have drawn some time carefully from Nature in light and shade, is the appearance of intentional artifice with which contrasts of this alternate kind are produced by her; the artistry with which she will darken a tree trunk as long as it comes against light sky, and throw sunlight on it precisely at the spot where it comes against a dark hill, and similarly treat all her masses of shade and color, is so great, that if you only follow her closely, every one who looks at your drawing with attention will think that you have been inventing the most artificially and unnaturally delightful interchanges of shadow that could possibly be derised by human wit.
229. You will find this law of interchange insisted upon at length by Prout in his Lessons on Light and Shade: it seems of all his principles of composition to be the one he is most conscious of; many others he obeys by instinct, but this he formally accepts and forcibly declares.

The trpical purpose of the law of interchange is, of course, to teach us how opposite natures may be helped and strengthened by recciving each, as far as they can, some impress or reflection, or imparted power, from the other.

## 8. THE LAW OF CONSISTENCY.

230. It is to be remembered, in the next place, that while contrast exhibits the characters of things, it very often nentralizes or paralyzes their power. A number of white things may be shown to be clearly white by opposition of a black thing, but if we want the full power of their gathered light, the black thing may be seriously in our way. Thus, while contrast displays things, it is unity and sympathy which
employ them, concentrating the power of several into a mass. And, not in art merely, but in all the affairs of life, the wisdom of man is continually called upon to reconcile these opposite methods of exhibiting, or using, the materials in his power. By change he gives them pleasantness, and by consistency value; by change he is refreshed, and by perseverance strengthened.
231. Hence many compositions address themselves to the spectator by aggregate force of color or line, more than by contrasts of either; many noble pictures are painted almost exclusively in various tones of red, or gray, or gold, so as to be instantly striking by their breadth of flush, or glow, or tender coldness, these qualities being exhibited only by slight and subtle use of contrast. Similarly as to form; some compositions associate massive and rugged forms, others slight and graceful ones, each with few interruptions by lines of contrary character. And, in general, such compositions possess higher sublimity than those which are more mingled in their elements. They tell a special tale, and summon a definite state of feeling, while the grand compositions merely please the eye.
232. This unity or breadth of character generally attaches most to the works of the greatest men; their separate pictures have all separate aims. We have not, in each, gray color set against somber, and sharp forms against soft, and loud passages against low: but we have the bright picture, with its delicate sadness; the somber picture, with its single ray of relief; the stern picture, with only one tender group of lines; the soft and calm picture, with only one rock angle at its flank; and so on. Hence the variety of their work, as well as its impressiveness. The principal bearing of this law, howerer, is on the separate masses or divisions of a picture: the character of the whole composition may be broken or various, if we please, but there must certainly be a tendency to consistent assemblage in its divisions. As an army may act on several points at once, but can only act effectually by having somewhere formed and regular masses,
and not wholly by skirmishers; so a picture may be various in its tendencies, but must be somewhere united and coherent in its masses. Good composers are always associating their colors in great groups; binding their forms together by encompassing lines, and securing, by various dexterities of expedient, what they themselves call "brearlth:" that is to say, a large gathering of each kind of thing into one place; light being gathered to light, darkness to darkness, and color to color. If, however, this be done by introducing false lights or false colors, it is absurd and monstrous; the skill of a painter consists in obtaining breadth by rational arrangement of his objects, not by forced or wanton treatment of them. It is an easy matter to paint one thing all white, and another all black or brown; but not an easy matter to assemble all the circumstances which will naturally produce white in one place, and brown in another. Generally speaking, howerer, breadth will result in sufficient degree from fidelity of study: Nature is always broad; and if you paint her colors in true relations, you will paint them in majestic masses. If you find your work look broken and seattered, it is, in all probability, not only ill composed, but untrue.
233. The opposite quality to breadth, that of division or seattering of light and color, has a certain contrasting charm, and is occasionally introduced with exquisite effect by good composers.* Still it is never the mere scattering, but the order discernible throngh this seattering, which is the real source of pleasure; not the mere multitude, but the constellation of multitudc. The broken lights in the work of a good painter wander like flocks upon the hills, not unshepherded, speaking of life and peace: the broken lights of a bad painter fall like hailstones, and are capable only of mischief, leaving it to be wished they were also of dissolution.
[^50]
## 9. THE LAW OF HARMONY.

234. This last law is not, strictly speaking, so much one of composition as of truth, but it must guide composition, and is properly, therefore, to be stated in this place.

Good drawing is, as we have seen, an abstract of natural facts; rou cannot represent all that you would, but must continually be falling short, whether you will or no, of the force, or quantity, of Nature. Now, suppose that your means and time do not admit of your giving the depth of color in the scene, and that you are obliged to paint it paler. If you paint all the colors proportionately paler, as if an equal quantity of tint had been washed away from each of them, you still obtain a harmonious, though not an equally forcible, statement of natural fact. But if you take away the colors unequally, and leare some tints nearly as deep as they are in Nature, while others are much subdued, you have no longer a true statement. You cannot say to the observer "Fance all those colors a little deeper, and you will have the actual fact." However he adds in imagination, or takes a wray, something is sure to be still mrong. The picture is out of harmony.
235. It will happen, howerer, much more frequently, that you have to darken the whole system of colors, than to make them paler. Yon remember, in rour first studies of color from Nature, you were to leave the passages of light which were too bright to be imitated, as white paper. But, in completing the picture, it becomes necessary to put color into them; and then the other colors must be made darker, in some fixed relation to them. If you deepen all proportionately, though the whole scene is darker than reality, it is only as if you were looking at the reality in a lower light: but if, while sou darken some of the tints, you leave others undarkened, the picture is out of harmony, and will not give the impression of truth.
236. It is not, indeed, possible to deepen all the colors so much as to relieve the lights in their natural degree, you
would merely sink most of your colors, if you tried to do so, into a broad mass of blackness: but it is quite possible to lower them harmoniously, and yet more in some parts of the picture than in others, so as to allow you to show the light you want in a visible relief. In well-harmonized pictures this is done by gradually deepening the tone of the picture towards the lighter parts of it, without materially lowering it in the very dark parts; the tendency in such pictures being, of course, to include large masses of middle tints. But the principal point to be observed in doing this, is to deepen the individual tints without dirtying or obscuring them. It is easy to lower the tone of the picture by washing it over with gray or brown; and easy to see the effect of the landscape, when its colors are thus universally polluted with black, by using the black convex mirror, one of the most pestilent inventions for falsifying Nature and degrading art which ever was put into an artist's hand.* For the thing required is not to darken pale yellow by mixing gray with it, but to deepen the pure yellow; not to darken crimson by mixing black with it, but by making it deeper and richer crimson: and thus the required effect could only be seen in Nature, if you had pieces of glass of the color of every olject in your landscape, and of every minor hue that made up those colors, and then could see the real landscape through this deep gorgeousness of the varied glass. You cannot do this with glass, but you can do it for yourself as you work ; that is to say, you can put deep blue for pale blue, deep gold for pale gold, and so on, in the proportion you need; and then you may paint as forcibly as you choose, but your work will still be in the manner of Titian, not of Cararaggio or Spagnoletto, or any other of the black slares of painting. $\dagger$

[^51]237. Supposing those scales of color, which I told you to prepare in order to show you the relations of color to gray, were quite aceurately made, and numerous enough, you would have nothing more to do, in order to obtain a deeper tone in any given mass of color, than to substitute for each of its hues the hue as many degrees deeper in the scale as rou wanted, that is to say, if you wanted to deepen the whole two degrees, substituting for the yellow No. 5 the yellow No. 7, and for the red No. 9 the red No. 11, and so on: but the hues of any object in Nature are far too numerous, and their degrees too subtle, to admit of so mechanical a process. Still, you may see the principle of the whole matter clearly by taking a grea-p of colors out of your seale, arranging them prettily, and then washing them all over with gray: that represents the treatment of Nature by the black mirror. Then arrange the same group of colors, with the tints five or six degrees deeper in the scale; and that will represent the treatment of Nature by Titian.
238. You can only, however, feel your way fully to the right of the thing by working from Nature.

The best subject on which to begin a piece of study of this kind is a good thick tree trunk, seen against blue sky with some white elouds in it. Paint the elouds in true and tenderly gradated white; then give the sky a bold full blue, bringing them well out; then paint the trunk and leaves grandly dark against all, but in such glowing dark green and brown as you see they will bear. Afterwards proceed to more complicated studies, matching the colors carefully first. by your old method; then deepening each color with its own tint, and being careful, above all things, to keep truth of equal change when the colors are connected with each other, as in dark and light sides of the same object. Much more aspect and sense of harmony are gained by the precision with which you observe the relation of colors in dark sides and light sides, and the influence of modifying reflections, than by mere aceuracy of added depth in independent colors.
239. This harmony of tone, as it is generally called, is
the most important of those which the artist has to regazd. But there are all kinds of harmonies in a picture, according to its mode of production. There is even a harmony of touch. If you paint one part of it very rapidly and forcibly, and another part slowly and delicately, each division of the picture may be right separately, but they will not agree together : the whole will be effeetless and valueless, out of harmony. Similarly, if you paint one part of it by a yellow light in a warm day, and another by a gray light in a cold day, though both may have been sunlight, and both may lie well toned, and have their relative shadows truly cast, neither will look like light ; they will destroy each other's power, by being out of harmony. These are only broad and definable instances of discordance ; but there is an extent of harmony in all good work much too subtle for definition; depending on the draughtsman's carrring everything he draws up to just the balancing and harmonious point, in finish, and color, and depth of tone, and intensity of moral feeling, and style of touch, all considered at once; and never allowing himself to lean too emphatically on detached parts, or exalt one thing at the expense of another, or feel aentely in one place and coldly in another. If you have got some of Cruikshank's etelings, you will be able, I think, to feel the nature of harmonious treatment in a simple kind, by comparing them with auy of Richter's illustrations to the numerous German storybooks lately published at Christmas, with all the German stories spoiled. Cruikshank's work is often incomplete in character and poor in incident, but, as drawing, it is perfect in harmony. The pure and simple effects of daylight which he gets by his thorough mastery of treatment in this respect, are quite unrivaled, as far as I know, by any other work executed with so few touches. His vignettes to Grimm's German stories, already recommended, are the most remarkable in this quality. Richter's illustrations, on the contrare, are of a very high stamp as respects understanding of human character, with infinite playfuluess and tenderness of faney; but, as drawings, they are almost unendurably out of har-
mony, violent blacks in one place being continually opposed to trenchant white in another ; and, as is almost sure to be the case with bad harmonists, the local color hardly felt anywhere. All German work is apt to be out of harmony, in consequence of its too frequent conditions of affectation, and its willful refusals of fact; as well as by reason of a feverish kind of excitement, which dwells violently on particular points, and makes all the lines of thonght in the picture to stand on end, as it were, like a cat's fur electrified; while good work is always as quiet as a couchant leopard, and as strong.
240. I have now stated to you all the laws of composition which occur to me as capable of being illustrated or defined; but there are multitudes of others which, in the present state of my knowledge, I cannot define, and others which I never hope to define; and these the most important, and connected with the deepest powers of the art. I hope, when I have thought of them more, to be able to explain some of the laws which relate to nobleness and ignobleness; that ignobleness especially which we commonly call " sulgarity," and which, in its essence, is one of the most curious subjects of inquiry connceted with human feeling. Others I never hope to explain, laws of expression, bearing simply on simple matters; but, for that very reason, more influential than any others. These are, from the first, as inexplicable as our bodily sensations are ; it being just as impossible, I think, to show, finally, why one succession of musical notes* shall be lofty and pathetic, and such as might have been sung by Casella to Dante, and why another succession is base and ridiculous, and would be fit only for the reasonably good ear of Bottom, as to explain why we like sweetness, and dislike bitterness.

[^52]The best part of every great work is always inexplicable: it is good because it is good; and imocently gracious, opening as the green of the earth, or falling as the dew of heaven.
241. But though you cannot explain them, you may always render yourself more and more sensitive to these higher qualities by the discipline which you generally give to your character, and this especially with regard to the choice of incidents; a kind of composition in some sort easier than the artistical arrangements of lines and colors, but in every sort nobler, because addressed to deeper feelings.
242. For instance, in the "Datur Hora Quieti," the last rignette to Rogers's Poems, the plow in the foreground has three purposes. The first purpose is to meet the stream of sunlight on the river, and make it brighter by opposition; but any dark object whatever would have done this. Its second purpose is, by its two arms, to repeat the cadence of the group of the two ships, and thus give a greater expression of repose; but two sitting figures would have done this. Its third and chief, or pathetic, purpose is, as it lies abandoned in the furrow (the ressels also being moored, and having their sails down), to be a type of human labor closed with the close of day. The parts of it on which the hand leans are brought most clearly into sight; and they are the chief dark of the picture, because the tillage of the ground is required of man as a punishment: but they make the soft light of the setting sun brighter, because rest is sweetest after toil. These thoughts may never occur to us as we glance carelessly at the design; and yet their under current assuredly affects the feelings, and increases, as the painter meant it should, the impression of melancholy, and of peace.
243. Again, in the "Laneaster Sands," which is one of the plates I have marked as most desirable for your possession: the stream of light which falls from the setting sun on the advancing tide stands similarly in need of some force of near object to relieve its brightness. But the incident which Turner has here adopted is the swoop of an angry sea-gull at a dog, who yelps at it, drawing back as the wave rises over
his feet, and the bird shrieks within a foot of his face. Its unexpected boldness is a type of the anger of its ocean element, and warns us of the sea's adrance just as surely as the abandoned plow told us of the ceased labor of the day.
244. It is not, however, so much in the selection of single incidents of this kind, as in the feeling which regulates the arrangement of the whole subject, that the mind of a great composer is known. A single incident may be suggested by a felicitous chance, as a pretty motto might be for the heading of a chapter. But the great composers so arrange all their designs that one incident illustrates another, just as one color relieves another. Perhaps the "Heysham," of the Yorkshire series, which, as to its locality, may be considered a companion to the last drawing we have spoken of, the "Lancaster Sands," presents as interesting an example as we could find of Turner's fecling in this respect. The subject is a simple north-country village, on the shore of Morecambe Bay; not in the common sense a picturesque village; there are no pretty bow-windows, or red roofs, or rocky steps of entrance to the rustic doors, or quaint gables; nothing but a single street of thatched and chiefly clay-built cottages, ranged in a somewhat monotonous line, the roofs so green with moss that at first we hardly discern the houses from the fields and trees. The village street is closed at the end by a woorlen gate, indicating the little traffic there is on the road through it, and giving it something the look of a large farmstead, in which a right of way lies through the yard. The road which leads to this gate is full of ruts, and winds down a bad bit of hill between two broken banks of moor ground, succeeding immediately to the few inclosures which surround the rillage; they can hardly be called gardens: but a decayed fragment or two of fencing fill the gaps in the bank; a clothesline, with some clothes on it, striped blue and red, and a smock-frock, is stretched between the trunks of some stunted willows; a very small haystack and pig-sty being seen at the back of the cottage beyond. An empty, two-whecled, lumbering cart, drawn by a pair of horses with huge wooden
collars, the driver sitting lazily in the sum, sideways on the leader, is going slowly home along the rough road, it being about country dinner-time. At the end of the village there is a better house, with three chimneys and a dormer window in its roof, and the roof is of stone shingle instead of thatch, but very rough. This house is no doubt the clergyman's: there is some smoke from one of its chimneys, none from any other in the rillage; this smoke is from the lowest chimney at the back, evidently that of the kitchen, and it is rather thick, the fire not having been long lighted. A few hundred yards from the clergyman's house, nearer the shore, is the church, discernible from the cottages only by its low twoarehed belfry, a little neater than one would expect in such a village; perhaps lately built by the Puseyite incumbent:* and beyond the church, close to the sea, are two fragments of a border war-tower, standing on their circular mound, worm on its brow deep into edges and furrows by the feet of the village children. On the bank of moor, which forms the foreground, are a few cows, the carter's dog barking at a vixenish one: the milkmaid is feeding another, a gentle white one, which turns its head to her, expectant of a handful of fresh hay, which she has brought for it in her blue apron, fastened up round her waist; she stands with her pail on her head, evidently the village coquette, for she has a neat bodice, and pretty striped petticoat under the blue apron, and red stockings. Nearer us, the cowherd, barefooted, stands on a piece of the limestone rock (for the ground is thistly and not pleasurable to bare feet) ;-whether boy or girl we are not sure: it may be a boy, with a girl's wornout bonnet on, or a girl with a pair of ragged trousers on ; probably the first, as the old bonnet is evidently useful to

[^53]keep the sun out of our eyes when we are looking for strayed cows among the moorland hollows, and helps us at present to watch (holding the bonnet's edge down) the quarrel of the vixenish cow with the dog, which, leaning on our long stick, we allow to proceed without any interference. A little to the right the hay is being got in, of which the milkmaid has just taken her apronful to the white cow; but the hay is very thin, and cannot well be raked up because of the rocks; we must glean it like corn, hence the smallness of our stack behind the willows; and a woman is pressing a bundle of it hard together, kneeling against the rock's edge, to carry it safely to the haycart without dropping any. Beyond the village is a rocky hill, deep set with brushwood, a square crag or two of limestone emerging here and there, with pleasant turf on their brows, heaved in russet and mossy mounds against the sky, which, clear and calm, and as golden as the moss, stretehes down behind it towards the sea. A single cottage just shows its roof over the edge of the hill, looking seawards: perhaps one of the village shepherds is a sea captain now, and may have built it there, that his mother may first see the sails of his ship whenever it runs into the bay. Then under the hill, and beyond the border tower, is the blue sea itself, the waves flowing in over the sand in long eurved lines slowly; shadows of eloud, and gleams of shallow water on white sand alter-nating-miles away; but no sail is visible, not one fisherboat on the beach, not one dark speck on the quiet horizon. Beyond all are the Cumberland mountains, clear in the sun, with rosy light on all their crags.
245. I should think the reader eannot but feel the kind of harmony there is in this composition; the entire purpose of the painter to give us the impression of wild, yet gentle, country life, monotonous as the succession of the noiseless waves, patient and enduring as the rocks; but peaceful, and full of health and quiet hope, and sanetified by the pure mountain air and baptismal dew of heaven, falling softly between days of toil and nights of innocence.
246. All noble composition of this kind can be reached
only by instinct; you cannot set yourself to arrange such a subject; you may see it, and seize it, at all times, but never laboriously invent it. And your power of discerning what is best in expression, among natural subjects, depends wholly on the temper in which you keep your own mind; above all, on your living so much alone as to allow it to become acutely sensitive in its own stillness. The noisy life of modern days is wholly incompatible with any true perception of natural beauty. If you go down into Cumberland by the railroad, live in some frequented hotel, and explore the hills with merry companions, however much you may enjoy your tour or their conversation, depend upon it you will never choose so much as one pictorial subject rightly; you will not see into the depth of any. But take knapsack and stick, walk towards the hills by short day's journeys,-ten or twelve miles a day-taking a week from some starting-place sixty or seventy miles away: sleep at the pretty little wayside inns, or the rough village ones; then take the hills as they tempt you, following glen or shore as your eye glances or your heart guides, wholly scornful of local fame or fashion, and of everything which it is the ordinary traveler's duty to see, or pride to do. Never force yourself to admire anything when you are not in the humor ; but never force yourself away from what you feel to be lovely, in search of anything better; and gradually the deeper seenes of the natural world will unfold themselves to you in still increasing fullness of passionate power ; and your difficulty will be no more to seek or to compose subjects, but only to choose one from among the multitude of melodious thoughts with which you will be haunted, thoughts which will of course be noble or original in proportion to your own depth of character and general power of mind; for it is not so much by the consideration you give to any single drawing, as by the previous discipline of your powers of thought, that the character of your composition will be determined. Simplicity of life will make you sensitive to the refinement and modesty of scenery, just as inordinate excitement and pomp of daily life will make you enjoy coarse colors and affected
forms. Habits of patient comparison and accurate judgment will make your art precious, as they will make your actions wise; and every increase of noble enthusiasm in your living spirit will be measured by the reflection of its light upon the works of your hands.-Faithfully yours,
J. Rusein.

## APPENDIX.

## I.

## ILLUSTRATIVE NOTES.

Note 1, p. 42.-" Principle of the stereoscope."
247. I am sorry to find a notion current among artists, that they can, in some degree, imitate in a picture the effect of the stereoscope, by confusion of lines. There are indced one or two artifices by which, as stated in the text, an appearance of retirement or projection may be obtained, so that they partly supply the place of the stereoscopic effect, but they do not imitate that effect. The principle of the human sight is simply this:-by means of our two eyes we literally see everything from two places at once; and, by calculated combination, in the brain, of the facts of form so seen, we arrive at conclusions respecting the distance and shape of the object, which we could not otherwise have reached. But it is just as vain to hope to paint at once the two views of the object as seen from these two places, though only an inch and a half distant from each other, as it would be if they were a mile and a half distant from each other. With the right eye you see one view of a given object, relieved against one part of the distance; with the left eye you see another view of it, reliceed against another part of the distance. You may paint whichever of those views you please; you cannot paint both. Hold your finger upright, between
you and this page of the book, about six inches from your eyes, and three from the book; shut the right eye, and hide the words "inches from," in the second line abore this, with your finger; you will then see " six " on one side of it, and "your," on the other. Now shut the left eye and open the right without moving your finger, and you will see "inches," lut not "six." You may paint the finger with "inches" herond it, or with "six " beyond it, but not with both. And this principle holds for any object and any distance. You might just as well try to paint St. Paul's at once from both ends of London Bridge as to realize any stereoscopic effect in a picture.

## Note 2, p. 59.-" Dark lines turned to the light."

248 . It ought to have been farther observed, that the inclosure of the light by future shadow is by no means the only reason for the dark lines which great masters often thus introduce. It constantly happens that a local color will show its own darkness most on the light side, by projecting into and against masses of light in that direction; and then the painter will indicate this future force of the mass by his dark touch. Both the monk's head in Fig. 11 and dog in Fig. 20 are dark towards the light for this reason.

> Noтe 3, p. 98.-" Softness of reflections."
249. I have not quite insisted enough on the extreme care which is necessary in giving the tender eranescence of the edges of the reflections, when the water is in the least agitated; nor on the decision with which you may reverse the object, when the water is quite calm. Most drawing of reflections is at once confused and hard; but Nature's is at once intelligible and tender. Generally, at the edge of the water, your ought not to see where reality ceases and reflection begins; as the image loses itself you ought to keep all its subtle and varied reracities, with the most exquisite softening of its edge.

Practice as much as you can from the reflections of ships in calm water, following out all the reversed rigging, and taking, if anything, more pains with the reflection than with the ship.

Note 4, p. 100.-_" Where the reflection is darkest, you will see through the water best."
250. For this reason it often happens that if the water be shallow, and you are looking steeply down into it, the reflection of objects on the bank will consist simply of pieces of the bottom seen clearly through the water, and relieved by flashes of light, which are the reflection of the sky. Thus you may have to draw the reflected dark shape of a bush: but, inside of that shape, you must not draw the leaves of the bush, but the stones under the water; and, outside of this dark reflection, the blue or white of the sky, with no stones visible.

## Note 5, p. 101.-"Approach streams with reverence."

251. I have hardly said anything about waves of torrents or waterfalls, as I do not consider them subjects for beginners to practice upon; but, as many of our younger artists are almost breaking their hearts over them, it may be well to state at once that it is physically impossible to draw a rumning torrent quite rightly, the luster of its currents and whiteness of its foam being dependent on intensities of light which art has not at its command. This also is to be observed, that most young painters make their defeat certain by attempting to draw running water, which is a lustrous object in rapid motion, without ever trying their strength on a lustrous object standing still. Let them break a coarse green-glass bottle into a great many bits, and try to paint those, with all their undulations and edges of fracture, as they lie still on the table; if they cannot, of course they need not try the
rushing crystal and foaming fracture of the stream. If they can manage the glass bottle, let them next buy a fragment or two of yellow fire-opal; it is quite a common and cheap mineral, and presents, as closely as anything can, the milky bloom and color of a torrent wave: and if they can conquer the opal, they may at last have some chance with the stream, as far as the stream is in any wise possible. But, as I have just said, the bright parts of it are not possible, and ought, as much as may be, to be avoided in choosing subjects. A great deal more may, however, be done than any artist has done yet, in painting the gradual disappearance and lovely coloring of stones seen through clear and calm water.

Students living in towns may make great progress in rockdrawing by frequently and faithfully drawing broken edges of common roofing slates, of their real size.

## Note 6, p. 125.-" Nature's economy of color."

252. I heard it wisely objected to this statement, the other day, by a young lady, that it was not through ceonomy that Nature did not color deep down in the flower bells, but because "she had not light enough there to see to paint with." This may be true ; but it is certainly not for want of light that, when she is laying the dark spots on a foxglove, she will not use any more purple than she has got already on the bell, but takes out the color all round the spot, and concentrates it in the middle.

## Note 7, p. 138.--" The law of repectition."

253. The reader may jerhaps recollect a very beautiful picture of Vandyck's in the Manchester Exhibition, representing three children in court dresses of rich black and red. The law in question was amusingly illustrated, in the lower corner of that picture, by the introduction of two crows, in a similar color of court dress, having jet black feathers and bright red beaks.
254. Since the first edition of this work was published, I have ascertained that there are two series of engravings from the Bible drawings mentioned in the list at p. 50 . One of these is inferior to the other, and in many respects false to the drawing; the "Jcricho," for instance, in the false series, has common bushes instead of palm trees in the middle distance. The original plates may be had at almost any respectable printseller's; and ordinary impressions, whether of these or any other plates mentioned in the list at p. 50, will be quite as useful as proofs: but, in buying Liber Studiorum, it is always well to get the best impressions that can be had, and if possible impressions of the original plates, published by Turner. In case these are not to be had, the copies which are in course of publication by Mr. Lupton. (4 Keppel Street, Russell Square) are good and serviceable; but no others are of any use.- [Note of 1857.$]$

I have placed in the hands of Mr. Ward (Working Men's College) some photographs from the etchings made by Turner for the Liber; the original etchings being now unobtainable, except by fortunate accident. I hare selected the subjects carefully from my own collection of the etchings; and though some of the more subtle qualities of line are lost in the photographs, the student will find these proofs the best lessons in pen-drawing accessible to him.-[Note of 185.9]

## II.

## TIIINGS TO BE STUDIED.

255. The worst danger by far, to which a solitary student is exposed, is that of liking things that he should not. It is not so much his difficulties, as his tastes, which he must set himself to conquer: and although, under the guidance of a master, many works of art may be made instructive, which are only of partial excellence (the good and bad of them being duly distinguished), his safeguard, as long as he studies alone, will be in allowing himself to possess only things, in their way, so free from faults, that nothing he copies in them can seriously mislead him, and to contemplate only those works of art which he knows to be either perfect or noble in their errors. I will therefore set down, in clear order, the names of the masters whom you may safely admire, and a few of the books which you may safely possess. In these days of cheap illustration, the danger is always rather of your possessing too much than too little. It may admit of some question, how far the looking at bad art may set off and illustrate the characters of the good; but, on the whole, I believe it is best to live always on quite wholesome food, and that our enjoyment of it will never be made more acute by feeding on ashes; though it may be well sometimes to tasto the ashes, in order to know the bitterness of them. Of course the works of the great masters can only be serviceable to the student after he has made considerable progress himself. It only wastes the time and dulls the feelings of young persons, to drag them through picture galleries; at least, unless they themselves wish to look at particular pictures. Generally, young peoplo only care to enter a picture gallery when there is a chance of getting leave to run a race to the other end of it; and they had better do that in the garden below. If, however, they have any real enjoyment of
pictures, and want to look at this one or that, the principal point is never to disturb them in looking at what interests them, and never to make them look at what does not. Nothing is of the least use to young people (nor, by the way, of much use to old ones), but what interests them; and therefore, though it is of great importance to put nothing but good art into their possession, set, when they are passing through great houses or galleries, they should be allowed to look precisely at what pleases them: if it is not useful to them as art, it will be in some other way; and the healthiest way in which art can interest them is when they look at it, not as art, but because it represents something they like in Nature. If a boy has had his heart filled by the life of some great man, and goes up thirstily to a Vandyck portrait of him, to see what he was like, that is the wholesomest way in which he can begin the study of portraiture ; if he loves mountains, and dwells on a Turner drawing because he sees in it a likeness to a Yorkshire scar or an Alpine pass, that is the wholesomest way in which he can begin the study of landscape; and if a girl's mind is filled with dreams of angels and saints, and she pauses before an Angelico because she thinks it must surely be like heaven, that is the right way for her to begin the study of religious art.
256. When, however, the student has made some definite progress, and every picture becomes really a guide to him, false or true, in his own work, it is of great importance that he should never look, with even partial admiration, at bad art; and then, if the reader is willing to trust me in the matter, the following advice will be useful to him. In which, with his permission, I will quit the indirect and return to • the epistolary address, as being the more convenient.

First, in Galleries of Pictures:

1. You may look, with trust in their being always right, at Titian, Veronese, Tintoret, Giorgione, John Bellini, and Velasquez; the authenticity of the picture being of course established for you by proper authority.
2. You may look with admiration, admitting, however, question of right and wrong,* at Van Eyck, Holbein, Perugino, Francia, Angelico, Leonardo da Vinci, Correggio, Tandyck, Rembrandt, Reynolds, Gainsborough, Turner, and the modern Pre-Raphaelites. $\dagger$ You had better look at no other painters than these, for gou run a chance, otherwise, of being led far off the road, or into grierous faults, by some of the other great ones, as Michael Angelo, Raphael, and Rubens; and of being, besides, corrupted in taste by the base ones, as Murillo, Salvator, Claude, Gaspar Poussin, Teniers, and such others. You may look, howerer, for examples of evil, with safe universality of reprobation, being sure that everything you see is bad, at Domenichino, the Carracci, Bronzino, and the figure picces of Salvator.

Among those named for study under question, you cannot look too much at, nor grow too enthusiastically fond of, Angelico, Correggio, Reynolds, Turner, and the Pre-Raphaclites; but, if you find yourself getting especially fond of any of the others, leare off looking at them, for you must be going wrong some way or other. If, for instance, you begin to like Rembrandt or Leonardo especially, you are losing your feeling for color ; if you like Van Eyck or Perugino especially, you must be getting too fond of rigid detail; and if you like Vandyck or Gainsborough especially, you must be too much attracted by gentlemanly flimsiness.
257. Secondly, of published, or otherwise multiplied, art, such as you may be able to get yourself, or to see at private houses or in shops, the works of the following masters are the most desirable, after the Turners, Rembrandts, and Dïrers, which I have asked you to get first:

[^54]
## 1. Samuel Prout.*

All his published lithographic sketches are of the greatest value, wholly unrivaled in power of composition, and in love and feeling of architectural subject. His somewhat mannered linear execution, though not to be imitated in your own sketches from Nature, may be occasionally copied, for discipline's sake, with great adrantage: it will give you a peculiar steadiness of hand, not quickly attainable in any other way; and there is no fear of your getting into any faultful mannerism as long as you carry out the different modes of more delicate study above recommended.

If you are interested in architecture, and wish to make it your chief study, you should draw much from photographs of it; and then from the architecture itself, with the same completion of detail and gradation, only keeping the shadows of due paleness,-in photographs they are always about four times as dark as they ought to be,-and treat buildings with as much care and love as artists do their rock foregrounds, drawing all the moss, and weeds, and stains upon them. But if, without caring to understand architecture, you merely want the picturesque character of it, and to be able to sketch it fast, you cannot do better than take Prout for your exclusive master; only do not think that you are copying Prout by drawing straight lines with dots at the end of them. Get first his "Rhine," and draw the subjects that have most hills, and least architecture in them, with chalk on smooth paper, till you can lay on his broad flat tints, and get his gradations of light, which are very wonderful; then take up the architectural sulbjects in the "Rhine," and draw again and again the groups of figures, etc., in his "Microcosm," and "Lessons on Light and

* The order in which I place these masters does not in the least imply superiority or inferiority. I wrote their names down as they occurred to me; putting Rossetti's last because what I had to say of him was connected with other subjects; and one or another will appear to you great, or be found by you useful, according to the kind of subjects you are studying.

Shadow." $\Lambda$ fter that, proceed to copy the grand subjects in the "Sketches in Flanders and Germany; " or " in Switzerland and Italy," if you camot get the Flanders; but the Switzerland is rery far inferior. Then work from Nature, not trying to Prouttize Nature, by breaking smooth buildings into rough ones, but only drawing what you see, with Prout's simple method and firm lines. Don't copy his colored works. They are good, but not at all equal to his chalk and pencil drawings; and you will become a mere imitator, and a very fechle imitator, if you use color at all in Prout's method. I have not space to explain why this is so, it would take a long piece of reasoning; trust me for the statement.

## 2. John Lewis.

His sketches in Spain, lithographed by himself, are very valuable. Get them, if you can, and also some engrarings (about cight or ten, I think, altogether) of wild beasts, exceuted by his own hand a long time ago; they are very precious in every way. The series of the "Alhambra" is rather slight, and few of the subjects are lithographed by limself; still it is well worth having.

But let no lithographic work come into the house, if you can help it, nor even look at any, except Prout's, and those sketches of Lewis's.

## 3. George Cruikshank.

If you ever happen to meet with the two volumes of "Grimm's German Stories," which were illustrated by him long ago, pounce upon them instantly; the etchings in them are the finest things, next to Rembrandt's, that, as far as I know, lave been done since etching was invented. You cannot look at them too much, nor copy them too often.

All his works are very raluable, though disagreeable when they touch on the worst rulgarities of modern life; and often much spoiled by a curiously mistaken type of face, divided so as to give too much to the mouth and eyes and leave too little for forchead, the eyes being set about two
thirds up, instead of at half the height of the head. But his manner of work is always right; and his tragic power, though rarely developed, and warped by habits of caricature, is, in reality, as great as his grotesque power.

There is no fear of his hurting your taste, as long as your principal work lies among art of so totally different a character as most of that which I have recommended to you; and you may, therefore, get great good by copying almost anything of his that may come in your way; except only his illustrations, lately published, to "Cinderella," and " Jack and the Bean-stalk," and "Tom Thumb," which are much overlabored, and confused in line. You should get them, but do not copy them.

## 4. Alfred Rethel.

I only know two publications by him; one, the "Dance of Death," with text by Reinick, published in Leipsic, but to be had now of any London bookseller for the sum, I beliere, of eighteen pence, and containing six plates full of instructive character; the other, of two plates only, "Death the Avenger," and "Death the Friend." These two are far superior to the "Todtentanz," and, if you can get them, will be enough in themselves to show all that Rethel can teach yon. If you dislike ghastly subjects, get "Death the Friend" only.
5. Bewick.

The execution of the plumage in Bewick's birds is the most masterly thing ever yet done in wood-cutting; it is worked just as Paul Veronese would have worked in wood, had he taken to it. His rignettes, though too coarse in execution, and vulgar in types of form, to be good copies, show, nevertheless, intellectual power of the highest order; and there are pieces of sentiment in them, either pathetic or satirical, which have never since been equaled in illustrations of this simple kind; the bitter intensity of the feeling being just like that which characterizes some of the leading Pre-Raphaelites. Bewick is the Burns of painting.

## 6. Blake.

The " Book of Job," engraved by himself, is of the highest rank in certain characters of imagimation and expression; in the mode of obtaining certain effects of light it will also be a very useful example to you. In expressing conditions of glaring and flickering light, Blake is greater than Rembrandt.

## 7. Richter.

I have already told you what to guard against in looking at his works. I am a little doubtful whether I have done well in including them in this catalogue at all; but the imaginations in them are so lovely and numberless, that I must risk, for their sake, the chance of hurting you a little in judgment of style. If you want to make presents of story-books to children, his are the best you can now get; but his most beautiful work, as far as I know, is his series of Illustrations to the Lord's Prayer.

## 8. Rossetti.

An edition of Tennyson, lately published, contains woodcuts from drawings by Rossetti and other chicf Pre-Raphaelite masters. They are terribly spoiled in the cutting, and generally the best part, the expression of feature, entirely lost ;" still they are full of instruction, and cannot be studied too closely. But observe, respecting these wood-cuts, that if you have been in the habit of looking at much spurious work, in which sentiment, action, and style are borrowed or artificial, you will assuredly be offended at first by all genuine work, which is intense in feeling. Genuine art, which is merely art, such as Veronese's or Titian's, may not offend you, though the chances are that you will not care about it; but genuine works of feeling, such as "Maud" or "Aurora

[^55]Leigh" in poetry, or the grand Pre-Raphaelite designs in painting, are sure to offend you: and if you cease to work hard, and persist in looking at vicious and false art, they will continue to offend you. It will be well, therefore, to have one trpe of entirely false art, in order to know what to guard against. Flaxman's outlines to Dante contain, I think, examples of almost every kind of falsehood and feebleness which it is possible for a trained artist, not base in thought, to commit or admit, both in design and execution. Base or degraded choice of subject, such as you will constantly find in Teniers and others of the Dutch painters, I need not, I hope, warn you against ; you will simply turn away from it in disgust ; while mere bad or feeble drawing, which makes mistakes in every direction at once, cannot teach you the particular sort of educated fallacy in question. But, in these designs of Flaxman's, you have gentlemanly feeling, and fair knowledge of anatomy, and firm setting down of lines, all applied in the foolishest and worst possible way; you cannot have a more finished example of learned error, amiable want of meaning, and bad drawing with a steady hand.* Retzsch's outlines have more real material in them

[^56]than Flaxman's, occasionally showing true fancy and power; in artistic principle they are nearly as bad, and in taste, worsc. All outlines from statuary, as given in works on classical art, will be very hurtful to you if you in the least like them; and nearly all finished line engravings. Some particular prints I could name which possess instructive qualities, but it would take too long to distinguish them, and the best way is to avoid line engravings of figures altogether.* If you happen to be a rich person, possessing quantities of them, and if you are fond of the large finished prints from Raphael, Correggio, etc., it is wholly impossible that you can make any progress in knowledge of real art till you have sold them all,-or burut them, which would be a greater benefit to the world. I hope that, some day, true and noble engravings will be made from the few pictures of the great schools, which the restorations undertaken by the modern managers of foreign galleries may leave us; but the existing engravings have nothing whatever in common with the good in the works they profess to represent, and, if you like them, you like in the originals of them hardly anything but their errors.
258. Finally, your judgment will be, of course, much affected by your taste in literature. Indeed, I know many persons who have the purest taste in literature, and yet false taste in art, and it is a phenomenon which puzzles me not a little; but I have never known any one with false taste in books, and true taste in pictures. It is also of the greatest importance to you, not only for art's sake, but for all kinds of sake, in these days of book deluge, to keep out of the salt

[^57]swamps of literature, and live on a little rocky island of your own, with a spring and a lake in it, pure and good. I cannot, of course, suggest the choice of your library to you: every several mind needs different books; but there are some books which we all need, and assuredly, if you read Homer,* Plato, Fschylus, Herodotus, Dante, $\dagger$ Shakspeare, and Spenser, as much as you ought, you will not require wide enlargement of shelves to right and left of them for purposes of perpetual study. Among modern books avoid generally magazine and review literature. Sometimes it may contain a useful abridgment or a wholesome piece of criticism; but the chances are ten to one it will either waste your time or mislead you. If you want to understand any subject whatever, read the best book upon it you can hear of: not a review of the book. If you don't like the first book you try, seek for another; but do not hope ever to understand the subject without pains, by a reviewer's help. Avoid especially that class of literature which has a knowing tone; it is the most poisonous of all. Erery good book, or piece of book, is full of admiration and awe ; it may contain firm assertion or stern satire, but it never sncers coldly, nor asserts haughtily, and it always leads you to reverence or love something with your whole heart. It is not always easy to distinguish the satire of the venomous race of books from the satire of the noble and pure ones; but in general you may notice that the coldblooded, Crustacean and Batrachian books will sneer at sentiment; and the warm-blooded, human books, at sin. Then, in general, the more you can restrain your serious reading to reflective or lyric poctry, history, and natural history, aroiding fiction and the drama, the healthier your mind will become. Of modern poctry, keep to Scott, Words-

[^58]worth, Keats, Crabbe, Tennyson, the two Brownings, Thomas Hood, Lowell, Longfellow, and Corentry Patmore, whose "Angel in the House" is a most finished picee of writing, and the sweetest analysis we possess of quiet modern domestic feeling; while Mrs. Browning's "Aurora Leigh " is, as far as I know, the greatest poem which the eentury has produced in any language. Cast Coleridge at onee aside, as sickly and useless; and Shelley, as shallow and verbose; Byron, until your taste is fully formed, and you are able to discern the magnificence in him from the wrong. Never read bad or common poetry, nor write any poetry yourself; there is, perhaps, rather too much than too little in the world already.
259. Of reflective prose, read ehiefly Bacou, Johnson, and Helps. Carlyle is hardly to be named as a writer for "beginners," beeause his teaching, though to some of us vitally neeessary, may to others be hurtful. If you understand and like him, read him; if he offends you, you are not yet ready for him, and perhaps may never be so; at all events, give him up, as you would sea-bathing if you found it hurt you, till you are stronger. Of fietion, read "Sir Charles Grandison," Scott's novels, Miss Edgeworth's, and, if you are a young lady, Madame de Genlis', the French Miss Edgeworth; making these, I mean, your constant companions. Of course you must, or will, read other books for amusement once or twice; but you will find that these have an element of perpetuity in them, existing in nothing else of their kind; while their peculiar quietness and repose of manner will also be of the greatest value in teaching you to feel the same characters in art. Read little at a time, trying to feel interest in little things, and reading not so much for the sake of the story as to get aequainted with the pleasant people into whose company these writers bring you. A common book will often give you much amusement, but it is only a noble book whieh will give you dear friends. Remember, also, that it is of less importance to you in your earlier years, that the books you read should be clever than that they should be right. I
do not mean oppressively or repulsively instructive; but that the thoughts they express should be just, and the feelings they excite generous. It is not necessary for you to read the wittiest or the most suggestive books: it is better, in general, to hear what is already known, and may be simply said. Much of the literature of the present day, though good to be read by persons of ripe age, has a tendency to agitate rather than confirm, and leaves its readers too frequently in a helpless or hopeless indignation, the worst possible state into which the mind of youth can be thrown. It may, indeed, become necessary for you, as you advance in life, to set your hand to things that need to be altered in the world, or apply your heart chiefly to what must be pitied in it, or condemned; but, for a young person, the safest temper is one of reverence, and the safest place one of obscurity. Certainly at present, and perhaps through all your life, your teachers are wisest when they make you content in quiet virtue, and that literature and art are best for you which point out, in common life, and in familiar things, the objects for hopeful labor, and for humble love.

## THE ELEMENTS OF PERSPECTIVE

## ARRANGED FOR THE USE OF SCHOOLS

AND INTENDED TO BE READ IN CONNECTION WITH THE FIRST THREE BOOKS OE EUCLID.


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## PREFACE.

For some time back I have felt the want, among Students of Drawing, of a written code of accurate Perspective Law; the modes of construction in common use being various, and, for some problems, insufficient. It would have been desirable to draw up such a code in popular language, so as to do away with the most repulsive difficulties of the subject; but finding this popularization would be impossible, without elaborate figures and long explanations, such as I had no leisure to prepare, I have arranged the necessary rules in a short mathematical form, which any schoolboy may read through in a few days, after he has mastered the first three and the sixth books of Euclid.

Some awkward compromises have been admitted between the first-attempted popular explanation, and the severer arrangement, involving irregular lettering and redundant phraseology; but I cannot for the present do more, and leave the book therefore to its trial, hoping that, if it be found by masters of schools to answer its purpose, I may hereafter bring it into better form.*

An account of practical methods, sufficient for general purposes of sketching, might indeed have been set down in

[^59]much less space: but if the student reads the following pages carefully, he will not only find himself able, on occasion, to solve perspective problems of a complexity greater than the ordinary rules will reach, but obtain a clue to many important laws of pictorial effect, no less than of outline. The subject thus examined becomes, at least to my mind, very curious and interesting; but, for students who are unable or unwilling to take it up in this abstract form, I believe good help will be soon furnished, in a scries of illustrations of practical perspective now in preparation by Mr. Le Vengeur. I have not seen this essay in an adranced state, but the illustrations shown to me were very clear and good; and, as the author has devoted much thought to their arrangement, I hope that his work will be precisely what is wanted by the general learner.

Students wishing to pursue the subject into its more extended branches will find, I believe, Cloquet's treatise the best hitherto published.*.

* Nouveau Traité Élémentaire de Perspective. Bachelier, 1823.


## THE

## ELEMENTS OF PERSPECTIVE.

## INTRODUCTION.

When you begin to read this book, sit down very near the window, and shut the window. I hope the view out of it is pretty; but, whatever the view may be, we shall find enough in it for an illustration of the first principles of perspective (or, literally, of "looking through ").

Every pane of your window may be considered, if you choose, as a glass picture; and what you see through it, as painted on its surface.

And if, holding your head still, you extend your hand to the glass, you may, with a brush full of any thick color, trace, roughly, the lines of the landscape on the glass.

But, to do this, you must hold your head very still. Not only you must not move it sideways, nor up and down, but it must not even move backwards or forwards; for, if you move your head forwards, you will see more of the landscape through the pane; and, if you move it backwards, you will see less: or considering the pane of glass as a picture, when you hold your head near it, the objects are painted small, and a great many of them go into a little space; but, when you hold your head some distance back, the objects are painted larger upon the pane, and fewer of them go into the field of it.

But, besides holding your head still, you must, when you try to trace the picture on the glass, shut one of your eyes. If you do not, the point of the brush appears double ; and,
on farther experiment, you will observe that each of your eres sees the object in a different place on the glass, so that the tracing which is true to the sight of the right eye is a couple of inches (or more, according to your distance from the pane,) to the left of that which is true to the sight of the left.

Thus, it is only possible to draw what you see through the window rightly on the surface of the glass, by fixing one eve at a given point, and neither moving it to the right nor left, nor up nor down, nor backwards nor forwards. Every picture drawn in true perspective may be considered as an upright piece of glass,* on which the objects seen through it have bcen thus drawn. Perspective can, therefore, only be quite right, by being calculated for one fixed position of the ere of the observer; nor will it ever appear deceptively right unless seen precisely from the point it is calculated for. Custom, however, enables us to feel the rightness of the work on using both our eyes, and to be satisfied with it, even when we stand at some distance from the point it is designed for.

Supposing that, instead of a window, an unbroken plate of crystal extended itself to the right and left of you, and high in front, and that you had a brush as long as you wanted (a mile long, suppose), and could paint with such a brush, then the clouds high up, nearly over your head, and the landscape far away to the right and left, might be traced, and painted, on this enormous crystal field. $\dagger$ But if the field were so vast (suppose a mile high and a mile wide), certainly, after the picture was done, you would not stand as near to it, to see it, as you are now sitting near to your window. In order to trace the upper clouds through your great glass, you would have had to stretch your neck

* If the glass were not upright, but sloping, the objects might still be drawn through it, but their perspective would then be different. Perspective, as commonly taught, is always calculated for a vertical plane of picture.
$\dagger$ Supposing it to have no thickness; otherwise the images would be distorted by refraction.
quite back, and nobody likes to bend their neck back to see the top of a picture. So you would walk a long way back to see the great picture-a quarter of a mile, perhaps,and then all the perspective would be wrong, and would look quite distorted, and you would discover that you ought to have painted it from the greater distance, if you meant to look at it from that distance. Thus, the distance at which you intend the observer to stand from a picture, and for which you calculate the perspective, ought to regulate to a certain degree the size of the picture. If you place the point of observation near the canvas, you should not make the picture very large: vice versa, if you place the point of observation far from the canvas, you should not make it very small; the fixing, therefore, of this point of observation determines, as a matter of convenience, within certain limits, the size of your picture. But it does not determine this size by any perspective law; and it is a mistake made by many writers on perspective, to connect some of their rules definitely with the size of the picture. For, suppose that you had what you now see through your window painted actually upon its surface, it would be quite optional to cut out any piece you chose, with the piece of the landscape that was painted on it. You might have only half a pane, with a single tree; or a whole pane, with two trees and a cottage; or two panes, with the whole farmyard and pond; or four panes, with farmyard, pond, and foreground. And any of these pieces, if the landscape upon them were, as a scene, pleasantly composed, would be agreeable pictures, though of quite different sizes; and yet they would be all calculated for the same distance of observation.

In the following treatise, therefore, I keep the size of the picture entirely undetermined. I consider the field of canvas as wholly unlimited, and on that condition determine the perspective laws. After we know how to apply those laws without limitation, we shall see what limitations of the size of the picture their results may render advisable.

But although the size of the picture is thus independent
of the observer's distance, the size of the object represented in the picture is not. On the contrary, that size is fixed by absolute mathematical law; that is to say, supposing you have to draw a tower a hundred feet high, and a quarter of a mile distant from you, the height which you ought to give that tower on your paper depends, with mathematical precision, on the distance at which you intend your paper to be placed. So, also, do all the rules for drawing the form of the tower, whaterer it may be.

Hence, the first thing to be done in beginning a drawing is to fix, at your choice, this distance of observation, or the distance at which you mean to stand from your paper. After that is determined, all is determined, except only the ultimate size of your pieture, which you may make greater, or less, not by altering the size of the things represented, but by taking in more, or fewer of them. So, then, before proceeding to apply any practical perspective rule, we must always have our distance of observation marked, and the most convenient way of marking it is the following:

PLACING OF TIIE SIGHT-POINT, SIGIIT-LINE, STATION-POINT, AND STATION-LINE.


Fig. 1.
I. The Sight-Point.-Let a b c d, Fig. 1., be jour sheet
of paper, the larger the better, though perhaps we may cut out of it at last only a small piece for our picture, such as the dotted circle N or P . This circle is not intended to limit either the size or shape of our picture: you may ultimately have it round or oval, horizontal or upright, small or large, as you choose. I only dot the line to give you an idea of whereabouts you will probably like to have it; and, as the operations of perspective are more conveniently performed upon paper underneath the picture than above it, I put this conjectural circle at the top of the paper, about the middle of it, leaving plenty of paper on both sides and at the bottom. Now, as an observer generally stands near the middle of a picture to look at it, we had better at first, and for simplicity's sake, fix the point of observation opposite the middle of our conjectural picture. So take the point s, the center of the circle n o P Q;-or, which will be simpler for you in your own work, take the point s at random near the top of your paper, and strike the circle N o P Q round it, any size you like. Then the point $S$ is to represent the point opposite which you wish the observer of your picture to place his eye, in looking at it. Call this point the "Sight-Point."
II. The Sight-Line.-Through the Sight-point, s, draw a horizontal line, G H, right across your paper from side to side, and call this line the "Sight-Line."

This line is of great practical use, representing the level of the eye of the observer all through the picture. You will find hereafter that if there is a horizon to be represented in your picture, as of distant sea or plain, this line defines it.
III. Tife Station-Line.-From s let let fall a perpendicular line, s r, to the bottom of the paper, and call this line the "Station-Line."
This represents the line on which the observer stands, at a greater or less distance from the picture; and it ought to be imagined as drawn right out from the paper at the point s. Hold your paper upright in front of you, and hold your pencil horizontally, with its point against the point $s$, as if you
wanted to run it through the paper there, and the pencil will represent the direction in which the line $s \mathrm{r}$ ought to be drawn. But as all the measurements which we have to set upon this line, and operations which we have to perform with it, are just the same when it is drawn on the paper itself, below $s$, as they would be if it were represented by a wire in the position of the leveled pencil, and as they are much more easily performed when it is drawn on the paper, it is always in practice, so drawn.
IV. The Station-Point.-On this line, mark the distance s T at your pleasure, for the distance at which you wish


Fig. 2.
your picture to be seen, and call the point $T$ the "StationPoint."

In practice, it is generally advisable to make the distance S T about as great as the diameter of your intended picture; and it should, for the most part, be more rather than less; but, as I have just stated, this is quite arbitrary. However, in this figure, as an approximation to a generally advisable distance, I make the distance $s$ t equal to the diameter of the circle N o P Q. Now, having fixed this distance, s t, all the dimensions of the objects in our picture are fixed likewise, and for this reason :-

Let the upright line a b, Fig. 2., represent a pane of glass placed where our picture is to be placed; but seen at the side
of it, edgeways; let s be the Sight-point; s т the Station-line, which, in this figure, observe, is in its true position, drawn out from the paper, not down upon it; and m the Stationpoint.
Suppose the Station-line s t to be continued, or in mathematical language " produced," through s, far beyond the pane of glass, and let $P Q$ be a tower or other upright object situated on or above this line.

Now the apparent height of the tower $\mathrm{P} Q$ is measured by the angle $Q$ T $P$, between the rays of light which come from the top and bottom of it to the eye of the observer. But the actual height of the image of the tower on the pane of glass A $\quad$, between us and it, is the distance $P^{\prime} Q^{\prime}$ between the points where the rays traverse the glass.
Evidently, the farther from the point T we place the glass, making s r longer, the larger will be the image; and the nearer we place it to T , the smaller the image, and that in a fixed ratio. Let the distance D т be the direct distance from the Station-point to the foot of the object. Then, if we place the glass $\mathrm{A}_{\mathrm{B}}$ at one-third of that whole distance, $\mathrm{P}^{\prime} Q^{\prime}$ will be one-third of the real height of the object; if we place the glass at two-thirds of the distance, as at $\mathrm{E} F, \mathrm{P}^{\prime \prime} \mathrm{Q}^{\prime \prime}$ (the height of the image at that point) will be two-thirds the height * of the object, and so on. Therefore the mathematical law is that $\mathrm{P}^{\prime} \mathrm{Q}^{\prime}$ will be to PQ Q as S T to D т. I put this ratio clearly by itself that you may remember it:

$$
\mathrm{P}^{\prime} \mathrm{Q}^{\prime}: P Q:: \mathrm{S} T: \mathrm{D} T
$$

or in words:
P dash Q dash is to PQ as ST to $\mathrm{D} T$
In which formula, recollect that $P^{\prime} Q^{\prime}$ is the height of the appearance of the object on the picture; $\mathrm{P} Q$ the height of the object itself; s the Sight-point: t the Station-point; d a point at the direct distance of the object; though the object is

[^60]seldom placed actually on the line t s produced, and may bo far to the right or left of it, the formula is still the same.

For let s, Fig. 3., be the Sight-point, and a b the glasshere seen looking down on its upper edge, not sideways;then if the tower (represented now, as on a map, by the dark square), instead of being at d on the line s T produced, be at e, to the right (or left) of the spec-


Fig. 3. tator, still the apparent height of the tower on $A$ b will be as $s^{\prime} T$ to E T , which is the same ratio as that of $\mathrm{S} T$ to D т.

Now in many perspective problems, the position of an object is more conveniently expressed by the two measurements D T and $\mathrm{D} E$, than by the single oblique measurement E T.

I shall call $\mathbf{D}$ т the " direct distance" of the object at E, and D E its " lateral distance." It is rather a license to call D T its "direct" distance, for E т is the more direct of the two; but there is no other term which would not cause confusion.

Lastly, in order to eomplete our knowledge of the position of an object, the vertical height of some point in it, above or below the eye, must be given ; that is to say, either D P or D Q in Fig. 2.* : this I shall call the "vertical distance" of the point given. In all perspective problems these three distances, and the dimensions of the object, must be stated, otherwise the problem is imperfectly given. It ought not to be required of us merely to draw $a$ room or $a$ church in perspective; but to draw this room from this corner, and that chureh on that spot, in perspective. For want of knowing

[^61]how to base their drawings on the measurement and place of the object, I have known practiced students represent a parish church, certainly in true perspective, but with a nave about two miles and a half long.

It is true that in drawing landscapes from nature the sizes and distances of the objects cannot be accurately known. When, however, we know how to draw them rightly, if their size were given, we have only to assume a rational approximation to their size, and the resulting drawing will be true enough for all intents and purposes. It does not in the least matter that we represent a distant cottage as eighteen feet long, when it is in reality only seventeen; but it matters much that we do not represent it as eighty feet long, as we easily might if we had not been accustomed to draw from measurement. Therefore, in all the following problems the measurement of the object is given.

The student must observe, however, that in order to bring the diagrams into convenient compass, the measurements assumed are generally very different from any likely to occur in practice. Thus, in Fig. 3., the distance d $s$ would be probably in practice half a mile or a mile, and the distance t s , from the eye of the observer to the paper, only two or three feet. The mathematical law is however precisely the same, whatever the proportions; and I use such proportions as are best calculated to make the diagram clear.

Now, therefore, the conditions of a perspective problem are the following:

The Sight-line a н given, Fig. 1.;
The Sight-point s given;
The Station-point t given; and
The three distances of the object,* direct, lateral, and vertical, with its dimensions, given.
The size of the picture, conjecturally limited by the dotted circle, is to be determined afterwards at our pleasure. On these conditions I proceed at once to construction.

[^62]```
PROBLEMI I.
TO FIX THE POSITION OF A GIVEN POINT.*
```

Let r, Fig. 4., be the given point.


Fig. 4.
Let its direct distance be n T ; its lateral distance to the left, D C ; and vertical distance beneath the eye of the observer, с $\mathbf{~}$.
[Let $G$ ir be the Sight-line, $s$ the Sight-point, and $T$ the Station-point.] $\dagger$

It is required to fix on the plane of the picture the position of the point $r$.

[^63]Arrange the three distances of the object on your paper, as in Fig. 4.*

Join c T , cutting G н in in .
From Q let fall the vertical line $\mathrm{Q} \mathrm{P}^{\prime}$.
Join $\mathbf{P}$ т, cutting Q P in $\mathrm{P}^{\prime}$.
$P^{\prime}$ is the point required.
If the point P is above the eye of the observer instead of below it, C P is to be measured upwards from $C$, and \& $P^{\prime}$


Fig. 5.
drawn upwards from q. The construction will be as in Fig. 5.
And if the point P is to the right instead of the left of the

* In order to be able to do this, you must assume the distances to be small; as in the case of some object on the table : how large distances are to be treated you will see presently; the mathematical principle, being the same for all, is best illustrated first on a small scale. Suppose, for instance, P to be the corner of a book on the table, seven inches below the eye, five inches to the left of it, and a foot and a half in advance of it, and that you mean to hold your finished drawing at six inches from the eye; then TS will be six inches, T D a foot and a half, D C five inches, and C P seven.
observer, D C is to be measured to the right instead of the left.

The figures 4. and 5., looked at in a mirror, will show the construction of each, on that supposition.

Now read very carefully the examples and notes to this problem in Appendix I. (page 69). I have put them in the Appendix in order to keep the sequence of following problems more elearly traceable here in the text; but you must read the first Appendix before going on.

## PROBLEM II.

TO DRAW A RIGHT LINE BETWEEN TWO GIVEN POINTS.


Fig. 6.
Let a b, Fig. 6., be the given right line, joining the given points $A$ and b .

Let the direct, lateral, and vertical distances of the point a be t d, de, and ca.

Let the direct, lateral, and vertical distances of the point в be т $\mathrm{D}^{\prime}, \mathrm{d} \mathrm{c}^{\prime}$, and $\mathrm{c}^{\prime}$ в.

Then, by Problem I., the position of the point $\Delta$ on the plane of the picture is $a$.

And similarly, the position of the point b on the plane of the picture is $b$.

Join $a b$.
Then $a b$ is the line required.

## COROLLARY I.

If the line $\Lambda \boldsymbol{b}$ is in a plane parallel to that of the pieture, one end of the line a i must be at the same direct distance from the eye of the observer as the other.

Therefore, in that case, D T is equal to $\mathrm{D}^{\prime} \mathrm{T}$.
Then the construction will be as in Fig. 7. ; and the student will find experimentally that $a b$ is now parallel to $A B$.*


Fig. 7.
And that $a b$ is to A B as Ts is to TD.
Therefore, to draw any line in a plane parallel to that of the picture, we have only to fix the position of one of its extremities, $a$ or $b$, and then to draw from $a$ or $b$ a line parallel to the given line, bearing the proportion to it that T . bears to T D.

* For by the construction AT: $a \mathrm{~T}:: \mathrm{BT}: b \mathrm{~T}$; and therefore the two triangles ABT, $a b$ T, (having a common angle ATB,) are similar.


## COROLLARY II.

If the line a в is in a horizontal plane, the rertical distance of one of its extremities must be the same as that of the other.

Therefore, in that case, A c equals в c' (Fig. 6.).
And the construction is as in Fig. 8.


Fig. 8.

In Fig. 8. produce $a b$ to the sight-line, cutting the sightline in $v$; the point $v$, thus determined, is called the Vanisi-ing-Point of the line $a \mathrm{~b}$.

Join t v. Then the student will find experimentally that т V is parallel to A в. ${ }^{*}$

* The demonstration is in Appendix II. Article I.


## COROLLARY III.

If the line a в produced would pass through some point beneath or above the station-point, CD D is to D T as $\mathrm{C}^{\prime} \mathrm{D}^{\prime}$ is to $\mathrm{D}^{\prime} \mathrm{T}$; in which case the point $c$ coincides with the point $c^{\prime}$, and the line $a b$ is vertical.

Therefore every vertical line in a picture is, or may be, the perspective representation of a horizontal one which, produced, would pass beneath the feet or above the head of the spectator.*

[^64]
## PROBLEM III.

TO FIND THE VANISHING-POINT OF A GIVEN HORIZONTAL LINE.


Fig. 9.
Let a b, Fig. 9., be the given line.
From r , the station-point, draw T v parallel to A B , cutting the sight-line in v .
v is the Vanishing-point required.*

* The student will obserre, in practice, that, his paper lying flat on the table, he has only to draw the line $\mathrm{T} V$ on its horizontal surface, parallel to the given horizontal line A B. In theory, the paper should be vertical, but the station-line st horizontal (see its definition above, page 5) ; in which case TV, being drawn parallel to AB, will be horizontal also, and still cut the sight-line in $V$.

The construction will be seen to be founded on the second Corollary of the preceding problem.

It is evident that if any other line, as $\mathrm{M} N$ in Fig. 9., parallel to AB, occurs in the picture, the line TV , drawn from T , parallel to MN , to find the vanishing-point of $\mathrm{M} N$, will coincide with the line drawn from T. parallel to $A B$, to find the vanishing-point of $A B$.

Therefore AB and MN will have the same vanishing-point.

## COROLLARY I.

As, if the point $b$ is first found, $v$ may be determined by it, so, if the point $v$ is first found, $b$ may be determined by it. For let a b, Fig. 10., be the given line, constructed upon the


Fig. 10.
paper as in Fig. 8.; and let it be required to draw the line $a b$ without using the point $\mathrm{c}^{\prime}$.

Find the position of the point A in $a$. (Problem I.)
Therefore all parallel horizontal lines have the same vanishing-point.
It will be shown hereafter that all parallel inclined lines also have the same vanishing-point; the student may here accept the general conclusion-" All parallel lines have the same vanishing-point."
It is also evident that if $A B$ is parallel to the plane of the picture, $T \mathrm{~V}$ must be drawn parallel to $G H$, and will therefore never cut $G$ H. The line $A B$ has in that case no vanishing-point: it is to be drawn by the construction given in Fig. 7.
It is also evident that if AB is at right angles with the plane of the picture, TV will coincide with TS , and the vanishing-point of AB will be the sight-point.

Find the vanishing-point of $A B$ in $\nabla$. (Problem III.)
Join $a \mathrm{v}$.
Join в T , cutting $a v$ in $b$.
Then $a b$ is the line required.*

## COROLLARY II.

We have hitherto proceeded on the supposition that the given line was small enough, and near enough, to be actually


Fig. 11.
drawn on our paper of its real size; as in the example given in Appendix I. We may, however, now deduce a construction available under all circumstances, whatever may be the distance and length of the line given.

From Fig. 8. remove, for the sake of clearness, the lines

[^65]$c^{\prime} p^{\prime}, b v$, and $\mathbf{\tau} \vee$; and, taking the figure as here in Fig. 11., draw from $a$, the line $a$ R parallel to А B , cutting в t in R .

Then $a \mathrm{R}$ is to AB as $a$ т is to $\Delta$ т.

> - $\quad$-as $c \mathrm{~T}$ is to ст.
> - $\quad$ as T s is to T D.

That is to say, $a_{\mathrm{R}}$ is the sight-magnitude of A . ..*
Therefore, when the position of the point A is fixed in $a$, as in Fig. 12., and $a v$ is drawn to the vanishing-point; if we


Fig. 12.
draw a line $a \mathrm{R}$ from $a$, parallel to A B , and make $a \mathrm{R}$ equal to the sight-magnitude of A $B$, and then join $R T$, the line $R ~ т$ will cut $a v$ in $b$.

So that, in order to determine the length of $a b$, we need not draw the long and distant line A b , but only $a \mathrm{r}$ parallel to it, and of its sight-magnitude; which is a great gain, for the line a в may be two miles long, and the line $a$ a perhaps only two inches.

* For definition of Sight-Magnitude, see Appendix I. It ought to hare been read before the student comes to this problem; but I refer to it in case it has not.


## COROLLARY III.

In Fig. 12., altering its proportions a little for the sake of clearness, and putting it as here in Fig. 13., draw a horizontal line $a \mathrm{R}^{\prime}$ and make $a \mathrm{R}^{\prime}$ equal to $a \mathrm{R}$.

Through the points r and $b$ draw $\mathrm{r}^{\prime} \mathrm{m}$, cutting the sight-


Fig. 13.
line in m. Join t v. Now the reader will find experimentally that vm is equal to v т.*

Hence it follows that, if from the vanishing-point v we lay off on the sight-line a distance, v m , equal to v T ; then draw througlı $a$ a horizontal line $a \mathrm{R}^{\prime}$, make $a \mathrm{r}^{\prime}$ equal to the sight-magnitude of $A \mathrm{~B}$, and join $\mathrm{R}^{\prime}$ x ; the line $\mathrm{R}^{\prime} \mathrm{m}$ will cut $a \mathrm{v}$ in $b$. And this is in practice generally the most convenient way of obtaining the length of $a b$.

* The demonstration is in Appendix II. Article II. p. 101.


## COROLLARY IV.

Removing from the preceding figure the unnecessary lines, and retaining only r m and $a \mathrm{v}$, as in Fig. 14., produce the line $a \mathrm{r}^{\prime}$ to the other side of $a$, and make $a \times$ equal to $a \mathrm{R}^{\prime}$.

Join $x b$, and produce $x b$ to cut the line of sight in N .
Then as $\times \mathrm{R}^{\prime}$ is parallel to MN , and $a \mathrm{R}^{\prime}$ is equal to $a \mathrm{x}$,


Fig. 14.
v N must, by similar triangles, be equal to $\mathrm{\nabla} \mathrm{M}$ (equal to $\mathrm{\nabla} \mathrm{~T}$ in Fig. 13.).

Therefore, on whichever side of v we measure the distance v , so as to obtain either the point m , or the point N , if we measure the sight-magnitude $a \mathrm{R}^{\prime}$ or $a \mathrm{x}$ on the opposite side of the line $a \mathrm{v}$, the line joining $\mathrm{e}^{\prime} \mathrm{m}$ or $\mathrm{x} \times$ will equally cut $a \vee$ in $b$.
The points $m$ and $n$ are called the "Dividina-Pornts" of the original line a в (Fig. 12.), and we resume the results of these corollaries in the following three problems.

## PROBLEM IV.

TO FIND THE DIVIDING-POINTS OF A GIVEN HORIZONTAL LINE.


Let the horizontal line a b (Fig. 15.) be given in position and magnitude. It is required to find its dividing-points.

Find the vanishing-point v of the line A в.
With center v and distance v T , describe circle cutting the sight-line in m and N .
Then $m$ and s are the dividing-points required.
In general, only one dividing-point is needed for use with any vanishing-point, namely, the one nearest s (in this case the point m). But its opposite n, or both, may be needed under certain circumstances.

## PROBLEM V.

TO DRAW A HORIZONTAL LINE, GIVEN IN POSITION AND MAGNITUDE, BY MEANS OF ITS SIGHT-MAGNITUDE AND DIVIDINGPOINTS.


Fig. 16.
5
Let a b (Fig. 16.) be the given line.
Find the position of the point A in $a$.
Find the vanishing-point v , and most convenient dividingpoint m , of the line a b .

Join $a \mathrm{v}$.
Through $a$ draw a horizontal line $a b^{\prime}$ and make $a b^{\prime}$ equal to the sight-magnitude of a в. Join $b^{\prime} \mathrm{ar}$, cutting $a \mathrm{v}$ in $b$.

Then $a b$ is the line required.

## COROLLARY I.



Fig. 17.
Supposing it were now required to draw a line a c (Fig. 17.) twice as long as $\AA$ в, it is evident that the sight-magnitude $a c^{\prime}$ must be twice as long as the sight-magnitude $a b^{\prime}$; we have, therefore, merely to continue the horizontal line $a b^{\prime}$, make $b^{\prime} c^{\prime}$ equal to $a b^{\prime}$, join $c \mathrm{~m}^{\prime}$, cutting $a \mathrm{v}$ in $c$, and $a c$ will be the line required. Similarly, if we have to draw a line $\mathrm{A} D$, three times the length of $\boldsymbol{\mathrm { B }}, a d^{\prime}$ must be three times the length of $a b^{\prime}$, and, joining $d^{\prime}$ m, $a d$ will be the line required.

The student will observe that the nearer the portions cut off, $b c, c d$, etc., approach the point $\nabla$, the smaller they become; and, whatever lengths may be added to the line $a \mathrm{D}$, and successively cut off from $a \mathrm{v}$, the line $a \mathrm{v}$ will never be cut off entirely, but the portions cut off will become infinitely small, and apparently " vanish" as they approach the point v ; hence this point is called the "vanishing" point.

## COROLLARY II.

It is evident that if the line a d had been given originally, and we had been required to draw it, and divide it into three equal parts, we should have had only to divide its sightmagnitude, $a d^{\prime}$, into the three equal parts, $a b^{\prime}, b^{\prime} c^{\prime}$, and $c^{\prime} d^{\prime}$, and then, drawing to m from $b^{\prime}$ and $c^{\prime}$, the line $a d$ would have been divided as required in $b$ and $c$. And supposing the original line a d be divided irregularly into any number of parts, if the line $a d^{\prime}$ be divided into a similar number in the same proportions (by the construction given in Appendix I.), and, from these points of division, lines are drawn to m , they will divide the line a $d$ in true perspective into a similar number of proportionate parts.

The horizontal line drawn through $a$, on which the sightmagnitudes are measured, is called the "Measuring-line."

And the line $a d$, when properly divided in $b$ and $c$, or any other required points, is said to be divided " in perspective ratio " to the divisions of the original line a d.

If the line $a \mathrm{v}$ is above the sight-line instead of beneath it, the measuring-line is to be drawn above also: and the lines $b^{\prime} \mathrm{m}, c^{\prime} \mathrm{m}$, etc., drawn down to the dividing-point. Turn Fig. 17. upside down, and it will show the construction.

## PROBLEM VI.

TO DRAW ANY TRIANGLE, GIVEN IN POSITION AND MAGNITUDE, IN A HORIZONTAL PLANE.


Fig. 18.
Let a b c (Fig. 18.) be the triangle.
As it is given in position and magnitude, one of its sides, at least, must be given in position and magnitude, and the directions of the two other sides.

Let $\boldsymbol{A} \boldsymbol{b}$ be the side given in position and magnitude.
Then $A$ b is a horizontal line, in a given position, and of a given length.

Draw the line a b. (Problem V.)
Let $a b$ be the line so drawn.
Find v and $\nabla^{\prime}$, the vanishing-points respectively of the lines a с and в с. (Problem III.)

From $a$ draw $a \mathrm{v}$, and from $b$, draw $b \mathrm{v}^{\prime}$, cutting each other in $c$.

Then $a b c$ is the triangle required.
If a c is the line originally given, $a c$ is the line which must be first drawn, and the line $\mathrm{v}^{\prime} b$ must be drawn from $\mathrm{v}^{\prime}$ to $c$ and produced to cut $a b$ in $b$. Similarly, if $\mathrm{B} \subset$ is given, $\mathrm{v} c$ must be drawn to $c$ and produced, and $a b$ from its vanishingpoint to $b$, and produced to cut $a c$ in $a$.

## PROBLEN VII.

TO DRAW ANY RECTILINEAR QUADRILATERAL FIGURE, GIVEN IN POSITION AND MAGNITUDE, IN A HORIZONTAL PLANE.


Fig. 19.
Let a b c d (Fig. 19.) be the given figure. Join any two of its opposite angles by the line B C. Draw first the triangle a в c. (Problem VI.)
And then, from the base в с, the two lines в d , с d, to their vanishing-points, which will complete the figure. It is unnecessary to give a diagram of the construction, which is merely that of Fig. 18. duplicated; another triangle being drawn on the line a cor в с.

## COROLLARY.

It is erident that by this application of Problem VI. any given rectilinear figure whatever in a horizontal plane may be drawn, since any such figure may be divided into a number of triangles, and the triangles then drawn in succession.

More convenient methods may, however, be generally
found, according to the form of the figure required, by the use of succeeding problems; and for the quadrilateral figure which occurs most frequently in practice, namely, the square, the following construction is more convenient than that used in the present problem.

## PROBLEM VIII.

TO DRAW A SQUARE, GIVEN IN POSITION AND MAGNITUDE, IN a HORIZONTAL PLANE.


Fig. 20.
$L_{\text {et a b c d, Fig. 20., be the square. }}$
As it is given in position and magnitude, the position and magnitude of all its sides are given.

Fix the position of the point $A$ in $a$.
Find $v$, the vanishing-point of $\triangle B$; and $a r$, the dividingpoint of $\mathrm{A} B$, nearest s.
Find $\mathrm{v}^{\prime}$, the vanishing-point of AC ; and N , the dividingpoint of $\Delta \mathrm{C}$, nearest s .

Draw the measuring-line through $a$, and make $a b^{\prime}, a c^{\prime}$, each equal to the sight-magnitude of $\boldsymbol{\wedge}$ в.
(For since a в с d is a square, $\Delta$ c is equal to $\Delta$ b.)
Draw $a v^{\prime}$ and $c^{\prime} \mathrm{N}$, cutting each other in $c$.
Draw $a v$, and $b^{\prime}$ m, cutting each other in $b$.
Then $a c, a b$, are the two nearest sides of the square.
Now, clearing the figure of superfluous lines, we have $a b, a c$, drawn in position, as in Fig. 21.


Fig. 21.
And because а в с D is a square, с d (Fig. 20.) is parallel to A b.

And all parallel lines have the same vanishing-point. (Note to Problem III.)

Therefore, $v$ is the vanishing-point of cd .
Similarly, $\mathrm{v}^{\prime}$ is the vanishing-point of в d .
Therefore, from $b$ and $c$ (Fig. 22.) draw $b \mathrm{v}^{\prime}, c \mathrm{v}$, cutting each other in $d$.

Then $a b c d$ is the square required.

## COROLLARY I.

It is obvious that any rectangle in a horizontal plane may be drawn by this problem, merely making $a b^{\prime}$, on the measur-ing-line, Fig. 20., equal to the sight-magnitude of one of its sides, and $a c^{\prime}$ the sight-magnitude of the other.

## COROLLARY II.

Let $a b c d$, Fig. 22., be any square drawn in perspective. Draw the diagonals $a d$ and $b c$, cutting each other in c. Then c is the center of the square. Through c, draw $e f$ to


Fig. 22.
the vanishing-point of $a b$, and $g h$ to the ranishing-point of a $c$, and these lines will bisect the sides of the square, so that $a g$ is the perspective representation of half the side $a b ; a e$ is half $a c ; c h$ is half $c d$; and $b f$ is half $b d$.

## COROLLARY III.

Since $\Delta$ b c d, Fig. 20., is a square, b a c is a right angle; and as $\mathrm{T} \boldsymbol{r}$ is parallel to $A \mathrm{~B}$, and $\mathrm{T} \mathrm{V}^{\prime}$ to $\Delta \mathrm{C}, \mathrm{V}^{\prime} \mathrm{T} \mathrm{V}$ must be a right angle also.

As the ground plan of most buildings is rectangular, it constantly happens in practice that their angles (as the corners of ordinary houses) throw the lines to the ranishingpoints thus at right angles; and so that this law is observed, and V т $\mathrm{v}^{\prime}$ is kept a right angle, it does not matter in general practice whether the ranishing-points are thrown a little more or a little less to the right or left of s: but it matters much that the relation of the ranishing-points should be accurate. Their position with respect to s merely causes the spectator to see a little more or less on one side or other of the house, which may be a matter of chance or choice; but their rectangular relation determines the rectangular shape of the building, which is an essential point.

## PROBLEM TX.

TO DRAW A SQUARE PILLAl, GIVEN IN POSITION AND MAGNITUIE, ITS BASE AND TOP BEING IN HORIZONTAL PLANES.

Let a hr, Fig. 23., be the square pillar.
Then, as it is given in position and magnitude, the position and magnitude of the square it stands upon must be given


Fig. 23.


Fig. 24. (that is, the line a B or A c in position), and the height of its side A E .

Find the sight-magnitudes of A $B$ and $A$ e. Draw the two sides $a b, a c$, of the square of the base, by Problem YIII., as in Fig. 24. From the points $a, b$, and $c$, raise vertical lines $a e, c f, b g$.

Make $a e$ equal to the sightmagnitude of a E .
Now because the top and base of the pillar are in horizontal planes, the square of its top, $F G$, is parallel to the square of its base, в c.

Therefore the line ef is parallel to A c, and é G to A b.
Thercfore E F has the same vanishing-point as A C, and E G the same vanishing-point as A $\mathbf{B}$.

From $e$ draw $e f$ to the vanishing-point of $a c$, cutting $c f$ in $f$.

Similarly draw e $g$ to the vanishing-point of $a b$, cutting $b g$ in $g$.

Complete the square $g f$ in $h$, by drawing $g h$ to the vanish-ing-point of $e f$, and $f h$ to the vanishing-point of $e g$, cutting each other in $h$. Then $a g h f$ is the square pillar required.

## COROLLARY.

It is obvious that if A E is equal to A C , the whole figure will be a cube, and each side, $a$ e $f c$ and $a$ e $g b$, will be a square in a given vertical plane. And by making a в or a c longer or shorter in any given proportion, any form of rectangle may be given to either of the sides of the pillar. No other rule is therefore needed for drawing squares or rectangles in rertical planes.

Also any triangle may be thus drawn in a vertical plane, by inclosing it in a rectangle and determining, in perspective ratio, on the sides of the rectangle, the points of their contact with the angles of the triangle.

And if any triangle, then any polygon.
A less complicated "onstruction will, however, be given hereafter.*

[^66]
## PROBLEM X.

TO DRAW A PYRAMID, GIVEN IN POSITION AND MAGNITUDE, ON A SQUARE BASE IN A HORIZONTAL PLANE.


Fig. 25.
Let a b, Fig. 25., be the four-sidued pyramid. As it is given in position and magnitude, the square base on which it stands must be given in position and magnitude, and its vertical height, c d.*


Fig. 20.
Draw a square pillar, $\Delta$ в $\operatorname{e}$ e, Fig. 26., on the square base of the pyramid, and make the height of the pillar $\Delta F$ equal

* If, instead of the vertical height, the length of $\Delta D$ is given, the vertical must be deduced from it. See the Exercises on this Problem in the Appendix, p. 79.
to the vertical height of the pyramid c d (Problem IX.). Draw the diagonals $\boldsymbol{G}_{\mathrm{F}}$, H I, on the top of the square pillar, cutting each other in c. Therefore c is the center of the square fati. (Prob. VIII. Cor. II.)


Fig. 27.

Join c e, с A, с в.
Then $\triangle B C E$ is the pyramid required. If the base of the pyramid is above the eye, as when a square spire is seen on the top of a church-tower, the construction will be as in Fig. 27.

## PROBLEM XI.

TO DRAW ANY CURVE IN A IIORIZONTAL OR VERTICAL PLANE.


Fig. 28.
Let a b, Fig. 28., be the curve.
Inclose it in a rectangle, C D E F.
Fix the position of the point c or D , and draw the rectangle. (Problem VIII. Coroll. I.)*

Let c d e f, Fig. 29., be the rectangle so drawn.
If an extremity of the curve, as $A$, is in a side of the rectangle, divide the side c e, Fig. 29.,


Fig. 29. so that a c shall be (in perspective ratio) to a e as a c is to $A \mathrm{E}$ in Fig. 28. (Prob. V. Cor. II.)

Similarly determine the points of contact of the curve and rectangle $e, f, g$.

If an extremity of the curre, as $B$, is not in a side of the rectangle, let

* Or if the curre is in a vertical plane, Coroll. to Problem IX. As a rectangle may be drawn in any position round any given curve, its position with respect to the curve will in either case be regulated by convenience. See the Exercises on this Problem, in the Appendix, p. 85.
fall the perpendiculars в $a$, в $b$ on the rectangle sides. Determine the correspondent points $a$ and $b$ in Fig. 29., as you have already determined $\mathrm{A}, \mathrm{B}, e$, and $f$.

From $b$, Fig. 29., draw $b$ в parallel to с d, ${ }^{*}$ and from $a$ draw $a$ в to the vanishing-point of D F, cutting each other in в. Then в is the extremity of the curve.

Determine any other important point in the curve, as P , in the same way, by letting fall $\mathrm{P} q$ and $\mathrm{P} r$ on the rectangle's sides.

Any number of points in the curve may be thus determined, and the curve drawn through the series; in most cases, three or four will be enough. Practically, complicated curves may be better drawn in perspective by an experienced eye than by rule, as the fixing of the various points in haste involves too many chances of error ; but it is well to draw a good many by rule first, in order to give the eye its experience. $\dagger$

## COROLLARY.

If the curve required be a circle, Fig. 30., the rectangle which incloses it will become a square, and the curve will have four points of contact, А в C d, in the middle of the sides of the square.

Draw the square, and as a square may be drawn about a circle in any position, draw it with its nearest side, E G, parallel to the sight-line.

Let E f, Fig. 31., be the square so drawn.


Fig. 30.

* Or to its vanishing-point, if CD has one.
$\dagger$ Of course, by dividing the original rectangle into any number of equal rectangles, and dividing the perspective rectangle similarly, the curve may be approximately drawn without any trouble ; but, when accuracy is required, the points should be fixed, as in the problem.

Draw its diagonals ef, g in ; and through the center of the square (determined by their interscetion) draw A 1 to the vanishing-point of G F, and C d parallel to E G. Then the points $\triangle$ B C D are the four points of the circle's contact.


Fig. 31.
On e a describe a half square, e l; draw the semicircle
 the circle in $x, y$.

From the points $x y$, where the circle cuts the diagonals, raise perpendiculars, $\mathrm{P} x, \mathrm{Q} y$, to $\mathrm{E} G$.

From $P$ and $Q$ draw $P P^{\prime}, Q Q^{\prime}$, to the vanishing-point of G F, cutting the diagonals in $m, n$, and $o, p$.

Then $m, n, o, p$ are four other points in the circle.
Through these eight points the circle may be drawn by the hand accurately enough for general purposes; but any number of points required may, of course, be determined, as in Problem XI.

The distance er is approximately one-serenth of eq, and may be assumed to be so in quick practice, as the error involved is not greater than would be incurred in the hasty operation of drawing the circle and diagonals.

It may frequently happen that, in consequence of associ-
ated constructions, it may be inconvenient to draw e g parallel to the sight-line, the square being perhaps first constructed in some oblique direction. In such cases, Q a and E P must be determined in perspective ratio by the dividingpoint, the line E G being used as a measuring-line.
[Obs. In drawing Fig. 31. the station-point has been taken much nearer the paper than is usually advisable, in order to show the character of the curve in a very distinct form.
If the student turns the book so that EG may be vertical, Fig. 31. will represent the construction for drawing a circle in a vertical plane, the sight-line being then of course parallel to GL; and the semicircles ADB, ACB, on each side of the diameter AB, will represent ordinary semicircular arches seen in perspective. In that case, if the book be held so that the line EH is the top of the square, the upper semicircle will represent a semicircular arch, above the eye, drawn in perspective. But if the book be held so that the line GF is the top of the square, the upper semicircle will represent a semicircular arch, below the eye, drawn in perspective.

If the book be turned upside down, the figure will represent a cirole drawn on the ceiling, or any other horizontal plane above the eye; and the construction is, of course, accurate in every case.]

## PROBLEM XII.

TO DIVIDE A CIRCLE DRAWN IN PERSPECTIVE INTO ANY GIVEN NUMRER OF EQUAL PARTS.

Let a b, Fig. 32., be the circle drawn in perspective. It is required to divide it into a given number of equal parts; in this case, 20.

Let K a L be the semicircle used in the construction. Divide the semicircle K a L into half the number of parts required ; in this case, 10 .

Produce the line e g laterally, as far as may be necessary.
From o, the center of the semicircle $\mathbf{k}$ a $L$, draw radii through the points of division of the semicircle, $p, q, r$, etc., and produce them to cut the line $\mathrm{E} G$ in $\mathrm{r}, \mathrm{Q}, \mathrm{R}$, etc.

From the points $P$ Q R draw the lines $P P^{\prime}, Q Q^{\prime}, R R^{\prime}$, etc., through the center of the circle A B , each cutting the circle in two points of its circumference.

Then these points divide the perspective circle as required.
If from each of the points $p, q, r$, a vertical were raised to the line E G, as in Fig. 31., and from the point where it cut E G a line were drawn to the vanishing-point, as $Q Q^{\prime}$ in Fig. 31., this line would also determine two of the points of division.

If it is required to divide a circle into any number of given unequal parts (as in the points $A, B$, and $C$, Fig. 33.), the shortest way is thus to raise rertical lines from $A$ and $B$ to the side of the perspective square x Y , and then draw to the ranishing-point, cutting the perspective circle in $a$ and $b$ : the points required. Only notice that if any point, as $A$, is on the nearer side of the circle a $\operatorname{B}$ c, its representative point, $a$, must be on the nearer side of the circle $a b c$; and if the point $B$ is on the farther side of the circle $A$ в $c, b$ must be

on the farther side of $a b c$. If any point, as c, is so much in the lateral are of the circle as not to be easily determinable


Fig. 33.
by the vertical line, draw the horizontal c p , find the correspondent $p$ in the side of the perspective square, and draw $p c$ parallel to $\times \mathrm{y}$, cutting the perspective circle in $c$.

## COROLLARY.

It is obvious that if the points $\mathrm{P}^{\prime}, Q^{\prime}$, R , etc., by which the circle is divided in Fig. 32., be joined by right lines, the resulting figure will be a regular equilateral figure of twenty sides inscribed in the circle. And if the circle be divided into given unequal parts, and the points of division joined by right lines, the resulting figure will be an irregular polygon inseribed in the circle with sides of given length.

Thus any polygon, regular or irregular, inscribed in a circle, may be inscribed in position in a perspective circle.

## PROBLEM XIII.

TO DRAW A SQUARE, GIVEN IN MAGNITUDE, WITHIN A LARGER SQUARE GIVEN IN POSITION AND MAGNITUDE; THE SIDES OF THE TWO SQUARES BEING PARALLEL.


Fig. 34.
Let a b, Fig. 34., be the sight-magnitude of the side of the smaller square, and $\Delta \mathrm{c}$ that of the side of the larger square.

Draw the larger square. Let defa be the square so drawn.

Join eq and d F.
On either de or d $G$ set off, in perspective ratio, $D$ h equal to one half of в с. Through н draw н к to the vanishingpoint of de, cutting D Fin I and EGin K . Through I and K draw I M, K L, to vanishing-point of $D G$, cutting $D$ F in L and egin M . Join L m.

Then Ik L m is the smaller square, inscribed as required.*

* If either of the sides of the greater square is parallel to the plane of the picture, as DG in Fig. 35., D G of course must be equal to $A \mathrm{C}$, and D H equal to $\frac{B C}{2}$, and the construction is as in Fig. 35.


Fig. 35.

## COROLLARY.

If, instead of one square within another, it be required to draw one circle within an-


Fig. 36. other, the dimensions of both being given, inclose each circle in a square. Draw the squares first, and then the circles within, as in Fig. 36.

## PROBLEM XIV.

TO DRAW A TRUNCATED CIRCULAR CONE, GIVEN IN POSITION AND MAGNITUDE, TIFE TRUNCATIONS BEING IN HORIZONTAL PLANES, AND THE AXIS OF THE CONE VERTICAL.

Let abc d, Fig. 37., be the portion of the cone required.


Fig. 37.
As it is given in magnitude, its diameters must be given at the base and summit, $\triangle$ в and $C \mathrm{D}$; and its vertical height, c E.*

And as it is given in position, the center of its base must be given.

Draw in position, about this center, $\dagger$ the square pillar $a$

* Or if the length of its side, Ac , is giren instead, take $a e$, Fig. 37., equal to half the excess of $A B$ over $C D$; from the point $e$ raise the perpendicular $c e$. With center $a$, and distance Ac, describe a circle cutting $c e$ in $c$. Then $c e$ is the vertical height of the portion of cone required, or CE.
$\dagger$ The direction of the side of the square will of course be regulated by convenience.
$f d$, Fig. 38., making its height, $b g$, equal to $\mathbf{c} \mathbf{E}$; and its side,


Fig. 38. a $b$, equal to A в.

In the square of its base, $a b c$ $d$, inscribe a circle, which therefore is of the diameter of the base of the conc, A B.

In the square of its top, efg $h$, inscribe concentrically a circle whose diameter shall equal c D. (Coroll. Prob. XIII.)

Join the extremities of the circles by the right lines $l l, n m$.
Then $k l n m$ is the portion of cone required.

## COROLLARY I.

If similar polygons be inscribed in similar positions in the circles $k n$ and $l m$ (Coroll. Prob. XII.), and the corresponding angles of the polygons joined by right lines, the resulting figure will be a portion of a polygonal pyramid. (The dotted lines in Fig. 38., connecting the extremities of two diameters and one diagonal in the respective circles, occupy the position of the three nearest angles of a regular octagonal pyramid, having its angles set on the diagonals and diameters of the square $a d$, inclosing its base.)

If the cone or polygonal pyramid is not truncated, its apex will be the center of the upper square, as in Fig. 26.

## COROLLARY II.

If equal circles, or equal and similar polygons, be inscribed in the upper and lower squares in Fig. 38., the resulting figure will be a vertical cylinder, or a vertical polygonal pillar, of given height and diameter, drawn in position.

## COROLLARY III.

If the circles in Fig. 38., instead of being inscribed in the squares $b c$ and $f g$, be inscribed in the sides of the solid figure $b e$ and $d f$, those sides being made square, and the line $b d$ of any given length, the resulting figure will be, according to the constructions employed, a cone, polygonal pyramid, cylinder, or polygonal pillar, drawn in position about a horizontal axis parallel to $6 d$.

Similarly, if the circles are drawn in the sides $g d$ and $e c$, the resulting figures will be described about a horizontal axis parallel to $a b$.

## PROBLEM XV.

## TO DRAW AN INCLINED LINE, GIVEN IN POSITION AND MAGNITUDE.

We have hitherto been examining the conditions of horizontal and vertical lines only, or of curves inclosed in rectangles.

We must, in conclusion, investigate the perspective of in-


Fig. 39.


Fig. 40.
clined lines, beginning with a single one given in position. For the sake of completeness of system, I give in Appendix II. Article III. the development of this problem from the second. But, in practice, the position of an inclined line may be most conveniently defined by considering it as the diagonal of a rectangle, as a в in Fig. 39., and I shall therefore, though at some sacrifice of system, examine it here under that condition.

If the sides of the rectangle a c and a d are given, the slope of the line а в is determined; and then its position will depend on that of the rectangle. If, as in Fig. 39., the rectangle is parallel to the picture plane, the line a i must be so also. If, as in Fig. 40., the rectangle is inclined to the
picture plane, the line $A$ b will be so also. So that, to fix the position of A b, the line a c must be given in position and magnitude, and the height A D .
If these are given, and it is only required to draw the single line $A$ в in perspective, the construction is entirely simple; thus:-

Draw the line a c by Problem I.
Let a c, Fig. 41, be the line so drawn. From $a$ and $c$ raise the vertical lines $a d, c b$. Make $a d$ equal to the sight-magnitude of $A \mathrm{D}$. From $d$ draw $d b$ to the vanishing-point of $a c$, cutting $b c$ in $b$.

Join $a b$. Then $a b$ is the inclined line required.


Fig. 41.

If the line is inclined in the opposite direction, as D c in Fig. 42., we have only to join $d c$ instead of $a b$ in Fig. 41., and $d c$ will be the line required.

I shall hereafter call the line a c, when used to define the position of an inclined line $a$ b (Fig. 40.), the "relative horizontal" of the line $\boldsymbol{\Delta}$ в.


Fig. 42.

## Observation.

In general, inclined lines are most needed for gable roofs, in which, when the conditions are properly stated, the rertical height of the gable, x y, Fig. 43., is given, and the base line, a c, in position. When these are given, draw a c; raise vertical A D ; make A D equal to sightmagnitude of x y complete the perspective-rectangle a d в C ; join A B and D C (as by dotted lines in figure) ; and through the intersec-


Fig. 43. tion of the dotted lines draw vertical $x$ r, cutting D в in y . Join $A \mathrm{r}, \mathrm{c} \mathrm{r}$; and these lines are the sides of the gable. If
the length of the roof $\Lambda \Lambda^{\prime}$ is also given, draw in perspective the complete parallelopiped $\Lambda^{\prime} \mathrm{D}^{\prime}$ в c , and from Y draw $\mathbf{Y} \mathrm{Y}^{\prime}$ to the vanishing-point of $\Lambda \Lambda^{\prime}$, eutting $D^{\prime} B^{\prime}$ in $\mathbf{Y}^{\prime}$. Join $\Lambda^{\prime} \mathbf{Y}$, and you have the slope of the farther side of the roof.


Fig. 44.
The construction above the eye is as in Fig. 44.; the roof is reversed in direetion merely to familiarize the student with the different aspects of its lines.

## PROBLEM XVI.

TO FIND THE VANISHING-POINT OF A GIVEN INCLINED LINE.
$\mathrm{I}_{\mathrm{F}}$, in Fig. 43. or Fig. 44., the lines $A \mathrm{y}$ and $\mathrm{A}^{\prime} \mathrm{Y}^{\prime}$ be produced, the student will find that they meet.

Let $\mathbf{~}$, Fig. 45 ., be the point at which they meet.
From $\mathbf{P}$ let fall the vertical $\mathbf{P} \mathbf{v}$ on the sight-line, cutting the sight-line in $v$.

Then the student will find experimentally that v is the vanishing-point of the line A c.*

Complete the rectangle of the base $A c^{\prime}$, by drawing $A^{\prime} c^{\prime}$ to $v$, and $c c^{\prime}$ to the vanishing-point of $a A^{\prime}$.

Join $\mathrm{Y}^{\prime} \mathrm{c}^{\prime}$.
Now if y c and $\mathrm{Y}^{\prime} \mathrm{c}^{\prime}$ be produced downwards, the student will find that they meet.

Let them be produced, and meet in $\mathrm{P}^{\prime}$.
Produce $P \vee$, and it will be found to pass through the point $\mathrm{P}^{\prime}$.

Therefore if a y (or c y), Fig. 45., be any inclined line drawn in perspective by Problem XV., and a c the relative horizontal (A C in Figs. 39, 40.), also drawn in perspective.

Through $v$, the vanishing-point of $A c$, draw the vertical P P' upwards and downwards.

Produce A $Y$ (or C $Y$ ), cutting $P P^{\prime}$ in $P$ (or $P^{\prime}$ ).
Then $P$ is the vanishing-point of $A Y$ (or $P^{\prime}$ of $C Y$ ).
The student will observe that, in order to find the point $P$ by this method, it is necessary first to draw a portion of the given inclined line by Problem XV. Practically, it is always necessary to do so, and, therefore, I give the problem in this form.

## * The demonstration is in Appendix II. Article III.

Theoretically, as will be shown in the analysis of the problem, the point P should be found by drawing a line from the station-point parallel to the given inclined line: but there is

no practical means of drawing such a line; so that in whatever terms the problem may be given, a portion of the inclined line (A Y or C Y) must always be drawn in perspective before $P$ can be found.

## PROBLEM XVII.

TO FIND THE DIVIDING-POIN'TS OF A GIVEN INCLINED LINE.


Fig. 46.
Let p, Fig. 46., be the vanishing-point of the inclined line, and v the vanishing-point of the relative horizontal.

Find the dividing-points of the relative horizontal, D and $\mathrm{D}^{\prime}$.

Through P draw the horizontal line x y.
With center P and distance D P describe the two arcs D X and $\mathrm{D}^{\prime} \mathrm{y}$, cutting the line x Y in x and y .

Then x and y are the dividing-points of the inclined line.*
Obs. The dividing-points found by the above rule, used with the ordinary measuring-line, will lay off distances on the retiring inclined line, as the ordinary dividing-points lay them off on the retiring horizontal line.

Another dividing-point, peculiar in its application, is sometimes useful, and is to be found as follows:-

[^67]

Let a b, Fig. 47 ., be the given inclined line drawn in perspective, and $a c$ the relative horizontal.

Find the vanishing-points, $v$ and E , of $\mathrm{A} C$ and $\mathrm{A} B ; \mathrm{D}$, the dividing-point of $\mathrm{A} c$; and the sight-magnitude of $\mathrm{A} c$ on the measuring-line, or a c.

From d erect the perpendicular D F .
Join C b, and produce it to cut de in F. Join ef.
Then, by similar triangles, $D \mathrm{~F}$ is equal to E V , and E F is parallel to D v .

Hence it follows that if from D , the dividing-point of $A c$, we raise a perpendicular and make $\mathrm{D} F$ equal to E V , a line c F , drawn from any point c on the measuring-line to F , will mark the distance $\boldsymbol{A}$ в on the inclined line, $\boldsymbol{A}$ в being the portion of the given inclined line which forms the diagonal of the vertical rectangle of which $\Delta \mathrm{c}$ is the base.

## PROBLEM XVIII.

TO FIND THE SIGHT-LINE OF AN INCLINED PLANE IN WHIICH TWO LINES ARE GIVEN IN POSITION.**

As in order to fix the position of a line two points in it


Fig. 48.
must be given, so in order to fix the position of a plane, two lines in it must be given.

Let the two lines be а в and с d, Fig. 48.

* Read the Article on this problem in the Appendix, p. 97, before investigating the problem itself.

As they are given in position, the relative horizontals $\boldsymbol{A}$ e and C F must be given.

Then by Problem XVI. the vanishing-point of $\triangle B$ is $v$, and of $\mathrm{c} \mathrm{D}, \mathrm{v}^{\prime}$.

Join $v v^{\prime}$ and produce it to cut the sight-line in x .
Then v x is the sight-line of the inclined plane.
Like the horizontal sight-line, it is of indefinite length; and may be produced in either direction as occasion requires, crossing the horizontal line of sight, if the plane continues downward in that direction.
$x$ is the vanishing-point of all horizontal lines in the inclined plane.

## PROBLEM XIX.

TO FIND THE VANISHING-POINT OF STEEPEST LINES IN AN INCLINED PLANE WHOSE SIGHT-LINE IS GIVEN.


Fig. 49.
Let v x, Fig. 49., be the given sight-line.
Produce it to cut the horizontal sight-line in x .
Therefore x is the vanishing-point of horizontal lines in the given inclined plane. (Problem XVIII.)

Join x x, and draw t y at right angles to t x .
Therefore y is the rectangular vanishing-point corresponding to $\mathrm{x} . *$

From y erect the vertical y p , cutting the sight-line of the inclined plane in $\mathbf{P}$.

* That is to say, the vanishing-point of horizontal lines drawn at right angles to the lines whose vanishing-point is $\mathbf{x}$.

Then $p$ is the vanishing-point of steepest lines in the plane. All lines drawn to it, as Q p, r $\mathbf{p}, \mathrm{N} P$, etc., are the steepest possible in the plane; and all lines drawn to x , as $\mathrm{Q} \mathrm{x}, \circ \mathrm{x}$, etc., are horizontal, and at right angles to the lines P Q , P r, etc.

## PROBLEM XX.

TO FIND THE VANISHING-POINT OF LINES PERPENDICULAR TO THE SURFACE OF A GIVEN INCLINED PLANE.


Fig. 50.
As the inclined plane is given, one of its steepest lines must be given, or may be ascertained.

Let $\Delta$ b, Fig. 50 ., be a portion of a steepest line in the 61
given plane, and v the vanishing-point of its relative horizontal.

Through $v$ draw the vertical a $F$ upwards and downwards.
From a set off any portion of the relative horizontal a c , and on a c deseribe a semicircle in a vertical plane, a D c, cutting A B in E .

Join E C, and produce it to cut $G$ F in $F$.
Then $F$ is the vanishing-point required.
For, because A E c is an angle in a semicircle, it is a right angle; and therefore the line $\mathbf{E}$ F is at right angles to the line а в ; and similarly all lines drawn to $F$, and therefore parallel to E F, are at right angles with any line which cuts them, drawn to the vanishing-point of $A B$.

And because the semicircle A D c is in a vertical plane, and its diameter $\mathrm{A} C$ is at right angles to the horizontal lines traversing the surface of the inclined plane, the line e c, being in this semicircle, is also at right angles to such traversing lines. And therefore the line e c, being at right angles to the steepest lines in the plane, and to the horizontal lines in it, is perpendicular to its surface.

The preceding series of constructions, with the examples in the first Article of the Appendix, put it in the power of the student to draw any form, however complicated,* which does not involve intersection of curved surfaces. I shall not proceed to the analysis of any of these more complex problems, as they are entirely useless in the ordinary practice of artists. For a few words only I must ask the reader's further patience, respecting the general placing and scale of the picture.

As the horizontal sight-line is drawn through the sightpoint, and the sight-point is opposite the eye, the sight-line is always on a level with the eye. Above and below the sightline, the eye comprehends, as it is raised or depressed while the head is held upright, about an equal space; and, on each side of the sight-point, about the same space is easily seen without turning the head; so that if a picture represented the true field of easy vision, it ought to be circular, and have the sight-point in its center. But because some parts of any given view are usually more interesting than others, either the uninteresting parts are left out, or somewhat more than would generally be seen of the interesting parts is included, by moving the field of the picture a little upwards or downwards, so as to throw the sight-point low or high. The operation will be understood in a moment by cutting an aperture in a piece of pasteboard, and moring it up and down in front of the eye, without moring the eye. It will be seen to embrace sometimes the low, sometimes the high objects, without

[^68]altering their perspective, only the eye will be opposite the lower part of the aperture when it sees the higher objects, and vice versâ.

There is no reason, in the laws of perspective, why the picture should not be moved to the right or left of the sightpoint, as well as up or down. But there is this practical reason. The moment the spectator sees the horizon in a picture high, he tries to hold his head high, that is, in its right place. When he sees the horizon in a picture low, he similarly tries to put his head low. But, if the sight-point is thrown to the left hand or right hand, he does not understand that he is to step a little to the right or left; and if he places himself, as usual, in the middle, all the perspective is distorted. Hence it is generally unadvisable to remove the sight-point laterally, from the center of the picture. The Dutch painters, however, fearlessly take the 'license of placing it to the right or left; and often with good effect.

The rectilinear limitation of the sides, top, and base of the picture is of course quite arbitrary, as the space of a landscape would be which was seen through a window; less or more being seen at the spectator's pleasure, as he retires or advances.

The distance of the station-point is not so arbitrary. In ordinary cases it should not be less than the intended greatest dimension (height or breadth) of the picture. In most works by the great masters it is more; they not only calculate on their pictures being seen at considerable distances, but they like breadth of mass in buildings, and dislike the sharp angles which always result from station-points at short distances.*

Whenever perspective, done by true rule, looks wrong, it is always because the station-point is too near. Determine,

[^69]in the outset, at what distance the spectator is likely to examine the work, and never use a station-point within a less distance.

There is yet another and a very important reason, not only for care in placing the station-point, but for that accurate calculation of distance and observance of measurement which have been insisted on throughout this work. All drawings of objects on a reduced scale are, if rightly executed, drawings of the appearance of the object at the distance which in true perspective reduces it to that scale. They are not small drawings of the object seen near, but drawings the real size of the object seen far off. Thus if you draw a mountain in a landscape, three inches high, you do not reduce all the features of the near mountain so as to come into three inches of paper. You could not do that. All that you can do is to give the appearance of the mountain, when it is so far off that three inches of paper would really hide it from you. It is precisely the same in drawing any other object. A face can no more be reduced in scale than a mountain can. It is infinitely delicate already; it can only be quite rightly rendered on its own scale, or at least on the slightly diminished scale which would be fixed by placing the plate of glass, supposed to represent the field of the picture, close to the figures. Correggio and Raphael were both fond of this slightly subdued magnitude of figure. Colossal painting, in which Correggio excelled all others, is usually the enlargement of a small picture (as a colossal sculpture is of a small statue), in order to permit the subject of it to be discerned at a distance. The treatment of colossal (as distinguished from ordinary) paintings will depend therefore, in general, on the principles of optics more than on those of perspective, though, occasionally, portions may be represented as if they were the projection of near objects on a plane behind them. In all points the subject is one of great difficulty and subtlety; and its examination does not fall within the compass of this essay.

Lastly, it will follow from these considerations, and the
conclusion is one of great practical importance, that, though pictures may be enlarged, they cannot be reduced, in copying them. All attempts to engrave pictures completely on a reduced scale are, for this reason, nugatory. The best that can be done is to give the aspect of the picture at the distance which reduces it in perspective to the size required; or, in other words, to make a drawing of the distant effect of the picture. Good painting, like nature's own work, is infinite, and unreduccable.

I wish this book had less tendency towards the infinite and umreduceable. It has so far exceeded the limits I hoped to give it, that I doubt not the reader will pardon an abruptness of conclusion, and be thankful, as I am myself, to get to an end on any terms.

## APPENDIX.

## I.

## PRACTICE AND OBSERVATIONS.

II.

## DEMONSTRATIONS.

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## I.

## PRACTICE AND OBSERVATIONS ON THE PRECEDING PROBLEMS.

## Problem I.

Av example will be necessary to make this problem clear to the general student.

The nearest corner of a piece of pattern on the carpet is $4 \frac{1}{2}$ feet beneath the eye, 2 feet to our right and $3 \frac{1}{2}$ feet in direct distance from us. We intend to make a drawing of the pattern which shall be seen properly when held $1 \frac{1}{2}$ foot from the eye. It is required to fix the position of the corner of the piece of pattern.
Let $\Delta$ b, Fig. 51., be our sheet of paper, some 3 feet wide. Make s t equal to $1 \frac{1}{2}$ foot. Draw the line of sight through s . Produce T s , and make d s equal to 2 feet, therefore т п equal to $3 \frac{1}{2}$ feet. Draw d c, equal to 2 feet; c P , equal to 4 feet. Join т с (cutting the sight-line in a) and T .

Let fall the vertical Q $P^{\prime}$, then $P^{\prime}$ is the point required.

If the lines, as in the figure, fall


Fig. 51. outside of your sheet of paper, in order to draw them, it is necessary to attach other sheets of paper to its edges. This is inconvenient, but must be done
at first that you may see your way clearly; and sometimes afterwards, though there are expedients for doing without such extension in fast sketching.

It is evident, however, that no extension of surface could be of any use to us, if the distance T D, instead of being $3 \frac{1}{2}$ feet, were 100 feet, or a mile, as it might easily be in a landscape.

It is necessary, therefore, to obtain some other means of construction; to do which we must examine the principle of the problem.

In the analysis of Fig. 2., in the introductory remarks, I used the word "height" only of the tower, $\mathbf{Q}$ P, because it


Fig. 52.
was only to its rertical height that the law deduced from the figure could be applied. For suppose it had been a pyramid, as o q p, Fig. 52., then the image of its side, q p, being, like every other magnitude, limited on the glass a $\quad$ b by the lines coming from its extremities, would appear only of the length $Q^{\prime} s$; and it is not true that $Q^{\prime} S$ is to $Q P$ as $T S$ is to $T P$. But if we let fall a vertical $Q D$ from $Q$, so as to get the vertical height of the pyramid, then it is true that $Q^{\prime} s$ is to $Q D$ as $T S$ is to $T$.

Supposing this figure represented, not a pyramid, but a triangle on the ground, and that $Q D$ and $Q P$ are horizontal lines, expressing lateral distance from the line $T D$, still the rule would be false for $Q P$ and true for $Q$ D. And, similarly, it is true for all lines which are parallel, like $Q D$, to
the plane of the picture $\triangle \mathrm{B}$, and false for all lines which are inclined to it at an angle.

Hence generally. Let P Q (Fig. 2. in Introduction, p. 6) be any magnitude parallel to the plane of the picture; and $P^{\prime} Q^{\prime}$ its image on the picture.

Then always the formula is true which you learned in the Introduction: $P^{\prime} Q^{\prime}$ is to $P Q$ as $\mathrm{S} T$ is to D T.

Now the magnitude $P$ dash $Q$ dash in this formula I call the "sigitt-magnitude" of the line P q. The student must fix this term, and the meaning of it, well in his mind. The "sight-magnitude" of a line is the magnitude which bears to the real line the same proportion that the distance of the picture bears to the distance of the object. Thus, if a tower be a hundred feet high, and a hundred yards off; and the picture, or piece of glass, is one yard from the spectator, between him and the tower; the distance of picture being then to distance of tower as 1 to 100 , the sight-magnitude of the tower's height will be as 1 to 100 ; that is to say, one foot. If the tower is two hundred yards distant, the sight-magnitude of its height will be half a foot, and so on.

But farther. It is constantly necessary, in perspective operations, to measure the other dimensions of objects by the sight-magnitude of their vertical lines. Thus, if the tower, which is a hundred feet high, is square, and twentyfive feet broad on each side; if the sight-magnitude of the height is one foot, the measurement of the side, reduced to the same scale, will be the hundredth part of twenty-five fcet, or three inches: and, accordingly, I use in this treatise the term "sight-magnitude" indiscriminately for all lines reduced in the same proportion as the vertical lines of the object. If I tell you to find the "sight-magnitude" of any line, I mean, always, find the magnitude which bears to that line the proportion of s T to D T ; or, in simpler terms, reduce the line to the scale which you have fixed by the first determination of the length s T .

Therefore, you must learn to draw quickly to scale before you do anything else ; for all the measurements of your object
must be reduced to the scale fixed by s t before you can use them in your diagram. If the object is fifty feet from you, and your paper one foot, all the lines of the object must be reduced to a scale of one fiftieth before you can use them; if the object is two thousand feet from you, and your paper one foot, all your lines must be reduced to the scale of one two-thousandth before you can use them, and so on. Only in ultimate practice, the reduction never need be tiresome, for, in the case of large distances, accuracy is never required. If a building is three or four miles distant, a hairbreadth of accidental variation in a touch makes a difference of ten or twenty feet in height or breadth, if estimated by accurate perspective law. Hence it is never attempted to apply measurements with precision at such distances. Measurements are only required within distances of, at the most, two or three hundred feet. Thus it may be necessary to represent a cathedral nave precisely as seen from a spot seventy feet in front of a given pillar; but we shall hardly be required to draw a cathedral three miles distant precisely as seen from seventy feet in adrance of a given milestone. Of course, if such a thing be required, it can be done; only the reductions are somewhat long and complicated: in ordinary cases it is easy to assume the distance s T so as to get at the reduced dimensions in a moment. Thus, let the pillar of the nave, in the case supposed, be 42 feet high, and we are required to stand 70 feet from it: assume s T to be equal to 5 feet. Then, as 5 is to 70 so will the sight-magnitude required be to 42 ; that is to say, the sight-magnitude of the pillar's height will be 3 feet. If we make $s$ t equal to $2 \frac{1}{2}$ feet, the pillar's height will be $1 \frac{1}{2}$ foot, and so on.

And for fine divisions into irregular parts which cannot be measured, the ninth and tenth problems of the sixth book of Euclid will serve you: the following construction is, howerer, I think, more practically convenient:-

The line А в (Fig. 53.) is divided by given points, $a, b, c$, into a given number of irregularly unequal parts; it is required to divide any other line, c D , into an equal number
of parts, bearing to each other the same proportions as the parts of $\boldsymbol{A} \mathbf{B}$, and arranged in the same order.

Draw the two lines parallel to each other, as in the figure.
Join A c and b D, and produce the lines a c, в d, till they meet in P .

Join $a \mathrm{P}, b \mathrm{P}, c \mathrm{P}$, cutting $c \mathrm{D}$ in $f, g, h$.
Then the line c D is divided as required, in $f, g, h$.
 pendicular to A P. There is no need for their being so.

Now, to return to our first problem.
The construction given in the figure is only the quickest


Fig. 53.
mathematical way of obtaining, on the picture, the sightmagnitudes of D C and P c, which are both magnitudes parallel with the picture plane. But if these magnitudes are too great to be thus put on the paper, you have only to obtain the reduction by scale. Thus, if $\mathrm{T} s$ be one foot, $\mathrm{T} D$ eighty feet, D C forty feet, and C P ninety feet, the distance Q s must be made equal to one eightieth of $\mathrm{D} C$, or half a foot ; and the distance $Q P^{\prime}$, one eightieth of $\mathrm{C} P$, or one eightieth of ninety feet; that is to say, nine eighths of a foot, or thirteen and a half inches. The lines C T and P т are thus practically useless, it being only necessary to measure a s
and $2 P$, on your paper, of the due sight-magnitudes. But the mathematical construction, given in Problem I., is the basis of all succeeding problems, and, if it is once thoroughly understood and practiced (it can only be thoroughly understood by practice), all the other problems will follow easily.

Lastly. Observe that any perspective operation whatever may be performed with reduced dimensions of every line employed, so as to bring it conveniently within the limits of your paper. When the required figure is thus constructed on a small scale, you have only to enlarge it accurately in the same proportion in which you reduced the lines of construction, and you will have the figure constructed in perspective on the scale required for use.

## PROBLEM IX.

The drawing of most buildings occurring in ordinary practice will resolve itself into applications of this problem. In general, any house, or block of houses, presents itself under the main conditions assumed here in Fig. 54. There will be an angle or corner somewhere near the spectator, as A B ; and the level of the eye will usually be above the base

of the building, of which, therefore, the horizontal upper lines will slope down to the vanishing-points, and the base lines rise to them. The following practical directions will, however, meet nearly all cases:-

Let $A$ b, Fig. 54., be any important vertical line in the block of buildings; if it is the side of a street, you may fix upon such a line at the division between two houses. If its real height, distance, etc., are given, you will proceed with
the accurate construction of the problem; but usually you will neither know, nor care, exactly how high the building is, or how far off. In such case draw the line A b, as nearly as you can guess, about the part of the picture it ought to occupy, and on such a scale as you choose. Divide it into any convenient number of equal parts, according to the height you presume it to be. If you suppose it to be twenty feet high, you may divide it into twenty parts, and let each part stand for a foot; if thirty feet high, you may divide it into ten parts, and let each part stand for three feet; if seventy feet ligh, into fourteen parts, and let each part stand for five feet ; and so on, avoiding thus very minute divisions till you come to details. Then observe how high your eye reaches upon this sertical line; suppose, for instance, that it is thirty feet high and divided into ten parts, and you are standing so as to raise your head to about six feet above its base, then the sight-line may be drawn, as in the figure, through the second division from the ground. If you are standing abore the house, draw the sight-line above в; if below the house, below a; at such height or depth as you suppose may be accurate (a yard or two more or less matters little at ordinary distances, while at great distances perspective rules become nearly useless, the eye serring you better than the necessarily imperfect calculation). Then fix your sight-point and station-point, the latter with proper reference to the scale of the line A b. As you cannot, in all probability, ascertain the exact direction of the line A T or B V , draw the slope в r as it appears to you, cutting the sightline in r . Thus having fixed one vanishing-point, the other, and the dividing-points, must be accurately found by rule; for, as before stated, whether your entire group of points (ranishing and dividing) falls a little more or less to the right or left of s does not signify, but the relation of the points to each other does signify. Then draw the measuringline $\mathrm{b} G$, either through A or b , choosing always the steeper slope of the two; divide the measuring-line into parts of the same length as those used on $\triangle$, and let them stand for the
same magnitudes. Thus, suppose there are two rows of windows in the house front, each window six feet high by three wide, and separated by intervals of three feet, both between window and window and between tier and tier; each of the divisions here standing for three feet, the lines drawn from $\boldsymbol{B} \in$ to the dividing-point d fix the lateral dimensions, and the divisions on $A$ b the vertical ones. For other magnitudes it would be necessary to subdivide the parts on the measuringline, or on A в, as required. The lines which regulate the inner sides or returns of the windows ( $a, b, c$, etc.) of course are drawn to the vanishing-point of в F (the other side of the house), if F в $\vee$ represents a right angle; if not, their own vanishing-point must be found separately for these returns. But see Practice on Problem XI.


Fig. 55.
Interior angles, such as E b c, Fig. 55. (suppose the corner of a room), are to be treated in the same way, each side of the room having its measurements separately carried to it from the measuring-line. It may sometimes happen in such cases that we have to carry the measurement up from the corner B , and that the sight-magnitudes are given us from the length of the line а в. For instance, suppose the room is eighteen feet high, and therefore $\begin{gathered}\text { B } \\ \text { is eighteen feet; }\end{gathered}$ and we have to lay off lengths of six feet on the top of the room wall, в с. Find D, the dividing-point of в с. Draw a
measuring-line, $\boldsymbol{B} F$, from B ; and another, $g \mathrm{c}$, anywhere above. On $\quad$ f lay off $\boldsymbol{b} \boldsymbol{q}$ equal to one third of $\triangle \mathrm{B}$, or six feet; and draw from d , through G and B , the lines $\in g$, в $b$, to the upper measuring-line. Then $g b$ is six feet on that measuring-line. Make $b c, c h$, etc., equal to $b g$; and draw $c e, h f$, ete., to D , cutting в c in $e$ and $f$, which mark the required lengths of six feet each at the top of the wall.

## PROBLEM X.

This is one of the most important foundational problems in perspective, and it is necessary that the student should entirely familiarize himself with its conditions.

In order to do so, he must first observe these general relations of magnitude in any pyramid on a square base.

Let a $\mathrm{a}_{\mathrm{H}}$, Fig. 56., be any pyramid on a square base.


The best terms in which its magnitude can be given, are the length of one side of its base, A m, and its vertical altitude ( C D in Fig. 25.) ; for, knowing these, we know all the other magnitudes. But these are not the terms in which its size will be usually ascertainable. Generally, we shall
Fig. 66. have given us, and be able to ascertain by measurement, one side of its base $A H$, and either $A$ a the length of one of the lines of its angles, or B G (or $\mathrm{B}^{\prime} \mathrm{G}$ ) the length of a line drawn from its vertex, $G$, to the middle of the side of its base. In measuring a real pyramid, a a will usually be the line most easily found ; but in many architectural problems в $G$ is given, or is most easily ascertainable.

Observe therefore this general construction.
Let a b D E, Fig. 57., be the square base of any pyramid.

Draw its diagonals, A E, B D, cutting each other in its center, c.

Bisect any side, $\Delta \mathrm{B}$, in F .
From $F$ erect vertical $F$ .
Produce $F$ в to $H$, and make $F$ H equal to A C.

Now if the vertical altitude of the pyramid (c d in Fig. 25.) be given, make F G equal to this vertical altitude.


Fig. 57.

Join g b and Gir.
Then G B and G in are the true magnitudes of $G$ B and $G$ ir in Fig. 56.

If G B is given, and not the vertical altitude, with center b, and distance $\boldsymbol{f} \boldsymbol{B}$, describe circle cutting $\mathrm{F}_{\mathrm{G}}$ in G , and F G is the vertical altitude.

If $\mathrm{G}_{\mathrm{H}}$ is given, describe the circle from H , with distance G $H$, and it will similarly cut $F$ G in $G$.

It is especially necessary for the student to examine this construction thoroughly, because in many complicated forms of ornaments, capitals of columns, etc., the lines B $G$ and a in become the limits or bases of curves, which are elongated on the longer (or angle) profile $G H$, and shortened on the shorter (or lateral) profile в $G$. We will take a simple instance, but must previously note another construction.

It is often necessary, when pyramids are the roots of some ornamental form, to divide them horizontally at a given vertical height. The shortest way of doing so is in general the following.


Fig. 58.
Let a e c, Fig. 5S., be any pyramid on a square base a b $c$, and $\triangle D C$ the square pillar used in its construction.

Then by construction (Problem X.) B D and AF are both of the vertical height of the pyramid.

Of the diagonals, F E, D E, choose the shortest (in this case D E ), and produce it to cut the sight-line in V .

Therefore v is the vanishing-point of D E.
Divide d в, as may be required, into the sight-magnitudes of the given vertical heights at which the pyramid is to be divided.

From the points of division, 1, 2, 3, etc., draw to the vanishing-point v . The lines so drawn cut the angle line of

the pyramid, в E , at the required elevations. Thus, in the figure, it is required to draw a horizontal black band on the pyramid at three fifths of its height, and in breadth one twentieth of its height. The line b d is divided into five parts, of which three are counted from в upwards. Then the line drawn to v marks the base of the black band. Then one fourth of one of the five parts is measured, which similarly gives the breadth of the band. The terminal lines of the band are then drawn on the sides of the pyramid parallel to $A B$ (or to its ranishing-point if it has one), and to the vanishing-point of в с.

If it happens that the vanishing-points of the diagonals are awkwardly placed for use, bisect the nearest base line of the pyramid in $\boldsymbol{b}$, as in Fig. 59.

Erect the vertical d b and join $\boldsymbol{q}$ b and $D$ ( $\boldsymbol{a}$ being the apex of pyramid).

Find the vanishing-point of $D G$, and use $D$ в for division, carrying the measurements to the line $G B$.

In Fig. 59., if we join A D and D C, A D C is the vertical

profile of the whole pyramid, and B D с of the half pyramid, corresponding to F G B in Fig. 57.

We may now proceed to an architectural example.
Let a H, Fig. 60., be the vertical profile of the capital of a pillar, A B the semi-diameter of its head or abacus, and F D the semi-diameter of its shaft.

- Let the shaft be circular, and the abacus square, down to the level $\mathbf{E}$.

Join B D, E F, and produce them to meet in $G$.
Therefore E C $G$ is the semi-profile of a reversed pyramid containing the capital.

Construct this pyramid, with the square of the abacus, in the required perspective, as in Fig. 61.; making a e equal to $\mathrm{A}_{\mathrm{E}}$ in Fig. 60., and a K, the side of the square, equal to twice a b in Fig. 60. Nake e $q$ equal to $\mathrm{c} G$, and ed equal to C D. Draw D F to the vanishing-point of the diagonal d v (the figure is too small to include this vanishing-point), and F is the level of the point F in Fig. 60., on the side of the pyramid.

Draw $\mathrm{F} m, \mathrm{~F} n$, to the vanishing-points of A H and A k . Then $\mathrm{F} n$ and $\mathrm{F} m$ are horizontal lines across the pyramid at the level F , forming at that level two sides of a square.


Fig. 62.
Complete the square, and within it inscribe a circle, as in Fig. 62., which is left unlettered that its construction may be clear. At the extremities of this draw vertical lines, which will be the sides of the shaft in its right place. It will be found to be somewhat smaller in diameter than the entire shaft in Fig. 60., because at the center of the square it is more distant than the nearest edge of the square abacus. The curves of the capital may then be drawn approximately by the eye. They are not quite accurate in Fig. 62., there
being a subtlety in their junction with the shaft which could not be shown on so small a scale without confusing the student ; the curve on the left springing from a point a little way round the circle behind the shaft, and that on the right from a point on this side of the circle a little way within the edge of the shaft. But for their more accurate construction see Notes on Problem XIV.

## PROBLEM XI.

It is seldom that any complicated curre, except occasionally a spiral, needs to be drawn in perspective; but the student will do well to practice for some time any fantastic shapes which he can find drawn on flat surfaces, as on wallpapers, carpets, etc., in order to accustom himself to the strange and great changes which perspective causes in them.
The curves most required in architectural drawing, after the circle, are those of pointed arches; in which, however, all that will be generally needed is to fix the apex, and two


Fig. 63.
points in the sides. Thus if we have to draw a range of pointed arches, such as A P B, Fig. 63., draw the measured arch to its sight-magnitude first neatly in a rectangle, a $\quad \mathrm{B}$ c D; then draw the diagonals A D and в C ; where they cut the curve draw a horizontal line (as at the level E in the figure), and carry it along the range to the vanishing-point, fixing the points where the arches cut their diagonals all along. If the arch is cusped, a line should be drawn at F to mark the height of the cusps, and rerticals raised at a and m , to determine the interval between them. Any other points
may be similarly determined, but these will usually be enough. Figure 63. shows the perspective construction of a square niche of good Veronese Gothic, with an uncusped arch of similar size and curve beyond.

In Fig. 64, the more distant arch only is lettered, as the construction of the nearest explains itself more clearly to the eye without letters. The more distant arch shows the general construction for all arches seen underneath, as of


Fig. 64.
bridges, cathedral aisles, etc. The rectangle a b c d is first drawn to contain the outside arch; then the depth of the areh, $\Lambda a$, is determined by the measuring-line, and the rectangle, $a b c d$, drawn for the inner arch.

А $a$, в $b$, etc., go to one vanishing-point; $\boldsymbol{\Lambda} \mathrm{B}, a b$, etc., to the opposite one.

In the nearer arch another narrow rectangle is drawn to determine the cusp. The parts which would actually come into sight are slightly shaded.

## PROBLEM XIV.

Several exercises will be required on this important problem.
I. It is required to draw a circular flat-bottomed dish narrower at the bottom than the top; the vertical depth being given, and the diameter at the top and bottom.


Fig. 65.
Let $a b$, Fig. 65., be the diameter of the bottom, $a c$ the diameter of the top, and $a d$ its vertical depth.

Take $A D$ in position equal to $a c$.
On ad draw the square a b c d, and inscribe in it a circle.
Therefore, the circle so inscribed has the diameter of the top of the dish.

From a and det fall rerticals, a $\mathrm{E}, \mathrm{D} \mathrm{H}$, each equal to $a d$.
Join en, and describe square ef $\boldsymbol{f}$ н, which accordingly will be equal to the square $A B C D$, and be at the depth $a d$ beneath it.

Within the square ef a $\boldsymbol{f}$ describe a square I K , whose diameter shall be equal to $a b$.
Describe a circle within the square I к. Therefore the circle so inscribed has its diameter equal to $a b$; and it is
in the center of the square E F G H, which is vertically bencath the square abco.

Therefore the circle in the square I k represents the bottom of the dish.

Now the two circles thus drawn will either intersect one another, or they will not.

If they intersect one another, as in the figure, and they are below the eye, part of the bottom of the dish is seen within it.


Fig. 66.
To avoid confusion, let us take then two intersecting circles withont the inclosing squares, as in Fig. 66.

Draw right lines, $a b, c d$, touching both circles externally. Then the parts of these lines which connect the circles are the sides of the dish. They are drawn in Fig. 65. without any prolongations, but the best way to construct them is as in Fig. 66.

If the circles do not intersect each other, the smaller must either be within the larger or not within it.

If within the larger, the whole of the bottom of the dish is seen from above, Fig. 67. a.

If the smaller circle is not within


Eig. 67. the larger, none of the bottom is seen inside the dish, $b$.

If the circles are above instead of beneath the eye, the bottom of the dish is scen beneath it, $c$.

If one circle is above and another beneath the eye, neither the bottom nor top of the dish is seen, $d$. Unless the object be very large, the circles in this case will have little apparent curvature.
II. The preceding problem is sim-
ple, because the lines of the profile of the object ( $a b$ and $c d$, Fig. 66.) are straight. But if these lines of profile are curved, the problem becomes much more complex: once mastered, however, it leaves no farther difficulty in perspective.

Let it be required to draw a flattish circular cup or vase, with a given curve of profile.

The basis of construction is given in Fig. 68., half of it only being drawn, in order that the eye may seize its lines easily.

Two squares (of the required size) are first drawn, one above the other, with a given vertical interval, a c, between them, and each is divided into eight parts by its diameters


Fig. 68.
and diagonals. In these squares two circles are drawn; which are, therefore, of equal size, and one above the other. Two smaller circles, also of equal size, are drawn within these larger circles in the construction of the present problem ; more may be necessary in some, none at all in others.

It will be seen that the portions of the diagonals and diameters of squares which are cut off between the circles represent radiating planes, occupying the position of the spokes of a wheel.

Now let the line a e b, Fig. 69., be the profile of the vase or cup to be drawn.

Inclose it in the rectangle c $D$, and if any portion of it is not curved, as a E , cut off the curved portion by the vertical line $E$ F so as to include it in the smaller rectangle $F$ D.

Draw the rectangle A C B D in position, and upon it construct two squares, as they are constructed on the rectangle A c d in Fig. 68. ; and complete the construction of Fig. 68., making the radius of its large outer circles equal to A D , and of its small inner circles equal to A E.

The planes which occupy the position of the wheel spokes will then each represent a rectangle of the size of F D. The construction is shown by the dotted lines in Fig. 69. ; c being the center of the uppermost circle.


Fig. 69.
Within each of the smaller rectangles between the circles, draw the curve e в in perspective, as in Fig. 69.

Draw the curve $x y$, tonching and inclosing the curves in the rectangles, and meeting the upper circle at $y$.*

Then $x y$ is the contour of the surface of the cup, and the upper circle is its lip.

If the line $x y$ is long, it may be necessary to draw other rectangles between the eight principal ones; and, if the curve of profile $А$ в is complex or retorted, there may be several lines corresponding to xy , inclosing the successive waves of the profile; and the outer curve will then be an undulating or broken one.

[^70]III. All branched ornamentation, forms of flowers, capitals of columns, machicolations of round towers, and other such arrangements of radiating curve, are resolvable by this problem, using more or fewer interior circles according to the

conditions of the curves. Fig. 70 . is an example of the construction of a circular group of eight trefoils with curved stems. One outer or limiting circle is drawn within the square E D C F, and the extremities of the trefoils touch it at the extremities of its diagonals and diameters. A
smaller circle is at the rertical distance в с below the larger, and $A$ is the angle of the square within which the smaller circle is drawn ; but the square is not given, to avoid confusion. The stems of the trefoils form drooping curves, arranged on the diagonals and diameters of the smaller circle, which are dotted. But no perspective laws will do work of this intricate kind so well as the hand and eye of a painter.
IV. There is one common construction, however, in which, singularly, the hand and eye of the painter almost always


Fig. 71.
fail, and that is the fillet of any ordinary capital or base of a circular pillar (or any similar form). It is rarely necessary in practice to draw such minor details in perspective; yet the perspective laws which regulate them should be understood, else the eye does not see their contours rightly until it is very highly cultivated.

Fig. 71. will show the law with sufficient clearness; it represents the perspective construction of a fillet whose profile is a semicircle, such as $F$ II in Fig. 60., seen above the eye. Only half the pillar with half the fillet is drawn, to avoid confusion.
$Q$ is the center of the shaft.
PQ the thickness of the fillet, sight-magnitude at the shaft's center.

Round p a horizontal semicircle is drawn on the diameter of the shaft $a b$.

Round Q another horizontal semicircle is drawn on diameter $c d$.

These two semicircles are the upper and lower edges of the fillet.

Then diagonals and diameters are drawn as in Fig. 68., and, at their extremities, semicircles in perspective, as in Fig. 69.

The letters $\mathrm{A}, \mathrm{b}, \mathrm{c}, \mathrm{d}$, and E , indicate the upper and exterior angles of the rectangles in which these semicircles are to be drawn; but the inner vertical line is not dotted in the rectangle at c , as it would have confused itself with other lines.

Then the visible contour of the fillet is the line which incloses and touches * all the semicircles. It disappears behind the shaft at the point ir, but I have drawn it through to the opposite extremity of the diameter at $d$.

Turned upside down the figure shows the construction of a basic fillet.

The capital of a Greek Doric pillar should be drawn frequently for exercise on this fourteenth problem, the curve of its echinus being exquisitely subtle, while the general contour is simple.

* The engraving is a little inaccurate; the inclosing line should touch the dotted semicircles at A and b . The student should draw it on a large scale.


## PROBLEM XVI.

IT is often possible to shorten other perspective operations considerably, by finding the vanishing-points of the inclined lines of the object. Thus, in drawing the gabled roof in Fig. 43., if the gable a y c be drawn in perspective, and the vanishing-point of $\Lambda$ Y determined, it is not necessary to draw the two sides of the rectangle, $\Lambda^{\prime} \mathrm{D}^{\prime}$ and $\mathrm{D}^{\prime} \mathrm{B}^{\prime}$, in order to determine the point $\mathrm{y}^{\prime}$; but merely to draw $\mathrm{Y} \mathrm{Y}^{\prime}$ to the vanish-ing-point of $A \Lambda^{\prime}$ and $\Lambda^{\prime} Y^{\prime}$ to the vanishing-point of $\Delta Y$, meeting in $\mathrm{r}^{\prime}$, the point required.

Again, if there be a series of gables, or other figures produced by parallel inclined lines, and retiring to the point v , as in Fig. 72.,* it is not necessary to draw each separately, but merely to determine their breadths on the line a r , and draw the slopes of each to their vanishing-points, as shown in Fig. 72. Or if the gables are equal in height, and a line be drawn from y to v , the construction resolves itself into a zigzag drawn alternately to P and Q , between the lines Y V and a .

The student must be very cautious, in finding the vanish-ing-points of inclined lines, to notice their relations to the horizontals beneath them, else he may easily mistake the horizontal to which they belong.

Thus, let a b c d, Fig. 73., be a rectangular inclined plane, and let it be required to find the vanishing-point of its diagonal i d.

Find v , the vanishing-point of $\mathrm{A} D$ and b c.
Draw A E to the opposite ranishing-point, so that daE may represent a right angle.

Let fall from b the rertical b e , cutting a e in e .
Join ed, and produce it to cut the sight-line in $\mathrm{v}^{\prime}$.

## * The diagram is inaccurately cut. $\mathrm{Y} v$ should be a right line.



Then, since the point E is vertically under the point m , the horizontal line E d is vertically under the inclined line в d .


Fig. 73.
So that if we now let fall the vertical $\mathrm{v}^{\prime} \mathrm{p}$ from $\mathrm{v}^{\prime}$, and produce $\mathrm{b}_{\mathrm{D}}$ to cut $\mathrm{v}^{\prime} \mathrm{P}$ in P , the point P will be the vanishingpoint of B D, and of all lines parallel to it.*

[^71]
## PROBLEMI XVIII.

Before examining the last three problems it is necessary that you should understand accurately what is meant by the position of an inclined plane.

Cut a piece of strong white pasteboard into any irregular shape, and dip it in a sloped position into water. However rou hold it, the edge of the water, of course, will alwars draw a horizontal line across its surface. The direction of this horizontal line is the direction of the inclined plane. (In beds of rock geologists call it their "strike.")


Fig. 74.
Next, draw a semicircle on the piece of pasteboard; draw its diameter, А в, Fig. 74., and a vertical line from its center, C D ; and draw some other lines, C E, C F, etc., from the center to any points in the circumference.

Now dip the piece of pasteboard again into water, and, holding it at any inclination and in any direction you choose, bring the surface of the water to the line A $\quad$. Then the line c d will be the most steeply inclined of all the lines drawn to the circumference of the circle ; a c and H c will be less steep; and E C and F c less steep still. The nearer the lines to C D, the steeper they will be; and the nearer to A B , the more nearly horizontal.

When, therefore, the line a в is horizontal (or marks the water surface), its direction is the direction of the inclined plane, and the inclination of the line D C is the inclination of the inclined plane. In beds of rock geologists call the inclination of the line D c their "dip."

To fix the position of an inclined plane, therefore, is to detcrmine the direction of any two lines in the plane, a в and $C$ D, of which one shall be horizontal and the other at right angles to it. Then any lines drawn in the inclined plane, parallel to A B, will be horizontal; and lines drawn parallel to C D will be as steep as C D, and are spoken of in the text as the "steepest lines" in the plane.

But farther, whatever the direction of a plane may be, if it be extended indefinitely, it will be terminated, to the eye of the observer, by a boundary line, which, in a horizontal plane, is horizontal (coinciding nearly with the visible horizon) ;-in a vertical plane, is vertical;-and, in an inclined plane, is inclined.

This line is properly, in each case, called the "sight-line" of such plane; but it is only properly called the "horizon" in the case of a horizontal plane: and I have preferred using always the term "sight-line," not only because more comprehensive, but more accurate; for though the curvature of the earth's surface is so slight that practically its visible limit always coincides with the sight-line of a horizontal plane, it does not mathematically coincide with it, and the two lines ought not to be considered as theoretically identical, though they are so in practice.

It is evident that all ranishing-points of lines in any plane must be found on its sight-line, and, therefore, that the sightline of any plane may be found by joining any two of such ranishing-points. Hence the construction of Problem XVIII.

## II.

## DEMONSTRATIONS WHICH COULD NOT CONVENIENTLY BE INCLUDED IN THE TEXT.

## I.

## THE SECOND COROLLARY, PROBLEM II.

In Fig. 8. omit the lines $\mathrm{c} \mathrm{d}, \mathrm{c}^{\prime} \mathrm{d}^{\prime}$, and d s ; and, as here in Fig. 75., from $a$ draw $a d$ parallel to A B , cutting в т in $d$; and from $d$ draw $d e$ parallel to в с.


Fig. 75.
Now as $a d$ is parallel to AB -

$$
\mathrm{AC}: a c:: \text { в с }: d e ;
$$

but AC is equal to $\mathrm{B} \mathrm{C}^{\prime}$ -
$. a c=d e$.

Now because the triangles $a c \mathrm{v}, b c^{\prime} \mathrm{v}$, are similar-

$$
a c: b c^{\prime}:: a v: b \mathrm{v}
$$

and because the triangles $d e$ т, $b c^{\prime}$ т are similar-

$$
d e: l c^{\prime}:: d \mathrm{x}: l \text { т. }
$$

But $a c$ is equal to $d e-$

$$
\therefore a \mathrm{v}: b \mathrm{v}:: d \mathrm{~T}: b \mathrm{~T}
$$

$\therefore$ the two triangles $a b d, b \mathrm{w} v$, are similar, and their angles are alternate;
$\therefore \mathrm{T} \vee$ is parallel to $a d$.
But $a d$ is parallel to A B-
.$\quad$ т v is parallel to a B.

## II.

## THE THIRD COROLLARY, PROBLEM III.

Is Fig. 13., since $a_{\mathrm{R}}$ is by construction parallel to A b in Fig. 12., and $\mathrm{T}_{\mathrm{r}}$ is by construction in Problem III. also parallel to $\triangle \mathrm{B}$ -

$$
\therefore a \mathrm{R} \text { is parallel to } \mathrm{T} \mathrm{v} \text {, }
$$

$\therefore a b \mathrm{R}$ and $\mathrm{T} b \mathrm{v}$ are alternate triangles,
$\therefore a \mathrm{R}: \mathrm{Tv}:: a b: b \mathrm{v}$.
Again, by the construction of Fig. 13., $a \mathrm{R}^{\prime}$ is parallel to II v -

$$
\begin{gathered}
\therefore a b \mathrm{R}^{\prime} \text { and } \mathrm{Mr} b \text { are alternate triangles, } \\
\therefore \cdot a \mathrm{R}^{\prime}: \mathrm{Mr}:: a b: b \mathrm{v} .
\end{gathered}
$$

And it has just been shown that also

$$
\begin{gathered}
a \mathrm{R}: \mathrm{TV}:: a b: b \mathrm{~V}- \\
\cdot a \mathrm{R}^{\prime}: \mathrm{M} \mathrm{~V}:: a \mathrm{R}: \mathrm{TV} .
\end{gathered}
$$

But by construction, $a_{\mathrm{R}^{\prime}}=a \mathrm{R}-$

$$
\therefore \text { m } v=T v .
$$

## III.

## ANALYSIS OF PROBLEM XV.

We proceed to take up the general condition of the second problem, before left unexamined, namely, that in which the rertical distances $\mathrm{B}_{\mathrm{c}} \mathrm{c}^{\prime}$ and a c (Fig. 6. page 13), as well as the direct distances T D and $\mathrm{T} \mathrm{D}^{\prime}$ are unequal.

In Fig. 6., here repeated (Fig. 76.), produce $\mathrm{c}^{\prime}$ в downwards, and make $\mathrm{c}^{\prime} \mathrm{E}$ equal to C A.


Join a e.
Then, by the second Corollary of Problem II., $\boldsymbol{A}$ e is a horizontal line.

Draw T v parallel to A E , cutting the sight-line in V . .$\therefore \nabla$ is the vanishing-point of A $E$.

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Complete the constructions of Problem II. and its second Corollary.

Then by Problem II. $a b$ is the line a b drawn in perspective; and by its Corollary $a e$ is the line $a \mathrm{E}$ drawn in perspective.

From v erect perpendicular v p, and produce $a b$ to cut it in P .

Join $\mathrm{T}_{\mathrm{P}}$, and from $e$ draw ef parallel to A E , and cutting $\Delta \mathrm{T}$ in $f$.


Fig. 77.
Now in triangles евт and $\AA \mathrm{Et}$, as $e b$ is parallel to ев and $e f$ to $\mathrm{AE} ;-e b: e f::$ ев:

But $\mathrm{t} v$ is also parallel to AE and P V to $e b$.
Therefore also in the triangles $a \mathrm{P} \mathrm{V}$ and $a \mathrm{~V}$ T,

$$
\text { e b :ef }:: \text { Р v : v т. }
$$


And, by construction, angle т $\mathrm{P} \mathrm{v}=\angle \mathrm{AE}$ в.
Therefore the triangles $T V P, A E B$, are similar; and $T P$ is parallel to $\boldsymbol{A}$ в.

Now the construction in this problem is entirely general for any inclined line a 1 , and a horizontal line a E in the same vertieal plane with it.

So that if we find the vanishing-point of $\mathrm{A} E$ in v , and from $V$ erect a vertical $v \mathrm{r}$, and from T draw $\mathrm{T} P$ parallel to $A$ l, eutting $v \quad \mathrm{P}$ in P , P will be the vanishing-point of A B , and (by the same proof as that given at page 17) of all lines parallel to it.


Fig. 78.
Next, to find the dividing-point of the inclined line.
I remove some unnecessary lines from the last figure and repeat it here, Fig. 77., adding the measuring-line $a$ ar, that the student may observe its position with respeet to the other lines before I remove any more of them.

Now if the line a в in this diagram represented the length of the line a b in reality (as a b does in Figs. 10. and 11.), we should only have to proceed to modify Corollary III. of Problem II. to this new construction. We shall see presently that $\triangle \mathrm{B}$ does not represent the aetual length of the inelined line $\Delta$ b in nature, nevertheless we shall first proceed as if it did, and modify our result afterwards.

In Fig. 77. draw a $d$ parallel to $\operatorname{A} \boldsymbol{b}$, cutting $\boldsymbol{в} \boldsymbol{\tau}$ in $d$.
Therefore $a d$ is the sight-magnitude of $A B$, as $a R$ is of А B in Fig. 11.

Remore again from the figure all lines except $\mathrm{P} \nabla, \mathrm{v} \mathrm{T}, \mathrm{P}$ т, a $b, a d$, and the measuring-line.

Set off on the measuring-line a $m$ equal to $a d$.
Draw P Q parallel to $a m$, and through $b$ draw $m$, cutting $P Q$ in $Q$.

Then, by the proof already given in page $20, \mathrm{P} Q=\mathrm{P}$ т.
Therefore if $P$ is the vanishing-point of an inclined line $A B$, and $Q P$ is a horizontal line drawn through it, make $P Q$ equal to $\mathrm{P} T$, and $a m$ on the measuring-line equal to the sight-magnitude of the line А в in the diagram, and the line joining $m$ Q will cut $a \mathrm{P}$ in $b$.

We hare now, therefore, to consider what relation the length of the line $\AA$ в in this diagram, Fig. 77., has to the length of the line a в in reality.

Now the line A e in Fig. 77. represents the length of a e in reality.

But the angle A e b, Fig. 77., and the corresponding angle in all the constructions of the earlier problems, is in reality a right angle, though in the diagram necessarily represented as obtuse.

Therefore, if from E we draw e c, as in Fig. 79., at right angles to A E , make $\mathrm{E} \mathrm{C}=\mathrm{E} \mathrm{B}$, and join a c, A $C$ will be the real length of the line $\triangle$ B.

Now, therefore, if instead of a m in Fig. 78., we take the real length of $\Delta \mathrm{B}$, that real length will be to $a m$ as $A$ C to $A$ в in Fig. 79.


Fig. 79.

And then, if the line drawn to the meas-uring-line $\mathrm{P} Q$ is still to cut $a \mathrm{P}$ in $b$, it is evident that the line $P$ Q must be shortened in the same ratio that $a m$ was shortened ; and the true diriding-point will be $Q^{\prime}$ in Fig. S0., fixed so that $\Omega^{\prime} \mathrm{P}^{\prime}$ shall be to Q P as a $m^{\prime}$ is to $a m$; a $m^{\prime}$ representing the real length of $A$ b.

But a $m^{\prime}$ is therefore to a $m$ as а c is to а в in Fig. 79.
Therefore $\mathbf{P} Q^{\prime}$ must be to $P Q$ as $A$ C is to A b.
But P Q equals P т (Fig. 78.) ; and P v is to v t (in Fig. 78.) as B E is to A E (Fig. 79.).

Hence we have only to substitute P v for $\mathrm{E} C$, and V т for A e, in Fig. 79., and the resulting diagonal a c will be the required length of $P Q^{\prime}$.

It will be seen that the construction given in the text


Fig. 80.
(Fig. 46.) is the simplest means of obtaining this magnitude, for v d in Fig. 46. (or v ir in Fig. 15.) = v т by construction in Problem IV. It should, however, be observed, that the distance $P Q^{\prime}$ or $P x$, in Fig. 46., may be laid on the sight-line of the inclined plane itself, if the measuring-line be drawn parallel to that sight-line. And thus any form may be drawn on an inclined plane as conveniently as on a horizontal one, with the single exception of the radiation of the rerticals, which have a vanishing-point, as shown in Problem XX.

## TIIE END.

## THE TWO PATHS

BEING
LECTURES ON ART

AND ITS APPLICATION TO
DECORATION AND MANUFACTURE,
DELIVERED IN I858-9.

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## PREFACE

## TO THE RE-ISSUE OF 1878.

Here is another of my books republished at the request of my earnest and kind friend, Mr. Henry Willett; a statement especially due to him, because, in glancing over the sheets as re-issued, I find them full of useful things which I did not know I had said, and should probably have wasted much time in saying again; and I am therefore heartily glad that these four lectures are again made generally readable.

I have no time nor sight now, however, for the revision of old plates: what my eyes can do, must be fresh work: and besides, I own to a very enjoyable pride in making the first editions of my books raluable to their possessors, who found out, before other people, that these writings and drawings really were good for something. I have retained therefore in this edition only the woodcuts necessary for the explanation of the text: and the two lovely engravings by Messis. Cuff and Armytage will, I hope, render the old volume more or less classical among collectors. They were merely its ornaments, and the few references to them are withdrawn from the present edition without the slightest harm to its usefulness.

In other respects, I doubt not my publisher's care has made it, what it professes to be, an absolute reprint of the former text.

Brantwood,
21st January, 1878.


## PREFACE TO TIIE FIRST EDITION

(1859).

The following addresses, though spoken at different times, are intentionally connected in subject; their aim being to set one or two main principles of art in simple light before the general student, and to indicate their practical bearing on modern design. The law which it has been my effort chiefly to illustrate is the dependence of all noble design, in any kind, on the sculpture or painting of Organic Form.

This is the vital law; lying at the root of all that I have ever tried to teach respecting architecture or any other art. It is also the law most generally disallowed.

I belicre this must be so in every subject. We are all of us willing enough to accept dead truths or blunt ones, which can be fitted harmlessly into spare niches, or shrouded and coffined at once out of the way, we holding complacently the cemetery keys, and supposing we have learned something. But a sapling truth, with earth at its root and blossom on its branches; or a trenchant truth, that can cut its way through bars and sods, most men, it seems to me, dislike the sight or entertainment of, if by any means such guest or vision may be avoided. And, indeed, this is no wonder; for one such truth, thoroughly accepted, connects itself strangely with others, and there is no saying what it may lead us to.

And thus the gist of what I have tried to teach about architecture has been throughout denied by my architect readers, eren when they thought what I said suggestive in other particulars. "Anything but that. Study Italian Gothics?perhaps it would be as well; build with pointed arches?there is no objection; use solid stone and well-burnt brick?-
by all means; but-learn to carve or paint organic form ourselves! How ean such a thing be asked? We are above all that. The carvers and painters are our servants-quite subordinate people. They ought to be glad if we leave room for them."

Well, on that it all turns. For those who will not learn to carve or paint, and think themsclves greater men because they cannot, it is wholly wasted time to read any words of mine; in the truest and sternest sense they can read no words of mine ; for the most familiar I can use-" form," "proportion," " beauty," "curvature," "color,"-are used in a sense which by no effort I can communicate to such readers; and in no building that I praise is the thing that I praisc it for, risible to them.

And it is the more necessary for me to state this fully, becanse so-called Gothic or Romanesque buildings are now rising every day around us, which might be supposed by the public more or less to embody the principles of those styles, but which embody not one of them, nor any shadow or fragment of them ; but merely serve to caricature the noble buildings of past ages, and to bring their form into dishonor by learing out their soul.

The following addresses are therefore arranged, as I have just stated, to put this great law, and one or two collateral ones, in less mistakable light, securing, even in this irregular form, at least clearness of assertion. For the rest, the question at issue is not one to be decided by argument, but by experiment, which, if the reader is disinclined to make, all demonstration must be useless to him.

The lectures are for the most part printed as they were read, mending only obscure sentences here and there. The parts which were trusted to extempore speaking are supplied as well as I can remember (only with an addition here and there of things I forgot to say) in the words, or at least the kind of words, used at the time; and they contain, at all events, the substance of what I said more accurately than hurried journal reports. I must beg my readers not in general
to trust to such, for even in fast speaking I try to use words carefully; and any alteration of expression will sometimes involve a great alteration in meaning. A little while ago I had to speak of an architectural design, and called it " elegant"meaning, founded on good and well "elected" models; the printed report gave " excellent" design (that is to say, design excellingly good), which I did not mean, and should, even in the most hurried speaking, never have said.

The iilustrations of the lecture on iron were sketches made too roughly to be engraved, and yet of too elaborate subjects to allow of my drawing them completely.

I hope throughout the volume the student will perceive an insistence upon one main truth, nor lose in any minor direction of inquiry the sense of the responsibility which the acceptance of that truth fastens upon him; responsibility for choice, decisive and conclusive, between two modes of study, which involve ultimately the development, or deadening, of cevery power he possesses. I have tried to hold that choice clearly out to him, and to unveil for him to its farthest the issue of his turning to the right hand or the left. Guides he may find many, and aids many; but all these will be in vain unless he has first recognized the hour and the point of life when the way divides itself, one way leading to the Olive mountains-one to the vale of the Salt Sea. There are few cross-roads, that I know of, from one to the other. Let him pause at the parting of The Two Paths.

## THE TWO PATHS.

## LECTURE I.

THE DETERIORATIVE POWER OF CONTENTIONAL ART OVER NATIONS.

AN NAUGURAL LECTURE,

Delivered at the Opening Meeting of the Architectural Museum, South
Kensington Museum,* January 13ih, 1858.

1. As I passed, last summer, for the first time, through the north of Scotland, it seemed to me that there was a peculiar painfulness in its scenery, caused by the non-manifestation of the powers of human art. I had never traveled in, nor even heard or conceired of, such a country before; nor, though I had passed much of my life amidst mountain scenery in the south, was I before aware how much of its charm depended on the little gracefulnesses and tendernesses of human work, which are mingled with the beanty of the Alps, or spared by their desolation. It is true that the art which carves and colors the front of a Swiss cottage is not of any very exalted kind; yet it testifies to the completeness and the delicacy of the faculties of the mountaineer: it is true that the remnants of tower and battlement, which afford footing to the wild vine on the Alpine promontory, form but a small part of the great serration of its rocks; and yet it is just that fragment of their broken outline

[^72]which gives them their pathetic power, and historical majesty. And this element among the wilds of our own country I found wholly wanting. The IIighland cottage is literally a heap of gray stones, choked up, rather than roofed over, with black peat and withered heather; the only approach to an effort at decoration consists in the placing of the clods of protective peat obliquely on its roof, so as to give a diagonal arrangement of lines, looking somewhat as if the surface had been scored over by a gigantic claymore.
2. And, at least among the northern hills of Scotland, elements of more ancient architectural interest are equally absent. The solitary peelhouse is hardly discernible by the windings of the stream; the roofless aisle of the priory is lost among the enclosures of the village; and the capital city of the Highlands, Inverness, placed where it might ennoble one of the sweetest landscapes, and by the shore of one of the loveliest estuaries in the world;-placed between the crests of the Grampians and the flowing of the Moray Firth, as if it were a jewel clasping the folds of the mountains to the blue zone of the sea,-is only distinguishable from a distance by one architectural feature, and exalts all the surrounding landscape by no other associations than those which can be connected with its modern castellated jail.
3. While these conditions of Scottish scenery affected me very painfully, it being the first time in my life that I had been in any country possessing no valuable monuments or examples of art, they also forced me into the consideration of one or two difficult questions respecting the effect of art on the human mind; and they forced these questions upon me eminently for this reason, that while I was wandering disconsolately among the moors of the Grampians, where there was no art to be found, news of peculiar interest were every day arriving from a country where there was a great deal of art, and art of a delicate kind, to be found. Among the models set before you in this institution, and in the others established thronghout the lingdom for the teaching
of design, there are, I suppose, none in their kind more admirable than the decorated works of India. They are, indeed, in all materials capable of color,-wool, marble, or metal,-almost inimitable in their delicate application of divided hue, and fine arrangement of fantastic line. Nor is this power of theirs exerted by the people rarely, or without enjoyment; the love of subtle design seems universal in the race, and is developed in every implement that they shape, and every building that they raise; it attaches itself with the same intensity, and with the same success, to the service of superstition, of pleasure, or of cruelty ; and enriches alike, with one profusion of enchanted iridescence, the dome of the pagoda, the fringe of the girdle, and the edge of the sword.
4. So then you have, in these two great populations, Indian and Highland-in the races of the jungle and of the moor-two national capacities distinctly and accurately opposed. On the one side you have a race rejoicing in art, and eminently and universally endowed with the gift of it; on the other you have a people careless of art, and apparently incapable of it, their utmost efforts hitherto reaching no farther than to the rariation of the positions of the bars of color in square checkers. And we are thus urged naturally to inquire what is the effect on the moral character, in each nation, of this rast difference in their pursuits and apparent capacities? and whether those rude checkers of the tartan, or the exquisitely fancied involutions of the Cashmere, fold habitually orer the noblest hearts? We hare had our answer. Since the race of man began its course of $\sin$ on this earth, nothing has ever been done by it so significative of all bestial, and lower than bestial, degradation, as the acts of the Indian race in the year that has just passed by. Cruelty as fierce may indeed have been wreaked, and brutality as abominable been practised before, but never under like circumstances; rage of prolonged war, and resentment of prolonged oppression, have made men as cruel before now; and gradual decline into barbarisin, where no examples of decency or civilization existed around them, has sunk, be-
fore now, isolated populations to the lowest level of possible lamamity. But cruelty stretched to its fiercest against the gentle and unoffending, and commption festered to its loathsomest in the midst of the witnessing presence of a diseiplined civilization, - these we could not have known to be within the practicable compass of human guilt, but for the acts of the Indian mutineer. And, as thus, on the one hand, you have an extreme energy of baseness displayed by these lorers of art; on the other,-as if to put the question into the narrowest compass, -you have had an extreme energy of virtue displayed by the despisers of art. Among all the soldiers to whom you owe your victories in the Crimea, and your avenging in the Indies, to none are you bound by closer bonds of gratitude than to the men who have been born and bred among those desolate IIighland moors. And thus you have the differences in capacity and circumstance between the two nations, and the differences in result on the moral habits of two nations, put into the most signifi-cant-the most palpable-the most brief opposition. Out of the peat cottage come faith, courage, self-sacrifice, purity, and piety, and whatever else is fruitful in the work of Heaven; ont of the ivory palace come treachery, eruelty, cowardice, idolatry, bestiality-whatever else is fruitful in the work of IIell.
5. But the difficulty does not close here. From one instance, of however great apparent force, it would be wholly unfair to gather any general conclusion-wholly illogical to assert that because we had once found love of art connected with moral baseness, the love of art must be the general root of moral baseness; and equally unfair to assert that, because we had once found neglect of art coincident with nobleness of disposition, neglect of art must be always the source or sign of that nobleness. But if we pass from the Indian peninsula into other countries of the globe ; and from our own recent experience, to the records of history, we shall still find one great fact fronting us, in stern univer-sality-namely, the apparent connection of great success in
art with subsequent national degradation. You find, in the first place, that the nations which possessed a refined art were always subdued by those who possessed none: you find the Lydian subdued by the Mede; the Athenian by the Spartan; the Greek by the Roman; the Roman by the Goth; the Burgundian by the Switzer: but you find, beyond this-that even where no attack by any external power has accelerated the catastrophe of the state, the period in which any given people reach their highest power in art is precisely that in which they appear to sign the warrant of their own ruin ; and that, from the moment in which a perfect statue appears in Florence, a perfect picture in Venice, or a perfect fresco in Rome, from that hour forward, probity, industry, and courage seem to be exiled from their walls, and they perish in a sculpturesque paralysis, or a many-colored corruption.
6. But even this is not all. As art seems thus, in its delicate form, to be one of the chief promoters of indolence and sensuality, -so, I need hardly remind you, it hitherto has appeared only in energetic manifestation when it was in the serrice of superstition. The four great manifestations of human intellect which founded the four principal kingdoms of art,-Egyptian, Babylonian, Greek, and Italian, -were dereloped by the strong excitement of active superstition in the worship of Osiris, Belus, Minerva, and the Queen of Heaven. Therefore, to speak briefly, it may appear very difficult to show that art has ever yet existed in a consistent and thoroughly energetic school, unless it was engraged in the propagation of falsehood, or the encouragement of vice.
7. And finally, while art has thus shown itself always active in the service of luxury and idolatry, it has also been strongly directed to the exaltation of cruelty. A nation which lires a pastoral and innocent life never decorates the shepherd's staff or the plow-handle; but races who live by depredation and slaughter nearly always bestow exquisite ornaments on the quiver, the helmet, and the spear.
8. Does it not seem to you, then, on all these three counts, more than questionable whether we are assembled here in Kensington Museum to any good purpose? Might we not justly be looked upon with suspicion and fear, rather than with sympathy, by the innocent and unartistical public? Are we even sure of ourselves? Do we know what we are about? Are we met here as honest people? or are we not rather so many Catilines assembled to devise the hasty degradation of our country, or, like a conclave of midnight witches, to summon and send forth, on new and unsuspected missions, the demons of luxury, cruelty, and superstition?
9. I trust, upon the whole, that it is not so: I am sure that Mr. Redgrave and Mr. Cole do not at all include results of this kind in their conception of the ultimate objects of the institution which owes so much to their strenuous and well-directed exertions. And I have put this painful question before you, only that we may face it thoroughly, and, as I hope, out-face it. If you will give it a little sincere attention this evening, I trust we may find sufficiently good reasons for our work, and proceed to it hereafter, as all good workmen should do, with clear heads, and calm consciences.
10. To return, then, to the first point of difficulty, the relations between art and mental disposition in India and Scotland. It is quite true that the art of India is delicate and refined. But it has one curious character distinguishing it from all other art of equal merit in design-it never represents a natural fact. It either forms its compositions out of meaningless fragments of color and flowings of line; or, if it represents any living ereature, it represents that creature under some distorted and monstrous form. To all the facts and forms of nature it wilfully and resolutely opposes itself: it will not draw a man, but an eight-armed monster; it will not draw a flower, but only a spiral or a zigzag.
11. It thus indicates that the people who practise it are cut off from all possible sources of healthy knowledge or natural delight; that they have wilfully sealed up and put
aside the entire rolume of the world, and have got nothing to read, nothing to dwell upon, but that imagination of the thoughts of their hearts, of which we are told that "it is enly evil continually." Over the whole spectacle of creation they have thrown a veil in which there is no rent. For them no star peeps through the blanket of the dark-for them neither their heaven shines nor their mountains risetor them the flowers do not blossom-for them the creatures of field and forest do not live. They lie bound in the dangeon of their own corruption, encompassed only by doleful phantoms, or by spectral vacancy.
12. Need I remind you what an exact reverse of this condition of mind, as respects the observance of nature, is presented by the people whom we have just been led to contemplate in contrast with the Indian race? You will find, upon reflection, that all the highest points of the Scottish character are connected with impressions derived straight from the natural scenery of their country. No nation has ever before shown, in the general tone of its language,-in the general current of its literature,-so constant a habit of hallowing its passions and confirming its principles by direct association with the charm, or power, of nature. The writings of Scott and Burns-and yet more, of the far greater poets than Burns who gave Scotland her traditional ballads,-furnish you in every stanza-almost in every line-with examples of this association of natural scenery with the passions ; * but an instance of its farther

[^73]conncction with moral principle struck me forcibly just at the time when I was most lamenting the absence of art among the people. In one of the loneliest districts of Scotland, where the peat cottages are darkest, just at the western foot of that great mass of the Grampians which encircles the sources of the Spey and the Dee, the main road which traverses the chain winds round the foot of a broken rock called (rag, or Craig Ellachie. There is nothing remarkable in either its height or form ; it is darkened with a few scattered pines, and tonched along its summit with a flush of heather ; but it constitutes a kind of headland, or leading promontory, in the group of hills to which it belongs-a sort of initial letter of the mountains ; and thus stands in the mind of the inhabitants of the district, the Clan Grant, for a type of their country, and of the influence of that country upon themselves. Their sense of this is beantifully indicated in the war-cry of the clan. "Stand fast, Craigg Ellachic." lou may think long over those few words withont exhausting the deep wells of feeling and thought contained in them-the love of the native land, the assurance of their faithfulness to it ; the subdued and gentle assertion of indomitable courage-I muy need to be told to stand, but, if I do, Craig Ellachie does. You could not but have felt, had you passed beneath it at the time when so many of England's dearest children were being defended by the strength of heart of men born at its foot, how often among the delicate Indian palaces, whose marble was pallid with horror, and whose vermilion was darkened with blood, the remembrance of its rongh gray rocks and purple heaths must have risen before the sight of the ITighland soldier ; how often the hailing of the shot and the shriek of battle would pass away from his hearing, and leave only the whisper of the old pine branches,-" Stand fast, Craig Ellachie! '"
13. You have, in these two nations, seen in direct opposition the effects on moral sentiment of art withont nature, and of nature without art. And you see enough to justify
you in suspecting-while, if you choose to investigate the subject more deeply and with other examples, you will find enough to justify you in concluding-that art, followed as such, and for its own sake, irrespective of the interpretation of nature by it, is destructive of whatever is best and noblest in humanity ; but that nature, however simply observed, or imperfectly known, is, in the degree of the affection felt for it, protective and helpful to all that is noblest in humanity.
14. Yon might then conclude farther, that art, so far as it was devoted to the record or the interpretation of nature, would be helpful and ennobling also.
15. And you would conclude this with perfect truth. Let me repeat the assertion distinctly and solemnly, as the first that I am permitted to make in this building, devoted in a way so new and so admirable to the service of the artstudents of England-Wherever art is practised for its own sake, and the delight of the workman is in what he does and produces, instead of in what he interprets or exhibits,-there art has an influence of the most fatal kind on brain and heart, and it issues, if long so pursued, in the destruction both of intellectual power and moral principle; whereas art, deroted humbly and self-forgetfully to the clear statement and record of the facts of the universe, is always helpful and beneficent to mankind, full of comfort, strength, and salvation.
16. Now, when you were once well assured of this, you might logically infer another thing, namely, that when Art was occupied in the function in which she was serriceable, she would herself be strengthened by the service ; and when she was doing what Providence without doubt intended her to do, she would gain in vitality and dignity just as she advanced in usefulness. On the other hand, you might gather, that when her agency was distorted to the deception or degradation of mankind, she would herself be equally misled and degraded-that she would be checked in adrance, or precipitated in decline.
17. And this is the truth also ; and holding this clue you will easily and justly interpret the phenomena of history. So long as Art is steady in the contemplation and exhibition of matural facts, so long she lierself lives and grows; and in her own life and growth partly implies, partly secures, that of the nation in the midst of which she is practised. But a time has always hitherto come, in which, having thus reached a singular perfection, she begins to contemplate that perfection, and to imitate it, and deduce rules and forms from it ; and thus to forget her duty and ministry as the interpreter and discoverer of Truth. And in the very instant when this diversion of her purpose and forgetfulness of her function take place-forgetfulness generally coincident with her apparent perfection-in that instant, I say, begins her actual catastrophe ; and by her own fall-so far as she has influence-she accelerates the ruin of the nation by which she is practised.
18. The study, howerer, of the effect of art on the mind of nations is one rather for the historian than for us ; at all events it is one for the discussion of which we have no more time this evening. But I will ask your patience with me while I try to illustrate, in some farther particulars, the dependence of the healthy state and power of art itself upon the exercise of its appointed function in the interpretation of fact.
19. You observe that I always say interpretation, never imitation. My reason for doing so is, first, that good art rarely imitates ; it usually only describes or explains. But my second and chief reason is that good art always consists of two things: First, the observation of facts; secondly, the manifesting of human design and authority in the way that fact is told. Great and good art must unite the two ; it cannot exist for a moment but in their unity; it consists of the two as essentially as water consists of oxygen and hydrogen, or marble of lime and carbonic acid.
20. Let us inquire a little into the nature of each of the elements. The first element, we say, is the love of Nature,
leading to the effort to observe and report her truly. And this is the first and leading element. Review for yourselves the history of art, and you will find this to be a manifest certainty, that no great school ever yet existed which hud not for primal aim the representation of some natural fact as truly as possible. There have only yet appeared in the world three schools of perfect art-schools, that is to say, which did their work as well as it seems possible to do it. These are the Athenian,* Florentine, and Venetian. The Athenian proposed to itself the perfect representation of the form of the human borly. It strove to do that as well as it could; it did that as well as it can be done; and all its greatness was founded upon and involved in that single and honest effort. The Florentine school proposed to itself the perfect expression of human emotion-the showing of the effects of passion in the human face and gesture. I call this the Florentine school, because, whether you take Raphael for the culminating master of expressional art in Italy, or Leonardo, or Michael Angelo, you will find that the whole energy of the national effort which produced those masters had its root in Florence; not at Urbino or Milan. I say, then, this Florentine or leading Italian school proposed to itself human expression for its aim in natural truth; it strove to do that as well as it coulddid it as well as it can be done-and all its greatness is rooted in that single and honest effort. Thirdly, the Venetian school proposed to itself the representation of the effect of color and shade on all things; chiefly on the human form. It tried to do that as well as it could-did it as well as it can be done-and all its greatness is founded on that single and honest effort.
21. Pray do not leave this room without a perfectly clear holding of these three ideas. You may try them, and toss them about, afterwards, as much as you like, to see if they'll bear shaking; but do let me put them well and plainly into your possession. Attach them to three works of art which

[^74]you all have either scen or continually heard of. There's the (so-called) "Theseus" of the Elgin Marbles. That represents the whole end and aim of the Athenian school-the natmal form of the hmman borly. All their conventional architecture-their graceful shaping and painting of pottery -whatsoever other art they practised-was dependent for its greatness on this sheet-anchor of central aim: true shape of living man. Then take, for your type of the Italian school, Raphael's "Disputa del Sacramento ; " that will be an accepted type by everybody, and will involve no possibly questionable points: the Germans will admit it; the English academicians will admit it; and the English purists and pre-Raphaelites will admit it. Well, there you have the truth of human expression proposed as an aim. That is the way people look when they feel this or that-when they have this or that other mental character: are they devotional, thoughtful, affectionate, indignant, or inspired? are they prophets, saints, priests, or kings? then-whatsoever is truly thoughtful, affectionate, prophetic, priestly, kingly-that the Florentine school tried to discern, and show; that they have discerned and shown; and all their greatness is first fastened in their aim at this central truth -the open expression of the living hmman soul.
22. Lastly, take Veronese's "Marriage in Cana'" in the Louvre. There you have the most perfect representation possible of color, and light, and shade, as they affect the extermal aspect of the human form, and its immediate accessories, architecture, furniture, and dress. This external aspect of noblest nature was the first aim of the Venetians, and all their greatness depended on their resolution to achieve, and their patience in achieving it.
23. Here, then, are the three greatest schools of the former world exemplified for you in three well-known works. The Phidian "Theseus" represents the Greek school pursuing truth of form; the "Disputa" of Raphael, the Florentine school pursuing truth of mental expression; the "Marriage in Cana," the Venetian school pursuing truth of
color and light. But do not suppose that the law which I an stating to you-the great law of art-life-can only be seen in these, the most powerful of all art schools. It is just as manifest in each and every school that ever has had life in it at all. Wheresoever the search after truth begins, there life begins; wheresoever that search ceases, there life ceases. As long as a school of art holds any chain of natural facts, trying to discover more of them and express them better daily, it may play hither and thither as it likes on this side of the chain or that; it may design grotesques and conventionalisms, build the simplest buildings, serve the most practical utilities, yet all it does will be glorionsly designed and glorionsly done; but let it once quit hold of the chain of natural fact, cease to pursue that as the clue to its work; let it propose to itself any other end than preaching this living word, and think first of showing its own skill or its own fancy, and from that hour its fall is precipitate -its destruction sure; nothing that it does or designs will ever have life or loveliness in it more; its hour has come, and there is no work, nor device, nor knowledge, nor wisdom in the grave whither it goeth.
24. Let us take for example that school of art over which many of you would perhaps think this law had little power -the school of Gothic architecture. Many of us may have been in the habit of thinking of that school rather as one of forms than of facts-a school of pinnacles, and buttresses, and conventional mouldings, and disguise of nature by monstrous imaginings - not a school of truth at all. 'I think I shall be able, even in the little time we have to-night, to show that this is not so; and that our great law holds just as good at Amiens and Salisbury as it does at Athens and Florence.
25. I will go back then first to the very beginnings of Gothic art, and before you, the students of Keusington, as an impaneled jury, I will bring two examples of the barbarism out of which Gothic art merges, approximately contemporary in date and parallel in executive skill; but, the
one, a barbarism that did not get on, and could not get on; the other, a barbarism that could get on, and did get on; and you, the impaneled jury, shall judge what is the essential difference between the two barbarisms, and decide for yourselves what is the seed of life in the one, and the sign of death in the other.
26. The first,-that which has in it the sign of death,furnishes us at the same time with an illustration far too interesting to be passed by, of certain principles much depended on by our common modern designers. 'Taking up one of our architectural publications the other day, and opening it at random, I chanced upon this piece of information, put in rather curions English; but you shall have it as it stands:-
"A Aristotle asserts, that the greatest species of the beautiful are Order, Symmetry, and the Definite."
27. I should tell you, howerer, that this statement is not given as authoritative; it is one example of various Architectural teachings, given in a report in the Building Chronicle for May, 1857, of a lecture on Proportion; in which the only thing the lecturer appears to have proved was that, -
"The system of dividing the diameter of the shaft of a column into parts for copying the anciont architectural remains of Greece and Rome, adopted by architects from Vitruvius (circa B. C. 25) to the present period, as a method for producing ancient architecture, is entirely useless, for the several parts of Grecian architecture canmot be reduced or subdivided, by this system ; neither does it apply to the architecture of Rome."
28. Still, as far as I can make it out, the lecture appears to have been just one of those of which you will at present hear so many, the protests of architects who have no knowledge of sculpture-or of any other mode of expressing natural beauty-against natural beanty; and their endeavor to substitute mathematical proportions for the knowledge of life they do not possess, and the representation of life of which they are incapable. Now, this substitution
of obedience to mathematical law for sympathy with observed life, is the first characteristic of the hopeless work of all ages; as such, you will find it eminently manifested in the specimen I have to give you of the
 hopeless Gothic barbarism; the barbarism from which nothing could emerge-for which no future was possible but extinction. The Aristotelian principles of the Beautiful are, you remember, Order, Symmetry, and the Definite. Here you have the three, in perfection, applied to the ideal of an angel, in a psalter of the eighth century, existing in the library of St. John's College, Cambridge.*
29. Now, you see the characteristics of this utterly dead school are, first, the wilful elosing of its eyes to natural facts;-for, however ignorant a person may be, he need only look at a human being to see that it has a mouth as well as eyes; and secondly, the endeavor to adorn or idealize natural fact according to its own notions: it puts red spots in the middle of the hands, and sharpens the thumbs, thinking to improve them. Here you have the most pure type possible of the principles of idealism in all ages: whenever people don't look at Nature, they always think they can improve her. You will also admire, doubtless, the exquisite result of the application of our great modern architectural principle of beauty-symmetry, or equal balance of part by part ; you see even the eyes are made symmetrical-entirely round, instead of irregularly oval; and the iris is set properly in the middle, instead of-as nature has absurdly put it-rather under the upper lid. You will also observe the "principle of the pyramid" in the general arrangement of the figure, and the ralue of "series" in the placing of the dots.
30. From this dead barbarism we pass to living barbarism -to work done by hands quite as rude, if not ruder, and by

[^75]minds as uninformed; and yet work which in every line of it is prophetic of power, and has in it the sure dawn of day. You have often heard it said that Giotto was the founder of art in Italy. He was not : neither he, nor Giunta Pisano, nor Niceolo Pisano. They all laid strong hands to the work, and brought it first into aspect above ground ; but the foundation had been laid for them by the builders of the Lombardie churches in the ralleys of the Adda and the Arno. It is in the sculpture of the round arched churehes of North Italy, bearing disputable dates, ranging from the cighth to the twelfth century, that you will find the lowest struck roots of the art of Titian and Raphael.* I go, therefore, to the church which is certainly the earliest of these, St. Ambrogio, of Milan, said still to retain some portions of the actual structure from which St. Ambrose excluded Theodosins, and at all events furnishing the most arehaic examples of Lombardic sculpture in North Italy. I do not venture to guess their date; they are barbarous enongh for any date.
31. We find the pulpit of this church covered with interlacing patterns, closely resembling those of the manuscript at Cambridge, but among them is figure sculpture of a very different kind. It is wrought with mere incisions in the stone, of which the effect may be tolerably given by single lines in a drawing. Remember, therefore, for a momentas characteristic of culminating Italian art-Michael Angelo's fresco of the "Temptation of Eve," in the Sistine chapel, and you will be more interested in seeing the birth of Italian art, illustrated by the same subject, from St. Ambrogio of Milan, the "Serpent beguiling Eve." $\dagger$
32. Yet, in that sketch, rude and ludicrous as it is, you have the clements of life in their first form. The people who could do that were sure to get on. For, observe, the

[^76]workman's whole aim is straight at the facts, as well as he can get them; and not merely at the facts, but at the very heart of the facts. A common workman might have looked at nature for his serpent, but he would have thought only of its scales. But this fellow does not want scales, nor coils; he can do without them; he wants the serpent's heart-malice and insinuation ;-and he has actually got them to some extent. So also a common workman, even in this barbarous stage of art, might have carved Eve's arms and body a good deal better; but this man does not care about arms and body, if he can only get at Eve's mind-show that she is pleased at being flattered, and yet in a state of uncomfortable

hesitation. And some look of listening, of complacency, and of embarrassment he has verily got:-note the eyes slightly askance, the lips compressed, and the right hand nervously grasping the left arm: nothing can be declared impossible to the people who could begin thus-the world is open to them, and all that is in it; while, on the contrary, nothing is possible to the man who did the symmetrical angel-the world is keyless to him; he has built a cell for himself in which he must abide, barred up for ever-there is no more hope for him than for a sponge or a madrepore.
33. I shall not trace from this embryo the progress of Gothic art in Italy, because it is much complicated and involved with traditions of other schools, and because most of
the students will be less familiar with its results than with their own northern buildings. So, these two designs indieating Death and Life in the beginnings of medieval art, we will take as example of the progress of that art from our northern work. Now, many of you, doubtless, have been interested by the mass, grandeur, and gloom of Norman architecture, as much as by Gothic traceries; and when you hear me say that the root of all good work lies in natural facts, you doubtless think instantly of your round arches, with their rude eushion capitals, and of the billet or zigzag work by which they are surrounded, and you cannot see what the knowledge of nature has to do with either the simple plan or the rude moldings. But all those simple conditions of Norman art are merely the expiring of it towards the extreme north. Do not study Norman architecture in Northumberland, but in Normandy, and then you will find that it is just a peculiarly manly, and practically useful form of the whole great French school of rounded architecture. And where has that French school its origin? Wholly in the rich conditions of sculpture, which, rising first out of imitations of the Roman bas-reliefs, covered all the façades of the French early churches with one continuous arabesque of floral or animal life. If you want to study round-arehed buildings, do not go to Durham, but go to Poicticrs, and there you will see how all the simple decorations which give you so much pleasure even in their isolated application were invented by persons practised in carving men, monsters, wild animals, birds, and flowers, in overwhelming redundance; and then trace this arehitecture forward in central France, and you will find it loses nothing of its richness-it only gains in truth, and therefore in grace, until just at the moment of transition into the pointed style, you have the consummate type of the sculpture of the school given you in the west front of the Cathedral of Chartres. From that front I have chosen two fragments to illustrate it.*

[^77]34. These statues have been long, and justly, considered as representative of the highest skill of the twelfth or earliest part of the thirteenth century in France; and they indeed possess a dignity and delicate charm which are for the most part wanting in later works. It is owing partly to real nobleness of feature, but chiefly to the grace, mingled with sererity, of the falling lines of excessively thin drapery; as well as to a most studied finish in composition, every part of the ornamentation tenderly harmonizing with the rest. So far as their power over certain tones of religious mind is owing to a palpable degree of non-naturalism in them, I do not praise it-the exaggerated thinness of body and stiffness of attitude are faults; but they are noble faults, and give the statues a strange look of forming part of the very building itself, and sustaining it-not like the Greek caryatid, without effort-nor like the Renaissance caryatid, by painful or impossible effort-but as if all that was silent, and stern, and withdrawn apart, and stiffened in chill of heart against the terror of earth, had passed into a shape of eternal marble; and thus the Ghost had given, to bear up the pillars of the church on earth, all the patient and expectant nature that it needed no more in heaven. This is the transeendental view of the meaning of those sculptures. I do not dwell upon it. What I do lean upon is their purely naturalistic and vital power. They are all portraits-unknown, most of them, I believe,-but palpably and unmistakably portraits, if not taken from the actual person for whom the statue stands, at all events studied from some living person whose features might fairly represent those of the king or saint intended. Several of them I suppose to be authentic; there is one of a queen, who has evidently, while she lived, been notable for her bright black eyes. The sculptor has cut the iris deep into the stone, and her dark eyes are still suggested with her smile.
statues at Chartres. The drawings may be seen at present at the Kensington Museum: but any large photograph of the west front of Chartres will enable the reader to follow what is stated in the lecture, as far as is needful.
3.5. There is another thing I wish you to notice especially in these statues-the way in which the floral molding is associated with the rertical lines of the figure. You have thus the utmost complexity and richness of curvature set side loy side with the pure and delicate parallel lines, and both the characters gain in interest and beauty ; but there is deeper signiffeance in the thing than that of mere effect in com-position;-significance not intended on the part of the seulptor, but all the more valuable becanse mintentional. I mean the close association of the beanty of lower nature in animals and flowers, with the beanty of higher nature in human form. You never get this in Greek work. Greek statues are always isolated; blank fields of stone, or depths of shadow, reliering the form of the statue, as the world of lower nature which they despised retired in darkness from their hearts. Here, the clothed figure seems the type of the Christian spirit-in many respects feebler and more contracted-but purer; clothed in its white robes and crown, and with the riches of all creation at its side.
36. The next step in the change will be set before you in a moment, merely by comparing this statue from the west front of Chartres with that of the Madonna, from the south transept door of Amiens.*

This Madonna, with the sculpture round her, represents the culminating power of Gothic art in the thirteentl century. Sculpture has been gaining continually in the interval; gaining, simply becanse becoming every day more truthful, more tender, and more suggestive. By the way, the old Donglas motto, " Tender and true," may wisely be taken up again by all of us, for our own, in art no less than in other things. Depend upon it, the first universal characteristic of all great art is Tenderness, as the sceond is Truth. I find this more and more every day : an infinitude of tenderness is the chief gift and inheritance of all the truly great men. It is sure

[^78]to involve a relative intensity of disdain towarls base things, and an appearance of sternness and arrogance in the eres of all hard, stupid, and vulgar people-quite terrific to such, if they are capable of terror, and hateful to them, if they are capable of nothing higher than hatred. Dante's is the great type of this class of mind. I say the first inheritance is Tenderness-the second Truth, because the Tenderness is in the make of the creature, the Truth in his aequired habits and knowledge : besides, the love comes first in dignity as well as in time, and that is always pure and complete: the truth, at best, imperfect.
37. To come back to our statue. You will observe that the arrangement of this seulpture is exactly the same as at Chartres-severe falling drapery, set off by rich floral ornament at the side; but the statue is now completely animated; it is no longer fixed as an upright pillar, but bends aside out of its niche, and the floral ornament, instead of being a conrentional wreath, is of exquisitely arranged hawthorn. The work, however, as a whole, though perfectly characteristic of the adrance of the age in strle and purpose, is in some subtler qualities inferior to that of Chartres. The individual seulptor, though trained in a more advanced school, has been himself a man of inferior order of mind compared to the one who worked at Chartres. But I have not time to point out to you the subtler characters by which I know this.

38 . This statue, then, marks the culminating point of Gothic art, because, up to this time, the eres of its designers had been steadily fixed on natural truth-they had been adrancing from flower to flower, from form to form, from face to face,-gaining perpetually in knowledge and reracitytherefore, perpetually in power and in grace. But at this point a fatal change came over their aim. From the statue they now began to turn the attention chicfly to the niche of the statue, and from the floral ornament to the moldings that enclosed the floral ornament. The first result of this was, however, though not the grandest, ret the most finished of northern genius. You have, in the earlier Gothic, less won-
derful construction, less careful masonry, far less expression of harmony of parts in the balance of the building. Earlicr work always has more or less of the character of a gond solid wall with irregular holes in it, well carved wherever there was room. But the last phase of good Gothic has no room to spare; it rises as high as it can on narrowest foundation, stands in perfect strength with the least possible substance in its bars; connects niche with niche, and line with line, in an exquisite harmony, from which no stone can be removed, and to which you can add not a pinnacle; and yet introduces in rich, though now more calculated profusion, the living element of its sculpture: sculpture in the quatrefoilssculpture in the brackets-sculpture in the gargoyles-sculpture in the niches-sculpture in the ridges and hollows of its moldings,-not a shadow without meaning, and not a light without life.* But with this very perfection of his work came the unhappy pride of the builder in what he had done. As long as he had been merely raising clumsy walls and carving them, like a child, in waywardness of fancy, his delight was in the things he thought of as he carred ; but when he had once reached this pitch of constructive science, he began to think only how cleverly he could put the stoncs together. The question was not now with him, What can I represent? but, How high can I build-how wonderfully can I hang this arch in air, or weave this tracery across the clouds? And the catastrophe was instant and irrevocable. Architecture became in France a mere web of waving lines,-in England a mere grating of perpendicular ones. Redundance was substituted for invention, and geometry for passion; the Gothic art became a mere expression of wanton expenditure, and vulgar mathematics; and was swept away, as it then deserved to be swept away, by the severer pride, and purer learning, of the schools founded on classical traditions.

[^79]39. You cannot now fail to see how, throughout the history of this wonderful art-from its earliest dawn in Lombardy to its last catastrophe in France and England-sculpture, founded on love of nature, was the talisman of its existence; wherever sculpture was practised, architecture arose-wherever that was neglected, architecture expired; and, believe me, all you students who love this medirval art, there is no hope of your ever doing any good with it, but on this everlasting principle. Your patriotic associations with it are of no use; your romantic associations with it-either of chivalry or re-ligion-are of no use; they are worse than useless, they are false. Gothic is not an art for knights and nobles; it is an art for the people; it is not an art for churches or sanctuaries; it is an art for houses and homes; it is not an art for England only, but an art for the world: above all, it is not an art of form or tradition only, but an art of rital practice and perpetual renewal. And whosoever pleads for it as an ancient or a formal thing, and tries to teach it you as an ecclesiastical tradition or a geometrical science, knows nothing of its essence, less than nothing of its power.
40. Leave, thercfore, boldly, though not irreverently, mysticism and symbolism on the one side; cast away with utter scorn geometry and legalism on the other; seize hold of God's hand, and look full in the face of His creation, and there is nothing He will not enable you to achiere.
41. Thus, then, you will find-and the more profound and accurate your knowledge of the history of art the more assuredly you will find-that the living power in all the real schools, be they great or small, is love of nature. But do not mistake me by supposing that I mean this law to be all that is necessary to form a school. There needs to be much superadded to it, though there never must be anything superseding it. The main thing which needs to be superadded is the gift of design.
42. It is always dangerous, and liable to diminish the clearness of impression, to go over much ground in the course of one lecture. But I dare not present you with a maimed
view of this important subject: I dare not put off to another time, when the same persons would not be again assembled, the statement of the great collateral necessity which, as well as the necessity of truth, governs all noble art.

That collateral necessity is the visille operation of human intellect in the presentation of trutli, the evidence of what is properly called design or plan in the work, no less than of veracity. A looking-glass does not design-it receives and communicates indiscriminately all that passes before it ; a painter designs when lie chooses some things, refuses others, and arranges all.
43. This selection and arrangement must have influence over everything that the art is concerned with, great or small-over lines, over colors, and over ideas. Given a certain group of colors, by adding another color at the side of them, you will either improve the group and render it more delightful, or injure it, and render it discordant and mintelligible. "Design" is the choosing and placing the color so as to help and enhance all the other colors it is set beside. So of thonghts : in a good composition, every idea is presented in just that order, and with just that force, which will perfectly connect it with all the other thonghts in the work, and will illustrate the others as well as receive illustration from them; so that the entire chain of thoughts offered to the beholder's mind shall be received by him with as much delight and with as little effort as is possible. And thus you see design, properly so called, is human invention, consulting human capacity. Out of the infinite heap of things around us in the world, it chooses a certain number which it can thoroughly grasp, and presents this group to the spectator in the form best calculated to enable him to grasp it also, and to grasp it with delight.
44. And accordingly, the capacities of both gatherer and receiver being limited, the object is to make everything that you offer helpful and precious. If you give one grain of weight too much, so as to increase fatigue without profit, or bulk without value-that added grain is hurtful: if you put
one spot or one syllable out of its proper place, that spot or syllable will be destructive-how far destructive it is almost impossible to tell: a misplaced touch may sometimes annihilate the labor of hours. Nor are any of us prepared to understand the work of any great master, till we feel this, and feel it as distinctly as we do the value of arrangement in the notes of music. Take any noble musical air, and you find, on examining it, that not one even of the faintest or shortest notes can be removed without destruction to the whole passage in which it oceurs; and that every note in the passage is twenty times more beautiful so introduced, than it would have been if played singly on the instrument. Precisely this degree of arrangement and relation must exist between every touch* and line in a great picture. You may consider the whole as a prolonged musical composition: its parts, as separate airs connected in the story; its little bits and fragments of color and line, as separate passages or bars in melodies; and down to the minutest note of the whole-down to the minutest touch,-if there is one that can be spared-that one is doing mischief.
45. Remember therefore always, you have two characters in which all greatness of art consists :-First, the earnest and intense scizing of natural facts: then the ordering those facts by strength of human intellect, so as to make them, for all who look upon them, to the utmost serviceable, memorable, and beautiful. And thus great art is nothing else than the type of strong and noble life; for, as the ignoble person, in his dealings with all that occurs in the world about him, first sees nothing clearly,-looks nothing fairly in the face, and then allows himself to be swept away by the trampling torrent, and unescapable force, of the things that he would not foresee, and could not understand: so the noble person, looking the facts of the world full in the face, and fathoming them with deep faculty, then deals with them in unalarmed intelligence and unhurried strength, and becomes, with his

[^80]human intellect and will, no unconscious nor insignificant agent in consummating their good, and restraining their evil.
46. Thus in human life you have the two fields of rightful toil for ever distinguished, yet for ever associated; Truth first -plan, or design, founded thereon: so in art, you have the same two fields for ever distinguished, for ever associated; Truth first-plan, or design, founded thereon.
47. Now hitherto there is not the least difficulty in the subject; none of you can look for a moment at any great sculptor or painter without seeing the full bearing of these principles. But a difficulty arises when you come to examine the art of a lower order, concerned with furniture and manufacture, for in that art the element of design enters without, apparently, the element of truth. You have often to obtain beauty and display invention without direct representation of nature. Yet, respecting all these things also, the principle is perfectly simple. If the designer of furniture, of cups and vases, of dress patterns, and the like, excreises himself continually in the imitation of natural form in some leading division of his work; then, holding by this stem of life, he may pass down into all kinds of merely geometrical or formal design with perfect safety, and with noble results." Thus Giotto, being primarily a figure painter and sculptor, is, secondarily, the richest of all designers in mere mosaic of colored bars and triangles ; thus Benvenuto Cellini, being in all the higher branches of metal-work a perfect imitator of nature, is in all its lower branches the best designer of curve for lips of cups and handles of vases; thus Holbein, exercised primarily in the noble art of truthful portraiture, becomes, secondarily, the most exquisite designer of embroideries of robe, and blazonries on walls; and thus Michael Angelo, exereised primarily in the drawing of body and limb, distributes in the mightiest masses the order of his pillars, and in the loftiest shadow the hollows of his dome. But once quit hold of this living stem, and set yourself to the designing of

[^81]ornamentation, either in the ignorant play of your own heartless fancy, as the Indian does, or according to received application of heartless laws, as the modern European does, and there is but one word for you-Death:-death of every healthy faculty, and of every noble intelligence, incapacity of understanding one great work that man has ever done, or of doing anything that it shall be helpful for him to behold. You have cut yourselves off voluntarily, presumptuonsly, insolently, from the whole teaching of your Maker in His unirerse; you have cut rourself off from it, not because you were forced to mechanical labor for your bread-not because your fate had appointed sou to wear away your life in walled chambers, or dig your life out of dusty furrows; but, when your whole profession, your whole occupation-all the necessities and chances of rour existence, led you straight to the feet of the great Teacher, and thrust you into the treasury of His works; where you have nothing to do but to live by gazing, and to grow by wondering; -wilfully you bind up your eyes from the splendor-wilfully bind up your lifeblood from its beating-wilfully turn your backs upon all the majesties of Omnipotence-wilfully smateh sour hands from all the aids of love; and what can remain for rou, but helplessness and blindness,-except the worse fate than the being blind yourselves-that of becoming Leaders of the blind?
48. Do not think that I am speaking under excited feeling, or in any exaggerated terms. I have uritten the words I use, that I may know what I say, and that you, if you choose, may see what I have said. For, indeed, I have set before you to-night, to the best of my power, the sum and substance of the system of art to the promulgation of which I have devoted my life hitherto, and intend to devote what of life may still be spared to me. I have had but one steady aim in all that I have ever tried to teach, namely-to declare that whatever was great in human art was the expression of man's delight in God's work.
49. And at this time I have endearored to prove to you-
if you investigate the subject you may more entirely prove to yourselves-that no school ever advanced far which had not the love of natural fact as a primal energy. But it is still more important for you to be assured that the conditions of life and death in the heart of nations are also the conditions of life and death in your own ; and that you have it, each in his power at this very instant, to determine in which direction his steps are turning. It seems almost a terrible thing to tell yon, that all here have all the porrer of knowing at once what hope there is for them as artists; you would, perhaps, like better that there was some unremovable doubt about the chances of the future-some possibility that you might be advancing, in unconscious ways, towards nnexpected successes-some excuse or reason for going about, as students do so often, to this master or the other, asking him if they have genins, and whether they are doing right, and gathering, from his careless or formal replies, vague flashes of encouragement, or fitfulnesses of despair. There is no need for thisno excuse for it. All of you have the trial of yourselves in your own power; each may undergo at this instant, before his own judgment seat, the ordeal by fire. Ask yourselves what is the leading motive which actuates you while you are at work. I do not ask you what your leading motive is for working-that is a different thing; you may have families to support-parents to help-brides to win; you may have all these, or other such sacred and pre-eminent motives, to press the morning's labor and prompt the twilight thought. But when yon are fairly at the work, what is the motive then which tells upon every touch of it? If it is the love of that which your work represents-if, being a landscape painter, it is love of hills and trees that moves you-if, being a figure painter, it is love of human beauty and human soul that moves you-if, being a flower or animal painter, it is love, and wonder, and delight in petal and in limb that move you, then the Spirit is upon you, and the earth is yours, and the fulness thereof. But if, on the other hand, it is petty selfcomplacency in your own skill, trust in precepts and laws,
hope for academical or popular approbation, or avarice of wealth,-it is quite possible that by steady industry, or even by fortunate chance, you may win the applause, the position, the fortune, that you desire; but one touch of true art you will never lay on canvas or on stone as long as you live.
50. Make, then, your choice, boIdly and consciously, for one way or other it must be made. On the dark and dangerons side are set the pride which delights in self-contemplation -the indolence which rests in unquestioned forms-the ignorance that despises what is fairest among God's creatures, and the dulness that denies what is marvelous in His working: there is a life of monotony for your own souls, and of misguiding for those of others. And, on the other side, is open to your choice the life of the crowned spirit, moving as a light in creation-discovering always-illuminating alwars, gaining every hour in strength, yet bowed down every hour into deeper humility; sure of being right in its aim, sure of being irresistible in its progress; happy in what it has securely done -happier in what, day by day, it may as securely hope ; happiest at the close of life, when the right hand begins to forget its cunning, to remember, that there was never a touch of the chisel or the pencil it wiclded, but has added to the knowledge and quickened the happiness of mankind.

## LECTURE II.

## THE UNITY OF ART.

Part or in Address * delivered at Manchester, February $22 d, 1859$.
51. Ir is sometimes my pleasant duty to visit other cities, In the hope of being able to encourage their art students; but here it is my pleasanter privilege to come for encouragement myself. I do not know when I have received so much as from the report read this evening by Mr. Hammersley, bearing apon a subject which has cansed me great anxiety. For I have always felt in my own pursuit of art, and in my endeavors to mrge the pursuit of art on others, that while there are many adrantages now that never existed before, there are certain grierous difficulties existing, just in the very cause that is giving the stimulus to art-in the immense spread of the manufactures of erery country which is now attending vigorously to art. We find that manufacture and art are now going on always together; that where there is no manufacture there is no art. I know how much there is of pretended art where there is no manufacture: there is much in Italy, for instance; no country makes so bold pretense to the production of new art as Italy as this moment; yet no comntry produces so little. If you

[^82]glance over the map of Europe, you will find that where the manufactures are strongest, there art also is strongest. And yet I always felt that there was an immense difficulty to be encountered by the students who were in these centers of modern movement. They had to avoid the notion that art and manufacture were in any respect one. Art may be healthily associated with manufacture, and probably in future will always be so ; but the student must be strenuously warned against supposing that they can ever be one and the same thing, that art can ever be followed on the prineiples of manufacture. Each must be followed separately; the one must influence the other, but each must be kept distinctly separate from the other.

52 . It would be well if all students would keep clearly in their mind the real distinction between those words which we use so often, "Xanufacture," "Art," and "Fine Art." Mantfacture is, according to the etymology and right use of the word, "the making of anything by hands," -directly or indirectly, with or withont the help of instruments or machines. Anything proceeding from the hand of man is manufacture; but it must have proceeded from his hand only, acting mechanically and uninfluenced at the moment by direct intelligence.
53. Then, secondly, Art is the operation of the hand and the intelligence of man together : there is an art of making machinery; there is an art of building ships; an art of making carriages; and so on. All these, properly called Arts, but not Fine Arts, are pursuits in which the hand of man and his head go together, working at the same instant.
54. Then Fine Art is that in which the hand, the head, and the heart of man go together.

ร็5. Recollect this triple group; it will help you to solve many difficult problems. And remember that though the hand must be at the bottom of everything, it must also go to the top of everything; for Fine Art must be produced by the hand of man in a much greater and clearer sense than

Manufacture is. Fine Art must always be produced by the subtlest of all machines, which is the humam hand. No machine yet contrived, or liereafter contrivable, will ever equal the fine machinery of the human fingers. Thoroughly perfect art is that which proceeds from the heart, which involves all the noble emotions;-associates with these the head, yet as inferior to the heart; and the hand, yet as inferior to the heart and head; and thus brings out the whole man.

56 . Hence it follows that since Manufacture is simply the operation of the hamd of man in producing that which is useful to lim, it essentially separates itself from the emotions; when emotions interfere with machinery they spoil it: machinery must go evenly, without emotion. But the Fine Arts camot go evenly; they always must have emotion ruling their mechanism, and until the pupil begins to feel, and until all he does associates itself with the current of his feeling, he is not an artist. But pupils in all the schools in this country are now exposed to all kinds of temptations which blunt their feelings. I constantly feel discouraged in addressing them, because I know not how to tell them boldly what they onght to do, when I feel how practically difficult it is for them to do it. There are all sorts of demands made upon them in every direction, and money is to be made in every conceivable way but the right way. If you paint as you ought, and study as you ought, depend upon it the public will take no notice of you for a long while. If you study wrongly, and try to draw the attention of the public upon you,-supposing you to be clever students-you will get swift reward; but the reward does not come fast when it is sought wisely; it is always held aloof for a little while; the right roads of early life are very quiet ones, hedged in from nearly all help or praise. But the wrong roads are noisy, -vociferous everywhere with all kinds of demands upon you for art which is not properly art at all; and in the various meetings of modern interests, money is to be made in every way; but art is to be followed only in
one way. That is what I want mainly to say to you, or if not to you yourselves (for, from what I have heard from your excellent master to-night, I know you are going on all rightly), you must let me say it through you to others. Our Schools of Art are confused by the various teaching and rarious interests that are now abroad among us. Ererybody is talking about art, and writing about it, and more or less interested in it; everybody wants art, and there is not art for everybody, and few who talk know what they are talking about; thus students are led in all rariable ways, while there is only one way in which they can make steady progress, for true art is always and will be always one. Whatever changes may be made in the customs of society, whatever new machines we may inrent, whaterer new manufactures you may supply, Fine Art must remain what it was two thousand years ago, in the days of Phidias; two thousand years hence, it will be, in all its principles, and in all its great effects upon the mind of man, just the same. Observe this that I say, please, carefully, for I mean it to the rery utmost. There is but one right way of doing any given thing required of an artist; there may be a hundred wrong, deficient, or mannered ways, but there is only one complete and right war. Whenever two artists are trying to do the same thing with the same materials, and do it in different wars, one of them is wrong; he may be charmingly wrong, or impressively wrong-various circumstances in his temper may make his wrong pleasanter than any person's right; it may for him, under his given limitations of knowledge or temper, be better perhaps that he should err in his own way than try for anybody else`s-but for all that his way is wrong, and it is essential for all masters of schools to know what the right way is, and what right art is, and to see how simple and how single all right art has been, since the beginning of it.
$2 \overline{2}$. But farther, not only is there but one way of doing things rightly, but there is only one way of seeing them, and that is, seeing the whole of them, without any choice,
or more intense perception of one point than another, owing to our special idiosyncrasies. Thus, when Titian or Tintoret look at a human being, they see at al glance the whole of its nature, outside and in; all that it has of form, of color, of passion, or of thought; saintliness, and loveliness; fleshly body, and spiritnal power; grace, or strength, or softness, or whatsoever other quality, those men will see to the full, and so paint, that, when narrower people come to look at what they have done, every one may, if he chooses, find his own special pleasure in the work. The sensualist will find sensuality in Titian; the thinker will find thought; the saint, sanctity ; the colorist, colol'; the anatomist, form; and yet the picture will never be a popular one in the full sense, for none of these narrower people will find their special taste so alone consulted, as that the qualities which wouk ensure their gratification shall be sifted or separated from others; they are checked by the presence of the other qualities which ensure the gratification of other men. Thus, Titian is not soft enough for the sensualist, Correggio suits him better; Titian is not defined enough for the formalist, -Leonarlo suits him better; Titian is not pure enough for the religionist,-Raphael suits him better; Titian is not polite enongh for the man of the world,-Yandyke suits him better; Titian is not forcible enongh for the lover of the picturesque,-Rembrandt suits him better. So Correggio is popular with a certain set, and Vandyke with a certain set, and Rembrandt with a certain set. All are great men, but of inferior stamp, and therefore Yandyke is popular, and Rembrandt is popular,* but nobody cares much at heart about Titian ; only there is a strange undercurrent of everlasting murmur about his name, which means the deep consent of all great men that he is greater than theythe consent of those who, having sat long enough at his feet, have found in that restrained harmony of his strength there are indeed depths of each balanced power more wonderful

[^83]than all those separate manifestations in inferior painters; that there is a softness more exquisite than Correggio's, a purity loftier than Leonardo's, a force mightier than Rembrandt's, a sanctity more solemn even than Raphael's.
58. Do not suppose that in saying this of Titian, I am returning to the old eclectic theories of Bologna; for all those eclectic theories, observe, were based, not upon an endeavor to unite the various characters of nature (which it is possible to do), but the various narrownesses of taste, which it is impossible to do. Rubens is not more vigorous than Titian, but less vigorous; but because he is so narrow-minded as to enjoy vigor only, he refuses to give the other qualities of nature, which would interfere with that vigor and with our perception of it. Again, Rembrandt is not a greater master of chiaroscuro than Titian; -he is a less master, but because he is so narrow-minded as to enjoy chiaroscuro only, he withdraws from you the splendor of hue which would interfere with this, and gives you only the shadow in which you can at once feel it. Now all these specialties have their own cham in their own way; and there are times when the particular humor of each man is refreshing to us from its very distinctness; but the effort to add any other qualities to this refreshing one instantly takes away the distinctiveness; and therefore the exact character to be enjoyed in its appeal to a particular humor in us. Our enjoyment arose from a weakness meeting a weakness, from a partiality in the painter fitting to a partiality in us, and giving us sugar when we wanted sugar, and myrrh when we wanted myrrh; but sugar and myrrh are not meat: and when we want meat and bread, we must go to better men.
59. The eclectic schools endeavored to unite these opposite partialities and weaknesses. They trained themselves under masters of exaggeration, and tried to unite opposite exaggerations. That was impossible. They did not see that the only possible eclecticism had been already accom-plished;-the eclecticism of temperance, which, by the re-
straint of force, gains higher force ; and by the self-denial of delight, gains higher delight. This you will find is ultimately the case with every true and right master; at first, while we are tyros in art, or before we have earnestly studied the man in question, we shall see little in him; or perhaps see, as we think, deficiencies; we shall fancy he is inferior to this man in that, and to the other man in the other; but as we go on studying him we shall find that he has got both that and the other; and both in a far higher sense than the man who seemed to possess those qualities in excess. Thus in Turner's lifetime, when people first looked at him, those who liked rainy weather, said he was not equal to Copley Fielding; but those who looked at Turner long enough found that he could be much more wet than Copley Fielding, when he chose. The people who liked force, said that "Turner was not strong enough for them; he was effeminate; they liked De Wint, -nice strong tone;-or Cox-great, greeny, dark masses of color-solemin feeling of the freshness and depth of nature; - they liked Cox-Turner was too hot for them." Had they looked long enough they would have found that he had far more force than De Wint, far more freshness than Cox when he chose, -only united with other elements; and that he didn't choose to be cool, if nature had appointed the weather to be hot. The people who liked Prout said " Turner had not firmness of hand-he did not know enough about architecture-he was not picturesque enough." Had they looked at his architecture long, they would have found that it contained subtle picturesqueness, infinitely more picturesque than anything of Prout's. People who liked Callcott said that "Turner was not correct or pure enough—had no classical taste." Had they looked at Turner long enough they would have found him as severe, when he chose, as the greater Poussin ;-Callcott, a mere vulgar imitator of other men's high breeding. And so throughout with all thoroughly great men, their strength is not seen at first, precisely because they unite, in due place and measure, every great quality:
60. Now the question is, whether, as students, we are to study only these mightiest men, who unite all greatness, or whether we are to study the works of inferior men, who present us with the greatness which we particularly like? That question often comes before me when I see a strong idiosyncrasy in a student, and he asks me what he should study. Shall I send him to a true master, who does not present the quality in a prominent way in which that student delights, or send him to a man with whom he has direct sympathy? It is a hard question. For very curious results have sometimes been brought out, especially in late years, not only by students following their own bent, but by their being withdrawn from teaching altogether. I have just named a very great man in his own field-Prout. We all know his drawings, and love them: they have a peculiar character which no other architectural drawings ever possessed, and which no others ever can possess, because all Prout's subjects are being knocked down, or restored. (Prout did not like restored buildings any more than I do.) There will never be any more Prout drawings. Nor could he have been what he was, or expressed with that mysteriously effective touch that peculiar delight in broken and old buildings, unless he had been withdrawn from all high art influence. You know that Prout was born of poor par-ents-that he was ellucated down in Cornwall; and that, for many years, all the art-teaching he had was his own, or the fishermen's. Under the keels of the fishing-boats, on the sands of our southerm coasts, Prout learned all he needed to learn about art. Entirely by himself, he felt his way to this particular style, and became the painter of pictures which I think we should all regret to lose. It becomes a very difficult question what that man would have been, had he been brought under some entirely wholesome artistic influence. IIe had immense gifts of composition. I do not know any man who had more power of invention than Prout, or who had a sublimer instinct in his treatment of things; but being entirely
withdrawn from all artistical help, he blunders his way to that short-coming representation, which, by the very reason of its short-coming, has a certain charm we should all be sorry to lose. And therefore I feel embarrassed when a student comes to me, in whom I see a strong instinct of that kind : and cannot tell whether I ought to say to him, "Give up all your studies of old boats, and keep away from the sea-shore, and come up to the Royal Academy in London, and look at nothing but Titian.' It is a difficult thing to make up one's mind to say that. Howerer, I believe, on the whole, we may wisely leare such matters in the hands of Providence; that if we have the power of teaching the right to anybody, we should teach them the right; if we have the power of showing them the best thing, we should show them the best thing; there will always, I fear, be enough want of teaching, and enough bad teaching, to bring out very curious erratical results if we want them. So, if we are to teach at all, let us teach the right thing, and ever the right thing. There are many attractive qualities inconsistent with rightness; -do not let us teach them,-let us be content to waive them. There are attractive qualities in Burns, and attractive qualities in Dickens, which neither of those writers would have possessed if the one had been educated, and the other had been studying higher nature than that of cockney London; but those attractive qualities are not such as we should seek in a school of literature. If we want to teach young men a good manner of writing, we should teach it from Shakespeare, -not from Burns; from Walter Scott,-and not from Dickens. And I believe that our schools of painting are at present inefficient in their action, because they have not fixed on this high principle which are the painters to whom to point; nor boldly resolved to point to the best, if determinable. It is becoming a matter of stern necessity that they should give a simple direction to the attention of the student, and that they should say, "This is the mark you are to aim at; and you are not
to go about to the printshops, and peep in, to see how this engraver does that, and the other engraver does the other, and how a nice bit of character has been caught by a new man, and why this odd pieture has caught the popular attention. You are to have nothing to do with all that; you are not to mind about popular attention just now; but here is a thing which is eternally right and good: you are to look at that, and see if you cannot do something eternally right and good too."
61. But suppose you accept this principle; and resolve to look to some great man, Titian, or Turner, or whomsoever it may be, as the model of perfection in art ;then the question is, since this great man pursued his art in Venice, or in the fields of England, under totally different conditions from those possible to us now-how are you to make your study of him effective here in Manchester? how bring it down into patterns, and all that you are called upon as operatives to produce? how make it the means of your livelihood, and associate inferior branches of art with this great art? That may become a serious doubt to you. You may think there is some other way of producing clever, and pretty, and salable patterns, than going to look at Titian, or any other great man. And that brings me to the question, perhaps the most vexed question of all amongst us just now, between conventional and perfect art. You know that among architects and artists there are, and have been almost always, since art became a subject of much discussion, two parties, one maintaining that nature should be always altered and modified, and that the artist is greater than nature ; they do not maintain, indced, in words, but they maintain in idea, that the artist is greater than the Divine Maker of these things, and can improve them; while the other party say that he cannot improve nature, and that nature on the whole should improve him. That is the real meaning of the two parties, the essence of them ; the practical result of their several theories being that the Idealists are always producing more or less formal conditions of art,
and the Realists striving to produce in all their art either some image of nature, or record of nature; these, observe, being quite different things, the image being a resemblance, and the record, something which will give information about nature, but not necessarily imitate it.


#### Abstract

* * * * * [The portion of the lecture here omitted was a recapitulation of that part of the previous one which opposed conventional art to natural art.]


62. You may separate these two groups of artists more distinctly in your mind as those who seek for the pleasure of art, in the relations of its colors and lines, withont earing to convey any truth with it ; and those who seek for the truth first, and then go down from the truth to the pleasure of color and line. Marking those two bodies distinctly as separate, and thinking over them, you may come to some rather notable conclusions respecting the mental dispositions which are involved in each mode of study. You will fiud that large masses of the art of the world fall definitely under one or the other of these heads. Observe, pleasure first and truth afterwards, (or not at all,) as with the Arabians and Indians : or, truth first and pleasure afterwards, as with Angelico and all other great European painters. You will find that the art whose end is pleasure only is pre-eminently the gift of cruel and savage nations, cruel in temper, savage in habits and conception ; but that the art which is especially dedicated to natural fact always indieates a peculiar gentleness and tenderness of mind, and that all great and successful work of that kind will assuredly be the production of thoughtful, sensitive, earnest, kind men, large in their riews of life, and full of various intellectual power. And farther, when you examine the men in whom the gifts of art are variously mingled, or universally mingled, you will discern that the ornamental, or pleasurable power, though it may be possessed by good men, is not in itself an indication of their goodness, but is rather, unless balanced by other faculties
indicative of violence of temper, inclining to cruelty and to irreligion. On the other hand, so sure as you find any man endowed with a keen and separate faculty of representing natural fact, so surely you will find that man gentle and upright, full of nobleness and breadth of thought. I will give you two instances, the first peculiarly English, and another peculiarly interesting because it occurs among a nation not generally very kind or gentle.
63. I am inclined to think that, considering all the disadvantages of circumstances and education under which his genius was developed, there was perhaps hardly ever borm a man with a more intense and innate gift of insight into nature than our own Sir Joshua Reynolds. Considered as a painter of individuality in the human form and mind, I think him, even as it is, the prince of portrait painters. Titian paints nobler pictures, and Tandyke had nobler subjects, but neither of them entered so subtly as Sir Joshua did into the minor varieties of human heart and temper; and when you consider that, with a frightful conventionality of social habitude all around him, he yet conceived the simplest types of all feminine and childish loveliness ; - that in a northern climate, and with gray, and white, and black, as the principal colors around him, he yet became a colorist who can be crushed by none, even of the Venetians ;-and that with Dutch painting and Dresden china for the prevailing types of art in the saloons of his day, he threw himself at once at the feet of the great masters of Italy, and arose from their feet to share their throne-I know not that in the whole history of art you can produce another instance of so strong, so unaided, so unerring an instinct for all that was true, pure, and noble.
64. Now, do you recollect the evidence respecting the character of this man, -the two points of bright peculiar evidence given by the sayings of the two greatest literary men of his day, Johnson and Goldsmith? Johnson, who, as you know, was always Reynolds' attached friend, had but one complaint to make against him, that he hated no-
body:-" Reynolds," he sail, "you hate no one living; I like a good hater !" Still more significant is the little tonch in Goldsmith's "retaliation." You recollect how in that poem he describes the various persons who met at one of their dinners at St. James's Coffee-honse, each person being described under the name of some appropriate dish. You will often hear the concluding lines about Reynolds quoted-
"He shifted his trumpet," etc.;-
less often, or at least less attentively, the preceding ones, far more important-
"Still born to improve us in every part-
His pencil our faces, his manners our heart; "
and never, the most characteristic touch of all, near the beginning :-

> "Our dean shall be venison, just fresh from the plains : Our Burke shall be tongue, with a garnish of brains; To make out the dinner, full certain I am, That Rich is anchovy, and Reynolds is lamb."
65. The other painter whom I would give you as an instance of this gentleness is a man of another nation, on the whole I suppose one of the most cruel civilized nations in the world, -the Spaniards. They produced but one great painter, only one; but he among the very greatest of painters, Velasquez. You would not suppose, from looking at Telasquez' portraits generally, that he was an especially kind or good man ; you perceive a peculiar sternness about them ; for they were as true as steel, and the persons whom he had to paint being not generally kind or good people, they were stern in expression, and Velasquez gave the sternness ; but he had precisely the same intense perception of truth, the same marvelous instinct for the rendering of all natural soul and all natural form that our Reynolds had.

Let me, then, read you his character as it is given by Mr. Stirling, of Keir :-


#### Abstract

"Certain charges, of what nature we are not informed, brought against him after his death, made it necessary for his executor, Fuensolida, to refute them at a private audience granted to him by the king for that purpose. After listening to the defense of his friend, Philip immediately made answer: ' I can believe all you say of the excellent disposition of Diego Velasquez.' Having lived for half his life in courts, he was yet capable both of gratitude and generosity, and in the misfortunes, he could remember the early kindness of Olivares. The friend of the exile of Loeches, it is just to believe that he was also the friend of the all-powerful favorite at Buenretiro. No mean jealousy ever influenced his conduct to his brother artists; he could afford not only to acknowledge the merits, but to forgive the malice, of his rivals. His character was of that rare and huppy kind, in which high intellectual power is combined uith indomitable strength of will, and a winning sweetness of temper, and which seldom fails to raise the possessor above his fellow-men, making his life a


## ' laurelled victory, and smooth success Bestrewed before his feet.'"

66. I am sometimes accused of trying to make art too moral ; yet, observe, I do not say in the least that in order to be a good painter you must be a good man ; but I do say that in order to be a good natural painter there must be strong elements of good in the mind, however warped by other parts of the character. There are hundreds of other gifts of painting which are not at all involved with moral conditions, but this one, the perception of nature, is never given but under certain moral conditions. Therefore, now you have it in your choice ; here are your two paths for you : it is required of you to produce conventional ornament, and you may approach the task as the IIindoo does, and as the Arab did, without nature at all, with the chance of approximating your disposition somewhat to that of the Hindoos and Arabs ; or as Sir Joshua and Velasquez did, with, not the chance, but the certainty, of approximating your disposition, according to the sincerity of your effortto the disposition of those great and good men.
67. And do you suppose you will lose anything by ap-
proaching your conventional art from this higher side? Not so. I called, with deliberate measurement of my expression, long ago, the decoration of the Alhambra "detestable," not merely because indicative of base conditions of moral being, but because merely as decorative work, however eaptivating in some respects, it is wholly wanting in the real, deep, and intense qualities of ornamental art. Noble conventional decoration belongs only to three periods. First, there is the conventional decoration of the Greeks, used in subordination to their sculpture. There are then the noble conventional decoration of the early Gothic schools, and the noble conventional arabesque of the great Italian schools. All these were reached from above, all reached by stooping from a knowlerlge of the human form. Depend upon it you will find, as you look more and more into the matter, that grood subordinate ornament has ever been rooted in a higher knowledge ; and if you are again to produce anything that is noble, you must have the higher knowledge first, and descend to all lower service ; condescend as much as you like,-condescension never does any man any harm,but get your noble standing first. So, then, without any scruple, whatever branch of art you may be inclined as a student here to follow, -whatever you are to make your bread by, I say, so far as you have time and power, make yourself first a noble and accomplished artist; understand at least what noble and accomplished art is, and then you will be able to apply your knowledge to all service whatsoever.
68. I am now going to ask your permission to name the masters whom I think it would be well if we coukd agree, in our Schools of Art in England, to consider our leaders. The first and chief I will not myself presume to name : he shall be distinguished for you by the authority of those two great painters of whom we have just been speaking-Reynolds and Velasquez. You may remember that in your Manchester Art Treasures Exhibition the most impressive things were the works of those two men-nothing told upon the eye so much ; no other pietures retained it with such a
persistent power. Now, I have the testimony, first of Reynolds to Velasquez, and then of Velasquez to the man whom I want you to take as the master of all your English schools. The testimony of Reynolds to Telasquez is rery striking. I take it from some fragments which have just been published by Mr. William Cotton-precious fragments -of Reynolds' diaries, which I chanced upon luckily as I was coming down here : for I was going to take Telasquez' testimony alone, and then fell upon this testimony of Reynolds to Velasquez, written most fortunately in Reynolds' own hand-you may see the manuscript. "What we are all," said Reynolds, "attempting to do with great labor, Velasquez does at once." Just think what is implied when a man of the enormous power and facility that Reynolds had, says he was "trying to do with great labor" "what Velasquez "did at once."
69. Having thus Reynolds' testimony to Telasquez, I will take Velasquez' testimony to somebody else. You know that Velasquez was sent by Philip of Spain, to Italy, to buy pictures for him. He went all over Italy, saw the living artists there, and all their best pictures when freshly painted, so that he had every opportunity of judging; and never was a man so capable of judging. He went to Rome and ordered various works of living artists; and, while there, he was one day asked by Salvator Rosa what he thought of Raphael. His reply, and the ensuing conrersation, are thus reported by Boschini, in curious Italian verse, which, thus translated by Dr. Donaldson, is quoted in Mr. Stirling's Life of Yelasquez :-

[^84]> " Diego answered thus: ' I saw in Venice The true test of the good and beautiful ; First, in my judgment, ever stands that school, And Titian first of all Italian men is.' "

"Tizian ze quel che porta lu bundiera."
Learn that line by heart, and act, at all events for some time to come, upon Velasquez' opinion in that matter. Titian is much the safest master for you. Raphael's power, shell as it was, and great as it was, depended wholly upon transcendental characters in his mind ; it is "Raphaelesque," properly so called; but Titian's power is simply the power of loing right. Whatever came before Titian, he did wholly as it ought to be done. Do not suppose that now in recommending Titian to you so strongly, and speaking of noboly else to-night, I am retreating in anywise from what some of you may perhaps recollect in my works, the enthusiasm with which I have always spoken of another Venetian painter. There are three Venetians who are never separated in my mind,-Titian, Veronese, and Tintoret. They all hatre their own unequaled gifts, and Tintoret especially has imagination and depth of soul which I think renders him indisputably the greatest man; but, equally indisputably, Titian is the greatest painter; and therefore the greatest painter who ever lived. You may be led wrong by Tintoret* in many respects, wrong by Raphael in more; all that you learn from Titian will be right. Then, with Titian, take Leonardo, Rembrandt, and Albert Durer. I name those three masters for this reason : Leonardo has powers of subtle drawing which are peculiarly applicable in many ways to the drawing of fine ornament, and are very useful for all students. Rembrandt and Durer are the only men whose actual work of hand you can have to look at; you can have Rembrandt's etchings, or Durer's engravings actually humg in your schools; and it is a main point for the student to see the real thing, and aroid judging of masters at second-hand. As, however, in obeying this principle,

[^85]you cannot often have opportunities of studying Venetian painting, it is desirable that you should have a useful standard of color, and I think it is possible for you to obtain this. I cannot, indeed, without entering upon ground which might involve the hurting the feelings of living artists, state exactly what I believe to be the relative position of various painters in England at present with respect to power of color. But I may say this, that in the peculiar gifts of color which will be useful to you as students, there are only one or two of the pre-Raphaelites, and William IInt, of the old Water Color Society, who would be safe guides for you; and as quite a safe guide, there is nobody but William Hunt, because the pre-Raphaelites are all more or less affected by enthusiasm and by varions morbid conditions of intellect and temper; but old William Hunt-I am sorry to say "old," but I say it in a loving way, for every year that has added to his life has added also to his skillWilliam Hunt is as right as the Venetians, as far as he goes, and what is more, nearly as inimitable as they. And I think if we manage to put in the principal schools of England a little bit of Hunt's work, and make that somewhat of a standard of color, that we can apply his principles of coloring to subjects of all kinds. Until you have had a work of his long near you; nay, unless you have been laboring at it, and trying to copy it, you do not know the thoroughly grand qualities that are concentrated in it. Simplicity, and intensity, both of the highest character; simplicity of aim, and intensity of power and success, are involved in that man's unpretending labor.
70. Finally, you cannot believe that I would omit my own favorite, Turner. I fear from the very number of his works left to the nation, that there is a disposition now rising to look upon his vast bequest with some contempt. I beg of you, if in nothing else, to believe me in this, that you cannot further the art of England in any way more distinctly than by giving attention to every fragment that has been left by that man. The time will come when his
full power and right place will be acknowledged; that time will not be for many a day yet: nevertheless, be assured -as far as you are inclined to give the least faith to anything I may say to you, be assured-that you can act for the grood of art in England in no better way than by using whaterer influence any of you have in any direction to urge the reverent study and yet more reverent preservation of the works of Turner. I do not say "the exhibition" of his worls, for we are not altogether ripe for it: they are still too far above us; uniting, as I was telling you, too many qualities for us yet to feel fully their range and their influence;-but let us only try to keep them safe from harm, and show thoronghly and conveniently what we show of them at all, and day by day their greatness will dawn upon us more and more, and be the root of a school of Art in England, which I do not donlbt may be as bright, as just, and as refined as even that of Venice herself. The dominion of the sea seems to have been associated, in past time, with dominion in the arts also: Athens had them together; Venice had them together; but by so much as our authority over the ocean is wider than theirs orer the Egean or Adriatic, let us strive to make our art more widely beneficent than theirs, though it cannot be more exalted; so working out the fulfilment, in their wakening as well as their warning sense, of those great words of the aged Tintoret:

"Sempre si fa il Mare Maggiore."

## LECTURE III.

## MODERN MANUFACTURE AND DESIGN.

## A Lecture delivered at Bradford, March 1st, 1859.

71. It is with a deep sense of necessity for your indulgence that I venture to address you to-night, or that I venture at any time to address the pupils of schools of design intended for the adrancement of taste in special branches of manufacture. No person is able to give useful and definite help towards such special applications of art, unless he is entirely familiar with the conditions of labor and natures of material involved in the work; and indefinite help is little better than no help at all. Nay, the few remarks which I propose to lay before you this evening will, I fear, be rather suggestive of difficulties than helpful in conquering them: nevertheless, it may not be altogether unserviceable to define clearly for you (and this, at least, I am able to (lo) one or two of the more stern general obstacles which stand at present in the way of our success in design ; and to warn you against exertion of effort in any vain or wasteful way, till these main obstacles are removed.

72 . The first of these is our not understanding the scope and dignity of Decorative design. With all our talk about it, the very meaning of the words "Decorative art" remains confused and undecided. I want, if possible, to settle this question for you to-night, and to show you that the principles on which you must work are likely to be false, in proportion as they are narrow ; true, only as they are founded on a perception of the connection of all branches of art with each other.
73. Observe, then, first-the only essential distinction between Decorative and other art is the being fitted for a fixed place; and in that place, related, either in subordina4
tion or in command, to the effect of other pieces of art. And all the greatest art which the world has produced is thus fitted for a place, and subordinated to a purpose. There is no existing highest-order art but is decorative. The best sculpture yet produced has been the decoration of a temple front-the best painting, the decoration of a room. Raphat's best doing is merely the wall-coloring of a suite of apartments in the Vatican, and his cartoons were made for tapestries. Correggio's best doing is the decoration of two small church cupolas at Parma; Michael Angelo's, of a ceiling in the Pope's private chapel; 'Tintoret's, of a ceiling and side wall belonging to a charitable society at Venice; while Titian and Veronese threw out their noblest thoughts, not even on the inside, but on the outside of the common brick and plaster walls of Venice.
74. Get rid, then, at once of any idea of Decorative art being a degraded or a sepạate kind of art. Its nature or essence is simply its being fitted for a definite place; and, in that place, forming part of a great and harmonious whole, in companionship with other art; and so far from this being a degradation to it-so far from Decorative art being inferior to other art because it is fixed to a spot-on the whole it may be considered as rather a piece of degradation that it should be portable. Portable art-independent of all place-is for the most part ignoble art. Your little Dutch landscape, which you put over your sideboard to-day, and between the windows to-morrow, is a far more contemptible piece of work than the extents of field and forest with which Benozzo has made green and beautiful the once melancholy arcade of the Campo Santo at Pisa; and the wild boar of silver which you use for a seal, or lock into a relvet case, is little likely to be so noble a beast as the bronze boar who foams forth the fountain from under his tusks in the market-place of Florence. It is, indeed, possible that the portable picture or image may be first-rate of its kind, but it is not first-rate because it is portable; nor are Titian's frescoes less than first-rate because they are fixed;
nay, very frequently the highest compliment you can pay to a cabinet picture is to say-" It is as grand as a fresco."
75. Keeping, then, this fact fixed in our minds, - that all art muy be decorative, and that the greatest art yet produced has been decorative,-we may proceed to distinguish the orders and dignities of Decorative art, thus:-
I. The first order of it is that which is meant for places where it cannot be disturbed or injured, and where it can be perfectly seen; and then the main parts of it should be, and have always been made, by the great masters, as perfect, and as full of nature as possible.

You will every day hear it absurdly said that room decoration should be by flat patterns-by dead colors-by conventional monotonies, and I know not what. Now, just be assured of this-nobody ever yet used conventional art to decorate with, when he could do anything better, and knew that what he did would be safe. Nay, a great painter will always give you the natural art, safe or not. Correggio gets a commission to paint a room on the ground floor of a palace at Parma : any of our people-bred on our fine modern principles-would have corered it with a diaper, or with strips or flourishes, or mosaic patterns. Not so Correggio: he paints a thick trellis of vine-leares, with oval openings, and lovely children leaping through them to the room; and lovely children, depend upon it, are rather more desirable decorations than diaper, if you can do them-but they are not quite so easily done. In like manner Tintoret has to paint the whole end of the Council Hall at Venice. An orthodox decorator would have set himself to make the wall look like a wall-Tintoret thinks it would be rather better, if he can manage it, to make it look a little like Paradise; -stretches his canvas right orer the wall, and his clouds right over his canvas; brings the light through his clouds-all blue and clear-zodiac beyond zodiac; rolls away the raporous flood from under the feet of saints, leaving them at last in infinitudes of light-unorthodox in the last degree, but, on the whole, pleasant.

And so in all other cases whatever, the greatest decorative art is wholly unconsentional-downight, pure, good painting and sculpture, but alwars fitted for its place; and subordinated to the purpose it has to serve in that place.
II. But if art is to be placed where it is liable to injuryto wear and tear ; or to alteration of its form ; as, for instance, on domestic utensils and armor, and weapons, and dress; in which either the ornament will be worn out by the usage of the thing, or will be east into altered shape by the play of its folds; then it is wrong to put beautiful and perfect art to such uses, and you want forms of inferior art, such as will be by their simplicity less liable to injury: or, by reason of their complexity and continuousness, may show to advantage, however distorted by the folds they are east into.
76. And thus arise the various forms of inferior decorative art, respecting which the general law is, that the lower the place and office of the thing, the less of natural or perfect form you should have in it; a zigzag or a checker is thus a better, because a more consistent, ormament for a cup or platter than a landseape or portrait is: hence the general definition of the true forms of conventional ornament is, that they consist in the bestowal of as much beanty on the object as shall be consistent with its Xaterial, its Place, and its Office.
77. Let us consider these three modes of consistency a little.
78. (A.) Conventionalism by cause of inefficiency of material.

If, for instance, we are required to represent a human figure with stone only, we cannot represent its color' we reduce its color to whiteness. That is not elevating the human body, but degrading it ; only it would be a much greater degradation to give its color falsely. Diminish beanty as much as you will, but do not misrepresent it. So again, when we are sculpturing a face, we can't carve its eyelashes. The face is none the better for wanting its eyelashes-it is injured by the want; but would be much more injured by a clumsy representation of them.

Neither can we carve the hair. We must be content with the conventionalism of rile solid knots and lumps of marble, instead of the golden cloud that encompasses the fair human face with its waving mystery. The lumps of marble are not an elerated representation of hair-they are a degraded one; yet better than any attempt to imitate hair with the incapable material.

In all cases in which such imitation is attempted, instant degradation to a still lower level is the result. For the effort to imitate shows that the workman has only a base and poor conception of the beauty of the reality-else he would know his task to be hopeless, and give it up at once: so that all endeavors to avoid conventionalism, when the material demands it, result from insensibility to truth, aud are among the worst forms of vulgarity. Hence, in the greatest Greek statues, the hair is very slightly indicated, not because the sculptor disdained hair, but because he knew what it was too well to touch it insolently. I do not doubt but that the Greek painters drew hair exactly as Titian does. Modern attempts to produce finished pictures on glass result from the same base vulgarism. No man who knows what painting means, can endure a painted glass window which emulates painters' work. But he rejoices in a glowing mosaic of broken color: for that is what the glass has the special gift and right of producing.*
79. (в.) Conventionalism by cause of inferiority of place.

When work is to be seen at a great distance, or in dark places, or in some other imperfect way, it constantly becomes necessary to treat it coarsely or severely, in order to make it effectire. The statues on cathedral fronts, in good times of design, are rarionsly treated according to their distances: no finc execution is put into the features of the Madonna who rules the group of figures above the south transept of Rouen at 150 feet above the ground: but in base modern work, as Milan Cathedral, the sculpture is finished without any reference to distance ; and the merit of every statue is supposed to

[^86]consist in the visitor's being obliged to ascend three hundred steps before he can see it.
80. (c.) Conventionalism by cause of inferiority of office.

When one picce of ornament is to be subordinated to another (as the molding is to the sculpture it encloses, or the fringe of a drapery to the statne it reils), this inferior ornament needs to be degraded in order to mark its lower office; and this is best done by refusing, more or less, the introduction of natural form. The less of nature it contains, the more degrading is the ornament, and the fitter for a humble place; but, howerer far a great workman may go in refusing the higher organisms of nature, he always takes care to retain the magnificence of natural lines; that is to say, of the infinite curves, such as I have analyzed in the fourth rolume of 'Modern Painters.' Mis copyists, fancying that they can follow him without nature, miss precisely the essence of all work; so that even the simplest piece of Greek conventional ornament loses the whole of its value in any modern imitation of it, the finer curves being always missed. Perhaps one of the dullest and least justifiable mistakes which have yet been made about my writing, is the supposition that I have attacked or despised Greek work. I have attacked Palladian work, and modern imitation of Greek work. Of Greek work itself I have never spoken but with a reverence quite infinite: I name Phidias always in exactly the same tone with which I speak of Michael Angelo, Titian, and Dante. My first statement of this faith, now thirteen years ago, was surely clear enough. "We shall see by this light three colossal images standing up side by side, looming in their great rest of spirituality above the whole world horizon. Phidias, Michael Angelo, and Dante,-from these we may go down step hy step among the mighty men of every age, securely and certainly observant of diminished luster in every appearance of restlessness and effort, until the last trace of inspiration vanishes in the tottering affectation or tortured insanities of modern times." ('Modern Painters,' vol. ii.
p. 63.) This was surely plain speaking enough; and from that day to this my effort has been not less continually to make the heart of Greek work known than the heart of Gothic: namely, the nobleness of conception of form derived from perpetual study of the figure; and my complaint of the modern architect has been, not that he followed the Greeks, but that he denied the first laws of life in theirs as in all other arts.
81. The fact is, that all good subordinate forms of ornamentation ever yet existent in the world have been invented, and others as beautiful can only be invented, by men primarily exercised in drawing or carving the human figure. I will not repeat here what I have already twice insisted upon, to the students of London and of Manchester, respecting the degradation of temper and intellect which follows the pursuit of art without reference to natural form, as among the Asiatics: here, I will only trespass on your patience so far as to mark the inseparable connection between figure-drawing and good ornamental work, in the great European schools, and all that are connected with them.
82. Tell me, then, first of all, what ornamental work is usulally put before our students as the type of decorative perfection? Raphael's arabesques; are they not? Well, Raphael knew a little about the figure, I suppose, before he drew them. I do not say that I like those arabesques; but there are certain qualities in them which are inimitable by modern designers; and those qualities are just the fruit of the master's figure study. What is given to the student next to Raphael's work ? Cinquecento ornament generally. Well, cinquecento generally, with its birds, and cherubs, and wreathed foliage, and clustered fruit, was the amusement of men who habitually and casily carred the figure, or painted it. All the truly fine specimens of it have figures or animals as main parts of the design.
"Nay, but," some anciently or medierally minded person will exclaim, " we don't want to study cinquecento. We want severer, purer conrentionalism." What will you have?

Egyptian ornament? Why, the whole mass of it is made up of multitulinous limman figures in every kind of actionand magnificent action; their kings drawing their bows in their chariots, their sheaves of arrows rattling at their shoulders; the slain falling under them as before a pestilence; their captives driven before them in astonied troops; and do you expect to imitate Egyptian ornament without knowing how to draw the figure? Nay, but you will take Christian ornament-purest medieval Christian-thirteenth century ! Yes: and do you suppose you will find the Christian less human? The least natural and most purely conventional ornament of the Gothic schools is that of their painted glass; and do you suppose painted glass, in the fine times, was ever wrought without figures? We have got into the way, among our other modern wretchedness, of trying to make windows of leaf diapers, and of strips of twisted red and yellow bands, looking like the patterns of currant jelly on the top of Christmas cakes; but every casement of old glass contained a saint's history. The windows of Bourges, Chartres, or Ronen have ten, fifteen, or twenty medallions in each, and each medallion contains two figures at least, often six or seven, representing every event of interest in the history of the saint whose life is in question. Nay, but, you say, those figures are rude and quaint, and ought not to be imitated. Why, so is the leafage rude and quaint, yet you imitate that. The colored border pattern of geranium or iry leaf is not one whit better drawn, or more like geranimms and iry, than the figures are like figures; but you call the geranium leaf idealized-why don't yon eall the figures so? The fact is, neither are idealized, but both are conventionalized on the same prineiples, and in the same way; and if you want to learn how to treat the leafage, the only way is to learn first how to treat the figure. And you may soon test your powers in this respect. Those old workmen were not afraid of the most familiar subjects. The windows of Chartres were presented by the trades of the town, and at the bottom of each window is a representation of the proceedings of the tradesmen at the business which enabled
them to pay for the window. There are smiths at the forge, curriers at their hides, tanners looking into their pits, mercers selling goods over the counter-all made into beautiful medallions. Therefore, whenever you want to know whether you have got any real power of composition or adaptation in ornament, don't be content with sticking leaves together by the ends,-anybody can do that; but try to conventionalize a butcher's or a greengrocer's, with Saturday night customers buying cabbage and beef. That will tell you if you can design or not.
83. I can fancy your losing patience with me altogether just now. "We asked this fellow down to tell our workmen how to make shawls, and he is only trying to teach them how to caricature." But have a little patience with me, and examine, after I have done, a little for yourselves into the history of ornamental art, and you will discorer why I do this. You will discover, I repeat, that all great ornamental art whatever is founded on the effort of the workman to draw the figure, and, in the best schools, to draw all that he saw about him in liring nature. The best art of pottery is acknowledged to be that of Greece, and all the power of design exhibited in it, down to the merest zigzag, arises primarily from the workman laving been forced to outline nymphs and knights; from those helmed and draped figures he holds his power. Of Egrptian ornament I have just spoken. You have everything given there that the workman saw; people of his nation employed in hunting, fighting, fishing, risiting, making love, building, cooking-everything they did is drawn magnificently or familiarly, as was needed. In Byzantine ornament, saints, or animals which are types of various spiritual power, are the main subjects; and from the church down to the piece of enameled metal. figure,-figure, -figure, always principal. In Norman and Gothic work you have, with all their quiet saints, also other much disquicted persons, hunting, feasting, fighting, and so on; or whole hordes of animals racing after each other. In the Bayeux tapestry, Queen Matilda gave, as well as she could,-
in many respects graphically enough,- the whole history of the conquest of England. Thence, as you increase in power of art, you have more and more finished figures, up to tho solemn seulptures of Wells Cathedral, or the cherubic enrichments of the Venetian Madomna dei Miracoli. Therefore, I tell you fearlessly, for I know it is true, you must raise your workman up to life, or you will never get from him one line of well-imagined conventionalism. We have at present no good ornamental design. We can't have it yet, and we must be patient if we want to have it. Do not lope to feel the effect of rour schools at once, but raise the men as high as you can, and then let them stoop as low as you need; no great man ever minds stooping. Encourage the students in sketching accurately and continually from nature anything that comes in their way-still life, flowers, animals; but, above all, figures; and so far as you allow of any difference between an artist's training and theirs, let it be, not in what they draw, but in the degree of conventionalism you require in the sketch. For my own part, I should always endeavor to give thorongh artistical training first; but I am not certain (the experiment being yet untried) what results may be obtained by a truly intelligent practice of conventional drawing, such as that of the Egrptians, Greeks, or thirteenth century French, which consists in the utmost possible rendering of natural form ber the fewest possille lines. The animal and bird drawing of the Egyptians is, in their fine age, quite magnificent under its conditions; magnificent in two waysfirst, in keenest perception of the main forms and facts in the creature ; and, secondly, in the grandeur of line by which their forms are abstracted and insisted on, making every asp, ibis, and vulture a sublime specter of asp or ibis or rulture power. The way for students to get some of this gift again (some only, for I believe the fulness of the gift itself to be comected with vital superstition, and with resulting intensity of reverence; people were likely to know something about hawks and ibises, when to kill one was to be irrevocably judged to death) is never to pass a day without
drawing some animal from the life, allowing themselves the fewest possible lines and colors to do it with, but resolving that whatever is characteristic of the animal shall in some way or other be shown.* I repeat, it cannot yet be judged what results might be obtained by a nobly practised eonventionalism of this kind; but, however that may be, the first fact,-the necessity of animal and figure drawing,--is absolutely certain, and no person who shrinks from it will ever become a great designer. One great good arises even from the first step in figure drawing, that it gets the student quit at once of the notion of formal symmetry. If you learn only to draw a leaf well, you are taught in some of our schools to turn it the other way, opposite to itself; and the two leaves set opposite ways are called a " design:" and thus it is supposed possible to produce ornamentation, though you have no more brains than a looking-glass or a kaleidoscope has. But if once you learn to draw the human figure, you will find that knocking two men's heads together does not necessarily constitute a good design ; nay, that it makes very bad design, or no design at all; and you will see at once that to arrange a group of two or more figures, you must, though perhaps it may be desirable to balance, or oppose them, at the same timo vary their attitudes, and make one, not the reverse of the other, but the companion of the other.
84. I had a somewhat amusing discussion on this subject with a friend, only the other day; and one of his retorts upon me was so neatly put, and expresses so completely all that can either be said or shown on the opposite side, that it is well worth while giving it you exactly in the form it was sent to me. My friend had been maintaining that the essence of ornament consisted in three things:-contrast, series, and syinmetry. I replied (by letter) that " none of them, nor all of them together, would produce ornament. Here,"-(making a ragged blot with
 the back of my pen on the paper) - " you have contrast ; but

[^87]it isn't ornament: here:-1, 2, 3, 4, 5, 6,"- (writing the
 numerals)-" you have series; but it isn't ornament: and here,"-(sketchingr this figure at the side) - "you have symmetry ; but it isu't ornament."

My friend replied:-" Your materials were not ornament, because you did not apply them. I send them to you back, made up into a choice sporting neckerchief:-


Symmetrical figure
Contrast
Series

Unit of diaper.
Corner ornaments.
Border ornaments.

Each figure is converted into a harmony by being revolved on its two axes, the whole opposed in contrasting series."

My answer was-or rather was to the effect (for I must expand it a little, here)-that his words, "because you did not apply them," contained the gist of the whole matter; that the application of them, or of any other things, was precisely the essence of design; - the non-application, or wrong application, the negation of design : that his use of the
poor materials was in this case admirable；and that，if he could explain to me，in clear words，the principles on which lie had so used them，he would be doing a very great service to all students of art．
＂Tell me，therefore＂（I asked），＂these main points：
＂ 1 ．How did you determine the number of figures you would put into the neekereliief？Had there been more，it would have been mean and ineffective，－a pepper－and－salt sprinkling of figures．Had there been fewer，it would have been monstrous．How did you fix the number？
＂2．How did you determine the breadth of the border， and relative size of the numerals？
＂3．Why are there two lines outside of the border，and one only inside？Why are there no more lines？Why not three and two，or three and fire？Why lines at all to separate the barbarous figures；and why，if lines at all，not double or treble instead of single？
＂ 4 ．Why did you put the double blots at the corners？ Why not at the angles of the checkers，－or in the middle of the border？
＂It is precisely your knowing why not to do these things， and why to do just what you have done，which constituted your power of design；and like all the people I have ever known who had that power，you are entirely unconscious of the essential laws by which you work，and confuse other people by telling them that the design depends on symmetry and series，when，in fact，it depends entirely on your own sense and judgment．＂

This was the substance of my last answer－to which（as I knew beforehand would be the ease）I got no reply；but it still remains to be observed that with all the skill and taste （especially involving the architect＇s great trust，harmony of proportion），which my friend could bring to bear on the materials given him，the result is still only－a sporting neekerchief－that is to say，the materials addressed，first，to recklessness，in the shape of a mere blot；then to computa－ tireness，in a series of figures；and then to absurdity and
ignorance, in the shape of an ill-drawn caricature-such materials, however treated, can only work up into what will please reekless, computative, and vulgar persons,-that is to say, into a sporting neckerelief. The difference between this piece of ornamentation and Corregrio's painting at Parma lies simply and wholly in the additions (somewhat large ones,) of truth and of tenderness: in the drawing leing lovely as well as symmetrical-and representative of realities as well as agreeably disposed. And truth, tenderness, and inventive application or disposition are indeed the roots of ornament-not contrast, nor symmetry.

S5. It ought yet farther to be observed, that the nobler the materials, the less their symmetry is endurable. In tho present case, the sense of fitness and order, produced by the repetition of the figures, neutralizes, in some degree, their reckless vulgarity; and is wholly, therefore, beneficent to them. But draw the figures better, and their repetition will become painful. You may harmlessly balance a mere geometrical form, and oppose one quatrefoil or cusp by another exactly like it. But put two Apollo Belvideres back to back, and you will not think the symmetry improves them. W'lenever the materials of ornament are noble they must be various; and repetition of parts is either the sign of utterly bad, hopeless, and base work; or of the intended degradation of the parts in which such repetition is allowed, in order to foil others more noble.
86. Such, then, are a few of the great principles, by the enforcement of which you may hope to promote the success of the modern student of design; but remember, none of these principles will be useful at all, unless you understand them to be, in one profound and stern sense, useless.*

That is to say, unless you feel that neither you nor I, nor any one, can, in the great ultimate sense, teach anybody how to make a good design.

If designing could be tanght, all the world would learn ; as

[^88]all the world reads-or calculates. But designing is not to be spelled, nor summed. My men continually come to me, in my drawing elass in London, thinking I am to teach them what is instantly to enable them to gain their bread. "Please, sir, show us how to design." "Make designers of us." And you, I doubt not, partly expect me to tell you to-night how to make designers of your Bradford youths. Alas! I could as soon tell you how to make or manufacture an ear of wheat, as to make a good artist of any kind. I can analyze the wheat very learnedly for you-and tell you there is starch in it, and carbon, and silex. I can give you stareh, and charcoal, and flint ; but you are as far from your ear of wheat as you were before. All that can possibly be done for any one who wants ears of wheat is to show them where to find grains of wheat, and how to sow them, and then, with patience, in Heaven's time, the ears will come-or will perhaps comeground and weather permitting. So in this matter of making artists-first you must find your artist in the grain; then you must plant him; fence and weed the field about him; and with patience, ground and weather permitting, you may get an artist out of him-not otherwise. And what I have to speak to you about, to-night, is mainly the ground and the weather, it being the first and quite most material question in this matter, whether the ground and weather of Bradford, or the ground and weather of England in general, -suit wheat.
87. And observe in the outset, it is not so much what the present cireumstances of England are, as what we wish to make then, that we have to consider. If you will tell me what you tiltimately intend Bradford to be, perhaps I can tell you what Bradford can ultimately produce. But you must have your minds elearly made up, and be distinct in telling me what you do want. At present I don't know what you are aiming at, and possibly on consideration you may feel some doubt whether you know yourselves. As matters stand, all over England, as soon as one mill is at work, oceupying two hundred hands, we try, by means of it, to set another
mill at work, occupying four humdred. That is all simplo and comprehensible ennug-but what is it to come to? How many mills do we want! or. do we indeed want no end of mills? Let us entirely understand each other on this point before we go any farther. Last week, I drove from Rochdale to Bolton Abbey; quietly, in order to see the country, and certainly it was well worth while. I never went over a more interesting twenty miles than those between Rochdale and Burnley. Naturally, the valley has been one of the most beautiful in the Laneashire hills; one of the far away solitudes, full of old shepherd ways of life. At this time there are not,-I speak deliberately, and I believe quite literally,-there are not, I think, more than a thousand yards of road to be traversed anywhere, without passing a furnace or mill.
88. Now, is that the kind of thing you want to come to everywhere? Because, if it be, and you tell me so distinctly, I think I can make several suggestions to-night, and could make more if you gire me time, which would materially advance your object. The extent of our operations at present is more or less limited by the extent of coal and iron-stone, but we have not yet learned to make proper use of our clay. Over the greater part of England, south of the manufacturing districts, there are magnificent beds of various kinds of useful clay ; and I believe that it would not be difficult to point out modes of emploring it which might enable us to turn nearly the whole of the south of England into a brickfield, as we have already turned nearly the whole of the north into a coal-pit. I say " nearly" the whole, because, as you are doubtless aware, there are considerable districts in the south composed of chalk, renowned up to the present time for their downs and mutton. But, I think, by examining carefully into the conceivable uses of chalk, we might discoser a quite feasible probability of turning all the chalk districts into a lime-kiln, as we turn the clay districts into a brick-field. There would then remain nothing lut the momtain districts to be dealt with; but, as we have not yet
ascertained all the uses of clay and chalk, still less have we ascertained those of stone; and I think, by draining the useless inlets of the Cumberland, Welsh, and Scotch lakes, and turning them, with their rivers, into navigable reserroirs and canals, there would be no difficulty in working the whole of our mountain districts as a gigantic quarry of slate and granite, from which all the rest of the world might be supplied with roofing and building stone.
89. Is this, then, what you want? You are going straight at it at present; and I have only to ask under what limitations I am to conceive or describe your final success? Or shall there be no limitations? There are none to your powers; every day puts new machinery at your disposal, and increases, with your capital, the vastness of your undertakings. The changes in the state of this country are now so rapid, that it would be wholly absurd to endeavor to lay down laws of art education for it under its present aspect and circumstances; and therefore I must necessarily ask, how much of it do you serionsly intend within the next fifty years to be coal-pit, brick-field, or quarry? For the sake of distinctness of conclusion, I will suppose your success absolute: that from shore to shore the whole of the island is to be set as thick with chimneys as the masts stand in the docks of liverponl: that there shall be no meadows in it; no trees; no gardens; only a little corn grown upon the housetops, reaped and threshed by steam: that you do not leave even room for roads, but travel either over the roofs of your mills, on viaducts; or under their floors, in tumnels: that, the smoke having rendered the light of the sun unserviceable, you work always by the light of your own gas: that no acre of English ground shall be without its shaft and its engine; and, therefore, no spot of English ground left, on which it shall be possible to stand, without a definite and calculable chance of being blown off it, at any moment, into small picces.
90. Under these circumstances, (if this is to be the future of England,) no designing or any other development of beautiful art will be possible. Do not vex your minds nor waste
your money with any thought or effort in the matter. Beantiful art can only be produced by people who have beautiful things about them, and leisure to look at them; and mess rou provide some elements of beanty for your workmen to be surrounded by, you will find that no elements of beauty can be invented by them.
91. I was struck forcibly by the bearing of this great fact upon our modern efforts at ornamentation in an afternoon walk, last week, in the suburbs of one of our large manufacturing towns. I was thinking of the difference in the effect upon the designer's mind, between the scene which I then came upon, and the scene which would have presented itself to the eyes of any designer of the middle ages, when he left his workshop. Just outside the town I came upon an old English cottage, or mansion, I hardly know which to call it, set elose muder the hill, and beside the river, perhaps built somewhere in the Charleses' times, with mullioned windows and a low arched porch; round which, in the little triangular garden, one can inagine the family as they used to sit in old summer times, the ripple of the river heard faintly through the sweetbriar hedge, and the sheep on the far-off wolds shiming in the evening sunlight. There, uninhabited for many and many a year, it had been left in mregarded havoe of ruin; the garden-gate still swang loose to its lateh; the garden, blighted utterly into a field of ashes, not even a weed taking root there; the roof torn into shapeless rents; the shutters hanging about the windows in rags of rotten wood; before its gate, the stream which had gladdened it now soaking slowly by, black as ebony and thick with curdling scum; the bank above it trodden into unctuous, sooty slime: far in front of it, between it and the old hills, the furnaces of the city foaming forth perpetual plague of sulphurous darkness; the rolumes of their storm clouds coiling low over a waste of grassless fields, fenced from each other, not by hedges, but by slabs of square stone, like gravestones, riveted together with iron.

That was your scene for the designer's contemplation in his afternoon walk at Rochdale. Now fancy what was the
scene which presented itself, in his afternoon walk, to a designer of the Gothic school of Pisa-Nino Pisano, or any of his men.

On each side of a bright river he saw rise a line of brighter palaces, arched and pillared, and inlaid with deep red porphyry, and with serpentine; along the quays before their gates were riding troops of knights, noble in face and form, dazzling in crest and shield; horse and man one labyrinth of quaint color and gleaming light-the purple, and silver, and scarlet fringes flowing over the strong limbs and clashing mail, like sea-waves over rocks at sunset. Opening on each side from the river were gardens, courts, and cloisters; long successions of white pillars among wreaths of vine; leaping of fountains through buds of pomegranate and orange; and still along the garden paths, and under and through the crimson of the pomegranate shadows, moving slowly, groups of the fairest women that Italy ever saw-fairest, because purest and thoughtfulest ; trained in all high knowledge, as in all courteous art-in dance, in song, in sweet wit, in lofty learning, in loftier courage, in loftiest love-able alike to cheer, to enchant, or sare, the souls of men. Above all this scenery of perfect human life, rose dome and bell-tower, burning with white alabaster and gold: beyond dome and bell-tower, the slopes of mighty hills, hoary with olive; far in the north, above a purple sea of peaks of solemn Apennine, the clear, sharp-cloven Carrara mountains sent up their steadfast flames of marble summit into amber sky; the great sea itself, scorching with expanse of light, stretching from their feet to the Gorgonian isles; and over all these, ever present, near or far-seen through the leaves of vine, or imaged with all its march of clouds in the Arno's stream, or set with its depth of blue close against the golden hair and burning cheek of lady and knight,--that untroubled and sacred sky which was to all men, in those days of innocent faith, indeed the unquestioned abode of spirits, as the earth was of men; and which opened straight through its gates of cloud and veils of dew into the awfulness of the eternal world;-a heaven in which every cloud that passed was liter-
ally the charint of an angel, and every ray of its Evening and Morniner streamed from the throne of God.

What think you of that for a school of design?
92. I do not bring this contrast before you as a ground of hopelessness in our task; neither do I look for any possible renoration of the Republic of Pisa, at Bradford, in the nineteenth century ; but I put it before you in order that you may be awre precisely of the kind of difficulty you have to meet, and may then consider with yourselves how far you can meet it. To men surrounded by the depressing and monotonous circumstances of English manufacturing life, depend upon it, design is simply impossible. This is the most distinct of all the experiences I have had in dealing with the modern workman. He is intelligent and ingenious in the highest degree-subtle in touch and leen in sight: but he is, generally speaking, wholly destitute of designing power. And if you want to give him the power, you must give him the materials, and put him in the circumstances for it. Design is not the offispring of idle fancy; it is the studied result of accumulative olservation and delightful habit. Without observation and experience, no design-without peace and pleasurableness in oceupation, no design-and all the lecturings, and teachings, and prizes, and principles of art, in the world, are of no use, so long as you don't surround your men with happy influences and beautiful things. It is impossible for them to have right ideas about color, unless they see the lovely colors of nature unspoiled; impossible for them to supply beantiful incident and action in their ornament, mless they see beautiful incident and action in the world about them. Inform their minds, refine their habits, and you form and refine their designs; but keep them illiterate, uncomfortable, and in the midst of unbeautiful things, and whatever they do will still be spurious, vulgar and valueless.

I repeat, that I do not ask you nor wish you to build a new Pisa for them. We don't want either the life or the decorations of the thirteenth century back again; and the circumstances with which you must surround your workmen are those simply of happy modern English life, because the
designs you have now to ask for from your workmen are such as will make modern English life beautiful. All that gorgeousness of the Middle Ages, beautiful as it sounds in description, noble as in many respects it was in reality, had, nerertheless, for foundation and for end, nothing but the pride of life-the pride of the so-called superior classes; a pride which supported itself by violence and robbery, and led in the end to the destruction both of the arts themselves and the States in which they flourished.
93. The great lesson of history is, that all the fine arts hitherto-having been supported by the selfish power of the noblesse, and never having extended their range to the comfort or the relief of the mass of the people-the arts, I say, thus practised, and thus matured, have only accelerated the ruin of the States they adorned; and at the moment when, in any kingdom, you point to the triumphs of its greatest artists, you point also to the determined hour of the kingdom's decline. The names of great painters are like passing bells: in the name of Velasquez, you hear sounded the fall of Spain; in the name of Titian, that of Venice; in the name of Leonardo, that of Milan ; in the name of Raphael, that of Rome. And there is profound justice in this; for in proportion to the nobleness of the power is the guilt of its use for purposes vain or vile; and hitherto the greater the art, the more surely has it been used, and used solely, for the decoration of pride,* or the provoking of sensuality. Another course lies open to us. We may abandon the hope-or if you like the words better-we may disdain the temptation, of the pomp and grace of Italy in her youth. For us there can be no more the throne of marble-for us no more the vault of gold-but for us there is the loftier and lovelier privilege of bringing the power and charm of art within the reach of the humble and the poor ; and as the magnificence of past ages failed by its narrowness and its pride, ours may prevail and continue, by its universality and its lowliness.
94. And thus, between the picture of too laborious Eng-

* Whether religious or profane pride.-chapel-or banqueting room, -is no matter.
land, which we imagined as future, and the picture of too luxurious Italy, which we remember in the past, there may exist-there will exist, if we do our duty-an intermediate condition, neither oppressed by labor nor wasted in vanitythe condition of a peaceful and thoughtful temperance in aims, and acts, and arts.

95. We are about to enter upon a period of our world's history in which domestic life, aided by the arts of peace, will slowly, but at last entirely, supersede public life and the arts of war. For our own England, she will not, I believe, be blasted throughout with furnaces; nor will she be encumbered with palaces. I trust she will keep her green fields, her cottages, and her homes of middle life; but these ought to be, and I trust will be, enriched with a useful, truthful, substantial form of art. We want now no more feasts of the gods, nor martyrdom of saints; we have no need of sensuality, no place for superstition, or for costly insolence. Let us have learned and faithful historical painting-touching and thoughtful representations of human nature, in dramatic painting; poetical and familiar renderings of natural objects and of landscape; and rational, deeply-felt realizations of the events which are the subjects of our religions faith. And let these things we want, as far as possible, be scattered abroad and made accessible to all men.
96. So also, in manufacture: we require work substantial rather than rich in make; and refined, rather than splendid in design. Your stuffs need not be such as would catch the eye of a duchess; but they should be such as may at once serve the need, and refine the taste, of a cottager. The prevailing error in English dress, especially among the lower orders, is a tendency to flimsiness and gaudiness, arising mainly from the awkward imitation of their superiors.* It should be one of the first objects of all manufacturers to

[^89]produce stuffs not only beautiful and quaint in design, but also adapted for every-day service, and decorons in humble and secluded life. And you must remember always that your business, as manufacturers, is to form the market, as much as to supply it. If, in short-sighted and reckless eagerness for wealth, you catch at every lumor of the populace as it shapes itself into momentary demand-if, in jealous rivalry with neighboring States, or with other producers, you try to attract attention by singularities, novelties, and gaudinesses -to make every design an adyertisement, and pilfer every idea of a successful neighbor's, that you may insidionsly imitate it, or pompously eclipse-no good design will ever be possible to you, or perceived by you. You may, by accident, snatch the market; or, by energy, command it; you may obtain the confidence of the public, and cause the ruin of opponent houses; or you may, with equal justice of fortune, be ruined by them. But whatever happens to you, this, at least, is certain, that the whole of your life will have been spent in corrupting public taste and encouraging public extravagance. Every preference you have won by gaudiness must have been based on the purchaser's vanity ; every demand sou have created by novelty has fostered in the consumer a habit of discontent: and when you retire into inactive life, you may, as a subject of consolation for your declining years, reflect that precisely according to the extent of your past operations, your life has been successful in retarding the arts, tarnishing the virtues, and confusing the manners of your country.
97. But, on the other hand, if you resolve from the first p. 62, et seq. [Now "A Joy for Ever," § 46, eit seq.]) ; but its wickedness is, in the minds of most persons, a matter of no importance. I wish I had time also to show them its danger. I cannot enter here into political investigation ; but this is a certain fact, that the wasteful and vain expenses at present indulged in by the upper classes are liastening the advance of republicanism more than any other element of modern change. No agitators, no clubs, no epidemical errors, ever were or will be, fatal to social order in any nation. Nothing but the guilt of the upper classes, wanton, accumulated, reckless, and merciless, ever overthrows them. Of such guilt they have now much to answer for-let them look to it in time.
that, so far as you can aseertain or diseern what is best, you will produce what is best, on an intelligent consideration of the probable tendencies and possilile tastes of the people whom you supply, you may literally become more influential for all kinds of good than many lecturers on art, or many treatiserriters on morality. Considering the materials dealt with, and the crude state of art knowledge at the time, I do not know that any more wide or effective influence in public taste was ever exercised than that of the Staffordshire manufacture of pottery under William Wedgwood; and it only rests with the manufacturer in every other business to determine whether he will, in like manner, make his wares educational instruments, or mere drugs of the market. You all should be, in a certain sense, authors: you must, indeed, first catel the public eye, as an author must the public ear; but onee gain your audience, or observance, and as it is in the writer's power thenceforward to publish what will educate as it annuses -so it is in yours to publish what will educate as it adorns. Nor is this surely a subject of poor ambition. I hear it said contimally, that men are too ambitious: alas! to me, it seems, they are never enough ambitious. How many are content to be merely the thriving merchants of a state, when they might be its guides, counselors and rulers-wielding powers of subtle but gigantic beneficence, in restraining its follies while they supplied its wants. Let such duty, such amlition, be once accepted in their fulness, and the best glory of European art and of European manufacture may yet be to come. The paintings of Raphael and of Buonaroti gave force to the falsehoorls of superstition, and majesty to the imaginations of sin; but the arts of England may have, for their task, to inform the soul with truth, and touch the heart with compassion. The steel of Toledo and the silk of Genoa did but give strength to oppression and luster to pride; let it be for the furnace and for the loom of England, as they have already richly earned, still more abundantly to bestow, comfort on the indigent, civilization on the rude, and to dispense, through the peaceful homes of nations, the grace and the preciousness of simple adormment ${ }_{2}$ and useful possession.

## LECTURE IV.

## INFLLENCE OF MAAGLNATION IN ARĆHITECTCRE.

An Address delivered to the Members of the Architectural Association, in Lyon's Inm Hall, January $23 d, 185 \pi$.
95. If we were to be asked abruptly, and required to answer briefly; what qualities chiefly distinguish great artists from feeble artists, we should answer, I suppose, first, their sensibility and tenderness; secondly, their imagination ; and thirdly, their intustry. Some of us might, perhaps, doubt the justice of attaching so much importance to this last charaeter, because we have all known clever men who were indolent, aud dull men who were industrious. But though you may have known clever men who were indolent, rou never knew a great man who was so: and, during such investigation as I have been able to give to the lives of the artists whose works are in all points noblest, no fact ever looms so large upon me-no law remains so steadfast in the universality of its applieation,-as the fact and law that they are all great workers: nothing concerning them is matter of more astonishment than the quantity they have accomplished in the given length of their life; and when I hear a roung man spoken of, as giving promise of high genius, the first question I ask about him is always-

Does he work?
99. But though this quality of industre is essential to an artist, it does not in any wise make an artist; many people are buss, whose doings are little worth. Neither does sensihility make an artist; since, as I hope, many can feel both strongly and nobly, who set care nothing about art. But the gifts which distinctively mark the artist-without which he
must be feeble in life, forgotten in death-with which he may become one of the shakers of the earth, and one of the single lights in heaven-are those of sympathy and imagination. I will not occupy your time, nor incur the risk of your dissent, by endearoring to give any close definition of this last word. We all have a general and sufficient idea of imagination, and of its work with our hands and in our hearts: we understand it, I suppose, as the imaging or picturing of new things in our thonghts; and we always show an involuntary respect for this power, wherever we can recognize it, acknowledging it to be a greater power than manipulation, or calculation, or observation, or any other human faculty. If we see an old woman spiming at the fireside, and distributing her thread dexterously from the distaff, we respect her for her manipu-lation-if we ask her how much she expects to make in a year, and she answers quickly, we respect her for her calcu-lation-if she is watching at the same time that none of her. grandchildren fall into the fire, we respect her for her ob-servation-yet for all this she may still be a commonplace old woman enongh. But if she is all the time telling her srandchildren a fairy tale out of her head, we praise her for her imagination, and say, she must be a rather remarkable old woman.
100. Precisely in like manner, if an architect does his working-drawing well, we praise him for his manipulationif he keeps closely within his contract, we praise him for his honest arithmetic-if he looks well to the laying of his heams, so that nobody shall drop through the floor, we praise him for his obserration. But he must, somehow, tell us a fairy tale out of his head beside all this, else we cannot praise him for his imagination, nor speak of him as we did of the old woman, as being in any wise out of the common way, a rather remarkable architect. It scemed to me, therefore, as if it might interest you to-night, if we were to consider together what fairy tales are, in and by architecture, to be told-what there is for you to do in this severe art of yours "out of your heads," as well as by jour hands.
101. Perhaps the first idea which a young arehitect is apt to be allured by, as a head-problem in these experimental days, is its being incumbent upon him to invent a "new style" worthy of modern civilization in general, and of England in particular; a style worthy of our engines and telegraphs; as expansive as steam, and as sparkling as electricity. But, if there are any of my hearers who have been impressed with this sense of inventive duty, may I ask them, first, whether their plan is that every inventive arehitect among us shall invent a new style for himself, and have a county set aside for his conceptions, or a province for his practice? Or, must every architect invent a little piece of the new style, and all put it together at last like a dissected map? And if so, when the new style is invented, what is to be done next? I will grant you this Eldorado of imagina-tion-but can you have more than one Columbus? Or, if you sail in company, and divide the prize of your discovery and the honor thereof, who is to come after your clustered Columbuses? to what fortunate islands of style are your architectural descendants to sail, avaricious of new lands? When our desired style is invented, will not the best we can all do be simply-to build in it?-and cannot you now do that in styles that are known? Observe, I grant, for the sake of your argument, what perhaps many of you know that I would not grant otherwise-that a new style can be invented. I grant you not only this, but that it shall be wholly different from any that was ever practised before. We will suppose that capitals are to be at the bottom of pillars instead of the top; and that buttresses shall be on the tops of pinnacles instead of at the bottom; that you roof your apertures with stones which shall neither be arched or horizontal ; and that you compose your decoration of lines which shall neither be crooked nor straight. The furnace and the forge shall be at your service: you shall draw out your plates of glass and beat out your bars of iron till you have encompassed us all,-if your style is of the practical kind,-with endless perspective of black skeleton and blinding square,-
or if your style is to be of the ideal kind,-you shall wreathe your streets with ductile leafage, and roof them with variegated crystal-you shall put, if you will, all London under one blazing dome of many colors that shall light the clonds round it with its flashing, as far as to the sea. And still, I ask you, What after this? Do you suppose those imaginations of yours will ever lie down there asleep beneath the shade of vour iron leafage, or within the colored light of your enchanted dome? Not so. Those souls, and fancies, and ambitions of yours, are wholly infinite; and, whatever may be done by others, you will still want to do something for yourselves; if you cannot rest content with Palladio, neither will you with Paxton: all the metal and glass that ever were molted have not so much weight in them as will clog the wings of one human spirit's aspiration.
102. If you will think over this quietly by yourselves, and can get the noise out of your ears of the perpetual, empty, idle, incomparably idiotic talk about the necessity of some norelty in architecture, you will soon see that the very essence of a Style, properly so called, is that it should be practised for ages, and applied to all purposes; and that so long as any given style is in practice, all that is left for individual imagination to accomplish must be within the scope of that style, not in the inrention of a new one. If there are any here, therefore, who hope to obtain celebrity by the invention of some strange way of building which must convince all Europe into its adoption, to them, for the moment, I must not be understood to address myself, but only to those who would be content with that degree of celebrity which an artist may enjoy who works in the manner of his forefathers;-which the builder of Salisbury Cathedral might enjoy in England, thongh he did not invent Gothic; and which Titian might enjoy at Venice, though he did not invent oil painting. Addressing myself then to those humbler, but wiser, or rather, only wise students who are content to avail themselves of some system of building already understood, let us consider together what room for the exercise of the imagination may.
be left to us under such conditions. And, first, I suppose it will be said, or thought, that the architect's principal field for exercise of his invention must be in the disposition of lines, moldings, and masses, in agreeable proportions. Indeed, if you adopt some styles of architecture, you cannot exercise invention in any other way. And I admit that it requires genius and special gift to do this rightly. Not by rule, nor by study, can the gift of graceful proportionate design be obtained; only by the intuition of genius can so much as a single tier of façade be beautifully arranged; and the man has just cause for pride, as far as our gifts can ever be a cause for pride, who finds himself able, in a design of lis own, to rival even the simplest arrangement of parts in one by Sanmicheli, Inigo Jones, or Christopher Wren.
103. Invention, then, and genius being granted, as necessary to accomplish this, let me ask you, What, after all, with this special gift and genius, you have accomplished, when you have arranged the lines of a building beautifully ?

104 . In the first place, you will not, I think, tell me that the beauty there attained is of a touching or pathetic kind. A well-disposed group of notes in music will make you sometimes weep and sometimes laugh. You can express the depth of all affections by those dispositions of sound; you can give courage to the soldier, language to the lover, consolation to the mourner, more joy to the joyful, more humility to the devout. Can you do as much by your group of lines? Do you suppose the front of Whitehall, a singularly beautiful one, ever inspires the two Horse Guards, during the hour they sit opposite to it, with military ardor? Do you think that the lovers in our London walk down to the front of Whitehall for consolation when mistresses are unkind; or that any person wavering in duty, or feeble in faith, was ever confirmed in purpose or in creed by the pathetic appeal of those harmonious architraves? You will not say so. Then, if they cannot tonch, or inspire, or comfort any one, can your architectural proportions amuse any one? Christmas is just over; you have doubtless been at many merry parties during
the period. Can you remember any in which arehitectural proportions contributed to the entertainment of the evening? Proportions of notes in music were, I am sure, essential to your amusement ; the setting of flowers in hair, and of ribbons on dresses, were also subjects of frequent admiration with you, not inessential to your happiness. Among the juvenile members of your society the proportion of currants in cake, and sugar in comfits, became suljects of acute interest; and, when such proportions were harmonious, motives also of gratitude to cook and to confectioner. But, did you ever see young or old amused by the architrave of the door? Or otherwise interested in the proportions of the room than as they admittell more or fewer friendly faces? Nay, if all the amsement that there is in the best proportioned architecture of Iondon could be concentrated into one evening, and you were to issue tickets for nothing to this great proportional enter-taimment;-how do you think it would stand between you and the Drury pantomime?
105. You are, then, remember, granted to be people of genius-great and admirable; and you derote your lives to your art, but you admit that you camot comfort anybody, you cannot encourage anybody, you cannot improve anybody, and you cannot amuse anybody. I proceed then farther to ask, C'an you inform anybody? Many sciences cannot be considered as highly touching or emotional; nay, perhaps not specially amusing ; scientific men may sometimes, in these respects, stand on the same ground with you. As far as we can judge by the results of the late war, science helps our soldiers about as much as the front of Whitehall; and at the Christmas parties, the children wanted no geologists to tell them about the behavior of bears and dragons in Queen Elizalecth's time. Still, your man of science teaches you something; he may be dull at a party, or helpless in a battle, he is not always that; but he can give your, at all events, knowledge of noble facts, and open to you the secrets of the earth and air. Will your architectural proportions do as much? Your genius is granted, and your life is given, and
what do you teach us?-Nothing, I beliere, from one end of that life to the other, but that two and two make four, and that one is to two as three is to six.
106. You cannot, then, it is admitted, comfort any one, serve or anuse any one, nor teach any one. Finally, I ask, Can you be of Use to any one? "Yes," you reply; "certainly we are of some use-we architects-in a climate like this, where it always rains." You are of use, certainly; but, pardon me, only as builders-not as proportionalists. We are not talking of building as a protection, but only of that special work which your genius is to do; not of building substantial and comfortable houses like Mr. Cubitt, but of putting beautiful façades on them like Inigo Jones. And, again, I ask-Are you of use to any one? Will your proportions of façade heal the sick, or clothe the naked? Supposing you devoted your lives to be merchants, you might reflect at the close of them, how many, fainting for want, you had brought corn to sustain ; how many, infected with disease, you had brought balms to heal; how widely, among multitudes of far-away nations, you had scattered the first seeds of national power, and guided the first rays of sacred light. Had you been, in fine, anything else in the world but architectural designers, you might have been of some use or good to people. Content to be petty tradesmen, you would have saved the time of mankind;-rough-handed daily laborers, you would hare added to their stock of food or of clothing. But, being men of genius, and devoting your lises to the exquisite exposition of this genius, on what achierements do you think the memories of your old age are to fasten? Whose gratitude will surround you with its glow, or on what accomplished good, of that greatest kind for which men show no gratitude, will your life rest the contentment of its close? Truly, I fear that the ghosts of proportionate lines will be thin phantoms at your bedsides-very specehless to you; and that on all the emanations of your high genius you will look back with less delight than you might have done on a cup of cold water given to him who was thirsty, or to a single
noment when you had "prerented with your bread him that fled."
107. Do not answer, nor think to answer, that with your great works and great payments of workmen in them, you would do this; I know you would and will, as Builders; but, $I$ repeat, it is not your building that I an talking about, but your Urains; it is your invention and imagination of whose profit I am speaking. The good done through the building, observe, is done by your employers, not by you-you share in the benefit of it. The good that you personally must do is by your designing ; and I compare you with musicians who do good by their pathetic composing, not as they do good by employing fiddlers in the orchestra; for it is the public who in reality do that, not the musicians. So clearly keeping to this one question, what good we architects are to do by our genius; and having found that on our proportionate system we can do no good to others, will you tell me, lastly, what good we can do to ourselves?

10s. Observe, nearly every other liberal art or profession has some intense pleasure connected with it, irrespective of any good to others. As lawyers, or physicians, or clergymen, you would have the pleasure of inrestigation, and of historical reading, as part of rour work: as men of science you would be rejoicing in curiosity perpetually gratified respecting the laws and facts of nature: as artists you would have delight in watching the external forms of nature: as day laborers or petty tradesmen, supposing you to undertake such work with as much intellect as you are going to devote to your designing, you would find continued subjects of interest in the manufacture or the agriculture which rou helped to improve; or in the problems of commeree which bore on your business. But your architectural designing leads you into no pleasant journeys, -into no seeing of lovely things,-no discerning of just laws,-no warmths of compassion, no humilities of rencration, no progressive state of sight or soul. Our conclusion is-must be-that you will not amuse, nor inform, nor help anybody; you will not amuse, nor better,
nor inform yourselves: you will sink into a state in which you can neither show, nor feel, nor see, anything, but that one is to two as three is to six. And in that state what should we call ourselves? Men? I think not. The right name for us would be-numerators and denominators. Vulgar Fractions.
109. Shall we, then, abandon this theory of the soul of arehitecture being in proportional lines, and look whether we can find anything better to exert our fancies upon?
110. May we not, to begin with, accept this great principle -that, as our bodies, to be in health, must be generally exercised, so our minds, to be in health, must be generally cultivated? You would not call a man healthy who had strong arms but was paralytic in his feet; nor one who could walk well, but had no use of his hands; nor one who could see well, if he could not hear. You would not voluntarily reduce your bodies to any such partially developed state. Much more, then, you would not, if you could hel, it, reduce your minds to it. Now, your minds are endowed with a vast number of gifts of totally different uses-limbs of mind as it were, which, if you don't exercise, you cripple. One is curiosity; that is a gift, a capacity of pleasure in knowing; which if you destroy, you make yourselves cold and dull. Another is sympathy; the power of sharing in the feelings of living creatures; which if you destroy, you make yourselves hard and cruel. Another of your limbs of mind is admiration; the power of enjoying beanty or ingenuity; which if you destroy, you make yourselves base and irreverent. Another is wit ; or the power of playing with the lights on the many sides of truth; which if you destroy, you make yourselves gloomy, and less useful and cheering to others than you might be. So that in choosing your way of work it should be your aim, as far as possible, to bring out all these faculties, as far as they exist in you; not one merely, nor another, but all of them. And the way to bring them out, is simply to concern yourselves attentively with the subjects of each faculty. To cultivate sympathy you must be among
living creatures, and thinking about them ; and to cultivate admiration, you must be among beautiful things and looking at them.
111. All this sounds much like truism, at least I hope it does, for then you will surely not refuse to act upon it ; and to consider farther, how, as architects, you are to keep yourselves in contemplation of living creatures and lovely things.
112. You all probably know the beautiful photographs which have been published within the last year or two of the porches of the Cathedral of Amiens. I hold one of these up to you (merely that you may know what I am talking about, as of course you cannot see the detail at this distance, but you will recognize the subject). Have you ever considered how much sympathy, and how much humor, are developed in filling this single doorway * with these sculptures of the history of St. Honore (and, by the way, considering how often we English are now driving up and down the Rue St. Honoré, we may as well know as much of the saint as the old architect cared to tell us). You know, in all legends of saints who ever were bishops, the first thing you are told of them is that they didn't want to be bishops. So here is St. Honoré, who doesn't want to be a bishop, sitting sulkily in the comer; he hugs his book with both hands, and won't get up to take his crosier; and here are all the city aldermen of Amiens come to pole him up; and all the monks in the town in a great prizzle what they shall do for a bishop if St. Honoré won't be ; and here's one of the monks in the opposite corner who is quite cool about it, and thinks they'll get on well enough without St. Honoré,-you see that in his face perfectly. At last St. Honoré consents to be bishop, and here he sits in a throne, and lias his book now grandly on a desk instead of his knees, and he directs one of his village curates how to find relies in a wood; here is the wood, and here is the village curate, and here are the tombs, with the bones of St. Victorien and Gentien in them.

[^90]113. After this, St. Honoré performs grand mass, and the miracle occurs of the appearance of a hand blessing the wafer, which occurrence afterwards was painted for the arms of the abbey. Then St. Honoré dies; and here is his tomb with his statue on the top; and miracles are being performed at it-a deaf man haring his ear touched, and a blind man groping his way up to the tomb with his dog. Then here is a great procession in honor of the relics of St. Honoré; and under his coffin are some cripples being healed; and the coffin itself is put above the bar which separates the cross from the lower subjects, because the tradition is that the figure on the crucifix of the Churel of St. Firmin bowed its head in token of acceptance, as the relics of St. Honneré passed beneath.
114. Now just consider the amount of srmpathy with human nature, and obserrance of it, shown in this one bas-relief; the sympathy with disputing monks, with puzzled aldermen, with melancholy recluse, with triumphant prelate, with palsy-stricken porerty, with ecclesiastical magnificence, or miracle-working faith. Consider how much intellect was needed in the architect, and how much obserrance of nature, before he could give the expression to these various figurescast these multitudinous draperies-design these rich and quaint fragments of tombs and altars-weare with perfect animation the entangled branches of the forest.
115. But you will answer me, all this is not architecture at all-it is sculpture. Will you then tell me precisely where the separation exists between one and the other? We will begin at the rery beginning. I will show you a piece of what you will certainly admit to be a piece of pure architecture;* it is drawn on the back of another photograph, another of these marvelous tympana from Notre Dame, which you call, I suppose, impure. Well, look on this picture, and on this. Don't laugh; you must not laugh, that's very improper of you, this is classical architecture. I have taken it out of the essay on that subject in the "Encyelopædia Britannica."

[^91]116. Tet I suppose none of you would think yourselves particularly ingenious architects if you had designed nothing more than this; nay, I will even let you improve it into any grand proportion you choose, and add to it as many windows as you choose; the only thing I insist upon in cur specimen of pure architecture is, that there shall be no moldings nor ornaments upon it. And I suspect you don't quite like your architecture so "pure" as this. We want a few moldings, you will say-just a few. Those who want moldings, hold up their hands. We are manimous, I think. Will you, then, design profiles of these moldings yourselves, or will yon copy them? If you wish to copy them, and to copy them always, of course I leave you at once to your authorities, and your imaginations to their repose. But if you wish to design them yourselves, how do you do it? You draw the profile according to your taste, and you order your mason to cut it. Now, will you tell me the logical difference between drawing the profile of a molding and giving that to be cut, and drawing the folds of the drapery of a statue and giving those to be cut? The last is much more difficult to do than the first; but degrees of difficulty constitute no specific difference, and you will not accept it, surely, as a definition of the difference between architecture and sculpture, that " architecture is doing anything that is easy, and sculpture anything that is difficult."
117. It is true, also, that the carved molding represents nothing, and the carved drapery represents something; but you will not, I should think, accept, as an explanation of the difference between architecture and sculpture, this any more than the other, that "sculpture is art which has meaning, and architecture art which has none."
118. Where, then, is jour difference? In this perhaps, you will say; that whatever ornaments we can direct ourselves, and get accurately cut to order, we consider architectural. The ornaments that we are obliged to leare to the pleasure of the workman, or the superintendence of some other designer, we consider seulptural, especially if they are
more or less extraneous and incrusted-not an essential part of the building.
119. Accepting this definition, I am compelled to reply, that it is in effect nothing more than an amplification of my first one-that whatever is easy rou call architecture, whaterer is difficult you call sculpture. For you cannot suppose the arrangement of the place in which the sculpture is to be put is so difficult or so great a part of the design as the sculpture itself. For instance: you all know the pulpit of Niccolo Pisano, in the baptistery at Pisa. It is composed of seren rich relieri, surrounded by panel moldings, and sustained on marble shafts. Do you suppose Niccolo Pisano's reputation-such part of it at least as rests on this pulpit (and much does)-depends on the pancl moldings, or on the relievi? The panel moldings are by his hand; he would have disdained to leare even them to a common worknan; but do you think he found any difficulty in them, or thought there was any credit in them? Having once done the sculpture, those enclosing lines were mere child's play to him; the determination of the diameter of shafts and height of capitals was an affair of minutes; his work was in carving the Crucifixion and the Baptism.
120. Or, again, do you recollect Oreagna's tabernacle in the church of San Michele, at Florence? That, also, consists of rịch and multitudinous bas-reliefs, enclosed in panel moldings, with sliafts of mosaic, and foliated arches sustaining the canopy. Do you think Orcagna, any more than Pisano, if his spirit could rise in the midst of us at this moment, would tell us that he had trusted his fame to the foliation, or had put his soul's pride into the paneling? Not so; he would tell you that his spirit was in the stooping figures that stand round the couch of the dying Virgin.
121. Or, lastly, do you think the man who designed the procession on the portal of Amiens was the subordinate workman? that there was an architect orer him, restraining him within certain limits, and ordering of him his bishops at so much a miter, and his cripples at so much a crutch? Not so.

Here, on this seulptured shield, rests the Master's hand; this is the center of the Master's thought : from this, and in subordination to this, waved the arch and sprang the pinnacle. llaving done this, and being able to give human expression and action to the stone, all the rest-the rib, the niche, the foil, the shaft-were mere toys to his hand and aceessories to his conception; and if once you also gain the gift of doing this, if once you can carse one fronton such as you have here, I tell you, you would be able-so far as it depended on your invention-to scatter cathedrals orer England as fast as clouds rise from its streams after summer rain.
122. Nay, but perhaps you answer again, our sculptors at present do mot design eathedrals, and could not. No, they could not; but that is merely because we have made architecture so chull that they cannot take any interest in it, and, therefore, do not care to add to their higher knowledge the poor and common knowledge of principles of building. You have thus separated building from sculpture, and you lave taken away the power of both; for the senlptor loses nearly as much by never having room for the development of a continuous work, as you do from having reduced your work to a continuity of mechanism. You are essentially, and should always be, the same body of men, admitting only such difference in operation as there is between the work of a painter at different limes, who sometimes labors on a small picture, and sometimes on the frescoes of a palace gallery.
123. This conclusion, then, we arrive at, must arrive at; the fact being irrerocably so:-that in order to give your imagination and the other powers of your souls full play, you must do as all the great architects of old time did-you must yoursclves be your senlptors. Phidias, Michacl Angelo, Oreagna, Pisano, Giotto,-which of these men, do ron think, could not use his chisel? You say," It is difficult; quite out of your way." I know it is; nothing that is great is easy; and nothing that is great, so long as you study building without sculpture, can be in your way. I want to put it in your way, and you to find your way to it. But, on the other hand,
do not shrink from the task as if the refined art of perfect sculpture were always required from you. For, though architecture and sculpture are not separate arts, there is an architectural manner of seulpture; and it is, in the majority of its applications, a comparatively easy one. Our great mistake at present, in dealing with stone at all, is requiring to have all our work too refined; it is just the same mistake as if we were to require all our book illustrations to be as fine work as Raphael's. John Leech does not sketch so well as Leonardo da Vinci ; but do you think that the public could easily spare him; or that he is wrong in bringing out his talent in the way in which it is most effective? Would you advise him, if he asked your advice, to give up his wood-blocks and take to canvas? I know you would not; neither would you tell him, I believe, on the other hand, that, because he could not draw as well as Leonardo, therefore he ought to draw nothing but straight lines with a ruler, and circles with compasses, and no figure-subjects at all. That would be some loss to you; would it not? You would all be vexed if next week's Punch had nothing in it but proportionate lines. And yet, do not you see that you are doing precisely the same thing with your powers of sculptural design that he would bo doing with his powers of pictorial design, if he gave you nothing but such lines? You feel that you cannot carve like Phidias; therefore you will not carve at all, but only draw moldings ; and thus all that intermediate power which is of especial value in modern days,-that popular power of exrression which is within the attainment of thousands, and would address itself to tens of thousands,-is utterly lost to us in stone, though in ink and paper it has become one of the most important engines, and one of the most desired luxuries, of modern civilization.
124. Here, then, is one part of the subject to which I would especially invite your attention, namely, the distinctive character which may be wisely permitted to belong to architectural sculpture, as distinguished from perfect sculpture
on one side, and from mere geometrical decoration on the other.
125. And first, olserve what an indulgence we have in the distance at which most work is to be secn. Supposing we were able to carre eyes and lips with the most exquisite precision, it would all be of no use as soon as the work was put far above the ere; but, on the other hand, as beauties disappear by being far withdrawn, so will faults; and the mystery and confusion which are the natural consequence of distance, while they would often render your lest skill but rain, will as often render your worst errors of little consequence; nay, more than this, often a deep cut, or a rude angle, will produce in certain positions an effect of expression both startling and true, which you never hoped for. Not that mere distance will give animation to the work, if it has none in itself; but if it has life at all, the distance will make that life more perceptible and powerful by softening the defects of execution. So that you are placed, as workmen, in this position of singular adrantage, that you may give your fancies free play, and strike hard for the expression that you want, knowing that, if you miss it, no one will detect you; if you at all touch it, nature herself will help you, and with every changing shadow and basking sumbeam bring forth new phases of your fancy.
126. But it is not merely this privilege of being imperfect which belongs to architectural sculpture. It has a true privilege of imagination, far excelling all that can be granted to the more finished work, which, for the sake of distinction, I will call,-and I don't think we can have a much better term-" furniture sculpture;" sculpture, that is, which can be moved from place to place to furnish rooms.
127. For observe, to that seulpture the spectator is usually brought in a tranquil or prosaic state of mind; he sees it associated rather with what is sumptuous than sublime, and under ciremmstances which address themselves more to his comfort than his curiosity. The statne which is to be pathetic, seen between the flashes of footmen's livery round
the dining-table, must have strong elements of pathos in itself: and the statue which is to be awful, in the midst of the gossip of the drawing-room, must have the elements of awo wholly in itself. But the spectator is brought to your work already in an excited and imaginative mood. He has been impressed by the cathedral wall as it loomed orer the low: streets, before he looks up to the earving of its porch-and his love of mystery has been touched by the silence and the shadows of the cloister, before he can set himself to decipher the bosses on its vaulting. So that when once he begins to observe your doings, he will ask nothing better from you, nothing kinder from you, than that you would meet this imaginative temper of his half way; -that you would farther touch the sense of terror, or satisfy the expectation of things strange, which have been prompted by the mystery or the majesty of the surrounding scene. And thus, your leaving forms more or less undefined, or carrying out your fancies, however extravagant, in grotesqueness of shadow or shape, will be for the most part in accordance with the temper of the observer; and he is likely, therefore, much more willingly to use his fancy to help your meanings, than his judgment to detect your faults.
128. Again. Remember that when the imagination and feelings are strongly excited, they will not only bear with strange things, but they will look into minute things with a delight quite unknown in hours of tranquillity. You surely must remember moments of your lives in which, under some strong excitement of feeling, all the details of risible objects presented themselves with a strange intensity and insistence, whether you would or no; urging themselves upon the mind, and thrust upon the eyc, with a force of fascination which you could not refuse. Now, to a certain extent, the senses get into this state whenerer the imagination is strongly excited. Things trivial at other times assume a dignity or significance which we cannot explain; but which is only the more attractive because inexplicable: and the powers of attention, quickened by the feverish excitement, fasten and
feed upon the minutest circumstances of detail, and remotest traces of intention. So that what would at other times be felt as more or less mean or extraneous in a work of sculpture, and which would assuredly be offensive to the perfect taste in its moments of languor, or of critical judgment, will be grateful, and eren sublime, when it meets this frightened inquisitiveness, this fascinated watchfulness, of the roused imagination. And this is all for your advantage; for, in the begimnings of your sculpture, you will assuredly find it casier to imitate minute circumstances of costume or character, than to perfect the anatomy of simple forms or the flow of noble masses; and it will be encouraging to remember that the grace you cannot perfect, and the simplicity you camot achieve, would be in great part vain, even if you could achieve them, in their appeal to the hasty curiosity of passionate fancy ; but that the sympathy which would be refused to your science will be granted to your innocence; and that the mind of the general obscrver, though wholly unaffected by correctness of anatomy or propricty of gesture, will follow you with fond and pleased concurrence, as you carve the knots of the hair, and the patterns of the vesture.
129. Farther yet. We are to remember that not only do the associated features of the larger architecture tend to excite the strength of fancy, but the architectural laws to which jou are obliged to submit your decoration stimulate its ingenuity. Every crocket which you are to crest with sculpture, -every foliation which you have to fill, presents itself to the spectator's fancy, not only as a pretty thing, but as a problematic thing. It contained, he perceises immediately, not only a beanty which you wished to display, but a necessity which you were forced to meet; and the problem, how to necupy such and such a space with organic form in any probable way, or how to turn such a boss or ridge into a conceivable inage of life, becomes at once, to him as to rou, a matter of amusement as much as of admiration. The ordinary conditions of perfection in form, gesture, or feature, are willingly dispensed with, when the ugly dwarf and ungainly
goblin have only to gather themselves into angles, or crouch to carry corbels; and the want of skill which, in other kinds of work, would have been required for the finishing of the parts, will at once be forgiven here, if you have only disposed ingeniously what you have executed ronghly, and atoned for the rudeness of your hands by the quickness of your wits.
130. Hitherto, however, we have been considering only the circumstances in architecture favorable to the development of the powers of imagination. A yet more important point for us seems, to me, the place which it gives to all objects of imagination.
131. For, I suppose, you will not wish me to spend any time in proving, that imagination must be vigorous in proportion to the quantity of material which it has to handle; and that, just as we increase the range of what we see, we increase the richness of what we can imagine. Granting this, consider what a field is opened to your fancy merely in the subject matter which architecture admits. Nearly every other art is severely limited in its subjects-the landscape painter, for instance, gets little help from the aspects of beautiful humanity; the historical painter, less, perhaps, than he ought, from the accidents of wild nature; and the pure sculptor, still less, from the minor details of common life. But is there anything within range of sight, or conception, which may not be of use to you, or in which your interest may not be excited with adrantage to your art? From risions of angels, down to the least important gesture of a child at play, whatever may be conceived of Divine, or beheld of Human, may be dared or adopted by you; throughout the kingdom of animal life, no creature is so rast, or so minute, that you cannot deal with it, or bring it into service; the lion and the crocodile will couch abont your shafts; the moth and the bee will sun themselves upon your flowers; for you, the fawn will leap; for you, the snail be slow; for rou, the dove smooth her bosom, and the hawk spread her wings toward the south. All the wide world of
vegetation blooms and bends for you; the leares tremble that rou may bid them be still under the marble snow; the thorn and the thistle, which the earth casts forth as cril, are to you the kindliest servants; no dying petal, nor drooping teudril, is so feeble as to liave no help for you; no robed pride of blossom so kingly, but it will lay aside its purple to receive at your hands the pale immortality. Is there anything in common life too mean,-in common things too trivial,-to be ennobled by your touch? As there is nothing in life, so there is nothing in lifelessness which has not its lesson for you, or its gift; and when you are tired of watching the strength of the plume, and the tenderness of the leaf, you may walk down to your rough river-shore, or into the thickest markets of your thoroughfares; and there is not a piece of torn cable that will not twine into a perfect molding; there is not a fragment of castaway matting, or shattered basketwork, that will not work into a checker or a capital. Yes: and if you gather up the very sand, and break the stone on which you tread, among its fragments of all but invisible shells you will find forms that will take their place, and that proudly, among the starred traceries of your vaulting; and yon, who can crown the mountain with its fortress, and the city with its towers, are thus able also to give beauty to ashes, and worthiness to dust.
132. Now, in that your art presents all this material to you, yon have already much to rejoice in. But you have more to rejoice in, because all this is submitted to you, not to be dissected or analyzed, but to be sympathized with, and to bring out, therefore, what may be accurately called the moral part of imagination. We saw that, if we kept ourselves among lines only, we should have cause to enry the naturalist, because he was conversant with facts ; but you will have little to envy now, if you make yourselves conversant with the feelings that arise out of his facts. For instance, the naturalist, coming upon a block of marble, has to begin considering immediately how far its purple is owing to iron, or its whiteness to magnesia; he breaks his piece of marble,
and at the close of his day, has nothing but a little sand in his crucible, and some data added to the theory of the elements. But you approach your marble to sympathize with it, and rejoice over its beauty. You cut it a little indeed, but only to bring out its veins more perfectly; and at the end of your day's work you leave your marble shaft with joy and complacency in its perfectness, as marble. When you have to watch an animal instead of a stone, you differ from the naturalist in the same way. He may, perhaps, if he be an amiable naturalist, take delight in having living creatures round him;-still, the major part of his work is, or has been, in counting feathers, separating fibers, and analyzing structures. But your work is always with the living creature; the thing you have to get at in him is his life, and ways of going about things. It does not matter to you how many cells there are in his bones, or how many filaments in his feathers; what you want is his moral character and way of behaving himself; it is just that which your imagination, if healthy, will first seize-just that which your chisel, if vigorous, will first cut. You must get the storm spirit into your eagles, and the lordliness into your lions, and the tripping fear into your fawns; and in order to do this, you must be in continual sympathy with every fawn of them; and be hand-in-glove with all the lions, and hand-in-claw with all the hawks. And don't fancy that you will lower yourselves by sympathy with the lower creatures; you cannot sympathize rightly with the higher, unless you do with those: but you have to sympathize with the higher, too-with queens, and kings, and martyrs, and angels. Yes, and above all, and more than all, with simple hmmanity in all its needs and ways, for there is not one hurried face that passes you in the strect that will not be impressive, if you can only fathom it. All history is open to you, all high thoughts and dreams that the past fortumes of men can suggest; all fairy land is open to you-no vision that ever hannted forest, or gleamed over hill-side, but calls you to understand how it came into men's hearts, and may still touch them; and all

Paradise is open to you-yes, and the work of Paradise; for in bringing all this, in perpetual and attractive truth, before the eyes of your fellow-men, you have to join in the employment of the angels, as well as to imagine their companies.
133. And observe, in this last respect, what a peculiar importance, and responsibility, are attached to your work, when you consider its permanence, and the multitudes to whom it is addressed. We frequently are led, by wise people, to consider what responsibility may sometimes attach to words, which yet, the chance is, will be heard by few, and forgotten as soon as heard. But none of your words will be heard by few, and none will be forgotten, for five or six hundred years, if you build well. You will talk to all who pass by; and all those little sympathies, those freaks of fancy, those jests in stone, those workings-out of problems in caprice, will occupy mind after mind of utterly countless multitudes, long after you are gone. You have not, like authors, to plead for a hearing, or to fear oblivion. Do but build large enough, and carve boldly enough, and all the world will hear you; they cannot choose but look.
134. I do not mean to awe you by this thought; I do not mean that, because you will have so many witnesses and watchers, you are never to jest, or do anything gaily or lightly ; on the contrary, I have pleaded, from the beginning, for this art of yours, especially because it has room for the whole of your character:-if jest is in you, let the jest be jested ; if mathematical ingenuity is yours, let your problem be put, and your solution worked out, as quaintly as you choose; above all, see that your work is easily and happily done, else it will never make anybody else happy: but while you thus give the rein to all your impulses see that those impulses be headed and centered by one noble impulse; and let that be Love-triple love-for the art which you practise, the creation in which you move, and the creatures to whom you minister.
135.-I. I say, first, Love for the art which you practise.

Be assured that if ever any other motive becomes a leading one in your mind, as the principal one for exertion, except your love of art, that moment it is all over with your art. I do not say you are not to desire money, nor to desire fame, nor to desire position ; you cannot but desire all three; nay, you may-if you are willing that I should use the word Love in a desecrated sense-love all three; that is, passinnately covet them; yet you must not covet or love them in the first place. Men of strong passions and imaginations must always care a great deal for anything they care for at all; but the whole question is one of first or second. Does your art lead you, or your gain lead you? You may like making money exceedingly; but if it comes to a fair question, whether you are to make five hundred pounds less loy this business, or to spoil your building, and you choose to spoil your building, there's an end of you. So you may be as thirsty for fame as a cricket is for cream; but, if it come to a fair question, whether you are to please the mob, or do the thing as you know it ought to be done ; and you can't do both, and choose to please the mob,-it's all over with you;-there's no hope for you; nothing that you can do will ever be worth a man's glance as he passes by. The test is absolute, ineritable-Is your art first with you? Then you are artists; you may be, after you have made your money, misers and usurers; you may be, after you have got your fame, jealous, and proud, and wretched, and base:-but yet, as long as you won't spoil your work, you are artists. On the other hand-Is your money first with you, and your fame first with you? Then, you may be very charitable with your money, and very magnificent with your money, and very graceful in the way you wear your reputation, and very courteous to those beneath you, and very acceptable to those above you ; but you are not artists. You are mechanics, and drudges.
136.-II. You must love the creation you work in the midst of. For, wholly in proportion to the intensity of feeling which you bring to the subject you have chosen, will be the depth and justice of your perception of its character.

And this deptly of feeling is not to be gained on the instant, when you want to bring it to bear on this or that. It is the result of the general halit of striving to feel rightly; and, among thousands of various means of doing this, perhaps the one I ought specially to name to you, is the keeping yourselves clear of petty and mean cares. Whatever you do, don't be anxious, nor fill your heads with little chagrins and little desires. I have just said, that you may be great artists, and yet be miserly and jealous, and troubled about many things. So you may be; but I said also that the miserliness or trouble must not be in your hearts all day. It is possible that you may get a habit of saving money; or it is possible, at a time of great trial, you may yield to the temptation of speaking unjustly of a rival,-and you will shorten your powers and dim your sight even by this;-but the thing that you have to dread far more than any such unconscious habit, or any such momentary fall-is the constancy of small emotions; the anxiety whether Mr. So-and-so will like your work; whether such and such a workman will do all that you want of him, and so on ;-not wrong feelings or anxieties in themselves, but impertinent, and wholly incompatible with the full exercise of your imagination.
137. Keep yourselves, therefore, quiet, peaceful, with your eyes open. It doesn't matter at all what Mr. So-and-so thinks of your work; but it matters a great deal what that bird is doing up there in its nest, or how that ragabond child at the strect corner is managing his game of knuckle-down. And remember, you cannot turn aside from your own interests, to the birds' and the children's interests, unless you have long before got into the habit of loving and watching birds and children; so that it all comes at last to the forgetting yourselves, and the living out of yourselves, in the calm of the great world, or if you will, in its agitation; but always in a calm of your own bringing. Do not think it wasted time to submit yourselves to any influence which may bring upon you any noble feeling. Rise early, always watch the sunrise, and the way the clouds break from the dawn; you will cast your
statue-draperies in quite another than your common way, when the remembrance of that cloud motion is with you, and of the scarlet resture of the morning. Live alwars in the spring time in the country; you do not know what leaf-form means, unless you have seen the buds burst, and the young leaves breathing low in the sunshine, and wondering at the first shower of rain. But abore all, accustom yourselves to look for, and to lore, all nobleness of gesture and feature in the human form ; and remember that the highest nobleness is usually among the aged, the poor, and the infirm ; you will find, in the end, that it is not the strong arm of the soldier, nor the laugh of the young beauty, that are the best studies for you. Look at them, and look at them reverently; but be assured that endurance is nobler than strength, and patience than beauty; and that it is not in the high church pews, where the gay dresses are, but in the church free seats, where the widows' weeds are, that you may see the faces that will fit best between the angels' wings, in the church porch.

13S.-III. And therefore, lastly and chiefly, you must love the creatures to whom you minister, your fellow-men; for, if you do not love them, not only will you be little interested in the passing events of life, but in all your gazing at humanitr, fou will be apt to be struck only by outside form, and not by expression. It is only kindness and tenderness which will ever enable you to see what beauty there is in the dark eves that are sunk with weeping, and in the paleness of those fixed faces which the earth's adversity has compassed about, till they shine in their patience like dying watchfires through twilight. But it is not this only which makes it needful for you, if you would be great, to be also kind ; there is a most important and all-essential reason in the rery nature of your own art. So soon as you desire to build largely, and with addition of noble sculpture, you will find that your work must be associative. You cannot carre a whole cathedral yourself-you can carve but few and simple parts of it. Either your own work must be disgraced in the mass of the collateral inferiority, or you must raise your fellow-designers
to correspondence of power. If you have genius, you will yourselves take the lead in the building you design; you will carve its porch and direct its disposition. But for all subsequent adrancement of its detail, you must trust to the ageney and the invention of others; and it rests with you either to repress what faculties your workmen have, into cunning subordination to your own ; or to rejoice in discovering even the powers that may rival you, and leading forth mind after mind into fellowship with your fancy, and association with your fame.
139. I need not tell yon that if you do the first-if you endeavor to depress or disguise the talents of your subordi-nates-you are lost; for nothing could imply. more darkly and docisively than this, that your art and your work were not belored by you; that it was your own prosperity that you were secking, and your own skill only that you cared to contemplate. I do not say that you must not be jealous at all: it is rarely in human nature to be wholly without jealousy; and you may be forgiven for going some day sadly home, when you find some youth, unpractised and unapproved, giving the life-stroke to his work which you, after years of training, perhaps, cannot reach: but your jealousy must not conquer-your love of your building must conquer, helped by your kindness of heart. See-I set no high or difficult standard before you. I do not say that you are to surrender your pre-eminence in mere unselfish generosity. But I do say that you must surrender your pre-eminence in your love of your building, helped by your kindness; and that whomsoever you find better able to do what will adorn it than you,-that person you are to give place to: and to console yourselves for the humiliation, first, by your joy in seeing the edifice grow more beautiful under liis chisel; and secondly, by your sense of having done kindly and justly. But if you are morally strong enough to make the kindness and justice the first motive, it will be better ;-best of all-if you do not consider it as kindness at all, but bare and stern justice; for, truly, such help as we can give each other in this
world is a debt to each other; and the man who perceives a superiority or capacity in a subordinate, and neither confesses nor assists it, is not merely the withholder of kindness, but the committer of injury. But be the motive what you will, only see that you do the thing; and take the joy of the consciousness that, as your art embraces a wider field than all others-and addresses a vaster multitude than all others -and is surer of audience than all others-so it is profounder and holier in Fellowship than all others. The artist, when his pupil is perfect, must see him leave his side that ho may declare his distinct, perhaps opponent, skill. Man of science wrestles with man of science for priority of discovery, and pursues in pangs of jealous haste his solitary inquiry. You alone are called by kindness,-by necessity,by equity, to fraternity of toil; and thus, in those misty and massive piles which rise abore the domestic roofs of our ancient cities, there was-there may be again-a meaning more profound and true than any that fancy so commonly has attached to them. Men say their pinnacles point to hearen. Why, so does every tree that buds, and every bird that rises as it sings. Men say their aisles are good for worship. Why, so is every mountain glen, and rough seashore. But this they have, of distinct and indisputable glory, -that their mighty walls were never raised, and never shall be, but by men who love and aid each other in their weak-ness;-that all their interlacing strength of raulted stone has its foundation upon the stronger arches of manly fellowship, and all their changing grace of depressed or lifted pinnacle owes its cadence and completeness to sweeter symmetries of human soul

## LECTURE V .

## TIIE WORK OF IRON, IN NATURE, ART, AND POLICY.

A Lecture delivered at Tunbridge Wells, February 16th, 1858.
140. Wiren first I heard that you wished me to address you this evening, it was a matter of some doubt with me whether I could find any subject that would possess any sufficient interest for you to justify my bringing you out of your comfortable houses on a winter's night. When I renture to speak about my own special business of art, it is almost always before students of art, among whom I may sometimes permit myself to be dull, if I can feel that I am useful: but a mere talk about art, especially without examples to refer to (and I have been unable to prepare any careful illustrations for this lecture), is seldom of much interest to a general audience. As I was considering what you might best bear with me in speaking about, there came naturally into my mind a subject connected with the origin and present prosperity of the town you live in ; and, it seemed to me, in the out-branchings of it, capable of a very general interest. When, long ago (I am afraid to think how long), Tunbridge Wells was my Switzerland, and I used to be brought down here in the summer, a sufficiently active child, rejoicing in the hope of clambering sandstone cliffs of stupendous height abore the common, there used sometimes, as, I suppose, there are in the lives of all children at the Wells, to be dark days in my life-days of condemnation to the pantiles and band-under which calamities my only consolation used to be in watching, at every turn in my walk, the welling forth of the spring over the orange rim of its marble basin. The memory of the clear water, sparkling over its
saffron stain, came back to me as the strongest image connected with the place; and it struck me that you might not be unwilling, to-night, to think a little over the full significance of that saffron stain, and of the power, in other ways and other functions, of the steely element to which so many here owe returning strength and life;-chief as it has been always, and is yet more and more markedly so day by day, among the precious gifts of the earth.

141 . The subject is, of course, too wide to be more than suggestively treated; and even my suggestions must be few, and drawn chiefly from my own fields of work; nevertheless, I think I shall have time to indicate some courses of thought which you may afterwards follow out for yourselves if they interest you; and so I will not shrink from the full scope of the subject which I have announced to you-the functions of Iron, in Nature, Art, and Policy.
142. Without more preface, I will take up the first head.
I. Iron in Nature.- You all probably know that the ocherous stain, which, perhaps, is often thought to spoil the basin of your spring, is iron in a state of rust: and when you see rusty iron in other places you generally think, not only that it spoils the places it stains, but that it is spoiled itself-that rusty iron is spoiled iron.
143. For most of our uses it generally is so ; and because we cannot use a rusty knife or razor so well as a polished one, we suppose it to be a great defect in iron that it is subject to rust. But not at all. On the contrary, the most perfect and useful state of it is that ocherous stain; and therefore it is endowed with so ready a disposition to get itself into that state. It is not a fault in the iron, but a virtue, to be so fond of getting rusted, for in that condition it fulfils its most important functions in the miverse, and most kindly duties to mankind. Nay, in a certain sense, and almoșt a literal one, we may say that iron rusted is Living; but when pure or polished, Dead. You all probably know that in the mixed air we breathe, the part of it essentially needful to us is called oxygen ; and that this substance is to all animals, in
the most accurate sense of the word, "breath of life." Tho nervous power of lifo is a different thing; but the supporting element of the breath, without which the blood, and therefore the life, cannot be nourished, is this oxygen. Now it is this very same air which the iron breathes when it gets rusty. It takes the oxygen from the atmosphere as eagerly as we do, though it uses it differently. The iron keeps all that it gets; we, and other animals, part with it again; but the metal absolutely kecps what it has once received of this aërial gift ; and the ocherous dust which we so much despise is, in fact, just so much nobler than pure iron, in so far as it is iron and the air. Nobler, and more useful-for, indeed, as I shall be able to show you presently-the main service of this metal, and of all other metals, to us, is not in making knives, and scissors, and pokers, and pans, but in making the ground we feed from, and nearly all the substances first needful to our existence. For these are all nothing but metals and oxygen -metals with breath put into them. Sand, lime, clay, and the rest of the earths-potash and soda, and the rest of the alkalics-are all of them metals which have undergone this, so to speak, vital change, and have been rendered fit for the service of man by permanent unity with the purest air which he himself breathes. There is only one metal which does not rust readily ; and that in its influence on Man hitherto, has caused Death rather than Life; it will not be put to its right use till it is made a parement of, and so trodden under foot.
144. Is there not something striking in this fact, considered largely as one of the types, or lessons, furnislied by the inanimate creation? Here you have your hard, bright, cold, lifeless metal-good enough for swords and scissorsbut not for food. You think, perhaps, that your iron is wonderfully useful in a pure form, but how would you like the world, if all your meadows, instead of grass, grew nothing but iron wire-if all your arable ground, instead of being made of sand and clay, were suddenly turned into flat surfaces of stecl-if the whole earth, instead of its green and
glowing sphere, rich with forest and flower, showed nothing but the image of the vast furnace of a ghastly engine-a globe of black, lifeless, excoriated metal? It would be that, -probably it was once that; but assuredly it would be, were it not that all the substance of which it is made sucks and breathes the brilliancy of the atmosphere ; and, as it breathes, softening from its merciless hardness, it falls into fruitful and beneficent dust; gathering itself again into the carths from which we feed, and the stones with which we build;into the rocks that frame the mountains, and the sands that bind the sea.
145. Hence, it is impossible for you to take up the most insignificant pebble at your feet, without being able to read, if you like, this curious lesson in it. You look upon it at first as if it were earth only. Nay, it answers, " I am not earth-I am earth and air in one; part of that blue heaven which you love, and long for, is already in me ; it is all my life-without it I should be nothing, and able for nothing; I could not minister to you, nor nourish you-I should be a cruel and helpless thing; but, because there is, according to my need and place in creation, a kind of soul in me, I have become capable of good, and helpful in the circles of vitality."
146. Thus far the same interest attaches to all the earths, and all the metals of which they are made; but a deeper interest and larger beneficence belong to that ocherous earth of iron which stains the marble of your springs. It stains much besides that marble. It stains the great earth wheresoever you can see it, far and wide-it is the coloring substance appointed to color the globe for the sight, as well as subdue it to the service of man. You have just seen your hills covered with snow, and, perhaps, have enjoyed, at first, the contrast of their fair white with the dark blocks of pine woods; but have you ever considered how you would like them always white-not pure white, but dirty white-the white of thaw, with all the chill of snow in it, but none of its brightness? That is what the color of the earth would be
without its iron; that would be its color, not here or there only, but in all places, and at all times. Follow out that idea till you get it in some detail. Think first of your pretty gravel walks in your gardens, and fine, like plots of sunshine between the yellow flower-beds; fancy them all suddenly turned to the color of ashes. That is what they would be without iron ocher. Think of your winding walks over the common, as warm to the eye as they are dry to the foot, and imagine them all laid down suddenly with gray cinders. 'Then pass beyond the common into the country', and pause at the first plowed field that you see sweeping up the hillsides in the sun, with its deep brown furrows, and wealth of ridges all a-glow, heaved aside by the plowshare, like deep folds of a mantle of russet velvet-fancy it all changed suddenly into grisly furrows in a field of mud. That is what it would be without iron. Pass on, in fancy, over hill and dale, tili you reach the bending line of the seashore; go down uporr its breezy beach-watch the white foam flashing among the amber of it, and all the blue sea embayed in belts of gold; then fancy those circlets of far sweeping shore suddenly put into mounds of mourning-all those golden sands turned into gray slime; the fairies no more able to call to each other, "Come unto these yellow sands;" but, "Come unto these drab sands." That is what they would be, without iron.
147. Iron is in some sort, therefore, the sunshine and light of landscape, so far as that light depends on the ground ; lout it is a source of another kind of sumshine, quite as important to us in the way we live at present-sunshine, not of landscape, but of dwelling-place.
145. In these days of swift locomotion I may doubtless assume that most of my audience have been somewhere out of England-have been in Scotland, or France, or Switzerland. Whatever may have been their impression, on returning to their own country, of its superiority or inferiority in other respects, they cannot but have felt one thing about itthe comfortable look of its towns and villages. Foreign towns are often very picturesque, very beautiful, but they
never have quite that look of warm self-sufficiency and wholesome quiet with which our villages nestle themselves down among the green fields. If sou will take the trouble to examine into the sources of this impression, you will find that by far the greater part of that warm and satisfactory appearance depends upon the rich scarlet color of the bricks and tiles. It does not belong to the neat building-very neat building has an uncomfortable rather than a comfortable look-but it depends on the warm building; our villages are dressed in red tiles as our old women are in red cloaks; and it does not matter how warm the cloaks, or how bent and bowed the roof may be, so long as there are no holes in either one or the other, and the sobered but unextinguishable color still glows in the shadow of the hood, and burns among the green mosses of the gable. And what do you suppose dyes your tiles of cottage roof? You don't paint them. It is Nature who puts all that lorely vermilion into the clay for you; and all that lovely vermilion is this oxide of iron. Think, therefore, what your strects of towns would becomeugly enough, indeed, already, some of them, but still com-fortable-looking-if instead of that warm brick red, the houses became all pepper-and-salt color. Fancy your country rillages changing from that homely scarlet of theirs which, in its sweet suggestion of laborious peace, is as honorable as the soldier's scarlet of laborious battle-suppose all those cottage roofs, I say, turned at once into the color of unbaked clay, the color of street gutters in rainy weather. That's what they would be without iron.
149. There is, however, yet another effect of color in our English country towns which, perhaps, you may not all yourselves have noticed, but for which you must take the word of a sketcher. They are not so often merely warm searlet as they are warm purple;-a more beautiful color still: and they owe this color to a mingling with the rermilion of the deep grayish or purple hue of our fine Welsh slates on the more respectable roofs, made more blue still by the color of intervening atmosphere. If jou examine
one of these Welsh slates freshly broken, you will find its purple color clear and rivid; and although never strikingly so after it has been long exposed to weather, it always retains enough of the tint to give rich harmonies of distant purple in opposition to the green of our woods and fields. Whaterer brightness or power there is in the hue is entirely owing to the oxide of iron. Without it the slates would either be pale stone color, or cold gray, or black.
150. Thus far we have only been considering the use and pleasantness of iron in the common earth of clay. But there are three kinds of earth which, in mixed mass and prevalent quantity, form the world. Those are, in common language, the earths of clay, of lime, and of flint. Many other elements are mingled with these in sparing quantities; but the great frame and substance of the earth is made of these three, so that whenever you stand on solid ground, in any country of the globe, the thing that is mainly under your feet will be either clay, limestone, or some condition of the earth of flint, mingled with both.
151. These being what we have usually to deal with, Nature seems to have set herself to make these three substances as interesting to us, and as beautiful for us, as she can. The clay, being a soft and changeable substance, she doesn't take much pains about, as we have seen, till it is baked; she brings the color into it only when it receives a permanent form. But the limestone and flint she paints, in her own way, in their native state: and her object in painting them seems to be much the same as in her painting of flowers; to draw us, careless and idle human creatures, to watch her a little, and see what she is about-that being on the whole good for us,-her children. For Nature is always carrying on very strange work with this limestone and flint of hers: laying down beds of them at the bottom of the sea; building islands out of the sea; filling chinks and veins in mountains with curious treasures; petrifying mosses, and trees, and shells; in fact, carrying on all sorts of business, subterranean or submarine, which it would be highly de-
sirable for us, who profit and live by it, to notice as it goes on. And apparently to lead us to do this, she makes picture-books for us of limestone and flint; and tempts us, like foolish children as we are, to read her books by the pretty colors in them. The pretty colors in her limestone-books form those variegated marbles which all mankind have taken delight to polish and build with from the beginning of time; and the pretty colors in her flint-books form those agates, jaspers, cornelians, bloodstones, onyxes, cairngorms, chrysoprases, which men have in like manner taken delight to cut, and polish, and make ornaments of, from the beginning of time; and yet so much of babies are they, and so fond of looking at the pictures instead of reading the book, that I question whether, after six thousand years of eutting and polishing, there are above two or three people out of any given hundred who know, or care to know, how a bit of agate or a bit of marble was made, or painted.
152. How it was made, may not be always very easy to say; but with what it was painted there is no manner of question. All those beautiful violet veinings and variegations of the marbles of Sicily and Spain, the glowing orange and amber colors of those of Siena, the deep russet of the Rosso antico, and the blood-color of all the precious jaspers that enrich the temples of Italy; and, finally, all the lovely transitions of tint in the pebbles of Scotland and the Rhine, which form, though not the most precious, by far the most interesting portion of our modern jewelers' work; -all these are painted by Nature with this one material only, variously proportioned and applied-the oxide of iron that stains your Tunbridge springs.
153. But this is not all, nor the best part of the work of iron. Its service in producing these beautiful stones is only rendered to rich people, who can afford to quarry and polish them. But Nature paints for all the world, poor and rich together ; and while, therefore, she thus adorns the innermost rocks of her hills, to tempt your investigation, or indulge your luxury, -she paints, far more carefully, the outsides of
the hills, which are for the eyes of the shepherd and the plowman. I spoke just now of the effect in the roofs of our villages of their purple slates; but if the slates are beautiful even in their flat and formal rows on house-roofs, much more are they beautiful on the rugged crests and flanks of their mative momatains. Have you ever considered, in speaking as we do so often of distant blue hills, what it is that makes them blue? To a certain extent it is distance; but distance alone will not do it. Many hills look white, however distant. That lovely dark purple color of our Welsh and Highland hills is owing, not to their distance merely, but to their rocks. Some of their rocks are, indeed, too dark to be beautiful, being black or ashy gray ; owing to imperfect and porons structure. But when you see this dark color dashed with russet and bluc, and coming out in masses among the green ferns, so purple that you can hardly tell at first whether it is rock or heather, then you must thank your old Tumbridge friend, the oxide of iron.
154. But this is not all. It is necessary for the beauty of hill scenery that Nature should color not only her soft rocks, but her hard ones; and she colors them with the same thing, only more beautifully. Pcrhaps you have wondered at my use of the word "purple," so often of stones; but the Greeks, and still more the Romans, who had profound respect for purple, used it of stone long ago. You have all heard of "porphyry" as among the most precious of the harder massive stones. The color which gave it that noble name, as well as that which gives the flush to all the rosy granite of Egypt-yes, and to the rosiest summits of the Alps them-selves-is still owing to the same substance-your humble oxide of iron.

## 155. And last of all:

A nobler color than all these-the noblest color ever seen on this earth-one which belongs to a strength greater than that of the Egyptian granite, and to a beanty greater than that of the sunset or the rose-is still mysteriously connected with the presence of this dark iron. I believe it is not ascer-
tained on what the crimson of blood actually depends; but the color is connected, of course, with its ritality, and that vitality with the existence of iron as one of its substantial elements.
156. Is it not strange to find this stern and strong metal mingled so delicately in our human life that we cannot even blush without its help? Think of it, my fair and gentle hearers; how terrible the alternative-sometimes you have actually no choice but to be brazen-faced, or iron-faced!
157. In this slight review of some of the functions of the metal, you observe that I confine myself strictly to its operations as a coloring element. I should only confuse your conception of the facts if I endeavored to describe its uses as a substantial element, either in strengthening rocks or influencing regetation by the decomposition of rocks. I have not, therefore, even glanced at any of the more serious uses of the metal in the economy of nature. But what I wish you to carry clearly away with you is the remembrance that in all these uses the metal would be nothing without the air. The pure metal has no power, and never occurs in nature at all, except in meteoric stones, whose fall no one can account for, and which are useless after they have fallen: in the necessary work of the world the iron is invariably joined with the oxygen, and would be capable of no service or beauty whatever without it.
158. Il. Iron in Art.-Passing, then, from the offices of the metal in the operations of nature to its uses in the hands of man, you must remember, in the outset, that the type which has been thus given you, by the lifeless metal, of the action of body and soul together, has noble antitype in the operation of all human power. All art worthy the name is the energy-neither of the human body alone, nor of the human soul alone, but of both united, one guiding the other : good craftsmanship and work of the fingers joined with good emotion and work of the heart.
159. There is no good art, nor possible judgment of art, when these two are not united; yet we are constantly trying
to separate them. Our amateurs cannot be persuaded but that they may produce some kind of art by their fancy or sensibility, without going through the necessary manual toil. That is entirely hopeless. Without a certain number, and that a very great number, of steady acts of hand-a practice as careful and constant a; would be necessary to learn any other manual business-no drawing is possible. On the wther side, the workman, and those who employ him, are continually trying to produce art by trick or habit of fingers, without using their fancy or sensibility. That also is hopeless. Without mingling of heart-passion with hand-power, 110 art is possible.* The highest art unites both in their intensest degrecs: the action of the hand at its finest, with that of the heart at its fullest.
160. Hence it follows that the utmost power of art can only be given in a material capable of receiving and retaining the influence of the subtlest touch of the human hand. That hand is the most perfect agent of material power existing in the universe; and its full subtlety can only be shown when the material it works on, or with, is entirely yielding. The chords of a perfect instrument will receive it, but not of an imperfect one; the softly-bending point of the hair pencil, and soft melting of color, will receive it, but not even the chalk or pen point, still less the steel point, chisel, or marble. The hand of a sculptor mas, indeed, be as subtle as that of a painter, but all its subtlety is not bestowable nor expressible: the touch of Titian, Correggio, or Turner $\dagger$ is a far more marselous piece of nervous action than can be shown in anything but color, or in the very highest conditions of excentive expression in music. In proportion as the material worked upon is less delicate, the execution necessarily becomes lower, and the art with it. This is one main principle of all work. Another is, that whatever the material you choose to work with, your art is base if it does not bring out the distinctive qualities of that material.

[^92]161. The reason of this second law is, that if you don't want the qualities of the substance you use, you ought to use some other substance: it can be only affectation, and desire to display your skill, that lead you to employ a refractory substance, and therefore your art will all be base. Glass, for instance, is eminently, in its nature, transparent. If you don't want transparency, let the glass alone. Do not try to make a window look like an opaque picture, but take an opaque ground to begin with. Aģain, marble is eminently a solid and massive substance. Unless you want mass and solidity, don't work in marble. If you wish for lightness, take wood; if for freedom, take stucco; if for ductility, take glass. Don't try to carve feathers, or trees, or nets, or foam, out of marble. Carve white limbs and broad breasts only out of those.
162. So again, iron is eminently a ductile and tenacious substance-tenacious above all things, ductile more than most. When you want tenacity, therefore, and involved form, take iron. It is eminently made for that. It is the material given to the sculptor as the companion of marble, with a message, as plain as it can well be spoken, from the lips of the earth-mother, "Here's for you to cut, and here's for you to hammer. Shape this, and twist that. What is solid and simple, carve ont; what is thin and entangled, beat out. I give you all kinds of forms to be delighted in; fluttering leaves as well as fair bodies; twisted branches as well as open brows. The leaf and the branch you may beat and drag into their imagery: the body and brow you shall reverently touch into their imagery. And if you choose rightly and work rightly, what you do shall be safe afterwards. Your slender leaves shall not break off in my tenacious iron, though they may be rusted a little with an iron autumn. Your broad surfaces shall not be unsmonthed in my pure crystalline marble-no decay shall touch them. But if you carve in the marble what will break with a touch, or mold in the metal what a stain of rust or verdigris will spoil, it is jour fault-not mine."
163. These are the main principles in this matter; which, like nearly all other right principles in art, we moderns delight in contradicting as directly and specially as may be. We continually look for, and praise, in our exhibitions, the sculpture of veils, and lace, and thin leaves, and all kinds of impossible things pushed as far as possible in the fragile stone, for the sake of showing the sculptor's dexterity.* On the other hand, we cast our iron into bars-brittle, though an inch thick-sharpen them at the ends, and consider fences, and other work, made of such materials, decorative! I do not believe it would be easy to calculate the amount of mischief done to our taste in England by that fence ironwork of ours alone. If it were asked of us, by a single characteristic, to distinguish the dwellings of a country into two broad sections; and to set, on one side, the places where people were, for the most part, simple, happy, benevolent, and honest; and, on the other side, the places where at least a great number of the people were sophisticated, unkind, uncomfortable, and unprincipled, there is, I think, one feature that you could fix upon as a positive test: the uncomfortable and unprincipled parts of a country would be the parts where people lived among iron railings, and the comfortable and principled parts where they had none. A broad generalization, you will say! Perhaps a little too broad; yet, in all sobriety, it will come truer than you think. Consider every other kind of fence or defense, and you will find some virtue in it; but in the iron railing, none. There is, first, your castle rampart of stone-somewhat too grand to be considered

[^93]here among our types of fencing; next, your garden or park wall of brick, which has indeed often an unkind look on the outside, but there is more modesty in it than unkindness. It generally means, not that the builder of it wants to shut you out from the riew of his garden, but from the riew of himself: it is a frank statement that as he needs a certain portion of time to himself, so he needs a certain portion of ground to himself, and must not be stared at when he digs there in his shirt-slecres, or plays at leapfrog with his boys from school, or talks over old times with his wife, walking up and down in the evening sunshine. Besides, the brick wall has good practical service in it, and shelters you from the east wind, and ripens your peaches and nectarines, and glows in autumn like a sunny bank. And, moreover, your brick wall, if you build it properly, so that it shall stand long enough, is a beautiful thing when it is old, and has assumed its grave purple red, touched with mossy green.
164. Next to your lordly wall, in dignity of enclosure, comes your close-set wooden paling, which is more objectionable, because it commonly means enclosure on a larger scale than people want. Still it is significative of pleasant parks, and well kept field walks, and herds of decr, and other such aristocratic pastoralisms, which have here and there their proper place in a country, and may be passed without any discredit.
165. Next to your paling comes your low stone dyke, your mountain fence, indicative at a glance either of wild hill country, or of beds of stone bencath the soil; the hedge of the mountains-delightful in all its associations, and yet more in the varied and craggy forms of the loose stones it is built of: and next to the low stone wall, your lowland hedge, either in trim line of massive green, suggestive of the pleasances of old Elizabethan houses, and smooth allers for aged feet, and quaint labyrinths for young ones, or else in fair entanglement of eglantine and rirgin's bower, tossing its scented luxuriance along our country waysides:-how many such you have here among your pretty hills, fruitful with
black clusters of the bramble for boys in autumn, and crimson hawthorn-berries for birds in winter. And then last, and most diffieult to class among fences, comes your hand-rail, expressive of all sorts of things; sometimes having a knowing and vicious look, which it learns at racc-courses; sometimes an innocent and tender look, which it learns at rustic bridges over cressy brooks; and sometimes a prudent and protective look, which it learns on passes of the Alps, where it has posts of granite and bars of pine, and guards the brows of eliffs and the banks of torrents. So that in all these kinds of defense there is some good, pleasant, or noble meaning. But what meaning has the iron railing? Either, observe, that you are living in the midst of such bad characters that you must keep them out by main force of bar, or that you are yourself of a character requiring to be kept inside in the same manner. Your iron railing always means thieves outside, or Bedlam inside; -it can mean nothing else than that. If the people outside were good for anything, a hint in the way of fence would be enough for them; but because they are violent and at enmity with you, you are forced to put the close bars and the spikes at the top. Last summer I was lodging for a little while in a cottage in tho country, and in front of my low window there were, first, some beds of daisies, then a row of gooseberry and currant bushes, and then a low wall about three feet above the ground, covered with stone-cress. Outside, a corn-field, with its green ears glistening in the sun, and a field path through it, just past the garden gate. From my window I could see every peasant of the village who passed that way, with basket on arm for market, or spade on shoulder for field. When I was inclined for society, I could lean over my wall, and talk to anybody'; when I was inclined for science, I could botanizo all along the top of my wall-there were four species of stonecress alone growing on it; and when $I$ was inclined for excreise, I could jump over my wall, backwards and forwards. That's the sort of fence to have in a Christian country; not a thing which you can't walk inside of without


IRON WORK OF BELLINZONA.
making yourself look like a wild beast, nor look at out of your window in the morning without expecting to see somebody impaled upon it in the night.
166. And yet farther, observe that the iron railing is a useless fence-it can shelter nothing, and support nothing; you can't nail your peaches to it, nor protect your flowers with it, nor make anything whatever out of its costly tyranny; and besides being useless, it is an insolent fence ;it says plainly to everrbody who passes-" You may be an honest person,-but, also, you may be a thief: honest or not, you shall not get in here, for I am a respectable person, and much above you; you shall only see what a grand place I have got to keep you out of-look here, and depart in humiliation."
167. This, however, being in the present state of civilization a frequent manner of discourse, and there being unfortunately many districts where the iron railing is unavoidable, it yet remains a question whether you need absolutely make it ugly, no less than significative of evil. You must have railings round your squares in London, and at the sides of your areas; but need you therefore have railings so ugly that the constant sight of them is enough to neutralize the effect of all the schools of art in the kingdom? You need not. Far from such necessity, it is even in vour power to turn all your police force of iron bars actually into drawing masters, and natural historians. Not, of course, without some trouble and some expense; you can do nothing much worth doing, in this world, without trouble, sou can get nothing much worth having, without expense. The main question is only-what is worth doing and having:-Consider, therefore, if this is not. Here is your iron railing, as yet, an uneducated monster; a somber seneschal, incapable of any words, except his perpetual " Keep out!" and "Away with you!" . Would it not be worth some trouble and cost to turn this ungainly ruffian porter into a well-educated servant; who, while he was severe as ever in forbidding entrance to evilly disposed people, should yet have a kind word
for well-disposed people, and a pleasant look, and a little useful information at his command, in case he should be asked a question by the passers-by?

16s. We have not time to-night to look at many examples of ironwork; and those I happen to have by me are not the best: ironwork is not one of my special subjects of study; so that I only have memoranda of bits that happened to come into pieturesque subjects which I was drawing for other reasons. Besides, external ironwork is more difficult to find good than any other sort of ancient art ; for when it gets rusty and broken, people are sure, if they can afford it, to send it to the old iron shop, and get a fine new grating instead; and in the great cities of Italy the old iron is thus nearly all gone: the best bits I remember in the open air were at Brescia;fantastic sprays of laurel-like foliage rising over the garden getes; and there are a few fine fragments at Verona, and some good trellis-work cuclosing the Scala tombs; but on the whole, the most interesting picces, though by no means the purest in style, are to be found in out-of-the-way provincial towns, where people do not care, or are unable, to make polite alterations. The little town of Bellinzona, for instance, on the south of the $\Lambda_{p} \mathrm{ps}$, and that of Sion on the north, have both of them complete schools of ironwork in their balconies and rineyard gates. That of Bellinzona is the best, though not very old-I suppose most of it of the seventeenth century; still it is rery quaint and beautiful. Here, for example, are firo balconies, from two different houses. One has been a cardinal's, and the hat is the principal ornament of the balcony, its tassels being wrought with delightful delicacy and freedom; and eatching the eye elearly even among the mass of rich wreathed leares. These tassels and strings are precisely the kind of subject fit for ironwork-noble in ironwork, they would have been entirely ignoble in marble, on the grounds above stated. The real plant of oleander standing in the window enriches the whole group of lines very happily.
169. The other balcony, from a very ordinary-looking
house in the same street, is much more interesting in its details. It appeared last summer with convolvulus twined about the bars, the arrow-shaped living leaves mingled among the leaves of iron. It is composed of a large tulip in the center; then two turkscap lilies; then two pinks, a little conventionalized; then two narcissi ; then two nondescripts, or, at least, flowers I do not know; and then two dark buds, and a few leaves; I say darh buds, for all these flowers have been colored in their original state. The plan of the group is exceedingly simple: it is all enclosed in a pointed areh, the large mass of the tulip forming the apex; a six-foiled star on each side; then a jagged star; then a five-foiled star; then an unjagged star or rose; finally a small bud, so as to establish relation and cadence through the whole group. The profile is very free and fine, and the upper bar of the balcony exceedingly beautiful in effect;-none the less so on account of the marvelously simple means employed. A thin strip of iron is bent orer a square rod; out of the edge of this strip are cut a series of triangular openings-widest at top, leaving projecting teeth of iron; then each of these projecting pieces gets a little sharp tap with the hammer in front, which breaks its edge inwards, tearing it a little open at the same time, and the thing is done.
170. The common forms of Swiss ironwork are less naturalistic than these Italian balconies, depending more on beautiful arrangements of various curve; nevertheless there has been a rich naturalist school at Fribourg, where a few bellhandles are still left, consisting of rods branched into laurel and other leafage. At Geneva, modern improvements havo left nothing; but at Annecy a little good work remains; the balcony of its old hotel de ville especially, with a trout of the lake-presumably the town arms-forming its central ornament.
171. I might expatiate all night-if you would sit and hear me-on the treatment of such required subject, or introduction of pleasant caprice by the old workmen; but we have no more time to spare, and I must quit this part of our
subject-the rather as I could not explain to you the intrinsic merit of such ironwork withont going fully into the theory of curvilinear design; only let me leave with you this ono distinct assertion-that the quaint beauty and character of many natural oljects, such as intricate branches, grass, foliage (especially thorny branches and prickly foliage), as well as that of many animals, plumed, spined, or bristled, is seulpturally expressible in iron only, and in iron would be majestic and impressive in the highest degree; and that every piece of metal work you use might be, rightly treated, not only a superb decoration, but a most valuable abstract of portions of natural forms, holding in dignity preciscly the same relation to the painted representation of plants that a statue does to the painted form of man. It is difficult to give you an idea of the grace and interest which the simplest objects possess when their forms are thus abstracted from among the surrounding of rich circumstances which in nature disturbs the fcebleness of our attention. Every cluster of herbage would fumish fifty such groups, and every such group would work into iron (fitting it, of course, rightly to its service) with perfect ease, and endless grandeur of result.
172. III. Tron in Policy.-Having thus obtained some idea of the use of iron in art, as dependent on its ductility, I need not, certainly, say anything of its uses in manufacture and commerce; we all of us know enough-perhaps a little too much-about them. So I pass lastly to consicler its uses in policy; dependent chiefly upon its tenacity-that is to say, on its power of bearing a pull, and receiving an edge. These powers, which enable it to pierce, to bind, and to smite, render it fit for the three great instruments by which its political action may be simply trpified; namely, the Plow, the Fetter, and the Sword.
173. On our understanding the right use of these three instruments depend, of course, all our power as a nation, and all our happiness as individuals.
174. (1) The Plow.-I say, first, on our understanding the right use of the plow, with which, in justice to the


THE GRASS OF THE FIELD.
fairest of our laborers, we must always associate that feminine plow-the needle. The first requirement for the happiness of a nation is that it should understand the function in this world of these two great instruments: a happy nation may be defined as one in which the husband's hand is on the ylow, and the housewife's on the needle; so in due time reaping its golden harvest, and shining in golden resture: and an unhappy nation is one which, acknowledging no use of plow nor needle, will assuredly at last find its storehouse empty in the famine, and its breast naked to the cold.
175. Perhaps you think this is a mere truism, which I am wasting your time in repeating. I wish it were.
176. By far the greater part of the suffering and crime which exist at this moment in civilized Europe, arises simply from people not understanding this truism-not knowing that produce or wealth is eternally connected by the laws of hearen and earth with resolute labor; but hoping in some way to cheat or abrogate this everlasting law of life, and to feed where they have not furrowed, and be warm where they have not woven.
177. I repeat, nearly all our misery and crime result from this one misapprehension. The law of nature is, that a certain quantity of work is necessary to produce a certain quantity of good, of any kind whatever. If you want knowledge, you must toil for it: if food, you must toil for it: and if pleasure, you must toil for it. But men do not acknowledge this law ; or strive to evade it, hoping to get their knowledge, and food, and pleasure for nothing: and in this effort they either fail of getting them, and remain ignorant and miserable, or they obtain them by making other men work for their benefit; and then they are tyrants and robbers. Yes, and worse than robbers. I am not one who in the least doubts or disputes the progress of this century in many things useful to mankind; but it seems to me a rery dark sign respecting us that we look with so much indifference upon dishonesty and cruelty in the pursuit of wealth. In the dream of Nebuchadnezzar, it was only the feet that were part of iron and
part of clay; but many of ns are now getting so cruel in our ararice that it seems as if, in us, the heart were part of iron, part of clay.
178. From what I have hearl of the inhabitants of this town, I do not doubt but that I may be permitted to do here what I have found it usually thought elsewhere highly improper and absurd to do, namely, trace a few Bible sentences to their practical result.
179. You cannot but have notiend how often in those parts of the Bible which are likely to be oftenest opened when people look for gridance, comfort, or help in the affairs of daily life,-namely, the Psalms and Proverbs,-mention is made of the guilt attaching to the Oppression of the poor. Observe: not the neglect of them, but the Oppression of them: the word is as frequent as it is strange. You can hardly open cither of those books, but somewhere in their pages you will find a description of the wicked man's attempts against the poor: such as,-" He doth ravish the poor when he getteth him into his net."
" He sitteth in the lurking places of the villages; his eyes are privily set against the poor."
"In his pride he doth persecute the poor, and blesseth the covetous, whom God abhorreth."
"His mouth is full of deceit and frand ; in the secret places doth he murder the immocent. Have the workers of iniquity no knowledge, who eat up my people as they cat bread? They have drawn out the sword, and bent the bow, to east down the poor and needy."
"They are corrupt, and speak wickedly concerning oppression."
"Pride compasseth them about as a chain, and violence as a garment."
"Their poison is like the poison of a serpent. Ye weigh the riolence of your hands in the earth."
180. Yes: "Ye weigh the violence of your hands:"weigh these words as well. The last things we ever usually think of weighing are Bible words. We like to dream and
dispute orer them; but to weigh them, and see what their true contents are-anything but that. Yet, weigh these; for I have purposely taken all these verses, perhaps more striking to you read in this connection than separately in their places, out of the Psalms, because, for all people belonging to the Established Church of this countre, these Psalms are appointed lessons, portioned out to them by their clergy to be read once through every month. Presumably, therefore, whatever portions of Scripture we may pass by or forget, these, at all events, must be brought continually to our observance as useful for direction of daily life. Now, do we ever ask ourselves what the real meaning of these passages may be, and who these wicked people are, who are " murdering the innocent"? Youknow it is rather singular language, this!-rather strong language, we might, perhaps, call itlearing it for the first time. Murder! and murder of innocent people!-nay, ereu a sort of cannibalism. Eating peo-ple,-yes, and God's people, too-eating My people as if they were bread! swords drawn, bows bent, poison of serpents mixed! violence of hands weighed, measured, and trafficked with as so much coin !-where is all this going on? Do you suppose it was only going on in the time of David, and that nobody but Jews ever murder the poor? If so, it would surely be wiser not to mutter and mumble for our daily lessons what does not conceru us; but if there be any chance that it may concern us, and if this description, in the Psalms, of human guilt is at all generally applicable, as the descriptions in the Psalms of human sorrow are, may it not be advisable to know wherein this guilt is being committed round about us, or by ourselves? and when we take the words of the Bible into our mouths in a congregational way, to be sure whether we mean merely to chant a piece of melodions poetry relating to other people-(we know not exactly to whom) -or to assert our belief in facts bearing somewhat stringently on ourselves and our daily business. And if you make up vour minds to do this no longer, and take pains to examine into the matter, you will find that these strange words, occurring
as they do, not in a few places only, but almost in every alternate psalm and every alternate chapter of proverb or prophecy, with tremendous reiteration, were not written for one nation or one time only, but for all mations and languages, for all places and all centuries; and it is as true of the wicked man now as ever it was of Nabal or Dives, that " his eyes are set against the poor."
181. Set against the poor, mind you. Not merely set away from the poor, so as to neglect or lose sight of them, but set against, so as to afflict and destroy them. This is the main point I want to fix your attention upon. You will often hear sermons about neglect or carelessness of the poor. But neglect and carelessness are not at all the points. The Bible hardly ever talks about neglect of the poor. It always talks of oppression of the poor-a very different matter. It does not merely speak of passing by on the other side, and binding up no wounds, but of drawing the sword and ourselves smiting the men down. It does not charge us with being illle in the pest-house, and giving no medicine, but with being busy in the pest-house, and giving much poison.
182. May we not advisedly look into this matter a little, even to-night, and ask first, Who are these poor?
183. No country is, or ever will be, without them: that is to say, without the class which cannot, on the arerage, do more by its labor than provide for its subsistence, and which has no accumulations of property laid by on any considerable scale. Now there are a certain number of this class whom we cannot oppress with much severity. An able-bodied and intelligent workman-sober, honest, and industrious,-will almost always command a fair price for his work, and lay by enough in a few years to enable him to hold his own in the labor market. But all men are not able-bodied, nor intelligent, nor industrious; and you cannot expect them to be. Nothing appears to me at once more ludicrous and more melancholy than the way the people of the present age usually talk about the morals of laborers. You hardly ever address a laboring man upon his prospects in life, without quietly as-
suming that he is to possess, at starting, as a small moral capital to begin with, the virtue of Socrates, the philosophy of Plato, and the heroism of Epaminondas. "Be assured. my good man,"-you say to him,-"" that if you work steadily for ten hours a day all your life long, and if you drink nothing but water, or the very mildest beer, and live on very plain food, and never lose your temper, and go to church every Sunday, and always remain content in the position in which Providence has placed you, and never grumble, nor swear; and always keep your clothes decent, and rise earlv, and use every opportunity of improving yourself, you will get on very well, and never come to the parish."
184. All this is exceedingly true; but before giving the advice so confidently, it would be well if we sometimes tried it practically ourselves, and spent a year or so at some hard manual labor, not of an entertaining kind-plowing or digging, for instance, with a very moderate allowance of beer; nothing but bread and cheese for dimner ; no papers nor muffins in the morning; no sofas nor magazines at night; one small room for parlor and kitchen; and a large family of children always in the middle of the floor. If we think we could, under these circumstances, enact Socrates, or Epaminondas, entirely to our own satisfaction, we shall be somewhat justified in requiring the same behavior from our poorer neighbors; but if not, we should surely consider a little whether among the various forms of the oppression of the poor, we may not rank as one of the first and likcliest-the oppression of expecting too much from them.
185. But let this pass; and let it be admitted that we never can be guilty of oppression towards the sober, industrious, intelligent, exemplary laborer. There will always be in the world some who are not altogether intelligent and exemplary; we shall, I beliese, to the end of time find the majority somewhat unintelligent, a little inclined to be idle, and occasionally, on Saturday night, drunk: we must even be prepared to hear of reprobates who like skittles on Sunday
morning better than prayers; and of umatural parents who send their children ont to beg instead of to go to school.
186. Now these are the kind of people whom you can oppress, and whom you do oppress, and that to purpose,-and with all the more cruclty and the greater sting, because it is just their own fault that puts them into your power. You know the words about wicked people are, " He doth ravish the poor when he getteth him into his net." This getting into the net is constantly the fanlt or folly of the sufferer-his own heedlessness or his own indolence; but after he is once in the net, the oppression of him, and making the most of his distress, are ours. The nets which we use against the poor are just those worldly embarrassments which either their ignorance or their improvidence are almost certain at some time or other to bring them into: then, just at the time when we ought to hasten to help them, and disentangle them, and teach them how to manage better in future, we rush forward to pillage them, and force all we can out of them in their adversity. For, to take one instance only, remember this is literally and simply what we do, whencrer we buy, or try to buy, cheap goods-goods offered at a price which we know cannot be remunerative for the labor involved in them. Whenever we buy such goods, remember we are stealing somebody's labor. Don't let us mince the matter. I say, in plain Saxon, steal-ing-taking from him the proper reward of his work, and putting it into our own pocket. You know well enough that the thing could not have been offered you at that price, unless distress of some kind had forced the producer to part with it. You take advantage of this distress, and you forco as much out of him as you can under the circumstances. The old barons of the Middle Ages used, in general, the thumbscrew to extort property; we moderns use, in preference, hunger, or domestic affliction: but the fact of extortion remains precisely the same. Whether we force the man's propcrty from him by pinching his stomach, or pinching his fingers, makes some difference anatomically ;-morally, none whatsoever : we use a form of torture of some sort in order to
make him give up his property; we use, indeed, the man's own anxieties, instead of the rack; and his immediate peril of starration, instead of the pistol at the head; but otherwise we differ from Front de Bœuf, or Dick Turpin, merely in being less dexterous, more cowardly, and more cruel. More cruel, I say, because the fierce baron and the redoubted highwayman are reported to hare rubbed, at least by preference, only the rich; we steal habitually from the poor. We buy our liveries, and gild our prayer-books, with pilfered pence out of children's and sick men's wages, and thus ingeniously dispose a given quantity of Theft, so that it may produce the largest possible measure of delicately-distributed suffering.
157. But this is only one form of common oppression of the poor-only one way of taking our hands off the plowhandle, and binding another's upon it. The first way of doing it is the economical way-the way preferred by prudent and virtuous people. The bolder way is the acquisitive way: -the way of speculation. You know we are considering at present the various modes in which a nation corrupts itself, by not acknowledging the eternal connection between its plow and its pleasure;-by striving to get pleasure, without working for it. Well, I say the first and commonest way of doing so is to try to get the product of other people's work, and eujoy it ourselves, by cheapening their labor in times of distress; then the second way is that grand one of watching the chances of the market;-the way of speculation. Of course there are some speculations that are fair and honest-speculations made with our own money, and which do not involve in their success the loss, by others, of what we gain. But generally modern speculation involves much risk to others, with chance of profit only to ourselves; even in its best conditions it is merely one of the forms of gambling or treasurehunting: it is either leaving the steady plow and the steady pilgrimage of life, to look for silcer mines beside the way; or else it is the full stop beside the dice-tables in Vanity Fair -investing all the thoughts and passions of the soul in the fall of the cards, and choosing rather the wild accidents of
idtle fortune than the calm and accumulative rewards of toil. And this is destructive enough, at least to our peace and virtue. But it is usually destructive of far more than our peace, or our virtue. Have you ever deliberately set yourselves to imagine and measure the suffering, the guilt, and the mortality caused necessarily ly the failure of any large-dealing merchant, or largely-branched bank? Take it at the lowest possible supposition-count, at the fewest you choose, the families whose means of support have been involved in the catastrophe. Then, on the morning after the intelligence of ruin, let us go forth amongst them in earnest thought; let us use that imagination which we waste so often on fictitious sorrow, to measure the stern facts of that multitudinous distress; strike open the private doors of their chambers, and enter silently into the midst of the domestic misery; look upon the old men, who had reserved for their failing strength some remainder of rest in the evening-tide of life, cast helplessly back into its trouble and tumult ; look upon the active strength of middle age suddenly blasted into incapacity-its hopes crushed, and its hardly-carned rewards snatched away in the same instant-at once the heart withered, and the right arm snapped; look upon the piteous children, delicately nurtured, whose soft eyes, now large with wonder at their parents' grief, must soon le set in the dimness of famine; and, far more than all this, look forward to the length of sorrow be-yond- to the hardest labor of life, now to be undergone either in all the sererity of mexpected and inexperienced trial, or else, more bitter still, to be begun again and endured for the second time, amidst the ruins of cherished hopes and the fecbleness of advancing years, embittered by the continual sting and taunt of the inner feeling that it has all been brought about, not by the fair course of appointed circumstance, but by miserable chance and wanton treachery; and, last of all, look heyond this-to the shattered destinies of those who have faltered under the trial, and sunk past recovery to despair. And then consider whether the hand which has poured this poison into all the springs of life be one whit
less guiltily red with human blood than that which literally pours the hemlock into the cup, or guides the dagger to the heart? Wre read with horror of the crimes of a Borgia or a Tophana; but there never lived Borgias such as live now in the midst of us. The cruel lady of Ferrara slew only in the strength of passion-she slew only a few, those who thwarted her purposes or who vexed her soul; she slew sharply and suddenly, embittering the fate of her victims with no foretastes of destruction, no prolongations of pain; and, finally and chiefly, she slew not without remorse nor without pity. But ue, in no storm of passion,-in no blindness of wrath,-we, in calm and clear and untempted selfishness, pour our poison -not for a few only, but for multitudes;-not for those who have wronged us, or resisted, -but for those who have trusted us and aided;-we, not with sudden gift of merciful and unconscious death, but with slow waste of hunger and weary rack of disappointment and despair!we, lastly and chiefly, do our murdering, not with any pauses of pity or scorching of conscience, but in facile and forgetful calm of mind-and so, forsooth, read day by day, complacently, as if they meant any one else than ourselves, the words that for ever describe the wicked: "The poison of asps is under their lips, and their feet are swift to shed blood."
188. You may indeed, perhaps, think there is some excuse for many in this matter, just because the sin is so unconscious; that the guilt is not so great when it is unapprehended, and that it is much more pardonable to slay heedlessly than purposefully. I believe no feeling can be more mistaken; and that in reality, and in the sight of hearen, the callous indifference which pursues its own interests at any cost of life, though it does not definitely adopt the purpose of sin, is a state of mind at once more heinous and more hopeless than the wildest aberrations of ungoverned passion. There may be, in the last case, some elements of good and of redemption still mingled in the character ; but, in the other, few or none. There may be hope for the man who has slain his enemy in
anger;-hope even for the man whon has betrayed his friend in fear; lut what hope for him who trades in unregarded blood, and builds his fortune on umrepented treason?
189. But, however this may be, and wherever you may think vourselves bound in justice to impute the greater sin, be assured that the question is one of responsibilities only, not of facts. The definite result of all our modern haste to be rich is assuredly, and constantly, the murder of a certain number of persons by our hands every year. I have not time to go into the details of another-on the whole, the broadest and terriblest way in which we canse the destruction of the poor-nanely, the way of luxury and waste, destroring, in improvidence, what might have been the support of thousands;* but if you follow ont the sulject for yourselves at home-and what I have endearored to lay before you tonight will only be useful to you if you do-you will find that wherever and whenerer men are endearoring to mate money hastily, and to avoid the labor which Providence has appointed to be the only source of honorable profit;-and also wherever and whenever they permit themselves to spend it luxuriously, without reflecting how far they are misguiding the labor of others;-there and then, in either case, they are literally and infallibly eausing, for their own benefit or their own pleasure, a certain annual number of human deaths; that. thercfore, the choice given to every man born into this world is, simply, whether he will be a laborer or an assassin ; and that whosocerer has not his hand on the Stilt of the plow, has it on the Hilt of the dagger.

[^94]190. It would also be quite rain for me to endeavor to follow out this evening the lines of thought which would be suggested by the other two great political uses of iron in the Fetter and the Sword: a few words only I must permit myself respecting both.
191. (2) The Fetter.-As the plow is the typical instrument of industry, so the fetter is the typical instrument of the restraint or subjection necessary in a nation-either literally, for its evildoers, or figuratively, in aecepted laws, for its wise and good men. You have to choose between this figurative and literal use; for depend upon it, the more laws you accept, the fewer penalties you will have to endure, and the fewer punishments to enforce. For wise laws and just restraints are to a noble nation not chains, but chain mailstrength and defense, though something also of an incumbrance. And this necessity of restraint, remember, is just as honorable to man as the necessity of labor. You hear every day greater numbers of foolish people speaking about liberty, as if it were such an honorable thing: so far from being that, it is on the whole, and in the broadest sense, dishonorable, and an attribute of the lower creatures. No human being̣, however great, or powerful, was ever so free as a fish. There is always something that he must, or must not do ; while the fish may do whatever he likes. All the kingdoms of the world put together are not half so large as the sea, and all the railroads and wheels that ever were, or will be, invented are not so easy as fins. You will find on fairly thinking of it, that it is his Restraint which is honorable to man, not his Liberty; and, what is more, it is restraint which is honorable even in the lower animals. A butterfly is much more free than a bee; but you honor the bee more, just because it is subject to certain laws which fit it for orderly function in bee society. And throughout the world, of the two abstract things, liberty and restraint, restraint is always the more honorable. It is true, indeed, that in these and all other matters you never can reason finally from the abstraction, for both liberty and restraint are good when they are nobly
chosen, and both are bad when they are basely chosen; but of the two, I repeat, it is restrant which characterizes the higher creature, and betters the lower creature: and, from the mintstering of the arehangel to the labor of the insect,-from the poising of the planets to the gravitation of a grain of dust,-the power and glory of all creatures, and all matter, consist in their obedience, not in their freedom. The Sun has no liberty-a dead leaf has much. The dust of which you are formed has no liberty. Its liberty will come-with its corruption.
192. And, therefore, I say boldly, though it seems a strange thing to say in England, that as the first power of a nation consists in knowing how to guide the Plow, its second power consists in knowing how to wear the Fetter:-
193. (3) The Sword,-And its third power, which perfects it as a nation, consists in knowing how to wicld the sword, so that the three talismans of national existence are expressed in these three short words-Labor, Law, and Courage.

194 . This last virtue we at least possess; and all that is to be alleged against us is that we do not honor it enough. I do not mean honor by acknowledgment of service, though sometimes we are slow in doing even that. But we do not honor it enough in consistent regard to the lives and souls of our soldiers. How wantonly we have wasted their lives you have seen lately in the reports of their mortality by disease, which a little care and science might have prevented; but we regard their souls less than their lives, by keeping them in ignorance and idleness, and regarding them merely as instruments of battle. The argument brought forward for the maintenance of a standing army usually refers only to expediency in the case of unexpected war, whereas, one of the chief reasons for the maintenance of an army is the advantage of the military system as a method of education. The most fiery and headstrong, who are often also the most gifted and generous of your youths, have always a tendency both in the lower and upper classes to offer themselves for your soldiers:
others, weak and unserviceable in the civil capacity, are tempted or entrapped into the army in a fortunate hour for them : out of this fiery or uncouth material, it is only soldier's discipline which can bring the full value and power. Eren at present, by mere force of order and authority, the army is the salration of myriads; and men who, under other cireumstances, would have sunk into lethargy or dissipation, are redeemed into noble life by a service which at once summons and directs their energies. How much more than this, military education is capable of doing, you will find only when you make it education indeed. We have no excuse for leaving our private soldiers at their present level of ignorance and want of refinement, for we shall invariably find that, both among officers and men, the gentlest and best informed are the bravest ; still less have we excuse for diminisining our army, either in the present state of political events, or, as I believe, in any other conjunction of them that for many a year will be possible in this world.
195. You may, perhaps, be surprised at my saying this; perhaps surprised at my implying that war itself can be right, or necessary, or noble at all. Nor do I speak of all war as necessary, nor of all war as noble. Both peace and war are noble or ignoble according to their kind and occasion. No man has a profounder sense of the horror and guilt of ignoble war than I have: I have personally seen its effects, upon nations, of ummitigated evil, on soul and body, with perhaps as much pity, and as much bitterness of indignation, as any of those whom you will hear continually declaiming in the cause of peace. But peace may be sought in two ways. One way is as Gideon sought it, when he built his altar in Ophrah, naming it, "God send peace," yet sought this peace that he lored, as he was ordered to seek it, and the peace was sent, in God's way:-" the country was in quietness forty years in the days of Gideon." And the other way of seeking peace is as Menaliem sought it, when he gave the King of Assyria a thousand talents of silver, that "his hand might be with him." That is, you may either win your peace, or buy
it:-win it, by resistance to evil;-buy it, by compromise with eril. You may buy your peace, with silenced con-sciences;-you may buy it, with broken rows,-buy it, with lying words,-buy it, with base comivances,-buy it, with the blood of the slain, and the cry of the captive, and the silence of lost souls-over hemispheres of the earth, while Yon sit smiling at your serene hearths, lisping comfortable prayers evening and morning, and counting your pretty Protestant beads (which are flat, and of gold, instead of round, and of ebony, as the monks' ones were), and so mutter continually to yourselves, "Peace, peace," when there is No peace ; but only captivity and death, for you, as well as for those you leave unsaved;-and yours darker than theirs.
196. I cannot utter to you what I would in this matter; we all see too dimly, as yet, what our great world-duties are, to allow any of us to try to outline their enlarging shadows. But think over what I have said, and as you return to your quiet homes to-night, reflect that their peace was not won for you by your own hands; but by their's who long ago jeoparded their lives for you, their children; and remember that neither this inherited peace, nor any other, can be kept, but through the same jeopardy. No peace was ever won from Fate by subterfuge or agrecment; no peace is ever in store for any of us, but that which we shall win by vietory over shame or sin;-victory orer the sin that oppresses, as well as over that which corrupts. For many a year to come, the sword of every righteous nation must be whetted to save or to subdue; nor will it be by patience of others' suffering, but by the offering of your own, that you will ever draw nearer to the time when the great change shall pass upon the iron of the earth; -when men shall beat their swords into plowshares, and their spears into pruning-hooks; neither shall they learn war any more.

## APPENDICES.

## APPENDIX I.

## Right and Wrong.

Readers who are using my 'Elements of Drawing' may be surprised by my saying here that Tintoret may lead them wrong; while at page 345 of the 'Elements' he is one of the six men named as leing " always right."

I bring the apparent inconsistency forward at the beginning of this Appendix, becanse the illustration of it will be farther useful in showing the real nature of the self-contradiction which is often alleged against me by careless readers.

It is not only possible, but a frequent condition of human action, to do right and be right-yet so as to mislead other people if they rashly imitate the thing done. For there are many rights which are not absolutely, but relatively rightright only for that person to do under those circumstances,not for this person to do under other circumstances.

Thus it stands between Titian and Tintoret. Titian is always absolutely Right. You may imitate him with entire security that you are doing the best thing that can possibly be done for the purpose in hand. Tintoret is always relatively Right-relatively to his own aims and peculiar powers. But you must quite understand Tintoret before you can be sure what his aim was, and why he was then right in doing what would not be right always. If, however, you take the pains thus to understand him, he becomes entirely instructive and exemplary, just as Titian is: and therefore $I$ have placed him among those who are "always right," and you can only study him rightly with that reverence for him.

Then the artists who are named as " admitting question of right and wrong," are those who from some mischance of ciremmstance or shorteoming in their education, do not always do right, even with relation to their own aims and powers.

Take for example the quality of imperfection in drawing form. There are many pictures of 'Tintoret in which the trees are drawn with a few curved flourishes of the brush instead of leaves. That is (absolutely) wrong. If you copied the tree as a model, you would be going very wrong indeed. But it is relativels, and for 'Tintoret's purposes, right. In the nature of the superficial work you will find there must have been a cause for it. Somebody perhaps wanted the picture in a hurry to fill a dark corner. Tintoret good-naturedly did all he could-painted the figures tolerably-had five minutes left only for the trees, when the servant came. "Let him wait another fire mimutes." And this is the best foliage we can do in the time. Entirely, arlmirably, unsurpassably right, under the conditions. Titian would not have worked under them, but Tintoret was kinder and humbler; yet he may lead you wrong if you don't understand him. Or, perhaps, another day, someborly came in while Tintoret was at work, who tormented Tintoret. An ignoble person! Titian would have been polite to him, and gone on steadily with his trees. Tintoret eamot stand the ignobleness; it is unendurably repulsive and diseomfiting to him. "The Black Plagne take him-and the trees, too! Shall such a fellow see me paint?" And the trees go all to pieces. This, in yon, would be mere ill-breeding and ill-temper. In Tintoret it was one of the necessary conditions of his intense sensibility; had he been capable, then, of keeping his temper, he could never have done his greatest works. Let the trees go to pieces, by all means; it is quite right they should; he is always right.

But in the background of Gainsborough you would find the trees unjustifially gone to pieces. The carelessness of form there is definitely purposed by him; adopted as an advisable thing; and therefore it is both absolutely and relatively wrong; -it indicates his being imperfectly educated as a
painter, and not having brought out all his powers. It may still happen that the man whose work is thus partially erroncous is greater far than others who have fewer fanlts. Gainsborough's and Reynolds' wrongs are more charming than almost anybody else's right. Still, they occasionally are wrong-but the Venctians and Velasquez,* never.

I ought, perhaps, to have added in that Manchester address (only one does not like to say things that shock people), some words of warning against painters likely to mislead the student. For indeed, though here and there something may be gained by looking at inferior men, there is always more to be gained by looking at the best; and there is not time, with all the looking of human life, to exhanst even one great painter's instruction. How then shall we dare to waste our sight and thonghts on inferior ones, even if we could do so, which we rarely can, without danger of being led astray? Nay, strictly speaking, what people call inferior painters are in general no painters. Artists are divided by an impassable gulf into the men who can paint, and who cannot. The men who can paint often fall short of what they should have done; are repressed, or defeated, or otherwise rendered inferior one to another; still there is an everlasting barrier between them and the men who cannot paint-who can only in varions popular ways pretend to paint. And if once sou know the difference, there is always some good to be got by looking at a real painter-sclelom anything but mischief to be got out of a false one; but do not suppose real painters are common. I do not speak of living men; but among those who labor no more, in this England of ours, since it first had a school, we have had only five real painters;-Reynolds, Gainsborough, Ifogarth, Richard Wilson, and Turner.

The reader may, perhaps, think I have forgotten Wilkie. No. I once much overrated him as an expressional draughtsman, not having then studied the figure long enough to be able to detect superficial sentiment. But his color I have

[^95]never praised ; it is entirely false and valucless. And it would be unjust to English art if I did not here express my regret that the admiration of Constable, already harmfnl enough in England, is extending (wen into France. There was, perhaps, the making, in Constable, of a second or third-rate painter, if any careful discipline had developed in him the instinets which, though unparalleled for narrowness, were, as far as they went, true. But as it is, lie is nothing more than an industrious and imocent amateur blundering his way to a superficial expression of one or two popular aspects of common nature.

And my readers may depend upon it, that all blame which I express in this sweeping way is trustworthy. I have often had to repent of orer-praise of inferior men ; and continually to repent of insufficient praise of great men; but of broad condemnation, never. For I do not speak it but after the most searching examination of the matter, and under stern sense of need for it: so that whenerer the reader is entirely shocked by what I say, he may be assured every word is true.* It is just becanse it so much offends him, that it was necessary : and knowing that it must offend him, I should not have ventured to say it, without certainty of its truth. I say "certaintry" for it is just as possible to be certain whether the drawing of a tree or a stone is true or false, as whether the drawing of a triangle is; and what I mean primarily hy saying that a pieture is in all respects worthless, is that it is in all respects False: which is not a matter of opinion at all, lint a matter of ascertainable fact, such as I never assert till I have ascertained. And the thing so commonly said about my writings, that they are rather persuasive than just; and that though my "language" may be good, I am an unsafe guide in art eriticism, is, like many other popular estimates

[^96]in such matters, not merely untrue, but precisely the reverse of the truth; it is truth, like reflections in water, distorted much by the shaking receptive surface, and in every particular, upside down. For my "language," until within the last six or seren years, was loose, obscure, and more or less feehle; and still, though I have tried hard to mend it, the best I can do is inferior to much contemporary work. No description that I have ever given of anything is worth four lines of Temyson; and in serious thought, my half-pages are generally only worth about as much as a single sentence either of his, or of Carlyle's. They are, I well trust, as true and necessary; but they are neither so concentrated nor so well put. But I am an entirely safe guide in art judgment: and that simply as the necessary result of my having given the labor of life to the determination of facts, rather than to the following of feelings or theories. Not, indeed, that my work is free from mistakes; it admits many, and always must admit many, from its seattered range; but, in the long run, it will be found to enter sternly and searchingly into the nature of what it deals with, and the kind of mistake it admits is never dangerons-consisting, usually, in pressing the truth too far. It is quite easy, for instance, to take an aecidental irregularity in a piece of architecture, which less careful examination would never have detected at all, for an intentional irregularity; quite possible to misinterpret an obscure passage in a picture, which a less earnest observer would never have tried to interpret. But mistakes of this kind-honest, enthusiastic mistakes-are never harmful; because they are alwars made in a true direction,-falls forward on the road, not into the ditch beside it; and they are sure to be corrected by the next comer. But the blunt and dead mistakes made by too many other writers on art-the mistakes of sheer inattention, and want of sympathy-are mortal. The entire purpose of a great thinker may be diffieult to fathom, and we may be orer and over again more or less mistaken in guessing at his meaning ; but the real, pro-
found, nay, quite bottomless, and unredeemable mistake, is the fool's thought-that he had no meaning.

I do not refer, in saying this, to any of my statements respecting subjects which it has been my main work to study: as far as I am aware, I have never yet misinterpreted any picture of Turner's, though often remaining blind to the half of what he had intended: neither have I as yet found anything to correct in my statements respecting Venctian architecture;* but in casual references to what has been guickly seen, it is impossible to guard wholly against error, without losing much valuable observation, true in ninety-nine cases out of a hundred, and harmless even when erroneous.

## APPENDIX II.

## Reynolds' Disappointaent.

It is very fortunate that in the fragment of Mason's MSS., published lately by Mr. Cotton in his 'Sir Joshua Reynolds' Notes, $\dagger$ record is preserved of Sir Joshua's feclings respecting the paintings in the window of New College, which might otherwise have been supposed to give his full sanction to this mode of painting on glass. Nothing can possibly be more curious, to my mind, than the great painter's expectations; or his having at all entertained the idea that the qualities of color which are peculiar to opaque bodies could be obtained in a transparent medium; but so it is: and with the simplicity and humbleness of an entirely great man, he hopes that Mr.

[^97]Jervas on glass is to excel Sir Joshua on canvas. Happily, Mason tells us the result.
"With the copy Jervas made of this picture he was grierously disappointed. 'I had frequently', he said to me, 'pleased myself by reflecting, after I had produced what I thought a brilliant effect of light and shadow on my canvas, how greatly that effect would be heightened by the transparency which the painting on glass would be sure to produce. It turned out quite the reverse.' "

## APPENDIX III.

## Classical Architecture.

This passage in the lecture was illustrated by a woodcut copied from the 49 th plate of the third edition of the 'Encyelopædia Britannica' (Edinburgh, 1797), and representing an English farmhouse arranged on classical principles. If the reader cares to consult the work itself, he will find in the same plate another composition of similar propriety, and dignified by the addition of a pediment, beneath the shadow of which " a private gentleman who has a small family may find conveniency."

## APPENDIX IV.

## Stbtlety of Hand.

I had intended, in one or other of these lectures, to have spoken at some length of the quality of refinement in Color, but found the subject would lead me too far. A few words are, however, necessary in order to explain some expressions in the text.
"Refinement in color " iṣ indeed a tautological expression,
for eolor, in the true sense of the word, does not exist until it is refined. Dirt exists,-stains exist,-and pigments exist easily enough in all places; and are laid on easily chongh by all hands; hut color exists only where there is tenderness, and can be laid on only by a hand which has strong life in it. The law concerning color is very strange, rery noble, in some sense almost awful. In every given touch latd on canvas, if one grain of the color is inoperative, and dues not take its full part in producing the lue, the hue will be imperfect. The grain of color which does not work is dead. It infects all about it with its death. It must be got quit of, or the touch is spoiled. We acknowledge this instinctively in our use of the phrases "dead color," "killed color," "foul color." Those words are, in some sort, literally true. If more color is put on than is necessary, a heary touch when a light one would have been enough, the quantity of color that was not wanted, and is overlaid by the rest, is as dead, and it pollutes the rest. There will be no good in the touch.

The art of painting, properly so called, consists in laying on the least possible color that will produce the required result; and this measurement, in all the ultimate-that is to say, the principal-operations of coloring, is so delicate that not one human hand in a million has the required lightness. The final touch of any painter properly so named-of Correggio, Titian, Turner, or Reynolds-would be always quite invisible to any one watching the progress of the work, the films of hene being laid thinner than the depths of the grooves in mother-of-pearl. The work may be swift, apparently careless, nay, to the painter himself almost unconscions. Great painters are so organized that they do their best work without effort ; but analyze the touches afterwards, and you will find the structure and depth of the color laid mathematically demonstrable to be of literally infinite fineness, the last tonehes passing away at their edges by untraceable gradation. The very essence of a master's work may thus be removed by a pic-ture-cleaner in ten minutes.

Observe, however, this thimness exists only in portions of
the ultimate touches, for which the preparation may often have been made with solid colors, commonly, and literally, called " dead coloring; " but even that is alwars subtle if a master lars it-subtle at least in drawing, if simple in hue; and farther, observe that the refinement of work consists not in laying absolutely little color, but in always laying precisely the right quantity. To lay on little needs indeed the rare lightness of hand; but to lay much,--yet not one atom too much, and obtain subtlety, not by withholding strength, but by precision of panse,-that is the master's final sign-manual-power, knowledge, and tenderness all united. A great deal of color may often be wanted-perhaps quite a mass of it, such as shall project from the canvas; but the real painter lays this mass of its required thickness and shape with as much precision as if it were a bud of a flower which he had to touch into blossom; one of Turner's loaded fragments of white cloud is modeled and gradated in an instant, as if it alone were the subject of the picture, when the same quantity of color, under another hand, would be a lifeless lump.

The following extract from a letter in the 'Literary Gazette' of 13 th November, 18.55 , which I was obliged to write to defend a questioned expression respecting Turner's subtlety of hand from a charge of hyperbole, contains some interesting and conclusive evidence on the point, though it refers to pencil and chalk drawing only:-
" I must ask you to allow me yet leave to reply to the objections you make to two statements in my catalogue, as those objections would otherwise diminish its usefulness. I have asserted that, in a given drawing (named as one of the chief in the series), Turner's pencil did not move orer the thonsandth of an inch without meaning; and you charge this expression with extravagant hyperbole. On the contrary, it is much within the truth, being merely a mathematically accurate description of fairly good execution in either drawing or engraving. It is only necessary to measure a piece of any ordinarily good work to ascertain this. Take, for instance,

Finden's engraving at the 150th page of Rogers' poems; in which the face of the figure, from the chin to the top of the brow, oceupies just a quarter of an inch, and the space beween the upper lip and chin as nearly as possible one-serenteenth of an inch. The whole month occupies one-third of this space-say one-fiftieth of an inch; and within that space both the lips and the much more difficult inner corner of the mouth are perfectly drawn and rounded, with quite successful and sufficiently subtle expression. Any artist will assure fou that in order to draw a month as well as this, there must be more than twenty gradations of shade in the tonches; that is to say, in this case, gradations changing, with meaning, within less than the thousandth of an inch.
" But this is mere child's play compared to the refinement of any first-rate mechanical work-much more of brush or pencil drawing by a master's hand. In order at once to furnish you with authoritative evidence on this point, I wrote to Mr. Kingsley, tutor of Sidney-Sussex College, a friend to whon I always have recourse when I want to be precisely right in any matter; for his great knowledge both of mathematies and of natural science is joined, not only with singular powers of delicate experimental manipulation, but with a keen sensitiveness to beauty in art. IIis answer, in its final statement respecting Turncr's work, is amazing cven to me, and will, I should think, be more so to your readers. Observe the successions of measured and tested refinement: here is No. 1 :-
". The finest mechanical work that I know, which is not optical, is that done by Nobert in the way of ruling lines. I have a series ruled by him on glass, giving actual scales from . 000024 and .000016 of an inch, perfectly correct to these places of decimals: and he has executed others as fine as . 000012 , thongh I do not know how far he could repeat these last with accurace.'
"This is No. 1, of precision. Mr. Kingsley proceeds to No. 2:-
" ' But this is rude work compared to the aceuracy neces-
sary for the construction of the object-glass of a microscope such as Rosse turns out.'
" I am sorry to omit the explanation which follows of the ten lenses composing such a glass, 'each of which must be exact in radius and in surface, and all have their axes coincident:' but it would not be intelligible without the figure by which it is illustrated ; so I pass to Mr. Kingsley's No. 3 :-
" ' I am tolerably familiar,' he proceeds, 'with the actual grinding and polishing of lenses and specula, and have produced by my own hand some by no means bad optical work, and I have copied no small amount of Turner's work, and $I$ still look with awe at the combined delicacy and precision of his hand; it beats optical work out of sight. In optical work, as in refined drawing, the hand goes beyond the eye, and one has to depend upon the feel; and when one has once learned what a delicate affair toneh is, one gets a horror of all coarse work, and is ready to forgive any amount of feebleriess, sooner than that boldness which is akin to impudence. In opties the distinction is easily seen when the work is put to trial ; but here too, as in drawing, it requires an educated eye to tell the difference when the work is only moderately bad; but with "bold" work, nothing can be seen but distortion and fog; and I heartily wish the same result would follow the same kind of handling in drawing; but here, the boldness cheats the unlearned by looking like the precision of the truc man. It is rery strange how mnch better our ears are than our eyes in this country : if an ignorant man were to be "bold" with a violin, he would not get many admirers, thongh his boldness was far below that of ninety-nine out of a hundred drawings one sees.'
"The words which I have put in italies in the above extract are those which were surprising to me. I knew that Turner's was as refined as any optical work, but had no idea of its going beyond it. Mr. Kingsley's word 'awe 'occurring jast before, is, however, as I have often felt, precisely the right one. When once we begin at all to understand the hondling of any truly great executor, such as that of any of
the three great Venetians, of Correggio, or Turner, the awe of it is something greater than can be felt from the most stupendous natural scenery. For the creation of such a system as a high human intelligence, endowed with its ineffably perfect instruments of eye and hand, is a far more appalling manifestation of Infinite Power than the making either of seas or mountains.
" After this testimony to the completion of Turner's work, I need not at length defend myself from the charge of hyperbole in the statement that, 'as far as I know, the galleries of Europe may be challenged to produce one sketch* that shall equal the chalk study of No. 45 , or the feeblest of the memoranda in the 71st and following frames;' which memoranda, however, it should have been observed, are stated at the 44th page to be in some respects 'the grandest work in gray that he did in his life.' For I believe that, as manipulators, none but the four men whom I have just named (the three Venetians and Correggio) were equal to Turner ; and, as far as I know, none of those four ever put their full strength into sketches. But whether they did or not, my statement in the catalogue is limited by my own knowledge: and, as far as I can trust that knowledge, it is not an enthusiastic statement, but an entirely calm and considered one. It may be a mistake, but it is not a hyperbole."

## APPENDIX V.

It was noted in the text that the whole of this ironwork representing flowers had been colored. The diffieulty of coloring ironwork rightly, and the necessity of doing it in

[^98]some way or other, have been the principal reasons for my never having entered heartily into this subject; for all the ironwork I have ever seen look beantiful was rusty, and rusty iron will not answer modern purposes. Nevertheless it may be painted; but it needs some one to do it who knows what painting means, and few of us do-certainly none, as yet, of our restorers of decoration or writers on color.

It is a marvelous thing to me that book after book should appear on this last subject, without apparently the slightest consciousness on the part of the writers that the first necessity of beanty in color is gradation, as the first necessity of beauty in line is curvature,-or that the second necessity in color is mystery or subtletr, as the second necessity in line is softness. Color ungradated is wholly valueless; color unmysterious is wholly barbarous. Unless it loses itself, and melts away towards other colors, as a true line loses itself and melts away towards other lines, color has no proper existence, in the noble sense of the word. What a cube, or tetrahedron, is to organic form, ungradated and meonfused color is to organic color; and a person who attempts to arrange color harmonies without gradation of tint is in precisely the same category as an artist who should try to compose a beautiful picture out of an accumulation of cubes and parallelopipeds.

The value of hue in all illuminations on painted glass of fine periods depends primarily on the expedients used to make the colors palpitate and fluctuate; inequality of brilliancy being the condition of brilliancy, just as inequality of accent is the condition of power and loveliness in sound. The skill with which the thirteenth century illuminators in books, and the Indians in shawls and carpets, use the minutest atoms of color to gradate other colors, and confuse the eye, is the first secret in their gift of splendor; associated, however, with so many other artifices which are quite instinctive and unteachable, that it is of little use to dwell upon them. Delicacy of organization in the designer given, you will soon have all, and without it, nothing. Howerer, not to close my book with desponding words, let me set down, as
many of us like such things, five Laws to which there is no exception whatever, and which, if they can enable no one to produce good color, are at least, as far as they reach, accurately condemnatory of bad color.

1. All good color is gradated. A blush rose (or, better still, a blush itself,) is the type of rightness in arrangement of pure hue.
2. All halionies of color depend for their vitality on tife action and ifelpfll operition of every particle of color they contain.
3. The final particles of color necessary to the completeness of a color harmony are always infinitely smalle; either laid by immeasurably subtle touches of the pencil, or produced by portions of the coloring substance, however distributed, which are so absolutely small as to become at the intended distance infinitely so to the eye.
4. No color harmony is of ifigil order unless it inrolves indescribable tints. It is the best possible sign of a color when nobody who sees it knows what to call it, or how to give an idea of it to any one else. Even among simple lues the most valuable are those which cannot be defined; the most precious purples will look brown beside pure purple, and purple beside pure brown; and the most precious greens will be called blue if seen beside pure green, and green if seen beside pure blue.
5. The finer the eye for color, the less it will iequUire to gratify it intensely. But that little must be supremely good and pure, as the finest notes of a great singer, which are so near to silence. And a great colorist will make even the absence of color lovely, as the fading of the perfect roice makes silence sacred.

Note to second erlition. -The portions of this article referring to general subjects are preserved. The scratches given in example are of no importance.

## UNTO THIS LAST

## four $\mathfrak{C x y a n g ~}$

ON THE FIRST PRINCIPIES OF POLITICAL ECONOMY.

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${ }^{6}$ IF YE THINK GOOD, GIVE MIE MY PRICE ; AND IF NOT, FORBEAR. SO THEY WEIGHED FOR MY PRICE THIRTY PIECES OF SILYER."

## PREFACE.

1. The four following essays were published eighteen months ago in the 'Cornhill Magazine,' and were reprobated in a riolent manner, as far as I could hear, by most of the readers they met with.

Not a whit the less, I beliere them to be the best, that is to say, the truest, rightest-worded, and most serriceable things I have ever written; and the last of them, having had especial pains spent on it, is probably the best I shall ever write.
"This," the reader may reply, " it might be, yet not therefore well written." Which, in no mock humility, admitting, I yet rest satisfied with the work, though with nothing else that I have done; and proposing shortly to follow out the subjects opened in these papers, as I may find leisure, I wish the introductory statements to be within the reach of any one who may care to refer to them. So I republish the essays as they appeared. One word only is changed, correcting the estimate of a weight; and no word is added.*
2. Although, however, I find nothing to modify in these papers, it is matter of regret to me that the most startling of all the statements in them,--that respecting the necessity of the organization of labor, with fixed wages,-should have found its way into the first essay: it being quite one of the least important, though by no means the least certain, of the positions to be defended. The real gist of these papers, their central meaning and aim, is to give as I believe for the first time in plain English,-it has often been incidentally

[^99]given in good Greek by Plato and Xenophon, and good Latin by Cicero and Horace, -a logical definition of wealtir: such definition being absolutely needed for a basis of economical science. The most reputed essay on that subject which has appeared in modern times, after opening with the statement that " writers on political economy profess to teach, or to investigate," the nature of wealth," thus follows up the declaration of its thesis-" Erery one has a notion, sufficiently correct for common purposes, of what is meant by wealth." . . . "It is no part of the design of this treatise to aim at metaphysical nicety of definition." $\dagger$
3. Metaphysical nicety, we assuredly do not need; but physical nicety, and logical accuracy, with respect to a physical subject, we as assuredly do.

Suppose the subject of inquiry, instead of being Houselaw (Oikonomia), had been Star-law (Astronomia), and that, ignoring distinction between stars fixed and wandering, as here between wealth radiant and wealth reflective, the writer had begun thus: "Every one has a notion, sufficiently correct for common purposes, of what is meant by stars. Metaphysical nicety in the definition of a star is not the object of this treatise; "-the essay so opened might yet have been far more true in its final statements, and a thousand-fold more scrviceable to the navigator, than any treatise on wealth, which founds its conclusions on the popular conception of wealth, can ever become to the economist.
4. It was, therefore, the first object of these following papers to give an accurate and stable definition of wealth. Their second object was to show that the acquisition of wealth was finally possible only under certain moral conditions of society, of which quite the first was a belief in the existence, and even, for practical purposes, in the attainability of honesty.

* Which ? for where investigation is necessary, teaching is impossible.
†' Principles of Political Economy.' By J. S. Mill. Preliminary remarks, p. 2.

Without venturing to pronounce-since on such a matter human judgment is by no means conclusive-what is, or is not, the noblest of God's works, we may yet admit so much of Pope's assertion as that an honest man is among His best works presently visible, and, as things stand, a somewhat rare one; but not an incredible or miraculous work; still less an abnormal one. Honesty is not a disturbing force, which deranges the orbits of economy; but a consistent and commanding force, by obedience to which-and by no other obe-dience-those orbits can continue clear of chaos.
5. It is true, I have sometimes heard Pope condemned for the lowness, instead of the height, of his standard:-" Honesty is indeed a respectable virtue; but how much higher may men attain! Shall nothing more be asked of us than that we be honest?"
For the present, good friends, nothing. It seems that in our aspirations to be more than that, we have to some extent lost sight of the propriety of being so much as that. What else we may have lost faith in, there shall be here no question ; but assuredly we have lost faith in common honesty, and in the working power of it. And this faith, with the facts on which it may rest, it is quite our first business to recover and keep: not only believing, but even by experience assuring ourselves, that there are yet in the world men who can be restrained from fraud otherwise than by the fear of losing employment;* nay, that is even accurately in proportion to the

* " The effectual discipline which is exercised over a workman is not that of his corporation, but of his customers. It is the fear of losing their employment which restrains his frauds, and corrects his negligence." ('Wealth of Nations,' Book I. chap. 10.)
Note to Second Edition.-The only addition I will make to the words of this book shall be a very earnest request to any Christian reader to think within himself what an entirely damned state of soul any human creature must have got into, who could read with acceptance such a sentence as this : much more write it ; and to oppose to it, the first commercial words of Venice, discovered by me in her first church :-
"Around this temple, let the Merchant's law be just, his weights true, and his contracts guileless."

If any of my present readers think that my language in this note is
number of such men in any State, that the said State does or can prolong its existence.

To these tro points, then, the following essays are mainly directed. The subject of the organization of labor is only casually touched upon; because, if we once can get a sufficient quantity of honesty in our captains, the organization of labor is easy, and will derelop itself without quarrel or difficulty; but if we cannot get honesty in our captains, the organization of labor is for evermore impossible.
6. Sereral conditions of its possibility I purpose to examine at length in the sequel. Yet, lest the reader should be alarmed by the hints thrown out during the following investigation of first principles, as if they were leading him into unexpectedly dangerous ground, I will, for his better assurance, state at once the worst of the political creed at which I. wish him to arrive.
(1.) First,-that there should be training schools for youth established, at Government cost,* and under Government discipline, over the whole country; that every child born in the country should, at the parent's wish, be permitted (and, in certain cases, be under penalty required) to pass through them; and that, in these schools, the child should (with other minor pieces of knowledge hereafter to be considered) imperatively be taught, with the best skill of teach-
either intemperate, or unbecoming, I will beg them to read with attention the Eighteenth paragraph of 'Sesame and Lilies'; and to be assured that I never, myself, now use, in writing, any word which is not, in my deliberate judgment, the fittest for the occasion.

## Venice,

Sunday, 18th March, $18 \%$.

[^100]ing that the country could produce, the following three things:-
(a) The laws of health, and the exercises enjoined by them;
(b) Habits of gentleness and justice; and
(c) The calling by which he is to live.
(2.) Secondly,-that, in connection with these training schools, there should be established, also entirely under Gorernment regulation, manufactories and workshops for the production and sale of every necessary of life, and for the excreise of every useful art. And that, interfering no whit with private enterprise, nor setting any restraints or tax on private trade, but leaving both to do their best, and beat the Government if they could,-there should, at these Gorernment manufactories and shops, be authoritatively good and exemplary work done, and pure and true substance sold; so that a man could be sure, if he chose to pay the Government price, that he got for his money bread that was bread, ale that was ale, and work that was work.
(3.) Thirdly,-that any man, or woman, or boy, or girl, out of employment, should be at once received at the nearest Government school, and set to such work as it appeared, on trial, they were fit for, at a fixed rate of wages determinable every year;-that, being found incapable of work through ignorance, they should be taught, or being found incapable of work through sickness, should be tended; but that being found objecting to work, they should be set, under compulsion of the strictest nature, to the more painful and degrading forms of necessary toil, especially to that in mines and other places of danger (such danger being, howerer, diminished to the utmost by careful regulation and discipline), and the due wages of such work be retained, cost of compulsion first abstracted-to be at the workman's command, so soon as he has come to sounder mind respecting the laws of employment.
(4.) Lastly,-that for the old and destitute, comfort and home should be provided; which provision, when misfor-
tune lad been by the working of such a system sifted from guilt, would be honorable instead of disgraceful to the receiver. For (I repeat this passage out of my ' Political Economy of Art,' to which the reader is referred for farther detail *) " a laborer serves his country with his spade, just as a man in the middle ranks of life serves it with sword, pen, or lanect. If the service be less, and, therefore, the wages during health less, then the reward when health is broken may be less, but not less honorable; and it ought to be quite as natural and straightforward a matter for a laborer to take his pension from his parish, because he has deserved well of his parish, as for a man in higher rank to take his pension from his country, because he has deserved well of his country."

To which statement, I will only add, for conclusion, respecting the discipline and pay of life and death, that, for both high and low, Liry's last words touching Valerius Publicola, "de publico est elatus," $\dagger$ ought not to be a dishonorable close of epitaph.
7. These things, then, I beliere, and am about, as I find power, to explain and illustrate in their various bearings; following out also what belongs to them of collateral inquiry. Here I state them only in bricf, to prevent the reader casting about in alarm for my ultimate meaning; yet requesting him, for the present, to remember, that in a science dealing with so subtle elements as those of human nature, it is only possible to answer for the final truth of principles, not for the direct success of plans: and that in the best of these last, what can be immediately accomplished is always questionable, and what can be finally accomplished, inconceivable.

> Demmark Hill, 10 th May, 1862.

[^101]
## "UNTO THIS LAST."

## ESSAY I.

THE ROOTS OF HONOR.

1. Among the delusions which at different periods have possessed themselves of the minds of large masses of the human race, perhaps the most curious-certainly the least credible-is the modern soi-disant science of political economy, based on the idea that an advantageous code of social action may be determined irrespectively of the influence of social affection.

Of course, as in the instances of alchemy, astrology, witchcraft, and other such popular creeds, political economy has a plausible idea at the root of it. "The social affections," says the economist, "are accidental and disturbing elements in human nature; but avarice and the desire of progress are constant elements. Let us eliminate the inconstants, and, considering the human being merely as a covetous machine, examine by what laws of labor, purchase, and sale, the greatest accumulative result in wealth is obtainable. Those laws once determined, it will be for each individual afterwards to introduce as much of the disturbing affectionate element as he chooses, and to determine for himself the result on the new conditions supposed."
2. This would be a perfectly logical and successful method of analysis, if the accidentals afterwards to be introduced were of the same nature as the powers first examined. Sup-
posing a body in motion to be influenced by constant and inconstant forces, it is usually the simplest way of examining its course to trace it first under the persistent conditions, and afterwards introduce the canses of variation. But the disturbing elements in the social problem are not of the same nature as the constant ones; they alter the essence of the creature under examination the moment they are added; they operate, not mathematically, but chemically, introducing conditions which render all our previons knowledge mavailable. We made learned experiments upon pure nitrogen, and have convinced ourselves that it is a very manageable gas: but, behold! the thing which we have practically to deal with is its chloride ; and this, the moment we touch it on our established principles, sends us and our apparatus through the ceiling.
3. Observe, I neither impugn nor doubt the conclusion of the science if its terms are accepted. I am simply uninterested in them, as I should be in those of a science of gymnastics which assumed that men had no skeletons. It might be shown, on that supposition, that it would be advantageous to roll the students up into pellets, flatten them into cakes, or stretch them into cables; and that when these results were effected, the re-insertion of the skeleton would be attended with various inconveniences to their constitution. The reasoning might be admirable, the conclusions true, and the science deficient only in applicability. Modern political economy stands on a precisely similar basis. Assuming, not that the human being has no skeleton, but that it is all skeleton, it founds an ossifiant theory of progress on this negation of a soul; and having shown the utmost that may be made of bones, and constructed a number of interesting geometrical figures with death's-head and humeri, successfully proves the inconvenience of the reappearance of a soul among these corpuscular structures. I do not deny the truth of this theory: I simply deny its applicability to the present phase of the world.
4. This inapplicability has been curiously manifested dur-
ing the embarrassment caused by the late strikes of our workmen. Here occurs one of the simplest cases, in a pertinent and positive form, of the first vital problem which political economy has to deal with (the relation between employer and employed) ; and, at a severe crisis, when lives in multitudes and wealth in masses are at stake, the political economists are helpless-practically mute: no demonstrable solution of the difficulty can be given by them, such as may convince or calm the opposing parties. Obstinately the masters take one view of the matter ; obstinately the operatives another ; and no political science can set them at one.
5. It would be strange if it could, it being not by "science " of any kind that men were ever intended to be set at one. Disputant after disputant vainly strives to show that the interests of the masters are, or are not, antagonistic to those of the men: none of the pleaders ever seeming to remember that it does not absolutely or always follow that the persons must be antagonistic because their interests are. If there is only a crust of bread in the house, and mother and children are starving, their interests are not the same. If the mother eats it, the children want it; if the children eat it, the mother must go hungry to her work. Yet it does not necessarily follow that there will be "antagonism" between them, that they will fight for the crust, and that the mother, being strongest, will get it, and eat it. Neither, in any other case, whatever the relations of the persons may be, can it be assumed for certain that, because their interests are diverse, they must necessarily regard each other with hostility, and use violence or cunning to obtain the advantage.
6. Even if this were so, and it were as just as it is convenient to consider men as actuated by no other moral influences than those which affect rats or swine, the logical conditions of the question are still indeterminable. It can never be shown generally either that the interests of master and laborer are alike, or that they are opposed; for, according to circumstances, they may be either. It is, indeed, always the interest of both that the work should be rightly done, and
a just price obtained for it; but, in the division of profits, the gain of the one may or may not be the loss of the other. It is not the master's interest to pay wages so low as to leave the men sickly and depressed, nor the workman's interest to be paid high wages if the smallness of the master's profit hinders him from enlarging his business, or conducting it in a safe and liberal way. A stoker ought not to desire high pay if the company is too poor to keep the engine-wheels in repair.
7. And the varieties of circumstance which influence these reciprocal interests are so endless, that all endeavor to deduce rules of action from balance of expediency is in rain. And it is meant to be in vain. For no human actions ever were intended by the Maker of men to be guided by balances of expediency, but by balances of justice. He has therefore rendered all endeavors to determine expediency futile for evermore. No man ever knew, or can know, what will be the ultimate result to himself, or to others, of any given line of conduct. But every man may know, and most of us do know, what is a just and unjust act. And all of us may know also, that the consequences of justice will be ultimately the best possible, both to others and ourselves, though we can neither say what is best, or how it is likely to come to pass.

I have said balances of justice, meaning, in the term justice, to include affection,-such affection as one man owes to another. All right relations between master and operative, and all their best interests, ultimately depend on these.
S. We shall find the best and simplest illustration of the relations of master and operative in the position of domestic servants.

We will suppose that the master of a household desires only to get as much work out of his servants as he can, at the rate of wages he gives. He never allows them to be idle; feeds them as poorly and lodges them as ill as they will endure, and in all things pushes his requirements to the exact point beyond which he cannot go without forcing the servant to leave him. In doing this, there is no violation on
his part of what is commonly called "justice." He agrees with the domestic for his whole time and service, and takes them;--the limits of hardship in treatment being fixed by the practice of other masters in his neighborhood; that is to say, by the current rate of wages for domestic labor. If the servant can get a better place, he is free to take one, and the master can only tell what is the real market value of his labor, by requiring as much as he will give.

This is the politico-economical view of the case, according to the doctors of that science ; who assert that by this procedure the greatest average of work will be obtained from the servant, and therefore the greatest benefit to the community, and through the community, by reversion, to the servant himself.

That, however, is not so. It would be so if the servant were an engine of which the motive power was steam, magnetism, gravitation, or any other agent of calculable force. But he being, on the contrary, an engine whose motive power is a Soul, the force of this very peculiar agent, as an unknown quantity, enters into all the political economist's equations, without his knowledge, and falsifies every one of their results. The largest quantity of work will not be done by this curious engine for pay, or under pressure, or by help of any kind of fuel which may be supplied by the chaldron. It will be done only when the motive force, that is to say, the will or spirit of the creature, is brought to its greatest strength by its own proper fuel: namely, by the affections.
9. It may indeed happen, and does happen often, that if the master is a man of sense and energy, a large quantity of material work may be done under mechanical pressure, enforced by strong will and guided by wise method; also it may happen, and does happen often, that if the master is indolent and weak (however good natured), a very small quantity of work, and that bad, may be produced by the servant's undirected strength, and contemptuous gratitude. But the universal law of the matter is that, assuming any given quantity of energy and sense in master and servant, the greatest
material result obtainable by them will be, not through antagonism to each other, but through affection for each other ; and that, if the master, instead of endeavoring to get as much work as possible from the servant, seeks rather to render his appointed and necessary work beneficial to him, and to forward his interests in all just and wholesome ways, the real amount of work ultimately done, or of good rendered, by the person so cared for, will indeed be the greatest possible.

Observe, I say, " of good rendered," for a servant's work is not necessarily or always the best thing he can give his master. But good of all kinds, whether in material service, in protective watchfulness of his master's interest and credit, or in joyful readiness to seize unexpected and irregular oceasions of help.

Nor is this one whit less generally true because indnlgence will be frequently abused, and kindness met with ingratitude. For the servant who, gently treated, is ungrateful, treated ungently, will be revengeful; and the man who is dishonest to a liberal master will be injurious to an unjust one.
10. In any case, and with any person, this unselfish treatment will produce the most effective return. Obserre, I am here considering the affections wholly as a motive power; not at all as things in themselves desirable or noble, or in any other way abstractedly good. I look at them simply as an anomalous force, rendering every one of the ordinary political economist's calculations nugatory; while, even if he desired to introduce this new element into his estimates, he has no power of dealing with it; for the affections only become a true motive power when they ignore every other motive and condition of political economy. Treat the servant kindly, with the idea of turning his gratitude to account, and you will get, as you deserve, no gratitude, nor any value for your kindness; but treat him kindly without any economical purpose, and all economical purposes will be answered; in this, as in all other matters, whosoever will save his life shall lose it, whoso loses it shall find it.*

[^102]11. The next clearest and simplest example of relation between master and operative is that which exists between the commander of a regiment and his men.

Supposing the officer only desires to apply the rules of discipline so as, with least trouble to himself, to make the regiment most effective, he will not be able, by any rules or administration of rules, on this selfish principle, to develop the full strength of his subordinates. If a man of sense and firmness, he may, as in the former instance, produce a better result than would be obtained by the irregular kindness of a weak officer; but let the sense and firmness be the same in both cases, and assuredly the officer who has the most direct personal relations with his men, the most care for their interests, and the most value for their lives, will develop their effective strength, through their affection for his own person, their effective material results, may be seen rery accurately by a comparison of the relations of Esther and Charlie in ' Bleak House,' with those of Miss Brass and the Marchioness in ' Master Humphrey's Clock.'
The essential value and truth of Dickens's writings have been unwisely lost sight of by many thoughtful persons, merely because he presents his truth with some color of caricature. Unwisely, because Dickens's caricature, though often gross, is never mistaken. Allowing for his manner of telling them, the things he tells us are always true. I wish that he could think it right to limit his brilliant exaggeration to works written only for public amusement; and when he takes up a subject of high national importance, such as that which he liandled in 'Hard Times,' that he would use severer and more accurate analysis. The usefulness of that work (to my mind, in several respects the greatest he has written) is with many persons seriously diminished because Mr. Bounderby is a dramatic monster, instead of a characteristic example of a worldly master; and Stephen Blackpool a dramatic perfection, instead of a characteristic example of an honest workman. But let us not lose the use of Dickens's wit and insight, because he chooses to speak in a circle of stage fire. He is entirely right in his main drift and purpose in every book he has.written; and all of them, but especially 'Hard Times,' should be studied with close and earnest care by persons interested in social questions. They will find much that is partial, and, because partial, apparently unjust; but if they examine all the evidence on the other side, which Dickens seems to overlook, it will appear, after all their trouble, that his view was the finally right one, grossly and sharply told.
and trust in his character, to a degree wholly unattainable by other means. This law applies still more stringently as the numbers concerned are larger: a charge may often be successful, though the men dislike their officers; a battle has rarely been won, unless they loved their general.
12. Passing from these simple examples to the more complicated relations existing between a manufacturer and his workmen, we are met first by certain curious difficulties, resulting, apparently, from a harder and colder state of moral elements. It is easy to imagine an enthusiastic affection existing among soldiers for the colonel. Not so easy to imagine an enthusiastic affection among cotton-spinners for the proprictor of the mill. A body of men associated for purposes of robbery (as a Highland clan in ancient times) shall be animated by perfect affection, and every member of it be ready to lay down his life for the life of his chief. But a band of men associated for purposes of legal production and accumulation is usually animated, it appears, by no such emotions, and none of them are in any wise willing to give lis life for the life of his chicf. Not only are we met by this apparent anomaly, in moral matters, but by others connected with it, in administration of system. For a servant or a soldier is engaged at a definite rate of wages, for a definite period; but a workman at a rate of wages variable according to the demand for labor, and with the risk of being at any time thrown out of his situation by chances of trade. Now, as, under these contingencies, no action of the affections can take place, but only an explosive action of disaffections, two points offer themselves for consideration in the matter.

The first-How far the rate of wages may be so regulated as not to vary with the demand for labor.

The second-How far it is possible that bodies of workmen may be engaged and maintained at such fixed rate of wages (whatever the state of trade may be), without enlarging or diminishing their number, so as to give them permanent interest in the establishment with which they are con-
nected, like that of the domestic servants in an old family, or an esprit de corps, like that of the soldiers in a crack regiment.
13. The first question is, I say, how far it may be possible to fix the rate of wages, irrespectively of the demand for labor.

Perhaps one of the most curious facts in the history of human error is the denial by the common political economist of the possibility of thus regulating wages; while, for all the important, and much of the unimportant, labor, on the earth, wages are already so regulated.

We do not sell our prime-ministership by Dutch auction; nor, on the decease of a bishop, whaterer may be the general advantages of simony, do we (yet) offer his diocese to the clergyman who will take the episcopacy at the lowest contract. We (with exquisite sagacity of political economy!) do indeed sell commissions; but not openly, generalships: sick, we do not inquire for a plysician who takes less than a guinea; litigious, we never think of reducing six-and-eightpence to four-and-sixpence; caught in a shower, we do not canvass the cabmen, to find one who values his driving at less than sixpence a mile.

It is true that in all these cases there is, and in every conceivable case there must be, ultimate reference to the presumed difficulty of the work, or number of candidates for the office. If it were thought that the labor necessary to make a good physician would be gone through by a sufficient number of students with the prospect of only half-guinea fees, public consent would soon withdraw the unnecessary half-guinea. In this ultimate sense, the price of labor is indeed always regulated by the demand for it; but, so far as the practical and immediate administration of the matter is regarded, the best labor always has been, and is, as all labor ought to be, paid by an invariable standard.
14. "What!" the reader perhaps answers amazedly: " pay good and bad workmen alike?"

Certainly. The difference between one prelate's sermons
and his successor's-or between one physician's opinion and another's-is far greater, as respects the qualities of mind involyed, and far more important in result to you personally, than the difference between good and bad laying of bricks (though that is greater than most people suppose). Yet you pay with equial fee, contentedly, the good and bad workmen upon your soul, and the good and bad workmen upon your body; much more may you pay, contentedly, with equal fees, the good and bad workmen upon your house.
"Nay, but I choose my physician and (?) my clergyman, thus indicating my sense of the quality of their work." By all means, also, choose your bricklayer; that is the proper reward of the good workman, to be "chosen." The natural and right system respecting all labor is, that it should be paid at a fixed rate, but the good workman employed, and the bad workman unemployed. The false, unnatural, and destructive system is when the bad workman is allowed to offer his work at half-price, and either take the place of the good, or force him by his competition to work for an inadequate sum.
15. This equality of wages, then, being the first object towards which we have to discover the directest available road, the second is, as above stated, that of maintaining constant numbers of workmen in employment, whatever may be the accidental demand for the article they produce.

I believe the sudden and extensive inequalities of demand, which necessarily arise in the mercantile operations of an active nation, constitute the only essential difficulty which has to be overcome in a just organization of labor.

The subject opens into too many branches to admit of being investigated in a paper of this kind; but the following general facts bearing on it may be noted.

The wages which enable any workman to live are necessarily ligher, if his work is liable to intermission, than if it is assured and continnous; and however severe the struggle for work may become, the general law will always held, that men must get more daily pay if, on the average, they can
only calculate on work three days a week than they would require if they were sure of work six days a week. Supposing that a man cannot live on less than a shilling a day, his seven shillings he must get, either for three days' violent work, or six days' deliberate work. The tendency of all modern mercantile operations is to throw both wages and trade into the form of a lottery, and to make the workman's pay depend on intermittent exertion, and the principal's profit on dexterously used chance.
16. In what partial degree, I repeat, this may be necessary in consequence of the activities of modern trade, I do not here investigate ; contenting myself with the fact that in its fatalest aspects it is assuredly unnecessary, and results merely from love of gambling on the part of the masters, and from ignorance and sensuality in the men. The masters cannot bear to let any opportunity of gain escape them, and frantically rush at every gap and breach in the walls of Fortune, raging to be rich, and affronting, with impatient covetousness, every risk of ruin, while the men prefer three days of riolent labor, and three days of drunkenness, to six days of moderate work and wise rest. There is no way in which a principal, who really desires to help his workmen, may do it more effectually than by checking these disorderly habits both in himself and them; keeping his own business operations on a scale which will enable him to pursue them securely, not yielding to temptations of precarious gain; and at the same time, leading his workmen into regular habits of labor and life, either by inducing them rather to take low wages, in the form of a fixed salary, than high wages, subject to the chance of their being thrown out of work; or, if this be impossible, by discouraging the system of violent exertion for nominally high day wages, and leading the men to take lower pay for more regular labor.

In effecting any radical changes of this kind, doubtless there would be great inconvenience and loss incurred by all the originators of the movement. That which can be done with perfect convenience and without loss, is not always the
thing that most needs to be done, or which we are most imperatively required to do.
17. I have already alluded to the difference hitherto existing between regiments of men associated for purposes of violence, and for purposes of manufacture ; in that the former appear capable of self-sacrifice-the latter, not; which singular fact is the real reason of the gencral lowness of estimate in which the profession of commerce is held, as compared with that of arms. Philosophically, it does not, at first sight, appear reasonable (many writers have endeavored to prove it unreasonable) that a peaceable and rational person, whose trade is buying and selling, should be held in less honor than an umpeaceable and often irrational person, whose trade is slaying. Nevertheless, the consent of mankind has always, in spite of the philosophers, given precedence to the soldier.

And this is right.
For the soldier's trade, verily and essentially, is not slaying, but being slain. This, without well knowing its own meaning, the world honors it for. A bravo's trade is slaying; but the world has never respected bravos more than merchants: the reason it honors the soldier is, because he holds his life at the service of the State. Reckless he may be-fond of pleasure or of adventure-all kinds of bye-motives and mean impulses may have determined the choice of his profession, and may affect (to all appearance exclusively) his daily conduct in it; but our estimate of him is based on this ultimate fact-of which we are well assured-that put him in a fortress breach, with all the pleasures of the world behind him, and only death and his duty in front of him, he will keep his face to the front; and he knows that his choice may be put to him at any moment-and has beforehand taken his part-virtually takes such part continually-does, in reality, die daily.
18. Not less is the respect we pay to the lawyer and physician, founded ultimately on their self-sacrifice. Whatever the learning or acuteness of a great lawyer, our chief respect for him depends on our belief that, set in a judge's seat, he
will strive to judge justly, come of it what may. Could we suppose that he would take bribes, and use his acuteness and legal knowledge to give plausibility to iniquitous decisions, no degree of intellect would win for him our respect. Nothing will win it, short of our tacit conviction, that in all important acts of his life justice is first with him; his own interest, second.

In the case of a physician, the ground of the honor we render him is clearer still. Whatever his science, we would shrink from him in horror if we found him regard his patients merely as subjects to experiment upon; much more, if we found that, receiving bribes from persons interested in their deaths, he was using his best skill to give poison in the mask of medicine.

Finally, the principle holds with utmost clearness as it respects clergymen. No goodness of disposition will excuse want of science in a physician, or of shrewdness in an adrocate; but a clergyman, even though his power of intellect be small, is respected on the presumed ground of his unselfishness and serviceableness.
19. Now, there can be no question but that the tact, foresight, decision, and other mental powers, required for the successful management of a large mercantile concern, if not such as could be compared with those of a great lawyer, general, or divine, would at least match the general conditions of mind required in the subordinate officers of a ship, or of a regiment, or in the curate of a country parish. If, therefore, all the efficient members of the so-called liberal professions are still, somehow, in public estimate of honor, preferred before the head of a commercial firm, the reason must lie deeper than in the measurement of their several powers of mind.

And the essential reason for such preference will be found to lie in the fact that the merchant is presumed to act always selfishly. His work may be very necessary to the community; but the motive of it is understood to be wholly personal. The merchant's first object in all his dealings must be (the public
believe) to get as much for himself, and leave as little to his neighbor (or customer) as possible. Enforcing this upon him, by political statute, as the necessary principle of his action; recommending it to him on all oceasions, and themselves reciprocally adopting it, proclaiming vociferously, for law of the miverse, that a buyer's function is to cheapen, and a seller's to cheat,-the public, nevertheless, involuntarily condemn the man of commerce for his compliance with their own statement, and stamp him for ever as belonging to an inferior grade of human personality.
20. This they will find, eventually, they must give up doing. They must not cease to condemn selfishness; but they will have to diseover a kind of commerce which is not exclusively selfish. Or, rather, they will have to discover that there never was, or can be, any other kind of commerce; that this which they have called commeree was not commeree at all, but cozening; and that a true merchant differs as much from a merchant according to laws of modern political economy, as the hero of the 'Excursion' from Autolycus. They will find that commerce is an occupation which gentlemen will every day see more need to engage in, rather than in the businesses of talking to men, or slaying them; that, in true commerce, as in true preaching, or true fighting, it is necessary to admit the idea of occasional voluntary loss; - that sixpences have to be lost, as well as lives, under a sense of duty; that the market may have its martyrdoms as well as the pulpit; and trade its heroisms as well as war.

May lave-in the final issue, must lave-and only has not had yet, because men of heroic temper have always been misguided in their youth into other fields; not recognizing what is in our days, perhaps, the most important of all fields; so that, while many a zealous person loses his life in trying to teach the form of a gospel, very few will lose a hundred poumds in showing the practice of one.
21. The fact is, that people never have had clearly explained to them the true functions of a merchant with respect to other people. I should like the reader to be very clear about this.

Five great intellectual professions, relating to daily necessities of life, have hitherto existed-three exist necessarily, in every civilized nation.

The Soldier's profession is to defend it.
The Pastor's to teach it.
The Physician's to keep it in health.
The Lawyer's to enforce justice in it.
The Merchant's to provide for it.
And the duty of all these men is, on due occasion, to die for it.
" On due occasion," namely:-
The Soldier, rather than leave his post in battle.
The Physician, rather than leave his post in plague.
The Pastor, rather than teach Falsehood.
The Lawyer, rather than countenance Injustice.
The Merchant-what is his "due occasion" of death?
22. It is the main question for the merchant, as for all of us. For, truly, the man who does not know when to die, does not know how to live.

Observe, the merchant's function (or manufacturer's, for in the broad sense in which it is here used the word must be understood to include both) is to provide for the nation. It is no more his function to get profit for himself out of that provision than it is a clergyman's function to get his stipend. This stipend is a due and necessary adjunct, but not the object of his life, if he be a true clergyman, any more than his fee (or honorarium) is the object of life to a true physician. Neither is his fee the object of life to a true merchant. All three, if true men, have a work to be done irrespective of fee -to be done even at any cost, or for quite the contrary of fee; the pastor's function being to teach, the physician's to heal, and the merchant's, as I have said, to provide. That is to say, he has to understand to their very root the qualities of the thing he deals in, and the means of obtaining or producing it; and he has to apply all his sagacity and energy to the producing or obtaining it in perfect state, and distributing it at the cheapest possible price where it is most needed.

And because the production or obtaining of any commodity involves necessarily the agency of many lives and hands, the merchant becomes in the course of his business the master and governor of large masses of men in a more direct, though less confessed way, than a military officer or pastor; so that on him falls, in great part, the responsibility for the kind of life they lead: and it becomes his duty, not only to be always considering how to produce what he sells, in the purest and cheapest forms, but how to make the rarious employments involved in the production, or transference of it, most beneficial to the men employed.
23. And as into these two functions, requiring for their right exercise the highest intelligence, as well as patience, kindness, and tact, the merchant is bound to put all his energy, so for their just discharge he is bound, as soldier or physician is bound, to give up, if need be, his life, in such way as it may be demanded of him. Two main points he has in his providing function to maintain: first, his engagements (faithfulness to engagements being the real root of all possibilities, in commerce) ; and, secondly, the perfectness and purity of the thing provided; so that, rather than fail in any engagement, or consent to any deterioration, adulteration, or unjust and exorbitant price of that which he provides, he is bound to meet fearlessly any form of distress, poverty, or labor, which may, through maintenance of these points, come upon him.
24. Again: in his office as governor of the men employed by him, the merchant or manufacturer is invested with a distinctly paternal authority and responsibility. In most cases, a youth entering a commercial establishment is withdrawn altogether from home influence; his master must become his father, else he has, for practical and constant help, no father at hand: in all cases the master's authority, together with the general tone and atmosphere of his business, and the character of the men with whom the youth is compelled in the course of it to associate, have more immediate and pressing weight than the home influence, and will usually.
neutralize it either for good or evil; so that the only means which the master has of doing justice to the men employed by him is to ask himself sternly whether he is dealing with such subordinate as he would with his own son, if compelled by circumstances to take such a position.

Supposing the captain of a frigate saw it right, or were by any chance obliged, to place his own son in the position of a common sailor: as he would then treat his son, he is bound always to treat every one of the men under him. So, also, supposing the master of a manufactory saw it right, or were by any chance obliged, to place his own son in the position of an ordinary workman; as he would then treat his son, he is bound always to treat every one of his men. This is the only effective, true, or practical Rule which can be given on this point of political economy.

And as the captain of a ship is bound to be the last man to leave his ship in case of wreck, and to share his last crust with the sailors in case of famine, so the manufacturer, in any commercial crisis or distress, is bound to take the suffering of it with his men, and even to take more of it for himself than he allows his men to feel; as a father would in a famine, shipwreck, or battle, sacrifice himself for his son.
25. All which sounds very strange: the only real strangeness in the matter being, nevertheless, that it should so sound. For all this is true, and that not partially nor theoretically, but everlastingly and practically: all other doctrine than this respecting matters political being false in premises, absurd in deduction, and impossible in practice, consistently with any progressive state of national life; all the life which we now possess as a nation showing itself in the resolute denial and scorn, by a few strong minds and faithful hearts, of the economic principles taught to our multitudes, which principles, so far as accepted, lead straight to national destruction. Respecting the modes and forms of destruction to which they lead, and, on the other hand, respecting the farther practical working of true polity, I hope to reason further in a following paper.

## ESSAY II.

## TIIE VEIN゙S OF WEALTII.

26. The answer which would be made by any ordinary political cconomist to the statements contained in the preceding paper, is in few words as follows:-
"It is indeed true that certain advantages of a general nature may be obtained by the development of social affections. But political economists never professed, nor profess, to take adrantages of a general nature into consideration. Our science is simply the science of getting rich. So far from being a fallacious or visionary one, it is found by experience to be practically effective. Persons who follow its precepts do actually become rich, and persons who disobey them become poor. Every capitalist of Europe has acquired his fortune by following the known laws of our science, and increases his capital daily by an adherence to them. It is vain to bring forward tricks of logic, against the force of accomplished facts. Every man of business knows by experience how money is made, and how it is lost."

Parton me. Men of business do indced know how they themselves made their money; or how, on occasion, they lost it. Playing a long-practiced game, they are familiar with the chances of its cards, and can rightly explain their losses and gains. But they neither know who keeps the bank of the gambling-house, nor what other games may be played with the same cards, nor what other losses and gains, far away among the dark streets, are essentially, though invisibly, dependent on theirs in the lighted rooms. They have learned a few, and only a few, of the laws of mercantile economy; but not one of those of political economy.
27. Primarily, which is very notable and curious, I observe that men of business rarely know the meaning of the word "rich." At least, if they know, they do not in their reasonings allow for the fact, that it is a relative word, implying its opposite "poor" as positively as the word " north " implies its opposite " south." Men nearly always speak and write as if riches were absolute, and it were possible, by following certain scientific precepts, for everybody to be rich. Whereas riches are a power like that of electricity, acting only through inequalities or negations of itself. The force of the guinea you have in your pocket depends wholly on the default of a guinea in your neighbor's pocket. If he did not want it, it would be of no use to you; the degree of power it possesses depends accurately upon the need or desire he has for it,-and the art of making yourself rich, in the ordinary mercantile economist's sense, is therefore equally and necessarily the art of keeping your neighbor poor.

I would not contend in this matter (and rarely in any matter) for the acceptance of terms. But I wish the reader clearly and deeply to understand the difference between the two economies, to which the terms "Political" and "Mercantile " might not unadvisedly be attached.
28. Political economy (the economy of a State, or of citizens) consists simply in the production, preservation, and distribution, at fittest time and place, of useful or pleasurable things. The farmer who cuts his hay at the right time; the shipwright who drives his bolts well home in sound wood; the builder who lays good bricks in well-tempered mortar ; the housewife who takes care of her furniture in the parlor, and guards against all waste in her kitchen; and the singer who rightly disciplines, and never overstrains her voice, are all political economists in the true and final sense: adding continually to the riches and well-being of the nation to which they belong.

But mercantile economy, the economy of "merces" or of "pay," signifies the accumulation, in the hands of indi-
viduals, of legal or moral claim upon, or power over, the labor of others; ceery such claim implying precisely as much poverty or debt on one side, as it implies riches or right on the other.

It does not, therefore, necessarily involve an addition to the actual property, or well-being of the State in which it exists. But since this commercial wealth, or power over labor, is nearly always convertible at once into real property, while real property is not always convertible at once into power over labor, the idea of riches among active men in civilized nations, generally refers to commercial wealth; and in estimating their possessions, they rather calculate the value of their horses and fields by the number of guineas they could get for them, than the value of their guineas by the number of horses and fields they could buy with them.
29. There is, however; another reason for this habit of mind: namely, that an accumulation of real property is of little use to its owner, unless, together with it, he has commercial power over labor. Thus, suppose any person to be put in possession of a large estate of fruitful land, with rich leds of gold in its gravel; countless herds of cattle in its pastures; houses, and gardens, and storehouses full of useful stores: but suppose, after all, that he could get no servants ? In order that he may be able to have serrants, some one in his neighborhood must be poor, and in want of his gold-or his corn. Assume that no one is in want of either, and that no servants are to be had. He must, therefore, bake his own bread, make his own clothes, plow his own ground, and shepherd his own flocks. His gold will bee as useful to him as any other yellow pebbles on his estate. His stores must rot, for he cannot consume them. He can eat no more than another man could eat, and wear no more than another man could wear. He must lead a life of severe and common labor to procure eren ordinary comforts; he will be ultimately unable to keep either honses in repair, or fields in cultivation; and forced to content himself with a poor man's portion of cottage and garden, in the midst of a desert of waste land,
trampled by wild cattle, and encumbered by ruins of palaces, which he will hardly mock at himself by calling " his own."
30. The most covetous of mankind would, with small exultation, I presume, accept riches of this kind on these terms. What is really desired, under the name of riches, is, essentially, power orer men; in its simplest sense, the power of obtaining for our own advantage the labor of servant, tradesman, and artist; in wider sense, authority of directing large masses of the nation to various ends (good, trivial, or hurtful according to the mind of the rich person). And this power of wealth of course is greater or less in direct proportion to the porerty of the men over whom it is exercised, and in inverse proportion to the number of persons who are as rich as ourselves, and who are ready to give the same price for an article of which the supply is limited. If the musician is poor, he will sing for small pay, as long as there is only one person who can pay him ; but if there be two or three, he will sing for the one who offers him most. And thus the power of the riches of the patron (always imperfect and doubtful, as we shall see presently ( $\$ 39$ ), even when most anthoritative) depends first on the poverty of the artist, and then on the limitation of the number of equally wealthy persons, who also want seats at the concert. So that, as above stated, the art of becoming "rich," in the common sense, is not absolutely nor finally the art of accumulating much money for oursclves, but also of contriving that our neighbors shall have less. In aceurate terms, it is " the art of establishing the maximum inequality in our own favor."
31. Now, the establishment of such inequality cannot be shown in the abstract to be either advantageous or disadvantageous to the body of the nation. The rash and absurd assumption that such inequalities are necessarily advantageous, lies at the root of most of the popular fallacies on the subject of political economy. For the eternal and inevitable law in this matter is, that the beneficialness of the inequality depends, first, on the methods by which it was accomplished; and, secondly, on the purposes to which it is applied.

Inequalities of wealth, unjustly established, have assuredly injured the nation in which they exist during their establishment ; and, unjustly directed, injure it yet more during their existence. But inequalities of wealth, justly established, benefit the nation in the course of their establishment; and, nobly used, aid it yet more by their existence. Tlat is to say, among every active and well-governed people, the various strength of individuals, tested by full exertion and specially applied to various need, issues in unequal, but harmonious results, receiving reward or authority according to its class and service;** while, in the inactive or ill-gorerned nation,

[^103]the gradations of decay and the victories of treason work out also their own rugged system of subjection and success; and substitute, for the melodious inequalities of concurrent power, the iniquitous dominances and depressions of guilt and misfortune.
32. Thus the circulation of wealth in a nation resembles that of the blood in the natural body. There is one quickness of the current which comes of checrful emotion or wholesome exercise ; and another which comes of shame or of fever. There is a flush of the body which is full of warmth and life; and another which will pass into putrefaction.

The analogy will hold down even to minute particulars. For as diseased local determination of the blood inrolves depression of the general health of the system, all morbid local action of riches will be found ultimately to involve a weakening of the resources of the body politic.

The mode in which this is produced may be at once understood by examining one or two instances of the development of wealth in the simplest possible circumstances.
33. Suppose two sailors cast away on an minhalited coast, and obliged to maintain themselves there by their own labor for a series of years.

If they both kept their health, and worked steadily and in amity with each other, they might build themselves a convenient house, and in time come to possess a certain quantity of cultivated land, together with various stores laid up for future use. All these things would be real riches or property; and, supposing the men both to have worked equally hard, they would each have right to equal share or use of it. Their political economy would consist merely in careful preservation and just division of these possessions. Perhaps, however, after some time one or other might be dissatisfied with the results of their common farming; and they might in consequence agree to divide the land they had brought under the spade into equal shares, so that each might thenceforward work in his own field, and live by it. Suppose that after this arrangement had been made, one of them were to
fall ill, and be unable to work on his land at a critical timesay of sowing or harvest.

He would naturally ask the other to sow or reap for him.
Then his companion might say, with perfect justice, " I will do this additional work for you; but if I do it, you must promise to do as much for me at another time. I will connt how many hours I spend on your ground, and you shall give me a written promise to work for the same number of hours on mine, whenever I need your help, and you are able to give it."
34. Suppose the disabled man's sickness to continuc, and that under rarions circumstances, for several years, requiring the help of the other, he on each occasion gave a written pledge to work, as soon as he was able, at his companion's orders, for the same number of hours which the other had given up to him. What will the positions of the two men be when the invalid is able to resume work?

Considered as a " Polis," or state, they will be poorer than they would have been otherwise: poorer by the withdrawal of what the sick man's labor would have produced in the interval. Ilis friend may perhaps have toiled with an energy quickened by the enlarged need, but in the end his own land and property must have suffered by the withdrawal of so much of his time and thought from them: and the united property of the two men will be certainly less than it would have been if both had remained in health and activity.

But the relations in which they stand to each other are also widely altered. The sick man has not only pledged his labor for some years, but will probably have exhausted his own share of the accumulated stores, and will be in consequence for some time dependent on the other for food, which he can only "pay" or reward him for by yet more deeply pledging his own labor.

Supposing the written promises to be held entirely valid (among civilized nations their validity is secured by legal measures*), the person who had hitherto worked for both

[^104]might now, if he chose, rest altogether, and pass his time in idleness, not only forcing his companion to redeem all the engagements he had already entered into, but exacting from him pledges for further labor, to an arbitrary amount, for what food he had to advance to him.
35. There might not, from first to last, be the least illegality (in the ordinary sense of the word) in the arrangement; but if a stranger arrived on the coast at this adranced epoch of their political economy, he would find one man commercially Rich; the other commercially Poor. He mould see, perhaps, with no small surprise, one passing his days in idleness; the other laboring for both, and living sparely, in the hope of recovering his independence at some distant period.

This is, of course, an example of one only out of many wars in which inequality of possession may be established between different persons, giring rise to the Mercantile forms of Riches and Porerty. In the instance before us, one of the men might from the first have deliberately chosen to be idle, and to put his life in pawn for present ease ; or he might have mismanaged his land, and been compelled to have recourse to his neighbor for food and help, pledging his future labor for it. But what I want the reader to note especially is the fact, common to a large number of typical cases of this kind, that the establishment of the mercantile wealth which consists in a claim upon labor, signifies a political diminution of the real wealth which consists in substantial possessions.
more from the disputants examining its functions on different sides, than from any real dissent in their opinions. All money, properly so called, is an acknowledgment of debt; but as such, it may either be considered to represent the labor and property of the creditor, or the idleness and penury of the debtor. The intricacy of the question has been much increased by the (hitherto necessary) use of marketable conmodities, such as gold, silver, salt, shells, etc., to give intrinsic value or security to currency; but the final and best definition of money is that it is a documentary promise ratified and guaranteed by the nation to give or find a certain quantity of labor on demand. A man's labor for a day is a better standard of ralue than a measure of any produce, because no produce erer maintains a consistent rate of productibility.
36. Take another example, more consistent with the ordinary course of affairs of trade. Suppose that three men, instead of two, formed the little isolated republic, and found themselyes obliged to separate, in order to farm different pieces of land at some distance from each other along the coast: each estate furnishing a distinct kind of produce, and each more or less in need of the material raised on the other. Suppose that the third man, in order to save the time of all three, undertakes simply to superintend the transference of commodities from one farm to the other ; on condition of receiving some sufficiently remunerative share of every parcel of goods conreyed, or of some other parcel received in exchange for it.

If this carrier or messenger always brings to each estate, from the other, what is chiefly wanted, at the right time, the operations of the two farmers will go on prosperously, and the largest possible result in produce, or wealth, will be attained by the little community. But suppose no intercourse between the landowners is possible, except through the traveling agent; and that, after a time, this agent, watching the course of each man's agriculture, keeps back the articles with which he has been intrusted until there comes a period of extreme necessity for them, on one side or other, and then exacts in exchange for them all that the distressed farmer can spare of other kinds of produce: it is easy to see that by ingeniously watching his opportunities, he might possess himself regularly of the greater part of the superfluous produce of the two estates, and at last, in some year of severest trial or scarcity, purchase both for himself and maintain the former proprictors thenceforward as his laborers or servants.
37. This would be a case of commercial wealth acquired on the exactest principles of modern political economy. But more distinctly even than in the former instance, it is manifest in this that the wealth of the State, or of the three men considered as a society, is collectively less than it would have been had the merchant been content with juster profit. The operations of the two agriculturists have been cramped to the
utmost ; and the continual limitations of the supply of things they wanted at critical times, together with the failure of courage consequent on the prolongation of a struggle for mere existence, without any sense of permanent gain, must have scrionsly diminished the effective results of their labor; and the stores finally accumulated in the merchant's hands will not in any wise be of equivalent value to those which, had his dealings been honest, would have filled at once the granaries of the farmers and his own.

The whole question, therefore, respecting not only the advantage, but even the quantity, of national wealth, resolves itself finally into one of abstract justice. It is impossible to conclude, of any given mass of acquired wealth, merely by the fact of its existence, whether it signifies good or evil to the nation in the midst of which it exists. Its real value depends on the moral sign attached to it, just as sternly as that of a mathematical quantity depends on the algebraical sign attached to it. Any given accumulation of commercial wealth may be indicative, on the one hand, of faithful industries, progressive energies, and productive ingenuities: or, on the other, it may be indicative of mortal luxury, merciless tyranny, ruinous chicane. Some treasures are heary with human tears, as an ill-stored harvest with untimely rain ; and some gold is brighter in sunshine than it is in substance.
38. And these are not, observe, merely moral or pathetic attributes of riches, which the seeker of riches may, if he chooses, despise; they are, literally and sternly, material attributes of riches, depreciating or exalting, incalculably, the monetary signification of the sum in question. One mass of money is the outcome of action which has created,-another, of action which has annihilated,-ten times as much in the gathering of it; such and such strong hands have been paralyzed, as if they had been numbed by nightshade: so many strong men's courage broken, so many productive operations hindered; this and the other false direction given to labor, and lying image of prosperity set up, on Dura plains dug into seven-times-heated furnaces. That which seems to be wealth
may in verity be only the gilded index of far-reaching ruin; a wrecker's handful of coin gleaned from the beach to which he has beguiled an argosy; a camp-follower's bundle of rags muwrapped from the breasts of goodly soldiers dead; the purchase-picees of potter's fields, wherein shall be buried together the citizen and the stranger.

And therefore, the idea that directions can be given for the gaining of wealth, irrespectively of the consideration of its moral sourees, or that any general and technical law of purchase and gain can be set down for national practice, is perhaps the most insolently futile of all that ever beguiled men through their rices. So far as I know, there is not in history record of anything so disgraceful to the human intellect as the modern idea that the commercial text, "Buy in the cheapest market and sell in the dearest," represents, or under any circumstances could represent, an available principle of national economy. Buy in the cheapest market?yes; but what made your market cheap? Charcoal may be cheap among your roof timbers after a fire, and bricks may be cheap in your strects after an earthquake; but fire and earthquake may not therefore be national benefits. Sell in the dearest?-yes, truly; but what made your market dear? You sold your bread well to-day: was it to a dying man who gave his last coin for it, and will never need bread more ; or to a rich man who to-morrow will buy your farm over your head; or to a soldier on his way to pillage the bank in which you have put your fortune?

None of these things you can know. One thing only you can know: namely, whether this dealing of yours is a just and faithful one, which is all you need concern yourself about respecting it ; sure thus to have done your own part in bringing about ultimately in the world a state of things which will not issue in pillage or in death. And thus every question concerning these things merges itself ultimately in the great question of justice, which, the ground being thus far cleared for it, I will enter upon in the next paper, leaving only, in this, three final points for the reader's consideration.
39. It has been shown that the chief value and virtue of money consists in its having power over human beings; that, without this power, large material possessions are useless, and to any person possessing such power, comparatively unnecessary. But power over human beings is attainable by other means than by money. As I said a ferr pages back ( §30), the money power is always imperfect and doubtful; there are many things which cannot be reached with it, others which cannot be retained by it. Many joys may be given to men which cannot be bought for gold, and many fidelities found in them which cannot be rewarded with it.

Trite enough,--the reader thinks. Yes: but it is not so trite,-I wish it were,--that in this moral power, quite inscrutable and immeasurable though it be, there is a monetary value just as real as that represented by more ponderous currencies. A man's hand may be full of invisible gold, and the wave of it, or the grasp, shall do more than another's with a shower of bullion. This invisible gold, also, does not necessarily diminish in spending. Political economists will do well some day to take heed of it, though they cannot take measure.

But farther. Since the essence of wealth consists in its authority orer men, if the apparent or nominal wealth fail in this power, it fails in essence ; in fact, ceases to be wealth at all. It does not appear lately in England, that our authority orer men is absolute. The serrants show some disposition to rush riotously upstairs, under an impression that their wages are not regularly paid. We should augur ill of any gentleman's property to whom this happened every other day in his drawing-room.

So, also, the power of our wealth seems limited as respects the comfort of the servants, no less than their quietude. The persons in the kitchen appear to be ill-dressed, squalid, halfstarved. One cannot help imagining that the riches of the establishment must be of a very theoretical and documentary character.
40. Finally. Since the essence of wealth consists in power
over men, will it not follow that the nobler and the more in number the persons are orer whom it has power, the greater the wealth? Perhaps it may even appear, after some consideration, that the persons themselves are the wealth-that these pieces of gold with which we are in the habit of guiding them, are, in fact, nothing more than a kind of Byzantine harness or trappings, very glittering and beautiful in barbaric sight, wherewith we bridle the creatures; but that if these same living creatures could be guided without the fretting and jingling of the Byzants in their mouths and ears, they might themselves be more valuable than their bridles. In fact, it may be discovered that the true veins of wealth are purple-and not in Rock, but in Flesh-perhaps even that the final outcome and consummation of all wealth is in the producing as many as possible full-breathed, bright-eyed, and happy-hearted human creatures. Our modern wealth, I think, has rather a tendency the other way;-most political economists appearing to consider multitudes of human creatures not conducive to wealth, or at best conducive to it only by remaining in a dim-eyed and narrow-chested state of being.
41. Nerertheless, it is open, I repeat, to serious question, which I leave to the reader's pondering, whether, among national manufactures, that of Souls of a good quality may not at last turn out a quite leadingly lucrative one? Nay, in some far-away and yet undreamt-of hour, I can even imagine that England may cast all thoughts of possessive wealth back to the barbaric nations among whom they first arose; and that, while the sands of the Indus and adamant of Golconda may yet stiffen the housings of the charger, and flash from the turban of the slave, she, as a Christian mother, may at last attain to the virtues and the treasures of a Heathen one, and be able to lead forth her Sons, saying,-

[^105]
## ESSAY III.

## QUI JUDICATIS TERRAM.

42. Some centuries before the Christian era, a Jew merchant, largely engaged in business on the Gold Coast, and reported to have made one of the largest fortunes of his time (held also in repute for much practical sagacity), left among his ledgers some general maxims concerning wealth, which have been preserved, strangely enough, even to our own days. They were held in considerable respect by the most active traders of the middle ages, especially by the Venetians, who even went so far in their admiration as to place a statue of the old Jew on the angle of one of their principal public buildings. Of late years these writings have fallen into disrepute, being opposed in every particular to the spirit of modern commerce. Nevertheless I shall reproduce a passage or two from them here, partly because they may interest the reader by their novelty; and chiefly because they will show him that it is possible for a very practical and acquisitive tradesman to hold, through a not unsuccessful career, that principle of distinction between well-gotten and ill-gotten wealth, which, partially insisted on in my last paper, it must be our work more completely to examine in this.
43. He says, for instance, in one place: " The getting of treasures by a lying tongue is a vanity tossed to and fro of them that seek death;" adding in another, with the same meaning (he has a curious way of doubling his sayings): "Treasures of wickedness profit nothing: but justice delivers from death." Both these passages are notable for their assertions of death as the only real issue and sum of attainment by any unjust scheme of wealth. If we read, instead
of " lying tongue," " lying label, title, pretense, or adrertisement," we shall more clearly perceive the bearing of the words on modern business. The secking of death is a grand expression of the true course of men's toil in such business. We usually speak as if death pursued us, and we fled from him; but that is only so in rare instances. Ordinarily he masks himself-makes himself beautiful-all-glorious; not like the King's daughter, all-glorions within, but outwardly: his clothing of wrought gold. We pursue him frantically all our days, he flying or hiding from us. Our crowning success at threc-score and ten is utterly and perfectly to seize, and hold him in his eternal integrity-robes, ashes, and sting.

Again: the merchant says, "He that oppresseth the poor to increase his riches, shall surely come to want." And again, more strongly: "Rob not the poor because he is poor; neither oppress the afflicted in the place of business. For God shall spoil the soul of those that spoiled them."

This "robbing the poor because he is poor," is especially the mercantile form of theft, consisting in taking advantage of a man's necessities in order to obtain his labor or property at a reduced price. The ordinary highwayman's opposite form of robbery-of the rich, because he is rich-does not appear to occur so often to the old merchant's mind; probably because, being less profitable and more dangerous than the robbery of the poor, it is rarely practiced by persons of discretion.
44. But the two most remarkable passages in their deep general significance are the following:-
"The rich and the poor have met. God is their maker."
"The rich and the poor have met. God is their light."
They "have met": more literally, lave stood in each other's way (obviaverunt). That is to say, as long as the world lasts, the action and counteraction of wealth and poverty, the mecting, face to face, of rich and poor, is just as appointed and necessary a law of that world as the flow of stream to sea, or the interchange of power among the electric clouds :-" God is their maker." But, also, this action may
be either gentle and just, or convulsive and destructive: it may be by rage of devouring flood, or by lapse of serviceable wave;-in blackness of thunderstroke, or continual force of vital fire, soft, and shapable into love-syllables from far away. And which of these it slall be, depends on both rich and poor knowing that God is their light ; that in the mystery of human life, there is no other light than this by which they can sce each other's faces, and live;-light, which is called in another of the books among which the merchant's maxims have been preserved, the "sun of justice," * of which it is promised that it shall rise at last with "healing" (healthgiving or helping, making whole or setting at one) in its wings. For truly this healing is only possible by means of justice ; no love, no faith, no hope will do it; men will be unwiscly fond-vainly faithful,-unless primarily they are just; and the mistake of the best men through generation after generation, has been that great one of thinking to help the poor by almsgiving, and by preaching of patience or of hope, and by every other means, emollient or consolatory, except the one thing which God orders for them, justice. But this justice, with its accompanying holiness or helpfulness, being even by the best man denied in its trial time, is by the mass of men hated wherever it appears: so that, when the choice was one day fairly put to them, they denied the

[^106]Helpful One and the Just; * and desired a murderer, sedi-tion-raiser, and robber, to be granted to them ;-the murderer instead of the Lord of Life, the sedition-raiser instead of the Prince of. Peace, and the robber instead of the Just Judge of all the world.
45. I have just spoken of the flowing of streams to the sea as a partial image of the action of wealth. In one respect it is not a partial, but a perfect image. The popular economist thinks himself wise in having discovered that wealth, or the forms of property in general, must go where they are required; that where demand is, supply must follow. He farther declares that this course of demand and supply cannot be forbidden by human laws. Precisely in the same sense, and with the same certainty, the waters of the world go where they are required. Where the land falls, the water flows. The course neither of clouds nor rivers can be forbidden by human will. But the disposition and administration of them can be altered by human forethought. Whether the stream shall be a curse or a blessing, depends upon man's labor, and administrating intelligence. For centuries after centuries, great districts of the world, rich in soil, and favored in climate, have lain desert under the rage of their own rivers; nor only desert, but plague-struck. The stream which, rightly directed, would have flowed in soft irrigation from field to field-would hare purified the air, given food to man and beast, and carried their burdens for them on its bosomnow orerwhelms the plain and poisons the wind; its breath pestilence, and its work famine. In like manner this wealth "goes where it is required." No human laws can withstand its flow. They can only guide it: but this, the leading trench and limiting mound can do so thoroughly, that it shall become water of life-the riches of the hand of wisdom; $\dagger$ or, on the contrary, by learing it to its own lawless flow, they may make it, what it has been too often, the last and deadliest of national

[^107]plagues: water of Marah-the water which feeds the roots of all evil.

The necessity of these laws of distribution or restraint is curionsly overlooked in the ordinary political economist's definition of his own "science." He calls it, shortly, the "science of getting rich." But there are many sciences, as well as many arts, of getting rich. Poisoning people of large estates, was one employed largely in the middle ages; adnlteration of food of people of small estates, is one employed largely now. The ancient and honorable Highland method of black-mail; the more modern and less honorable system of obtaining goods on credit, and the other varionsly improved methods of appropriation-which, in major and minor seales of industry, down to the most artistic pocket-picking, we owe to recent genius,-all come under the gencral head of sciences, or arts, of getting rich.
46. So that it is clear the popular economist, in calling his scicnce the science par excellence of getting rich, must attach some peculiar ideas of limitation to its character. I hope I do not misrepresent him, by assuming that he means his science to be the science of "getting rich by legal or just means." In this definition, is the word " just," or "legal," finally to stand?. For it is possible among certain nations, or under certain rulers, or by help of certain advocates, that proceedings may be legal which are by no means just. If, thercfore, we leave at last only the word " just" in that place of our definition, the insertion of this solitary and small word will make a notable difference in the grammar of our science. For then it will follow that in order to grow rich scientifically, we must grow rich justly; and, therefore, know what is just; so that our economy will no longer depend merely on prudence, but on jurisprudence-and that of divine, not human law. Which prudence is indeed of no mean order, holding itself, as it were, high in the air of heaven, and gazing for ever on the light of the sun of justice; hence the souls which have excelled in it are represented by Dante as stars forming in heaven for ever the figure of the eye of an eagle; they.
having been in life the diseerners of light from darkness; or to the whole human race, as the light of the body, which is the eye; while those souls which form the wings of the bird (giving power and dominion to justice, "healing in its wings ") trace also in light the inscription in heaven: " diligite justitiam qui judicatis terram." "Ye who judge the earth, give" (not, observe, merely love, but) " diligent love to justice": the love which seeks diligently, that is to say, choosingly, and by preference to all things else. Which judging or doing judgment in the earth is, according to their capacity and position, required not of judges only, nor of rulers only, but of all men:* a truth sorrowfully lost sight of even by those who are ready enongh to apply to themselves passages in which Christian men are spoken of as called to be "saints" (i.e. to helpful or healing functions) ; and " chosen to be kings" (i. e. to knowing or directing functions) ; the true meaning of these titles having been long lost through the pretenses of unhelpful and unable persons to saintly and kingly character; also through the once popular idea that both the sanctity and royalty are to consist in wearing long robes and high crowns, instead of in mercy and judgment; whereas all true sanctity is saving power, as all true royalty is ruling power; and injustice is part and parcel of the denial of such power, which "makes men as the creeping things, as the fishes of the sea, that have no ruler over them." $\dagger$

[^108]47. Absolute justice is indeed no more attainable than absolute truth; but the righteous man is distinguished from the unrighteous by his desire and hope of justice, as the true man from the false by his desire and hope of truth. And though absolute justice be unattainable, as much justice as we need for all practical use is attainable by all those who make it their aim.

We have to examine, then, in the subject before us, what are the laws of justice respecting payment of labor-no small part, these, of the foundations of all jurisprudence.

I reduced, in my last paper, the idea of money parment to its simplest or radical terms. In those terms its nature, and the conditions of justice respecting it, can be best ascertained.

Money payment, as there stated, consists radically in a promise to some person working for us, that for the time and labor he spends in our service to-day we will give or procure equivalent time and labor in his service at any future time when he may demand it.*

If we promise to give him less labor than he has given us, we under-pay him. If we promise to give him more labor than he has given us, we over-pay him. In practice, according to the laws of demand and supply, when two men are ready to do the work, and only one man wants to have it done, the two men underbid each other for it; and the one who gets it to do, is under-paid. But when two men want the work done, and there is only one man ready to do it, the two men who want it done overbid each other, and the workman is over-paid.

[^109]4S. I will examine these two points of injustice in succession; but first I wish the reader to clearly understand the central principle, lying between the two, of right or just parment.

When we ask a service of any man, he may either give it us freely, or demand payment for it. Respecting free gift of service, there is no question at present, that being a matter of affection-not of traffic. But if he demand parment for it, and we wish to treat him with absolute equity, it is evident that this equity can only consist in giving time for time, strength for strength, and skill for skill. If a man works an hour for us, and we only promise to work half an hour for him in return, we obtain an unjust advantage. If, on the contrary, we promise to work an hour and a half for him in return, he has an unjust advantage. The justice consists in absolute exchange; or, if there be any respect to the stations of the parties, it will not be in favor of the employer: there is certainly no equitable reason in a man's being poor, that if he give me a pound of bread to-day, I should return him less than a pound of bread to-morrow; or any equitable reason in a man's being uneducated, that if he uses a certain quantity of skill and knowledge in my service, I should use a less quantity of skill and knowledge in his. Perhaps, ultimately, it may appear desirable, or, to say the least, gracious, that I should give in return somewhat more than I received. But at present, we are concerned on the law of justice only, which is that of perfect and accurate exchange; -one circumstance only interfering with the simplicity of this radical idea of just payment-that inasmuch as labor (rightly directed) is fruitful just as seed is, the fruit (or "interest," as it is called) of the labor first given, or "advanced," ought to be taken into account, and balanced by an additional quantity of labor in the subsequent repayment. Supposing the repayment to take place at the end of the year, or of any other giren time, this calculation could be approximately made, lut as money (that is to say, cash) payment involves no reference to timre (it being optional with the
person paid to spend what he receives at once or after any number of years), we can only assume, generally, that some slight adrantage must in equity be allowed to the person who adrances the labor, so that the typical form of bargain will be: If you give me an hour to-day, I will give you an hour and five minutes on demand. If you give me a pound of bread to-day, I will give you seventeen ounces on demand, and so on. All that is necessary for the reader to note is, that the amount returned is at least in equity not to be less than the amount given.

The abstract idea, then, of just or due wages, as respects the laborer, is that they will consist in a sum of money which will at any time procure for him at least as much labor as he has given, rather more than less. And this equity or justice of payment is, observe, wholly independent of any reference to the number of men who are willing to do the work. I want a horseshoe for my horse. Twenty smiths, or twenty thousand smiths may be ready to forge it; their number does not in one atom's weight affect the question of the equitable payment of the one who does forge it. It costs him a quarter of an hour of his life, and so much skill and strength of arm, to make that horseshoe for me. Then at some future time I am bound in equity to give a quarter of an hour, and some minutes more, of my life (or of some other person's at my disposal), and also as much strength of arm and skill, and a little more, in making or doing what the smith may have need of.
49. Such being the abstract theory of just remunerative payment, its application is practically modified by the fact that the order for labor, given in payment, is general, while the labor received is special. The current coin or document is practically an order on the nation for so much work of any kind; and this universal applicability to immediate need renders it so much more valuable than special labor can be, that an order for a less quantity of this general toil will always be accepted as a just equivalent for a greater quantity of special toil. Any given craftsman will always be willing
to give an hour of his own work in order to receive command orer half an hour, or even much less, of national work. This source of uncertainty, together with the difficulty of determining the monetary value of skill,* render the asecrtainment (even approximate) of the proper wages of any given labor in terms of a currency, matter of considerable complexity. But they do not affect the principle of excliange.

* Under the term "skill" I mean to include the united force of experience, intellect, and passion, in their operation on manual labor: and under the term " passion," to include the entire range and agency of the moral feelings; from the simple patience and gentleness of mind which will gire continuity and fineness to the touch, or enable one person to work without fatigue, and with good effect, twice as long as another, up to the qualities of character which render science possible-(the retardation of science by envy is one of the most tremendous losses in the economy of the present century) -and to the incommunicable emotion and imagination which are the first and mightiest sources of all value in art.

It is highly singular that political economists should not yet have perceived, if not the moral, at least the passionate element, to be an inextricable quantity in every calculation. I cannot conceive, for instance, how it was possible that Mr. Mill should hare followed the true clue so far as to write,-" No limit can be set to the importance-even in a purely productive and material point of view-of mere thought," without seeing that it was logically necessary to add also, "and of mere feeling." And this the more, because in his first definition of labor he includes in the idea of it " all feelings of a disagreeable lind connected with the employment of ones thoughts in a particular occupation." True ; but why not also, "feelings of an agreeable kind"? It can hardly be supposed that the feelings which retard labor are more essentially a part of the labor than those which accelerate it. The first are paid for as pain, the second as power. The workman is merely indemnified for the first; but the second both produce a part of the exchangeable value of the work, and materially increase its actual quantity.
"Fritz is with us. He is worth fifty thousand men." Truly, a large addition to the material force;-consisting, however, be it observed, not more in operations carried on in Fritz's head, than in operations carried on in his armies' heart. "No limit can be set to the importance of mere thought." Perhaps not! Nay, suppose some day it should turn out that "mere" thought was in itself a recommendable object of production, and that all Material production was only a step towards this more precious Immaterial one?

The worth of the work may not be easily known; but it has a worth, just as fixed and real as the specific gravity of a substance, though such specific grarity may not be easily ascertainable when the substance is united with many others. Nor is there so much difficulty or chance in determining it, as in determining the ordinary maxima and minima of vulgar political economy. There are few bargains in which the buyer can ascertain with anything like precision that the seller would have taken no less;-or the seller acquire more than a comfortable faith that the purchaser would hare given no more. This impossibility of precise knowledge prevents neither from striving to attain the desired point of greatest rexation and injury to the other, nor from accepting it for a scientific principle that he is to buy for the least and sell for the most possible, though what the real least or most may be he camot tell. In like manner, a just person lays it down for a scientific principle that he is to pay a just price, and, without being able precisely to ascertain the limits of such a price, will nevertheless strive to attain the closest possible approximation to them. A practically serviceable approximation he can obtain. It is easier to determine scientifically what a man ought to have for his work, than what his necessities will compel him to take for it. His necessities can only be ascertained by empirical, but his due by analytical, investigation. In the one case, you try your answer to the sum like a puzzled school-boy-till you find one that fits; in the other, you bring out your result within certain limits, by process of calculation.
50. Supposing, then, the just wages of any quantity of given labor to have been ascertained, let us examine the first results of just and unjust payment, when in faror of the purchaser or employer: i.e., when two men are ready to do the work, and only one wants to have it done.

The unjust purchaser forces the two to bid against each other till he has reduced their demand to its lowest terms. Let us assume that the lowest bidder offers to do the work at half its just price.

The purchaser employs him, and does not employ the other. The first or apparent result is, therefore, that one of the two men is left out of employ, or to starvation, just as definitely as by the just procedure of giving fair price to the best workman. The various writers who endeavored to invalidate the positions of my first paper never saw this, and assumed that the unjust hirer employed both. He employs both no more than the just hirer. The only difference (in the outset) is that the just man pays sufficiently, the unjust man insufficiently, for the labor of the single person employed.

I say, " in the outset"; for this first or apparent difference is not the actual difference. By the unjust procedure, half the proper price of the work is left in the hands of the employer. This enables him to hire another man at the same unjust rate, on some other kind of work; and the final result is that he has two men working for him at half-price, and two are out of employ.
51. By the just procedure, the whole price of the first picce of work goes into the hands of the man who does it. No surplus being left in the employer's hands, he eamnot hire another man for another piece of labor. But by precisely so much as his power is diminished, the hired workman's power is increased: that is to say, by the additional half of the price he has received; which additional half he has the power of using to employ another man in his service. I will suppose, for the moment, the least favorable, though quite probable, ease-that, though justly treated himself, he yet will act unjustly to his subordinate; and hire at half-priee if he can. The final result will then be, that one man works for the employer, at just price; one for the workman, at halfprice; and two, as in the first ease, are still out of employ. These two, as I said before, are out of employ in both eases. The difference between the just and unjust procedure does not lie in the number of men hired, but in the price paid to them, and the persons by whom it is paid. The essential difference, that which I want the reader to see clearly, is, that in the unjust ease, two men work for one, the first hirer.

In the just case, one man works for the first hirer, one for the person hired, and so on, down or up through the varions grades of service; the influence being carried forward by justice, and arrested by injustice. The universal and constant action of justice in this matter is therefore to diminish the power of wealth, in the hands of one individual, over masses of men, and to distribute it through a chain of men. The actual power exerted by the wealth is the same in both cases; but by injustice it is put all into one man's hands, so that he directs at once and with equal force the labor of a circle of men about him; by the just procedure, he is permitted to touch the nearest only, through whom, with diminished force, modified by new minds, the energy of the wealth passes on to others, and so till it exhausts itself.
52. The immediate operation of justice in this respect is therefore to diminish the power of wealth, first, in acquisition of luxury, and secondly, in exercise of moral influence. The employer cannot concentrate so multitudinous labor on his own interests, nor can he subdue so multitudinous mind to his own will. But the secondary operation of justice is not less important. The insufficient payment of the group of men working for one, places each under a maximum of difficulty in rising above his position. The tendency of the system is to check advancement. But the sufficient or just payment, distributed through a descending series of offices or grades of labor,* gives each subordinated person fair and sufficient

[^110]means of rising in the social scale, if he chooses to use them; and then not only diminishes the immediate power of wealth, but remores the worst disabilities of porerty.
53. It is on this vital problem that the entire destiny of the laborer is ultimately dependent. Many minor interests may sometimes appear to interfere with it, but all branch from it. For instance, considerable agitation is often caused in the minds of the lower classes when they discover the share which they nominally, and to all appearance, actually, pay ont of their wages in taxation (I believe thirty-five or forty per cent.). This sounds very grierous; but in reality the laborer does not pay it, but his employer. If the workman had not to pay it, his wages would be less by just that sum; competition would still reduce them to the lowest rate at which life was possible. Similarly the lower orders agitated for the repeal of the corn laws,* thinking they would
never was, nor ever will be, done for money at all ; but chiefly because, the moment people know they have to pay the bad and good alike, they will try to discern the one from the other, and not use the bad. A sagacious writer in the Scotsman asks me if I should like any common scribbler to be paid by Messrs. Smith, Elder and Co. as their good authors are. I should, if they employed him-but would seriously recommend them, for the scribbler's sake as well as their own, not to employ him. The quantity of its money, which the country at present invests in scribbling is not, in the outcome of it, economically spent: and even the highly ingenious person to whom this question occurred, might perhaps have been more beneficially employed than in printing it.

* I have to acknowledge an interesting communication on the subject of free trade from Yaisley (for a short letter from "A Wellwisher" at - my thanks are yet more due). But the Scottish writer will. I fear, be disagreeably surprised to hear, that I am, and always have been, an utterly fearless and unscrupulous free-trader. Seven years ago, speaking of the various signs of infancy in the European mind ('Stones of Venice,' volume iii.), I wrote: "The first principles of commerce were acknowledged by the English parliament only a fer months ago, in its free-trade measures, and are still so little understood by the million, that no nation dares to abolish its customhouses."

It will be observed that I do not admit eren the idea of reciprocity. Let other nations, if they like, keep their ports shut; every wise nation will throw its own open. It is not the opening them, but a sudden,
be better off if bread were cheaper; never perceiring that as soon as bread was permanently cheaper, wages would permanently fall in precisely that proportion. The corn laws were rightly repealed; not, however, because they directly oppressed the poor, but because they indirectly oppressed them in causing a large quantity of their labor to be consumed unproductively. So also unnccessary taxation oppresses them, through destruction of capital ; but the destiny of the poor depends primarily always on this one question of dueness of wages. Their distress (irrespectively of that caused by sloth, minor error, or crime) arises on the grand scale from the two reacting forces of competition and oppression. There is not yet, nor will yet for ages be, any real overpopulation in the world; but a local over-population, or, more accurately, a degree of population locally unmanageable under existing circumstances for want of forethought and sufficient machinery, necessarily shows itself by pressure of
inconsiderate, and blunderingly experimental manner of opening them, which does harm. If you have been protecting a manufacture for a long series of years, you must not take the protection off in a moment, so as to throw every one of its operatives at once out of employ, any more than you must take all its wrappings off a feeble child at once in cold weather, though the cumber of them may have been radically injuring its health. Little by little, you must restore it to freedom and to air.

Most people's minds are in curious confusion on the subject of freetrade, because they suppose it to imply enlarged competition. On the contrary, free-trade puts an end to all competition. "Protection" (among various other mischievous functions) endeavors to enable one country to compete with another in the production of an article at a disadvantage. When trade is entirely free, no country can be competed with in the articles for the production of which it is naturally calculated; nor can it compete with any other, in the production of articles for which it is not naturally calculated. Tuscany, for instance, cannot compete with England in steel, nor England with Tuscany in oil. They must exchange their steel and oil. Which exchange should be as frank and free as honesty and the sea-winds can make it. Competition, indeed, arises at first, and sharply, in order to prove which is strongest in any given manufacture possible to both; this point once ascertained, competition is at an end.
competition; and the taking advantage of this competition by the purchaser to obtain their labor unjustly cheap, consummates at once their suffering and his own; for in this (as I believe in every other kind of slavery) the oppressor suffers at last more than the oppressed, and those magnificent lines of Pope, even in all their force, fall short of the truth:-

> "Yet, to be just to these poor men of pelf, Each does but Hate his NEIGHBOR As HiMSELF: Dammed to the mines, an equal fate betides The slave that digs it, and the slave that hides."
54. The collateral and reversionary operations of justice in this matter I shall examine hereafter (it being needful first to define the nature of value) ; proceeding then to consider within what practical terms a juster system may be established; and ultimately the vexed question of the destinies of the unemployed workmen.* Lest, however, the reader

[^111]should be alarmed at some of the issues to which our investigations seem to be tending, as if in their bearing against the power of wealth they had something in common with those of socialism, I wish him to know, in accurate terms, one or two of the main points which I have in view.

Whether socialism has made more progress among the army and navy (where payment is made on my principles), or among the manufacturing operatives (who are paid on my opponents' principles), I leave it to those opponents to ascertain and declare. Whatever their conclusion may be, I think it necessary to answer for myself only this: that if there be any one point insisted on throughout my works more frequently than another, that one point is the impossibility of Equality. My continual aim has been to show the eternal superiority of some men to others, sometimes even of one man to all others; and to show also the advisability of appointing such persons or person to guide, to lead, or on occasion cren to compel and subdue, their inferiors according to their own better knowledge and wiser will. My principles of Political Economy were all involved in a single phrase spoken three years ago at Manchester: "Soldiers of the Plowshare as well as Soldiers of the Sword:" and they were all summed in a single sentence in the last volume of 'Modern Painters'"Government and co-operation are in all things the Laws of Life ; Anarchy and competition the Laws of Death."

And with respect to the mode in which these general principles affect the secure possession of property, so far am I from invalidating such security, that the whole gist of these papers will be found ultimately to aim at an extension in its range; and whereas it has long been known and declared that the poor have no right to the property of the rich, I wish it also to be known and declared that the rich have no right to the property of the poor.
55. But that the working of the system which I have undertaken to develop would in many ways shorten the apparent and direct, though not the unseen and collateral, power, both of wealth, as the Lady of Pleasure, and of capi-
tal as the Lord of Toil, I do not deny: on the contrary, I aftirm it in all joyfuhness; knowing that the attraction of riches is already too strong, as their authority is already too weighty, for the reason of mankind. I said in my last paper that nothing in history had ever been so disgraceful to hmman intellect as the acceptance among us of the common doctrines of political cconomy as a science. I have many grounds for saying this, but one of the chief may be given in few words. I know no previous instance in history of a nation's establishing a systematic disobedience to the first principles of its professed religion. The writings which we (rerbally) esteem as divine, not only denounce the love of money as the source of all evil, and as an idolatry abhorred of the Deity, but declare mammon service to be the accurate and irreconcilable opposite of God's service: and, whenever they speak of riches absolute, and poverty absolute, declare woe to the rich, and blessing to the poor. Whereupon we forthwith investigate a science of becoming rich, as the shortest road to national prosperity.

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" Tai Cristian dannerà l'Etiòpe, Quando si partiranno i due collegi, L'uno in eterno ricco, e L'altro inope." .
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## ESSAY IV.

## AD VALOREM.

56. In the last paper we saw that just payment of labor consisted in a sum of money which would approximately obtain equivalent labor at a future time: we have now to examine the means of obtaining such equivalence. Which question involres the definition of Value, Wealth, Price, and Produce.

None of these terms are yet defined so as to be understood by the public. But the last, Produce, which one might have thought the clearest of all, is, in use, the most ambiguous; and the examination of the kind of ambiguity attendant on its present employment will best open the way to our work.

In his chapter on Capital,* Mr. J. S. Mill instances, as a capitalist, a hardware manufacturer, who, having intended to spend a certain portion of the proceeds of his business in buying plate and jewels, changes his mind, and "pays it as wages to additional workpeople." The effect is stated by Mr. Mill to be, that "more food is appropriated to the consumption of productive laborers."
57. Now I do not ask, though, had I written this paragraph, it would surely have been asked of me, What is to become of the silversmiths? If they are truly unproductive persons, we will acquiesce in their extinction. And though in another part of the same passage, the hardware merchant is supposed also to dispense with a number of servants, whose "food is thus set free for productive purposes," I do not inquire what will be the effect, painful or otherwise, upon

[^112]the servants, of this emancipation of their food. But I very serinusly inquire why ironware is produce, and silverware is not? That the merchant consumes the one, and sells the other, certainly does not constitute the difference, unless it can be shown (which, indeed, I perceive it to be becoming daily more and more the aim of tradesmen to show) that commodities are made to be sold, and not to be consumed. The merchant is an agent of conseyance to the consumer in one case, and is himself the consumer in the other: * but the laborers are in either case equally productive, since they have produced goods to the same value, if the hardware and the plate are both goods.

And what distinction separates them? It is indeed possible that in the "comparative estimate of the moralist," with which Mr. Mill says political economy has nothing to do (III. i. 2), a steel fork might appear a more substantial production than a silver one: we may grant also that knives, no less than forks, are good produce; and scythes and plowshares serviceable articles. But, how of bayonets? Supposing the hardware merchant to effect large sales of these, by help of the "setting free" of the food of his servants and his silversmith,-is he still employing productive laborers, or, in Mr. Mill's words, laborers who increase "the stock of permanent means of enjoyment " (I. iii. 4)? Or if, instead of bayonets, he supply bombs, will not the absolute and final "enjoyment" of even these energetically productive articles

* If Mr. Mill had wished to show the difference in result between consumption and sale, he should have represented the hardware merchant as consuming his own goods instead of selling them ; similarly, the silver merchant as consuming his own goods instead of selling them. Had he done this, he would have made his position clearer, though less tenable; and perhaps this was the position he really intended to take, tacitly inrolving his theory, elsewhere stated, and shown in the sequel of this paper to be false, that demand for commodities is not demand for labor. But by the most diligent scrutiny of the paragraph now under examination, I cannot determine whether it is a fallacy pure and simple, or the half of one fallacy supported by the whole of a greater one; so that I treat it here on the kinder assumption that it is one fallacy ouly.
(each of which costs ten pounds*) be dependent on a proper choice of time and place for their enfantement; choice, that is to say, depending on those philosophical considerations with which political economy has nothing to do ? $\dagger$

58. I should have regretted the need of pointing out inconsistency in any portion of Mr. Mill's work, had not the ralue of his work proceeded from its inconsistencies. He deserves honor among economists by inadvertently disclaiming the principles which he states, and tacitly introducing the moral considerations with which he declares his science has no connection. Many of his chapters are, therefore, true and valuable; and the only conclusions of his which I have to dispute are those which follow from his premises.

Thus, the idea which lies at the root of the passage we have just been examining, namely, that labor applied to produce luxuries will not support so many persons as labor applied to produce useful articles, is entirely true; but the instance given fails-and in four directions of failure at once-because Mr. Mill has not defined the real meaning of usefulness. The definition which he has given-" capacity to satisfy a desire, or serve a purpose " (III. i. 2)-applies equally to the iron and silver; while the true definitionwhich he has not given, but which nevertheless underlies the false verbal definition in his mind, and comes out once or twice by accident (as in the words " any support to life or strength " in I. i. 5) -applies to some articles of iron, but not to others, and to some articles of silver, but not to others. It applies to plows, but not to bayonets; and to forks, but not to filigree. $\ddagger$

[^113]59. The eliciting of the true definitions will give us the reply to our first question, "What is value?" respecting which, howerer, we must first hear the popular statements.
"The word 'value,' when used without adjunct, always means, in political economy, value in exchange " (Mill, HI. i. 3). So that, if two ships cannot exchange their rudders, their rudders are, in politico-economic language, of no value to either.

But "the subject of political economy is wealth."(Preliminary remarks, page 1.)

And wealth " consists of all useful and agreeable objects which possess exchangeable value."-(Preliminary remarks, page 10.)

It appears, then, according to Mr. Mill, that usefulness and agrecableness moderlie the exchange value, and must be ascertained to exist in the thing, before we can esteem it an olject of wealth.

Now, the economical usefulness of a thing depends not merely on its own nature, but on the number of people who can and will use it. A horse is useless, and therefore unsalable, if no one can ride, -a sword, if no one can strike, and meat, if no one can eat. Thus every material utility depends on its relative human capacity.

Similarly: The agrecableness of a thing depends not merely on its own likableness, but on the number of people who ean be got to like it. The relative agreeableness, and therefore salableness, of "a pot of the smallest ale," and of " Adonis painted by a running brook," depends rirtually on the opinion of Demos, in the shape of Christopher Sly. That is to say, the agreeableness of a thing depends on its relatively human disposition.* Therefore, political ceonomy, being a

[^114]science of wealth, must be a seience respecting human capacities and dispositions. But moral considerations have nothing to do with political economy (III. i. 2). Therefore, moral considerations have nothing to do with human capacities and dispositions.
60. I do not wholly like the look of this conclusion from Mr. Mill's statements:-let us try Mr. Ricardo's.
"Utility is not the measure of exchangeable value, though it is absolutely essential to it."-(Chap. I. sect. i.) Essential in what degree, Mr. Ricardo? There may be greater and less degrees of utility. Meat, for instance, may be so good as to be fit for any one to eat, or so bad as to be fit for no one to eat. What is the exact degree of goodness which is " essential" to its exchangeable value, but not " the measure " of it? How good must the meat be, in order to possess any exchangeable ralue? and how bad must it be- (I wish this were a settled question in London markets)-in order to possess none?

There appears to be some hitch, I think, in the working even of Mr. Ricardo's principles; but let him take his own example. "Suppose that in the early stages of society the bows and arrows of the hunter were of equal value with the implements of the fisherman. Under such circumstances the value of the deer, the produce of the hunter's day's labor, would be exactly" (italies mine) "equal to the value of the fish, the product of the fisherman's day's labor. The comparative value of the fish and game would be entirely regu-
advancement, and domestic love. And thus the agreeableness or exchange value of every offered commodity depends on production, not merely of the commodity, but of buyers of it ; therefore on the education of buyers, and on all the moral elements by which their disposition to buy this, or that, is formed. I will illustrate and expand into final consequences every one of these definitions in its place : at present they can only be given with extremest brevity : for in order to put the subject at once in a connected form before the reader, I have thrown into one, the opening definitions of four chapters : namely, of that on Value ("Ad Valorem ") ; on Price ("Thirty Pieces"); on Production ("Demeter"); and on Economy (" The Law of the House").
lated by the quantity of labor realized in each." (Ricardo, chap. iii. On Value.)

Indeed! Therefore, if the fisherman eatches one sprat, and the huntsman one deer, one sprat will be equal in value to one deer; but if the fisherman catches no sprat and the huntsman two deer, no sprat will be equal in value to two deer?

Nay; lut-Mr. Ricardo's supporters may say-he means, on an average;-if the average product of a day's work of fisher and hunter be one fish and one deer, the one fish will always be equal in value to the one deer.

Might I inquire the species of fish. Whale? or whitebait ? *

* Perhaps it may be said, in farther support of Mr. Ricardo, that he meant, "when the utility is constant or given, the price varies as the quantity of labor." If he meant this, he should have said it; but, had he meant it, he could have hardly missed the necessary result, that utility would be one measure of price (which he expressly denies it to be); and that, to prove salableness, he had to prove a given quantity of utility, as well as a given quantity of labor; to wit, in his own instance, that the deer and fish would each feed the same number of men, for the same number of days, with equal pleasure to their palates. The fact is, he did not know what he meant himself. The general idea which he had derived from commercial experience, without being able to analyze it, was that when the demand is constant, the price varies as the quantity of labor required for production ; or, using the formula I gave in last paper-when $y$ is constant, $x y$ varies as $x$. But demand never is nor can be ultimately constant, if $x$ raries distinctly ; for, as price rises, consumers fall away; and as soon as there is a monopoly (and all scarcity is a form of monopoly, so that every commodity is affected occasionally by some color of monopoly), $y$ becomes the most influential condition of the price. Thus the price of a painting depends less on its merit than on the interest taken in it by the public; the price of singing less on the labor of the singer than the number of persons who desire to hear him ; and the price of gold less on the scarcity which affects it in common with cerium or iridium, than on the sunlight color and unalterable purity by which it attracts the admiration and answers the trust of mankind.
It must be kept in mind, however, that I use the word "demand" in a somewhat different sense from economists usually. They mean by it "the quantity of a thing sold." I mean by it "the force of the

It would be waste of time to pursue these fallacies farther ; we will seek for a true definition.
61. Much store has been set for centurics upon the use of our English classical education. It were to be wished that our well-educated merchants recalled to mind alwars this much of their Latin schooling, -that the nominative of valorem (a word already sufficiently familiar to them) is valor; a word which, therefore, ought to be familiar to them. Valor, from valere, to be well or strong (úytaive); -strong, in life (if a man), or valiant; strong, for life (if a thing), or valuable. To be "valuable," therefore, is to " avail towards life." A truly valuable or arailing thing is that which leads to life with its whole strength. In proportion as it does not lead to life, or as its strength is broken, it is less valuable; in proportion as it leads away from life, it is unvaluable or malignant.

The value of a thing, therefore, is independent of opinion, and of quantity. Think what you will of it, gain how much you may of it, the value of the thing itself is neither greater nor less. For ever it arails, or avails not; no estimate can raise, no disdain repress, the power which it holds from the Maker of things and of men.

The real science of political economy, which has yet to be distinguished from the bastard science, as medicine from witcheraft, and astronomy from astrology, is that which teaches nations to desire and labor for the things that lead to life: and which teaches them to scorn and destroy the things that lead to destruction. And if, in a state of infance,
buyer's capable intention to buy." In good English, a person"s "demand" signifies, not what he gets, but what he asks for.

Economists also do not notice that objects are not valued by absolute bulk or weight, but by such balk and weight as is necessary to bring them into use. They say, for instance, that water bears no price in the market. It is true that a cupful does not, but a lake does ; just as a handful of dust does not, but an acre does. And were it possible to make even the possession of a cupful or handful permanent (i.e., to find a place for them), the earth and sea would be bought up by handfuls and cupfuls.
they supposed indifferent things, such as excrescences of shell-fish, and pieces of blue and red stone, to be valuable, and spent large measures of the labor which ought to be employed for the extension and ennobling of life, in diving or digging for them, and cutting them into various shapes,or if, in the same state of infance, they imagine precious and beneficent things, such as air, light, and cleanliness, to be valueless,-or if, finally, they imagine the conditions of their own existence, by which alone they can truly possess or use allything, such, for instance, as peace, trust, and love, to be prudently exchangeable, when the markets offer, for gold, iron, or excrescences of shells-the great and only seience of Political Eeonomy teaches them, in all these cases, what is vanity, and what substance; and how the service of Death, the Lord of Waste, and of eternal emptiness, differs from the service of Wisdom, the Lady of Saving, and of eternal fullness; she who has said, "I will cause those that love me to inherit Substance; and I will Fill their treasures."

The "Lady of Saving," in a profounder sense than that of the savings bank, though that is a good one: Madonna della Salnte,-Lady of Health,-which, though commonly spoken of as if separate from wealth, is indeed a part of wealth. This word, "wealth," it will be remembered, is the next we liave to define.
62. "To be wealthy," says Mr. Mill, " is to have a large stock of useful articles."

I accept this definition. Only let us perfectly understand it. My opponents often lament my not giving them enough logic: I fear I must at present use a little more than they will like; but this business of Political Economy is no light one, and we must allow no lonse terms in it.

We have, therefore, to ascertain in the above definition, first, what is the meaning of "having," or the nature of Possession. Then what is the meaning of "useful," or the nature of Utility.

And first of possession. At the crossing of the transepts of Milan Cathedral has lain, for three hundred years, the
embalmed body of St. Carlo Borromeo. It holds a golden crosier, and has a cross of emeralds on its breast. Admitting the crosier and emeralds to be useful artieles, is the body to be considered as "having" them? Do they, in the politicoeconomical sense of property, belong to it? If not, and if we may, therefore, conclude generally that a dead body cannot possess property, what degree and period of animation in the body will render possession possible?

As thus: lately in a wreck of a Californian ship, one of the passengers fastened a belt about him with two hundred pounds of gold in it, with which he was found afterwards at the bottom. Now, as he was sinking-had he the gold? or had the gold him? *

And if, instead of sinking him in the sea by its weight, the gold had struck him on the forehead, and thereby caused incurable disease-suppose palsy or insanity,-would the gold in that ease have been more a "possession" than in the first? Without pressing the inquiry up through instances of gradually inereasing vital power over the gold (which I will, however, give, if they are asked for), I presume the reader will see that possession, or "having," is not an absolute, but a gradated, power; and consists not only in the quantity or nature of the thing possessed, but also (and in a greater degree) in its suitableness to the person possessing it and in his vital power to use it.

And our definition of Wealth, expanded, becomes: "The possession of useful articles, which we can use." This is a very serious change. For wealth, instead of depending merely on a "have," is thus seen to depend on a "can." Gladiator's death, on a " habet "; but soldier's vietory, and State's salvation, on a " quo plurimum posset." (Liv. VII. 6.) And what we reasoned of only as accumulation of material, is seen to demand also accumulation of capacity.
63. So much for our verb. Next for our adjective. What is the meaning of " useful"?

The inquiry is closely connected with the last. For what

[^115]is capable of use in the hands of some persons, is capable, in the hands of others, of the opposite of use, called commonly " from-use," or "ab-use." And it depents on the person, much more than on the article, whether its usefulness or ab-usefulness will be the quality developed in it. Thus, wine, which the Greeks, in their Bacchus, made rightly the type of all passion, and which, when used, " cheereth god and man," (that is to say, strengthens both the divine life, or reasoning power, and the earthy, or carnal power, of man) ; yet, when abused, becomes " Dionusos," hurtful especially to the divine part of man, or reason. And again, the body itself, being equally liable to use and to abuse, and, when rightly diseiplined, serviceable to the State, both for war and labor;-but when not disciplined, or abused, valueless to the State, and capable only of continuing the private or single existence of the individual (and that but feebly) the Grecks called such a body an "idiotic" or "private" body, from their word signifying a person employed in no way directly useful to the State; whence finally, our "idiot," meaning a person entirely occupied with his own concerns.

Hence, it follows that if a thing is to be useful, it must be not only of an availing nature, but in availing hands. Or, in accurate terms, uscfulness is value in the hands of the valiant; so that this science of wealth being, as we have just seen, when regarded as the science of Accumulation, accumulative of capacity as well as of material,-when regarded as the Science of Distribution, is distribution not absolute, but discriminate; not of every thing to every man, but of the right thing to the right man. A difficult science, dependent on more than arithmetic.
64. Wealth, therefore, is "tile possession of the raluable by the valiant"; and in considering it as a power existing in a nation, the two elements, the value of the thing, and the valor of its possessor, must be estimated together. Whence it appears that many of the persons commonly considered wealthy, are in reality no more wealthy than the locks of their own strong boses are, they being inherently and eter-
nally incapable of wealth; and operating for the nation, in an economical point of view, either as pools of dead water, and eddies in a stream (which, so long as the stream flows, are useless, or serve only to drown people, but may become of importance in a state of stagnation should the stream dry); or else, as dams in a river, of which the ultimate service depends not on the dam, but the miller; or else, as mere accidental stays and impediments, acting not as wealth, but (for we ought to have a correspondent term) as "illth," causing various devastation and trouble around them in all directions; or lastly, act not at all, but are merely animated conditions of delay, (no use being possible of anything they have until they are dead, ) in which last condition they are nevertheless often useful as delays, and "impedimenta," if a nation is apt to move too fast.
65. This being so, the difficulty of the true science of Political Economy lies not merely in the need of developing manly character to deal with material value, but in the fact, that while the manly character and material value only form wealth by their conjunction, they have nevertheless a mutually destructive operation on each other. For the manly character is apt to ignore, or even cast away, the material value:-whence that of Pope:-

> "Sure, of qualities demanding praise More go to ruin fortunes, than to raise."

And on the other hand, the material value is apt to undermine the manly character; so that it must be our work, in the issue, to examine what evidence there is of the effect of wealth on the minds of its possessors; also, what kind of person it is who usually sets himself to obtain wealth, and succeeds in doing so; and whether the world owes more gratitude to rich or to poor men, either for their moral influence upon it, or for chief goods, discoveries, and practical advancements. I may, however, anticipate future conclusions, so far as to state that in a community regulated only by laws of demand and supply, but protected from open violence,
the persons who become rich are, generally speaking, industrious, resolute, proud, covetous, prompt, methorlical, sensible, unimaginative, insensitive, and ignorant. The persons who remain poor are the entirely foolish, the entirely wise,* the idle, the reckless, the humble, the thoughtful, the dull, the imaginative, the sensitive, the well-informed, the inprovident, the irregularly and, impulsively wicked, the clumsy: knave, the open thief, and the entirely merciful, just, and godly person.
66. Thus far, then, of wealth. Next, we have to ascertain the nature of Price; that is to say, of exchange value, and its expression by currencies.

Note first, of exchange, there can be no profit in it. It is only in labor there can be profit-that is to say, a " making in adrance," or " making in faror of " (from proficio). In exchange, there is only advantage, $i$. $e$., a bringing of vantage or power to the exchanging persons. Thus, one man, by sowing and reaping, turns one measure of corn into two measures. That is Profit. Another, loy digging and forging, turns one spade into two spades. That is Profit. But the man who has two measures of corn wants sometimes to dig; and the man who has two spades wants sometimes to eat: -They exchange the gained grain for the gained tool; and both are the better for the exchange; but thongh there is much advantage in the transaction, there is no profit. Nothing is constructed or produced. Only that which had been before constructed is given to the person by whom it can be used. If labor is necessary to effect the exchange, that labor is in reality involved in the production, and, like all other labor, bears profit. Whatever number of men are concerned in the manufacture, or in the conveyance, have share in the profit; but neither the manufacture nor the conveyance are the exchange, and in the exchange itself there is no profit.

There mar, howerer, be acquisition, which is a very dif-

[^116]ferent thing. If, in the exchange, one man iṣ able to give what cost him little labor for what has cost the other much, he "acquires" a certain quantity of the produce of the other's labor. And precisely what he acquires, the other loses. In mercantile language, the person who thus acquires is commonly said to have "made a profit"; and I helieve that many of our merchants are serionsly under the impression that it is possible for everybody, somehow, to make a profit in this manner. Whereas, by the unfortunate constitution of the world we live in, the laws both of matter and motion have quite rigoronsly forbidden universal acquisition of this kind. Profit; or material gain, is attainable only by construction or by discovery; not by exchange. Whenever material gain follows exchange, for every plus there is a precisely equal minus.

Unhappily for the progress of the science of Political Economy, the plus quantities, or-if I may be allowed to coin an awkward plural-the pluses, make a very positive and venerable appearance in the world, so that every one is eager to learn the science which produces results so magnificent; whereas the minuses have, on the other hand, a tendency to retire into back streets, and other places of shade,or even to get themselves wholly and finally put out of sight in graves: which renders the algebra of this science peculiar, and difficultly legible; a large number of its negative signs being written by the account-keeper in a kind of red ink, which starration thins, and makes strangely pale, or even quite invisible ink, for the present.
67. The Science of Exchange, or, as I hear it has been proposed to call it, of "Catallactics," considered as one of gain, is, therefore, simply nugatory ; but considered as one of aequisition, it is a very curious science, differing in its data and basis from every other science known. Thus:-If I can exchange a needle with a sarage for a diamond, my power of doing so depends either on the savage's ignorance of social arrangements in Europe, or on his want of power to take advantage of them, by selling the diamond to any one else for
more needles. If, farther, I make the bargain as eompletely advantageous to myself as possible, by giving to the savage a needle with no eye in it (reaching thus a sufficiently satisfactory type of the perfect operation of catallactic science), the advantage to me in the entire transaction depends wholly upon the ignorance, powerlessness, or heedlessness of the person dealt with. Do away with these, and catallactic advantage becomes impossible. So far, therefore, as the science of exchange relates to the advantage of one of the exchanging persons only, it is founded on the ignorance or incapacity of the opposite person. Where these vanish, it also ranishes. It is therefore a science founded on nescience, and an art founded on artlessness. But all other sciences and arts, except this, have for their object the doing away with their opposite nescience and artlessness. This science, alone of sciences, must, by all available means, promulgate and prolong its opposite nescience; otherwise the science itself is impossible. It is, therefore, peculiarly and alone the science of darkness; probably a bastard science-not by any means a divina scientia, but one begotten of another father, that father who, advising his children to turn stones into bread, is himself employed in turning bread into stones, and who, if you ask a fish of him (fish not being producible on his estate), can lut give you a serpent.
68. The general law, then, respecting just or economical exchange, is simply this:-There must be advantage on both sides (or if only advantage on one, at least no disadrantage on the other) to the persons exchanging; and just payment for his time, intelligence, and labor, to any intermediate person effecting the transaction (commonly called a merchant) ; and whatever advantage there is on cither side, and whatever pay is given to the intermediate person, should be thoronghly known to all concerned. All attempt at concealment implies some practice of the opposite, or undivine science, founded on nescience. Whence another saying of the Jew merchant's-" As a nail between the stone joints, so doth sin stick fast between buying and selling." Which peculiar
riveting of stone and timber, in men's dealings with each other, is again set forth in the house which was to be destroyed -timber and stones together-when Zechariah's roll (more probably "curved sword") flew over it: "the curse that goeth forth over all the earth upon every one that stcaleth and holdeth himself guiltless," instantly followed by the vision of the Great Measure; --the measure " of the injustice of them
 weight of lead for its lid, and the woman, the spirit of wickedness, within it;-that is to say, Wickedness hidden by dullness, and formalized, outwardly, into ponderonsly established cruclty. "It shall be set upon its own base in the land of Babel." *
69. I hare hitherto carefully restricted myself, in speaking of exchange, to the use of the term " adrantage"; but that term includes two ideas: the adrantage, namely, of getting what we need, and that of getting what we wish for. Three-fourths of the demands existing in the world are romantic; founded on risions, idealisms, hopes, and affections; and the regulation of the purse is, in its essence, regulation of the imagination and the heart. Hence, the right discussion of the nature of price is a very high metaphysical and psychical problem; sometimes to be solved only in a passionate manner, as by David in his counting the price of the water of the well by the gate of Bethlehem; but its first conditions are the following:-The price of anything is the quantity of labor given by the person desiring it, in order to obtain possession of it. This price depends on four variable quantities. $A$. The quantity of wish the purchaser has for the thing; opposed to $a$, the quantity of wish the seller has to keep it. $B$. The quantity of labor the purchaser can afford, to obtain the thing; opposed to $\beta$, the quantity of labor the seller can afford, to keep it. These quantities are operative only in excess: i.e., the quantity of wish ( $A$ ) means the quantity of wish for this thing, above wish for other things; and the quantity of work $(B)$

[^117]means the quantity which can be spared to get this thing from the quantity needed to get other things.

Phenomena of price, therefore, are intensely complex, curious, and interesting-too complex, however, to be examined yet; every one of them, when traced far enough, showing itself at last as a part of the bargain of the Poor of the Flock (or "flock of slaughter"), " If ye think good, give me my price, and if not, forbear"-Zech. xi. 12 ; but as the price of everything is to be calculated finally in labor, it is necessary to define the nature of that standard.
70. Labor is the contest of the life of man with an oppo-site;-the term" life" including his intellect, soul, and physical power, contending with question, difficulty, trial, or material force.

Labor is of a higher or lower order, as it includes more or fewer of the elements of life: and labor of good quality, in any kind, includes always as much intellect and feeling as will fully and harmoniously regulate the physical force.

In speaking of the value and price of labor, it is necessary always to understand labor of a given rank and quality, as we should speak of gold or silver of a given standard. Bad (that is, heartless, inexperienced, or senseless) labor cannot be valued; it is like gold of uncertain alloy, or flawed iron.*

The quality and kind of labor being given, its value, like that of all other valuable things, is invariable. But the quantity of it which must be given for other things is vari-

[^118]able: and in estimating this variation, the price of other things must always be counted by the quantity of labor; not the price of labor by the quantity of other things.
71. Thus, if we want to plant an apple sapling in rocky ground, it may take two hours' work; in soft ground, perhaps only half an hour. Grant the soil equally good for the tree in each ease. Then the value of the sapling planted by two hours' work is nowise greater than that of the sapling planted in half an hour. One will bear no more fruit than the other. Also, one half-hour of work is as valuable as another half-hour; nevertheless, the one sapling has cost four such pieces of work, the other only one. Now, the proper statement of this fact is, not that the labor on the hard ground is cheaper than on the soft ; but that the tree is dearer. The exchange value may, or may not, afterwards depend on this fact. If other people have plenty of soft ground to plant in, they will take no cognizance of our two hours' labor in the price they will offer for the plant on the rock. And if, through want of sufficient botanical science, we have planted an upas-tree instead of an apple, the exchange value will be a negative quantity; still less proportionate to the labor expended.

What is commonly called cheapness of labor, signifies, therefore, in reality, that many obstacles have to be overcome by it; so that much labor is required to produce a small result. But this should never be spoken of as cheapness of labor, but as dearness of the object wrought for. It would be just as rational to say that walking was cheap, because we had ten miles to walk home to our dinner, as that labor was cheap, because we had to work ten hours to earn it.
72. The last word which we have to define is "Production."

I have hitherto spoken of all labor as profitable; becauso it is impossible to consider under one head the quality or value of labor, and its aim. But labor of the best quality may be various in aim. It may be either constructive (" gathering," from con and struo), as agriculture; nugatory, as
jewel-cutting; or destructive (" seattering," from de and struo), as war. It is not, however, always easy to prove labor, apparently nugatory, to be actually so; * generally, the formula holds good: " he that gathereth not, seattereth "; thns, the jeweler's art is probably very harmful in its ministering to a clumsy and inelegant pride. So that, fiually, I believe nearly all labor may be shortly divided into positive and negative labor: positive, that which produces life; negative, that which produces death; the most directly negative labor being murder, and the most directly positive, the bearing and rearing of children: so that in the precise degree in which murder is hateful, on the negative side of idleness, in that exact degree child-rearing is admirable, on the positive side of idleness. For which reason, and because of the honor that there is in rearing $\dagger$ children, while the wife is said to be as the vine (for checring), the children are as the olive branch, for praise: nor for praise only, but for peace (because large families can only be reared in times of peace): though since, in their spreading and voyaging in various directions, they distribute strength, they are, to the home strength, as arrows in the hand of the giant-striking here and there far away.

[^119]Labor being thus varions in its result, the prosperity of any nation is in exact proportion to the quantity of labor which it spends in obtaining and employing means of life. Observe,-I say, obtaining and employing; that is to say, not merely wisely producing, but wisely distributing and consuming. Economists usually speak as if there were no good in consumption absolute.* So far from this being so, consumption absolute is the end, crown, and perfection of production ; and wise consumption is a far more difficult art than wise production. Twenty people can gain money for one who ean use it ; and the vital question, for individual and for nation, is, never " how much do they make?" but "to what purpose do they spend?"
73. The reader may, perhaps, have been surprised at the slight reference I have hitherto made to "capital," and its functions. It is here the place to define them.

Capital signifies " head, or source, or root material"it is material by which some derivative or secondary good is produced. It is only capital proper (caput vivum, not eaput mortuum) when it is thus producing something different from itself. It is a root, which does not enter into vital function till it produces something else than a root: namely, fruit. That fruit will in time again produce roots; and so all living capital issues in reproduction of capital; but capital which produces nothing but capital is only root producing root; bulb issuing in bulb, never in tulip; seed issuing in seed, never in bread. The Political Economy of Europe has litherto devoted itself wholly to the multiplication, or (less even) the aggregation, of bulbs. It never saw, nor conceived, such a thing as a tulip. Nay, boiled bulbs they might have been-glass bulbs-Prince Rupert's drops, consummated in powder (well, if it were glass-powder and not gunpowder), for any end or meaning

[^120]the economists had in defining the laws of aggregation. Wo will try and get a clearer notion of them.

The best and simplest general type of capital is a wellmade plowshare. Now, if that plowshare did nothing but beget other plowshares, in a polypous manner,--however the great eluster of polypous plow might glitter in the sun, it woild have lost its function of eapital. It becomes true capital only by another kind of splendor,-when it is seen "splendescere sulco," to grow bright in the furrow; rather with diminution of its substance, than addition, by the noble friction. And the true home question, to every eapitalist and to every nation, is not, "how many plows have you?" but, "where are your furrows?" not-" how quiekly will this capital reproduce itself?"-but, " what will it do during reproduction?" What substance will it furnish, good for life? what work construct, protective of life? if none, its own reproduction is useless-if worse than none,- (for capital may destroy life as well as support it), its own reproduction is worse than useless; it is merely an advance from Tisiphone, on mortgage-not a profit by any means.
74. Not a profit, as the ancients truly saw, and showed in the type of Ixion;-for capital is the head, or fountain head, of wealth—the "well-head" of wealth, as the clouds are the well-heads of rain: but when clonds are without water, and only beget clouds, they issue in wrath at last, instead of rain, and in lightning instead of harvest; whence Txion is said first to have invited his guests to a banquet, and then made them fall into a pit filled with fire; which is the type of the temptation of riches issuing in imprisoned torment,-torment in a pit, (as also Demas' silver mine,) after which, to show the rage of riches passing from lust of pleasure to lust of power, yet power not truly understood, Ixion is said to have desired Juno, and instead, embracing a cloud (or phantasin), to have begotten the Centaurs; the power of mere wealth being, in itself, as the embrace of a shadow,-comfortless, (so also "Ephraim feedeth on wind and followeth after the east wind "; or " that which is not"-Prov. xxiii.

5 ; and again Dante's Geryon, the type of avaricious fraud, as he flies, gathers the air up with retractile claws,-" l'aer a se raccolse," *) but in its offspring, a mingling of the brutal with the human nature : human in sagacity-using both intellect and arrow; but brutal in its body and hoof, for consuming, and trampling down. For which sin Ixion is at last bound upon a wheel-fiery and toothed, and rolling perpetually in the air;-the type of human labor when selfish and fruitless (kept far into the Middle Ages in their wheel of fortune) ; the wheel which has in it no breath or spirit, but is whirled by chance only; whereas of all true work the Ezekiel vision is true, that the Spirit of the living creature is in the wheels, and where the angels go, the wheels go by them; but move no otherwise.
75. This being the real nature of capital, it follows that there are two kinds of true production, always going on in an active State: one of seed, and one of food; or production for the Ground, and for the Mouth; both of which are by covetous persons thought to be production only for the granary; whereas the function of the granary is but intermediate and conservative, fulfilled in distribution; else it ends in nothing but mildew, and nourishment of rats and worms. And since production for the Ground is only useful with future. hope of harvest, all essential production is for the Mouth;

[^121]and is finally measured by the mouth; hence, as I said above, consumption is the crown of production; and the wealth of a mation is only to be estimated by what it consumes.

The want of any clear sight of this fact is the eapital error, issuing in rich interest and revenue of error among the political economists. Their minds are continnally set on money-gain, not on month-gain; and they fall into every sort of net and snare, dazzled by the coin-glitter as birds ly the fowler's glass; or rather (for there is not much else like birds in them) they are like children trying to jump on the heads of their own shadows; the money-gain being only the shatow of the true gain, which is humanity.
76. The final object of political economy, therefore, is to get good method of consmmption, and great quantity of consumption: in other words, to use everything, and to use it nobly; whether it be substance, service, or service perfecting substance. The most eurious error in Mr. Mill's entire work, (provided for him originally by Ricardo,) is his endeavor to distinguish between direct and indirect service, and consequent assertion that a demand for commodities is not demand for labor (I. v. 9, et seq.). He distinguishes between laborers employed to lay out pleasure grounds, and to manu-- facture velvet; declaring that it makes material difference to the laboring elasses in which of these two ways a capitalist spends his money; because the employment of the gardeners is a demand for labor, but the purchase of relvet is not.*

[^122]Error colossal, as well as strange. It will, indeed, make a difference to the laborer whether we bid him swing his scythe in the spring winds, or drive the loom in pestilential air; but, so far as his pocket is concerned, it makes to him absolutely no difference whether we order him to make green velvet, with seed and a scythe, or red velvet, with silk and scissors. Neither does it anywise concern him whether, when the velvet is made, we consume it by walking on it, or wearing it, so long as our consumption of it is wholly selfish. But if our consumption is to be in anywise unselfish, not ouly our mode of consuming the articles we require interests him, but also the kind of article we require with a view to consumption. As thus (returning for a moment to Mr. Mill's great hardware theory*): it matters, so far as the laborer's immediate profit is concerned, not an iron filing whether I employ him in growing a peach, or forging a bombshell; but my probable mode of consumption of those articles matters seriously. Admit that it is to be in both cases "unselfish," and the difference, to him, is final, whether when his child is ill, I walk into his cottage and give it the peach, or drop the shell down his chimney, and blow his roof off.

The worst of it, for the peasant, is, that the capitalist's consumption of the peach is apt to be selfish, and of the shell, distributive ; $\dagger$ but, in all cases, this is the broad and general
by his capital, though he does not pay the man who rolled and mowed it on Monday, till Saturday afterneon. I do not know if Mr. Mills conclusion,-" the capital cannot be dispensed with, the purchasers can" (p. 98), has yet been reduced to practice in the City on any large scale.

* Which, obserre, is the precise opposite of the one under examination. The hardware theory required us to discharge our gardeners and engage manufacturers; the relvet theory requires us to discharge our manufacturers and engage gardeners.
$\dagger$ It is one very awful form of the operation of wealth in Europe that it is entirely capitalists' wealth which supports unjust wars. Just wars do not need so much money to support them; for most of the men who wage such, wage them gratis; but for an unjust war, men's bodies and souls have both to be bought; and the best tools of war for them besides; which makes such war costly to the maximum ; not to
fact, that on due catallactic commercial principles, somebody's roof must go off in fulfillment of the bomb's destiny. You may grow for your neighbor, at your liking, grapes or grape-shot; he will also, catallactically, grow grapes or grapeshot for you, and you will each reap what you have sown.

77. It is, therefore, the manner and issue of consumption which are the real tests of production. Production does not consist in things laboriously made, but in things serviceably consumable; and the question for the nation is not how much labor it employs, but how much life it produces. For as consumption is the end and aim of production, so life is the end and aim of consumption.

I left this question to the reader's thought two months ago ( $\S \S 40-41$ ), choosing rather that he shonld work it out for himself than have it sharply stated to him. But now, the ground being sufficiently broken (and the details into which the several questions, here opened, must lead us, being too complex for discussion in the pages of a periodical, so that I must pursue them elsewhere), I desire, in closing the series of introductory papers, to leare this one great fact clearly stated. Tifere is no Wealtif but Life. Life, including all its powers of love, of joy, and of admiration. That country is the richest which nourishes the greatest number of noble and happy human beings; that man is richest who, having perfected the functions of his own life to the speak of the cost of base fear, and angry suspicion, between nations which have not grace nor honesty enough in all their muititudes to buy an hour's peace of mind with : as, at present, France and England, purchasing of each other ten millions sterling worth of consternation annually, (a remarkably light crop, half thorns and half aspen leares,sown, reaped, and granaried by the "science" of the modern political economist, teaching covetousness instead of truth). And all unjust war being supportable, if not by pillage of the enemy, only by loans from capitalists, these loans are repaid by subsequent taxation of the people, who appear to have no will in the matter, the capitalists' will being the primary root of the war; but its real root is the covetousness of the whole nation, rendering it incapable of faith, frankness, or justice, and bringing about, therefore, in due time, his own separate loss and punishment to each person.
utmost, has also the widest helpful influence, both personal, and by means of his possessions, over the lives of others.

A strange political economy; the only one, nevertheless, that ever was or can be: all political cconomy founded on self-interest* being but the fulfillment of that which once brought schism into the Policy of angels, and ruin into the Economy of Heaven.
78. "The greatest number of human beings noble and happy." But is the nobleness consistent with the number? Yes, not only consistent with it, but essential to it. The maximum of life can only be reached by the maximum of virtue. In this respect the law of human population differs wholly from that of animal life. The multiplication of animals is checked only by want of food, and by the hostility of races; the population of the gnat is restrained by the hunger of the swallow, and that of the swallow by the scarcity of gnats. Man, considered as an animal, is indeed limited by the same laws: hunger, or plague, or war, are the necessary and only restraints upon his increase,-effectual restraints hitherto,-his principal study haring been how most swiftly to destroy himself, or ravage his dwelling-places, and his highest skill directed to give range to the famine, seed to the plague, and sway to the sword. But, considered as other than an animal, his increase is not limited by these laws. It is limited only by the limits of his courage and his love. Both of these have their bounds; and ought to have; his race has its bounds also ; but these have not yet been reached, nor will be reached for ages.
79. In all the ranges of human thought I know none so melancholy as the speculations of political economists on the population question. It is proposed to better the condition of the laborer by giving him higher wages. "Nay," says the economist, " if you raise his wages, he will either people down to the same point of misery at which you found

[^123]him, or drink your wages away:" He will. I know it. Who gave him this will! Suppose it were your own son of whom you spoke, deelaring to me that you dared not take him into your firm, nor even give him his just laborer's wages, because if you did he would die of drunkenness, and leare half a seore of children to the parish. "Who gave your son these dispositions?"-I should inquire. Has he them by inheritance or by education? By one or other they must come; and as in him, so also in the poor. Either these poor are of a race essentially different from ours, and unredeemable (which, however often implied, I have heard none yet openly say), or else by such care as we have ourselves received, we may make them continent and sober as ourselveswise and dispassionate as we are-models arduous of imitation. "But," it is answered, "they cannot receive education." Why not? That is precisely the point at issue. Charitable persons suppose the worst fault of the rich is to refuse the people meat ; and the people cry for their meat, kept back by fraud, to the Lord of Mnultitudes.* Alas! it is not

[^124]meat of which the refusal is cruclest, or to which the claim is valiclest. The life is more than the meat. The rich not only refuse food to the poor; they refuse wisdom ; they refuse virtue; they refuse salvation. Ye sheep without shepherd, it is not the pasture that has been shut from you, but the Presence. Meat! perhaps your right to that may be pleadable; but other rights have to be pleaded first. Claim your crimbs from the table if you will; but claim them as children, not as dogs; claim your right to be fed, but claim more loudly your right to be holy, perfect, and pure.

Strange words to be used of working people! "What! holy; without any long robes or anointing oils; these rough-jacketed, rough-worded persons; set to nameless, dishonored service? Perfect!-these, with dim eyes and cramped limbs, and slowly wakening minds? Pure!-these, with sensual desire and groveling thought; foul of body and coarse of soul?" It may be so; nevertheless, such as they are, they are the holiest, perfectest, purest persons the earth can at present show. They may be what you have said; but if so, they yet are holier than we who have left them thus.

But what can be done for them? Who can clothe-who teach-who restrain their multitudes? What end can there be for them at last, but to consume one another?

I hope for another end, though not, indeed, from any of the three remedies for over-population commonly suggested by economists.
80. These three are, in brief-Colonization; Bringing in of waste lands ; or Diseouragement of Marriage.

The first and second of these expedients merely evade or delay the question. It will, indeed, be long before the world has been all colonized, and its deserts all brought under cultivation. But the radical question is, not how much habit-
that all the poor of the world are but disobedient children, or careless cripples, and that all rich people are wise and strong, and you will see at once that neither is the socialist right in desiring to make everybody poor, powerless, and foolish as he is himself, nor the rich man right in learing the children in the mire.
able land is in the world, but how many human beings ought to be maintained on a given space of habitable land.

Observe, I say, ought to be, not how many can be. Ricardo, with his usual inaceuracy, defines what he calls the " natural rate of wages" as "that which will maintain the laborer." Maintain him! yes; but how ?-the question was instantly thus asked of me by a working girl, to whom I read the passage. I will amplify her question for her. "Maintain him, how?" As, first, to what length of life? Out of a given number of fed persons, how many are to be old-how many young? that is to say, will you arrange their maintenance so as to kill them early-say at thirty or thirty-five on the average, including deaths of weakly or ill-fed children ?or so as to enable them to live out a natural life? You will feed a greater number, in the first case,* by rapidity of succession; probably a happier number in the second: which does Mr. Ricardo mean to be their natural state, and to which state belongs the natural rate of wages?

Again: A piece of land which will only support ten idle, ignorant, and improvident persons, will support thirty or forty intelligent and industrious ones. Which of these is their natural state, and to which of them belongs the natural rate of wages?

Again: If a piece of land support forty persons in industrious ignorance; and if, tired of this ignorance, they set apart ten of their number to study the properties of cones, and the sizes of stars; the labor of these ten being withdrawn from the ground, must either tend to the increase of food in some transitional manner, or the persons set apart for sidereal and conic purposes must starve, or some one else starve instead of them. What is, therefore, the natural rate of wages of the scientific persons, and how does this rate relate to, or measure, their reverted or transitional productiveness?

Again: If the ground maintains, at first, forty laborers in a peaceable and pious state of mind, but they become in a

[^125]few years so quarrelsome and impious that they have to set apart five, to meditate upon and settle their disputes;-ten, armed to the teeth with costly instruments, to enforee the decisions; and five to remind crerybody in an eloquent manner of the existence of a God?-what will be the result upon the general power of production, and what is the "natural rate of wages " of the meditative, muscular, and oracular laborers?
81. Leaving these questions to be discussed, or waived, at their pleasure, by Mr. Ricardo's followers, I proceed to state the main facts bearing on that probable future of the laboring classes which has been partially glanced at by Mr. Mill. That chapter and the preceding one differ from the common writing of political economists in admitting some value in the aspect of nature, and expressing regret at the probability of the destruction of natural scenery. But we may spare our anxieties on this head. Men can neither drink steam, nor eat stone. The maximum of population on a given space of land implies also the relative maximum of edible vegetable, whether for men or cattle; it implies a maximum of pure air, and of pure water. Therefore: a maximum of wood, to transmute the air, and of sloping ground, protected by herbage from the extreme heat of the sun, to feed the streams. All England may, if it so chooses, become one manufacturing town; and Englishmen, sacrificing themselves to the good of general humanity, may live diminished lives in the midst of noise, of darkness, and of deadly exhalation. But the world cannot become a factory, nor a mine. No amount of ingenuity will ever make iron digestible by the million, nor substitute hydrogen for wine. Neither the avarice nor the rage of men will ever feed them; and howerer the apple of Sodom and the grape of Gomorrah may spread their table for a time with dainties of ashes, and nectar of asps,-so long as men live by bread, the far away valleys must laugh as they are corcred with the gold of God, and the shouts of His happy multitudes ring round the winepress and the well.
82. Nor need our more sentimental economists fear the too
wide spread of the formalities of a mechanical agriculture. The presence of a wise population implies the seareh for felicity as well as for food; nor can any population reach its maximum but throngh that wislom which "rejoices" in the habitable parts of the earth. The desert has its appointed place and work; the cternal engine, whose beam is the earth's axle, whose beat is its year, and whose breath is its ocean, will still divide imperiously to their desert kingdoms bound with unfurrowable rock, and swept by unarrested sand, their powers of frost and fire: but the zones and lands between, habitable, will be loveliest in habitation. The desire of the heart is also the light of the eyes. No scene is continually and untiringly loved, but one rich by joyful human labor; smooth in field; fair in garden; full in orchard; trim, sweet, and frequent in homestead ; ringing with voices of rivid existence. No air is sweet that is silent; it is only sweet when full of low currents of under sound-triplets of birds, and murmur and chirp of insects, and deep-toned words of men, and wayward trebles of childhood. As the art of life is learned, it will be fomud at last that all lovely things are also necessary; -the wild flower by the wayside, as well as the tended corn ; and the wild birds and creatures of the forest, as well as the tended cattle; because man doth not live by bread only, but also by the desert manna; by every wondrous word and unknowable work of God. Happy, in that he knew them not, nor did his fathers know; and that round about him reaches yet into the infinite, the amazement of his existence.
83. Note, finally, that all effectual advancement towards this true felicity of the human race must be by individual, not public effort. Certain general measures may aid, certain revised laws guide, such advancement; but the measure and law which have first to be determined are those of each man's home. We contimally hear it recommended by sagacious people to complaining neighbors (usually less well placed in the world than themselves), that they should "remain content in the station in which Providence las placed
them." There are perhaps some circumstances of life in which Providence has no intention that people should be content. Nevertheless, the maxim is on the whole a good one; but it is peculiarly for home use. That your neighbor should, or should not, remain content with his position, is not your business; but it is very much your business to remain content with your own. What is chiefly needed in England at the present day is to show the quantity of pleasure that may be obtained by a consistent, well-administered competence, modest, confessed, and laborious. We need examples of people who, leaving Heaven to decide whether they are to rise in the world, decide for themselves that they will be happy in it, and have resolved to seek-not greater wealth, but simpler pleasure ; not higher fortune, but deeper felicity; making the first of possessions, self-possession; and honoring themselves in the harmless pride and calm pursuits of peace.

Of which lowly peace it is written that " justice and peace have kissed each other " ; and that the fruit of justice is "sown in peace of them that make peace"; not "peacemakers " in the common understanding-reconcilers of quarrels; (though that function also follows on the greater one;) but peace-Creators; Givers of Calm. Which you camot give, unless you first gain; nor is this gain one which will follow assuredly on any course of business, commonly so called. No form of gain is less probable, business being (as is shown in the language of all nations- $\pi \omega \lambda \varepsilon \pi \nu$ from $\pi \varepsilon k \omega$, $\pi \rho \bar{\alpha} \sigma \iota \varsigma$ from $\pi \Sigma \rho \alpha \dot{\alpha} \omega$, venire, vendre, and venal, from venio, etc.) essentially restless-and probably contentious;-having a raven-like mind to the motion to and fro, as to the carrion food; whereas the olive-feeding and bearing birds look for rest for their feet; thus it is said of Wisdom that she " hath builded her house, and hewn out her seven pillars" ; and even when, though apt to wait long at the doorposts, she has to leave her house and go abroad, her paths are peace also.

St. For us, at all events, her work must begin at the entry of the doors : all true economy is "Law of the house." Strive to make that law strict, simple, gencrous: waste nothing, and
grudge nothing. Care in nowise to make more of money, but care to make much of it; remembering always the great, palpable, inevitable fact-the rule and root of all cennomythat what one person has, another cannot have ; and that every atom of substance, of whatever kind, used or consumed, is so much hman life spent; which, if it issue in the saving present life, or gaining more, is well spent, but if not is cither so much life prevented, or so much slain. In all buying, consider, first, what condition of existence you cause in the producers of what you buy; secondly, whether the sum you have paid is just to the producer, and in due proportion, lodged in his hands ; * thirdly, to how much clear use, for food, knowledge, or joy, this that you have bought can be put; and fourthly, to whom and in what way it can be most speedily and serviceably distributed; in all dealings whatsoever insisting on entire opemess and stern fulfillment ; and in all doings, on perfection and loveliness of accomplishment ; especially on fineness and purity of all marketable commodity: watching at the same time for all ways of gaining, or teach-
 $\delta \leqslant \lambda \omega \gamma^{\prime} \leqslant \gamma^{\prime}$ ' $v s t a p$ "-the sum of enjoyment depending not on the quantity of things tasted, but on the vivacity and patience of taste.
85. And if, on due and honest thought over these things, it seems that the kind of existence to which men are now summoned by every plea of pity and claim of right, may, for some time at least, not be a luxurious one;-consider whether, even supposing it guittless, luxury would be desired by any of us, if we saw clearly at our sides the suffering which accompanies

[^126]it in the world. Luxury is indeed possible in the futureinnocent and exquisite; luxury for all, and by the help of all; but luxury at present can only be enjoyed by the ignorant; the cruelest man living could not sit at his feast, unless he sat blindfold. Raise the veil boldly; face the light; and if, as yet, the light of the eye can only be through tears, and the light of the body through sackcloth, go thou forth weeping, bearing precious seed, until the time come, and the kingdom, when Christ's gift of bread, and bequest of peace, shall be "Unto this last as unto thee" ; and when, for earth's severed multitudes of the wicked and the weary, there shall be holier reconciliation than that of the narrow home, and calm economy, where the Wicked cease-not from trouble, but from troubling-and the Weary are at rest.


## THE COMPLETE WORKS

 ofJOHN RUSKIN

VOLUME XII
$\rightarrow$
MUNERA PULVERIS
SESAME AND LILIES
ETHICS OF THE DUST

## MUNERA PULVERIS

## SIX ESSAYS

ON THE ELEMENTS OF

## POLITICAL ECONOMY.

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## PREFACE.

1. The following pages contain, I believe, the first accurate analysis of the laws of Political Economy which has been published in England. Many treatises, within their scope, correct, have appeared in contradiction of the views popularly received; but no exhanstive examination of the subject was passible to any person muacquainted with the value of the products of the highest industries, commonly called the "Fine Arts;" and no one acquainted with the nature of those industries has, so far as I know, attempted, or even approached the task.

So, that, to the date (1863) when these Essays were published, not only the chief conditions of the production of wealth had remained unstated, but the nature of wealth itself had never been defined. "Every one has a notion, sufficiently correct for common purposes, of what is meant by wealth," wrote Mr. Mill, in the outset of his treatise : and contentedly proceeded, as if a chemist should proceed to investigate the laws of chemistry without endeavoring to ascertain the nature of fire or water, because every one had a notion of them, "sufficiently correct for common purposes."
2. But even that apparently indisputable statement was untrue. There is not one person in ten thonsand who has a notion sufficiently correct, even for the commonest purposes, of "what is meant" by wealth : still less of what wealth everlastingly is, whether we mean it or not : which it is the business of every student of economy to ascertain. We, indeed, know (either by experience or in imagination) what it is to be able to provide ourselves with luxurious food, and hand-
some clothes; and if Mr. Mill had thought that wealth consisted only in these, or in the means of obtaining these, it would have been casy for him to have so defined it with perfect scientific aceuracer. But he knew better: he knew that some kinds of wealth consisted in the possession, or power of obtaining, other things than these; but. having, in the studies of his life, no che to the principles of essential value, he was compelled to take public opinion as the ground of his science; and the public, of course, willingly accepted the notion of a science foinded on their opinions.
3. I had, on the contrary, a singular advantage, not only in the greater extent of the field of investigation opened to me by my daily pursuits, but in the severity of some lessons I accidentally receised in the course of them.

When, in the winter of 1851 , I was collecting materials for my work on Venctian architecture, three of the pictures of Tintoret on the roof of the School of St. Roch were hanging down in ragged fragments, mixed with lath and plaster, round the apertures made by the fall of three Austrian heary shot. The city of Venice was not, it appeared, rich enough to repair the damage that winter; and buckets were set on the floor of the upper room of the school to eatch the rain, which not only fell directly through the shot holes, but found its way, owing to the general pervions state of the roof, throngh many of the canvases of Tintoret in other parts of the ceiling.
4. It was a lesson to me, as I have just said, no less direct than severe; for I knew already at that time (though I have not rentured to assert, until recently at Oxford,) that the pictures of Tintoret in Venice were aceurately the most precious articles of wealth in Europe, being the best existing productions of human industry. Now at the time that three of them were thus fluttering in moist rags from the roof they had adorned, the shops of the Rue Rivoli at Paris were, in obedience to a steadily-increasing public Demand, beginning to show a steadily-increasing Supply of elaborately finished and colored lithographs, representing the modern dances of de-
light, among which the cancan has since taken a distinguished place.
5. The labor employed on the stone of one of these lithographs is very much more than Tintoret was in the habit of giving to a picture of arerage size. Considering labor as the origin of value, therefore, the stone so highly wrought would be of greater value than the picture; and since also it is capable of producing a large number of immediately saleable or exchangeable impressions, for which the " demand" is constant, the city of Paris naturally supposed itself, and on all hitherto believed or stated principles of political economy, was, infinitely richer in the possession of a large number of these lithographic stones, (not to speak of countless oil pictures and marble carvings of similar character), than Venice in the possession of those rags of mildewed canvas, flaunting in the south wind and its salt rain. And, accordingly, Paris provided (without thought of the expense) lofty areades of shops, and rich recesses of innumerable private apartments, for the protection of these better treasures of hers from the weather.
6. Yet, all the while, Paris was not the richer for these possessions. Intrinsically, the delightful lithographs were not wealth, but polar contraries of wealth. She was, by the exact quantity of labor she had given to prodnce these, sunk below, instead of above, absolute Poverty. They not only were false Riches-they were true Debt which had to be paid at last-and the present aspect of the Rue Rivoli shows in what manner.

And the faded stains of the Venetian ceiling, all the while, were absolute and inestimable wealth. Useless to their possessors as forgotten treasure in a buried city, they had in them, nevertheless, the intrinsic and eternal nature of wealth, and Venice, still possessing the ruins of them, was a rich city; only, the Venctians had not a notion sufficiently correct even for the very common purpose of inducing them to put slates on a roof, of what was " meant by wealth."
7. The vulgar economist would reply that his science had
nothing to do with the qualities of pietures, but with their "xehange-value only; and that his business was, exclusively, to consider whether the remains of Tintoret were worth as many ten-and-sixpenees as the impressions which might be taken from the lithographic stones.

But he would not venture, without reserve, to make such an answer, if the example he taken in horses, instead of pictures. The most dull ceonomist would perceive, and admit, that a gentleman who had a fine stud of horses was absolutely richer than one who had only ill-hred and broken-winded ones. He would instinctly feel, though his pseudo-science had never taught him, that the price paid for the animals, in either case, did not alter the fact of their worth ; that the good horse, thongh it might have been bought by chance for a few guineas, was not therefore less valuable, nor the owner of the galled jade any the richer, because he had given a hundred for it.
8. So that the connmist, in saying that his science takes no account of the qualities of pictures, merely signifies that he camot conceire of any quality of essential badness or goodness existing in pietures: and that he is incapable of investigating the laws of wealth in such articles. Which is the fact. But, being incolpable of defining intrinsic value in pietures, it follows that lee must be equally helpless to define the nature of intrinsic value in painted glass, or in painted pottery, or in patternel stuffs, or in any other national produce requiring true human ingenuity. Nay, though capable of conceiving the idea of intrinsic ralue with respect to beasts of burden, no ceonomist has endearored to state the general principles of National Economy, even with regard to the horse or the ass. And, in fine, the modern political economists have been. without cxception, incapable of apprehending the nature of intrinsic calue at all.
9. And the first specialty of the following treatise consists in its giving at the ontset. and maintaining as the foundation of all subsequent reasoning, a definition of Intrinsic Value, and Intrinsic Contrary-of-Value; the negative power having
been left by former writers entirely out of account, and the positive power left entirely undefined.

But, secondly: the modern eeonomist, ignoring intrinsic value, and accepting the popular estimate of things as the only ground of his seience, has imagined himself to have aseertained the constant laws regulating the relation of this popular demand to its supply; or, at least, to have proved that demand and supply were connected by heavenly balance, orer which human foresight had no power. I chanced, by singular coincidence, lately to see this theory of the law of demand and supply brought to as sharp practical issue in another great siege, as I had seen the theories of intrinsie value brought, in the siege of Venice.
10. I had the honor of being on the committee under the presidentship of the Lord Mayor of London, for the victualling of Paris after her surrender. It beeame, at one period of our sittings, a question of vital importance at what moment the law of demand and supply would come into operation, and what the operation of it would exactly be: the demand on this oceasion, being very urgent indeed; that of several millions of people within a few hours of utter starvation, for any kind of food whatsoever. Nevertheless, it was admitted, in the course of debate, to be probable that the divine principle of demand and supply might find itself at the eleventh hour, and some minutes over, in want of earts and horses; and we ventured so far to interfere with the divine principle as to provide carts and horses, with haste which proved, happily, in time for the need; but not a moment in advance of it. It was farther recognized by the committee that the divine principle of demand and supply would commence its operations by charging the poor of Paris twelve-pence for a penny's worth of whatever they wanted; and would end its operations by offering them twelve-pence worth for a penny, of whatever they didn't want. Whereupon it was concluded by the committee that the tiny knot, on this special occasion, was searcely " dignus vindice," by the divine principle of demand and supply: and that we would venture, for once, in
a profane manner, to provide for the poor of Paris what they wanted, when they wanted it. Which, to the value of the sums entrusted to us, it will be remembered we succeeded in doing.
11. But the fact is that the so-called "Law," which was felt to be false in this case of extreme exigence, is alike false in cases of less exigence. It is false always, and everywhere. Nay, to such an extent is its existence imaginary, that the vulgar ceonomists are not even agreed in their account of it; for some of them mean by it, only that prices are regulated by the relation between demand and supply, which is partly true; and others mean that the relation itself is one with the process of which it is unwise to interfere; a statement which is not only, as in the above instance, untrue; but accurately the reverse of the truth: for all wise ceonomy, political or domestic, consists in the resolved maintenance of a giren relation between supply and demand, other than the instinctive, or (directly) natural, one.
12. Similarly, vulgar political economy asserts for a " law" that wages are determined by competition.

Now I pay my servants exactly what wages I think necessary to make them comfortable. The sum is not determined at all by competition; but sometimes by my notions of their comfort and deserving, and sometimes by theirs. If I were to become penniless to-morrow, several of them would certainly still serve me for nothing.

In both the real and supposed cases the so-called " law" of rulgar political economy is absolutely set at defiance. But I cannot set the law of gravitation at defiance, nor determine that in my house I will not allow ice to melt, when the temperature is above thirty-two degrees. A true law outside of my house, will remain a true one inside of it. It is not, therefore, a law of Nature that wages are determined br competition. Still less is it a law of State, or we should not now be disputing about it publiely, to the loss of many millions of pounds to the country. The fact which vulgar ceonomists have been weak enough to imagine a law, is only that, for the
last twenty years a number of very senseless persons have attempted to determine wages in that manner; and have, in a measure, succeeded in occasionally doing so.
13. Both in definition of the elements of wealth, and in statement of the laws which govern its distribution, modern political economy has been thus absolutely incompetent, or absolutely false. And the following treatise is not as it has been asserted with dull pertinacity, an endeavor to put sentiment in the place of science; but it contains the exposure of what insolently pretended to be a science; and the definition, hitherto unassailed-and I do not fear to assert, unas-sailable-of the material elements with which political economy has to deal, and the moral principles in which it consists; being not itself a science, but "a system of conduct founded on the sciences, and impossible, except under certain conditions of moral culture." Which is only to say, that industry, frugality, and discretion, the three foundations of economy, are moral qualities, and camot be attained without moral discipline: a flat truism, the reader may think, thus stated, yet a truism which is denied both vociferously, and in all endeavor, by the entire populace of Europe; who are at present hopeful of obtaining wealth by tricks of trade, without industry ; who, possessing wealth, have lost in the use of it even the conception,-how much more the habit?of frugality ; and who, in the choice of the elements of wealth, cannot so much as lose-since they have never hitherto at any time possessed, -the faculty of discretion.
14. Now if the teachers of the pseudo-science of economy had ventured to state distinctly even the poor conclusions they had reached on the subjects respecting which it is most dangerous for a populace to be indiscrect, they would have soon found, by the use made of them, which were true, and which false.

But on main and vital questions, no political economist has hitherto ventured to state one guiding principle. I will instance three subjects of universal importance. National Dress. National Rent. National Debt.

Now if we are to look in any quarter for a systematic and exhaustive statement of the principles of a given science, it must certainly be from its Professor at Cambridge.
15. Take the last edition of Professor Faweett's Manual of Political Economy, and forming, first, clearly in your mind these three following questions, see if you can find an answer to them.
I. Does expenditure of capital on the production of luxurious dress and furniture tend to make a nation rich or poor?
II. Does the payment, by the nation, of a tax on its land, or on the produce of it, to a certain number of private persons, to be expended by them as they please, tend to make the nation rich or poor?
III. Does the payment, by the nation, for an indefinite period, of interest on money borrowed from private persons, tend to make the nation rich or poor?

These three questions are, all of them, perfectly simple, and primarily vital. Determine these, and you have at once a basis for national conduct in all important particulars. Leare them undetermined, and there is no limit to the distress which may be brought upon the people by the cunning of its knaves, and the folly of its multitudes.

I will take the three in their order.
16. (I.) Dress. The general impression on the public mind at this day is, that the luxury of the rich in dress and furniture is a benefit to the poor. Probably not even the blindest of our political economists would renture to asscrt this in so many words. But where do they assert the contrary? During the entire period of the reign of the late Emperor it was assumed in France, as the first principle of fiscal gevernment, that a large portion of the funds received as rent from the provincial laborer should be expended in the manufacture of ladies' dresses in Paris. Where is the political ceonomist in France, or England, who ventured to assert the conclusions of his science as adverse to this system? As early as the year 1557 I had done my best to show the nature
of the error, and to give warning of its danger ; * but not one of the men who had the foolish ears of the people intent on their words, dared to follow me in speaking what would have been an offence to the powers of trade; and the powers of trade in Paris had their full way for fourteen years more,with this result, to-day, -as told us in precise and curt terms by the Minister of Public Instruction, $\dagger$
"We have replaced glory by gold, work by speculation, faith and honor by scepticism. To absolve or glorify immorality ; to make much of loose women ; to gratify our eyes with luxury, our ears with the tales of orgies; to aid in the maneurers of public rolbers, or to appland them; to laugh at morality, and only believe in success; to love nothing but pleasure, adore nothing but force; to replace work with a fecundity of fancies; to speak without thinking; to prefer noise to glory ; to erect sneering into a system, and lying into an insti-tution-is this the spectacle that we have seen ?-is this the society that we have been?"

Of course, other causes, besides the desire of huxury in furniture and dress, have been at work to produce such consequences; but the most active cause of all has been the passion for these ; passion unrebuked by the elergy, and, for the most part, provoked by economists, as advantageous to commerce; nor need we think that such results have been arrived at in France only; we are ourselves following rapidly on the same road. France, in lier old wars with us, never was so fatally our enemy as she has been in the fellowship of fashion; and the freedom of trade: nor, to my mind, is any fact recorded of Assyrian or Roman luxury more ominous, or ghastly, than one which came to my knowledge a few weeks ago, in England; a respectable and well-to-do father and mother, in a quiet north country town, being turned into the streets in their old age, at the suit of their only danghter's milliner.
17. (II.) Rent. The following account of the real nature

* Political Economy of Art. (Now " A Joy for Ever,"-Vol. XI. of the Revised Series of Eutire Works,-pp. 4i-56.)
$\dagger$ See report of speech of M. Jules Simon, in Pall Mall Gazette of October 27th, 1871.
of rent is given, quite accurately, by Professor Fawcett, at page 112 of the last edition of his Political L'conomy:-
"Every country has probably been subjugated, and grants of ranquished territory were the ordinary rewards which the conquering chief bestowed upon his more distinguished followers. Lands obtained by force had to be defended by force; and before law had asserted her supremacy, and property was made secure, no baron was able to retain his possessions, unless those who lived on his estates were prepared to defend them. . . .* Asproperty became secure, and landlords felt that the power of the State would protect them in all the rights of property, every restige of these fendal tenures was abolished, and the relation between lamdlord and tenant has thus become purely commereial. $A$ landlord offers his land to any one who is willing to take it ; he is anxious to recepe the highest rent he cin obtain. What are the principles which regulate the rent which may thus be paid?"

These principles the Professor goes on contentedly to investigate, never appearing to contemplate for an instant the possibility of the first principle in the whole business-the maintenance, by force, of the possession of land obtained by force, being ever called in question by any human mind. It is, nevertheless, the nearest task of our day to discover how far original theft may be justly encountered by reactionary theft, or whether reactionary theft be indeed theft at all ; and farther, what, excluding either original or corrective theft, are the just conditions of the possession of land.
18. (III.) Debt. Long since, when, a mere boy, I used to sit silently listening to the conversation of the London merchants who, all of them good and sound men of business, were wont oceasionally to meet romd my father's dining-table, nothing used to surprise me more than the conviction openly expressed by some of the smmdest and most cautious of them, that " if there were no National debt they would not know what to do with their money, or where to place it safely." At the 399th page of his Manual, you will find Professor Fawcett giving exactly the same statement:

[^127]without appearing for an instant to be troubled by any misgiving that there may be an essential difference between the effects on national prosperity of a Gorernment paying interest on money which it spent in fireworks fifty years ago, and of a Government paying interest on money to be employed today on productive labor.

That difference, which the reader will find stated and examined at length, in $\S \S 127-129$ of this volume, it is the business of economists, before approaching any other question relating to government, fully to explain. And the paragraphs to which I refer, contain, I believe, the only definite statement of it hitherto made.
19. The practical result of the absence of any such statement is, that capitalists, when they do not know what to do with their money, persuade the peasants, in various countries, that the said peasants want guns to shoot each other with. The peasants accordingly borrow guns, out of the manufacture of which the capitalists get a per-centage, and men of science much amusement and credit. Then the peasants shoot a certain number of each other, until they get tired; and burn each other's homes down in various places. Then they put the guns back into towers, arsenals, etc., in ornamental patterns; (and the victorious party put also some ragged flags in churches). And then the capitalists tax both, annually, ever afterwards, to pay interest on the loan of the guns and gunpowder. And that is what capitalists call "knowing what to do with their money; " and what commercial men in general call "practical" as opposed to "sentimental" Political Economy.
20. Eleven years ago, in the summer of 1860 , perceiving then fully, (as Carlyle had done long before), what distress was about to come on the said populace of Europe through these errors of their teachers, I began to do the best I might, to combat them, in the series of papers for the Cornhill Magazine, since published under the title of Unto this Last. The editor of the Magazine was my friend, and ventured the insertion of the three first essays; but the outcry against them
became then too strong for any editor to endure, and he wrote to me, with great discomfort to himself, and many apologies te me, that the Magazine must only admit one Economical Essaly more.

I made, with his permission, the last one longer than the rest, and gave it blunt conclusion as well as I could-and so the book now stands; but, as I had taken not a little pains with the Essars, and knew that ther contained better work than most of my former writings, and more important truths than all of them put together, this violent reprobation of them by the Cornhill pulbic set me still more gravely thinking; and, after turning the matter hither and thither in my mind for two years more, I resolved to make it the central work of my life to write an exhanstive treatise on Political Economy. It would not have been begun, at that time, however, had not the editor of Fraser's Magazine written to me, saying that he believed there was something in my theories, and would risk the admission of what I chose to write on this dangerous subject; whereupon, cautiously, and at intervals, during the winter of 1862-63, I sent him, and he ventured to print, the preface of the intended work, divided into four chapters. Then, though the Editor had not wholly lost courage, the Publisher indignantly interfered; and the readers of Fraser, as those of the Cornhill, were protected, for that time, from farther disturbance on my part. Subsequently, loss of health, family distress, and various untoward chances, prevented my proceeding with the body of the book;-seven years hare passed ineffeetually; and I am now fain to reprint the Preface by itself, under the title which I intended for the whole.
21. Not discontentedly; being, at this time of life, resignea' to the sense of failure; and also, because the preface is complete in itself as a body of definitions, which I now require for reference in the course of my Letters to Workmen; by which also, in time, I trust less formally to accomplish the chicf purpose of Munera Pulveris practically summed in the two paragraphs 27 and 28 : namely, to examine the moral results and possible rectifications of the laws of distribution of
wealth, which have prevailed hitherto without debate among men. Laws which ordinary economists assume to be inviolable, and which ordinary socialists imagine to be on the eve of total abrogation. But they are both alike deceived. The laws which at present regulate the possession of wealth are unjust, because the motives which provoke to its attainment are impure ; but no socialism can effect their abrogation, unless it can abrogate also covetousness and pride, which it is by no means yet in the way of doing. Nor can the change be, in any case, to the extent that has been imagined. Extremes of luxury may be forbidden, and agony of penury relicved; but nature intends, and the utmost efforts of socialism will not hinder the fulfilment of her intention, that a provident person shall always be richer than a spendthrift; and an ingenious one more comfortable than a fool. But, indeed, the adjnstment of the possession of the products of industry depends more on their nature than their quantity, and on wise determination therefore of the aims of industry. A nation which desires true wealth, desires it moderately, and can therefore distribute it with kindness, and possess it with pleasure; but one which desires false wealth, desires it immoderately, and can neither dispense it with justice, nor enjoy it in peace.
22. Therefore, needing, constantly in my present work, to refer to the definitions of true and false wealth given in the following Essays, I republish them with careful revisal. They were written abroad; partly at Milan, partly during a winter residence on the sonth-eastern slope of the Mont Salève, near Geneva; and sent to London in as legible MS. as I could write; but I never revised the press sheets, and have been obliged, accordingly, now to amend the text here and there, or correct it in unimportant particulars. Wherever any modification has involved change in the sense, it is enclosed in square brackets; and what few explanatory comments I have felt it necessary to add, have been indicated in the same manner. No explanatory comments, I regret to perceive, will suffice to remedy the mischief of my affected
concentration of language, into the habit of which I fell by thinking too long over particular passages, in many and many a solitary walk towards the mountains of Bonneville or Anneey. But I never intended the book for anything else than a dictionary of reference, and that for earnest readers; who will, I have good hope, if they find what they want in it, forgive the affectedly curt expressions.

The Essays, as originally published, were, as I have just stated, four in number. I have now, more conveniently, divided the whole into six chapters; and (as I purpose throughout this edition of my works) numbered the paragraphs.

I inscribed the first volume of this series to the friend who aided me in chief sorrow. Let me inscribe the second to the friend and guide who has urged me to all chief labor, Thomas Carlyle.
23. I would that some better means were in my power of showing reverence to the man who alone, of all our masters of literature, has written, without thought of himself, what he knew it to be needful for the people of his time to hear, if the will to hear were in them: whom, therefore, as the time draws near when his task must be ended, Republican and Free-thonghted England assanlts with impatient reproach; and out of the abyss of her cowardice in policy and dishonor in trade, sets the hacks of her literature to speak evil, grateful to her ears, of the Solitary Teacher who has asked her to be brave for the help of Man, and just, for the love of God.

Demmark Hill, 25th November, 1871.

## MUNERA PULVERIS

> "Te maris et terre numeroque carentis arene Mensorem combent, Archyta, Pulveris exigul prope litus parva Matinum Munera."

## CHAPTER I.

## DEFINITIONS.

1. As domestic economy regulates the acts and habits of a household, Political Economy regulates those of a society or State, with reference to the means of its maintenance.

Political economy is neither an art nor a science; but a system of conduct and legislature, founded on the sciences, directing the arts, and impossible, except under certain conditions of moral culture.
2. The study which lately in England has been called Political Economy is in reality nothing more than the investigation of some accidental phenomena of modern commercial operations, nor has it been true in its investigation even of these. It has no connection whatever with political economy, as understood and treated of by the great thinkers of past ages ; and as long as its unscholarly and undefined statements are allowed to pass under the same name, every word written on the subject by those thinkers-and chicfly the words of Plato, Xenophon, Cicero, and Bacon-must be nearly useless to mankind. The reader must not, therefore, be surprised at the care and insistence with which I have retained the literal and earliest sense of all important terms used in these papers; for a word is usually well made at the
time it is first wanted; its youngest meaning has in it the full strength of its youth; subsequent senses are commonly warped or weakened; and as all careful thinkers are sure to have used their words aceurately, the first condition, in order to be able to avail ourselves of their sayings at all, is firm definition of terms.
3. By the "maintenance" of a State is to be understood the support of its population in healthy and happy life; and the increase of their mumbers, so far as that increase is consistent with their happiness. It is not the object of political economy to increase the mumbers of a nation at the cost of common health or comfort; nor to increase indefinitely the comfort of individuals, by sacrifice of surrounding lives, or possibilities of life.
4. The assumption which lies at the root of nearly ail erroneous reasoning on political conomy,-namely, that its object is to accumulate money or exchangeable property,may be shown in a few words to be without foundation. For no economist would admit national economy to be legitimate which proposed to itself only the building of a pyramid of gold. He would declare the gold to be wasted, were it to remain in the monumental form, and would say it ought to be employed. But to what end? Either it must be used only to gain more gold, and build a larger pyramid, or for some purpose other than the gaining of gold. And this other purpose, however at first apprehended, will be found to resolve itself finally into the scrvice of man;-that is to say, the extension, defense, or comfort of his life. The golden pyramid may perhaps be providently built, perhaps improvidently; but the wisdom or folly of the accumulation can only be determined by our having first clearly stated the aim of all ceonomy, namely, the extension of life.

If the accumulation of money, or of exchangeable property, were a certain means of extending existence, it would be useless, in discussing economical questions, to fix our attention upon the more distant object-life-instead of the immediate one-money. But it is not so. Money may
sometimes be accumulated at the cost of life, or by limitations of it; that is to say, either by hastening the deaths of men, or preventing their births. It is therefore necessary to keep clearly in riew the ultimate object of economy; and to determine the expediency of minor operations with reference to that ulterior end.
5. It has been just stated that the object of political economy is the continuance not only of life, but of healthy and happy life. But all true happiness is both a consequence and cause of life: it is a sign of its vigor, and source of its continuance. All true suffering is in like manner a consequence and cause of death. I shall therefore, in future, use the word "Life" singly; but let it be understood to include in its signification the happiness and power of the entire human nature, body and soul.
6. That human nature, as its Creator made it, and maintains it wherever His laws are observed, is entirely harmonious. No physical error can be more profound, no moral error more dangerous, than that involved in the monkish doctrine of the opposition of body to soul. No soul can be perfect in an imperfect body; no body perfect without perfect sonl. Erery right action and true thought sets the seal of its beauty on person and face; every wrong action and foul thought its seal of distortion; and the various aspects of hunanity might be read as plainly as a printed history, were it not that the impressions are so complex that it must always in some cases (and, in the present state of our knowledge, in all cases) be impossible to decipher them completely. Nevertheless, the face of a consistently just, and of a consistently unjust person, may always be rightly distinguished at a glance; and if the qualities are continued by descent through a generation or two, there arises a complete distinction of race. Both moral and physical qualities are communicated by descent, far more than they can be developed by education, (though both may be destroyed by want of education) ; and there is as yet no ascertained limit to the nobleness of person and mind which the human creature
may attain, by persevering observance of the laws of God respecting its birth and training.
7. We must therefore yet farther define the aim of political economy to be "The multiplication of human life at the highest standard." It might at first seem questionable whether we should endeavor to maintain a small number of persons of the highest trpe of beauty and intelligence, or a larger number of an inferior class. But I shall be able to show in the sequel, that the way to maintain the largest number is first to aim at the highest standard. Determine the noblest type of man, and aim simply at maintaining the largest possible number of persons of that class, and it will be found that the largest possible number of every healthy subordinate class must necessarily be produced also.
8. The perfect type of manhood, as just stated, involves the perfections (whatever we may hereafter determine these to be) of his body, affections, and intelligence. The material things, therefore, which it is the object of political economy to produce and use, (or accumulate for use,) are things which serve either to sustain and comfort the body, or exercise rightly the affections and form the intelligence.* Whatever truly serves either of these purposes is "useful" to man, wholesome, healthful, helpful, or holy. By seeking such things, man prolongs and increases his life upon the earth.

On the other hand, whatever does not scrve either of these purposes,-much more whatever counteracts them,-is in like manner useless to man, unwholesome, unhelpful, or unholy; and by seeking such things man shortens and diminishes his life upon the earth.
9. And neither with respect to things useful or useless can man's estimate of them alter their nature. Certain substances being good for his food, and others noxious to him, what he thinks or wishes respecting them can neither elange, nor prevent, their power. If he eats corn, he will live; if nightshade, he will die. If he produce or make good and

## * See Appendix I.

beautiful things, they will Re-Create him; (note the solemnity and weight of the word) ; if bad and ugly things, they will "corrupt" or "break in pieces "-that is, in the exact degree of their power, Kill him. For every hour of labor, however enthusiastic or well intended, which he spends for that which is not bread, so much possibility of life is lost to him. His fancies, likings, beliefs, however brilliant, eager, or obstinate, are of no arail if they are set on a false object. Of all that he has labored for, the eternal law of heaven and earth measures out to him for reward, to the utmost atom, that part which he ought to have labored for, and withdraws from him (or enforces on him, it may be) inexorably, that part which he ought not to have labored for until, on his summer threshing-floor, stands his heap of corn; little or much, not according to his labor, but to his discretion. No "commercial arrangements," no painting of surfaces, nor alloying of substances, will avail him a pennyweight. Nature asks of him calmly and inevitably, What have you found, or formed-the right thing or the wrong? By the right thing you shall live; by the wrong you shall die.
10. To thoughtless persons it seems otherwise. The world looks to them as if they could cozen it out of some ways and means of life. But they cannot cozen IT : they can only cozen their neighbors. The world is not to be cheated of a grain; not so much as a breath of its air can be drawn surreptitiously. For every piece of wise work done, so much life is granted; for every piece of foolish work, nothing; for every piece of wicked work, so much death is allotted. This is as sure as the courses of day and night. But when the means of life are once produced, men, by their various struggles and industries of accumulation or exchange, may variously gather, waste, restrain, or distribute them; necessitating, in proportion to the waste or restraint, accurately, so much more death. The rate and range of additional death are measured by the rate and range of waste; and are inevitable;-the only question (determined mostly by fraud in peace, and force in war) is, Who is to die, and how?
11. Such being the everlasting law of human existence, the essential work of the political economist is to determine what are in reality useful or life-giving things, and by what degrees and kinds of labor they are attainable and distributable. This investigation divides itself under three great heads;-the studies, namely, of the phenomena, first, of Wenltif; secondly, of Money; and thirdly, of Ricines.

These terms are often used as synonymous, but they signify entirely different things. "Wealth" consists of things in themselves valuable; "Money," of documentary claims to the possession of such things; and "Riches" is a relative term, expressing the magnitude of the possessions of one person or society as compared with those of other persons or societies.

The study of Wealth is a province of natural science:it deals with the essential properties of things.

The study of Money is a prorince of commercial science:it deals with conditions of engagement and exchange.

The study of Riches is a province of moral science:-it deals with the due relations of men to each other in regard of material possessions; and with the just laws of their association for purposes of labor.

I shall in this first chapter shortly sketch out the range of subjects which will come before us as we follow these three branches of inquiry.
12. And first of Wealth, which, it has been said, consists of things essentially valuable. We now, therefore, need a definition of "ralue."
"Value" signifies the strength, or "availing" of anything towards the sustaining of life, and is always twofold; that is to say, primarily, intrinsic, and secondarily, effectual.

The reader must, by anticipation, be warned against confusing value with cost, or with price. Value is the lifegiving power of anything; cost, the quantity of labor required to produce it; price, the quantity of labor which its
possessor will talie in exchange for it.* Cost and price aro commercial conditions, to be studied under the head of money.
13. Intrinsic value is the absolute power of anything to support life. A sheaf of wheat of given quality and weight has in it a measurable power of sustaining the substance of the body ; a cubic foot of pure air, a fixed power of sustaining its warmth; and a cluster of flowers of given beauty a fixed power of enlivening or animating the senses and heart.

It does not in the least affect the intrinsic value of the wheat, the air, or the flowers, that men refuse or despise them. Used or not, their own power is in them, and that particular power is in nothing else.
14. But in order that this value of theirs may become effectual, a certain state is necessary in the recipient of it. The digesting, breathing, and perceiving functions must be perfect in the human creature before the food, air, or flowers can become of their full value to it. The production of effectual value, therefore, aluays involves two needs: first, the production of a thing essentially useful; then the production of the capacity to use it. Where the intrinsic value and acceptant capacity come together there is Effectual value, or wealth; where there is either no intrinsic value, or no acceptant capacity, there is no cffectual value; that is to say, no wealth. A horse is no wealth to us if we camot ride, nor a picture if we cannot sce, nor can any noble thing be wealth, except to a noble person. As the aptness of the user increases, the effectual value of the thing used increases; and in its entirety can co-exist only with perfect skill of use, and fitness of nature.
15. Valuable material things may be conveniently referred to five heads:
(i.) Land, with its associated air, water, and organisms.
(ii.) Houses, furniture, and instruments.
(iii.) Stored or prepared food, medicine, and articles of bodily luxury, including elothing.
[* Observe these definitions,-they are of much importance,-and connect with them the sentences in italics on this page.]
(iv.) Books.
(r.) Works of art.

The conditions of value in these things are briefly as fol-lows:-
16. (i.) Land. Its value is twofold; first, as producing food and mechanical power; secondly, as an object of sight and thought, producing intellectual power.

Its value, as a means of producing food and mechanical power, varies with its form (as mountain or plain), with its substance (in soil or mineral contents), and with its climate. All these conditions of intrinsic value must be known and complied with by the men who have to deal with it, in order to give effectual value; but at any given time and place, the intrinsic value is fixed: such and such a piece of land, with its associated lakes and seas, rightly treated in surface and substance, can produce precisely so much food and power, and no more.

The second element of value in land being its beauty, united with such conditions of space and form as are necessary for exercise, and for fulness of animal life, land of the highest value in these respects will be that lying in temperate climates, and boldly varied in form ; removed from unhealthy or dangerous influences (as of miasm or volcano) ; and capable of sustaining a rich fauna and flora. Such land, carefully tended by the hand of man, so far as to remove from it unsightlinesses and evidences of decay, guarded from violence, and inhabited, under man's affeetionate protection, by every kind of living creature that can occupy it in peace, is the most precious "property" that human beings can possess.
17. (ii.) Buildings, furniture, and instruments.

The value of buildings consists, first, in permanent strength, with convenience of form, of size, and of position; so as to render employment peaceful, social intercourse easy, temperature and air healthy. The advisable or possible magnitude of cities and mode of their distribution in squares, streets, courts, etc. ; the relative value of sites of land, and the
modes of structure which are healthiest and most permanent, have to be studied under this head.

The value of buildings consists secondly in historical association, and architectural beauty, of which we have to examine the influence on manners and life.

The ralue of instruments consists, first, in their power of shortening labor, or otherwise accomplishing what human strength unaided could not. The kinds of work which are severally best accomplished by hand or by machine;-the effect of machinery in gathering and multiplying population, and its influence on the minds and bodies of such population; together with the conceivable uses of machinery on a colossal scale in accomplishing mighty and useful works, hitherto unthought of, such as the deepening of large river channels; -changing the surface of mountainous districts;-irrigating tracts of desert in the torrid zone;-breaking up, and thus rendering capable of quicker fusion, edges of ice in the northern and southern Arctic seas, etc., so rendering parts of the earth habitable which hitherto have been lifeless, are to be studied under this head.

The value of instruments is, secondarily, in their aid to abstract sciences. The degree in which the multiplication of such instruments should be encouraged, so as to make them, if large, easy of access to numbers (as costly telescopes), or so cheap as that they might, in a serviceable form, become a common part of the furniture of households, is to be considered under this head.*
18. (iii.) Food, medicine, and articles of luxury. Under this head we shall have to examine the possible methods of obtaining pure food in such security and equality of supply as to avoid both waste and famine: then the economy of
[ ${ }^{*}$ I cannot now recast these sentences, pedantic in their generalization, and intended more for index than statement, but I must guard the reader from thinking that $I$ ever wish for cheapness by bad quality. A poor boy need not always learn mathematics; but, if you set him to do so, have the farther kindness to give him good compasses, not cheap ones, whose points bend like lead.]
medicine and just range of sanitary law: finally the economy of luxury, partly an resthetic and partly an ethical question.
19. (iv.) Books. The value of these consists,

First, in their power of preserving and communicating the knowledge of facts.

Secondly, in their power of exciting vital or noble emotion and intellectual action. They have also their corresponding negative powers of disguising and effacing the memory of facts, and killing the noble emotions, or exciting base ones. Under these two heads we have to consider the economical and educational value, positive and negative; of literature; the means of producing and educating good authors, and the means and advisability of rendering good books generally accessible, and directing the reader's choice to them.
20. (v.) Works of art. The value of these is of the same nature as that of books; but the laws of their production and possible modes of distribution are very different, and require separate examination.
21. II.-Money. Under this head, we shall have to examine the laws of eurrency and exchange; of which I will note here the first separate principles.

Money has been inaccurately spoken of as merely a means of exchange. But it is far more than this. It is a documentary expression of legal claim. It is not wealth, but a documentary claim to wealth, being the sign of the relative quantities of it, or of the labor producing it, to which, at a given time, persons, or societies, are entitled.

If all the money in the world, notes and gold, were destroyed in an instant, it would leave the world neither richer nor poorer than it was. But it would leave the individual inlabitants of it in different relations.

Money is, therefore, correspondent in its nature to the titledeed of an estate. Though the deed be burned, the estate still exists, but the right to it has become disputable.
22. The real worth of money remains unchanged, as long as the proportion of the quantity of existing money to the
quantity of existing wealth or available labor remains unchanged.

If the wealth increases, but not the money, the worth of the moner increases; if the money increases, but not the wealth, the worth of the money diminishes.
23. Money, therefore, cannot be arbitrarily multiplied, any more than title-deeds can. So long as the existing wealth or available labor is not fully represented by the currency, the currency may be increased without diminution of the assigned worth of its pieces. But when the existing wealth, or available labor, is once fully represented, every piece of money thrown into circulation diminishes the worth of every other existing piece, in the proportion it bears to the number of them, provided the new piece be received with equal credit; if not, the depreciation of worth takes place, according to the degree of its credit.
24. When, however, new money, composed of some substance of supposed intrinsic value (as of gold), is brought into the market, or when new notes are issmed which are supposed to be deserving of credit, the desire to obtain the moner will, under certain circumstances, stimulate industry: an additional quantity of wealth is immediately produced, and if this be in proportion to the new claims advanced, the value of the existing currency is undepreciated. If the stimulus given be so great as to produce more goods than are proportioned to the additional coinage, the worth of the existing currency will be raised.

Arbitrary control and issues of currency affect the production of wealth, by acting on the hopes and fears of men, and are, under certain circumstances, wise. But the issue of additional currency to meet the exigencies of immediate expense, is merely one of the disguised forms of borrowing or taxing. It is, howerer, in the present low state of economical knowledge, often possible for governments to renture on an issue of currency, when they could not venture on an additional loan or tax, becanse the real operation of such issue is not under-
stood by the people, and the pressure of it is irregularly distributed, and with an unperceived gradation.
25. The use of substances of intrinsic value as the materials of a currency, is a barbarism; -a remnant of the couditions of barter, which alone render commerce possible among savage nations. It is, however, still necessary, partly as a mechanical check on arbitrary issues; partly as a means of exchanges with foreign nations. In proportion to the extension of civilization, and increase of trustworthiness in governments, it will cease. So long as it exists, the phenomena of the cost and price of the articles used for currency are mingled with those proper to currency itself, in an almost inextricable manner: and the market worth of bullion is affected by multitudinous accidental circumstances, which have been traced, with more or less success, by writers on commercial operations: but with these variations the true political economist has no more to do than an engineer, fortifying a harbor of refuge against Atlantic tide, has to concern himself with the cries or quarrels of children who dig pools with their fingers for its streams among the sand.
26. III. Ricues. According to the various industry, capacity, gond fortune, and desires of men, they obtain greater or smaller share of, and claim upon, the wealth of the world.

The inequalities between these shares, always in some degree just and necessary, may be either restrained by law or circumstances within certain limits; or may increase indefinitely.

Where no moral or legal restraint is put upon the exercise of the will and intellect of the stronger, shrewder, or more covetous men, these differences become ultimately enormous. But as soon as they become so distinct in their extremes as that, on one side, there shall be manifest redundance of possession, and on the other manifest pressure of need,- the terms " riches" and "poverty" are used to express the opposite states; being contrary only as the terms " warmth" and " cold" are contraries, of which neither implies an actual degree, but only a relation to other degrees, of temperature.
27. Respecting riches, the economist has to inquire, first, into the advisable modes of their collection; secondly, into the advisable modes of their administration.

Respecting the collection of national riches, he has to inquire, first, whether he is justified in calling the nation rich, if the quantity of wealth it possesses relatively to the wealth of other nations, be large; irrespectively of the manner of its distribution. Or does the mode of distribution in any wise affect the nature of the riches? Thus, if the king alone be rich-suppose Crœsus or Mausolus-are the Lydians or Carians therefore a rich nation? Or if a few slave-masters are rich, and the nation is otherwise composed of slaves, is it to be called a rich nation? For if not, and the ideas of a certain mode of distribution or operation in the riches, and of a certain degree of freedom in the people, enter into our idea of riches as attributed to a people, we shall have to define the degree of fluency, or circulative character which is essential to the nature of common wealth; and the degree of independence of action required in its possessors. Questions which look as if they would take time in answering.*
28. And farther. Since the inequality, which is the condition of riches, may be established in two opposite modesnamely, by increase of possession on the one side, and by decrease of it on the other-we have to inquire, with respect to any given state of riches, precisely in what manner the correlative poverty was produced: that is to say, whether by being surpassed only, or being depressed also; and if by being depressed, what are the advantages, or the contrary, conceivable in the depression. For instance, it being one of the commonest advantages of being rich to entertain a number of servants, we have to inquire, on the one side, what economical process produced the riches of the master ; and on the other,
[* I regret the ironical manner in which this passage, one of great importance in the matter of it, was written. The gist of it is, that the first of all inquiries respecting the wealth of any nation is not, how much it has; but whether it is in a form that can be used, and in the possession of persons who can use it.]
what economical process produced the porerty of the persons who scrve him; and what adrantages cach, on his own side, derives from the result.
29. These being the main questions touching the collection of riches, the next, or last, part of the inquiry is into their administration.

Their possession involves three great cconomical powers whicl require separate examination: namely, the powers of selection, direction, and provision.

The power of Selfetion relates to things of which the supply is limited (as the supply of best things is always). When it becomes matter of question to whom such things are to belong, the richest person has necessarily the first choice, unless some arbitrary mode of distribution be otherwise determined upon. The business of the economist is to show low this choice may be a Wise one.

The power of Direction arises ont of the necessary relation of rich men to poor, which ultimately, in one way or another, involves the direction of, or authority over, the labor of the poor; and this nearly as much over their mental as their bodily labor. The business of the economist is to show how this direction may be a Just one.

The power of Provision is dependent upon the redundance of wealth, which may of course by active persons be made available in preparation for future work or future profit; in which function riches have generally received the name of capital; that is to say, of head-, our source-material. The husiness of the cconomist is to show how this provision may be a Distant one.
30. The examination of these three functions of riches will cmbrace every final problem of political economy;-and, ahore, or before all, this curious and vital problem,-whether, since the wholesome action of riches in these three functions will depend (it appears) on the Wisdom, Justice, and Farsighteduess of the holders; and it is by no means to be assumed that persons primarily rich, must therefore be just and wise,--it may not be ultimately possible so, or somewhat so, to
arrange matters; as that persons primarily just and wise, should therefore be rich ?

Such being the general plan of the inquiry before us, I shall not limit myself to any consecutive following of it, having hardly any good hope of being able to complete so laborious a work as it must prove to me; but from time to time, as I have leisure, shall endeavor to carry forward this part or that, as may be immediately possible; indicating always with accuracy the place which the particular essay will or should take in the completed system.

## CHAPTER II.

## STORE-KEEPING.

31. Tine first chapter having consisted of little more than definition of terms, I purpose, in this, to expand and illustrate the given definitions.

The view which has here been taken of the nature of wealth, namely, that it consists in an intrinsic value developed by a vital power, is directly opposed to two nearly universal conceptions of wealth. In the assertion that value is primarily intrinsic, it opposes the idea that anything which is an object of desire to numbers, and is limited in quantity, so as to have rated worth in exchange, may be called, or virtually become, wealth. And in the assertion that value is, secondarily, dependent upon power in the possessor, it opposes the idea that the worth of things depends on the demand for them, instead of on the use of them. Before going farther, we will make these two positions clearer.
32. I. First. All wealth is intrinsic, and is not constituted by the judgment of men. This is easily seen in the case of things affecting the body; we know, that no force of fantasy will make stones nourishing, or poison innocent; but it is less apparent in things affecting the mind. We are casily-perhaps willingly-misled by the appearance of beneficial results obtained by industries addressed wholly to the gratification of fanciful desire ; and apt to suppose that whatcorr is widely coveted, dearly bought, and pleasurable in possesion, must be included in our definition of wealth. It is the more difficult to quit ourselves of this error becanse many things which are true wealth in moderate use, become false wealth in immoderate; and many things are mixed of good and evil,-as mostly, books, and works of art,-out of which
one person will get the good, and another the evil; so that it seems as if there were no fixed good or evil in the things themselves, but only in the view taken, and use marle of them.

But that is not so. The evil and good are fixed; in essence, and in proportion. And in things in which evil depends upon excess, the point of excess, though indefinable, is fixed ; and the power of the thing is on the hither side for good, and on the farther side for evil. And in all cases this power is inherent, not dependent on opinion or choice. Our thoughts of things neither make, nor mar their eternal foree; nor-which is the most serious point for future consideration -can they prevent the effect of it (within certain limits) upon ourselves.
33. Therefore, the object of any special analysis of wealth will be not so much to enumerate what is serviceable, as to distinguish what is destructive; and to show that it is inevitably destructive; that to receive pleasure from an evil thing is not to escape from, or alter the evil of it, but to be altered by it; that is, to suffer from it to the utmost, having our own nature, in that degree, made evil also. And it may be shown farther, that, through whatever length of time or subtleties of connection the harm is accomplished, (being also less or more according to the fineness and worth of the humanity on which it is wrought,) still, nothing but harm ever comes of a bad thing.
34. So that, in sum, the term wealth is never to be attached to the accidental object of a morbid desire, but only to the constant object of a legitimate one.* By the fury of ignorance, and fitfulness of caprice, large interests may be continually attached to things unserviceable or hurtful; if their nature could be altered by our passions, the science of political Economy would remain, what it has been hitherto among us, the weighing of clouds, and the portioning out of
[* Remember carefully this statement, that Wealth consists only in the things which the nature of humanity has rendered in all ages, and must render in all ages to come, (that is what I meant by "constant,") the objects of legitimate desire. And see Appendix II.]
shadows. But of ignorance there is no science; and of caprice no law. Their disturbing forees interfere with the operations of faithful Eeonomy, but have nothing in eommon with them: she, the calm arbiter of national destiny, regards only essential power for good in all that she accumulates, and alike disdains the wanderings * of imagination, and the thirsts of disease.
35. II. Secondly. The assertion that wealth is not only intrinsic, but dependent, in order to become effectual, on a given degree of vital power in its possessor, is opposed to another popular view of wealth ;-namely, that though it may always be constituted by eaprice, it is, when so constituted, a substantial thing, of which given quantities may be counted as existing here, or there, and exchangeable at rated prices.

In this view there are three errors. The first and chief is the overlooking the fact that all exchangeableness of commodity, or effective demand for it, depends on the sum of capacity for its use existing, here or elsewhere. The book we eannot read, or picture we take no delight in, may indeed be called part of our wealth, in so far as we have power of exchanging either for something we like better. But our power of effecting such exchange, and yet more, of effecting it to adrantage, depends absolutely on the number of accessible persons who can understand the book, or enjoy the painting, and who will dispute the possession of them. Thus the actual worth of either, even to us, depends no more on their essential goodness than on the eapacity existing somewhere for the perception of it; and it is vain in any completed system of production to think of obtaining one without the other. So that, though the true political economist knows that coexistence of eapacity for use with temporary possession cannot be always secured, the final fact, on which he bases all action and administration, is that, in the whole nation, or group of nations, he has to deal with, for every atom of intrinsic value produced he must with exactest chemistry pro-

[^128]duce its twin atom of acceptant digestion, or understanding capacity; or, in the degree of his failure, he has no wealth. Nature's challenge to us is, in earnest, as the Issyrian's mock: "I will give thee two thousand horses, if thou be able on thy part to set riders upon them." Barieca's paces are brave, if the Cid backs him; but woe to us, if we take the dust of capacity, wearing the armor of it, for capacity itself, for so all procession, however goodly in the show of it, is to the tomb.
36. The second error in this popular view of wealth is, that in giving the name of wealth to things which we cannot use, we in reality confuse wealth with monev. The land we have no skill to cultirate, the book which is sealed to us, or dress which is superfluous, may indeed be exchangeable, but as such are nothing more than a cumbrous form of bank-note, of doubtful or slow convertibility. As long as we retain possession of them, we merely keep our bank-notes in the shape of gravel or clay, or book-leaves, or of embroilered tissue. Circumstances may, perhaps, render such forms the safest, or a certain complacency may attach to the exhibition of them; into both these adrantages we shall inquire afterwards; I wish the reader only to observe here, that exchangeable property which we cannot use is, to us personally, merely one of the forms of money, not of wealth.
37. The third crror in the popular view is the confusion of Guardianship with Possession; the real state of men of property being, too commonly, that of curators, not possessors, of wealth.

A man's power over his property is, at the widest range of it, fivefold; it is power of Use, for himself, Administration, to others, Ostentation, Destruction, or Bequest ; and possession is in use only, which for each man is sternly limited; so that such things, and so much of them as he can mse, are, indeed, well for him, or Wealth; and more of them, or any other things, are ill for him, or Illth." Planged to the lips in Orinoco, he shall drink to his thirst measure; more at his

[^129]peril: with a thousand oxen on his lands, he shall eat to his lumger measure; more, at his peril. He cannot live in two houses at once; a few bales of silk or wool will suffice for the fabric of all the elothes he can ever wear, and a few books will probably hold all the furniture good for his hrain. Beyond these, in the best of us but narrow, capacities, we have but the power of administering, or maladministering, wealth: (that is to say, distributing, lending, or increasing it) ;-of exhibiting it (as in magnificence of retinue or furniture), -of destroying, or, finally, of bequeathing it. And with multitudes of rich men, administration degenerates into curatorship; they merely hold their property in charge, as Trustees, for the benefit of some person or persons to whom it is to be delivered upon their death; and the position, explained in clear terms, would hardly scem a covetable one. What would be the probable feelings of a youth, on his entrance into life, to whom the career hoped for him was proposed in terms such as these: ". You must work unremittingly, and with your utmost intelligence, during all your available years, you will thus accumulate wealth to a large amount; but you must touch none of it, beyond what is needful for your support. Whatever sums yon gain, beyond those required for your decent and moderate maintenance, and whatever beautiful things yon may obtain possession of, shall be properly taken care of by servants, for whose maintenance you will be charged, and whom you will have the trouble of superintending, and on your death-bed vou shall have the power of determining to whom the accumulated property shall belong, or to what purposes be applied "?
35. The labor of life, under such conditions, would probably be neither zealous nor cheerful; yet the only difference between this position and that of the ordinary capitalist is the power which the latter supposes himself to possess, and which is attributed to him by others, of spending his money at any moment. This pleasure, taken in the imagination of power to part with that with which we have no intention of parting,
is one of the most curious, though commonest forms of the Eidolon, or Phantasm of Wealth. But the political economist has nothing to do with this idealism, and looks only to the practical issue of it-namely, that the holder of wealth, in such temper, may be regarded simply as a mechanical means of collection; or as a moner-chest with a slit in it, not only receptant but suctional, set in the public thoroughfare; -chest of which only Death has the ker, and evil Chance the distribution of the contents. In his function of Lender (which, however, is one of administration, not use, as far as he is himself concerned), the capitalist takes, indeed, a more interesting aspect; but even in that function, his relations with the State are apt to degenerate into a mechanism for the convenient contraction of debt; -a function the more mischierous, because a nation invariably appeases its conscience with respect to an unjustifiable expense, br meeting it with borrowed funds, expresses its repentance of a foolish piece of business, by letting its tradesmen wait for their money, and alwars leaves its descendants to pay for the work which will be of the least adrantage to them.*
39. Quit of these three sources of misconception, the reader will have little farther difficulty in apprehending the real nature of Effectual ralue. He may, however, at first not without surprise, perceive the consequences involsed in lis acceptance of the definition. For if the actual existence of wealth be dependent on the power of its possessor, it follows that the sum of wealth held by the nation, instead of leing constant or calculable, varies hourlv, nay momentarily, with the number and character of its holders! and that in changing hands, it changes in quantity. And farther, since the worth of the currency is proportioned to the sum of material wealth which it represents, if the sum of the wealth changes, the worth of the currency changes. And thus both
[* I would beg the reader's rery close attention to these 37 th and 3ith paragraphs. It would be well if a dogged conviction could be enforced on nations, as on individuals, that, with few exceptions, what they cannot at present pay for, they should not at present hare.]
the sum of the property, and power of the currency, of the State, vary momentarily as the character and number of the holders. And not only so, but different rates and kinds of variation are caused by the character of the holders of different kinds of wealth. The transitions of value caused hy the character of the holders of land differ in mode from those caused by character in holders of works of art; and these again from those cansed by character in holders of machines $y^{*}$ or other working eapital. But we cannot examine theso special phenomena of any kind of wealth until we have a clear idea of the way in which true currency expresses them; and of the resulting modes in which the cost and price of any article are related to its value. To obtain this we must approach the subject in its first elements.
40. Let us suppose a national store of wealth, composed of material things either useful, or believed to be so, taken charge of by the Govermment," and that every workman, having produced any article involving labor in its production, and for which he has no immediate nse, brings it to add to this store, receiving from the Govermment, in exchange, an order either for the retum of the thing itself, or of its equiralent in other things, such as he may choose ont of the store, at any time when he needs them. The question of equivalence itself (how much wine a man is to receive in return for so much corn, or how much coal in return for so much iron) is a quite separate one, which we will examine presently. For the time, let it be assmmed that this equivalence has been determinerl, and that the Government order, in exchange $f_{n}, r$ a fixed weight of any article (called, suppose, $a$ ), is cither for the return of that weight of the article itself, or of another fixed weight of the article $b$, or another of the article $c$, and so on.

Now, supposing that the laborer speedily and continually presents these general orders, or, in common language, "spends the money," he has neither changed the circumstances of the nation, nor his own, except in so far as he may

[^130]have produced useful and consumed useless articles, or vice versâ. But if he does not use, or uses in part only, the orders he receives, and lays aside some portion of them; and thus every day bringing his contribution to the national store, lays by some per-centage of the orders received in exchange for it, he increases the national wealth daily by as much as he does not use of the received order, and to the same amount accumulates a monetary claim on the Government. It is, of course, always in his power, as it is his legal right, to bring forward this accumulation of claim, and at once to consume, destroy, or distribute, the sum of his wealth. Supposing he never does so, but dies, leaving his claim to others, he has enriched the State during his life by the quantity of wealth over which that claim extends, or has, in other words, rendered so much additional life possible in the State, of which additional life he bequeaths the immediate possibility to those whom he invests with his claim. Supposing him to cancel the claim, he would distribute this possibility of life among the nation at large.
41. We hitherto consider the Government itself as simply a conservative power, taking charge of the wealth entrusted to it.

But a Government may be more or less than a conservative power. It may be either an improving, or destructive one.

If it be an improving power, using all the wealth entrusted to it to the best advantage, the nation is enriched in root and branch at once, and the Govermment is enabled, for every order presented, to return a quantity of wealth greater than the order was written for, according to the fructification obtained in the interim. This ability may be either concealed, in which case the currency does not completely represent the wealth of the country, or it may be manifested by the continual payment of the excess of value on each order, in which case there is (irrespectively, observe, of collateral results afterwards to bo examined) a perpetual rise in the worth of the currency, that is to say, a fall in the price of all articles represented by it.
42. But if the Government be destructive, or a consuming power, it becomes mable to return the value received on the presentation of the order.

This inability may either be concealed by meeting demands to the full, until it issue in bankruptey, or in some form of national debt;-or it may be concealed during oscillatory movements between destructiveness and productiveness, which result on the whole in stability;-or it may be manifested by the consistent return of less than value received on each presented order, in which case there is a consistent fall in the worth of the currency, or rise in the price of the things represented by it.
43. Now, if for this conception of a central Government, we substitute that of a body of persons oceupied in industrial pursuits, of whom each adds in his private capacity to the common store, we at once obtain an approximation to the actual condition of a civilized mercantile community, from which approximation we might easily proceed into still completer analysis. I purpose, however, to arrive at every result by the gradual expansion of the simpler conception; but I wish the reader to observe, in the meantime, that both the social conditions thus supposed (and I will by anticipation say also, all possible social conditions), agree in two great points; namely, in the primal importance of the supposed national store or stock, and in its destructibility or improvability by the holders of it.
44. I. Observe that in both conditions, that of central Goverument-holding, and diffused private-holding, the quantity of stock is of the same national moment. In the one case, indeed, its amount may be known by examination of the persons to whom it is confided; in the other it cannot be known but by exposing the private affairs of every individual. But, known or unknown, its significance is the same under each condition. The riches of the nation consist in the abundance, and their wealth depends on the nature, of this store.
45. II. In the second place, both conditions (and all other
possible ones) agree in the destructibility or improvability of the store by its holders. Whether in private hands, or under Government charge, the national store may be daily consumed, or daily enlarged, by its possessors; and while the currency remains apparently unaltered, the property it represents may diminish or increase.
46. The first question, then, which we have to put under our simple conception of central Government, namely, "What store has it?" is one of equal importance, whatever may be the constitution of the State; while the second questionnamely, "Who are the holders of the store?" involves the discussion of the constitution of the State itself.

The first inquiry resolves itself into three heads:

1. What is the nature of the store?
2. What is its quantity in relation to the population?
3. What is its quantity in relation to the currency ?

The second inquiry into two:

1. Who are the Holders of the store, and in what proportions?
2. Who are the Claimants of the store (that is to say, the holders of the currency), and in what proportions?

We will examine the range of the first three questions in the present paper; of the two following, in the sequel.
47. I. Question First. What is the nature of the store? Has the nation hitherto worked for and gathered the right thing or the wrong? On that issue rest the possibilities of its life.

For example, let us imagine a society, of no great extent, occupied in procuring and laying up store of corn, wine, wool, silk, and other such preservable materials of food and clothing; and that it has a currency representing them. Imagine farther, that on days of festivity, the society, discovering itself to derive satisfaction from pyrotechnies, gradually turns its attention more and more to the manufacture of gunpowder; so that an increasing number of laborers, giving what time they can spare to this branch of industry, bring increasing quantities of combustibles into the store, and use
the general orders received in exehange to obtain such wine, wool, or corn, as they may have need of. The currency remains the same, and represents precisely the same amount of material in the store, and of labor spent in producing it. But the corn and wine gradually vanish, and in their place, as gradually, appear sulphur and saltpeter, till at last the laborers who have consumed corn and supplied niter, presenting on a festal morning some of their currency to obtain materials for the feast, discover that no amount of currency will command anything Festive, except Firc. The supply of rockets is unlimited, but that of food, limited, in a quite final manner; and the whole currency in the hands of the society represents an infinite power of detonation, but none of existence.
48. This statement, caricatured as it may seem, is only exaggerated in assuming the persistence of the folly to cxtremity, unchecked, as in reality it would be, by the gradual rise in price of food. But it falls short of the actual facts of human life in expression of the depth and intensity of the folly itself. For a great part (the reader wonld not believe how great until he saw the statistics in detail) of the most earnest and ingenious industry of the world is spent in produeing munitions of war; gathering, that is to say, the materials, not of festive, but of consuming fire; filling its stores with all power of the instruments of pain, and all affluence of the ministries of death. It was no true Trionfo della Morte* which men have seen and feared (sometimes scareely feared) so long; wherein he brought them rest from their labors. We see, and share, another and higher form of his triumph now. Taskmaster, instead of Releaser, he rules the dust of the arena no less than of the tomb; and, content onee in the grave whither man went, to make his works to ecase and his devices to vanish,-now, in the busy city and

[^131]on the serviceable sea，makes his work to increase，and his devices to multiply．

49．To this doubled loss，or negative power of labor，spent iin producing means of destruction，we have to add，in our estimate of the consequences of human folly，whatever more insidious waste of toil there is in production of unnecessary luxury．Such and such an occupation（it is said）supperts so many laborers，because so many obtain wages in following it ；but it is never considered that unless there be a supporting power in the product of the occupation，the wages given to one man are merely withdrawn from another．We camot say of any trade that it maintains such and such a number of persons，unless we know how and where the moner，now spent in the purchase of its produce，wonld have been spent， if that produce had not been manufactured．The purchasing funds truly support a number of people in making This；but （probably）leave unsupported an equal number who are making，or could have made That．The manufacturers of small watches thrive at Genera；－it is well；－but where would the money spent on small watches have gone，had there been no small watches to buy？

50．If the so frequently nttered aphorism of mercantile economy－＂Labor is limited by capital，＂were true，this question would be a definite one．But it is untrue；and that widely．Ont of a given quantity of funds for wages，more or less labor is to be had，according to the quantity of will with which we can inspire the workman；and the true limit of labor is only in the limit of this moral stimulus of the will， and of the bodily power．In an ultimate，but entirely un－ practical sense，labor is limited by capital，as it is by matter －that is to say，where there is no material，there can be no work，－but in the practical sense，labor is limited only hy the great original capital of head，heart，and hand．Even in the most artificial relations of commerce，labor is to capital as fire to fuel：out of so much fuel，you can have only so much fire；but out of so much fuel you shall have so much fire，－ not in proportion to the mass of combustible，but to the
force of wind that fans and water that quenches; and the appliance of both. And labor is furthered, as conflagration is, not so much by added fuel, as by admitted air."
\%1. For whicl reasons, I had to insert, in § 49, the qualifying "probably;" for it can nerer be said positively that the purchase-money, or wages fund of any trade is withdrawn from some other trade. The olject itself may be the stimulus of the production of the money which buys it; that is to say, the work by which the purchaser obtained the means of buying it, would not have been done by him, unless he had wanted that particular thing. And the production of any article not intrinsically (nor in the process of manufacture) injurious, is useful, if the desire of it causes productive labor in other directions.
52. In the national store, therefore, the presence of things intrinsically ralueless does not imply an entirely correlative absence of things valuable. We cannot be certain that all the labor spent on vanity has been diverted from reality, and that for every bad thing produced, a precious thing has been lost. In great measure, the rain things represent the results of roused indolence; they have been carved, as toys, in extra time; and, if they had not been made, nothing else mould have been made. Even to munitions of war this principle applies; they partly represent the work of men who, if they had not made spears, would never have made pruning-hooks, and who are incapable of any activities but those of contest.
53. Thus then, finally, the nature of the store has to be considered under two main lights; the one, that of its immediate and actual utility; the other, that of the past national character which it signifies by its production, and future character which it must develop by its use. And the issue of this investigation will be to show us that

Economy does not depend merely on principles of "de-
[* The meaning of which is, that you may spend a great deal of money, and get very little work for it, and that little bad; but having good "air," or "spirit," to put life into it, with rery little money, you may get a great deal of work, and all good; which, observe, is an arithmetical, not at all a poetical or visionary circumstance.]
mand and supply," but primarily on what is demanded, and what is supplied; which I will beg of you to observe, and take to heart.
54. II. Question Second.- What is the quantity of the store in relation to the population?

It follows from what has been already stated that the accurate form in which this question has to be put is-" What quantity of each article composing the store exists in proportion to the real need for it by the population?" But we shall for the time assume, in order to keep all our terms at the simplest, that the store is wholly composed of useful articles, and accurately proportioned to the several needs for them.

Now it cannot be assumed, because the store is large in proportion to the number of the people, that the people must be in comfort; nor because it is small, that they must be in distress. An active and economical race always produces more than it requires, and lives (if it is permitted to do so) in competence on the produce of its daily labor. The quantity of its store, great or small, is therefore in many respects indifferent to it, and camot be inferred from its aspect. Similarly an inactive and wasteful population, which cannot live by its daily labor, but is dependent, partly or wholly, on consumption of its store, may be (by various difficulties, hereafter to be examined, in realizing or getting at such store) retained in a state of abject distress, though its possessions may be immense. But the results always involved in the magnitude of store are, the commercial power of the nation, its security, and its mental character. Its commercial power, in that according to the quantity of its store may be the extent of its dealings; its security, in that according to the quantity of its store are its means of sudden exertion or sustained endurance ; and its character, in that certain conditions of civilization cannot be attained without permanent and continually accumulating store, of great intrinsic value, and of peculiar nature.*
[* More especially, works of great art.]
55. Now, seeing that these three adrantages arise from largeness of store in proportion to population, the question arises immediately, "Given the store-is the nation enriched by diminution of its nmbers? Are a suceessful national speeulation, and a pestilence, cconomically the same thing?"

This is in part a sophistical question; such as it would be to ask whether a man was richer when struck by disease which must limit his life within a predicable period, than he was when in health. IE is enabled to enlarge his current expenses, and has for all purposes a larger sum at his immediate disposal (for, given the fortune, the shorter the life, the larger the ammity) ; yet no man considers himself richer because he is condemned by his physician.
56. The logieal reply is that, since Wealth is by definition only the means of life, a nation cannot be enriched by its own mortality. Or in shorter words, the life is more than the meat; and existence itself, more wealth than the means of existence. Whence, of two nations who have equal store, the more numerons is to be considered the richer, provided the type of the inhabitant be as high (for, though the relative bulk of their store be less, its relative efficieney, or the amount of effectual wealth, must be greater). But if the type of the population be deteriorated by increase of its numbers, we hase evidence of porerty in its worst influence; and then, to determine whether the mation in its total may still be justifiably estecmed rich, we must set or weigh, the number of the poor against that of the rich.

To effect which piece of scale-work, it is of course necessary to determine, first, who are poor and who are rich; nor this only, but also how poor and how rich they are. Which will prove a curious thermometrical investigation; for we shall have to do for gold and for silver, what we have done for quicksilver;-determine, namely, their freezing-point, their zero, their temperate and fever-heat points; finally, their vaporeseent point, at which riches, sometimes explosively, as lately in America, "make to themselves wings:"-and correspondently, the number of degrees below zero at which
poverty, ceasing to brace with any wholesome cold, burus to the bone."
57. For the performance of these operations, in the strictest sense scientific, we will first look to the existing socalled "science" of Political Economy; we will ask it to define for us the comparatively and superlatively rich, and the comparatively and superlatively poor; and on its own terms-if any terms it can pronounce-examine, in our prosperous England, how many rich and how many poor people there are ; and whether the quantity and intensity of the poverty is indeed so overbalanced by the quantity and intensity of wealth, that we may permit ourselves a luxurious blindness to it, and call ourselves, complacently, a rich country. And if we find no clear definition in the existing seience, we will endeavor for ourselves to fix the true degrees of the seale, and to apply them. $\dagger$
58. III. Question Tirrd. What is the quantity of the store in relation to the Currency?

We have seen that the real worth of the currency, so far as dependent on its relation to the magnitude of the store, may vary, within certain limits, without affecting its worth in exchange. The diminution or increase of the represented wealth may be unperceived, and the currency may be taken either for more or less than it is truly worth. Usually it is taken for much more; and its power in exchange, or credit-
[* The meaning of that, in plain English, is, that we must find ont how far porerty and riches are good or bad for people. and what is the difference between being miserably poor-so as, perhaps, to be driven to crime, or to pass life in suffering-and being blessedly poor, in the sense meant in the Sermon on the Mount. For I suppose the people who believe that sermon, do not think (if they ever honestly ask themselves what they do think), either that Luke vi. 24 is a merely poetical exclamation, or that the Beatitude of Poverty has yet been attained in St. Martin's Lane and other back streets of London.]
[ $\dagger$ Large plans !-Eight years are gone, and nothing done yet. But I keep my purpose of making one day this balance, or want of balance, visible, in those so seldom used scales of Justice.]
power, is thus increased up to a given strain upon its relation to existing wealth. This credit-power is of chief importance in the thoughts, because most sharply present to the experience, of a mercantile community : but the conditions of its stability* and all other relations of the enreney to the material store are entirely simple in principle, if not in action. Far other than simple are the relations of the currency to the arailable labor which it also represents. For this relation is involved not only with that of the magnitude of the store to the number, but with that of the magnitude of the store to the mind, of the population. Its proportion to their number, and the resulting worth of currency, are calculable; but its proportion to their will for labor is not. The worth of the piece of money which claims a given quantity of the store is, in exchange, less or greater according to the facility of obtaining the same quantity of the same thing without having recourse to the store. In other words, it depends on the immediate Cost and Price of the thing. We must now, therefore, complete the definition of these terms.
59. All cost and price are counted in Labor. We must know first, therefore, what is to be counted as Labor.

I have already defined Labor to be the Contest of the life

* These are nearly all briefly represented by the image used for the force of mowey ly Dante, of mast and sail :-

Quali dal rento le gonfiate rele
Caggiono arrolte, poi chè l'alber fiacca
Tal cadde a terra la fiera crudele.
The image may be followed out, like all of Dantes, into as close detail as the reader chooses. Thus the stress of the sail must be proportionel to the strength of the mast, and it is only in unforeseen danger that a skilful seaman ever carries all the canras his spars will bear; states of mercantile languor are like the flap of the sail in a calm ; of mercantile precaution, like taking in reefs ; and mercantile ruin is instant on the breaking of the mast.
[I mean by credit-power, the general impression on the national mind that a sovereign, or any other coin, is worth so much bread and cheese -so much wine-so much horse and carriage-or so much fine art: it may be really worth, when tried, less or more than is thought: the thought of it is the credit-power.]
of man with an opposite. Literally, it is the quantity of "Lapse," loss, or failure of human life, caused by any effort. It is usually confused with effort itself, or the application of power (opera) ; but there is much effort which is merely a mode of recreation, or of pleasure. The most beautiful actions of the human body, and the highest results of the human intelligence, are conditions, or achievements, of quite unlaborious,-nay, of recreative,-effort. But labor is the suffering in effort. It is the negative quantity, or quantity of de-feat, which has to be counted against every Feat, and of de-fect, which has to be counted against every Fact, or Deed of men. In brief, it is "that quantity of our toil which we die in."

We might, therefore, $\grave{a}$ priori, conjecture (as we shall ultimately find), that it camnot be bought, nor sold. Everything else is bought and sold for Labor, but Labor itself cannot be bought nor sold for anything, being priceless.* The itlea that it is a commodity to be bought or sold, is the alpha and omega of Politico-Economic fallacy.
60. This being the nature of labor, the "Cost" of anything is the quantity of labor necessary to obtain it;-the quantity for which, or at which, it "stands" (constat). It is literally the "Constancy" of the thing;-you shall win it -move it-come at it, for no less than this.

Cost is measured and measurable (using the accurate Latin terms) only in " labor," not in " opera." $\dagger$ It does not matter

* The object of Political Economy is not to buy, nor to sell labor. but to spare it. Every attempt to buy or sell it is, in the outcome, ineffectual ; so far as successful, it is not sale, but Betrayal ; and the purchasemoney is a part of that thirty pieces which bought, first the greatest of labors, and afterwards the burial-field of the Stranger; for this pur-chase-money, being in its very smallness or vileness the exactly measured opposite of the " vilis annona amicorum," makes all men strangers to each other.
$\dagger$ Cicero's distinction. "sordidi quæstus, quorum operæ, non quorum artes emuntur," admirable in principle, is inaccurate in expression, because Cicero did not practically know how much operative dexterity is necessary in all the higher arts ; but the cost of this dexterity is incal-
how much work a thing needs to produce it ; it matters only how much distress. Generally the more the power it requires, the less the distress; so that the noblest works of man cost less than the meanest.

True labor, or spending of life, is either of the body, in fatigue or pain; of the temper or heart (as in perseverance of search for things,-patience in waiting for them,-fortitude or degradation in suffering for them, and the like); or of the intellect. All these kinds of labor are supposed to be included in the general term, and the quantity of labor is then expressed by the time it lasts. So that a unit of labor is " an hour's work " or a day's work, as we may determine.*
61. Cost, like value, is both intrinsic and effectual. Intrinsic cost is that of getting the thing in the right way; effectual cost is that of getting the thing in the way we set about it. But intrinsic cost cannot be made a sulject of analytical investigation, being only partially discoverable, and that ly long experience. Effectual cost is all that the political economist can deal with; that is to say, the cost of the thing under existing circumstances, and by known processes.

Cost, being dependent much on application of method, varics with the quantity of the thing wanted, and with the number of persons who work for it. It is casy to get a little of some things, but difficult to get much; it is impossible to get some things with few hands, but casy to get them with many.

62 . The cost and value of things, however difficult to de-
culable. Be it great or small, the "cost" of the mere perfectness of touch in a hammer-stroke of Donatello's, or a pencil-touch of Correggio's, is inestimable by any ordinary arithmetic.
[Oll notes, these, more embarrassing, I now perceive, than elucidatory ; but right, and worth retaining.]

* Only observe, as some labor is more destructive of life than other labor, the hour or day of the more destructive toil is supposed to include proportionate rest. Though men do not, or cannot, usually take such rest, except in death.
termine accurately, are thus both dependent on ascertainable physical circumstances.*

But their price is rependent on the human will.
Such and such a thing is demonstrably good for so much. And it may demonstrably be had for so much.

* There is, therefore, observe, no such thing as cheapness (in the common use of that term), withont some error or injustice. A thing is said to be cheap, nut because it is common, but because it is supposed to be sold under its worth. Ererything has its proper and true worth at any given time, in relation to everything else; and at that worth should be bought and sold. If sold under it, it is cheap to the buyer by exactly so much as the seller loses, and no more. Putrid meat, at twopence a pound, is not "cheaper" than wholesome meat at sevenpence a pound ; it is probably much dearer ; but if, by watching your opportunity, you can get the wholesome meat for sixpence a pound, it is cheaper to you by a penny, which you have gained, and the seller has lost. The present rage for cheapness is either, therefore, simply and literally a rage for balness of all commodities, or it is an attempt to find persons whose necessities will force them to let you have more than you should for your money. It is quite easy to produce such persons, and in large numbers; for the more distress there is in a nation, the more cheapness of this sort you can obtain, and your boasted cheapness is thus merely a measure of the extent of your national distress.

There is, indeed, a condition of apparent cheapness, which we have some right to be triumphant in ; namely, the real reduction in cost of articles by right application of labor. But in this case the article is only cheap with reference to its former price; the so-called cheapness is only our expression for the sensation of contrast between its former and existing prices. So soon as the new methods of producing the article are established, it ceases to be esteemed either cheap or dear, at the new price, as at the old one, and is felt to be cheap only when acciclent enables it to be purchased beneath this new rahue. And it is no advantage to produce the article more easily, except as it enables you to multiply your population. Cheapness of this kind is merely the discorery that more men can be maintained on the same ground; and the question how many you will maintain in proportion to your additional means, remains exactly in the same terms that it did before.

A form of immediate cheapness results, howerer, in many cases, without distress, from the labor of a population where food is redundant, or where the labor by which the fool is produced leaves much idle time on their hands, which may be applied to the production of "cheap" articles.

All such phenomena indicate to the political economist places where

But it renains questionable, and in all manner of ways questionable, whether I choose to give so much.*

This choice is always a relative one. It is a choice to give a price for this, rather than for that;-a resolution to have the thing, if getting it does not involve the loss of a better thing. Price depends, therefore, not only on the cost of the commodity itself, but on its relation to the cost of every other attainable thing.

Farther. The power of choice is also a relative one. It depends not merely on our own estimate of the thing, but on everybody else's estimate; therefore on the number and force of the will of the concurrent buyers, and on the existing quantity of the thing in proportion to that number and force.

Hence the price of anything depends on four variables.
(1.) Its cost.
(2.) Its attainable quantity at that cost.
(3.) The number and power of the persons who want it.
(4.) The estimate they have formed of its desirableness.

Its value only affects its price so far as it is contemplated in this estimate ; perhaps, therefore, not at all.
the labor is unbalanced. In the first case, the just balance is to be effected by taking laborers from the spot where pressure exists, and sending them to that where food is redundant. In the second, the cheapness is a local accident, advantageous to the local purchaser, disadvantageous to the local producer. It is one of the first duties of commerce to extend the market, and thus give the local producer his full adrantage.

Cheapness caused by natural accidents of harvest, weather, etc., is always counterbalanced, in due time, by natural scarcity, similarly cansed. It is the part of wise government, and healthy commerce, so to provide in times and places of plenty for times and places of dearth, as that there sliall never be waste, nor famine.

Cheapness caused by gluts of the market is merely a disease of clumsy and wanton commerce.

* Price has been already defined (p. 6) to be the quantity of labor which the possessor of a thing is willing to take for it. It is best to consicler the price to be that fixed by the possessor, becanse the pussessor has absolute power of refusing sale, while the purchaser has no absolute power of compelling it; but the effectual or market price is that at which their estimates coincide.

63. Now, in order to show the manner in which price is expressed in terms of a currency, we must assume these four quantities to be known, and "the estimate of desirableness," commonly called the Demand, to be certain. We will take the number of persons at the lowest. Let $A$ and $B$ be two laborers who "demand," that is to say, have resolved to labor for, two articles, $a$ and $b$. Their demand for these articles (if the reader likes better, he may say their need) is to be conceived as absolute, their existence depending on the getting these two things. Suppose, for instance, that they are bread and fuel, in a cold country, and let $a$ represent the least quantity of bread, and $b$ the least quantity of fuel, which will support a man's life for a day. Let $a$ be producible by an hour's labor, but $b$ only by two hours' labor.

Then the cost of $a$ is one hour, and of $b$ two (cost, by our definition, being expressible in terms of time). If, therefore, each man worked both for his corn and fuel, each would have to work three hours a day. But they divide the labor for its greater ease." Then if A works three hours, he produces $3 a$, which is one $a$ more than both the men want. And if B works three hours, he produces only $11 / 2 b$, or half of $b$ less than both want. But if A work three hours and $B$ six, $A$ has $3 a$, and $B$ has $3 b$, a maintenance in the right proportion for both for a day and a half; so that each might take half a day's rest. But as B has worked double time, the whole of this day's rest belongs in equity to him. Therefore the just exchange should be, A giving two $a$ for one $b$, has one $a$ and one $b$;-maintenance for a day. B giving one $b$ for two $a$, has two $a$ and two $b$; -maintenance for two days.

But $B$ cannot rest on the second day, or $A$ rrould be left without the article which B produces. Nor is there any means of making the exchange just, unless a third laborer

[^132]is called in. Then one worknan, $A$, prorluces $a$, and two, B and C , produce $b$ :- A , working three hours, has three $a$; -B , three hours, $11 / 2 b$;-C, three hours, $11 / 2 b$. B and O each give half of $b$ for $a$, and all have their equal daily maintenance for equal daily work.

To carry the example a single step farther, let three articles, $a, b$ and $c$ be needed.

Let $a$ need one hour's work, $b$ two, and $c$ four; then the day's work must be seven hours, and one man in a day's work can make $7 a$, or $31 / 2 b$, or $13 / 4 c$.

Therefore one $A$ works for $a$, producing $\tau a$; two $B$ 's work for $b$, producing $7 b$; four C's work for $c$, producing 7 c.

A has six $a$ to spare, and gives two $a$ for one $b$, and four $a$ for one $c$. Each $B$ las $21 / 2 b$ to spare, and gives $1 / 2 b$ for one $a$, and two $b$ for one $c$.

Each C has $3 / 4$ of $c$ to spare, and gives $1 / 2 c$ for one $b$, and $1 / 4$ of $c$ for one $a$.

And all have their day's maintenance.
Generally, therefore, it follows that if the demand is constant.* the relative prices of things are as their costs, or as the quantities of labor involved in production.
64. Then, in order to express their prices in terms of a currency, we have only to put the enrreney into the form of orders for a certain quantity of any given article (with us it is in the form of orders for gold), and all quantities of other articles are priced by the relation they bear to the article which the curreney claims.

But the worth of the curreney itself is not in the slightest degree founded more on the worth of the article which it either claims or consists in (as gold) than on the worth of every other article for which the gold is exchangeable. It is just as accurate to sary, "so many pounds are worth an acre of land," as " an acre of land is worth so many pounds." The worth of gold, of land, of houses, and of food, and of all other things, depends at any moment on the existing

[^133]quantities and relative demands for all and each; and a change in the worth of, or demand for, any one, inrolves an instantaneously correspondent change in the worth of, and demand for, all the rest;-a change as inevitable and as accurately balanced (thongh often in its process as untraceable) as the change in volume of the outflowing river from some vast lake, caused by change in the volume of the inflowing streams, though no eye can trace, nor instrument detect, motion, either on its surface, or in the depth.
65. Thus, then, the real working power or worth of the currency is founded on the entire sum of the relative estimates formed by the population of its possessions; a change in this estimate in any direction (and therefore every change in the national character), instantly alters the value of money, in its sceond great function of commanding labor. But we must always carefully and stermly distinguish between this worth of currency, dependent on the conceived or appreciated value of what it represents, and the worth of it, dependent on the existence of what it represents. A currency is true or false, in proportion to the security with which it gives claim to the possession of land, house, horse, or picture ; but a currency is strong or weak,* worth much or worth little, in proportion to the degree of estimate in which the nation holds the house, horse, or picture which is claimed. Thus the power of the English currency has been, till of late, largely based on the national estimate of horses and of wine: so that a man might always give any price to furnish choicely his stable, or his cellar; and receive public approval therefore: but if he gave the same sum to furnish his library, he was called mad, or a biblio-maniac. And although he might lose his fortune by his horses, and his health or life by his cellar, and rarely lost either by his books, he was yet never called a Hippo-maniae nor an

[^134]Oino-maniac; but only Biblio-maniac, because the current worth of money was understood to be legitimately founded on cattle and wine, but not on literature. The prices lately given at sales for pictures and MSS. indicate some teudency to change in the national character in this respect, so that the worth of the eurrency may even come in time to rest, in an acknowledged manner, somewhat on the state and kecping of the Bedford missal, as well as on the health of Caractacus or Blink Bonny; and old pictures be considered property, no less than old port. They might have been so before now, but that it is more difficult to choose the one than the other.
66. Now, observe, all these sources of variation in the power of the currency exist, wholly irrespective of the influences of vice, indolence, and improvidence. We have hitherto supposed, throughout the analysis, every professing laborer to labor honestly, heartily, and in harmony with his fellows. We have now to bring farther into the calculation the effects of relative industry, honor, and forethought; and thus to follow out the bearings of our second inquiry: Who are the holders of the Store and Currency, and in what proportions?

This, however, we must rescrve for our next papernoticing here only that, however distinct the several branches of the sulbject are, radically, they are so interwoven in their issues that we cannot rightly treat any one, till we have taken engnizance of all. Thus the need of the currency in proportion to number of population is materially influenced by the probable number of the holders in proportion to the nonholders; and this again, by the number of holders of goods, or wealth, in proportion to the non-holders of goods. For as, by definition, the currency is a claim to goods which are not possessed, its quantity indicates the number of claimants in proportion to the number of holders; and the force and complexity of claim. For if the claims be not complex, currency as a means of exchange may be rery small in quantity. $A$ sells some corn to $B$, receiving a promise from $B$ to pay
in cattle, which A then hands over to C , to get some wine. $C$ in due time claims the cattle from $B$; and $B$ takes back his promise. These exchanges have, or might have been, all effected with a single coin or promise; and the proportion of the currency to the store would in such circumstances indicate only the circulating vitality of it-that is to say, the quantity and conrenient divisibility of that part of the store which the habits of the nation keep in circulation. If a cattle breeder is content to live with his household chiefly on meat and milk, and does not want rich furniture, or jewels, or books-if a wine and corn grower maintains himself and his men chiefly on grapes and bread;-if the wives and daughters of families weare and spin the clothing of the houschold, and the nation, as a whole, remains content with the produce of its own soil and the work of its own hands, it has little occasion for circulating media. It pledges and promises little and seldom; exchanges only so far as exchange is necessary for life. The store belongs to the people in whose hands it is found, and money is little needed either as an expression of right, or practical means of division and exchange.
67. But in proportion as the habits of the nation become complex and fantastic (and they may be both, without therefore being civilized), its circulating medium must increase in proportion to its store. If every one wants a little of everything,-if food must be of many kinds, and dress of many fashions,-if multitudes live by work which, ministering to fancy, has its pay measured by fancy, so that large prices will be given by one person for what is valueless to another,-if there are great inequalities of knowledge, causing great inequalities of estimate,-and, finally, and worst of all, if the currency itself, from its largeness, and the power which the possession of it implies, becomes the sole object of desire with large numbers of the nation, so that the holding of it is disputed among them as the main object of life:-in each and all of these cases, the currency necessarily enlarges in proportion to the store; and as a.
means of exchange and division, as a bond of right, and as an object of passion, has a more and more important and malignant power over the nation's dealings, character, and life.

Against which power, when, as a bond of Right, it becomes too conspicuous and too burdensome, the popular voice is apt to be raised in a violent and irrational manner, leading to revolution instead of remedy. Whereas all possibility of Economy depends on the clear assertion and maintenance of this bond of right, however burdensome. The first necessity of all economical government is to secure the unquestioned and unquestionable working of the great law of Property-that a man who works for a thing shall be allowed to get it, keep it, and consume it, in peace; and that he who does not eat his cake to-day, shall be seen, without grudging, to have his cake to-morrow. This, I say, is the first point to be secured by social law; without this, no political advance, nay, no political existence, is in any sort possible. Whaterer cril, luxury, iniquity, may seem to result from it, this is nevertheless the first of all Equities; and to the enforcement of this, by law and police-truncheon, the nation must always primarily set its mind-that the cupboard door may have a firm lock to it, and no man's dinner be carried off by the mob, on its way home from the baker's. Which, thus fearlessly asserting, we shall endeavor in next paper to consider how far it may be practicable for the mob itself, also, in due breadth of dish, to have dinners to carry home.

## CHAPTER III.

## COIN-KEEPING.

68. It will be seen by reference to the last chapter that our present task is to examine the relation of holders of store to holders of curreney; and of both to those who hold neither. In order to do this, we must determine on which side we are to place substances such as gold, commonly known as bases of currency. By aid of previous definitions the reader will now be able to understand closer statements than have yet been possible.
69. The currency of any country consists of every document acknowledging debt, which is transferable in the country.*

This transferableness depends upon its intelligibility and eredit. Its intelligibility depends chiefly on the difficulty of forging anything like it;-its eredit much on national character, but ultimatcly aluays on the existence of substantial means of meeting its demand. $\dagger$

As the degrees of transferableness are variable, (some documents passing only in certain places, and others passing, if at all, for less than their inscribed value,) both the mass, and, so to speak, fluidity, of the currency, are variable. True or perfect currency flows freely, like a pure stream; it be-
[* Remember this definition : it is of great importance as opposed to the imperfect ones usually given. When first these essays were published, I remember one of their reviewers asking contemptuously, "Is half-a-crown a document?" it never having before occurred to him that a document might be stamped as well as written, and stamped on silver as well as on parchment.]
[ $\dagger$ I do not mean the demand of the holder of a fire-pound note for fire pounds, but the demand of the holder of a pound for a pound's worth of something good.]
comes sluggish or stagnant in proportion to the quantity of less transferable matter which mixes with it, adding to its bulk, but diminishing its purity. [Articles of enmmercial value, on which bills are drawn, increase the currency indefinitely; and substances of intrinsic value, if stamped or signed without restriction so as to become acknowledgments of debt, increase it indefinitely also. $]$ Every bit of gold found in Australia, so long as it remains meoined, is an article offered for sale like any other; lut as soon as it is coined into pounds, it diminishes the value of every pound we have now in our pockets.
70. Legally authorized or national currency, in its perfect condition, is a form of public acknowledgment of debt, so regulated and divided that any person presenting a commodity of tried worth in the public market, shall, if he please, receive in exchange for it a document giving him claim to the return of its equivalent, (1) in any place, (2) at any time, and (3) in any kind.

When currency is quite healthy and vital, the persons entrusted with its management are always able to give on demand cither,
A. The assigning document for the assigned quantity of goods. Or,
B. The assigned quantity of goods for the assigning document.

If they cannot give document for goods, the national exchange is at fault.

If they cannot give goods for document, the national credit is at fault.

The nature and power of the document are therefore to be examined under the three relations it bears to Place, Time, and Kind.
71. (1.) It gives claim to the return of equivalent wealth in any Place. Its use in this function is to save carriage, so that parting with a bushel of corn in London, we may receive an order for a bushel of corn at the Antipodes, or elsewhere. To be perfect in this use, the substance of cur-
rency must be to the maximum portable, credible, and intelligiblc. Its non-acceptance or discredit results always from some form of ignorance or dishonor: so far as such interruptions rise out of differences in denomination, there is no ground for their continuance among civilized nations. It may be convenient in one country to use chiefly copper for coinage, in another silver, and in another gold,-reckoning accordingly in centimes, francs, or zecchins: but that a franc should be different in weight and value from a shilling, and a zwanziger vary from both, is wanton loss of commercial power.
72. (2.) It gives claim to the return of equivalent wealth at any Time. In this second use, currency is the exponent of accumulation: it renders the laying-up of store at the command of individuals unlimitedly possible; -whereas, but for its intervention, all gathering would be confined within certain limits by the bulk of property, or by its decay, or the difficulty of its guardianship. "I will pull down my barns and build greater," cannot be a daily saying; and all material investment is enlargement of care. The national currency transfers the guardianship of the store to many; and preserves to the original producer the right of re-entering on its possession at any future period.
73. (3.) It gives claim (practical, though not legal) to the return of equivalent wealth in any $K i n d$. It is a transferable right, not merely to this or that, but to anything; and its power in this function is proportioned to the range of choice. If you give a child an apple or a toy, you give him a determinate pleasure, but if sou give him a penur, an indeterminate one, proportioned to the range of selection offered by the shops in the village. The power of the world's currency is similarly in proportion to the openness of the world's fair, and, commonly, enlianced by the brilliancy of external aspect, rather than solidity, of its wares.
74. We have said that the currency consists of orders for equiralent goods. If equivalent, their quality must be gquarantced. The kinds of goods chosen for specific claim must,
therefore, be capable of test, while, also, that a store may be kept in hand to meet the call of the currency, smallness of loulk, with great relative ralue, is slesirable; and indestructihility, orer at least a certain period, essential.

Such indestructibility, and facility of being tested, are united in gold; its intrinsic value is great, and its imaginary value greater; so that, partly throngh indolence, partly through neecssity and want of organization, most nations have agreed to take gold for the only basis of their currencies; -with this grave disadvantage, that its portability enabling the metal to become an active part of the medium of exchange, the stream of the enrrency itself becomes opaque with gold-half currency and half commodity, in unison of functions which partly neutralize, partly enhance, each other's force.
75. They partly neutralize, since in so far as the gold is commodity, it is bad currency, because liable to sale; and in so far as it is currener, it is bad commodity, because its exchange value interferes with its practical use. Especially its employnent in the higher branches of the arts becomes unsafe on account of its liability to be melted down for exchange.

Again. They partly enhance, since in so far as the gold has acknowlerdged intrinsic value, it is good currency, because everywhere acceptable ; and in so far as it has legal exchangeable value, its worth as a commodity is increased. We want 110 gold in the form of dust or crystal; but we seek for it coined, because in that form it will pay baker and butcher. And this worth in exchange not only absorbs a large quantity in that use," but greatly increases the effect on the imagina-

## [* Read and think orer, the following note very carefully.]

The waste of labor in obtaining the gold, though it cannot be estimatel by help of any existing data, may be understood in its bearing on entire eronomy by supposing it limited to transactions between two persons. If two farmers in Australia have been exchanging corn and (attlo with each other for years, keeping their accounts of reciprocal deht in any simple way, the sum of the possessions of either would not be diminished, though the part of it which was lent or borrowed were
tion of the quantity used in the arts. Thus, in brief, the force of the functions is increased, but their precision blunted, by their unison.
76. These inconveniences, however, attach to gold as a basis of currency in account of its portability and preciousness. But a far greater inconvenience attaches to it as the only legal basis of currency. Imagine gold to be only attainable in masses weighing several pounds each, and its value, like that of malachite or marble, proportioned to its largeness of lulk;-it could not then get itself confused with the currency in daily use, but it might still remain as its basis; and this second inconvenience would still affect it, namely, that its significance as an expression of debt varies, as that of every other article would, with the popular estimate of its desirableness, and with the quantity offered in the market. My power of obtaining other goods for gold depends always on the strength of public passion for gold, and on the limitation of its quantity, so that when either of two things happens-that the world esteems gold less, or finds it more easily-my right of claim is in that degree effaced; and it has been even gravely maintained that a discovery of a mountain of gold would cancel the National Debt; in other words, that men may be paid for what costs much in what costs nothing. Now, it is true that there is little chance of sudden convulsion in this respect; the world will not so rapidly increase in wisdom as to despise gold on a sudden; and perhaps may [for a little time] desire it more eagerly the more easily it is obtained; nevertheless, the right of debt ought not to rest on a basis of imagination; nor should the frame of a national currency vibrate with every miser's panic, and every merchant's imprudence.
only reckoned by marks on a stone, or notches on a tree ; and the one counted himself accordingly, so many scratches, or so mariy notches, better than the other. But it would soon be seriously diminished if, discovering gold in their fields, each resolved only to accept golden counters for a reckoning: and accordingly, whenever he wanted a sack of corn or a cow, was obliged to go and wash sand for a week before he could get the means of giving a receipt for them.
77. There are two methods of avoiding this insecurity, which would have been fallen upon long ago, if, instead of calculating the conditions of the supply of gold, men had only considered how the world might live and manage its affairs without gold at all.* One is, to base the emrency on substances of truer intrinsic value; the other, to base it on several substances instead of one. If I can only claim gold, the discovery of a golden mountain starves me; but if I can claim bread, the discovery of a continent of corn-fields need not trouble me. If, lowever, I wish to exchange my bread for other things, a good harvest will for the time limit my power in this respect; but if I can claim either bread, iron, or silk at pleasure, the standard of value has three feet instead of one, and will be proportionately firm. Thus, ultimately, the steadiness of curreney depends upon the breadth of its base; but the difficulty of organization increasing with this breadth, the discovery of the condition at once safest and most convenient $\dagger$ can only be by long analysis, which must for the present be deferred. Gold or silver $\ddagger$ may always be retained in limited use, as a luxury of coinage and questionless standard, of one weight and allor among all mations, varying only in the die. The purity of coinage, when me-

[^135]tallic, is closely indicative of the honesty of the system of revenue, and even of the general dignity of the state.*
78. Whatever the article or articles may be which the national currency promises to pay, a premium on that article indicates bankruptey of the government in that proportion, the division of its assets being restrained only by the remaining confidence of the holders of notes in the return of prosperity to the firm. Currencies of forced acceptance, or of unlimited issue, are merely various modes of disguising taxation, and delaying its pressure, until it is too late to interfere with the cause of pressure. To do away with the possibility of such disguise would have been among the first results of a true economical science, had any such existed; but there have been too many motives for the concealment, so long as it could by any artifices be maintained, to permit hitherto even the founding of such a science.
79. And indeed, it is only through evil conduct, wilfully persisted in, that there is any embarrassment, either in the theory or working of currency. No exchequer is ever embarrassed, nor is any financial question difficult of solution, when people keep their practice honest, and their heads cool. But when governments lose all office of pilotage, protection, or scrutiny ; and live only in magnificence of authorized larceny, and polished mendicity ; or when the people, choosing Speculation (the $s$ usually redundant in the spelling) instead of Toil, visit no dislonesty with chastisement, that each may with impunity take his dishonest turn;-there are no tricks of financial terminology that will save them; all signature and mintage do but magnify the ruin they retard; and even the riches that remain, stagnant or current, change only from the slime of Avermus to the sand of Phlegethon-quicksand at the embouchure; -land fluently recommended by recent auctioneers as "eligible for building leases."

[^136]S0. Finally, then, the power of true enrrency is four-fold.
(1.) Credit power. Its worth in exchange, dependent on public opinion of the stability and honesty of the issuer.
(2.) Real worth. Supposing the gold, or whatever else the currency expressly promises, to be required from the issuer, for all his notes; and that the call cannot be met in full. Then the actual worth of the document wonld be, and its actual worth at any moment is, therefore to be defined az, what the division of the assets of the issuer would produce for it.
(3.) The exchange power of its base. Granting that we can get five pounds in gold for our note, it remains a question how much of other things we can get for five pounds in gold. The more of other things exist, and the less gold, the greater this power.
(4.) The power orer labor, exercised by the given quantity of the base, or of the things to be got for it. The question in this case is, how much work, and (question of questions!) whose work, is to be had for the food which five pounds will bur. This depends on the mmber of the population, on their gifts, and on their dispositions, with which, down to their slightest hmmors, and up to their strongest impulses, the power of the currency varies.

S1. Such being the main conditions of national currency, we proceed to examine those of the total emrreney, under the broad definition, "transferable acknowledgment of debt; "*

[^137]among the many forms of which there are in effect only two, distinctly opposed; namely, the acknowledgments of debts which will be paid, and of debts which will not. Documents, whether in whole or part, of bad debt, being to those of goorl debt as bad money to bullion, we put for the present these forms of imposture aside (as in analyzing a metal we should wash it clear of dross), and then range, in their exact quantities, the true currency of the country on one side, and the store or property of the country on the other. We place gold, and all such substances, on the site of documents, as far as they operate by siguature;-on the side of store as far as they operate by value. Then the currency represents the quantity of debt in the country, and the store the quantity of its possession. The ownership of all the property is divided between the holders of currency and holders of store, and whatever the claiming value of the currency is at any moment, that value is to be deducted from the riches of the storeholders.
82. Farther, as true currency represents by definition debts which will be paid, it represents either the debtor's wealth, or his ability and willingness; that is to say, either wealth existing in lis lands transferred to him by the creditor, or wealth which, as he is at some time surely to return it, he is either increasing, or, if diminishing, has the will and strength to reproduce. A sound cirrency therefore, as
melt the cup and throw it back into currency ; and the bullion operates on the prices of the things in the market as directly, thongh not as forcibly, while it is in the form of a cup as it does in the form of a sovereign. No calculation can be founded on my humor in either case. If I like to handle rouleaus, and therefore keep a quantity of gold, to play with, in the form of jointed basaltic columns. it is all one in its effect on the market as if I kept it in the form of twisted filigree. or, steadily "amicus lamnæ," beat the narrow gold pieces into broad ones, and dined off them. The probability is greater that I break the rouleau than that I melt the plate; but the increased probability is not calculable. Thus, documents are only withdrawn from the currency when canceled, and bullion when it is so effectually lost as that the probability of finding it is no greater than of finding new gold in the mine.
by its increase it represents enlarging debt, represents also enlarging means; but in this cmrions way, that a certain quantity of it marks the deficieney of the wealth of the combry from what it would have been if that emreney had not existed.* In this respect it is like the detritus of a momban; assmme that it lies at a fixed angle, and the more the detritus, the larger must be the mometain; but it would have heen larger still, had there been mone.
83. Fartlier, thongh, as above stated, ceery man possessing money has nsually also some property beyond what is neeessary for his immediate wants, and men possessing property nsually also hold emreney beyond what is necessary for their immediate exchanges, it mainly determines the class to which they belong, whether in their eyes the money is an adjunct of the property, or the property of the money. In the first ease the holder's pleasure is in his possessions, and in his money subordinately, as the means of bettering or adding to them. In the second, his pleasure is in his money, and in his possessions only as representing it. (In the first case the money is as an atmosphere surrounding the wealth, rising from it and raming back upon it; but in the sceond, it is as a deluge, with the wealth floating, and for the most part perishing in it.t) The shortest distinction between the men is that the one wishes always to buy, and the other to sell.

[^138]St．Such being the great relations of the classes，their sereral characters are of the highest importance to the nation ； for on the character of the store－holders chiefly depend the preservation，display，and serviceableness of its wealth；on that of the currencr－holders，its distribution；on that of both， its reproduction．

We shall，therefore，ultimately find it to be of incompar－ ably greater importance to the nation in whose hands the thing is put，than how much of it is got；and that the charac－ ter of the holders may be conjectured by the quality of the store；for such and such a man always asks for such and such a thing；nor only asks for it，but if it can be betteresl， betters it：so that possession and possessor reciprocally act on each other，through the entire sum of national possession． The base nation，asking for base things，sinks daily to decper vilcness of nature and weakness in usc；while the noble nation， asking for noble things，rises daily into diviner eminence in both；the tendeney to degradation being surely marked by ＂这u！u；＂that is to sar，（expanding the Greek thought，） by carelessness as to the hands in which things are put， consequent dispute for the acquisition of them，disorderliness in accumulation of them，inaccuracy in estimate of them， and bluntness in conception as to the entire nature of posses－ sion．

85．The currency－holders always increase in number and influence in proportion to the bluntness of nature and clumsi－ ness of the store－holders；for the less use people can make of things，the more ther want of them，and the sooner weary of them，and want to change them for something else；and all frequency of change increases the quantity and power of currency．The large eurrencr－holder himself is essen－ tially a person who never has been able to make up his mind as to what he will have，and proceeds，therefore，in rague collection and aggregation，with more and more infuriate passion，urged by complacency in progress，vacancy in idea， and pride of conquest．
thesis，unless you like，hut do not think it is mere metaphor．It states a fact which I could not have stated so shortly，but by metaphor．］

While, however, there is this obscurity in the nature of possession of currency, there is a charm in the seclusion of it, which is to some people very enticing. In the enjoyment of real property, others must partly share. The groom has some enjorment of the stud, and the gardener of the garden; but the money is, or scems, shut up; it is wholly enviable. To one else can hare part in any complacencies arising from it.

The power of arithmetical comparison is also a great thing to unimaginative people. They know always they are sn much better than they were, in money; so much better than others, in moner; but wit cannot be so compared, nor char. acter. My neighbor cannot be conrinced that I am wiscr than he is, but he can, that I am worth so much more; and the unirersality of the conviction is no less flattering than its clearness. Only a few can understand,--none measureand few will willingly adore, superiorities in other things; but everybody can understand money, everybody can count it, and most will worshị it.

S6. Now, these various temptations to accumulation would be politically harmless if what was vainly accumulated had any fair chance of being wisely spent. For as accumulation cannot go on forever, but must some day end in its reverseif this reverse were indeed a beneficial distribution and use, as irrigation from reservoir, the fever of gathering, though perilons to the gatherer, might be serviceable to the community: But it constantly happens (so constantly, that it may be stated as a political law having few exceptions), that what is unreasonably gathered is also unreasonably spent by the persons into whose hands it finally falls. Very frequently it is spent in war, or else in a stupefying luxury, twice hurtful, both in being indulged by the rich and witnessed by the poor. So that the mal tener and mal dare are as correlative as complementary colors; and the circulation of wealth, which ought to be soft, steadr, strong, far-sweeping, and full of warmth, like the Gulf stream, being narrowed into an eddy, and concentrated on a point, changes into the alter-
nate suction and surrender of Charybdis. Which is indeed, I doubt not, the true meaning of that marrelous fable, "infinite," as Bacon said of it, " in matter of meditation,"*
87. It is a strange hahit of wise humanity to speak in enigmas only, so that the highest truths and uscfulest laws must be hunted for through whole picture-galleries of dreams, which to the rulgar seem dreams only. Thus Homer, the Greek tragedians, Plato, Dante, Chancer, Shakespeare, and Goethe, have hidden all that is chicfly serviceable in their work, and in all the varions literature they absorbed and re-embodied, under trpes which have rendered it quite useless to the multitude. What is worse, the two primal declarers of moral discoverv, Homer and Plato, are partly at issue; for Plato's logical power quenched his imagination, and he became incapable of understanding the purely imaginative element either in poetry or painting: he therefore somewhat overrates the pure discipline of passionate art in song and music, and misses that of meditative art. There is, howerer, a deeper reason for his distrust of Homer. His love of justice, and reverently religious nature, made him drearl, as death, every form of fallacy; but chiefly, fallacy respecting the world to come (his own myths being only symbolice exponents of a rational hope). We shall perhaps now every day discover more clearly how right Plato was in this, and feel ourselves more and more wonderstruck that men such as Homer and Dante (and, in an inferior sphere, Milton), not to speak of the great sculptors and painters of erery age, have permitted themselres, though full of all nobleness and wisdom, to coin idle imaginations of the mysteries of eternity, and guide the faiths of the families of the earth by the courses of their own vague and visionary arts: while the indisputable truths of human life and duty, respecting which they all have but one voice, lie hidden behind these reils of phantasy, unsought, and often unsuspected. I will gather

[^139]carefully, out of Dante and Homer, what, in this kind, bears on our subject, in its due place; the first broad intention of their symbols may be sketched at onee.
s8. The rewards of a worthy use of riches, subordinate to other ends, are shown by Dante in the fifth and sixth orbs of Paradise; for the punishment of their unworthy use, three places are assigned : one for the avaricious and prodigal whose souls are lost ( Hcll , canto 7 ) ; one for the avaricious and prodigal whose souls are capable of purification (Purgatory, canto 19) ; and one for the usurers, of whom none can be redeemed ( Hell , canto 17 ). The first group, the largest in all hell ("gente piu che altrove troppa," compare Virgil's "que maxima turba"), meet in contrary currents, as the waves of Charybdis, easting weights at each other from opposite sides. This weariness of contention is the chief element of their torture; so marked by the beautiful lines beginning "Or puoi, figliuol," etc.: (but the usurers, who made their money inactively, sit on the sand, equally without rest, howerer. "Di qua, di la, soccorrien," etc.) For it is not ararice, but contention for riches, leading to this double misuse of them, which, in Dante's light, is the unredecmable sin. The place of its punishment is guarded by Plutus, "the great enemy," and "la fièra crudele," a spirit quite different from the Greek Plutus, who, though old and hlind, is not cruel, and is curable, so as to become far-sighted.
 of the Laus.) Still more does this Dantesque type differ from the resplendent Plutus of Goethe in the sccond part of Faust, who is the personified power of wealth for good or cril--not the passion for wealtl; and again from the Plutus of Spenser, who is the passion of mere aggregation. Dante's Plutus is specially and definitely the Spirit of Contention and Competition, or Evil Commerce; becanse, as I showed before, this kind of commerce "makes all men strangers;" his speceh is therefore unintelligible, and no single soul of all those ruined by him has recognizable features.

On the other hand, the redeemable sins of ararice and
prodigality are, in Dante's sight, those which are without deliberate or calculated operation. The lust, or lavishness, of riches can be purged, so long as there has been no servile consistency of dispute and competition for them. The sin is spoken of as that of degradation by the love of earth; it is purified by deeper humiliation-the souls crawl on their bellies; their chant is, "my soul cleaveth unto the dust." But the spirits thus condemned are all recognizable, and even the worst examples of the thirst for gold, which they are compelled to tell the histories of during the night, are of men swept by the passion of avarice into violent crime, but not sold to its steady work.
89. The precept given to each of these spirits for its deliserance is-Turn thine eyes to the lucre (lure) which the Eternal King rolls with the mighty wheels. Otherwise, the wheels of the "Greater Fortune," of which the constellation is ascending when Dante's dream begins. Compare George IIerbert-

> "Lift up thy head;

Take stars for money ; stars, not to be told By any art, yet to be purchased."

And Plato's notalle sentence in the third book of the Polity: -" Tell them they have divine gold and silver in their souls forever; that they need no money stamped of men-neither may they otherwise than impionsly mingle the gathering of the divine with the mortal treasure, for through that which the law of the multitude has coined, endless crimes have been done and suffered; but in theirs is neither pollution nor sorrow."
90. At the entrance of this place of pumishment an evil spirit is seen by Dante, quite other than the "Gran Nemico." The great encmy is obeyed knowingly and willingly ; but the spirit-fcminine-and called a Siren-is the "Deceitfulness of riches," d̀ $\pi \alpha \dot{\alpha} \eta \pi i o v i \sigma o u$ of the Gospels, winning obedience by guile. This is the Idol of riches, made doubly phantasmal by Dante's seeing her in a dream. She is lovely to look upon, and enchants by her sweet singing, but her womb
is loathsome. Now, Dante does not call her one of the Sirens carelessly, any more than he speaks of Charybdis carelessly; and though he had got at the meaning of Ilomeric fable only through Virgil's obscure tradition of it, the clue he has given us is quite enough. Bacon's interpretation, "the Sirens, or pleasures," which has become universal since his time, is opposed alike to Plato's meaning and Homer's. The Sirens are not pleasures, but Desires: in the Odressey they are the phantoms of rain desire ; but in Plato's Vision of Destiny, phantoms of divine desire; singing each a different note on the circles of the distaff of Necessity, but forming one harmony, to which the three great Fates put words. Dante, however, adopted the Homeric conception of them, which was that they were demons of the Imagination, not carnal; (desire of the eyes; not lust of the flesh;) therefore said to be daughters of the Mruses. Yet not of the Mruses, heavenly or historical, but of the Muse of pleasure ; and they are at first winged, because even vain hope exeites and helps when first formed; but afterwards, contending for the possession of the imagination with the Muses themselves, they are deprived of their wings.
91. And thus we are to distinguish the Siren power from the power of Circe, who is no daughter of the Muses, but of the strong elements, Sun and Sea; her power is that of frank, and full rital pleasure, which, if governed and watched, nourishes men; but, unwatched, and having no " moly," bitterness or delay, mixed with it, turns men into beasts, but does not slay them,-leaves them, on the contrary, power of reviral. She is herself indeed an Enehantress;-pure Animal life; transforming-or degrading-but always wonderful (she puts the stores on board the ship invisibly, and is gone again, like a ghost) ; eren the wild beasts rejoice and are softened around her cave; the transforming poisons she gives to men are mixed with no rich feast, but with pure and right nourishment,-Pramnian wine, cheese, and flour; that is, wine, milk and eorn, the three great sustainers of life-it is their own fault if these make swine of them; (see Appen-
dix. V.) and swine are chosen merely as the type of consumption; as Plato's $\dot{\text { ünv nóks, }}$, in the second book of the Polity, and perhaps chosen by Ifomer with a deeper knowledge of the likeness in variety of nourishment, and internal form of body.
"Et quel est, s'il rons plait, cet audacieux animal qui se permet d'être bâti an dedans comme une jolie petite fille?
"Hélas! chère enfant, j'ai honte de le nommer, et il ne faudra pas m'en rouloir. C'est . . . c'est le cochon. Ce n'est pas précisément flattcur pour vons; mais nous en sommes tout là, et si cela rous contrarie par trop, il faut aller vous plaindre au bon Dieu qui a roulu que les choses fussent arrangées ainsi ; seulement le cochon, qui ne pense qu'à manger, a l'estomae hien plus raste que nous et c'est toujours une consolation."-Histoire d'une Bouchée de Pain, Lettre ix.
92. But the deadly Sirens are in all things opposed to the Circean power. They promise pleasure, but nerer give it. They nourish in no wise; but slay by slow death. And whereas they corrupt the heart and the head, instead of merely betraying the senses, there is no recovery from their power; they do not tear nor scratch, like Seclla, but the men who have listened to them are poisoned, and waste away. Note that the Sirens' field is covered, not merely with the bones, but with the slins, of those who have been consumed there. They address themselves, in the part of the song which Homer gives, not to the passions of Clysses, but to his ranity, and the only man who ever came within hearing of them, and eseaped untempted, was Orpheus, who silenced the rain imaginations by singing the praises of the gods.
93. It is, then, one of these Sirens whom Dante takes as the phantasm or deceitfulness of riches; but note further, that she says it was her song that deceived Ulysses. Look back to Dante's account of Ulysses' death, and we find it was not the love of money, but pride of knowledge, that betraved him; whence we get the clue to Dante's complete meaning: that the souls whose love of wealth is pardonable have been first deceived into pursuit of it by a dream of its higher uses, or
by ambition. His Siren is therefore the Philotimé of Spenser, daughter of Mammon-
"Whom all that folk with such contention
Do flock about, my deare. my danghter is-
Honor and dignitie from her alone
Derived are."
By comparing Spenser's entire aceount of this Philotimé with Dante's of the Wealth-Siren, we shall get at the full meaning of both poets; but that of IIomer lies hidden much more deeply. For his Sirens are indefinite; and they are desires of any evil thing; power of wealth is not specially indicated loy him, until, eseaping the harmonious danger of imagination, Llysses has to chonse between two practical ways of life, indieated by the two roctis of Scylla and Charyldis. The monsters that haunt them are quite distinct from the rocks themselves, which, having many other subordinate significations, are in the main Labor and Idleness, or getting and spending; cach with its attendant monster, or betraying demon. The rock of gaining has its summit in the clouds, invisible, and not to be climbed; that of spending is low, but marked by the cursed fig-tree, which has leaves, but no fruit. We know the trpe elsewhere; and there is a curions lateral allusion to it by Dante when Jacopo di Sant' Andrea, who had ruined himself by profusion and committed suicide, seatters the leaves of the bush of Lotto degli Agli, endravoring to hide himself among them. We shall hereafter examine the type completely; here I will only give an approximate rendering of Homer's words, which have been obseured more by translation than even by tradition.
94. "They are overhanging rocks. The great wares of blue water lreak round them ; and the blessed Gods call them the Wanderers.
"By one of them no winged thing can pass-not even the wild doves that bring ambrosia to their father Jove-but the smooth rock scizes its sacrifice of them." (Not even ambrosia to be had without Labor. The word is peculiar-
as a part of anything is offered for sacrifice ; especially used of heare-offering.) "It reaches the wide hearen with its top, and a dark-blue cloud rests on it, and never passes; neither does the clear sky hold it, in summer nor in harvest. Nor can any man climb it-not if he had twenty feet and hands, for it is as smooth as though it were hewn.
" And in the midst of it is a cave which is turned the way of hell. And therein dwells Scylla, whining for prey; her cry, indeed, is no louder than that of a newly-born whelp: but she herself is an awful thing-nor can any creature see her face and be glad; no, though it were a god that rose against her. For she had twelve feet, all fore-feet, and six necks, and terrible heads on them, and each has three rows of teeth, full of black death.
" But the opposite rock is lower than this, though but a bow-shot distant; and upon it there is a great fig-tree, full of leaves; and under it the terrible Charybdis sucks down the black water. Thrice in the day she sucks it down, and thrice casts it up again; be not thou there when she sucks down, for Neptune himself could not save thee."
[Thus far went my rambling note, in Fraser's Magazine. The Editor sent me a compliment on it-of which I was very proud; what the Publisher thought of it, I am not informed; only I know that eventually he stopped the papers. I think a great deal of it myself, now, and have put it all in large print accordingly, and should like to write more; but will, on the contrary, self-denyingly, and in gratitude to any reader who has got through so much, end my chapter.]

## CHAPTER IV.

## COMMERCE.

95. As the currency conveys right of choice out of many things in exchange for one, so Commerce is the ageney by which the power of choice is obtained; so that countries producing only timber can oltain for their timber, silk and gold; or, naturally producing only jewels and frankincense, can obtain for them cattle and corn. In this function, commeree is of more importance to a country in proportion to the limitations of its products, and the restlessness of its fancy; -generally of greater importance towards Northern latitudes.
96. Commerce is necessary, however, not only to exchange local products, but local skill. Labor requiring the ageney of fire can only be given abundantly in cold countries; labor requiring suppleness of body and sensitiveness of touch, only in warm ones; labor involving accurate vivacity of thought, only in temperate ones; while peculiar imaginative actions are produced by extremes of heat and cold, and of light and darkness. The production of great art is limited to climates warm enough to admit of repose in the open air, and cool enough to render such repose delightful. Minor variations in modes of skill distinguish every locality. The labor which at any place is easiest, is in that place cheapest; and it becomes often desirable that products raised in one country should be wrought in another. Hence have arisen discussions on "International values" which will be one day remembered as highly eurious exercises of the human mind. For it will be discovered, in due course of tide and time, that international ralue is regulated just as inter-provincial or inter-parishional value is. Coals and hops are exchanged
between Northumberland and Kent on absolutely the same principles as iron and wine between Lancashire and Spain. The greater breadth of an arm of the sea increases the cost, but does not modify the principle of exchange ; and a bargain written in two languages will have no other economical results than a bargain written in one. The distances of nations are measured, not by seas, but by ignorances; and their divisions determined, not by dialects, but by enmities.*
97. Of course, a system of international values may àlways be constructed if we assume a relation of moral law to physical geography; as, for instance, that it is right to cheat or rob across a river, though not across a road; or across a sea, though not across a river, etc.;-again, a system of such values may be constructed by assuming similar relations of taxation to physical geography; as, for instance, that an article should be taxed in crossing a river, but not in crossing a road; or in being carried fifty miles, but not in being carried five, etc.; such positions are indeed not easily maintained when once put in logical form; but one law of international value is maintainable in any form; namely; that the farther your neighbor lives from you, and the less he understands you, the more you are bound to be true in your dealings with him; because your power over him is greater in proportion to his ignorance, and his remedy more difficult in proportion to his distance. $\dagger$
98. I have just said the breadth of sea increases the cost of exchange. Now note that exchange, or commerce, in itself, is always costly; the sum of the value of the goods being diminished by the cost of their conveyance, and by the main-
[* I have repeated the substance of this and the next paragraph so often since, that I am ashamed and weary. The thing is too true, and too simple, it seems, for anybody ever to believe. Meantine, the theories of "international values," as explained by Modern Political Economy, have brought about last year's pillage of France by Germany, and the affectionate relations now existing in consequence between the inhabitants of the right and left banks of tne Rhine.]
[ $\dagger$ I wish some one would examine and publish accurately the late dealings of the Governors of the Cape with the Kaffirs.]
tenance of the persons employed in it; so that it is only when there is advantage to both producers (in getting the one thing for the other) greater than the loss in conreyance, that the exchange is experlient. And it can only be justly conducted when the porters kept by the producers (commonly called merchants) expect mere pay, and not profit.* For in just commerce there are but three parties-the two persons or socicties exchanging, and the agent or agents of exchange; the value of the things to be exchanged is known by both the exchangers, and each receives equal value, neither gaining nor losing (for whatever one gains the other loses). The intermediate agent is paid a known per-centage by both, partly for labor in conreyance, partly for care, knowledge, and risk ; every attempt at concealment of the amount of the pay indicates either effort on the part of the agent to obtain unjust profit, or effort on the part of the exchangers to refuse him just pay. But for the most part it is the first, namely the effort on the part of the merchant to obtain larger profit (so-called) by buying cheap and selling dear. Some part, indeed, of this larger gain is deserved, and might be openly demanded, because it is the reward of the merchant's knowledge, and foresight of probable necessity; but the greater part of such gain is unjust; and unjust in this most fatal way, that it depends, first, on keeping the exchangers ignorant of the exchange ralue of the articles; and, secondly, on taking adrantage of the buyer's need and the seller's poverty. It is, therefore, one of the essential, and quite the most fatal, forms of usury ; for usury means merely taking an exorbitant $\dagger$ sum for the use of anything; and it is no matter whether the
[* By " pay," I mean mages for labor or skill ; by " profit," gain dependent on the state of the market.]
It Since I wrote this, I have worked out the question of interest of moner, which always, until lately, had embarrassed and defeated me; and I find that the payment of interest of any amount whatever is real "usury," and entirely unjustifiable. I was shown this chiefly by the pamphlets issued by Mr. W. C. Sillar, though I greatly regret the impatience which causes Mr. Sillar to regard usury as the radical crime in political economy. There are others worse, that act with it.]
exorbitance is on loan or exchange, on rent or on price-the essence of the usury being that, it is obtained by advantage of opportunity or necessity, and not as due reward for labor. All the great thinkers, therefore, have held it to be unnatural and impious, in so far as it feeds on the distress of others, or their folly.* Nevertheless, attempts to repress it by law must for ever be ineffective; though Plato, Bacon, and the First Napoleon-all three of them men who knew somewhat more of humanity than the "British merchant" usually doestried their hands at it, and have left some (probably) good moderative forms of law, which we will examine in their place. But the only final check upon it must be radical purifying of the national character, for being, as Bacon calls it, "concessum propter duritiem cordis," it is to be done away with by touching the heart only; not, however, without medicinal law-as in the case of the other permission, "propter duritiem." But in this more than in anything (though much in all, and though in this he would not himself allow of their application; for his own laws against usury are sharp enough), Plato's words in the fourth book of the Polity are true, that neither drugs, nor charms, nor burnings, will touch a deep-lying political sore, any more than a deep bodily one; but only right and utter change of constitution: and that "they do but lose their labor who think that by any tricks of law they can get the better of these mischiefs of commerce, and see not that they hew at a Hydra."
99. And indeed this Hydra seems so unslayable, and sin sticks so fast between the joinings of the stones of buying and selling, that " to trade" in things, or literally "crossgive " them, has warped itself, by the instinct of nations, into their worst word for fraud ; for, because in trade there cannot but be trust, and it seems also that there camot but also be injury in answer to it, what is merely fraud between enemies becomes treachery among friends: and "trader," "traditor,"

[^140]and "traitor" are but the same word. For which simplicity of language there is more reason than at first appears; for as in true commerce there is no "profit," so in true commerce there is no "sale." The idea of sale is that of an interchange between enemies respectively endeavoring to get the better one of another; but commerce is an exchange between friends; and there is no desire but that it should be just, any more than there would be between members of the same family.* The moment there is a bargain over the pottage, the family relation is dissolved:-typically, "the days of mourning for my father are at hand." Whercupon follows the resolve, " then will I slay my brother."
100. This inhumanity of mercenary commerce is the more notable beeause it is a fulfilment of the law that the corruption of the best is the worst. For as, taking the body natural for symbol of the body politic, the governing and forming powers may be likened to the brain, and the laboring to the limbs, the mereantile, presiding over circulation and communication of things in changed utilities, is symbolized by the heart ; and, if that hardens, all is lost. And this is the ultimate lesson which the leader of English intellect meant for us, (a lesson, indced, not all his own, but part of the old wisdom of humanity,) in the tale of the Merchant of Tenice; in which the true and incorrupt merchant,-lind and free, beyond every other Shakespearian conception of men,-is opposed to the corrupted merchant, or usurer ; the lesson being decpened by the expression of the strange hatred which the corrupted merchant bears to the pure one, mixed with intense scorn, -
"This is the fool that lent out moncy gratis; look to him, jailer," (as to lunatic no less than criminal) the enmity, observe, having its symbolism literally carried out by being

[^141]aimed straight at the heart, and finally foiled by a literal appeal to the great moral law that flesh and blood cannot be weighed, enforced by "Portia"* ("Portion"), the type of divine Fortune, found, not in gold, nor in silver, but in lead, that is to say, in endurance and patience, not in splendor ; and finally taught by her lips also, declaring, instead of the law and quality of "merces," the greater law and quality of merey, which is not strained, but drops as the rain, blessing him that gives and him that takes. And observe that this " mercy" is not the mean "Misericordia," but the mighty " Gratia," answered by Gratitude (observe Shylock's learning on the, to him detestable, word, gratis, and compare the relations of Grace to Equity given in the second chapter of the second book of the Memorabilia; ) that is to say it is the gracious or loving, instead of the strained, or competing manner, of doing things, answered, not only with " merces" or pay, but with "merci" or thanks. And this is indeed the meaning of the great benediction "Grace, mercy, and peace," for there can be no peace without grace, (not even by help of rifled cannon, ) nor even without triplicity of graciousness,

* Shakespeare would certainly never have chosen this name had he been forced to retain the Roman spelling. Like Perdita, "lost lady," or Cordelia, "heart-lady," Portia is "fortune" lady. The two great relative groups of words, Fortuna, fero, and fors-Portio, porto, and pars (with the lateral branch op-portune, im-portune, opportunity, etc.), are of deep and intricate significance; their various senses of bringing, abstracting, and sustaining being all centralized by the wherl (which bears and moves at once), or still better, the ball (spera) of fortune,"Volve sua spera, e beata si gode:" the motive power of this wheel distinguishing its godless from the fixed majesty of Necessitas with her iron nails ; or $\dot{a} v a ́ \gamma \kappa \eta$. with her pillar of fire and iridescent orbits, fixed at the center. Portus and porta, and gate in its comnection with gain, form another interesting branch group; and Mors, the concentration of delaying, is always to be remembered with Fors, the concentration of bringing and bearing, passing on into Fortis and Fortitude.
[This note is literally a mere memorandum for the future work which I am now completing in Fors Clavigera; it was printed partly in vanity, but also with real desire to get people to share the interest I found in the careful study of the leading words in noble languages. Compare the next note.]
for the Greeks, who began but with one Grace, had to open their scheme into three before they had done.

101. With the usual tendency of long repeated thought, to take the surface for the deep, we have conceived these goddesses as if they only gave loveliness to gesture ; whereas their true function is to give graciousness to deed, the other loveliness arising naturally out of that. In which function Charis becones Charitas;* and has a name and praise even greater than that of Faith or Truth, for these may be maintained sullenly and proudly ; but Charis is in her countenance always gladdening (Aglaia), and in her service instant and humble; and the true wife of $Y^{r}$ ulcan, or Labor. And it is not until her sincerity of function is lost, and her mere beauty contemplated instead of her patience, that she is born again of the foam flake, and becomes Aphrodite ; and it is then only that she becomes capable of joining herself to war and to the enmities of men, instead of to labor and their services.
[^142]Therefore the fable of Mars and Venus is chosen by Homer, picturing himself as Demodocus, to sing at the games in the court of Alcinous. Pheacia is the Homeric island of Atlantis; an image of noble and wise government, concealed, (how slightly!) merely by the change of a short rowel for a long one in the name of its queen; yet misunderstood by all later writers, (even by Horace, in his "pinguis, Phæaxque"). That fable expresses the perpetual error of men in thinking that grace and dignity can only be reached by the soldier, and never loy the artisan; so that commerce and the useful arts have had the honor and beauty taken away, and only the Frand and Pain left to them, with the lucre. Which is, indeed, one great reason of the continual blundering about the offices of government with respect to commerce. The higher classes are ashamed to employ themselves in it; and though ready enough to fight for (or occasionally against) the people,-to preach to them,-or judge them, will not break bread for then; the refined upper servant who has willingly looked after the burnishing of the armory and ordering of the library, not liking to set foot in the larder.
102. Farther still. As Charis becomes Charitas on the one side, she becomes-better still-Chara, Joy, on the other; or rather this is her very mother's milk and the beaty of her childhood; for God brings no enduring Love, nor any other good, out of pain; nor out of contention ; but out of joy and harmony. And in this sense, human and divine, music and gladness, and the measures of hoth, come into her name; and Cher becomes full-roweled Cheer, and Cheerful; and Chara opens into Choir and Choral.*

 Muses, and Bacchus-the grave Bacchus, that is-ruling the choir of age; or Bacchus restraining; 'sæva tene, cum Berecyntio cornu,

 $\chi$ apas $\hat{\varepsilon} \mu \phi v т о v$ ǒvo $\mu$." "Other animals have no perception of order nor of disorder in motion ; but for us, Apollo and Bacchus and the Muses are appointed to mingle in our dances; and these are they who have
103. And lastly. As Grace passes into Freedom of action, Charis becomes Eleutheria, or Liberality; a form of liberty quite curiously and intensely different from the thing usually understood by " Liberty" in modern language: indeed, much more like what some people would call slavery: for a Greek always understood, primarily, by liberty, deliverance from the law of his own passions (or from what the Christian writers call bondage of corruption), and this a complete liberty: not being merely safe from the Siren, but also unbound from the mast, and not having to resist the passion, but making it fawn upon, and follow him- (this may be again partly the meaning of the fawning beasts about the Circean cave; so, again, George Herbert-

Correct thy passion's spite,
Then may the beasts draw thee to happy light)-
And it is only in such generosity that any man becomes capable of so governing others as to take true part in any system of national economy. Nor is there any other eternal distinction between the upper and lower classes than this form of liberty, Eleutheria, or benignity, in the one, and its opposite of slavery, Douleia, or malignity, in the other; the separation of these two orders of men, and the firm government of the lower by the higher, being the first conditions of possible wealth and cconomy in any State,-the Gods giving it no greater gift than the power to discern its true freemen, and "malignum spernere vulgus."
104. While I have traced the finer and higher laws of this matter for those whom they concern, I have also to note the material law-vulgarly expressed in the proverb, " Honesty is the best policy." That proverb is indeed wholly inapplicable to matters of private interest. It is not true that honesty, as far as material gain is concerned, profits indi-
given us the sense of delight in rhythm and harmony. And the name of choir, choral dance, (we may believe), came from chara (delight)." -Laws, book ii.
viduals. A clever and cruel knave will in a mixed society always be richer than an honest person can be. But Honesty is the best "policy," if policy means practice of State. For fraud gains nothing in a State. It only enables the knaves in it to live at the expense of honest people; while there is for every act of fraud, however small, a loss of wealth to the community. Whatever the fraudulent person gains, some other person loses, as fraud produces nothing; and there is, besides, the loss of the time and thought spent in accomplishing the fraud, and of the strength otherwise obtaimable by mutual help (not to speak of the fevers of anxiety and jealousy in the blood, which are a heavy physical loss, as I will show in due time). Practically, when the nation is deeply corrupt, cheat answers to cheat ; every one is in turn imposed upon, and there is to the body politic the dead loss of the ingenuity, together with the incalculable mischief of the injury to each defrauded person, producing collateral effect unexpectedly. My neighbor sells me bad meat; I sell him in return flawed iron. We neither of us get one atom of pecuniary advantage on the whole transaction, but we both suffer unexpected ineonrenience; my men get scurvy, and his cattle-truck runs off the rails.
105. The examination of this form of Charis must, therefore, lead us into the discussion of the principles of government in general, and especially of that of the poor by the rich, discovering how the Graciousness joined with the Greatness, or Love with Majestas, is the true Dei Gratia, or Divine Right, of every form and mamer of King; i. e., specifically, of the thrones, dominations, princedoms, virtues, and powers of the earth:-of the thrones, stable, or "ruling," literally right-doing powers ("rex eris, recte si facies"):-of the dominations-lordly, edifying, dominant and harmonious powers; chiefly domestic, over the "built thing," domus, or house ; and inherently twofold, Dominus and Domina; Lord and Lady:-of the Princedoms, pre-eminent, incipient, creative, and demonstrative powers; thus poetic and mercantile, in the "princeps carmen deduxisse" and the merehant-
prince:-of the Virtues or Courages; militant, guiding, or Ducal powers:-and finally of the Strengths, or Forces pure; magistral powers, of the More over the less, and the forceful and free over the weak and servile elements of life.

Suloject chongh for the next paper, involving " economical" principles of some importance, of which, for theme, here is a sentence, which I do not care to translate, for it would sound harsh in English,* though, truly, it is one of the tenderest ever uttered by man; which may be meditated over, or rather through, in the meanwhile, by any one who will take the pains:



[^143]
## CHAPTER $\nabla$.

## GOVERNMENT.

106. It remains for us, as I stated in the close of the last chapter, to examine first the principles of government in general, and then those of the government of the Poor by the Rich.

The government of a state consists in its customs, laws, and councils, and their euforcements.

## I. Custons.

As one person primarily differs from another by fineness of nature, and, secondarily, by fineness of training, so also, a polite nation differs from a sarage one, first, by the refinement of its nature, and secondly by the delicacy of its customs.

In the completeness of custom, which is the nation's selfgovernment, there are three stages-first, finenoss in method of doing or of being;-called the manner or moral of acts; secondly, firmness in holding such method after adoption, so that it shall become a habit in the character: i. e., a constant "having" or "behaving;" and, lastly, ethical power in performance and endurance, which is the skill following on habit, and the ease reached by frequency of right doing.

The sensibility of the nation is indicated by the fineness of its customs; its courage, continence, and self-respect by its persistence in them.

By sensibility I mean its natural perception of beauty, fitness, and rightness; or of what is lovel , decent, and just: faculties dependent much on race, and the primal signs of fine breeding in man; but cultivable also by education, and necessarily perishing without it. True education has, indeed,
no other function than the development of these faculties, and of the relative will. It has been the great error of modern intelligence to mistake science for education. You do not educate a man by telling him what he kuew not, but by making him what he was not.

And making him what he will remain for ever: for no wash of weeds will bring back the faded purple. And in that dyeing there are two processes-first, the cleansing and wringing-out, which is the baptism with water; and then the infusing of the blue and searlet colors, gentleness and justice, which is the baptism with fire.
107.* The customs and manners of a sensitive and highlytrained race are always Vital : that is to say, they are orderly manifestations of intense life, like the habitual action of the fingers of a musician. The customs and manners of a vile and rude race, on the contrary, aro conditions of decay: they are not, properly speaking, habits, but incrustations; not restraints, or forms, of life; but gangrenes, noisome, and the beginnings of death.

And generally, so far as custom attaches itself to indolence instead of action, and to prejudice instead of perception, it takes this deadly character, so that thus

> Custom hangs upon us with a weight Heary as frost, and deep almost as life.

But that weight, if it becomes impetus, (living instead of dead weight) is just what gives value to custom, when it works with life, instead of against it.
108. The high ethical training of a nation implies perfect Grace, Pitifulness, and Peace ; it is irreconcilably inconsistent with filthy or mechanical employments, -with the desire of money,-and with mental states of anxiety, jealousy, or indifference to pain. The present insensibility of the upper classes of Europe to the surrounding aspects of suffering, un-
[* Think over this paragraph carefully ; it should have been much expanded to be quite intelligible; but it contains all that I want it to contain.]
cleanness, and crime, binds them not only into one responsibility with the sin, but into one dishonor with the foulness, which rot at their thresholds. The crimes daily recorded in the police-courts of London and Paris (and much more those which are unrecorded) are a disgrace to the whole body politic;* they are, as in the body natural, stains of disease on a face of delicate skin, making the delicacy itself frightful. Similarly, the filth and poverty permitted or ignored in the midst of us are as dishonorable to the whole social body, as in the body natural it is to wash the face, but leave the hands and feet foul. Christ's way is the only true one: begin at the feet ; the face will take care of itself.
109. Yet, since necessarily, in the frame of a nation, nothing but the head can be of gold, and the feet, for the work they have to do, must be part of iron, part of clay;foul or mechanical work is always reduced by a noble race to the minimum in quantity; and, even then, performed and endured, not without sense of degradation, as a fine temper is wounded by the sight of the lower offices of the body. The highest conditions of human society reached hitherto have cast such work to slaves; but supposing slavery of a politically defined kind to be done away with, mechanical and foul employment must, in all highly organized states, take the aspect either of punishment or probation. All criminals should at once be set to the most dangerous and painful forms of it, especially to work in mines and at furnaces, $\dagger$ so as to
*: The ordinary brute, who flourishes in the very center of ornate life, tells us of unknown depths on the verge of which we totter, being bound to thank our stars every day we live that there is not a general outbreak, and a revolt from the yoke of civilization."-Times leader. Dec. 205 , 1862. Admitting that our stars are to be thanked for our safety, whom are we to thank for the danger?
$\dagger$ Our politicians, even the best of them, regard only the distress caused by the failure of mechanical labor. The degradation caused by its excess is a far more serions subject of thought, and of future fear. I shall examine this part of our subject at length hereafter. There can hardly be any donbt, at present, cast on the truth of the above passages, as all the great thinkers are unanimous on the matter. Plato's words
relieve the imocent population as far as possible: of merely rough (not mechanical) manual labor, especially agricultural, a large portion should be done by the upper classes;bodily health, and sufficient contrast and repose for the mental functions, being unattainable without it; what necessarily inferior labor remains to be clone, as especially in manufactures, should, and alwars will, when the relations of society are reverent and harmonious, fall to the lot of those who, for the time, are fit for nothing better. For as, whatever the perfectness of the educational system, there must
are terrific in their scorn and pity whenever he touches on the mechanical arts. He calls the men employed in them not even human, but partially and diminutively human, "ávtpotiokoo"," and opposes such work to noble occupations, not merely as prison is opposed to freedom, but as a convict's dishonored prison is to the temple (escape from them being like that of a criminal to the sanctuary) ; and the destruction caused by them being of soul no less than body.-Rep. vi. 9. Compare Laws, v. 11. Xenophon dwells on the evil of occupations at the furnace, and especially their " $\dot{a} \sigma \chi 0 \lambda i a$, want of leisure."-Econ. i. 4. (Modern England, with all its pride of education, has lost that first sense of the word "school;" and till it recover that, it will find no other rightly.) His word for the harm to the soul is to "break" it, as we say of the heart.-Econ. i. 6. And herein, also, is the root of the scorn, otherwise apparently most strange and cruel, with which Homer, Dante, and Shakespeare always speak of the populace ; for it is entirely true that, in great states, the lower orders are low by nature as well as by task, being precisely that part of the commonwealth which has been thrust down for its coarseness or unworthiness (by coarseness I mean especially insensibility and irrererence-the " profane" of Horace) ; and when this ceases to be so, and the corruption and profanity are in the higher instead of the lower orders, there arises, first helpless confusion; then, if the lower classes deserve power, ensues swift remolution, and they get it; but if neither the populace nor their rulers deserve it. there follows mere darkness and dissolution, till, out of the putrid elements, some new capacity of order rises, like grass on a grave: if not, there is no more hope, nor shadow of turning, for that nation. Atropos has her way with it.
So that the law of national health is like that of a great lake or sea, in perfect but slow circulation. letting the dregs fall continually to the lowest place, and the clear water rise; yet so as that there shall be no neglect of the lower orders, but perfect supervision ant sympathy, so that if one member suffer, all members shall suffer with it.
remain infinite differences between the natures and capacities of men; and these differing natures are generally rangeable under the two qualities of lordly, (or tending towards rule, construction, and harmony), and servile (or tending towards misrule, destruction, and discord) ; and, since the lordly part is only in a state of profitableness while ruling, and the servile only in a state of redeemableness while serving, the whole health of the state depends on the manifest separation of these two elements of its mind; for, if the servile part be not separated and rendered visible in service, it mixes with, and corrupts, the entire body of the state; and if the lordly part be not distinguished, and set to rule, it is crushed and lost, being turned to no account, so that the rarest qualities of the nation are all given to it in vain.*
II. Laws.
110. These are the definitions and bonds of custom, or of what the nation desires should become custom.

Law is either archic, $\dagger$ (of direction), meristic, (of division), or critic, (of judgment).

Archic law is that of appointment and precept: it defines what is and is not to be done.
Meristic law is that of balance and distribution: it defines what is and is not to be possessed.
 The bitter sentence never was so true as at this day.
[ $\dagger$ This following note is a mere cluster of memoranda, but I keep it for reference.] Thetic, or Thesmic, would perhaps be a better term than archic ; but liable to be confused with some which we shall want relating to Theoria. The administrators of the three great divisions of law are severally Archons, Merists, and Dicasts. The Archons are the true princes, or beginners of things; or leaders (as of an orchestra). The Merists are properly the Domini, or Lords of honses and nations. The Dicasts, properly, the judges, and that with Olympian justice, which reaches to heaven and hell. The violation of archic law is $\dot{\text { ámaptia (error), } \pi о \nu \eta \rho i ́ a ~(f a i l u r e), ~ o r ~} \pi \lambda \eta \mu \mu \hat{k} \lambda \varepsilon \varepsilon a$ (discord). The violation of meristic law is àvonia (iniquity). The riolation of critic law is àdeкia (injury). Iniquity is the central generic term; for all law is fatal; it is the dirision to men of their fate; as the fold of their pasture, it is vómos; as the assigning of their portion, $\mu u i \bar{\rho} a$.

Critic law is that of discernment and award: it defines what is and is not to be suffered.
111. A. Archic Law. If we choose to unite the laws of precept and distribution under the head of "statutes," all law is simply cither of statute or judgment; that is, first the establishment of ordinance, and, secondly, the assignment of the reward, or penalty, due to its observance or violation.

To some extent these two forms of law must be associated, and, with every ordinance, the penalty of disobedience to it be also determined. But since the degrees and guilt of disobelience vary, the determination of due reward and punishment must be modified by discernment of special fact, which is peculiarly the office of the judge, as distinguished from that of the lawgiver and law-snstainer, or king; not but that the two offices are ahways theoretically, and in early stages, or limited numbers, of society, are often practically, united in the same person or persons.
112. Also, it is necessary to keep clearly in view the distinction between these two kinds of law, because the possible range of law is wider in proportion to their separation. There are many points of conduct respecting which the nation may wiscly express its will by a written precept or resolve, ret not enforce it by penalty :* and the expedient degree of penalty is always quite a separate consideration from the expedience of the statute; for the statute may often be better enforeed hy merey than severity, and is also casier in the bearing, and less likely to be abrogated. Farther, laws of precept have reference especially to youth, and concern themselves with training; but laws of judgment to manhood,
[* This is the only sentence which, in revising these essays, I am now - inclinell to question ; but the point is one of extreme difficulty. There might be a law, for instance, of curfew, that candles should be put out, unless for necessary service, at such and such an hour, the idea of " necessary service" being quite indefinable, and no peualty possible; yet there would be a distinct conscionsness of illegal conduct in young latlies' minds who danced by candlelight till dawn.]
and concern themselves with remedy and reward. There is a highly curious feeling in the English mind against educational law: we think no man's liberty should be interfered with till he has done irrevocable wrong; whereas it is then just too late for the only gracious and kingly interference, which is to hinder him from doing it. Make your educational laws strict, and your criminal ones may be gentle; but, leave youth its liberty, and you will have to dig dungeons for age. And it is good for a man that he "wear the yoke in his youth: " for the reins may then be of silken thread; and with sweet chime of silver bells at the bridle; but, for the captivity of age, you must forge the iron fetter, and east the passing bell.
113. Since no law can be, in a final or true sense, established, but by right, (all unjust laws involving the ultimate necessity of their own abrogation), the law-giving can only become a law-sustaining power in so far as it is Royal, or " right doing ; "-in so far, that is, as it rules, not mis-rules, and orders, not dis-orders, the things submitted to it. Throned on this rock of justice, tho kingly power becomes established and establishing; "ozios," or divine, and, therefore, it is literally true that no ruler can err, so long as he
 verted by careless thonght, which has cost the world somewhat, into-" the king can do no wrong."
114. B. Meristic Law,* or that of the tenure of property, first determines what every individual possesses by riglit, and secures it to him; and what he possesses by wrong, and deprives him of it. But it has a far higher provisory function: it determines what every man should possess, and puts it within his reach on due conditions; and what he should not possess, and puts this out of his reach, conclusively.
115. Every article of human wealth has certain conditions attached to its merited possession; when these are

[^144]unobserved, possession becomes rapine. And the object of meristic law is not only to secure to every man his rightful share (the share, that is, which he has worked for, produced, or received by gift from a rightful owner), but to enforea the due conditions of possession, as far as law may conveniently reach; for instance, that land shall not be wantonly allowed to rm to waste, that streams shall not be poisoned by the persons throngh whose properties they pass, nor air be rendered moholesome beyond given limits. Laws of this kind exist already in rudimentary degree, but need large development: the just laws respecting the possession of works of art have not litherto been so much as conceived, and the daily loss of national wealth, and of its use, in this respect, is quite incalculable. And these laws need revision quite as much respecting property in national as in private hands. For instance: the public are under a rague impression that, becanse they have paid for the contents of the British Museum, every one has an equal right to see and to handle them. But the public have similarly paid for the contents of Woolwich arsenal; yet do not expect free access to it, or handling of its contents. The British Museum is neither a free circulating library, nor a free school; it is a place for the safe preservation, and exhibition on due oceasion, of mique books, unique objects of natural history, and unique works of art; its books can no more be used by everybody than its coins can be handled, or its statnes cast. There ought to be free libraries in erery quarter of London, with large and complete reading-rooms attached ; so also free educational museums should be open in every quarter of London, all day long, and till late at night, well lighted, well catalogucd, and rich in contents both of art and natural history. But neither the British Museum nor National Gallery is a school: they are treasuries; and both should be severely restricted in access and in use. Unless some order of this lind is made, and that soon, for the MISS. department of the Museum, (its superintendents have sorrowfulle told me this, and repeatedly, the best MSS. in the collection will bo
destroyed, irretrievably, by the careless and continual handling to which they are now subjected.

Finally, in certain conditions of a nation's progress, laws limiting accumulation of any kind of property may be found expedient.
116. C. Critic Law determines questions of injury, and assigns due rewards and punishments to conduct.

Two curious economical questions arise laterally with respect to this branch of law, namely, the cost of crime, and the cost of judgment. The cost of crime is endured by nations ignorantly, that expense being nowhere stated in their budgets; the cost of judgment, patiently, (provided only it can be had pure for the money,) because the science, or perhaps we ought rather to say the art, of law, is felt to found a noble profession and discipline; so that civilized nations are usually glad that a number of persons should be supported by exercise in oratory and analysis. But it has not yet been calculated what the practical value might have been, in other dircctions, of the intelligence now occupied in deciding, through courses of years, what might have been decided as justly, had the date of judgment been fixed, in as many hours. Imagine one-half of the funds which any great nation devotes to dispute by law, applied to the determination of physical questions in medicine, agriculture, and theoretic science; and calculate the probable results within the next ten years!

I say nothing yet of the more deadly, more lanentable loss, involved in the use of purchased, instead of personal,

117. In order to true analysis of critic law, we must understand the real meaning of the word "injury."

We commonly understand by it, any kind of harm done by one man to another; but we do not define the idea of harm: sometimes we limit it to the harm which the sufferer is conscions of; whereas much the worst injuries are those he is unconscious of; and, at other times, we limit the idea
to violence, or restraint; whereas much the worse forms of injury are to be accomplished by indolence, and the withdrawal of restraint.
118. "Injury" is then simply the refusal, or violation of, any man's right or claim upon his fellows: which claim, much talked of in modern times, under the term "right," is mainly resolvable into two branches: a man's claim not to be hindered from doing what he should; and his claim to be hindered from doing what he should not; these two forms of lindrance being intensified by reward, help, and fortune, or Fors, on one side, and by punishment, impediment, and even final arrest, or Mors, on the other.
119. Now, in order to a man's obtaining these two rights, it is clearly needful that the worth of him should be approximately known; as well as the want of worth, which has, unhappily, been usually the principal subject of study for critic law, careful hitherto only to mark degrees of de-merit, instead of merit;-assigning, indeed, to the Deficiencies (not always, alas! even to these) just estimate, fine, or penalty; but to the Efficiencies, on the other side, which are by much the more interesting, as well as the only profitable part of its subject, assigning neither estimate nor aid.
120. Now, it is in this higher and perfect function of critic law, enabling instead of disabling, that it becomes truly Kingly, instead of Draconic; (what Providence gave the great, wrathful legislator his name?) : that is, it becomes the law of man and of life, instead of the law of the worm and of death—both of these laws being set in changeless poise one against another, and the enforcement of both being the eternal function of the lawgiver, and true claim of every living soul: such claim being indeed strong to be mercifully hindered, and even, if need be, abolished, when longer existence means only deeper destruction, but stronger still to be mercifully helped, and recreated, when longer existence and new creation mean nobler life. So that reward and punishment will be found to resolve themselves mainly* into
[* Mainly ; not altogether. Conclusive reward of high virtue is lov-
help and hindrance; and these again will issue naturally from true recognition of deserving, and the just reverence and just wrath which follow instinctively on such recognition.
121. I say, "follow," but, in reality, they are part of the recognition. Reverence is as instinctive as anger ;-both of them instant on true vision: it is sight and understanding that we have to teach, and these are reverence. Make a man perceive worth, and in its reflection he sces his own relative unworth, and worships thereupon inevitably, not with stiff courtesy, but rejoicingly, passionately, and, best of all, restfully: for the inner capacity of awe and love is infinite in man; and only in finding these, can we find peace. And the common insolences and petulances of the people, and their talk of equality, are not irrererence in them in the least, but mere blindness, stupefaction, and fog in the brains,* the first sign of any eleansing away of which is, that ther gain some power of discerning, and some patience in submitting to, their true counselors and governors. In the mode of such discermment consists the real "constitution" of the state, more than in the titles or offices of the discerned person ; for it is no matter, sare in degree of mischief, to what office a man is appointed, if he camnot fulfil it.

## 122. III. Governament by Council.

This is the determination, by living authority, of the national conduct to be observed under existing ciremmstances ; and the modification or enlargement, abrogation or enforcement, of the code of national law according to present needs or purposes. This government is necessarily always by
ing and crowning. not helping; and conclusive punishment of deep vice is lating and crushing, not merely hindering.]

[^145]council, for though the authority of it may be rested in one person, that person camot form any opinion on a matter of public interest but by (voluntarily or involuntarily) submitting himself to the influence of others.

This government is always twofold-visible and invisible.
The risible government is that which nominally carries on the national business; determines its foreign relations, raises taxes, levies soldiers, orders war or peace, and otherwise becomes the arbiter of the national fortune. The inrisible gorernment is that exercised by all energetic and intelligent men, each in his sphere, regulating the inner will and secret ways of the people, essentially forming its character, and preparing its fate.

Visible governments are the toys of some nations, the diseases of others, the harness of some, the burdens of more, the necessity of all. Sometimes their career is quite distinct from that of the people, and to write it, as the national history, is as if one should number the accidents which befall a man`s weapons and wardrobe, and call the list his biography. Nevertheless, a truly noble and wise nation necessarily has a noble and wise visible government, for its wisdom issues in that conclusively.
123. Tisible governments are, in their agencies, capable of three pure forms, and of no more than three.

They are either monarchies, where the anthority is rested in one person ; oligarchies, when it is rested in a minority; or democracies, when rested in a majority.

But these three forms are not only, in practice, variously limited and combined, but capable of infinite difference in character and use, receiving specific names according to their variations; which names, being nowise agrced upon, nor consistently used, either in thought or writing, no man can at prosent tell, in speaking of any kind of government, whether he is understood; nor, in hearing, whether he understands. Thus we usually call a just government by one person a monarchy, and an unjust and cruel one, a tyranny: this might be reasonable if it had refcrence to the divinity
of true government; but to limit the term "oligarchy" to government by a few rich people, and to call government by a few wise or noble people "aristocracy," evidently is absurd, unless it were proved that rich people never could be wise, or noble people rich; and farther absurd, because there are other distinctions in character, as well as riches or wisdom (greater purity of race, or strength of purpose, for instance), which may give the power of government to the few. So that if we had to give names to every group or kind of minority, we should have verbiage enough. But there is only one right name-"oligarchy."
124. So also the terms "republic" and "democracy "* are confused, especially in modern use; and both of them are liable to every sort of misconception. A republic means, properly, a polity in which the state, with its all, is at every man's service, and every man, with his all, at the state's service- (people are apt to lose sight of the last condition,) but its government may nevertheless be oligarchic (consular, or decemviral, for instance), or monarchic (dictatorial). But a democracy means a state in which the government rests directly with the majority of the citizens. And both these conditions have been judged only by such accidents and aspects of them as each of us has had experience of; and sometimes both have been confused with anarchy, as it is the fashion at present to talk of the "failure of republican institutions in America," when there has never yet been in America any such thing as an institution, but only defiance of institution; neither any such thing as a res-publica, but only a multitudinous res-privala; every man for himself. It is not republicanism which fails now in America; it is your model science of political economy, brought to its perfect practice. There you may see competition, and the "law of demand and supply," (especially in paper), in beautiful

[^146]and mhindered operation.* Lust of wealth, and trust in it ; vulgar faith in magnitude and multitude, instead of nobleness; besides that faith natural to backwoods-men-" lucum ligna," $\dagger$-perpetual self-contemplation issuing in passionate ranity; total ignorance of the finer and higher arts, and of all that they teach and bestow; and the discontent of enerretic minds mocenpied. frantic with hope of uncomprehended change, and progress they know not whither; these are the things that have "failed" in America; and yet not altogether failed-it is not collapse, but collision ; the greatest railroad accident on record, with fire canght from the furnace, and Catiline's quenching " non aquâ, sed ruinâ." § But I see not, in any of our talk of them, justice enough done to their erratic strength of purpose, nor any estimate taken of the strength of endurance of domestic sorrow, in what their women and children suppose a righteous cause. And out of that endurance and suffering, its own fruit will be

[^147]born with time; [not abolition of slavery, howerer. See § 130] and Carlyle's prophecy of them (June, 1850), as it has now come true in the first clause, will, in the last:-
"America, too, will find that caucuses, division-lists, stump-oratory, and speeches to Buncombe will not carry men to the immortal gods; that the Washington Congress, and constitutional battle of Kilkenny cats is there, as here, naught for such objects; quite incompetent for such; and, in fine, that said sublime constitutional arrangement will require to be (with terrible throes, and travail such as few expect yet) remodeled, abridged, extended, suppressed, torn asunder, put together again;-not without heroic labor and effort, quite other than that of the stump-orator and the revival preacher, one day."
125.* Understand, then, once for all, that no form of government, provided it be a government at all, is, as such, to be either condemned or praised, or contested for in anywise, but by fools. But all forms of government are good just so far as they attain this one rital neceessity of policythat the wise and kind, few or many, shall govern the unwise and unkind; and they are exil so far as they miss of this, or reverse it. Nor does the form, in any case, signify one whit, but its firmness, and adaptation to the need; for if there be many foolish persons in a state, and few wise, then it is good that the few govern; and if there be many wise, and few foolish, then it is good that the many govern; and if many be wise, yet one wiser, then it is good that one should govern; and so on. Thus, we may have "the ant's republic, and the realm of bees," both good in their kind; one for groping, and the other for building; and nobler still, for flying; -the Ducal monarchy $\dagger$ of those

> Intelligent of seasons, that set forth
> The aery caravan, high over seas.

## [* This paragraph contains the gist of all that precede.]

[ $\dagger$ Whenever you are puzzled by any apparently mistaken use of words in these essays, take your dictionary, remembering I had to fix terms. as well as principles. A Duke is a "dux" or "leader;" the flying welge of cranes is under a "ducal monarch"-a very different
126. Nor need we want examples, among the inferior creatures, of dissoluteness, as well as resoluteness, in government. I once saw democracy fincly illustrated by the beetles of North Switzerland, who by universal suffrage, and elytric acclamation, one May twilight, carried it, that they would fly over the Lake of 7 ug ; and flew short, to the great disfigurement of the Lake of Zug, - Kavodipou hıurン~ over some leagues square, and to the close of the cockclafer democracy for that year. Then, for tyranny, the old fable of the frogs and the stork fincly touches one form of it; but truth will image it more closely than fable, for tyranny is not complete when it is only over the idle, but when it is over the laborious and the blind. This description of pelicans and climbing perch, which I find quoted in one of our popular natural histories, out of Sir Emerson Tennant's Ceylon, comes as near as may be to the true image of the thing: -
"Heary rains came on, and as we stood on the high ground, we observed a pelican on the margin of the shallow pool gorging limself; our people went towards him, and raised a cry of 'Fish, fish!' We hurried down, and found numbers of fish struggling upward throught the grass, in the rills formed by the trickling of the rain. There was scarcely water to cover them, but nevertheless they made rapid progress up the bank, on which our followers collected about two baskets of them. They were forcing their way up the knoll, and had they not been interrupted, first by the pelican, and afterwards by ourselves, they would in a few minutes have gained the highest point, and descended on the other side into a pool which formed another portion of the tank. In going this distance, however, they must have used muscular exertion enough to have taken them half a mile on level ground; for at these places all the cattle and wild animals of the neighborhood had latterly come to drink, so that the surface was everywhere indented with footmarks, in addition
personage from a queen-bee. The Venetians, with a beautiful instinct, gave the name to their King of the Sea.]
to the cracks in the surrounding baked mud, into which the fish tumbled in their progress. In those holes, which were deep, and the sides perpendicular, they remained to die, and were carried off by kites and crows." ${ }^{*}$
127. But whether governments be bad or good, one general disadvantage seems to attach to them in modern times-. that they are all costly. $\dagger$ This, howerer, is not essentially the fault of the governments. If nations choose to play at war, they will always find their governments willing to lead the game, and soon coming under that term of Aristophanes,
 $\pi \eta_{\mu} \mu z \ddagger \ddagger$ ) the shields take the form of iron ships, with apparatus "for defense against liquid fire,"-as I see by latest accounts they are now arranging the decks in English dockyards-they become costly biers enough for the gray convoy of chief-mourner waves, wreathed with funereal foam, to bear back the dead upon; the massy shoulders of those corpse-bearers being intended for quite other work, and to bear the living, and food for the living, if we would let them.
128. Nor have we the least right to complain of our governments being expensive, so long as we set the government to do precisely the work which brings no return. If our present doctrines of political economy be just, let us trust them to the utmost; take that war business out of the government's hands, and test therein the principles of supply and demand. Let our future sieges of Sebastopol be done by contract-no capture, no pay-(I admit that thing ${ }_{3}$ might sometimes go better so) ; and let us sell the commands of our prospective battles, with our vicarages, to the lowest
[* This is a perfect picture of the French under the tyrannies of their Pelican Kings, before the Revolution. But they must find other than Pelican Kings-or rather, Pelican Kings of the Divine brood, that feed their children, and with their best blood.]
[ $\dagger$ Read carefully, from this point; because here begins the statement of things requiring to be done, which I am now re-trying to make definite in Fors Clavigera.]
[ $\ddagger$ " Evil on the top of Evil." Delphic oracle, meaning iron on the anvil.]
bidder; so may we have cheap victories, and divinity. On the other hand, if we have so much suspicion of our seience that we dare not trust it on military or spiritual business, would it not be but reasonable to try whether some authoritative handling may not prosper in matters utilitarian? If wo were to set our governments to do useful things instead of mischievous, possibly even the apparatus itself might in time como to be less costly. The machine, applied to the building of the house, might perhaps pay, when it seems not to pay, applied to pulling it down. If we made in our dockyards ships to carry timber and coals, instead of cannon, and with provision for the brightening of domestic solid culinary fire, instead of for the scattering of liquid hostile fire, it might have some effect on the taxes. Or suppose that we tried the experiment on land instead of water carriage; already the govermment, not unapproved, carries letters and parcels for us; larger packages may in time follow;-even general merchandise-why not, at last, ourselves? Had the money spent in local mistakes and vain private litigation, on the railroads of England, been laid out, instead, under proper govermment restraint, on really useful railroad work, and had no absurd expense been incurred in ornamenting stations, we might already hare had,-what ultimately it will be found we must have, -quadruple rails, two for passengers, and two for traffic, on every great line; and we might have been carried in swift safety, and watched and warded by well-paid pointsmen, for half the present fares. [For, of course, a railroad company is merely an association of turn-pike-keepers, who make the tolls as high as they can, not to mend the roads with, but to pocket. The public will in time discover this, and do away with turnpikes on railroads, as on all other publie-ways.]
129. Suppose it should thus turn out, finally, that a true government set to true work, instead of being a costly engine, was a paying one? that your government, rightly organized, instead of itself subsisting by an income-tax, would produce its subjects some subsistence in the shape of an income divi-
dend?-police, and judges duly paid besides, only with less work than the state at present prorides for them.

A true gorermment set to true work:-Not easily to be imagined, still less obtained; but not beyond human hope or ingenuity. Only you will have to alter your election systems somewhat, first. Not by universal suffrage, nor by votes purchasable with beer, is such government to be had. That is to say, not by universal equal suffrage. Every man upwards of twentr, who had been convicted of no legal crime, should have his say in this matter; but afterwards a louder voice, as he grows older, and approves himself wiser. If he has one rote at twenty, he should have two at thirty, four at forty, ten at fifty. For every single vote which he has with an income of a hundred a year, he should have ten with an income of a thousand, (provided you first see to it that wealth is, as nature intended it to be, the reward of sagacity and industry-not of good luck in a seramble or a lottery). For erery single rote which he had as subordinate in any business, he should have two when he became a master; and every office and authority nationally bestowed, implying trustworthiness and intellect, should have its known proportional number of rotes attached to it. But into the detail and working of a true system in these matters we cannot now enter; we are concerned as yet with definitions only, and statements of first principles, which will be established now sufficiently for our purposes when we have examined the nature of that form of government last on the list in $\$ 105$, -the purely " Magistral," exciting at present its full share of publie notice, under its ambiguous title of "slavery."
130. I have not, however, been able to ascertain in definite terms, from the declaimers against slavery, what they understand by it. If they mean only the imprisomnent or compulsion of one person by another, such imprisonment or compulsion being in many eases highly expedient, slavery, so defined, would be no eril in itself, but ouly in its abuse; that is, when men are slaves, who should not le, or masters, who should not be, or even the fittest characters for either
state, placed in it under conditions which should not be. It is not, for instance, a necessary condition of slavery, nor a desirable one, that parents should be separated from children, or husbands from wives ; but the institution of war, against which people declaim with less violence, effects such separa-tions,-not unfrequently in a very permanent manner. To press a sailor, scize a white youth by conscription for a soldier, or carry off a black one for a laborer, may all be right acts or all wrong ones, according to needs and circumstances. It is wrong to scourge a man unnecessarily. So it is to shoot him. Both must be done on oceasion; and it is better and kinder to flog a man to his work, than to leare him idle till he robs, and flog him afterwards. The essential thing for all creatures is to be made to do right; how they are made to do it-by pleasant promises, or hard necessities, pathetic oratory, or the whip-is comparatively immaterial.* To be deceived is perhaps as incompatible with human dignity as to be whipped; and I suspect the last method to be not the worst, for the help of many individuals. The Jewish nation throve under it, in the hand of a monarch reputed not unwise; it is only the change of whip for scorpion which is inexpedient; and that change is as likely to come to pass on the side of license as of law. For the true scorpion whips are those of the nation's pleasant vices, which are to it as St. John's locusts-crown on the head, ravin in the mouth, and sting in the tail. If it will not bear the rule of Athena and Apollo, who shepherd without smiting (uv $\pi \lambda r r r_{n} \nu \leqslant \mu(\nu \tau \varepsilon s)$, Athena at last calls no more in the corners of the streets; and then follows the rule of Tisiphone, who smites without shepherding.
131. If, however, by slavery, instead of absolute compulsion, is meant the purchase, by money, of the right of compulsion, such purchase is necessarily made whenever a portion of any territory is transferred, for money, from one

[^148]monarch to another: which has happened frequently enough in history, without its being supposed that the inhabitants of the districts so transferred became therefore slaves. In this, as in the former case, the dispute seems about the fashion of the thing, rather than the fact of it. There are two rocks in mid-sea, on each of which, neglected equally by instructive and commercial powers, a handful of inhabitants lise as they may. Two merchants bid for the two properties, but not in the same terms. One bids for the people, buys them, and sets them to work, under pain of scourge; the other bids for the rock, buys it, and throws the inhabitants into the sea. The former is the American, the latter the English method, of slavery; much is to be said for, and something against, both, which I hope to say in due time and place."
132. If, however, slavery mean not merely the purchase of the right of compulsion, but the purchase of the body and soul of the creature itself for money, it is not, I think, among the black races that purchases of this kind are most extensively made, or that separate souls of a fine make fetch the highest price. This branch of the inquiry we shall have occasion also to follow out at some length, for in the worst instances of the selling of souls, we are apt to get, when we ask if tho sale is valid, only Pyrrhon's answer†-" None can know."
133. The fact is that slavery is not a political institution at all, but an inherent, natural, and eternal inheritance of a large portion of the human race-to whom, the more you give of their own free will, the more slaves ther will make themselves. In common parlance, we idly confuse captivity with slavery, and are always thinking of the difference between pine-trunks (Ariel in the pine), and cowslip-bells (" in the cowslip-bell I lie"), or between carrying wood and drinking (Caliban's slarery and freedom), instead of noting
[* A pregnant paragraph, meant against English and Scotch landlords who drive their people off the land.]
[ $\dagger$ In Lucian's dialogue, " The sale of lives."]
the far more serious differences between Ariel and Caliban themselves，and the means by which，practically，that differ－ ence may be brought about or diminished．

134．＊Plato＇s slave，in the Polity，who，well dressed and washed，aspires to the liand of his master＇s danghter，corre－ sponds curiously to Caliban attacking Prospero＇s cell；and there is an undercurrent of meaning throughout，in the Tempest as well as in the Merchant of Tenice；referring in this case to govermment，as in that to commerce．Mirandat （＂the wonderful，＂so addressed first by Ferdinand，＂Olh， you wonder！＇＂）corresponds to Homer＇s Arete；Ariel and Caliban are respectively the spirits of faithful and imagina－ tive labor，opposed to rebellious，hurtful，and slavish labor． Prospero（＂for hope＂），a true governor，is opposed to Syco－
［＊I raise this analysis of the Tempest into my text；but it is nothing but a hurried note，which I may never have time to expand．I have retonched it here and there a little，however．］
$\dagger$ Of Shakespeares names I will afterrards speak at more length： they are curiously－often barbarously－much by Providence，－but as－ suredly not without Shakespeare＇s cumning purpose－mixed out of the various traditions he confusedly adopted．and languages which he im－ perfectly knew．Three of the clearest in meaning lave been already noticed，Desdemona，＂$\delta u$ ç $\delta u \mu o v i a, "$ ．miserable fortune，＂is also plain enough．Othello is，I believe，＂the careful；＂all the calamity of the tragedy arising from the single flaw and error in his magnificently col－ lected strength．Ophelia，＂serviceableness．＂the true lost wife of Ham－ let，is marked as liwing a Greek name by that of her brother，Laertes； and its signification is once exquisitely alluded to in that brother＇s last word of her．where her gentle precionsness is opposed to the useless－ ness of the churlish clergy－＂A ministering angel shall my sister be． when thon liest howling．＂Hamlet is，I believe，connected in some way with＂homely，＂the entire event of the tragedy turning on be－
 ＇Approficus．）Titania（rıipq），＂the queen；＂Benedict and Beatrice， ＂blessed and blessing ：＂Valentine and Proteus，enduring（or strong）， （valens），and changeful．Iago and Iachimo have evidently the same root－probably the Spanish Iago，Jacob，＂the supplanter．＂Leonatus， and other such names，are interpreted，or pliyed with，in the plays themselves．For the interpretation of Sycorax，and reference to her raven＇s feather，I am indebted to Mr．John R．Wise．
rax, the mother of slavery, lier name "Swine-raven" indicating at once brutality and deathfulness; hence the line-
"Aswicked dew as eer my mother brushed with raren's feather,"-etc.
For all these dreams of Shakespeare, as those of true and
 övт are. We hardly tell our children, willingly, a fable with no purport in it; yet we think God sends his best messengers only to sing fairy tales to us, fond and cmpty. The Tempest is just like a grotesque in a rich missal, "clasped where paynims pray." Ariel is the spirit of generous and freehearted service, in early stages of human society oppressed by ignorance and wild tyranny: venting groans as fast as millwheels strike; in shipwreck of states, dreadful; so that " all but mariners plunge in the brine, and quit the vessel, then all afire with me," yet having in itself the will and sweetness of truest peace, whence that is especially called "Aricl's" song, "Come unto these yellow sands, and there, take hands, courtesied when you have, and kissed, the wild wares whist:" (mind, it is "cortesia," not "curtsey,") and read " quiet" for "whist," if you want the full sense. Then you may indeed foot it featly, and sweet spirits bear the burden for you-with watel in the night, and call in early morning. The vis viva in elemental transformation follows-" Full fathom five thy father lies, of his bones are coral made." Then, giving rest after labor, it "fetches dew from the still vext Bermoöthes, and, with a charm joined to their suffered labor, leaves men asleep." Snatching away the feast of the eruel, it seems to them as a harpy; followed by the utterly vile, who cannot see it in any shape, but to whom it is the picture of nobody, it still gives shrill harmony to their false and mocking catch, "Thought is free; " but leads them into briars and foul places, and at last hollas the loonds upon them. Minister of fate against the great criminal, it joins itself with the "incensed seas and shores"-the sword that layeth at it cannot hold, and may "with bemocked-at stabs as soon
kill the still-closing waters, as diminish one dowle that is in its plume." As the guide and aid of true love, it is always called by Fruepero " fine" (the French " fine," not the English), or "delicate"-another long note would be needed to explain all the meaning in this word. Lastly, its work dune, and war, it resolves itself into the elements. The intense significance of the last song, "Where the bee sucks," I will examine in its due place.

The types of slavery in Caliban are more palpable, and need not be dwelt on now: though I will notice them also, severally, in their proper places;-the heart of his slavery i.s in his worship: "That's a brave god, and bears celestialliquor." But, in illustration of the sense in which the Latin "benignus" and "malignus" are to be coupled with Eleutheria and Douleia, note that Caliban's torment is always the physical reflection of his orn nature-" cramps" and "side stitches that shall pen the breath up; thou shalt be pinched, as thick as honeycombs: " the whole nature of slavery being one cramp and cretinous contraction. Faney this of Ariel! You may fetter him, but you set no mark on him ; you may put him to hard work and far journey, but you cannot give him a cramp.
135. I should dwell, even in these prefatory papers, at more length on this subject of slavery, had not all I would say been said already, in rain, (not, as I hope, ultimately in rain, ) by Carlyle, in the first of the Latter-day Pamphlets, which I commend to the reader's gravest reading; together with that as much neglected, and still more immediately needed, on model prisons, and with the great chapter on "Permanence" (fifth of the last section of "Past and Present "), which sums what is known, and foreshadows, or rather forelights, all that is to be learned of National Discipline. I have only here farther to examine the nature of one world-wide and everlasting form of slavery, wholesome in use, as deadly in abuse;-the service of the rich by the poor.

## CHAPTER VI.

MaSTERSHIP.
136. As in all previous discussions of our subject, we must study the relation of the commanding rich to the obeying poor in its simplest elements, in order to reach its first principles.

The simplest state of it, then, is this:* a wise and prorident person works much, consumes little, and lays by a store; an improvident person works little, consumes all his produce, and lays by no store. Accident interrupts the daily work, or renders it less productive; the idle person must then starve or be supported by the provident one, who, having him thus at his mercy, may either refuse to maintain him altogether, or, which will evidently be more to his own interest, say to him, "I will maintain you, indeed, but you shall now work hard, instead of indolently, and instead of being allowed to lay by what you save, as you might have done, had you remained independent, $I$ will take all the surplus. You would not lay it up for courself; it is wholly your own fault that has thrown you into my power, and I will force you to work, or starve; yet you shall have no profit of your work, only your daily bread for it; [and competition shall determine how much of that $\dagger$ ]." This mode of treatment has now

[^149]become so miversal that it is supposed to be the only natural -nay, the only possible one; and the market wages are calmly defined by economists as "the sum which will maintain the laborer."
137. The power of the provident person to do this is only cheeked by the correlative power of some neighbor of similarly frugal habits, who says to the laborer-" I will give you a little more than this other provident person: come and work for me."

The power of the provident over the improvident depends thus, prinarily, on their relative numbers; secondarily, on the modes of agrecment of the adverse parties with each other. The accidental level of wages is a variable function of the number of provident and idle persons in the world, of the enmity between them as classes, and of the agreement between those of the same class. It depends, from beginning to end, on moral conditions.
138. Supposing the rich to be entirely selfish, it is always for their interest that the poor should be as numerous as they can employ, and restrain. For, granting that the entire population is no larger than the gromd can easily maintain-that the classes are stringently divided-and that there is sense or strength of hand enough with the rich to sccure obedience; then, if nine-tenths of a nation are poor, the remaining tenth have the service of nine persons each;* but, if eight-tenths are poor, only of four each; if seven-tenths are poor, of two and a third each; if six-tenths are poor, of one and a half each; and if five-tenths are poor, of only one each. But, practically, if tho rich strive always to obtain more power orer the poor, instead of to raise them-and if, on the other hand, the poor become continually more vicious and numerous, through neglect and oppression,--though the range of

[^150]the power of the rich increases, its tenure becomes less secure; until, at last, the measure of iniquity being full, revolution, civil war, or the subjection of the state to a healthier or stronger one, closes the moral corruption, and industrial disease.*
139. It is rarelv, however, that things come to this extremity. Kind persons among the rich, and wise among the poor, modify the connection of the classes; the efforts made to raise and relieve on the one side, and the success of honest toil on the other, bind and blend the orders of society into the confused tissue of half-felt obligation, sullenly-rendered obedience, and rariously-directed, or misdirected, toil, which form the warp of daily life. But this great law rules all the wild design: that success (while society is guided by laws of competition) signifies always so much viclory over your neighbor as to obtain the direction of his work, and to take the profits of it. This is the real source of all great riches. No man can become largely rich by his personal toil. $\dagger$ The work of his own hands, wisely directed, will indeed always maintain himself and his family, and make fitting provision for his age. But it is only by the discovery of some method of taxing the labor of others that he can become opulent. Erery increase of his capital enables him to extend this taxation more widely; that is, to invest larger funds in the maintenance of laborers,-to direct, accordingly, vaster and yet vaster masses of labor, and to appropriate its profits.
140. There is much confusion of idea on the subject of this appropriation. It is, of course, the interest of the employer to disguise it from the persons employed ; and, for his own comfort and complacency, he often desires no less to disguise it from himself. And it is matter of much doubt with me, how far the foul and foolish arguments used habitu-
[* I have not altered a syllable in these three paragraphs, 137. 138, 139, on revision; but lave much italicized : the principles stated being as rital. as they are little known.]
$\dagger$ By his art he may; but only when its produce. or the sight or hearing of it, becomes a subject of dispute. so as to enable the artist to tax the labor of multitudes highly, in exchange for his own.
ally on this sulject are indeed the honest expression of foul and foolish convictions;-or rather (as I am sometimes forced to conclude from the irritation with which they are advanced) are resolutely dishonest, wilful, and malicious sophisms, arranged so as to mask, to the last moment, the real laws of economy, and future duties of men. By taking a simple example, and working it thoroughly out, the subject may be rescued from all but such determined misrepresentation.
141. Let us imagine a society of peasants, living on a river-shore, exposed to destructive inundation at somewhat extended intervals; and that each peasant possesses of this good, but imperiled, ground, more than he needs to cultirate for immediate subsistence. We will assume farther (and with too great probability of justice), that the greater part of them indolently keep in tillage just as much land as supplies them with daily food;-that they leare their children idle, and take no precautions against the rise of the stream. But one of them, (we will say but one, for the sake of greater clearness) cultivates carefully all the ground of his estate; makes his children work hard and healthily; uses his spare time and theirs in building a rampart against the river ; and, at the end of some years, has in his store-houses large reserves of food and clothing,-in his stables a well-tended breed of cattle, and around his fields a wedge of wall against flood.

The torrent rises at last-sweeps away the harrests, and half the cottages of the careless peasants, and leaves them destitute. They naturally come for help to the provident one, whose fields are unwasted, and whose granaries are full. He has the right to refuse it to them: no one disputes this right.* But he will probably not refuse it; it is not his interest to do so, even were he entirely selfish and cruel. The only question with him will be on what terms his aid is to be granted.

[^151]142. Clearly, not on terms of mere charity. To maintain his neighbors in idleness would be not only his ruin, but theirs. He will require work from them, in exchange for their maintenance ; and, whether in kindness or cruelty, all the work they can give. Not now the three or four hours they were wont to spend on their own land, but the eight or ten hours they ought to have spent.* But how will he apply this labor? The men are now his slaves; -nothing less, and nothing more. On pain of starvation, he can force them to work in the manner, and to the end, he chooses. And it is by his wisdom in this choice that the worthiness of his mastership is proved, or its unworthiness. Evidently, he must first set them to bank out the water in some temporary way, and to get their ground cleansed and resown; else, in any case, their continued maintenance will be impossible. That done, and while he has still to feed them, suppose he makes thein raise a secure rampart for their own ground against all future flood, and rebuild their houses in safer places, with the best material they can find; being allowed time out of their working hours to fetch such material from a distance. And for the food and clothing adranced, he takes security in land that as much shall be returned at a convenient period.
143. We may conceive this security to be redeemed, and the debt paid at the end of a few years. The prudent peasant has sustained no loss; but is no richer than he was, and has had all his trouble for nothing. But he has enriehed his neighbors materially; bettered their houses, secured their land, and rendered them, in worldly matters, equal to himself. In all rational and final sense, he has been throughout their true Lord and King.
144. We will next trace his probable line of conduct, presuming his object to be exclusively the increase of his orm fortune. After roughly recovering and cleansing the ground, he allows the ruined peasantry only to build huts upon it, such as he thinks protective enough from the weather

[^152]to keep them in working health. The rest of their time he occupies, first in pulling down, and rebuilding on a magnificent seale, his own honse, and in adding large dependencies to it. This done, in exchange for his contimed supply of corn, he buys as much of his neighbors' land as he thinks he can superintend the management of ; and makes the former owners securely cmbank and protect the ceded portion. By this arrangement, he leaves to a certain number of the peasantry only as much ground as will just maintain them in their existing numbers; as the population increases, he takes the extra hands, who cannot be maintained on the narrowed estates, for his orrn servants; employs some to cultivate the ground he has bought, giving them of its produce merely enough for subsistence; with the surplus, which, under his energetic and careful superintendence, will lee large, he maintains a train of servants for state, and a body of workmen, whom he educates in ornamental arts. He now ean splendidly decorate his honse, lay out its grounds magnificently, and richly supply his table, and that of his household and retinue. And thus, without any abuse of right, we should find established all the phenomena of poverty and riches, which (it is supposed necessarily) accompany modern civilization. In one part of the district, we should hare unhealthy land, miserable dwellings, and half-starved poor; in another, a well-ordered estate, well-fed servants, and refined conditions of highly-educated and luxurious life.
145. I have put the two cases in simplicity, and to some extremity. But though in more complex and qualified operation, all the relations of society are but the expansion of these two typical sequences of conduct and result. I do not say, obscrve, that the first procedure is entirely recommendable; or even entirely right; still less, that the second is wholly wrong. Servants, and artists, and splendor of habitation and retime, have all their use, propriety, and office. But I am determiner that the reader shall understand clearly what they cost; and see that the condition of haring them is the subjection to us of a certain number of imprudent or unfur-
tunate persons (or, it may be, more fortunate than their masters), over whose destinies we exercise a boundless control. "Riches" mean eternally and essentially this; and God send at last a time when those words of our best-reputed economist shall be true, and we shall indeed " all know what it is to be rich; "* that it is to be slave-master over farthest earth, and over all ways and thoughts of men. Every operative you employ is your true servant ; distant or near, subject to your immediate orders, or ministering to your widely-commmieated caprice,-for the pay he stipulates, or the price ho tempts,-all are alike under this great dominion of the gold. The milliner who makes the dress is as much a servant (moro so, in that she uses more intelligence in the service) as the maid who puts it on ; the carpenter who smooths the door, as the footman who opens it; the tradesmen who supply the table, as the laborers and sailors who supply the tradesmen. Why speak of these lower services? Painters and singer's (whether of note or rhyme), jesters and story-tellers, moralists, historians, priests,--so far as these, in any degree, paint, or sing, or tell their tale, or charm their charm, or "perform" their rite, for pay,-in so far, they are all slaves; abject utterly, if the service be for pay only; abject less and less in proportion to the degrees of lore and of wisdom which enter into their duty, or can enter into it, according as their function is to do the bidding and the work of a manly people; -or to amuse, tempt, and deceive, a childish one.
146. There is alwars, in sueh amusement and temptation, to a certain extent, a government of the rich by the poor, as of the poor by the rich; but the latter is the prevailing and necessary one, and it consists, when it is honorable, in the collection of the profits of labor from those who would have misused them, and the administration of those profits for the service either of the same persons in future, or of others; and when it is dishonorable, as is more frequently the ease in modern times, it consists in the collection of the profits of
labor from those who would have rightly used them，and their appropriation to the service of the collector himself．

147 ．The examination of these various modes of collec－ tion and use of riches will form the third branch of our future inquiries；but the key to the whole subject lies in the clear understanding of the difference between selfish and unselfish expenditure．It is not easy，by any course of reasouing，to enforce this on the generally unwilling hearer； yet the definition of unselfish expenditure is brief and simple． It is expenditure which，if you are a eapitalist，does not pay you，but pays somebody else；and if you are a consumer， does not please you，but pleases somebody else．Take one special instance，in further illustration of the general type given above．I did not invent that type，but spoke of a real river，and of real peasantry，the languid and sickly race which inhabits，or haunts－for they are often more like specters than living men－the thorny desolation of the banks of the Arre in Saroy．Some years ago，a society，formed at Genera，offered to embank the riser for the ground which would have been recorered by the operation ；but the offer was refused by the（then Sardinian）government．The capitalists saw that this expenditure would have＂paid＂if the ground sared from the river was to be theirs．But if，when the offer that had this aspect of profit was refused，they had neverthe－ less persisted in the plan，and merely taking security for the return of their outlay，lent the funds for the work，and thus sared a whole race of human souls from perishing in a pesti－ ferous fen（as，I presume，some among them would，at per－ sonal risk，hare dragged any one drowning creature out of the eurrent of the stream，and not expected payment therefor）， such expenditure would have precisely corresponded to the use of his power made，in the first instance，by our supposed richer．peasant－it would have been the king＇s，of grace，in－ stead of the usurer＇s，for gain．

148．＂Impossible，absurd，Utopian！＂exclaim nine－tenths of the few readers whom these words may find．

No，good reader，this is not Utopian：but I will tell you
what would have seemed, if we had not seen it, Utopian on the side of evil instead of good; that ever men should have come to value their money so much more than their lives, that if you call upon them to become soldiers, and take chance of a bullet through their heart, and of wife and children being left desolate, for their pride's sake, they will do it gaily, without thinking twice; but if you ask them, for their country's sake, to spend a hundred pounds without security of getting back a hundred-and-five,* they will laugh in your face.
149. Not but that also this game of life-giving and taking is, in the end, somewhat more costly than other forms of play might be. Riffe practice is, indeed, a not unhealthy pastime, and a feather on the top of the head is a pleasing appendage; but while learning the stops and fingering of the sweet instrument, does no one ever calculate the cost of an overture? What melody does Tityrus meditate on his tenderly spiral pipe? The leaden seed of it, broad-cast, true conical " Dents de Lion" seed-needing less allowance for the wind than is usual with that kind of herb-what crop are you likely to have of it? Suppose, instead of this volunteer marching and

[^153]counter-marching, you were to do a little volunteer plowing and counter-plowing! It is more difticult to do it straight: the dust of the earth, so disturbed, is more grateful than for merely rhythmic footsteps. Golden cups, also, given for good plowing, would be more suitable in color: (ruby glass, for the wine which "giveth his color" on the ground, might be fitter for the rifle prize in ladies' hands). Or, conceive a little volunteer exereise with the spade, other than such as is needed for moat and breastwork, or even for the burial of the fruit of the laden avena-seed, subject to the shrill Lemures' criticism-

## Wer hat das Haus so schlecht gebeaut?

If you were to embank Lincolnshire more stoutly against the sea? or strip the peat of Solway, or plant Plinlimmon moors with larch-then, in due season, some amateur reaping and threshing?
"Nay, we reap and thresh by steam, in these advanced days."

I know it, my wise and coonomical friends. The stout arms God gave you to win your bread by, you would fain shoot your neighbors, and God's sweet singers with;* then

[^154]Yes; it is better than well ; particularly since the seed sown by the wayside has been protected by the peculiar appropriation of part of the church-rates in our country parishes. See the remonstrance from a "Country Parson," in The Times of June 4th (or 5th; the letter is dated June 3rd), 1862 :-" I have heard at a restry meeting a good deal of higgling over a few shillings' outlay in cleaning the church; but I
sou invoke the fiends to your farm-serrice; and-
When young and old come forth to play
On a sulphurons holiday,
Tell how the darkling goblin sweat
(His feast of cinders duly set), And, belching night, where breathed the morn, His shadowy flail hath threshed the corn That ten day-laborers could not end.
150. Going back to the matter in hand we will press the example closer. On a green knoll above that plain of the Arre, between Cluse and Bonneville, there was, in the year 1S60, a cottage, inhabited by a well-doing family-man and wife, three children, and the grandmother. I call it a cottage, but in truth, it was a large chimner on the ground, wide at the bottom, so that the family might live round the fire; lighted by one small broken window, and entered by an unclosing door. The family, I say, was "well-cloing; " at least, it was hopeful and cheerful; the wife healthr, the children, for Saroyards, pretty and active, but the husband threatened with decline, from exposure under the cliffs of the Mont Vergi by day, and to draughts between every plank of his chimner in the frostr nights.
" Whes could he not plaster the chinks?" asks the practical reader. For the same reason that your child cannot wash its face and hands till you have washed them mans a day for it, and will not wasl them when it can, till you force it.
151. I passed this cottage often in my walks, had its window and door mended; sometimes mended also a little the meal of sour bread and broth, and generally got kind greeting and smile from the face of young or old; which greeting, this year, narrowed itself into the half-recognizing stare of the elder child, and the old woman's tears; for the father and
have never heard any dissatisfaction expressed on account of that part of the rate which is inrested in 50 or 100 dozens of birds' heads."
[If we could trace the innermost of all causes of modern war, I beliese it would be found, not in the ararice nor ambition of nations, but in the mere idleness of the upper classes. They have nothing to do but to teach the peasantry to kill each other.]
mother were both dead,-one of sickness, the other of sorrow. It happened that I passed not alone, lut with a companion, a practiced English joiner, who, while these people were dying of cold, had been employed from six in the morning to six in the evening, for two months, in fitting, without nails, the panels of a single door in a large house in London. Three days of his work taken, at the right time, from fastening the oak panels with useless precision, and applied to fasten the lareh timbers with decent strength, would have sared these Savoyards' lives. He would have been maintained equally ; (I suppose him equally paid for his work by the owner of the greater house, only the work not consumed selfishly on his own walls;) and the two peasants, and eventually, probably their children, saved.
152. There are, therefore,-let me finally enforce, and leave with the reader, this broad conclusion,-three things to be considered in employing any poor person. It is not enough to give him employment. You must employ him first to produce useful things; secondly, of the several (suppose equally useful) things he can equally well produce, you must set him to make that which will cause him to lead the healthiest life; lastly, of the things produced, it remains a question of wisdom and conseience how much you are to take yourself, and how much to leave to others. A large quantity, remember, unless you destroy it, must always be so left at one time or another; the only questions you have to decide are, not what you will gire, but when, and how, and to whom, you will give. The natural law of human life is, of comrse, that in jouth a man shall labor and lay by store for his old age, and when age eomes, shall.use what he has laid by, gradually slackening his toil, and allowing himself more frank use of his store; taking care always to leave himself as much as will surely suffice for him beyond any possible length of life. What he has gained, or by tranquil and unanxious toil continues to gain, more than is enongh for his own need, he ought so to administer, while he yet lives, as to see the good of it again beginning, in other hands; for
thus he has himself the greatest sum of pleasure from it, and faithfully uses his sagacity in its control. Whereas most men, it appears, dislike the sight of their fortunes going out into service again, and say to themselves, -" I can indeed nowise prevent this money from falling at last into the hands of others, nor hinder the good of it from becoming theirs, not mine; but at least let a merciful death save me from being a witness of their satisfaction; and may God so far be gracious to me as to let no good come of any of this money of mine bcfore my eyes."
153. Supposing this feeling unconquerable, the safest way of rationally indulging it would be for the capitalist at once to spend all his fortune on himself, which might actually, in many cases, be quite the rightest as well as the pleasantest thing to do, if he had just tastes and worthy passions. But, whether for himself only, or through the hands, and for the sake of others also, the law of wise life is, that the maker of the money should also be the spender of it, and spend it, approximately, all, before he dies; so that his true ambition as an cconomist should be, to die, not as rich, but as poor, as possible,* calculating the ebb tide of possession in true and calm proportion to the ebb tide of life. Which law, checking the wing of accumulative desire in the mid-volley, $\dagger$ and leading to peace of possession and fulness of fruition in old age, is also wholesome in that by the freedom of gift, together
[* See the Life of Fenelon. "The laboring peasantry were at all times the objects of his tenderest care; his palace at Cambray, with all his books and writings, being consumed by fire, he bore the misfortune with unruffled calmness, and said it was better his palace should be burnt than the cottage of a poor peasant." (These thoroughly good men always go too far, and lose their power over the mass.) He died exemplifying the mean he had always observed between prodigality and avarice, leaving neither debts nor money.]
 $\pi \lambda$ eic $^{\prime}$. "And thinking (wisely) that poverty consists not in making one's possessions less, but one's avarice more."-Lars, v. 8. Read the context, and compare. "He who spends for all that is noble, and gains by nothing but what is just, will hardly be notably wealthy, or distressfully poor."-Laws, v. 42.
with present help and counsel, it at once endears and dignifies age in the sight of youth, which then no longer strips the bodies of the dead, but receives the grace of the living. Its chief nse would (or will be, for men are indeed capable of attaining to this much use of their reason), that some temperance and measure will be put to the acquisitiveness of commerce.* For as things stand, a man holds it his duty to be temperate in his food, and of his body, but for no duty to be temperate in his riches, and of his mind. He sees that he ought not to waste his youth and his flesh for luxury; but he will waste his age, and his soml, for money, and think he does no wrong, nor know the delirium tremens of the intellect for disease. But the law of life is, that a man should fix the sum he desires to make annually, as the food he desires to eat daily; and stay when he has reached the limit, refusing increase of business, and leaving it to others, so obtaining due freedom of time for better thoughts. $\dagger$ How the gluttony of business is punished, a bill of health for the principals of the richest city houses, issued anmually, would show in a sufficiently impressive manner.
154. I know, of course, that these statements will be received by the modern merchant as an active border rider of the sixteenth century would have heard of its being proper for men of the Marches to get their living by the spade, instead of the spur. But my business is only to state veracities and necessities; I neither look for the acceptance of the one, nor hope for the nearness of the other. Near or distant, the day will assuredly come when the merchants of a state

[^155]shall be its true ministers of exchange, its porters, in the double sense of carriers and gate-keepers, bringing all lands into frank and faithful communication, and knowing for their master of guild, Hermes the herald, instead of Mercury the gain-guarder.
155. And now, finally, for immediate rule to all who will accept it.

The distress of any population means that they need food, house-room, clothes, and fuel. You can never, therefore, be wrong in employing any laborer to produce food, house-room, clothes, or fuel; but you are aluays wrong if sou employ him to produce nothing (for then some other laborer must be worked double time to feed him) ; and you are generally wrong, at present, if you employ him (unless he can do nothing else) to produce works of art or luxuries; because modern art is mostly on a false basis, and modern luxury is criminally great.*

[^156]156. The way to produce more food is mainly to bring in fresh ground, and increase facilities of carriage;-to break rock, exchange eartl, drain the moist, and water the dry, to mend roads, and build harbors of refuge. Taxation thus spent will annililate taxation, but spent in war, it annihilates revenue.
157. The way to produce honse-room is to apply your force first to the lumblest dwellings. When your bricklayers are out of employ, do not build splendid new streets, but better the old ones; send your pariors and slaters to the poorest villages, and see that your poor are healthily lodged, before you try your hand on stately architecture. You will find its stateliness rise better under the trowel afterwards; and we do not yet build so well that we need hasten to display our skill to future ages. Had the labor which has decorated the Houses of Parliament filled, instead, rents in walls and roof's throughout the county of Middlesex; and our deputies met to talk within massive walls that would have needed no stucco for five hundred years,-the decoration might have been better afterwards, and the talk now. And touching even our highly conscientions church building, it may be well to remember that in the best days of church plans, their masons called themselves "logeurs du bon Dicu;" and that since, according to the most trusted reports, God spends a good deal of His time in cottages as well as in churches, He might perhaps like to be a little better lodged there also.
158. The way to get more clothes is-not, necessarily, to get more cotton. There were words written twenty years ago* which would hare saved many of us some shivering, had they been minded in time. Shall we read them again?
"The Continental people, it would seem, are importing our machinery, beginning to spin cotton, and manufacture
[* (Pust and Present, Chap. IX. of Third Section.) To think that for these twenty-now twenty-six-years, this one voice of Carlyle's has been the only faithful and useful utterance in all England, and has sounded through all these years in vain! See Fors Cluvigera, Letter X.]
for themselves; to cut us out of this market, and then out of that! Sad news, indeed; but irremediable. By no means the saddest news-the saddest news, is that we should find our national existence, as I sometimes hear it said, depend on selling manufactured cotton at a farthing an ell cheaper than any other people. A most narrow stand for a great nation to base itself on! A stand which, with all the CornLaw abrogations conceivable, I do not think will be capable of enduring.
"My friends, suppose we quitted that stand; suppose we came honestly down from it and said-' This is our minimum of cotton prices; we care not, for the present, to make cotton any cheaper. Do you, if it seem so blessed to you, make cotton cheaper. Fill your lungs with cotton fur, your heart with copperas fumes, with rage and mutiny; become ye the general gnomes of Europe, slares of the lamp!' I admire a nation which fancies it will die if it do not undersell all other nations to the end of the world. Brothers, we will cease to undersell them; we will be content to equal-sell them ; to be happy selling equally with them! I do not see the use of underselling them: cotton-cloth is already twopence a yard, or lower; and yet bare backs were never more numerons among us. Let inventive men cease to spend their existence incessantly contriving how cotton can be made cheaper; and try to invent a little how cotton at its present cheapness could be somewhat justlier divided among us.
"Let inventive men consider-whether the secret of this universe does after all consist in making money. With a hell which means- 'failing to make money,' I do not think there is any hearen possible that would suit one well. In brief, all this Mammon gospel of supply-and-demand, competition, laissez faire, and devil take the hindmost" (foremost, is it not, rather, Mr. Carlyle ?), " begins to be one of the shabbiest gospels ever preached."
159. The way to produce more fuel* is first to make your
[* We don't want to produce more fuel just now, but much less; and to use what we get for cooking and warming ourselves, instead of for running from place to place.]
coal mines safer, by sinking more shafts; then set all your convicts to work in them, and if, as is to he hoped, you succeed in diminishing the supply of that sort of laborer, consider what means there may be, first, of growing forest where its growth will improve climate; secondly, of splintering the forests which now make continents of fruitful land pathless and poisonous, into fagots for fire; -so gaining at once dominion icewards and sumwards. Your steam power has been given (you will find eventually) for work such as that: and not for excursion trains, to give the laborer a moment's breath, at the peril of his breath for ever, from amidst the cities which it has crushed into masses of corruption. When you know how to build cities, and how to rule them, you will be able to breathe in their streets, and the "excursion" will be the afternoon's walk or game in the fields round them.
160. "But nothing of this work will pay?"

No; no more than it pays to dust your rooms, or wash your doorsteps. It will pay; not at first in curreney, but in that which is the end and the source of eurrencr,-in life; (and in currency richly afterwards). It will pay in that which is more than life,--in light, whose true price has not yet been reckoned in any currency, and yet into the image of which, all wealth, one way or other, must be cast. For your riches must either be as the lightning, which,

> Begot but in a cloud, Though shining briglt, and speaking lond, Whilst it begins, concludes its violent race ; And, where it gilds, it wounds the place;
or else, as the lightning of the sacred sign, which shines from one part of the heaven to the other. There is no other choice; you must either take dust for deity, specter for possession, fettered dream for life, and for epitaph, this reversed verse of the great Hebrew hymn of economy (Psalm cxii.):"He hath gathered together, he hath stripped the poor, his iniquity remaineth for ever: "-or else, having the sun of
justice to shine on you, and the sincere substance of good in your possession, and the pure law and liberty of life within you, leave men to write this better legend over your grave :-
"He hath dispersed abroad. He hath giren to the poor. His righteousness remaineth for ever."

## APPENDICES.

[I have brought together in these last pages a ferr notes, which were not properly to be incorporated with the text, and which, at the bottom of pages, cheeked the reader's attention to the main argument. They contain, howerer, several statements to which I wish to be able to refer, or have already referred, in other of my books, so that I think right to preserve them.]

## APPENDIX I.-(p. 4.)

The greatest of all cconomists are those most opposed to the doctrine of " laissez faire," namely, the fortifying virtues, which the wisest men of all time have arranged under the general heads of Prudence, or Discretion (the spirit which diseerns and adopts rightly) ; Justice (the spirit which rules and divides rightly); Fortitude (the spirit which persists and endures rightly) ; and Temperance (the spirit which stops and refuses rightly). These eardinal and sentinel rirtues are not only the means of protecting and prolonging life itself, but they are the chief guards, or sources, of the material means of life, and the governing powers and princes of economy. Thus, precisely aceording to the number of just men in a nation, is their power of avoiding either intestine or foreign war. All disputes mar be peaceably settled, if a sufficient number of persons have been trained to submit to the principles of justice, while the necessity for war is in direet ratio to the number of unjust persons who are incapable of determining a quarrel but by violence. Whether
the injustice take the form of the desire of dominion, or of refusal to submit to it, or of lust of territory, or lust of money, or of mere irregular passion and wanton will, the result is economically the same;-loss of the quantity of power and life consumed in repressing the injustice added to the material and moral destruction caused by the fact of war. The carly civil wars of England, and the existing* war in America, are curious examples-these under monarchical, this under republican, institutions-of the results on large masses of nations of the want of education in principles of justice. But the mere dread of distrust resulting from the want of the imner virtues of Faith and Charity prove often no less costly than war itself. The fear which France and England have of each other costs each nation about fifteen millions sterling annually, besides various paralyses of commerce; that sum being spent in the manufacture of means of destruction instead of means of production. There is no more reason in the nature of things that France and England should be hostile to each other than that England and Scotland should be, or Lancashire and Yorkshire; and the reciprocal terrors of the opposite sides of the English Channel are neither more necessary, more economical, nor more virtuous, than the old riding and reiving on the opposite flanks of the Cheviots, or than England's own weaving for herself of crowns of thorn, from the stems of her Red and White Roses.

## APPENDIX II.-(p. 17.)

Few passages of the book which at least some part of the nations at present most advanced in civilization accept as an expression of final truth, have been more distorted than those bearing on Idolatry. For the idolatry there denounced

[^157]is neither sculpture, nor reneration of sculpture. It is simply the substitution of an "Eidolon," phantasm, or imagination of Good, for that which is real and enduring; from the Highest Living Good, which gives life, to the lowest material good which ministers to it. The Creator, and the things created, which He is said to have "seen good" in creating, are in this their eternal goodness appointed always to be "worshipped,"-i. e., to have goodness and worth ascribed to them from the heart; and the sweep and range of idolatry extend to the rejection of anr or all of these, "calling evil good, and good eril,--putting bitter for sweet, and sweet for bitter." For in that rejection and substitution we betray the first of all Loyalties, to the fixed Law of life, and with resolute opposite loyalty serve our own imagination of good, which is the law, not of the House, but of the Grave (otherwise called the law of " mark missing," which we translate "law of Sin "); these "two masters," between whose services we have to choose, being otherwise distinguished as God and Mammon, which Mammon, though we narrowly take it as the power of money only, is in truth the great evil Spirit of false and fond dcsire, or "Covetousness, which is Idolatry." So that Iconoclasm-image-breaking-is easy; but an Idol cannot be broken-it must be forsaken; and this is not so easy, either to do, or persuade to doing. For men may readily be conrinced of the weakness of an image; but not of the emptiness of an imagination.

## APPENDIX III.-(p. 19.)

I have not attempted to support, by the authority of other writers, any of the statements made in these papers; indeed, if such authorities were rightly collected, there would be no occasion for my writing at all. Eren in the scattered passages referring to this subject in three books of Carlyle's-

[^158]Sartor Resartus, Past and Present, and the Latter Day Pamphlets,-all has been said that needs to be said, and far better than I shall ever say it again. But the habit of the public mind at present is to require everything to be uttered diffusely, loudly, and a hundred times over, before it will listen ; and it has revolted against these papers of mine as if they contained things daring and new, when there is not one assertion in them of which the truth has not been for ages known to the wisest, and proclaimed by the most eloquent of men. It would be [I had written will be; but have now reached a time of life for which there is but one mood-the conditional,] a far greater pleasure to me hereafter, to collect their words than to add to mine ; Horace's clear rendering of the substance of the passages in the text may be found room for at once,

> Si quis emat citharas, emptas comportet in unum
> Nec studio citharae, nee Musae deditus ulli;
> Si scalpra et formas non sutor, nautica vela
> Aversus mercaturis, delirus et amens
> Undique dicatur merito. Quî discrepat istis
> Qui nummos aurumque recondit, nescius uti
> Compositis; metuensque velut contingere sacrum?

[Which may be roughly thus translated:-
"Were anybody to buy fiddles, and collect a number, being in no wise given to fiddling, nor fond of music: or if, being no cobbler, he collected awls and lasts, or, having no mind for sea-adrenture, bought sails, every one would call him a madman, and deservedly. But what difference is there between such a man and one who lays by coins and gold, and does not know how to use, when he has got them?"]

With which it is perhaps desirable also to give Xenophon's statement, it being clearer than any English one can be, owing to the power of the general Greek term for wealth. "usable things."
[I have cut out the Greek because I can't be troubled
to correct the accents, and am always nervous about them; here it is in English, as well as I can do it :-
"This being so, it follows that things are only property to the man who knows how to use them; as flutes, for instance, are property to the man who can pipe upon them respectably; but to one who knows not how to pipe, they are no properts; unless he can get rid of them adrantageously. . . . For if they are not sold, the flutes are no property (being serviceable for nothing) ; but, sold, they become property. To which Socrates made answer, - 'and only then if he knows how to sell them, for if he sell them to another man who cannot play on them, still they are no property.' '"]

## APPENDIX IV.-(p. 22.)

The reader is to include here in the idea of "Government," any branch of the Executive, or eren any body of private persons, entrusted with the practical management of public interests uncomected directly with their own personal ones. In theoretical discussions of legislative interference with political economy, it is usually, and of course unnecessarily, assumed that Government must be always of that form and force in which we have been accustomed to see it;-that its abuses can never be less, nor its wisdom greater, nor its powers more numerous. But, practically, the custom in most civilized countries is, for every man to deprecate the interference of Government as long as things tell for his personal adrantage, and to call for it when they cease to do so. The request of the Manchester Economists to be supplied with cotton by Government (the system of supply and demand having, for the time, fallen sorrowfully short of the expectations of scientific persons from it), is an interesting case in point. It were to be wished that less wide and bitter suffering, suffering, too, of the innocent, had been needed to force the nation, or some part of it, to ask itself why a body of men,
already confessedly capable of managing matters both military and divine, should not be permitted, or even requested, at need, to provide in some wise for sustenance as well as for defense; and secure, if it might be,-(and it might, I think, even the rather be), -purity of bodily, as well as of spiritual, ailment? Why, having made many roads for the passage of armies, may they mot make a few for the conveyance of food; and after organizing, with applause, various schemes of theological instruction for the Public, organize, moreover, some methods of bodily nourishment for them? Or is the soul so much less trustworthy in its instincts than the stomach, that legislation is necessary for the one, but inapplicable to the other?

## APPENDIX Y.-(p. 58.)

I debated with myself whether to make the note on Homer longer by examining the typical meaning of the shipwreck of Ulysses, and his eseape from Charybdis by help of her figtree; but as I should have had to go on to the lovely myth of Lencothea's reil, and did not care to spoil this by a hurried account of it, I left it for future examination; and, three days after the paper was published, observed that the reviewers, with their customary helpfulness, were endeavoring to throw the whole subject back into confusion by dwelling on the single (as they imagined) oversight. I omitted also a note on the sense of the word hurpoi, with respect to the pharmacy of Circe, and herb-fields of Helen (compare its use in Odyssey, xvii., 473, etc.), which would farther have illustrated the nature of the Circean power. But, not to be led too fir into the subtleties of these myths, observe respecting them all, that eren in very simple parables, it is not always easy to attach indisputable meaning to every part of them. I recollect some years ago, throwing an assembly of learned persons who had met to delight themselves with interpretations of the parable of the prodigal son, (interpre-
tations which had up to that moment gone very smoothly), into mute indignation, by inadvertently asking who the unprodigal son was, and what was to be learned by his example. The leading divine of the company, Mr. Molyneux, at last explained to me that the unprodigal son was a lay figure, put in for dramatic effect, to make the story pretticer, and that no note was to be taken of him. Without, however, arlmitting that Homer put in the last escape of Ulysses merely to make his story prettier, this is nerertheless true of all Greek myths, that they have many opposite lights and shades; they are as changeful as opal, and like opal, usually have one color by reflected, and another by transmitted light. But they are true jewels for all that, and full of noble enchantment for those who can use them; for those who cannot, I am content to repeat the words I wrote four years ago, in the appendix to the Two Paths-
"The entire purpose of a great thinker may be difficult to fathom, and we may be over and orer again more or less mistaken in guessing at his meaning; but the real, profound, nay, quite bottomless and unredeemable mistake, is the fool's thought, that he had no meaning."

## APPENDIX VI.-(p. 6s.)

The derivation of words is like that of rivers; there is one real source, usually small, unlikely, and difficult to find, far up among the hills; then, as the word flows on and comes into service, it takes in the force of other words from other sources, and becomes quite another word-often much more than one word, after the junction-a word as it were of many waters, sometimes both sweet and bitter. Thus the whole force of our English "charity" depends on the guttural in " charis" getting confused with the c of the Latin " carus; " thenceforward throughont the middle ages, the two ideas ran on together, and both got confused with St. Paul's à $\dot{\text { a }}=\mathrm{r}$, ,
which expresses a different idea in all sorts of ways; our " charity" having not only brought in the entirely foreign sense of almsgiving, but lost the essential sense of contentment, and lost much more in getting too far away from the "charis" of the final gospel benedictions. For truly, it is fine Christianitr we have come to, which, professing to expect the perpetual grace or charity of its Founder, has not itself grace or charity enough to hinder it from orerreaching its friends in sixpenny barcains; and which, supplicating evening and morning the forgiveness of its own debts, goes forth at noon to take its fellow-servants by the throat, saying, not merely "Pay me that thou owest," but "Pay me that thon orrest me not."

It is true that we sometimes wear Ophelia's rue with a difference, and call it " Herb o' grace o' Sundays," taking consolation out of the offertory with-" Look, what he layeth out, it shall be paid him again." Comfortable words indeed, and good to set against the old royalty of Largesse-

> Whose moste joie was, I wis,
> When that she gave, and said, "Hare this."
[I am glad to end, for this time, with these lorely words of Chaucer. We have heard only too much lately of "Indiscriminate charite," with implied reproval, not of the Indiscrimination merely, but of the Charity also. We have partly succeeded in enforcing on the minds of the poor the idea that it is disgraceful to receive; and are likely, without much difficulty, to succeed in persuading not a few of the rich that it is disgraceful to give. But the political economy of a great state makes both giving and receiving graceful; and the political economy of true religion interprets the saying that " it is more blessed to give than to receive," not as the promise of reward in another life for mortified selfishness in this, but as pledge of bestowal upon us of that sweet and better nature, which does not mortify itself in giving.]

SESAME AND LILIES.

THREE LECTURES.

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## PREFACE.

1. Being now fifty-one years old, and little likely to change my mind hereafter on any important subject of thought (unless through weakness of age), I wish to publish a connected series of such parts of my works as now seem to me right, and likely to be of permanent use. In doing so I shall omit much, but not attempt to mend what I think worth reprinting. A young man necessarily writes otherwise than an old one, and it would be worse than wasted time to try to recast the jurenile language: nor is it to be thought that I am ashamed even of what I cancel; for great part of my earlier work was rapidly written for temporary purposes, and is now unnecessary, though true, even to truism. What I wrote about religion, was, on the contrary, painstaking, and, I think, forcible, as compared with most religious writing; especially in its frankness and fearlessness : but it was wholly mistaken : for I had been educated in the doctrines of a narrow sect, and had read history as obliquely as sectarians necessarily must.

Mingled among these either unnecessary or crroneons statements, I find, indeed, some that might be still of value; but these, in my earlier books, disfigured by affected language, partly through the desire to be thought a fine writer, and partly, as in the second rolume of 'Modern Painters,' in the notion of returning as far as I could to what I thought the better style of old English literature, especially to that of my then favorite, in prose, Richard Hooker.
2. For these reasons,-though, as arespects either art, policy, or morality, as distinct from religion, I not only still hold, but would even wish strongly to re-affirm the substance of what I said in my earliest books,-I shall reprint scarcely
anything in this series out of the first and second volumes of 'Modern Painters'; and shall omit much of the 'Seven Lamps' and 'Stones of Venice'; but all my books written within the last fifteen years will be republished without change, as new editions of them are called for, with here and there perhaps an additional note, and having their text divided, for convenient reference, into paragraphs, consecutive through each rolume. I shall also throw together the shorter fragments that bear on each other, and fill in with such umprinted lectures or studies as seem to me worth preserving, so as to keep the volumes, on an average, composed of about a hundred leaves each.
3. The first book of which a new edition is required chances to be 'Sesame and Lilies,' from which I now detach the whole preface, about the Alps, for use elsewhere; and to which I add a lecture given in Ireland on a subject closely connected with that of the book itself. I am glad that it should be the first of the complete series, for many reasons; though in now looking over these two lectures, I am painfully struck by the waste of good work in them. They cost me much thought, and much strong emotion; but it was foolish to suppose that I could rouse my audiences in a little while to any sympathy with the temper into which I had brought myself by years of thinking over subjects full of pain; while. if I missed my purpose at the time, it was little to be hoped I could attain it afterwards; since phrases written for oral delivery become ineffective when quietly read. Yet I should only take away what good is in them if I tried to translate them into the language of books; nor, indeed, could I at all have done so at the time of their delivery, my thoughts then habitually and impatiently putting themselves into forms fit only for emplatic speceh; and thus I am startled, in my review of them, to find that, though there is much, (forgive me the impertinence) which seems to me aceurately and energetically said, there is scarcely anything put in a form to be generally convincing, or even easily intelligible: and I can well imagine a reader laying down the book without being at
all moved by it, still less guided, to any definite course of action.

I think, however, if I now say briefly and clearly what I meant my hearers to understand, and what I wanted, and still would fain have, them to do, there may afterwards be found some better service in the passionately written text.
4. The first lecture says, or tries to say, that, life being very short, and the quiet hours of it few, we ought to waste none of them in reading valueless books; and that valuable books should, in a civilized country, be within the reach of every one, printed in excellent form, for a just price; but not in any vile, vulgar, or, by reason of smallness of type, physically injurious form, at a vile price. For we none of us need many books, and thoso which we need ought to be clearly printed, on the best paper, and strongly bound. And though we are, indeed, now, a wretched and poverty-struck nation, and hardly able to keep soul and body together, still, as $n o$ person in decent eireumstances would put on his table confessedly bad wine, or bad meat, without being ashamed, so he need not have on his shelves ill-printed or loosely and wretchedly-stitehed books; for though few ean be rieh, yet every man who honestly exerts himself may, I think, still provide, for himself and his family, good shoes, good gloves, strong harness for his cart or carriage horses, and stout leather binding for his books. And I would urge upon every young man, as the beginning of his due and wise provision for his household, to obtain as soon as he can, by the severest economy, a restricted, serviceable, and steadily-however slowly-increasing, series of books for use through life; making lis little library, of all the furniture in his room, the most studied and decorative piece; every volume having its assigned place, like a little statue in its niche, and one of the earliest and strietest lessons to the elildren of the house being how to turn the pages of their own literary possessions lightly and deliberately, with no chance of tearing or dog's ears.

That is my uotion of the founding of Kings' Treasuries; and the first lecture is intended to show somewhat the use and
precionsmess of their treasures: but the two following ones have wider scope, being written in the hope of awakening the fouth of England, so far as my poor words might have any power with them, to take some thought of the purposes of the life into which they are entering, and the nature of the world they have to conquer.
5. These two lectures are fragmentary and ill-arranged, but not, I think, diffuse or much compressible. The entire gist and conclusion of them, however, is in the last six paragraphs, 135 to the end, of the third lecture, which I would beg the reader to look orer not once nor twice, (rather than any other part of the book, for they contain the best expression I have yet been able to put in words of what, so far as is within my power, I mean henceforward both to do myself, and to plead with all over whom I have any influence, to do also according to their means: the letters begun on the first day of this year, to the workmen of England, having the object of originating, if possible, this movement among them, in true alliance with whaterer trustworthy element of help ther can find in the higher classes. After these paragraphs, let me ask you to read, by the fiery light of recent erents, the fable at p. 93 (§ 117), and then $\S \S 129-131$; and observe, my statement respecting the famine at Orissa is not rhetorical, but certified by official documents as within the truth. Five hundred thousand persons, at least, died by starvation in our British dominions, wholly in consequence of carelessness and want of forethought. Keep that well in your memory ; and note it as the best possible illustration of morlern political cconomy in true practice, and of the relations it has accomplished between Supply and Demand. Then begin the second lecture, and all will read clear enough, I think, to the end; only, since that second lecture was written, questions have arisen respecting the education and claims of women which have greatly troubled simple minds and excited restless ones. I am sometimes asked my thoughts on this matr ter, and I suppose that some girl readers of the second lec ture may at the end of it desire to be told summarily what I
would have them do and desire in the present state of things. This, then, is what I would say to any girl who had confidence enough in me to believe what I told her, or to do what I asked her.
6. First, be quite sure of one thing, that, however much you may know, and whatever advantages you may possess, and however good you may be, you have not been singled out, by the God who made you, from all the other girls in the world, to be especially informed respecting His own nature and character. You have not been born in a luminous point upon the surface of the globe, where a perfect theology might be expounded to you from your youth up, and where ererything you were taught would be true, and everything that was enforced upon you, right. Of all the insolent, all the foolish persuasions that by any chance could enter and hold your empty little heart, this is the prondest and foolishest,--that you have been so much the darling of the Heavens, and favorite of the Fates, as to be born in the very nick of time, and in the punctual place, when and where pure Divine truth had been sifted from the errors of the Nations; and that your papa had been providentially disposed to buy a honse in the convenient neighborhood of the steeple under which that Immaculate and final verity would be beautifully proclaimed. Do not think it, child; it is not so. This, on the contrary, is the fact,-umpleasant you may think it; pleasant, it seems to me,-that yon, with all your pretty dresses, and dainty looks, and kindly thoughts, and saintly aspirations, are not one whit more thought of or loved by the great Maker and Master than any poor little red, black, or blue savage, running wild in the pestilent woods, or naked on the hot sands of the earth: and that, of the two, you probably know less about God than she does; the only difference being that she thinks little of Him that is right, and you much that is wrong.

That, then, is the first thing to make sure of;--that you are not yet perfectly well informed on the most abstruse of
all possible subjects, and that if you care to behave with modesty or propriety, you had better be silent about it.
7. The second thing which you may make sure of is, that however good you may be, you have faults; that however dull you may be, you can find out what some of them are; and that however slight they may be, you had better make some -not too painful, but patient-effort to get quit of them. And so far as you have confidence in me at all, trust me for this, that how many soever you may find or fancy your faults to be, there are only two that are of real consequence,-Idleness and Cruelty. Perhaps you may be proud. Well, we can get much good out of pride, if only it be not religious. Perhaps you may be vain; it is highly probable; and very pleasant for the people who like to praise you. Perhaps you are a little envious: that is really very shocking; but thenso is everybody else. Perhaps, also, you are a little malicions, which I am truly concerned to hear, but should probably only the more, if I knew you, enjoy your conversation. But whatever else you may be, you must not be useless, and you must not be crucl. If there is any one point which, in six thousand years of thinking about right and wrong, wise and good men have agreed upon, or successively by experience discovered, it is that God dislikes idle and cruel people more than any others:-that His first order is, "Work while you have light; " and His second, "Be mereiful while you have merer."
8. "Work while you have light," especially while you lave the light of morning. There are few things more wonderful to me than that old people never tell young ones how precions their youth is. They sometimes sentimentally regret their own earlier days; sometimes pradently forget them; often foolishly rebuke the young, often more foolishly indulge, often most foolishly thwart and restrain; but searcely ever warn or wateh them. Remember, then, that $I$, at least, have warned you, that the happiness of your life, and its power, and its part and rank in earth or in heaven, depend on the way you pass your days now. They are not to be sad days:
far from that, the first duty of young people is to be delighted and delightful; but they are to be in the deepest sense solemn days. There is no solemnity so deep, to a rightly-thinking creature, as that of dawn. But not only in that beantiful sense, but in all their character and method, they are to be solemn days. Take your Latin dictionary, and look out "solennis," and fix the sense of the word well in your mind, and remember that every day of your early life is ordaining irrevocably, for good or evil, the custom and practice of your soul; ordaining either sacred customs of dear and lovely recurrence, or trenching deeper and deeper the furrows for seed of sorrow. Now, therefore, see that no day passes in which you do not make yourself a somewhat better creature: and in order to do that, find out, first, what you are now. Do not think vaguely about it; take pen and paper, and write down as accurate a description of yourself as you can, with the date to it. If you dare not do so, find out why you dare not, and try to get strength of heart enough to look yourself fairly in the face in mind as well as body. I do not doubt but that the mind is a less pleasant thing to look at than the face, and for that very reason it needs more looking at ; so always have two mirrors on your toilet table, and see that with proper care you dress borly and mind before them daily. After the dressing is once orer for the day, think no more about it: as your hair will blow about your cars, so your temper and thoughts will get ruffled with the day's work, and may need, sometimes, twice dressing; but I don't want you to carry about a mental pocket-comb; only to be smooth braided always in the morning.
9. Write down then, frankly, what you are, or, at least, what you think yourself, not dwelling upon those inevitable faults which I have just told you are of little consequence, and which the action of a right life will shake or smooth away; but that you may determine to the best of your intelligence what you are good for and can be made into. You will find that the mere resolve not to bo uscless, and the honest desire to help other people, will, in the quickest and
delicatest ways, improve yourself. Thus, from the beginning, consider all your accomplishments as means of assistance to others ; read attentively, in this volume, paragraphs $74,75,19$, and 79 , and you will understand what I mean, with respect to languages and music. In music especially you will soon find what personal benefit there is in being serriceable: it is probable that, however limited your powers, you have roice and ear enough to sustain a note of moderate compass in a concerted piece;-that, then, is the first thing to make sure you can do. Get your roice disciplined and clear, and think only of accuracy; never of effect or expression: if you have any soul worth expressing, it will show itself in your singing; but most likely there are very few feelings in you, at present, needing any particular expression; and the one thing you have to do is to make a clear-roiced little instrument of yourself, which other people can entirely depend upon for the note wanted. So, in drawing, as soon as you can sct down the right shape of anything, and thereby explain its character to another person, or make the look of it elear and interesting to a child, you will begin to enjoy the art rividly for its own sake, and all your habits of mind and potrers of memory will gain precision: but if you only try to make showy drawings for praise, or pretty ones for amusement, your drawing will have little of real interest for you, and no educational power whaterer.
10. Then, besides this more delicate work, resolve to do every day some that is useful in the rulgar sense. Learn first thoroughly the cconomy of the kitchen; the good and bad qualities of every common article of food, and the simplest and best modes of their preparation: when you have time, go and help in the cooking of poorer families, and show them how to make as much of everything as possible, and how to make little, nice; coaxing and tempting them into tidy and pretty ways, and pleading for well-folded table-cloths, however coarse, and for a flower or two out of the garden to strew on them. If you manage to get a clean table-cloth, bright plates on it, and a good dish in the middle, of your
own cooking, you may ask leare to say a short grace; and let your religious ministries be confined to that much for the present.
11. Again, let a certain part of your day (as little as you choose, but not to be broken in npon) be set apart for making strong and pretty dresses for the poor. Learn the sound qualities of all useful stuffs, and make everything of the best you can get, whatever its price. I have many reasons for desiring you to do this,-too many to be told just now, trust me, and be sure you get everything as good as can be: and if, in the villainous state of modern trade, you camot get it good at any price, buy its raw material, and set some of the poor women about you to spin and weare, till you have got stuff that can be trusted: and then, every day, make some little piece of useful clothing, sewn with your own fingers as strongly as it can be stitched; and embroider it or otherwise beautify it moderately with fine needlework, such as a girl may be proud of having done. And accumulate these things by you until you hear of some honest persons in need of clothing, which may often too sorrowfully be; and, even though you should be deceived, and give them to the dishonest, and hear of their being at once taken to the pawnbroker's, never mind that, for the pawnbroker must sell them to some one who has need of them. That is no business of yours; what concerns you is only that when you see a halfnaked child, you should have good and fresh clothes to give it, if its parents will let it be taught to wear them. If they will not, consider how they came to be of such a mind, which it will be wholesome for you beyond most subjects of inquiry to ascertain. And after you have gone on doing this a little while, you will begin to understand the meaning of at least one chapter of your Bible, Proverbs xxxi., without need of any labored comment, sermon, or meditation.

In these, then (and of course in all minor ways besides, that you can discover in your own household), you must be to the best of your strength usefully employed during the greater part of the day, so that you may be able at the end
of it to say, as proudly as any peasant, that you have not eaten the hread of idleness.
12. Then, secondly, I said, you are not to be cruel. Perhaps you think there is no chance of your being so; and indeed I hope it is not likely that you slould be deliberately moind to any ereature; but unless you are deliberately kind to every creature, you will often be cruel to mans. Crucl, partly through want of imagination, (a far rarer and weaker faculty in women than men,) and yet more, at the present day, through the subtle eneouragement of your selfishness by tho religious doctrine that all which we now suppose to be evil will be brought to a good end; doetrine practically issuing, not in less earnest efforts that the immerliate unpleasantness may be arerted from ourselves, but in our remaining satisfied in the contemplation of its ultimate objects, when it is inflicted on others.
13. It is not likely that the more accurate methods of recent mental education will now long permit young people to grow up in the persuasion that, in any danger or distress, they may expeet to be themselves saved by the Providence of God, while those around them are lost by His improvidence: but they may be yet long restrained from rightly kind action, and long accustomed to endure both their own pain occasionally, and the pain of others always, with an unwise patience, by misconception of the eternal and incurable nature of real evil. Observe, therefore, carefully in this matter; there are degrees of pain, as degrees of faultfulness, which are altogether eonquerable, and which seem to be merely forms of wholesome trial or discipline. Your fingers tingle when you go out on a frosty morning, and are all the warmer afterwards; your limbs are weary with wholesome work, and lie down in the pleasanter rest; you are tried for a little while by having to wait for some promised good, and it is all the sweeter when it comes. But you cannot carry the trial past a certain point. Let the cold fasten on pour hand in an extreme degree, and your fingers will molder from their sockets. Fatigue yourself, but once, to utter exhaustion, and
to the end of life you shall not recover the former vigor of your frame. Let heart-sickness pass beyond a certain bitter point, and the heart loses its life forerer.
14. Now, the very definition of evil is in this irremediableness. It means sorrow, or sin, which ends in death; and assuredly, as far as we know, or can conceive, there are many conditions both of pain and sin which cannot but so end. Of course we are ignorant and blind creatures, and we cannot know what seeds of good may be in present suffering, or present crime; but with what we cannot know we are not concerned. It is conceivable that murderers and liars may in some distant world be exalted into a higher hmmanity than they conld have reached withont homicide or falschood; but the contingency is not one by which our actions should be guided. There is, indeed, a better hope that the beggar, who lies at our gates in misery, may, within gates of pearl, be comforted; but the Master, whose words are our only authority for thinking so, never Ilimself inflicted disease as a blessing, nor sent away the hungry unfed, or the wounded unhealed.
15. Believe me then, the only right principle of action here, is to consider good and evil as defined by our natural sense of both; and to strive to promote the one, and to conquer the other, with as hearty endeavor as if there were, indeed, no other world than this. Above all, get quit of the absurd idea that Heaven will interfere to correct great errors, while allowing its laws to take their course in punishing small ones. If you prepare a dish of food carelessly, you do not expect Providence to make it palatable; neither if, through years of folly, you misguide your own life, need you expect Divine interference to bring round everything at last for the best. I tell you, positively, the world is not so constituted: the consequences of great mistakes are just as sure as those of small ones, and the happiness of your whole life, and of all the lives over which you have power, depend as literally on your own common sense and discretion as the excellence and order of the feast of a day.
16. Think carefully and bravely over these things, and you will find them true: having found them so, think also carefully over your own position in life. I assume that you belong to the middle or upper classes, and that you would shrink from descending into a lower sphere. You may fancy you would not : nay, if you are very good, strong-hearted, and romantic, perhaps you really would not; but it is not wrong that you should. You have, then, I suppose, good food, pretty rooms to live in, pretty dresses to wear, power of obtaining every rational and wholesome pleasure; you are, moreover, probably gentle and grateful, and in the habit of every day thanking God for these things. But why do you thank Him? Is it because, in these matters, as well as in your religious knowledge, you think He has made a favorite of you? Is the cssential meaning of your thanksgiving, "Lord, I thank Thee that I am not as other girls are, not in that I fast twice in the weck while they feast, but in that I feast scren times a weck while they fast," and are you quite sure this is a pleasing form of thanksgiving to your Heavenly Father? Suppose you saw one of your own true earthly sisters, Lucy or Emily, cast ont of your mortal father's house, starving, helpless, heartbroken ; and that every morning when you went into your father's room, you said to him, "How good you are, father, to give me what you don't give Lucs," are you sure that, whatever anger your parent might have just canse for, against your sister, he would be pleased by that thanksgiving, or flattered by that praise? Nay, are you even sure that you are so much the farorite?-suppose that, all this while, he loves poor Lucy just as well as you, and is only trying you through her pain, and perhaps not angry with her in anywise, but decply angry with you, and all the more for your thanksgivings? Would it not he well that you should think, and earnestly too, over this standing of yours; and all the more if you wish to believe that text, which clergymen so much dislike preaching on, "How hardly shall they that have riches enter into the Kingdom of God "? You do not believe it now, or you would be less complacent in your state;
and you cannot believe it at all, until you know that the Kingdom of God means,-" not meat and drink, but justice, peace, and joy in the Holy Ghost," nor until you know also that such joy is not by any means, necessarily, in going to church, or in singing hymns; but may be joy in a dance, or joy in a jest, or joy in anything you have deserved to possess, or that you are willing to give; but joy in nothing that separates you, as by any strange favor, from your fellow-creatures, that exalts you through their degradation-exempts you from their toil-or indulges you in time of their distress.
17. Think, then, and some day, I believe, you will feel also,-no morbid passion of pity such as would turn you into a black Sister of Charity, but the steady fire of perpetual kindness which will make you a bright one. I speak in no disparagement of them; I know well how good the Sisters of Charity are, and how much we owe to them; but all these professional pieties (except so far as distinction or association may be necessary for effectiveness of work) are in their spirit wrong, and in practice merely plaster the sores of disease that ought never to have been permitted to exist; encouraging at the same time the herd of less excellent women in frivolity, by leading them to think that they must cither be good up to the black standard, or cannot be good for anything. Wear a costume, by all means, if you like; but let it be a cheerful and becoming one; and be in your heart a Sister of Charity always, without either veiled or voluble declaration of it.
18. As I pause, before ending my preface-thinking of one or two more points that are difficult to write of-I find a letter in 'The Times,' from a French lady, which says all I want so beautifully, that I will print it just as it stands:-

Sir,-It is often said that one example is worth many sermons. Shall I be judged presumptuous if I point out one, which seems to me so striking just now, that, however painful, I cannot help dwelling upon it?
It is the share, the sad and large share, that French society and its recent habits of luxury, of expenses, of dress, of indulgence in every
kind of extravagant dissipation, has to lay to its own door in its actual crisis of ruin, misery, and humiliation. If our ménagères can be cited as an example to English housewives, so, alas! can other classes of our society be set up as an example-not to be followed.

Bitter must be the feelings of many a French woman whose days of luxury and expensire habits are at an end, and whose bills of lygone splendor lie with a heavy weight on her conscience, if not on her purse!

With us the evil has spread high and low. Everywhere have the examples given by the highest ladies in the land been followed but too successfully.

Every year did dress become more extravagant, entertainments more costly, expenses of every kind more considerable. Lower and lower became the tone of society, its gool breeding, its delicacy. More and more were monde and demi-monde associated in newspaper accounts of fashionable doings, in scandalons gossip, on raceconrses, in premières représentations, in imitation of each other's costumes, mobiliers and slang.

Living beyond one's means became habitual-almost necessary-for every one to keep up with, if not to go beyond, every one else.

What the result of all this has been we now see in the wreck of our prosperity, in the downfall of all that seemed brightest and highest.

Deeply and faarfully impressed by what my own country has incurred and is suffering. I cannot help feeling sorrowful when I see in England signs of our besetting sins appearing also. Paint and chignons, slang and vaudevilles, knowing "Anonymas" by name, and reading doubtfully moral novels, are in themselves small offences, althongh not many years ago they would have appeared very heinons ones, yet they are quick and tempting conveyances on a very dangerous high-road.

I would that all Englishwomen knew how they are looked up to from abroad-what a high opinion, what honor and reverence we foreigners have for their principles, their truthfulness, the fresh and pure innocence of their daughters, the healthy youthfulness of their lovely children.

May I illustrate this by a short example which happened very near me? During the days of the émeutes of 1848 , all the houses in Paris were being searched for firearms by the mob. The one I was living in contained none, as the master of the house repeatedly assured the furious and incredulous Republicans. They were going to lay violent hands on him when his wife, an English lady, hearing the loud discussion, came bravely forward and assured them that no arms were concealed. "Vous êtes anglaise, nous vous croyons; les anglaises disent toujours la vérité," was the immediate answer, and the rioters quietly left.
Now, Sir, shall I be accused of unjustified criticism if, loving and
admiring your country, as these lines will prore, certain new features strike me as painful discrepancies in English life?

Far be it from me to preach the contempt of all that can make life lovable and wholesomely pleasant. I luve nothing better than to see a woman nice, neat, elegant, looking her best in the prettiest dress that her taste and purse can afford, or your bright, fresh young girls fearlessly and perfectly sitting their horses, or adorning their houses as pretty [sic; it is not quite grammar, but it is better than if it were :] as care, trouble, and refinement can make them.

It is the degree beyond that which to us has proved so fatal, and that I would our example could warn you from as a small repayment for your hospitality and friendliness to us in our days of trouble.

May Englishwomen accept this in a kindly spirit as a New-year's wish from

A Freich Lady.
Dec. 29.
19. That, then, is the substance of what I would fain say convincingly, if it might be, to my girl friends; at all events with certainty in my own mind that I was thus far a safe guide to them.

For other and older readers it is needful I should write a few words more, respecting what opportunity I have had to julge, or right I have to speak, of such things; for, indeed, too much of what I have said about women has been said in faith only. I wise and lovely English lady told me, when 'Scsame and Lilies' first appeared, that she was sure the 'Sesame' would be useful, but that in the 'Lilies' I had been writing of what I knew nothing about. Which was in a measure too true, and also that it is more partial than my writings are usually: for as Ellesmere spoke his speech on the - interrention, not, indced, otherwise than he felt, but yet altogether for the sake of Gretchen, so I wrote the 'Lilics' to please one girl; and were it not for what I remember of her, and of few besides, should now perhaps recast some of the sentences in the 'Lilies' in a very different tone: for as years have gone by, it has chanced to me, untowardly in some respects, fortunately in others (becanse it enables me to read history more clearly), to see the utmost evil that is in women, while I have had but to be-
lieve the utmost good. The best women are indeed necessarily the most difficult to know; they are recognized chiefly in the happiness of their husbands and the nobleness of their children; they are only to be divined, not discerned, by tho stranger; and, sometimes, seem almost helpless exeept in their homes; yet without the help of one of them,* to whom this book is dedieated, the day would probably have come before now, when I should have written and thought no more.
20. On the other hand, the fashion of the time renders whatever is forwarl, coarse, or senseless, in feminine nature, too palpal)le to all men:-the weak pieturesqueness of my carlicr writings brought me acquainted with much of their emptiest enthusiasm; and the chances of later life gave me opportunities of watching women in states of degradation and vindictiveness which opened to me the gloomiest secrets of Greek and Syrian tragedy. I have scen them betray their household charities to lust, their pledged love to devotion ; I have seen mothers dutiful to their children, as Medea; and children dutiful to their parents, as the daughter of Herodias: but my trust is still ummoved in the preciousness of the natures that are so fatal in their error, and I leave the words of the 'Lilies' unchanged; believing, yet, that no man ever lived a right life who had not been chastened by a woman's love, strengthened by her courage, and guided by her discretion.
21. What I might myself have been, so helped, I rarely indulge in the idleness of thinking; but what I am, since I take on me the function of a teacher, it is well that the reader should know, as far as I can tell him.

Not an unjust person ; not an unkind one; not a false one; a lover of order, labor, and peace. That, it scems to me, is enough to give me right to say all I care to say on ethical sulijects; more, I could only tell definitely through details of autobiography such as none but prosperous and (in the simple sense of the word) faultless lives could justify ;-and

[^159]mine has been neither. Yet, if any one, skilled in reading the torn manuscripts of the human soul, cares for more intimate knowledge of me, he may have it by knowing with what persons in past history I have most sympathy.

I will name three.
In all that is strongest and deepest in me,-that fits me for my work, and gives light or shadow to my being, I have sympathy with Guido Guinicelli.

In my constant natural temper, and thoughts of things and of people, with Marmontel.

In my enforced and accidental temper, and thoughts of things and of people, with Dean Sirift.

Any one who can understand the natures of those three men, can understand mine; and having said so much, I am content to leare both life and work to be remembered or forgotten, as their uses may deserve.

Denmark Hill, 1st January, 1871.

## SESAME AND LILIES.

## LECTURE I.-SESAME.

of kings' treasuries.
"You shall each have a cake of sesame,-and ten pound."
Lucian : The Fisherman.

1. Mr first duty this erening is to ask your pardon for the ambiguity of title under which the subject of lecture has been announced: for indeed I am not going to talk of kings, known as regnant, nor of treasuries, understood to contain wealth; but of quite another order of royalty, and another material of riches, than those usually acknowledged. I had even intended to ask your attention for a little while on trust, and (as sometimes one eontrives, in taking a friend to see a favorite piece of seenery) to hide what I wanted most to show, with such imperfect cunning as I might, until we unexpectedly reached the best point of view by winding paths. But-and as also I have heard it said, by men practiced in publie address, that hearers are never so mueh fatigued as by the endeavor to follow a speaker who gives them no clue to his purpose,-I will take the slight mask off at once, and tell you plainly that I want to speak to you about the treasures hidden in books; and about the way we find them, and the way we lose them. A grave subject, you will say; and a wide one! Yes; so wide that I shall make no effort to touch the compass of it. I will try only to bring before you a few simple thoughts about reading, which press themselves upon me every day more deeply, as I watch the course of the
pullic mind with respect to our daily enlarging means of education; and the answeringly wider spreading on the levels, of the irrigation of literature.
2. It happens that I have practically some connection with schools for different classes of youth; and I receive many letters from parents respecting the education of their children. In the mass of these letters I am always struck by the precelence which the idea of a "position in life" takes abore all other thoughts in the parents'-more especially in the mothers'-minds. "The education befitting such and such a station in life "-this is the phrase, this the object, always. They never seek, as far as I can make out, an education good in itself; cren the conception of abstract rightness in training rarely seems reached by the writers. But, an education "which shall keep a good coat on my son's back; -which shall enable him to ring with confidence the visitors' bell at double-belled doors; which shall result ultimately in establishment of a double-belled door to his own honse;-in a word, which shall lead to adrancement in life;-this we pray for on bent knees-and this is all we pray for." It never seems to oceur to the parents that there may be an education which, in itself, is advancement in Life;--that any other than that may perhaps be adrancement in Death; and that this essential education might be more easily got, or given, than they fancy, if they set about it in the right way; while it is for no price, and by no favor, to be got, if they set about it in the wrong.
3. Indeed, among the ideas most prevalent and effective in the mind of this busiest of countries, I suppose the first -at least that which is confessed with the greatest frankness, and put forward as the fittest stimulus to youthful exertion -is this of "Adrancement in life." May I ask you to consider with me, what this idea practically includes, and what it should include?

Practically, then, at present, "advancement in life" means, becoming conspicuous in life; obtaining a position which shall be acknowledged by others to be respectable or
honorable. We do not understand by this advancement, in general, the mere making of money, but the being known to have made it; not the accomplishment of any great aim, but the being seen to have accomplished it. In a word, we mean the gratification of our thirst for applause. That thirst, if the last infirmity of noble minds, is also the first infirmity of weak ones; and, on the whole, the strongest impulsive influence of average humanity: the greatest efforts of the race have always been traceable to the love of praise, as its greatest catastrophes to the love of pleasure.
4. I am not about to attack or defend this impulse. I want you only to fcel how it lies at the root of effort ; especially of all modern effort. It is the gratification of ranity which is, with us, the stimulus of toil and balm of repose; so closely does it touch the rery springs of life that the wrounding of our ranity is always spoken of (and truly) as in its measure mortal; we call it "mortification," using the same expression which we should apply to a gangrenous and incurable bodily hurt. Aid although a fers of us may be physicians enough to recognize the rarious effect of this passion upou health and energy, I beliere most honest men know, and would at once acknowledge, its leading power with them as a motive. The seaman does not commonly desire to be made captain only because he knows he can manage the ship better than any other sailor on board. He wants to be made captain that he may be called captain. The clergyman does not usually want to be made a bishop only because he belieres that no other hand can, as firmly as his, direet the diocese through its difficulties. He wants to be made bishop primarily that he may be called " My Lord." And a prince does not usually desire to enlarge, or a subject to gain, a kingdom, because he believes no one else can as well serve the State, upon its throne ; but, briefly, because he wishes to be addressed as "Your Majesty," by as many lips as may be brought to such utterance.
5. This, then, being the main idea of "adrancement in life," the force of it applies, for all of us, according to our
station, particularly to that secondary result of such adrancement which we call "getting into good society." We want to get into good society, not that we may have it, but that we may be seen in it; and our notion of its goodness depends primarily on its conspicuonsness.

Will you pardon me if I pause for a moment to put what I fear you may think an impertinent question? I never can go on with an address unless I feel, or know, that my audience are either with me or against me: I do not much care which, in beginning; but I must know where they are; and I would fain find out, at this instant, whether you think I am putting the motives of popular action too low. I am resolved, to-night, to state them low enough to be admitted as probable; for whenever, in my writings on Political Economy, I assume that a little honesty, or generosity,-or what used to be called "virtue,"-may be calculated upon as a human motive of action, people always answer me, saying, "You must not calculate on that: that is not in human nature: you must not assume anything to be common to men but acquisitiveness and jealousy; no other feeling ever has influence on them, except accidentally, and in matters out of the way of business." I begin, accordingly, to-night low in the seale of motives; but I must know if you think me right in doing so. Therefore, let me ask those who admit the love of praise to be usually the strongest motive in men's minds in seeking adrancement, and the lonest desire of doing any kind of duty to be an entirely secondary one, to hold up their hands. (About a dozen hands held up-the audience, partly, not being sure the lecturer is serious, and, partly, shy of expressing opinion.) I am quite serious-I really do want to know what you think; however, I can judge by putting the reverse question. Will those who think that duty is generally the first, and lore of praise the second, motive, hold up their hands? (One hand reported to have been held up behind the lecturer.) Very good: I see you are with me, and that you think I have not begun too near the ground. Now, without teasing you by putting farther question, I venture to assume
that you will admit duty as at least a secondary or tertiary motive. You think that the desire of doing something useful, or obtaining some real good, is indeed an existent collateral idea, though a secondary one, in most men's desire of adrancement. You will grant that moderately honest men desire place and office, at least in some measure for the sake of beneficent power ; and would wish to associate rather with sensible and well-informed persons than with fools and ignorant persons, whether they are seen in the company of the sensible ones or not. And finally, without being troubled by repetition of any common truisms about the preciousness of friends, and the influence of companions, you will admit, doubtless, that according to the sincerity of our desire that our friends may be true, and our companions wise,-and in proportion to the earnestness and discretion with which we choose both,-will be the general chances of our happiness and usefulness.
6. But, granting that we had both the will and the sense to choose our friends well, how few of us have the power! or, at least, how limited, for most, is the sphere of choice! Nearly all our associations are determined by chance or necessity; and restricted within a narrow cirele. We cannot know whom we would; and those whom we know, we cannot hare at our side when we most need them. All the higher circles of human intelligence are, to those beneath, only momentarily and partially open. We may, by good fortune, obtain a glimpse of a great poet, and hear the sound of his roice; or put a question to a man of science, and be answered good-humoredly. We may intrude ten minutes' talk on a eabinet minister, answered probably with words worse than silence, being deceptive; or snatch, once or twice in our lives, the privilege of throwing a bouquet in the path of a princess, or arresting the kind glance of a queen. And yet these momentary chances we covet ; and spend our years, and passions, and porrers, in pursuit of little more than these; while, meantime, there is a society continually open to us, of people who will talk to us as long as we like, whatever our rank or
occupation ;-talk to us in the best words they ean choose, and of the things nearest their hearts. And this society, beeause it is so numerous and so gentle, and can be kept waiting round us all day long,-kings and statesmen lingering patiently, not to grant audience, but to gain it !-in those plainly furnished and narrow ante-rooms, our bookease shelves,-we make no account of that company,-perhaps never listen to a word they would say, all day long!
7. You may tell me, perhaps, or think within yourselves, that the apathy with which we regard this company of the noble, who are praying us to listen to them; and the passion with which we pursue the company, probably of the ignoble, who despise us, or who have nothing to teach us, are grounded in this, -that we ean see the faces of the living men, and it is themselves, and not their sayings, with which we desire to become familiar. But it is not so. Suppose you never were to see their faces;-suppose you could be put behind a screen in the statesman's cabinet, or the prince's chamber, would you not be glad to listen to their words, though you were forbidden to advance beyond the screen? And when the screen is only a little less, folded in two instead of four, and you can be hidden behind the cover of the two boards that bind a book, and listen all day long, not to the casual talk, but to the studied, determined, chosen addresses of the wisest of men ;-this station of audience, and honorable privy council, you despise !
S. But perhaps you will say that it is becanse the living people talk of things that are passing, and are of immerliate interest to you, that you desire to hear them. Nay; that cannot be so, for the living people will themselves tell you about passing matters much better in their writings than in their eareless talk. Yet I admit that this motive does influence you, so far as you prefer those rapid and ephemeral writings to slow and enduring writings-books, properly so called. For all books are divisible into two classes, the books of the hour, and the books of all time. Mark this distinc-tion-it is not one of quality only. It is not merely the bad
book that does not last, and the good one that does. It is a distinction of species. There are good books for the hour, and good ones for all time; bad books for the hour, and bad ones for all time. I must define the two kinds before I go farther.
9. The good book of the hour, then,-I do not speak of the bad ones,-is simply the uscfiul or pleasant talk of some person whom you cannot otherwise converse with, printed for you. Very useful often, telling you what you need to know; very pleasant often, as a sensible friend's present talk would be. These bright accounts of travels; good-humored and witty discussions of question ; lively or pathetic story-telling in the form of novel; firm fact-telling, by the real agents concerned in the events of passing history;-all these books of the hour, multiplying among us as education becomes more general, are a peculiar possession of the present age: we ought to be entirely thankful for them, and entirely ashamed of ourselves if we make no good use of them. But we make the worst possible use if we allow them to usurp the place of true books: for, strictly speaking, they are not books at all, but merely letters or newspapers in good print. Our friend's letter may be delightful, or necessary, to-day: whether worth keeping or not, is to be considered. The newspaper may be entirely proper at breakfast time, but assuredly it is not reading for all day. So, though bound up in a volume, the long letter which gives you so pleasant an account of the inns, and roads, and weather, last year at such a place, or which tells you that amusing story, or gives you the real circumstances of such and such events, however valuable for oceasional reference, may not be, in the real sense of the word, a "book" at all, nor, in the real sense, to be "read." A book is essentially not a talking thing, but a written thing; and written, not with a view of mere communication, but of permanence. The book of talk is printed only because its author cannot speak to thousands of people at once; if he could, he would -the volume is mere multiplication of his voice. You cannot talk to your friend in India; if you could, you would;

You write instead: that is mere conveyance of voice. But a book is written, not to multiply the voice merely, not to carry it merely, but to perpetuate it. The anthor has something to say which he perceives to be true and useful, or helpfully beautiful. So far as he knows, no one has yet said it; so far as he knows, no one else can say it. He is bound to say it, clearly and melodiously if he may; clearly at all events. In the sum of his life he finds this to be the thing, or group of things, manifest to him ;-this, the piece of true knowledge, or sight, which his share of sunshine and earth has permitted him to scize. He would fain set it down forever ; engrave it on rock, if he could; saying, "This is the best of me; for the rest, I ate, and drank, and slept, loved, and hated, like another; my life was as the vapor, and is not ; but this I saw and knew: this, if anything of mine, is worth your memorr." That is his "writing; " it is, in his small human war, and with whatever degree of true inspiration is in him, his inscription, or scripture. That is a "Book."
10. Perhaps you think no books were ever so written?

But, again, I ask you, do you at all believe in honesty, or at all in kindness, or do you think there is nerer any honesty or benevolence in wise people? None of us, I hope, are so unhappy as to think that. Well, whaterer bit of a wise man's work is honestly and benevolently done, that bit is his book or his piece of art.* It is mixed always with evil fragments-ill-done, redundant, affected work. But if you read rightly, you will easily discover the true bits, and those are the book.
11. Now books of this kind have been written in all ages by their greatest men:-by great readers, great statesmen, and great thinkers. These are all at your choice; and Life is short. You have heard as much before-yet have rou measured and mapped out this short life and its possibilities? Do you know, if you read this, that you cannot read that-that what you lose to-day you cannot gain to-morrow?

[^160]Will you go and gossip with your honsemaid, or your stableboy, when you may talk with queens and kings; or flatter yourself that it is with any worthy conscionsness of your own claims to respect, that you jostle with the hungry and common crowd for entree here, and audience there, when all the while this eternal court is open to you, with its society, wide as the world, multitudinous as its days, the chosen, and the mighty, of every place and time? Into that you may enter always; in that you may take fellowship and rank according to your wish; from that, once entered into it, you can never be outcast but by your own fault; by your aristocracy of companionship there, your own inherent aristocracy will be assuredly tested, and the motives with which you strive to take high place in the socicty of the living, measured, as to all the truth and sincerity that are in them, by the place you desire to take in this company of the Dead.
12. "The place you desire," and the place you fit yourself for, I must also say; because, observe, this court of the past differs from all living aristocracy in this:-it is open to labor and to merit, but to nothing else. No wealth will bribe, no name overawe, no artifice deceive, the guardian of those Elysian gates. In the deep sense, no vile or vulgar person ever enters there. At the portières of that silent Faubourg St. Germain, there is but brief question:-" Do you deserve to enter? Pass. Do you ask to be the companion of nobles? Make yourself noble, and you shall be. Do you long for the conversation of the wise? Learn to understand it, and you shall hear it. But on other terms?no. If you will not rise to us, we cannot stoop to you. The living lord may assume courtesy, the living philosopher explain his thought to you with considerate pain; but here we neither feign nor interpret; you must rise to the level of our thoughts if you would be gladdened ly them, and share our feelings, if you would recognize our presence."
13. This, then, is what you have to do, and I admit that it is much. You must, in a word, love these people, if you are to be among them. No ambition is of any use. They
scorn your ambition. You must love them, and show your lore in these two following ways.
(1) First, by a true desire to be taught by them, and to enter into their thoughts. To enter into theirs, observe; not to find your own expressed by them. If the person who wrote the book is not wiser than you, you need not read it; if he be, he will think differently from you in many respects.
(2) Yery ready we are to say of a book, "How good this is-that's exactly what I think!" But the right feeling is, "Hlow strange that is! I never thonght of that before, and yet I see it is true; or if I lo not now, I hope I shall, some day:" But whether thus submissively or not, at least be sure that you go to the author to get at his meaning, not to find yours. Judge it afterwards if you think yourself qualified to do so; but ascertain it first. And be sure, also, if the anthor is worth anything, that you will not get at his meaning all at once;-nay, that at his whole meaning you will not for a long time arrive in any wise. Not that he docs not say what he means, and in strong words too; but he cannot say it all; and what is more strange, will not, but in a hidden way and in parables, in order that he may be sure you want it. I cannot quite see the reason of this, nor analyze that crucl reticence in the breasts of wise men which makes them always hide their deeper thought. They do not give it you by way of help, but of reward; and will make themselves sure that you deserve it before they allow you to reach it. But it is the same with the physical type of wisdom, gold. There seems, to you and me, no reason why the electric forces of the earth should not carry whatever there is of gold within it at once to the mountain tops, so that kings and people might know that all the gold they could get was there; and without any trouble of digging, or anxicty, or chance, or waste of time, cut it away, and coin as much as they needed. But Nature does not manage it so. She puts it in little fissures in the earth, nobody knows where: you may dig long and find none; you must dig painfully to find any.
14. And it is just the same with men's best wisdom. When you come to a good book, you must ask yourself, "Am I inclined to work as an Australian miner would? Are my pickaxes and shovels in good order, and am I in good trim myself, my sleeves well up to the elbow, and my breath good, and my temper?" And, keeping the figure a little longer, even at cost of tiresomeness, for it is a thoroughly useful one, the metal you are in search of being the author's mind or meaning, his words are as the rock which you have to crush and smelt in order to get at it. And your pickaxes are your own care, wit, and learning; your smelting furnace is your own thoughtful soul. Do not hope to get at any good author's meaning without those tools and that fire; often you will need sharpest, finest chiseling, and patientest fusing, before you can gather one grain of the metal.
15. And, therefore, first of all, I tell you earnestly and authoritatively (I know I am right in this), you must get into the habit of looking intensely at words, and assuring yourself of their meaning, syllable by syllable-nay, letter by letter. For though it is only by reason of the opposition of letters in the function of signs, to sounds in the function of signs, that the study of books is called " literature," and that a man versed in it is called, by the consent of nations, a man of letters instead of a man of books, or of words, you may yet connect with that accidental nomenclature this real fact:-that you might read all the books in the British Museum (if you could live long enough), and remain an utterly "illiterate," uneducated person; but that if you read ten pages of a good book, letter by letter,-that is to say, with real accuracy,-you are for evermore in some measure an educated person. The entire difference between education and non-education (as regards the merely intellectual part of it), consists in this accuracy. A well-educated gentleman may not know many languages, -may not be able to speak any but his own,-may have read very few books. But whatever language he knows, he knows precisely; whatever word he pronounces, he pronounces rightly; above all, he is
learned in the pecrage of words; knows the words of true deseent and ancient bloorl, at a glanee, from words of modern canaille; remembers all their ancestry, their intermarriages, distant relationships, and the extent to which they were admitted, and offices they held, among the national noblesse of words at any time, and in any country. But an unedueated person may know, by memory, many languages, and talk them all, and yet truly know not a word of any,-not a word even of his own. An ordinarily clever and sensible seaman will be able to make his way ashore at most ports; yet he has only to speak a sentence of any language to be known for an illiterate person : so also the accent, or turn of expression of a single sentence, will at onec mark a scholar. And this is so strongly felt, so conclusively admitted, by educated persons, that a false accent or a mistaken syllable is enough, in the parliament of any civilized nation, to assign to a man a certain degree of inferior standing forerer.
16. And this is right; but it is a pity that the accuracy insisted on is not greater, and required to a serions purpose. It is right that a false Latin quantity should cxcite a smile in the House of Commons; but it is wrong that a falso English meaning should not excite a frown there. Let the accent of words be watched; and closely: let their meaning be watched more closely still, and fewer will do the work. A few words well chosen, and distinguished, will do work that a thousand cannot, when every one is acting, equirocally, in the function of another. Yes; and words, if they are not watched, will do deadly work sometimes. There are masked words droning and skulking about us in Europe just now, -(there never were so many, owing to the spread of a shallow, blotching, blundering, infections "information," or rather deformation, everywhere, and to the teaching of catechisms and phrases at school instead of human meanings) there are masked words abroad, I say, which nobody understands, but which cycrrbody uses, and most people will also fight for, live for, or even die for, fanering they mean this or that, or the other, of things dear to them; for such words
wear ehameleon eloaks-" ground-lion" cloaks, of the color of the ground of any man's fancy: on that ground they lie in wait, and rend them with a spring from it. There never were creatures of prey so mischierons, never diplomatists so cunning, never poisoners so deadly, as these masked words; they are the unjust stewards of all men's ideas: whatever fancy or favorite instinct a man most cherishes, he gives to his farorite masked word to take care of for him; the word at last comes to have an infinite power over him, -you cannot get at him but by its ministry.
17. And in languages so mongrel in breed as the English, there is a fatal power of equirocation put into men's hands, almost whether they will or no, in being able to use Greek or Latin words for an idea when they want it to be awful; and Saxon or otherwise common words when they want it to be vulgar. What a singular and salutary effect, for instance, would be produced on the minds of people who are in the habit of taking the Form of the "Word" they live by, for the Power of which that Word tells them, if we always either retained, or refused, the Greek form "biblos," or "biblion," as the right expression for "book "-instead of employing it only in the one instance in which we wish to give dignity to the idea, and translating it into English everywhere else. How wholesome it would be for many simple persons if, in such places (for instance) as Acts xix. 19, we retained the Greek expression, instead of translating it, and they had to read-" Many of them also which used curious arts, brought their bibles together, and burnt them before all men; and they counted the price of them, and found it fifty thousand pieces of silver"! Or if, on the other hand, we translated where we retain it, and always spoke of "The Holy Book," instead of "Holy Bible," it might come into more heads than it does at present, that the Word of God, by which the hearens were, of old, and by which they are now kept in store,* cannot be made a present of to anybody in morocco binding; nor sown on any wayside by help either of steam

[^161]plow or steam press; but is nevertheless being offered to us daily, and lyy us with contumely refused; and sown in us daily, and by us, as instantly as may be, choked.
18. So, again, consider what effect has been produced on the English vulgar mind by the use of the sonorous Latin form " lamno," in translating the Greck xaraxpeiv, when people charitably wish to make it forcible; and the substitution of the temperate " condemn" for it, when they choose to keep it gentle; and what notable sermons have been preached loy illiterate elergymen on-" He that believeth not shall be damned; " though they would shrink with horror from translating IIeb. xi. 7, " The saving of his house, by which he damued the world," or John viii. 10-11, " Woman, hath no man dammed thee? She saith, No man, Lord. Jesus answered her, Neither do I damn thee: go and sin no more." And divisions in the mind of Europe, which have cost seas of blood, and in the defence of which the noblest souls of men have been east away in frantic desolation, comntless as forest-leaves-thongh, in the heart of them, founded on deeper causes-hare nevertheless been rendered practically possible, mainly, by the Enropean adoption of the Greek word for a public meeting, "ecclesia," to give peculiar respectability to such meetings, when held for religious purposes; and other collateral equivocations, such as the vulgar English one of using the word " priest" as a contraction for " presbyter."
19. Now, in order to deal with words rightly, this is the habit you must form. Nearly every word in your language has been first a word of some other language-of Saxon, German, French, Latin, or Greek; (not to speak of eastern and primitive dialects). And many words have been all these-that is to say, have been Greek first, Latin next, French or German next, and English last: undergoing a certain change of sense and use on the lips of each nation; but retaining a deep vital meaning, which all good scholars feel in employing them, even at this day. If you do not know the Greck alphabet, learn it; young or old-girl or boy-whoever you may be, if you think of reading seriously
(which, of course, implies that you have some leisure sit command), learn your Greek alphabet; then get good dictionaries of all these languages, and whenever you are in doubt about a word, hunt it down patiently. Read Max Miiller's lectures thoroughly, to begin with; and, after that, never let a word escape you that looks suspicions. It is severe work; but you will find it, even at first, interesting, and at last endlessly amusing. And the general gain to your character, in power and precision, will be quite incalculable.

Mind, this does not imply knowing, or trying to know, Greek or Latin, or French. It takes a whole life to learn any language perfectly. But you can easily ascertain the meanings through which the English word has passed ; and those which in a good writer's work it must still bear.
20. And now, merely for example's sake, I will, with your permission, read a few lines of a true book with you, carefully; and see what will come out of them. I will take a book perfectly known to you all. No English words are more familiar to us, yet few perhaps have been read with less sincerity. I will take these few following lines of Lycidas:-

> "Last came, and last did go,
> The pilot of the Galilean lake.
> Two massy keys he bore of metals twain,
> (The golden opes, the iron shuts amain,)
> He shook his mitered locks, and stern bespake,
> 'How well could I have spared for thee, young swain,
> Enow of such as for their bellies' sake
> Creep, and intrude, and climb into the fold!
> Of other care they little reckoning make,
> Than how to scramble at the shearers' feast,
> And shove array the worthy bidden guest;
> Blind mouths! that scarce themselves know how to hold
> A sheep-hook, or have learn'd aught else, the least
> That to the faithful herdman's art belongs!
> What recks it them? What need they? They are sped;
> And when they list, their lean and flashy songs
> Grate on their scrannel pipes of wretched straw;
> The hungry sheep look up, and are not fed,

> But, swoln with wind, and the rank mist they draw, Rot inwardly. and foul contagion spread;
> Besides what the grim wolf with privy paw
> Daily devours apace, and nothing said.'"

Let us think over this passage, and examine its words.
First, is it not singular to find Milton assigning to St. Peter, not only his full episcopal function, but the very types of it which Protestants usually refuse most passionately? His "mitered" locks! Milton was no Bishop-lover; how comes St. Peter to be "mitered"? "Two massy lieys he bore." Is this, then, the power of the kers claimed by the Bishops of Rome? and is it acknowledged here by Milton only in a poctical license, for the sake of its picturesqueness, that he may get the gleam of the golden kevs to help his effect?

Do not think it. Great men do not play stage tricks with the doctrines of life and death: only little men do that. Milton means what he says; and means it with his might too-is going to put the whole strength of his spirit presently into the saying of it. For though not a lover of false bishops, he was a lover of true ones; and the Lake-pilot is here, in his thoughts, the type and head of true episcopal power. For Milton reads that text, "I will give unto thee the keys of the kingdom of heaven," quite honestly. Puritan though he be, he would not blot it out of the book because there have been bad bishops; nay, in order to understand him, we must understand that rerse first; it will not do to eye it askance, or whisper it under our breath, as if it were a weapon of an adverse sect. It is a solemn, universal assertion, decply to be kept in mind by all sects. But perhaps we shall be better able to reason on it if we go on a little farther, and come back to it. For clearly this marked insistence on the power of the true episcopate is to make us feel more weightily what is to be charged against the false claimants of episcopate ; or generally, against false elaimants of power and rank in the body of the elergy; they who, "for their bellies' sake, creep, and intrude, and climb into the fold."
21. Nerer think Milton uses those three words to fill up his rerse, as a loose writer would. He needs all the three;-especially those three, and no more than those-" creep," and "intrude," and "climb;" no other works would or could serve the turn, and no more could be added. For they exhaustively comprehend the three classes, correspondent to the three characters, of men who dishonestly seek ecclesiastical power. First, those who " creep" into the fold; who do not care for office, nor name, but for secret influence, and do all things occultly and cumningly, consenting to any servility of office or conduct, so only that they may intimately discern, and unawares direct, the minds of men. Then those who "intrude" (thrust, that is) themselves into the fold, who by natural insolence of heart, and stout eloquence of tongue, and fearlessly perseverant self-assertion, obtain hearing and authority with the common crowd. Lastly, those who "climb," who, by labor and learming, both stout and sound, but selfishly exerted in the cause of their own ambition, gain high dignities and authorities, and become" lords over the heritage," though not " ensamples to the flock."
22. Now go on:-
"Of other care they little reckoning make, Than how to scramble at the shearers' feast. Blind mouths-"

I pause again, for this is a strange expression; a broken metaphor, one might think, careless and unscholarly.

Not so: its rery audacity and pithiness are intended to make us look close at the phrase and remember it. Those two monosyllables express the precisely accurate contraries of right character, in the two great offices of the Church-those of bishop and pastor.

A " Bishop" means " a person who sees."
A "Pastor" means " a person who feeds."
The most unbishoply character a man can have is therefore to be Blind.

The most unpastoral is, instead of feeding, to want to be fed,-to be a Mouth.

Take the two reverses together, and you have "blind mouths." We may adrisably follow ont this idea a little. Nearly all the evils in the Church have arisen from bishops desiring power more than light. They want authority, not outlook. Whereas their real office is not to rule; though it may be vigorously to exhort and rebuke: it is the king's office to rule; the bishop's office is to oversec the flock; to number it, sheep ly sheep; to be ready always to give full account of it. Now it is clear lie cannot give account of the souls, if he has not so much as numbered the bodies, of his flock. The first thing, therefore, that a bishop has to do is at least to put himself in a position in which, at any moment, he can obtain the history, from childhood, of every living soul in his diocese, and of its present state. Down in that back street, Bill, and Nancy, knocking each other's teeth out!-Does the bishop know all about it? Has he his eye upon them? Has he had his eye upon them? Can he circumstantially explain to 11 how Bill got into the habit of beating Nancy about the head? If he cannot, he is no bishop, though he had a miter as high as Salisbury steeple; he is no bishop,-he has sought to be at the helm instead of the masthead; he has no sight of things. "Nay," you say, "it is not his duty to look after Bill in the back street." What! the fat sheep that have full fleeces-you think it is only those he should look after while (go back to your Milton) " the hungry sheep look up, and are not fed, besides what the grim wolf, with privy paw" (bishops knowing nothing about it), " daily devours apace, and nothing said"?
"But that's not our idea of a bishop."" Perhaps not; but it was St. Paul's; and it was Milton's. They may be right, or we may be; but we must not think we are reading cither one or the other by putting our meaning into their words.
23. I go on.
"But swoln with wind, and the rank mist they draw."
This is to meet the vulgar answer that "if the poor are

[^162]not looked after in their bodies, they are in their souls; they have spiritual food."

And Milton says, "They have no such thing as spiritual food; they are only swollen with wind." At first you may think that is a coarse type, and an obscure one. But again, it is a quite literally accurate one. Take up your Latin and Greek dictionaries, and find ont the meaning of "Spirit." It is only a contraction of the Latin word "breath," and an indistinct translation of the Greek word for "wind." The same word is used in writing, "The wind bloweth where it listeth;" and in writing, "So is every one that is born of the Spirit; " born of the breath, that is; for it means the breath of God, in soul and body. We have the true sense of it in our words "inspiration" and "expire." Now, there are two kinds of breath with which the flock may be filled,God's breath, and man's. The breath of God is health, and life, and peace to them, as the air of hearen is to the flocks on the hills; but man's breath-the word which he calls spirit-ual,-is disease and contagion to them, as the fog of the fen. They rot inwardly with it; they are puffed up by it, as a dead body by the rapors of its own decomposition. This is literally true of all false religious teaching; the first and last, and fatalest sign of it, is that "puffing up." Your conrerted children, who teach their parents; jour converted convicts, who teach honest men; your converted dunces, who, haring lived in cretinous stupefaction half their lives, suddenly awaking to the fact of there being a God, fancy themselves therefore His peculiar people and messengers; your sectarians of every species, small and great, Catholic or Protestant, of high church or low, in so far as they think themselves exclusively in the right and others wrong; and, pre-eminently, in every sect, those who hold that men can be sared by thinking rightly instead of doing rightly, by word instead of act, and wish instead of work; -these are the true fog children-clouds, these, without water ; bodies, these, of putrescent vapor and skin, without blood or flesh; blown bag-
pipes for the fiends to pipe with-corrupt, and corrupting, "Swollen with wind, and the rank mist they draw."

24 . Lastly, let us return to the lines respecting the power of the keys, for now we can muderstand them. Note the difference between Milton and Dante in their interpretation of this power: for onec, the latter is weaker in thought; he supposes both the keys to be of the gate of heaven ; one is of gold, the other of silver: they are given by St. Peter to the sentinel angel; and it is not easy to determine the meaning either of the substances of the three steps of the gate, or of the two keys. But Milton makes one, of gold, the key of hearen; the other, of iron, the key of the prison in which the wicked teachers are to be bound who "hare taken away the key of knowledge, yet entered not in themselves."

We have scen that the duties of bishop and pastor are to see, and feed; and of all who do so it is said, "He that watereth, shall be watered also himself." But the reverse is truth also. He that watereth not, shall be withered himself; and he that secth not, shall himself be shut ont of sightshut into the perpetual prison-house. And that prison opens here, as well as hereafter: he who is to be bound in heaven must first be bound on earth. That command to the strong angels, of which the rock-apostle is the image, " Take him, and bind him hand and foot, and cast him ont," issues, in its measure, against the teacher, for every help withheld, and for every truth refused, and for every falsehood enforced; so that he is more strictly fettered the more he fetters, and farther outeast as he more and more misleads, till at last the bars of the iron cage close upon him, and as " the golden opes, the iron shuts amain."
2.:. We have got something out of the lines, I think, and much more is yet to be found in them; but we have done enough by way of example of the kind of word-byword examination of your author which is rightly called "reading;" watching every accent and expression, and putting oursclves always in the author's place, annihilating our own personality, and seeking to enter into his, so as to
be able assuredly to say, "Thus Milton thought," not " Thus $I$ thought, in mis-reading Milton." And by this process you will gradually come to attach less weight to your own "Thus I thought" at other times. You will begin to perceive that what you thought was a matter of no serious importance;that your thoughts on any subject are not perhaps the clearest and wisest that could be arrived at thereupon:-in fact, that unless you are a rery singular person, you cannof be said to have any "thoughts" at all; that you have no materials for them, in any serious matters ;"-no right to "think," but only to try to learn more of the facts. Nay, most probably all your life (unless, as I said, you are a singular person) you will have no legitimate right to an "opinion" on any business, except that instantly under your hand. What must of necessity be done, you can always find out, beyond question, how to do. Have you a house to keep in order, a commodity to sell, a field to plow, a ditch to cleanse? There need be no two opinions about these proceedings; it is at your peril if you have not much more than an "opinion" on the way to manage such matters. And also, outside of your own business, there are one or two subjects on which you are bound to have but one opinion. That roguery and lying are objectionable, and are instantly to be flogged out of the way whencerer discovered; -that envetousness and love of quarreling are dangerous dispositions even in children, and deadly dispositions in men and nations;-that, in the end, the God of heaven and earth loves active, modest, and kind people, and hates idlc, proud, greedy, and cruel ones;-on these general facts you are bound to have but one, and that a very strong, opinion. For the rest, respecting religions, governments, sciences, arts, you will find that, on the whole, you can know nothing,--judge nothing; that the best you can do, even though you may be a well-edueated person, is to be silent, and strive to be wiser every day, and to understand

[^163]a little more of the thoughts of others, which so soon as you try to do honestly, you will discorer that the thonghts even of the wisest are very little more than pertinent questions. To put the difficulty into a clear shape, and exhibit to you the grounds for indecision, that is all they can generally do for you!-and well for them and for us, if indeed they are able "to mix the music with our thoughts and sadden us with hearenly doulbts." This writer, from whom I have been reading to rout, is not among the first or wisest: he sees slrewdly as far as he sees, and therefore it is casy to find out its full meaning; but with the greater men, you cannot fathom their meaning; they do not even wholly measure it them-selves,-it is so wide. Suppose I had asked you, for instance, to seek for Shakespeare's opinion, instead of Milton's, on this matter of Chureh authority ?-or for Dante's? Have any of yon, at this instant, the least iclea what either thought about it? Have yon ever balanced the scene with the bishops in 'Richard III.' against the character of Crammer? the description of St. Francis and St. Dominic against that of him who made Virgil wonder to gaze upon him,-" disteso, tanto vilmente, nell' eterno esilio; " or of him whom Dante stood beside, "come 'l frate che confessa lo perfido assassin"?" Shakespeare and Alighieri knew men better than most of us, I presume! They were both in the midst of the main struggle between the temporal and spinitual powers. They had an opinion, we may guess. But where is it ? Bring it into court! Put Shakespeare's or Dante's creed into articles, and send it up for trial by the Ecclesiastical Courts !
26. You will not be able, I tell you again, for many and many a day, to come at the real purposes and teaching of these great men; but a very little honest study of them will enable you to perceive that what you took for your own " judgment" was mere chance prejudice, and drifted, helpless, entangled weed of castaway thought; nay, you will see that most men's minds are indeed little better than rough

[^164]heath wilderness, neglected and stubborn, partly barren, partly overgrown with pestilent brakes, and venomous, windsown herbage of evil surmise ; that the first thing you have to do for them, and yourself, is eagerly and scornfully to set fire to this; burn all the jungle into wholesome ash-heaps, and then plow and sow. All the true literary work before you, for life, must begin with obedience to that order, "Break up your fallow ground, and sow not among thorns."
27. (II.*) Having then faithfully listened to the great teachers, that you may enter into their Thoughts, you have yet this higher adrance to make;-you hare to enter into their Hearts. As you go to them first for clear sight, so you must stay with them, that you may share at last their just and mighty Passion. Passion, or "sensation." I am not afraid of the word; still less of the thing. You have heard many outcries against sensation lately; but, I can tell you, it is not less sensation we want, but more. The ennobling difference between one man and another,-between one animal and another,-is precisely in this, that one feels more than another. If we were sponges, perhaps sensation might not be easily got for us; if we were earth-worms, liable at every instant to be cut in two by the spade, perhaps too much sensation might not be good for us. But being human creatures, it is good for us; nar, we are only human in so far as we are sensitive, and our honor is precisely in proportion to our passion.
28. You know I said of that great and pure society of the Dead, that it would allow " no vain or rulgar person to enter there." What do you think I meant by a "rulgar" person? What do you yourselres mean by "rulgarity" ? You will find it a fruitful subject of thought; but, briefly, the essence of all rulgarity lies in want of sensation. Simple and innocent vulgarity is merely an untrained and undeveloped bluntness of body and mind; but in true inbred rulgarity, there is a dreadful callousness, which, in extremity, becomes capable of every sort of bestial habit and crime, without fear,

[^165]without pleasure, without horror, and without pity. It is in the blunt hand and the dead heart, in the diseased habit, in the hardened conseience, that men become vulgar; they are for ever vulgar, precisely in proportion as they are incapable of sympathy,-of quick understanding, -of all that, in deep insistence on the common, but most accurate term, may be called the " tact" or "touch-faculty," of body and soul: that tact which the Mimosa has in trees, which the pure woman has above all ereatures ; - fineness and fulness of sensation, beyond reason ;-the guide and sanctifier of reason itself. Reason can but determine what is true:-it is the God-given passion of humanity which alone can recognize what God has made good.
29. We come then to that great concourse of the Dearl, not merely to know from them what is True, but chiefly to feel with them what is just. Now, to feel with them, we must be like them ; and none of us can become that without pains. As the true knowledge is disciplined and tested knowledge,not the first thought that comes, so the true passion is disciplined and tested passion,-not the first passion that comes. The first that come are the vain, the false, the treacherous; if you yield to then they will lead you wildly and far, in vain pursuit, in hollow enthusiasm, till you have no true purpose and $n o$ true passion left. Not that any feeling possible to humanity is in itself wrong, but only wrong when undisciplined. Its nobility is in its force and justice; it is wrong when it is weak, and felt for paltry canse. There is a mean wonder, as of a child who sces a juggler tossing golden balls; and this is base, if you will. But do you think that the wonder is ignoble, or the sensation less, with which every human soul is called to watch the golden balls of hearen tossed through the night by the Hand that made them? There is a mean curiosity, as of a child opening a forbidden door, or a servant prying into her master's business;-and a noble curiosity, questioning, in the front of danger, the source of the great river beyond the sand,- the place of the great continents beyond the sea;-a nobler curiosity still, which
questions of the source of the River of Life, and of the space of the Continent of Hearen,--things which "the angels desire to look into." So the anxiety is ignoble, with which you linger over the course and catastrophe of an idle tale; but do you think the anxiety is less, or greater, with which you watch, or ought to watch, the dealings of fate and destiny with the life of an agonized nation? Alas! it is the narrowness, selfishness, minuteness, of your sensation that you hare to deplore in England at this day;-sensation which spends itself in bouquets and speeches: in revelings and junketings; in sham fights and gay puppet shows, while you can look on and see noble nations murdered, man by man, without an effort or a tear.
30. I said " minuteness" and "selfishness" of sensation, but it would have been enough to have said "injustice" or "unrighteousness" of sensation. For as in nothing is a gentleman better to be discerned from a mulgar person, so in nothing is a gentle nation (such nations have been) better to be discerned from a mob, than in this, - that their feelings are constant and just, results of due contemplation, and of equal thought. You can talk a mob into anything; its feelings may be-usually are - on the whole, generous and right ; but it has no foundation for them, no hold of them; you may tease or tickle it into any, at your pleasure; it thinks by infection, for the most part, catching an opinion like a cold, and there is nothing so little that it will not roar itself wild about, when the fit is on ;-nothing so great but it will forget in an hour, when the fit is past. But a gentleman's, or a gentle nation's, passions are just, measured, and continuous. A great nation, for instance, does not spend its entire national wits for a couple of months in weighing evidence of a single ruffian's having done a single murder; and for a couple of years see its own children murder each other by their thousands or tens of thousands a day, considering only what the effect is likely to be on the price of cotton, and caring no wise to determine which side of battle is in the wrong. Neither does a great nation send its poor little boys to jail
for stealing six walnuts; and allow its bankrupts to steal their hundreds of thousands with a bow, and its bankers, rich with poor men's savings, to elose their doors "under" circumstances over which they have no control," with a "by your leave; " and large landed estates to be bought by men who have made their money by going with armed steamers up and down the China Seas, selling opiunn at the eamon's mouth, and altering, for the benefit of the foreign nation, the common highwayman's demand of "your moncy or your life," into that of "your money and your life." Neither does a great nation allow the lives of its innocent poor to be parched out of them by fog ferer, and rotted out of them by dunghill plague, for the sake of sixpence a life extra per week to its landlords; * and then debate, with driveling tears, and diabolical sympathies, whether it ought not piously to save, and nursingly cherish, the lives of its murderers. Also, a great nation having made up its mind that hanging is quite the wholesomest process for its homicides in general, can get with mercy distinguish between the degrees of guilt in homicides; and does not yelp like a pack of frost-pinched wolf-culs on the blood-track of an unhappy crazed boy, or gray-haired clodpate Othello, "perplexed i' the extreme," at the very moment that it is sending a Minister of the Crown to make polite speeches to a man who is bayoneting young girls in their father's sight, and killing noble youths in cool blood, faster than a country butcher kills lambs in spring. And, lastly, a great nation does not mock Hearen and its Powers, by pretending belief in a revelation which asserts the love of money to be the root of all evil, and declaring, at the same time, that it is actuated, and intends to be actuated, in all chief national deeds and measures, by no other love.
31. My friends, I do not know why any of us should talk about reading. We want some sharper discipline than that of reading; but, at all events, be assured, we cannot read. No

[^166]reading is possible for a people with its mind in this state. No sentence of any great writer is intelligible to them. It is simply and sternly impossible for the English public, at this moment, to understand any thoughtful writing,--so incapable of thought has it become in its insanity of avarice. Happily, our disease is, as yet, little worse than this incapacity of thought; it is not corruption of the inner nature; we ring true still, when anything strikes home to us; and though the idea that everything should "pay" has infected our every purpose so decply, that even when we would play the good Samaritan, we never take out our two pence and give them to the host, without saying, "When I come again, thou shalt give me fourpence," there is a capacity of noble passion left in our hearts' core. We show it in our work-in our war, -even in those mujust domestic affections which make us furious at a small private wrong, while we are polite to a boundless public one: we are still industrious to the last hour of the day, though we add the gambler's fury to the laborer's patience; we are still brave to the death, thongh incapable of discerning true cause for battle; and are still true in affection to our own flesh, to the death, as the seamonsters are, and the rock-eagles. And there is hope for a nation while this can be still said of it. As long as it holds its life in its hand, ready to give it for its honor (though a foolish honor), for its love (though a selfish love), and for its business (though a base business), there is hope for it. But hope only; for this instinctive, reckless virtue cannot last. No nation can last, which has made a mob of itself, however generous at heart. It must discipline its passions, and direct them, or they will discipline $i t$, one day, with scorpion whips. Above all, a nation cannot last as a money-making mob: it cannot with impunity,-it camot with existence,--go on despising literature, despising science, despising art, despising nature, despising compassion, and concentrating its soul on Pence. Do you think these are harsh or wild words? Have patience with me but a little longer. I will prove their truth to you, clause by clause.
32. (I.) I say first we have despised literature. What do we, as a nation, care about books? ILow much do you think we spend altogether on our libraries, public or private, as compared with what we spend on our horses? If a man spends lavishly on his library, you call him mad-a bibliomaniac. But you never call any one a horsemaniac, though men ruin themselves every day by their horses, and you do not hear of people ruining themselves by their books. Or, to go lower still, how much do you think the contents of the book-shelves of the Cnited Kingdom, public and private, would fetch, as compared with the contents of its winecellars? What position would its expenditure on literature take, as compared with its expenditure on luxurious eating? W'e talk of food for the mind, as of food for the body: now a good book contains such fool inexhaustibly; it is a provision for life, and for the best part of us; yet how long most people would look at the best book before they would give the price of a large turbot for it? Though there have been men who have pinched their stomachs and bared their baeks to buy a book, whose libraries were cheaper to them, I think, in the end, than most men's diuners are. We are few of us put to such trial, and more the pity; for, indect, a precious thing is all the more precious to us if it has been won by work or economy; and if public libraries were half so costly as public dinners, or books cost the tenth part of what bracelets do, eren foolish men and women might sometimes suspect there was good in reading, as well as in munching and sparkling: whereas the very cheapness of literature is making even wise people forget that if a book is worth reading, it is worth baying. No book is worth anything which is not worth much; nor is it serviceable, until it has been read, and re-read, and loved, and loved again; and markerl, so that you ean refer to the passages you want in it, as a soldier can seize the weapon he needs in an armory, or a honsewife bring the spice she needs from her store. Bread of flour is good; but there is bread, sweet as honey, if we would eat it, in a good book; and the family must be poor indeed, which, once in
their lives, cannot, for such multipliable barley loares, pay their baker's bill. We call ourselves a rich nation, and we are filthy and foolish enough to thumb each other's books out of circulating libraries!
33. (II.) I say we have despised science. "W'hat!" you exclaim, " are we not foremost in all discovery," and is not the whole world giddy by reason, or unreason, of our inventions?" Yes; but do you suppose that is national work? That work is all done in spite of the nation; by private people's zeal and money. We are glad enough, indeed, to make our profit of science; we smap up anything in the way of a scientific bone that has meat on it, eagerly enough; but if the scientific man comes for a bone or a crust to $u s$, that is another story. What have we publicly done for science? We are obliged to know what o'clock it is, for the safety of our ships, and therefore we pay for an observatory; and we allow ourselves, in the person of our Parliament, to be anmually tormented into doing something, in a slovenly way, for the British Mruseum; sullenly apprehending that to be a place for keeping stuffed birds in, to amuse our children. If anybody will pay for their own telescope, and resolve another nebula, we cackle over the discernment as if it were our own; if one in ten thousand of our hunting squires suddenly perceives that the earth was indeed made to be something else than a portion for foxes, and burrows in it himself, and tells us where the gold is, and where the coals, we understand that there is some use in that ; and very properly knight him: but is the accident of his having found out how to employ himself usefully any credit to us? (The negation of such discovery among his brother squires may perhaps be some discredit to us, if we would consider of it.) But if you doubt these generalities, here is one fact for us all to meditate upon, illustrative of our love of science. Two years ago there was a collection of the fossils of Solenhofen to be

[^167]sold in Pavaria; the best in existence, containing many specimens unique for perfectness, and one unique as an example of a species (a whole kingdom of mbnown living creatures being announced lyy that fossil). This collection, of which the mere market worth, among private buyers, would probably have been some thousand or twelve hundred pounds, was offered to the English nation for seven liundred: but we would not give seven hundred, and the whole series would have been in the Munich Museum at this moment, if Professor Owen * had not, with loss of his own time, and patient tormenting of the British public in person of its representatives, got leave to give four hundred pounds at once, and himself become answerable for the other three! which the said publie will doubtless pay him eventually, but sulkily, and caring nothing about the matter all the while; only always ready to cackle if any credit comes of it. Consider, I beg of you, arithmetically, what this fact means. Your annual expenditure for public purposes, (a third of it for military apparatus,) is at least 50 millions. Now 500 l . is to $50,000,000 l$. roughly, as seren pence to two thousand pounds. Suppose, then, a gentleman of unknown income, but whose wealth was to be conjectured from the fact that he spent two thousand a year on his park-walls and footmen only, professes himself fond of science; and that one of his servants comes eagerly to tell him that an unique collection of fossils, giving clue to a new era of creation, is to be had for the sum of seren pence sterling; and that the gentleman who is fond of science, and spends two thousand a year on his park, answers, after keeping his servant waiting several months, " Well! I'll give you fourpence for them, if you will be answerable for the extra threepence yourself, till next year!"
34. (III.) I say you have despised Art! "What!" you

[^168]again answer, " have we not Art exhibitions, miles long? and do we not pay thousands of pounds for single pictures? and have we not Art schools and institutions, more than ever nation had before?" Yes, truly, but all that is for the sake of the shop. You would fain sell canvas as well as coals, and crockery as well as iron; you would take every other nation's bread out of its mouth if you could; * not being able to do that, your ideal of life is to stand in the thoroughfares of the world, like Ludgate apprentices, screaming to every passer-by, "What d'ye lack?" You know nothing of your own faculties or circumstances; you fancy that, among your damp, flat, fat fields of clay, you can have as quick art-fancy as the Frenchman among his bronzed rines, or the Italian under his volcanic cliffs;-that Art may be learned, as bookkeeping is, and when learned, will give fou more books to keep. You care for pictures, absolutely, no more than you do for the bills pasted on your dead walls. There is always room on the walls for the bills to be read,-never for the pictures to be seen. Tou do not know what pictures you have (by repute) in the country, nor whether they are false or true, nor whether they are taken care of or not; in foreign countries, you calmly see the noblest existing pictures in the world rotting in abandoned wreck-(in Venice you saw the Austrian guns deliberately pointed at the palaces containing them), and if sou heard that all the fine pictures in Europe were made into sand-hags to-morrow on the Austrian forts, it would not trouble you so much as the chance of a brace or two of game less in your own bags, in a day's shooting. That is your national love of Art.
35. (IV.) You have despised Nature; that is to say, all the deep and sacred sensations of natural scencr. The French revolutionists made stables of the cathedrals of France; you have made race-courses of the cathedrals of the

[^169]earth. Your one conception of pleasure is to drive in railroad earriages round their aisles, and eat off their altars.* You have put a railroad-bridge over the falls of Schaffhausen. You have tumeled the cliffs of Lucerne by 'Tell's chapel; you have destroyed the Clarens shore of the Lake of Geneva; there is not a quiet valley in England that you have not filled with bellowing fire; there is no particle left of English land which you have not trampled coal ashes into $\dagger$-nor any foreign eity in which the spread of your presence is not marked among its fair old strects and happy gardens by a consuming white leprosy of new hotels and perfumers' shops: the Alps themselves, which your own poets used to love so reverently, you look upon as soaped poles in a bear-garden, which you set yourselves to climb and slide down again, with "shrieks of delight." When you are past shrieking, having no human articulate voice to say you are glad with, you fill the quietude of their valleys with gunpowder blasts, and rush home, red with cutaneous eruption of conceit, and voluble with convulsive hiccough of self-satisfaction. I think nearly the two sorrowfulest spectacles I have ever seen in humanity, taking the deep inner significance of them, are the English mobs in the valley of Chamomi, amusing themselves with firing rusty howitzers; and the Swiss vintagers of Zurich expressing their Christian thanks for the gift of the rine, by assembling in knots in the "towers of the vineyards," and slowly loading and firing horse-pistols from morning till evening. It is pitiful, to have dim conceptions of duty ; more pitiful, it seems to me, to have conceptions like these, of mirth.
36. Lastly. You despise compassion. There is no need of words of mine for proof of this. I will merely print one

[^170]of the newspaper paragraphs which I am in the habit of cutting out and throwing into my store-drawer; here is one from a 'Daily Telegraph' of an early date this year (1867) ; (date which, though by me carelessly left umarked, is casily discoverable; for on the back of the slip there is the announcement that " yesterday the serenth of the special services of this year was performed by the Bishop of Ripon in St. Paul's";) it relates only one of such facts as happen now daily; this by chance having taken a form in which it came before the coroncr. I will print the paragraph in red.* Be sure, the facts themselves are written in that color, in a book which we shall all of us, literate or illiterate, have to read our page of, some day.

An inquiry was held on Friday by Mr. Richards, deputy coroner, at the White Horse Tavern, Christ Church, Spitalfields, respecting the death of Michael Collins, aged 58 years. Mary Collins, a miserable-looking woman, said that she lived with the deceased and his son in a room at 2, Cobb's Court, Christ Church. Deceased was a "translator" of boots. Witness went out and bought old boots; deceased and his son made them into good ones, and then witness sold them for what she could get at the shops, which was very little indeed. Deccased and his son used to work night and dar to try and get a little bread and tea, and pay for the room ( $2 s$. a week) , so as to keep the home together. On Friday-night-week deceased got up from his bench and began to shiver. He threw down the boots, saying, "Somebody clse must finish them when I am gone, for I can do no more." There was no fire, and he said, "I would be better if I was warm." Witness therefore took two pairs of translated boots $\dagger$ to sell at the shop, but she could only get $14 d$. for the two pairs, for the people at the shop said, "We must have our profit." Witness got 14 ll . of coal, and a little tea and bread. Her son sat up the whole night to make the "translations," to get

[^171]money, but deceased died on Saturday morning. The family never had enough to eat.- Coroner: "It seems to me deplorable that you did not go into the workhonse." Witness: "We wanted the comforts of our little lome." A juror asked what the comforts were, for he ouly saw a little straw in the corner of the room, the windows of which were broken. The witness began to ery, and said that they had a quilt and other little things. The deceased said he never would go into the workhouse. In summer, when the season was good, they sometimes made as much as 10 s . profit in the week. They then always saved towards the next week, which was gencrally a bad one. In winter they made not half so much. For three years they had been getting from bad to worse.Cornclins Collins said that he had assisted his father since $18+7$. They used to work so far into the night that both nearly lost their eyesight. Witness now had a film over his eyes. Five years ago deceased applied to the parish for aid. The relicving officer gave him a 4 lb . loaf, and told him if he came again he should "get the stones." That disgusted

[^172]deceased, and he would have nothing to do with them since. They got worse and worse until last Friday week, when they had not even a half-penny to buy a eandle. Deceased then lay down on the straw, and said he could not live till morning.-A juror: "You are dying of starvation yourself, and you ought to go into the house until the summer."Witness: "If we went in we should die. When we come out in the summer we should be like people dropped from the sky. No one would know us, and we would not have even a room. - I could work now if I had food, for my sight would get better." Dr. G. P. Walker said deceased died from syncope, from exhaustion from want of food. The deceased had had no bedelothes. For four months he had had nothing but bread to eat. There was not a particle of fat in the body. There was no disease, but, if there had been medical attendance, he might have survived the syncope or fainting. The Coroner having remarked upon the painful nature of the case, the jury returned the following verdict: "That deceased died from exhanstion from want of food and the common necessaries of life; also throngl want of medical aid."
37. "Why would witness not go into the workhouse?" you ask. Well, the poor seem to have a prejudice against the workhouse which the rich have not; for of course everyone who takes a pension from Govermment goes into the workhouse on a grand seale: * only the workhonses for the rich do not involve the idea of work, and should be called playhouses. But the poor like to die independently, it appears; perhaps if we made the play-houses for them pretty and
d'œurres variés. Bouchées à la Talleyrand. Saumons froids, sauce Rarigote. Filets de bouf en Bellerue, timbales milanaises, chaudfroid de gibier. Dindes truffées. Pâtés de foies gras, buissons d’écrevisses, salaıles vénétiennes, gelées blanches aux fruits, gâteaux mancini, parisiens et parisiennes. Fromages glacés. Ananas. Dessert.'"

[^173]pleasant cnough, or gave them their pensions at home, and allowed them a little introductory peculation with the public money, their minds might be reconciled to the conditions. Meantine, here are the facts: we make our relicf either so insulting to them, or so painful, that they rather die than take it at our hands; or, for third altemative, we leave them so untanght and foolish that ther starve like brute ereatures, wild and dumb, not knowing what to do, or what to ask. I Saly, you despise compassion; if you did not, such a newspaper paragraph would be as impossible ir a Christian country as a deliberate assassination permitted in its public strects." "Christian," did I say? Alas! if we were but

* I am heartily glad to see such a paper as the 'Fall Mall Gazette' established : for the power of the press in the hands of highly educated men, in independent position, and of honest purpose, may indeed become all that it has been hitherto vainly vaunted to be. Its editor will therefore, I doubt not, pardon me, in that, by very reason of my respect for the journal, I do not let pass unnoticed an article in its third number, page 5 , which was wrong in every word of it, with the intense wrongness which only an honest man can achieve who has taken a false turn of thought in the outset, and is following it, regardless of consequences. It contained at the end this notable passage:-
.- The bread of affliction, and the water of affliction,-aye, and the bedsteads and blankets of affiction, are the rery utmost that the law ouglit to give to outcasts merely as outcasts." I merely put beside this expression of the gentlemanly mind of England in 1865, a part of the messilge which Isaiah was ordered to "lift up his voice like a trumpet" in leclaring to the gentlemen of his day: "Ye fast for strife, and to s:mite with the fist of wickedness. Is not this the fast that I have chosen. to deal thy bread to the hungry, and that thou bring the poor that are cast out (margin, 'afflicted') to thy house?" The falsehood on which the writer had mentally founded himself. as previously stated by him, was this: "To confound the functions of the dispensers of the poor-rates with those of the dispensers of a charitable institution is a great and pernicious error." This sentence is so accurately and exquisitely wrong, that its substance must be thus reversed in our minds before we can deal with any existing problem of national distress. "To understand that the dispensers of the poor-rates are the almoners of the nation, and should distribute its ahms with a gentleness and freedom of hand as much greater and franker than that possible to individual charity, as the collective national wisdom and power may be
wholesomely un-Christian, it would be impossible: it is our imaginary Christianity that helps us to commit these crimes, for we revel and luxuriate in our faith, for the lewd sensation of it ; dressing it up, like everything else, in fiction. The dramatic Christianity of the organ and aisle, of dawn-service and twilight-revival-the Christianity, which we do not fear to mix the mockery of, pictorially, with our play about the devil, in our Satanellas,--Roberts,-Fausts; chanting hymns through traceried windows for background effect, and artistically modnlating the "Dio " through variation on rariation of mimicked prayer: (while we distribute tracts, next day, for the benefit of uncultivated swearers, upon what we suppose to be the signification of the Third Command-ment;-) this gas-lighted, and gas-inspired Christianity, we are triumphant in, and draw back the hem of our robes from the touch of the heretics who dispute it. But to do a piece of common Christian righteousness in a plain English word or deed; to make Christian law any rule of life, and found one National act or hope thereon,-we know too well what our faith comes to for that! You might sooner get lightning out of incense smoke than true action or passion out of your modern English religion. You had better get rid of the smoke, and the organ-pipes, both: leave them, and the Gothic windows, and the painted glass, to the property man; give up your carburetted hydrogen ghost in one healthy expiration, and look after Lazarus at the doorstep. For there is a true Church wherever one hand meets another helpfully, and that is the only holy or Mother Church which ever was, or ever shall be.

38. All these pleasures then, and all these virtues, I repeat, you nationally despise. Sou lave, indeed, men among you who do not ; by whose work, by whose strength, by whose life, by whose death, you live, and never thank them. Your

[^174]wealth, your amusement, your pride, would all be alike impossible, but for those whom you scorn or forget. The policeman, who is walking up and down the black lane all night to watch the guilt you have created there; and may have his brains beaten out, and be maimed for life, at any moment, and never be thanked; the sailor wrestling with the sea's rage; the quiet student poring over his book or his rial ; the common worker, without praise, and nearly without bread, fulfilling his task as your horses drag your carts, hopeless, and spurned of all: these are the men by whom England lives; but they are not the nation; they are only the body and nervous force of it, acting still from old habit in a convulsive perseverance, while the mind is gone. Our National wish and purpose are only to be amused; our National religion is the performance of church ceremonies, and preaching of soporific truth (or untruths) to keep the mob quietly at work, while we amuse ourselves; and the necessity for this amusement is fastening on us, as a fererous disease of parched throat and wandering eyes-senseless, dissolute, merciless. How literally that word Dis-Ease, the Negation and impossibility of Ease, expresses the entire moral state of our English Industry and its Amusements !
39. When men are rightly occupied, their amusement grows out of their work, as the color-petals out of a fruitful flower;-when they are faithfully helpful and compassionate, all their emotions become steady, deep, perpetual, and vivifying to the soul as the natural pulse to the body. But now, having no true business, we pour our whole masculine energy into the false business of money-making; and having no true emotion, we must have false emotions dressed up for us to play with, not innocently, as children with dolls, but guiltily and darkly, as the idolatrons Jews with their pictures on cavern walls, which men had to dig to detect. The justice we do not execute, we mimic in the novel and on the stage; for the beauty we destroy in nature, we substitute the metamorphosis of the pantomime, and (the human nature of us imperatively requiring awe and sorrow of some kind) for
the noble grief we should have borne with our fellows, and the pure tears we should have wept with them, we gloat over the pathos of the police court, and gather the night-dew of the grave.
40. It is difficult to estimate the true significance of these things; the facts are frightful enough;-the measure of national fault involved in them is perhaps not as great as it would at first seem. We permit, or cause, thousands of deaths daily, but we mean no harm; we set fire to houses, and ravage peasants' fields, yet we should be sorry to find we had injured anybody. We are still kind at heart; still capable of virtue, but only as children are. Chalmers, at the end of his long life, having had much power with the public, being plagued in some serious matter by a reference to "public opinion," uttered the impatient exclamation, " The public is just a great baby!" And the reason that I have allowed all these graver subjects of thought to mix themselves up with an inquiry into methods of reading, is that, the more I see of our national faults or miseries, the more they resolve themselves into conditions of childish illiterateness and want of education in the most ordinary habits of thought. It is, I repeat, not vice, not selfishness, not dulness of brain, which we have to lament; but an unreachable schoolboy's recklessness, only differing from the true sehoolboy's in its incapacity of being helped, beeause it acknowledges no master.
41. There is a curious type of us given in one of the lovely, neglected works of the last of our great painters. It is a drawing of Kirkby Lonsdale churchyard, and of its brook, and valley, and hills, and folded morning sky beyond. And unmindful alike of these, and of the dead who have left these for other valleys and for other skies, a group of schoolboys have piled their little books upon a grave, to strike them off with stones. So, also, we play with the words of the dead that would teach us, and strike them far from us with our bitter, reckless will; little thinking that those leaves which the wind seatters had been piled, not only upon a gravestone, but upon the seal of an enchanted vault-nay, the gate of a
great city of sleeping kings, who would awake for us and walk with us, if we knew but how to call them by their names. How often, even if we lift the marble entrance gate, do we but wander among those old kings in their repose, and finger the robes they lie in, and stir the crowns on their foreheads; and still they are silent to us, and seem but a dusty imagery; becanse we know not the incantation of the heart that would wake them;-which, if they once heard, they would start up to meet us in their power of long ago, narrowly to look upon us, and consider us; and, as the fallen kings of Hades meet the newly fallen, saying, " Art thou also become weak as we-art thou also become one of us?" so would these kings, with their undimmed, unshaken diadems, meet us, saying, " Art thou also become pure and mighty of heart as we —art thon also become one of us?"
42. Mighty of heart, mighty of mind-" magnanimous" -to be this, is indeed to be great in life; to become this increasingly, is, indeed, to " advance in life,"-in life itself -not in the trappings of it. My friends, do you remember that old Seythian eustom, when the head of a honse died? How he was dressed in his finest dress, and set in his chariot, and carried about to his friends' houses; and each of them placed him at his table's head, and all feasted in his presence? Suppose it were offered to you in plain words, as it is offered to you in dire facts, that you should gain this Seythian honor, gradually, while you yet thought yourself alive. Suppose the offer were this: You shall die slowly; your blood shall daily grow cold, your flesh petrify, your heart beat at last, only as a rusted group of iron valves. Your life shall fade from you, and sink through the earth into the ice of Caina; but, day by day, your body shall be dressed more gaily, and set in higher chariots, and have more orders on its breast-crowns on its head, if you will. Men shall bow before it, stare and shout round it, erowd after it up and down the streets; bild palaces for it, feast with it at their tables' heads all the night long; your soul shall stay enough within it to know what they do, and feel the weight of the
golden dress on its shoulders, and the furrow of the crownedge on the skull;--no more. Would you take the offer, verbally made by the death-angel? Would the meanest among us take it, think you? Yet practically and verily we grasp at it, erery one of us, in a measure ; many of us grasp at it in its fulness of horror. Every man accepts it, who desires to advance in life without knowing what life is; who means only that he is to get more horses, and more footmen, and more fortune, and more public honor, and-not more personal soul. He only is adrancing in life, whose heart is getting softer, whose blood warmer, whose brain quicker, whose spirit is entering into Living * peace. And the men who have this life in them are the true lords or kings of the earththey, and they only. All other kingships, so far as they are true, are only the practical issue and expression of theirs; if less than this, they are either dramatic royalties,-costly shows, set off, indeed, with real jewels, instead of tiuselbut still only the toys of nations; or else they are no royalties at all, but tyrannies, or the mere active and practical issue of national folly; for which reason I have said of them elsewhere, " Visible governments are the toys of some nations, the diseases of others, the harmess of some, the burdens of more."
43. But I have no words for the wonder with which I hear Kinghood still spoken of, even among thoughtful men, as if governed nations were a personal property, and might be bought and sold, or otherwise acquired, as sheep, of whose flesh their king was to feed, and whose fleece he was to gather ; as if Achilles' indignant epithet of base kings, " people-eating," were the constant and proper title of all monarchs; and the enlargement of a king's dominion meant the same thing as the increase of a private man's estate! Kings who think so, however powerful, can no more be the true kings of the nation than gadflies are the kings of a horse; they suck it, and may drive it wild, but do not guide it. They, and their courts, and their armies are, if one could see clearly, only

[^175]a large speeies of marsh mosquito, with bayonet proboseis and melodions, band-mastered trumpeting, in the summer air; the twilight heing, perhaps, sometimes fairer, but hardly more wholesome, for its glittering mists of midge companies. The true kings, meanwhile, rule quietly, if at all, and hate ruling; too many of them make "il gran rifiutn; " and if they do not, the mob, as soon as they are likely to become useful to it, is pretty sure to make its "gran rifiuto" of them.

44 . Yet the risible king may also be a true one, some day, if ever day comes when he will estimate his dominion by the force of it,-not the geographical boundaries. It matters very little whether Trent cuts you a cantel out here, or Rhine rounds you a eastle less there. But it does matter to you, king of men, whether you can verily say to this man, "Go," and he goeth; and to another, "Come," and he cometh. Whether you can turn your people, as you can Trent -and where it is that you bid them come, and where go. It matters to you, king of men, whether your people hate you, and die by you, or lose you, and live by you. Sou may measure your dominion by multitudes, better than by miles; and count degrees of love-latitude, not from, but to, a wonderfully warm and infinite equator.
45. Measure!-nay, you cannot measure. Who shall measure the difference between the power of those who "do and teach," and who are greatest in the kingdoms of earth, as of heaven-and the power of those who undo, and consume -whose power, at the fullest, is only the power of the moth and the rust? Strange! to think how the Moth-kings lay up treasures for the moth; and the Rust-kings, who are to their peoples' strength as rust to armor, lay up treasures for the rust ; and the Robber-kings, treasures for the robber; but how few kings have ever laid up treasures that needed no guard-ing-treasures of which, the more thicres there were, the better! Broidered robe, only to be rent; helm and sword, only to be dimmed; jewel and gold, only to be scattered;there have been three kinds of kings who have gathered these. Suppose there ever should arise a Fourth order of
kings, who had read, in some obscure writing of long ago, that there was a Fourth kind of treasure, which the jewel and gold could not equal, neither should it be valued with pure gold. A web made fair in the wearing, by Athena's shuttle; an armor, forged in divine fire by Vulcanian force; a gold to be mined in the very sun's red heart, where he sets over the Delphian cliffs;-deep-pictured tissue; -impenetrable armor;-potable gold!-the three great Angels of Conduct, Toil, and Thought, still calling to us, and waiting at the posts of our doors, to lead us, with their winged power, and guide us, with their unerring eyes, by the path which no fowl knoweth, and which the rulture's eye has not seen! Suppose kings should ever arise, who heard and believed this word, and at last gathered and brought forth treasures of-Wisdom-for their people?
46. Think what an amazing business that would be! How inconceivable, in the state of our present national wisdom! That we should bring up our peasants to a book exercise instead of a bayonet exercise!-organize, drill, maintain with pay, and good generalship, armies of thinkers, instead of armies of stabbers!-find national amusement in reading-rooms as well as rifle-grounds; give prizes for a fair shot at a fact, as well as for a leaden splash on a target. What an absurd idea it seems, put fairly in words, that the wealth of the capitalists of civilized nations should ever come to support literature instead of war!
47. Have yet patience with me, while I read you a single sentence out of the only book, properly to be called a book, that I have yet written myself, the one that will stand (if anything stand), surest and longest of all work of mine.

[^176]buy an hour's peace of mind with ; as, at present, France and England, purchasing of each other ten millions sterling worth of consternation, annually (a remarkably light crop, half thorns and half aspen leaves, sown, reaped, and granaried by the 'science' of the modern political economist, teaching covetousness instead of truth). Ancl, all unjust war being supportable, if not by pillage of the enemy, only by loans from capitalists, these loans are repail by subsequent taxation of the people, who appear to have no will in the matter, the capitalists' will being the primary root of the war; butits real root is the covetonsness of the whole nation, rendering it incapable of faith, frankuess, or justice, and bringing about, therefore, in due time, his own separate loss and punishment to each person."
48. France and England literally, observe, buy panic of each other; they pay, each of them, for ten thonsand-thou-sand-pounds'-worth of terror, a year. Now suppose, instearl of buying these ten millions' worth of panie annually, they made up their minds to be at peace with each other, and buy ten millions' worth of knowledge annually; and that each nation spent its ten thousand thousand pounds a year in founding royal libraries, royal art galleries, royal museums, royal gardens, and places of rest. Might it not be better somewhat for both French and English ?
49. It will be long, yet, before that comes to pass. Nevertheless, I hope it will not be long before royal or national libraries will be founded in every considerable city, with a royal series of books in them; the same series in every one of them, chosen books, the best in every kind, prepared for that national series in the most perfeet way possible; their text printed all on leaves of equal size, broad of margin, and divided into pleasant volumes, light in the hand, beautiful, and strong, and thorough as examples of binders' work; and that these great libraries will be accessible to all clean and orderly persons at all times of the day and evening; strict law being enforeed for this cleanliness and quietness.
50. I could shape for you other plans, for art-galleries, and for natural history galleries, and for many precious-many, it seems to me, needful-things; but this book plan is the easiest and needfulest, and would prove a considerable tonic
to what we call our British constitution, which has fallen dropsical of late, and has an evil thirst, and evil hunger, and wants healthier feeding. You have got its corn laws repealed for it; try if you cannot get corn laws established for it, dealing in a better bread;-bread made of that old enchanted Arabian grain, the Sesame, which opens doors;doors not of robbers', but of Kings' Treasuries.
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Respecting the increase of rent by the deaths of the poor, for evidence of which see the preface to the Medical Officer's report to the Privy Council, just published, there are suggestions in its preface which will make some stir among us, I fancy, respecting which let me note these points fol-lowing:-

There are two theories on the subject of land now abroad, and in contention ; both false.

The first is that, by Hearenly law, there have always existed, and must continue to exist, a certain number of hereditarily sacred persons to whom the earth, air, and water of the world belong, as personal property; of which earth, air, and water, these persons may, at their pleasure, permit, or forbid, the rest of the human race to eat, to breathe, or to drink. This theory is not for many years longer tenable. The adverse theory is that a division of the land of the world among the mob of the world would immediately elevate the said mob into sacred personages; that houses would then build themselves, and corn grow of itself; and that everybody would be able to live, without doing any work for his living. This theory would also be found highly untenable in practice.

It will, however, require some rough experiments and rougher catastrophes, before the generality of persons will be convinced that no law concerning anything-least of all concerning land, for either holding or dividing it, or renting
it high, or renting it low-would be of the smallest ultimate use to the people, so long as the general contest for life, and for the means of life, remains one of mere brutal competition. That contest, in an mprincipled nation, will take one deadly form on another, whaterer laws you make against it. For instance, it would be an entirely wholesome law for England, if it could be carried, that maximum limits should be assigned to incomes according to classes; and that every nolleman's income should be paid to him as a fixed salary or pension by the nation; and not squeezed by him in rariable sums, at discretion, out of the tenants of his land. But if you could get such a law passed to-morrow, and if, which would be farther necessary, you could fix the value of the assigned incomes by making a given weight of pure bread for a given sum, a twelvemonth would not pass before another currency would have been tacitly established, and the power of accumulated wealth would have re-asserted itself in some other article, or some other imaginary sign. There is only one cure for public distress-and that is public education, directed to make men thoughtful, merciful, and just. There are, indeed, many laws eonceivable which would gradually better and strengthen the national temper; but, for the most part, they are such as the national temper must be much bettered before it would bear. A nation in its youth may be helped by laws, as a weak child by backboards, but when it is old it camnot that way strengthen its crooked spine.

And besides; the problem of land, at its worst, is a bye one; distribute the earth as you will, the principal question remains inexorable,-Who is to dig it? Which of us, in brief word, is to do the hard and dirty work for the rest, and for what pay? Who is to do the pleasant and clean work, and for what pay? Who is to do no work, and for what pay? And there are curious moral and religions questions connected with these. How far is it lawful to suck a portion of the soul out of a great many persons, in order to put the abstracted psychical quantities together and make one very beautiful or ideal soul? If we had to deal with mere blood instead of
spirit, (and the thing might literally be done-as it has been done with infants before now) - so that it were possible, by taking a certain quantity of blood from the arms of a given number of the mob, and putting it all into one person, to make a more azure-blooded gentleman of him, the thing would of course be managed; but secretly, I should conceive. But now, because it is brain and soul that we abstract, not visible blood, it can be done quite openly, and we live, we gentlemen, on delicatest prey, after the manner of weasels; that is to say, we keep a certain number of clowns digging and ditching, and generally stupefied, in order that we, being fed gratis, may have all the thinking and feeling to ourselves. Yet there is a great deal to be said for this. A highly-bred and trained English, Freneh, Austrian, or Italian gentleman (much more a lady), is a great production,-a better production than most statues; being beautifully colored as well as shaped, and plus all the brains; a glorious thing to look at, a wonderful thing to talk to ; and you cannot have it, any more than a pyramid or a chureh, but by sacrifice of much contributed life. And it is, perhaps, better to build a beantiful human creature than a beautiful dome or steeple-and more delightful to look up reverently to a creature far above us, than to a wall; only the beautiful human creature will have some duties to do in return-duties of living belfry and rampart-of which presently.

## LECTURE II.-LILIES.

OF QUEENS' GARDENS.

"Be thou glad, oh thirsting Desert; let the desert be made cheerful, and bloom as the lily; and the barren places of Jordan shall run wild with wood."-Isalah xxxv. 1. (Septuagint.)
51. It will, perlaps, be well, as this Lecture is the sequel of one previously given, that I should shortly state to you my general intention in both. The questions specially proposed to you in the first, namely, How and What to Read, rose out of a far deeper one, which it was my endeavor to make you propose earnestly to yourselves, namely, Why to Read. I want you to feel, with me, that whatever adrantages we possess in the present day in the diffusion of education and of literature, ean only be rightly used by any of us when we have apprehended clearly what education is to lead to, and literature to teach. I wish you to see that both well-directed moral training and well-chosen reading lead to the possession of a power over the ill-gnided and illiterate, which is, aceording to the measure of it, in the truest sense, kingly; conferring indeed the purest kingship that can exist among men: too many other kingships (however distingnished by visible insignia or material power) being either spectral, or tyran-nous;-spectral-that is to say, aspects and shadows only of rovalty, hollow as death, and which only the " likeness of a kingly crown have on:" or else-tyrannous-that is to say, substituting their own will for the law of justice and love by which all true kings rule.
52. There is, then, I repeat-and as I want to leave this idea with you, I begin with it, and shall end with it-only one pure kind of kingship; an inevitable and eternal kind, crowned or not; the kingship, namely, which consists in a stronger moral state, and a truer thoughtful state, than that of others; enabling you, therefore, to guide, or to raise them.

Observe that word "State;" we have got into a loose way of using it. It means literally the standing and stability of a thing; and you have the full force of it in the derived word "statue"-" the immovable thing." A king's majesty or "state," then, and the right of his kingdom to be called a state, depends on the movelessness of both:-without tremor, without quiver of balance; established and enthroned upon a foundation of eternal law which nothing can alter, nor overthrow.
53. Believing that all literature and all education are only useful so far as they tend to confirm this calm, beneficent, and therefore kingly, power-first, over ourselves, and, through ourselves, over all around us,-I am now going to ask you to consider with me farther, what special portion or kind of this royal authority, arising out of noble education, may rightly be possessed by women; and how far they also are called to a true queenly power, - not in their households merely, but over all within their sphere. And in what sense, if they rightly understood and exercised this royal or gracious influence, the order and beauty induced by such benignant power would justify us in speaking of the territories over which each of them reigned, as "Queens' Gardens."

54 . And here, in the very outset, we are met by a far deeper question, which-strange though this may seem-remains among many of us yet quite undecided in spite of its infinite importance.

We cannot determine what the queenly power of women should be, until we are agreed what their ordinary power should be. We cannot consider how education may fit them for any widely extending duty, until we are agreed what is their true constant duty. And there never was a time when wilder words were spoken, or more vain imagination permitted, respecting this question-quite vital to all social happiness. The relations of the womanly to the manly nature, their different capacities of intellect or of virtue, seem never to have been yet estimated with entire consent. We hear of the " mission" and of the "rights" of Woman, as if these
could ever be separate from the mission and the rights of Man -as if she and her lord were ereatures of independent kind, and of irreconcilable claim. This, at least, is wrong. And not less wrong-perhaps even more foolishly wrong (for I will anticipate thus far what I hope to prove)-is the idea that woman is only the shadow and attendant image of her lord, owing him a thoughtless and servile obedience, and supported altogether in her weakness by the pre-eminence of his fortitule.

This, I say, is the most foolish of all errors respecting her who was made to be the helpmate of man. As if he could be helped effectively by a shadow, or worthily by a slave!

55 . Let us try, then, whether we cannot get at some clear and harmonions idea (it must be harmonious if it is true) of what womanly mind and virtue are in power and office, with respect to man's; and how their relations, rightly accepted, aid and increase the vigor and honor and authority of both.

And now I must repeat one thing I said in the last lecture: namely, that the first use of education was to enable us to consult with the wisest and the greatest men on all points of earnest difficulty. That to use books rightly, was to go to them for help: to appeal to them, when our own knowledge and power of thought failed: to be led by them into wider sight,-purer conception,-than our own, and receive from them the united sentence of the judges and councils of all time, against our solitary and unstable opinion.

Let us do this now. Let us sce whether the greatest, the wisest, the purest-hearted of all ages are agreed in any wise on this point: let us hear the testimony they have left respecting what they held to be the true dignity of woman, and her morle of help to man.
56. And first let us take Shakespeare.

Note broadly in the outset, Shakespeare has no heroes; he has only heroines. There is not one entirely heroic figure in all his plays, except the slight sketel of Henry the Fiftl, exaggerated for the purposes of the stage; and the still slighter Valentine in The Two Gentlemen of Verona. In his
labored and perfect plays you have no hero. Othello would have been one, if his simplicity had not been so great as to leave him the prey of every base practice round him; but he is the only example even approximating to the heroic type. Coriolanus-Cæsar-Antony stand in flawed strength, and fall by their ranities;-Hamlet is indolent, and drowsily speculative; Romeo an impatient boy; the Merchant of Venice languidly submissive to adverse fortune; Kent, in King Lear, is entirely noble at heart, but too rough and unpolished to be of true use at the critical time, and he sinks into the office of a servant only. Orlando, no less noble, is yet the despairing toy of chance, followed, comforted, saved by Rosalind. Whereas there is hardly a play that has not a perfect woman in it, steadfast in grave hope, and errorless purpose: Cordelia, Desdemona, Isabella, Hermione, Imogen, Queen Catherine, Perdita, Sylvia, Viola, Rosalind, Helena, and last, and perhaps loreliest, Virgilia, are all faultless; conceived in the highest heroic type of humanity.
57. Then observe, secondly,

The catastrophe of every play is caused always by the folly or fanlt of a man ; the redemption, if there be any, is by the wisdom and virtue of a woman, and, failing that, there is none. The eatastrophe of King Lear is owing to his own want of judgment, his impatient vanity, his misunderstanding of his children; the virtue of his one true daughter would have saved him from all the injuries of the others, unless he had cast her away from him; as it is, she all but saves him.

Of Othello I need not trace the tale ;-nor the one weakness of his so mighty lore; nor the inferiority of his perceptive intellect to that even of the second woman character in the play, the Emilia who dies in wild testimony against his error :-

> "Oh, murderous coxcomb! what should such a fool Do with so good a wife?"

In Romeo and Juliet, the wise and brave stratagem of the wife is brought to ruinous issue by the reckless impatience of her husband. In Winter's Tale, and in Cymbeline, the
happiness and existence of two princely households, lost through long years, and imperiled to the death by the folly and obstinacy of the husbands, are redeemed at last by the queenly patience and wisdom of the wives. In Measure for Measure, the foul injustice of the judge, and the foul cowardice of the brother, are opposed to the victorious truth and adamantine purity of a woman. In Coriolanus, the mother's counsel, acted upon in time, would have saved her son from all evil; his momentary forgetfulness of it is his ruin; her prayer, at last granted, saves bim-not, indeed, from death, but from the curse of living as the destroyer of his country.

And what shall I say of Julia, constant against the fickleness of a lover who is a mere wicked child?-of Helena, against the petulance and insult of a careless youth ?-of the patience of Hero, the passion of Beatrice, and the calmly devoted wisdom of the " unlessoned girl," who appears among the helplessness, the blindness, and the vindictive passions of men, as a gentle angel, bringing courage and safety by her presence, and defeating the worst malignities of crime by what women are fancied most to fail in,-precision and accuracy of thought.
58. Observe, further, among all the principal figures in Shakespeare's plays, there is only one weak woman-Ophelia; and it is because she fails Hamlet at the eritical moment, and is not, and cannot in her nature be, a guide to him when he needs her most, that all the bitter catastrophe follows. Finally, though there are three wieked women among the principal figures-Lady Macbeth, Regan, and Goneril-they are felt at once to be frightful exceptions to the ordinary laws of life; fatal in their influence also, in proportion to the power for good which they have abandoned.

Such, in broad light, is Shakespeare's testimony to the position and character of women in human life. He represents them as infallibly faithful and wise counselors, incorruptibly just and pure examples-strong always to sanctify, even when they cannot save.
59. Not as in any wise comparable in knowledge of the nature of man,-still less in his understanding of the causes and courses of fate,-but only as the writer who has given us the broadest view of the conditions and modes of ordinary thought in modern society, I ask you next to receive the witness of Walter Scott.

I put aside his merely romantic prose writings as of no value, and though the early romantic poetry is very beautiful, its testimony is of no weight, other than that of a boy's ideal. But his true works, studied from Scottish life, bear a true witness; and in the whole range of these, there are but three men who reach the heroic type ${ }^{*}$-Dandie Dinmont, Rob Roy, and Claverhouse; of these, one is a border farmer; another a freebooter; the third a soldier in a bad cause. And these touch the ideal of heroism only in their courage and faith, together with a strong, but uncultirated, or mistakenly applied, intellectual power; while his younger men are the gentlemanly playthings of fantastic fortune, and only by ail (or accident) of that fortune, survive, not ranquish, the trials they involuntarily sustain. Of any disciplined, or consistent character, earnest in a purpose wisely conceived, or dealing with forms of hostile eril, definitely challenged and resolutely sulbdued, there is no trace in his conceptions of young men. Whereas in his imaginations of women,-in the characters of Ellen Douglas, of Flora MacTror, Rose Bradwardine, Catherine Seyton, Diana Vernon, Lilias Redgauntlet, Alice Bridgenorth, Alice Lee, and Jeanie Deans,-with endless varieties of grace, tenderness, and intellectual power, we find

[^177]in all a quite infallible sense of dignity and justice; a fearless, instant, and untiring self-sacrifice, to even the appearance of dute, much more to its real clains; and, finally, a patient wislom of deeply-restrained affection, which does infinitely more than protect its objects from a momentary error; it gradually forms, animates, and exalts the characters of the unworthy lovers, until, at the close of the tale, we are just able, and no more, to take patience in hearing of their ummerited success.

So that, in all cases, with Scott as with Shakespeare, it is the woman who watches over, teaches, and guides the youth; it is never, by any chance, the youth who watches over, or educates, his mistress.
60. Next take, though more briefly, graver testimonythat of the great Italians and Greeks. You know well the plan of Dante"s great poem-that it is a love-poem to his dead lady ; a song of praise for her watch over his soul. Stooping only to pity, never to love, she yet saves him from destrue-tion-saves him from hell. He is going eternally astray in despair; she comes down from heaven to his help, and throughout the ascents of Paradise is his teacher, interpreting for him the most difficult truths, divine and human; and leading him, with rebuke upon rebuke, from star to star.

I do not insist upon Dante's conception; if I began I could not cease : besides, you might think this a wild imagination of one poet's heart. So I will rather read to you a few rerses of the deliberate writing of a knight of Pisa to his living lady, wholly characteristic of the feeling of all the noblest men of the thirteenth, or early fourteenth, century, preserved among many other such records of knightly honor and love, which Dante Rossetti has gathered for us from among the early Italian poets.
> "For lo! thy law is passed That this my love should manifestly be To serve and honor thee:
> And so I do ; and my delight is full, Accepted for the servant of thy rule.
"Without almost, I am all rapturous, Since thus my will was set
To serve, thou flower of joy, thine excellence:
Nor ever seens it anything could rouse
A pain or a regret.
But on thee dwells my every thought and sense ;
Considering that from thee all virtues spread
As from a fountain head,-
That in thy gift is wisdom's best avail, And honor without fail.
With whom each sovereign good dwells separate, Fulfilling the perfection of thy state.
"Lady, since I conceived
Thy pleasurable aspect in my heart, My life has been apart
In shining brightness and the place of truth; Which till that time, good sooth, Groped among shadows in a darken'd place, Where many hours and days
It hardly ever had remember'd good. But now my servitude Is thine, and I am full of joy and rest. A man from a wild beast Thou madest me, since for thy love I lived."
61. You may think perhaps a Greek knight wrould have had a lower estimate of women than this Christian lover. His spiritual subjection to them was indeed not so absolute; but as regards their own personal character, it was only because you could not have followed me so casily, that I did not take the Greek women instead of Shakespeare's; and instance, for chief ideal types of human beauty and faith, the simple mother's and wife's heart of Andromache; the divine, yet rejected wisdom of Cassandra ; the playful kindness and simple princess-life of happy Nansicaa ; the housewifely calm of that of Penelope, with its watch upon the sea; the ever patient, fearless, hopelessly devoted piety of the sister, and daughter, in Antigone; the bowing down of Iphigenia, lamb-like and silent; and finally, the expectation of the resurrection, made clear to the soul of the Greeks in the return from her grave of that Alcestis, who, to save
her husband, had passed ealmly through the bitterness of death.
62. Now I could multiply witness upon witness of this kind upon you if I had time. I would take Chaucer, and show you why he wrote a Legend of Good Women; but no Legend of Good Men. I would take Spenser, and show you how all his fairy knights are sometimes deceived and sometimes ranquished; but the soul of Una is never darkened, and the spear of Britomart is never broken. Nay, I could go back into the mythical teaching of the most ancient times, and show you how the great people,-by one of whose princesses it was appointed that the Lawgiver of all the earth should be educated, rather than by his own kindred; -how that great Egyptian people, wisest then of nations, gave to their Spirit of Wisdom the form of a Woman; and into her hand, for a symbol, the wearer's shuttle; and how the name and the form of that spirit, adopted, believed, and obeyed by the Greeks, became that Athena of the olive-helm, and cloudy shicld, to faith in whom you owe, down to this date, whatever you hold most precious in art, in literature, or in types of national virtue.
63. But I will not wander into this distant and mythical element; I will only ask you to give its legitimate value to the testimony of these great poets and men of the world,consistent, as you sce it is, on this head. I will ask you whether it can be supposed that these men, in the main work of their lives, are amusing themselves with a fictitious and idle view of the relations between man and woman;-nay, worse than fictitious or idle; for a thing may be imaginary, yet desirable, if it were possible: but this, their ideal of woman, is, according to our common idea of the marriage relation, wholly undesirable. The woman, we say, is not to guide, nor even to think for herself. The man is always to be the wiser ; he is to be the thinker, the ruler, the superior in knowledge and discretion, as in power.
64. Is it not somewhat important to make up our minds on this matter? Are all these great men mistaken, or are we?

Are Shakespeare and Eschylus, Dante and Homer, merely dressing dolls for us; or, worse than dolls, unnatural visions, the realization of which, were it possible, would bring anarchy into all households and ruin into all affections? Nay, if you can suppose this, take lastly the evidence of facts, given by the liuman heart itself. In all Christian ages whieh have been remarkable for their purity or progress, there has been absolute sielding of obedient devotion, by the lover, to his mistress. I say obedient;-not merely enthusiastic and worshiping in imagination, but entirely subject, receiving from the belored woman, however young, not only the encouragement, the praise, and the reward of all toil, but, so far as any choice is open, or any question difficult of decision, the direction of all toil. That chivalry, to the abuse and dishonor of which are attributable primarily whatever is cruel in war, unjust in peace, or corrupt and ignoble in domestic relations; and to the original purity and power of which we owe the defence alike of faith, of law, and of love; that chivalry, I say, in its very first conception of honorable life, assumes the subjection of the young knight to the com-mand-should it eren be the command in eaprice-of his lady. It assumes this, because its masters knew that the first and necessary impulse of every truly taught and knightly heart is this of blind service to its lady; that where that true faith and eaptivity are not, all wayward and wieked passion must be; and that in this rapturous obedience to the single lore of his youth, is the sanctification of all man's strength, and the continuance of all his purposes. And this, not because such obedience would be safe, or honorable, were it ever rendered to the unworthy; but because it ought to be impossible for every noble youth-it is impossible for every one rightly trained-to love any one whose gentle counsel he cannot trust, or whose prayerful command he can hesitate to obey.
65. I do not insist by any farther argument on this, for I think it should commend itself at once to your knowledge, of what has been and to your feeling of what should be.

You cannot think that the buckling on of the knight's armor by his lady's hand was a mere caprice of romantic fashion. It is the type of an eternal truth-that the sonl's armor is never well set to the heart unless a woman's hand has braced it; and it is only when she braces it loosely that the honor of manhood fails. Know you not those lovely linesI would they were learned by all youthful ladies of England :-
> " Ah, wasteful woman!-she who may On her sweet self set her own price, Knowing he cannot choose but payHow has she cheapen'd Paradise! How given for nought her priceless gift, How spoiled the bread and spill'd the wine, Which, spent with due respective thrift, Had made brutes men, and men divine!"*
66. Thus much, then, respecting the relations of lovers. I believe you will accept. But what we too often doubt is the fitness of the continuance of such a relation throughout the whole of human life. We think it right in the lover and mistress, not in the husband and wife. That is to say, we think that a reverent and tender duty is due to one whose affection we still doubt, and whose character we as yet do but partially and distantly discern; and that this reverence and duty are to be withdrawn when the affection has become wholly and limitlessly our own, and the character has been so sifted and tried that we fear not to entrust it with the happiness of our lives. Do you not see how ignoble this is, as well as how unreasonable? Do you not feel that marriage, when it is marriage at all,-is only the seal which marks the rowed transition of temporary into untiring service, and of fitful into eternal love ?
67. But how, you will ask, is the idea of this guiding func-

[^178]tion of the woman reconcilable with a true wifely subjection? Simply in that it is a guiding, not a determining, function. Let me try to show you briefly how these powers seem to be rightly distinguishable.

We are foolish, and without excuse foolish, in speaking of the "superiority" of one sex to the other, as if they could be compared in similar things. Each has what the other has not: each completes the other, and is completed by the other: they are in nothing alike, and the happiness and perfection of hoth depends on each asking and receiving from the other what the other only can give.
68. Now their separate characters are briefly these. The man's power is active, progressive, defensive. He is eminently the doer, the creator, the discorerer, the defender. His intellect is for speculation and invention; his energy for adrenture, for war, and for conquest, whereser war is just, wherever conquest necessary. But the woman's power is for rule, not for battle,-and her intellect is not for invention or ereation, but for sweet ordering, arrangement, and decision. She sees the qualities of things, their claims, and their places. Her great function is Praise ; she enters into no contest, but infallibly adjudges the crown of contest. By her office, and place, she is protected from all danger and temptation. The man, in his rough work in open world, must encounter all peril and trial;-to him, therefore, must be the failure, the offence, the ineritable error: often he must be wounded, or subdued; often misled; and aluays hardened. But he guards the woman from all this; within his house, as ruled by her, unless she herself has sought it, need enter no danger, no temptation, no cause of error or offence. This is the true nature of home-it is the place of Peace; the shelter, not only from all injury, but from all terror, doubt, and dirision. In so far as it is not this, it is not home ; so far as the anxieties of the outer life penetrate into it, and the inconsistently-minded, unknown, unloved, or hostile society of the outer world is allowed by either husband or wife to cross the threshold, it ceases to be home; it is then only a part of that outer world
which you have roofed over and lighted fire in. But so far as it is a sacred place, a restal temple, a temple of the hearth watched over by llousehold Gods, before whose faces none may come but those whom they can receive with love,-so far as it is this, and roof and fire are types only of a nobler shade and light,-shade as of the rock in a weary land, and light as of the Pharos in the stormy sea; -so far it rindicates the name, and fulfils the praise, of Home.

And wherever a true wife comes, this home is always round her. The stars only may be over her head; the glowworm in the night-cold grass may be the only fire at her foot; but home is yet wherever she is; and for a noble woman it stretches far round her, better than ceiled with cedar, or painted with rermilion, shedding its quiet light far, for those who clse were homeless.
69. This, then, I believe to be,-will you not admit it to be,-the woman's true place and power? But do not you sce that, to fulfil this, she must-as far as one can use such terms of a human creature-be incapable of error? So far as she rules, all must be right, or nothing is. She must be enduringly, incorruptibly good; instinctively, infallibly wise -wise, not for self-development, but for self-renunciation: wise, not that she may set herself above her husband, but that she may never fail from his side: wise, not with the narrowness of insolent and loveless pride, but with the passionate gentleness of an infinitely variable, because infinitely applicable, modesty of service-the true changefulness of woman. In that great sense-" La donna è mobile," not "Qual piúm" al vento" ; no, nor yet " Variable as the shade, by the light quivering aspen made" ; but variable as the light, manifold in fair and serene division, that it may take the color of all that it falls upon, and exalt it.
50. (II.) I have been trying, thus far, to show you what should be the place, and what the power of woman. Now, secondly, we ask, What kind of education is to fit her for these?

And if you indeed think this a true conception of her office
and dignity, it will not be difficult to trace the course of education which would fit her for the one, and raise her to the other.

The first of our duties to her-no thoughtful persons now doubt this,-is to secure for her such physical training and exercise as may confirm her health, and perfect her beauty; the highest refinement of that beanty being unattainable without splendor of activity and of delicate strength. To perfect her beauty, I say, and increase its power; it cannot be too powerful, nor shed its sacred light too far: only remember that all physical freedom is rain to produce beanty without a corresponding freedom of heart. There are two passages of that poet who is distinguished, it seems to me, from all others -not by power, but by exquisite rightness-which point you to the source, and describe to rou, in a few syllables, the completion of womanly beauty. I will read the introductory stanzas, but the last is the one I wish you specially to notice:-

> " Three years she grew in sun and shower, Then Nature said, 'A lovelier flower
> 'On earth was never sown;
> 'This child I to myself will take;
> 'She shall be mine, and I will make
> 'A lady of my own.
> "' Myself will to my darling be
> 'Both law and impulse; and with me
> 'The girl, in rock and plain,
> 'In earth and hearen, in glade and bower, 'Shall feel an overseeing power
> 'To kindle, or restrain.
> "' The floating clouds their state shall lend
> 'To her, for her the willow bend;
> 'Nor shall she fail to see,
> 'Eren in the motions of the storm,
> 'Grace that shall mold the maiden's form
> ' By silent sympathy.
> " And vital feelings of delight
> 'Shall rear her form to stately height,-

> 'Her virgin bosom swell.
> 'Such thoughts to Lucy I will give,
> 'While she and I together live,
> 'Here in this happy dell.'" *
"Vital feelings of delight," obscrve. There are deadly feelings of delight ; but the natural ones are vital, necessary to very life.

And they must be feelings of delight, if they are to be vital. Do not think you can make a girl lovely, if you do not make her happy. There is not one restraint you put on a good girl's nature-there is not one check you give to her instincts of affection or of effort-which will not be indelibly written on her features, with a hardness which is all the more painful because it takes away the brightness from the eyes of innocence, and the charm from the brow of virtue.
71. This for the means: now note the end. Take from the same poet, in two lines, a perfect deseription of womanly beanty-

> "A countenance in which did meet Sweet records, promises as sweet."

The perfect loveliness of a woman's countenance can only consist in that majestic peace, which is founded in the memory of happy and useful years,-full of sweet records; and from the joining of this with that yet more majestic childishness, which is still full of change and promise;-opening always-morlest at onec, and bright, with hope of better things to be won, and to be bestowed. There is no old age where there is still that promise.
72. Thus, then, you have first to mold her physical frame, and then, as the strength she gains will permit yon, to fill and temper her mind with all knowledge and thoughts which tend to confirm its natural instinets of justice, and refine its natural tact of love.

All such knowledge should be given her as may enable her

[^179]to understand, and even to aid, the work of men: and yet it should be giren, not as knowledge, -not as if it were, or could be, for her an object to know ; but only to fecl, and to judge. It is of no moment, as a matter of pride or perfectness in herself, whether she knows many languages or one; but it is of the utmost, that she should be able to show kindness to a stranger, and to understand the sweetness of a stranger's tongue. It is of no moment to her own worth or dignity that she should be acquainted with this science or that; but it is of the highest that she should be trained in habits of accurate thought; that she should understand the meaning, the inevitableness, and the loveliness of natural laws; and follow at least some one path of scientific attainment, as far as to the threshold of that bitter Valley of Humiliation, into which only the wisest and bravest of men can descend, owning themselres for ever children, gathering pebbles on a boundless shore. It is of little consequence how many positions of cities she knows, or how many dates of events, or names of celebrated persons-it is not the object of education to turn the woman into a dictionary; but it is deeply necessary that she should be taught to enter with her whole personality into the history she reads; to picture the passages of it vitally in her own bright imagination; to apprehend, with her fine instincts, the pathetic circumstances and dramatic relations, which the historian too often only eclipses by his reasoning, and disconnects by his arrangement: it is for her to trace the hidden equities of divine reward, and catch sight, through the darkness, of the fateful threads of woren fire that connect error with retribution. But, chiefly of all, she is to be taught to extend the limits of her sympathy with respect to that history which is being for ever determined as the moments pass in which she draws her peaceful breath; and to the contemporary calamity, which, were it but rightly mourned by her, would recur no more hereafter. She is to exercise herself in imagining what would be the effects upon her mind and conduct, if she were daily brought into the presence of the suffering which is not the less real because
shut from her sight. She is to be taught somewhat to understand the nothingness of the proportion which that little world in which she lives and loves, bears to the world in which God lives and loves; -and solemmly she is to be taught to strive that her thoughts of piety may not be feeble in proportion to the number they embrace, nor her prayer more languid than it is for the momentary relief from pain of her husband or her child, when it is uttered for the multitudes of those who have none to love them,-and is "for all who are desolate and oppressed."
73. Thus far, I think, I lave had your concurrence ; perhaps you will not be with me in what I believe is most needful for me to say. There is one dangerous science for women -one which they must indced beware how they profanely touch-that of theology. Strange, and miserably strange, that while they are modest enough to doubt their powers, and pause at the threshold of sciences where every step is demonstrable and sure, they will plunge headlong, and without one thought of incompetency, into that science in which the greatest men have trembled, and the wisest crred. Strange, that they will complacently and pridefully bind up whatever vice or folly there is in them, whatever arrogance, petulance, or blind incomprehensiveness, into one bitter bundle of consecrated myrrh. Strange, in creatures born to be Love visible, that where they can know least, they will condemn first, and think to recommend themselves to their Master, by crawling up the steps of IIis judgment-throne to divide it with Him. Strangest of all that they should think they were led by the Spirit of the Comforter into habits of mind which have become in them the unmixed elements of home discomfort ; and that they dare to turn the Household Gods of Christianity into ugly idols of their "own; -spiritual dolls, for them to dress according to their caprice; and from which their husbands must turn away in grieved contempt, lest they should be shrieked at for breaking them.
74. I believe, then, with this exception, that a girl's cducation should be nearly, in its course and material of study, the
same as a boy's; but quite differently directed. A woman, in any rank of life, ought to know whatever her husband is likely to know, but to know it in a different way. His command of it shonld be foundational and progressive; hers, general and accomplished for daily and helpful use. Not but that it would often be wiser in men to learn things in a womanly sort of way, for present use, and to seek for the discipline and training of their mental powers in such branches of study as will be afterwards fittest for social service; but, speaking broadly, a man ought to know any language or science he learns, thoroughly-while a woman ought to know the same language, or science, only so far as may enable her to sympathize in her husband's pleasures, and in those of his best friends.
75. Yet, observe, with exquisite accuracy as far as she reaches. There is a wide difference between elementary knowledge and superficial knowledge-between a firm beginning, and an infirm attempt at compassing. A woman may always help her husband by what she knows, howerer little; by what she half-knows, or mis-knows, she will only tease him.

And indeed, if there were to be any difference between a girl's education and a boy's, I should say that of the two the girl should be earlier led, as her intellect ripens faster, into deep and serious subjects: and that her range of literature should be, not more, but less frivolous; calculated to add the qualities of patience and seriousness to her natural poignancy of thought and quickness of wit; and also to keep her in a lofty and pure element of thought. I enter not now into any question of choice of books; only let us be sure that her books are not heaped up in her lap as they fall out of the package of the circulating library, wet with the last and lightest spray of the fountain of folly.
76. Or even of the fountain of wit; for with respect to the sore temptation of novel reading, it is not the badness of a novel that we should dread, so much as its over-wrought interest. The weakest romance is not so stupefying as the
lower forms of religious exciting literature, and the worst romance is not so corrupting as false history, false philosophy, or false pulitical essays. But the best romance becomes dangerous, if, by its excitement, it renders the ordinary course of life minteresting, and increases the morbid thirst for useless aequaintance with scenes in which we shall never be called upon to act.

7\%. I speak therefore of good novels only; and our modern literature is particularly rich in types of such. Well read, indeed, these books have serious use, being nothing less than treatises on moral anatomy and chemistry; studies of human nature in the elements of it. But I attach little weight to this function: they are hardly ever read with earnestness enongh to permit them to fulfil it. The utmost they usually do is to enlarge somewhat the charity of a kind reader, or the bitterness of a malicions one; for each will gather, from the nowel, food for her own disposition. Those who are naturally prond and envious will learn from Thackeray to despise hmmanity; those who are naturally gentle, to pity it; those who are naturally shallow, to laugh at it. So, also, there might be a serviceable power in novels to bring before us, in vividness, a hmman truth which we had before dimly conceived ; but the temptation to picturesqueness of statement is so great, that often the best writers of fiction cannot resist it; and our views are rendered so violent and one-sided, that their vitality is rather a harm than good.
78. Without, however, venturing here on any attempt at decision how much novel reading should be allowed, let me at least clearly assert this,-that whether novels, or poetry, or history be read, they should be chosen, not for their freedom from evil, but for their possession of good. The chance and scattered evil that may here and there haunt, or hide itself in, a powerful book, never does any harm to a noble girl; but the emptiness of an author oppresses her, and his amiable folly degrades her. And if she can have access to a good library of old and classical books, there need be no choosing at all. Keep the modern magazine and novel out of
your girl's way: turn her loose into the old library every wet day, and let her alone. She will find what is good for her; you cannot: for there is just this difference between the making of a girl's character and a boy's-you may chisel a boy into shape, as you would a rock, or hammer him into it, if he be of a better kind, as you would a piece of bronze. But you cannot hammer a girl into anything. She grows as a flower does,-she will wither without sun; she will decay in her sheath, as a narcissus will, if you do not give her air enough; she may fall, and defile her head in dust, if you leare her without help at some moments of her life; but you eannot fetter her; she must take her own fair form and way, if she take any, and in mind as in body, must have always

> "Her household motions light and free And steps of virgin liberty."

Let her loose in the library, I say, as you do a fawn in a field. It knows the bad weeds twenty times better than you; and the good ones too, and will eat some bitter and prickly ones, good for it, which you had not the slightest thought would have been so.
79. Then, in art, keep the finest models before her, and let her practice in all accomplishments be accurate and thorough, so as to enable her to understand more than she accomplishes. I say the finest models-that is to say, the truest, simplest, usefulest. Note those epithets: they will range through all the arts. Try them in music, where you might think them the least applicable. I say the truest, that in which the notes most closely and faithfully express the meaning of the words, or the character of intended emotion; again, the simplest, that in which the meaning and melody are attained with the fewest and most significant notes possible; and, finally, the usefulest, that music which makes the best words most beautiful, which enchants them in our memories each with its own glory of sound, and which applies them closest to the heart at the moment we need them.
80. And not only in the material and in the course, but yet more earnestly in the spirit of it, let a girl's education be as serious as a boy's. You bring up your girls as if they were meant for sideboard ornaments, and then complain of their frivolity. Give them the same adrantages that you give their brothers-appeal to the same grand instincts of virtue in them; teach them, also, that courage and truth are the pillars of their being:-do you think that they would not answer that appeal, brave and true as they are even now, when you know that there is hardly a girls' school in this Christian kingdom where the children's courage or sincerity would be thought of half so much importance as their way of coming in at a door; and when the whole system of society, as respects the mode of establishing them in life, is one rotten plague of cowardice and imposture-cowardice, in not daring to let them live, or love, except as their neighbors choose; and imposture, in bringing, for the purposes of our own pride, the full glow of the world's worst vanity upon a girl's eyes, at the very period when the whole happiness of her future existence depends upon her remaining undazzled?
81. And give them, lastly, not only noble teachings, but noble teachers. You consider somewhat before you send your boy to school, what kind of a man the master is;whatsocver kind of a man he is, you at least give him full authority over your son, and show some respect to him your-self;--if he comes to dine with you, you do not put him at a side table: you know also that, at college, your child's immediate tutor will be under the direction of some still higher tutor, for whom you have absolute reverence. Sou do not treat the Dean of Christ Church or the Master of Trinity as your inferiors.

But what teachers do you give your girls, and what reverence do you show to the teachers you have chosen? Is a girl likely to think her own conduct, or her own intellect, of much importance, when you trust the entire formation of her character, moral and intellectual, to a person whom you let your servants treat with less respect than they do your house-
keeper (as if the soul of your child were a less charge than jams and groceries), and whom you yourself think you confer an honor upon by letting her sometimes sit in the drawingroom in the evening ?
82. Thus, then, of literature as her help, and thus of art. There is one more help which she cannot do without-one which, alone, has sometimes done more than all other influences besides,-the help of wild and fair nature. Hear this of the education of Joan of Are:-

[^180]Now, you cannot, indeed, have here in England, woods eighteen miles deep to the center; but you can, perhaps, keep a fairy or two for your children yet, if you wish to keep them. But do you wish it? Suppose you had each, at the back of your houses, a garden, large enough for your children to play in, with just as mueh lawn as would give them room to run, -no more-and that you could not change your abode; but that, if you chose, you could double your income, or quad-

[^181]ruple it, by digging a coal shaft in the middle of the lawn, and turning the flower-beds into heaps of coke. Would you do it? I hope not. I can tell you, you would be wrong if you did, though it gave you income sixty-fold instead of fourfold.
83. Yet this is what you are doing with all England. The whole country is but a little garden, not more than enough for your children to run on the lawns of, if you would let them all run there. And this little garden you will turn into furnace ground, and fill with heaps of cinders, if you can; and those children of yours, not you, will suffer for it. For the fairies will not be all banished; there are fairies of the furnace as of the wrood, and their first gifts seem to be " sharp arrows of the mighty ; " but their last gifts are " coals of juniper."

S4. And yet I cannot-though there is no part of my subjeet that I feel more-press this upon you; for we made so little use of the power of nature while we had it that we shall hardly feel what we have lost. Just on the other side of the Mersey you have your Snowdon, and your Menai Straits, and that mighty granite rock beyond the moors of Anglesea, splendid in its heathery crest, and foot planted in the deep sea, onee thought of as sacred-a divine promontory, looking westward; the Holy Head or Headland, still not without awe when its red light glares first through storm. These are the hills, and these the bays and blue inlets, which, among the Greeks, would have been always loved, always fateful in influence on the national mind. That Suowdon is your Parnassus; but where are its Muses? That Holyhead mountain is your Island of Egina; but where is its Temple to Minerva?

S5. Shall I read you what the Christian Minerva had achieved under the shadow of our Parnassus up to the year 1848 ?- Here is a little account of a Welsh school, from page 261 of the Report on Wales, published by the Committee of Comeil on Education. This is a school close to a town containing 5,000 persons:-
"I then called up a larger class, most of whom had recently come to the school. Three girls repeatedly declared they had never heard of Christ, and two that they had never heard of God. Two out of six thought Christ was on earth now" (they might have had a worse thought perhaps) " three knew nothing about the Crucifixion. Four out of seven did not know the names of the months nor the number of days in a year. They had no notion of addition beyond two and two, or three and three ; their minds were perfect blanks."

Oh, ye women of England! from the Princess of that Wales to the simplest of you, do not think your own children can be brought into their true fold of rest, while these are seattered on the hills, as sheep having no shepherd. And do not think your daughters can be trained to the truth of their own human beauty, while the pleasant places, which God made at once for their schoolroom and their playground, lie desolate and defiled. You cannot baptize them rightly in those inch-deep fonts of yours, unless you baptize them also in the sweet waters which the great Lawgiver strikes forth for ever from the rocks of your native land-waters which a Pagan would have worshiped in their purity, and you worship only with pollution. You cannot lead your children faithfully to those narrow axe-hewn church altars of yours, while the dark azure altars in heaven-the mountains that sustain your island throne,-mountains on which a Pagan would have seen the powers of heaven rest in every wreathed cloud-remain for you without inscription; altars built, not to, but by an Unknown God.
86. (III.) Thus far, then, of the nature, thus far of the teaching, of woman, and thus of her houschold office, and queenliness. We now come to our last, our widest question. -What is her queenly office with respect to the state?
'Generally, we are under an impression that a man's duties are public, and a woman's private. But this is not altogether so. A man has a personal work or duty, relating to his own home, and a public work or duty, which is the expansion of the other, relating to the state. So a woman has a personal work or duty, relating to her own home, and a public work or duty, which is also the expansion of that.

Now the man's work for his own home is, as has been said, to secure its maintenance, progress, and defence; the woman's to secure its order, comfort, and loveliness.

Expand both these functions. The man's duty, as a member of a commonwealth, is to assist in the maintenance, in the adrance, in the defence of the state. The woman's duty, as a member of the commonwealth, is to assist in the ordering, in the comforting, and in the beautiful adornment of the state.

What the man is at his own gate, defending it, if need be, against insult and spoil, that also, not in a less, but in a more devoted measure, he is to be at the gate of his country, learing his home, if need be, even to the spoiler, to do his more incumbent work there.

And, in like manner, what the woman is to be within her gates, as the center of order, the balm of distress, and the mirror of beaty: that she is also to be without her gates, where order is more difficult, distress more imminent, loveliness more rare.

And as within the human heart there is always set an instinet for all its real duties,-an instinct which you cannot quench, but only warp and corrupt if you withdraw it from its true purpose:-as there is the intense instinct of love, which, rightly disciplined, maintains all the sanctities of life, and, misdirected, undermines them; and must do either the one or the other;-so there is in the human heart an incxtinguishable instinct, the love of power, which, rightly directed, maintains all the majesty of law and life, and, misdirected, wrecks them.
87. Deep rooted in the innermost life of the heart of man, and of the heart of woman, God set it there, and God kecps it there.-Vainly, as falsely, you blame or rebuke the desire of power!-For Heaven's sake, and for Man's sake, desire it all you can. But what power? That is all the question. Power to destroy? the lion's limb, and the dragon's breath? Not so. Power to heal, to redeem, to guide, and to guard. Power of the seepter and shield; the power of the royal hand
that heals in touching,-that binds the fiend, and looses the captive; the throne that is founded on the rock of Justice, and descended from only by steps of Merey. Will you not coret such power as this, and seek such throne as this, and be no more housewives, but queens?

S8. It is now long since the women of England arrogated, universally, a title which once belonged to nobility only; and, having once been in the habit of accepting the simple title of gentlewoman as correspondent to that of gentleman, insisted on the privilege of assuming the title of "Lady," " which properly corresponds only to the title of "Lord."

I do not blame them for this; but only for their narrow motive in this. I would have them desire and claim the title of Lady, provided they claim, not merely the title, but the office and duty signified by it. Lady means "bread-giver" or " loaf-giver," and Lord means " maintainer of laws," and both titles have reference, not to the law which is maintained in the house, nor to the bread which is given to the household; but to law maintained for the multitude, and to bread broken among the multitude. So that a Lord has legal claim only to his title in so far as he is the maintainer of the justice of the Lord of lords; and a Lady has legal claim to her title only so far as she communicates that help to the poor representatives of her Master, which women once, ministering to Him of their substance, were permitted to extend to that Master Himself; and when she is known, as He Himself once was, in breaking of bread.
89. And this beneficent and legal dominion, this power of the Dominus, or House-Lord, and of the Domina, or House-

[^182]Lady, is great and vencrable, not in the number of those throngh whom it has lineally descended, but in the number of those whom it grasps within its sway; it is always regarded with reverent worship wherever its dynasty is founded on its duty, and its ambition co-relative with its beneficence. Your fancy is pleased with the thought of being noble laties, with a train of rassals. Be it so ; you cannot be too noble, and your train cannot be too great; but see to it that your train is of rassals whom you serve and feed, not merely of slaves who serve and feed you; and that the multitude which obeys you is of those whom you have comforted, not oppressed,whom you have redeemed, not led into captivity.
90. And this, which is true of the lower or honsehold dominion, is equally true of the queenly dominion ; that highest dignity is open to yon, if yon will also accept that highest duty. Rex et Regina-Roi et Reine-" Right-doers; " they differ but from the Lady and Lord, in that their power is supreme over the mind as orer the person-that they not only feed and clothe, but direct and teach. And whether conscionsly or not, you must be, in many a heart, enthroned: there is no putting by that crown; queens you must always be: queens to your lovers; queens to your husbands and your sons; queens of higher mystery to the world beyond, which bows itself, and will for ever bow, before the myrtle crown and the stainless scepter of womanhood. But, alas! you are too often idle and eareless queens, grasping at majesty in the least things, while you abdicate it in the greatest; and learing misrule and violence to work their will among men, in defiance of the power which, holding straight in gift from the Prince of all Peace, the wicked among you betray, and the good forget.
91. "Prince of Peace." Note that name. When kings rule in that name, and nobles, and the judges of the earth, they also, in their narrow place, and mortal measure, receive the power of it. There are no other rulers than they; other rule than theirs is but misrule; they who govern verily "Dei Gratiî" are all princes, yes, or princesses of Peace. There
is not a war in the world, no, nor an injustice, but you women are answerable for it; not in that you have provoked, but in that you have not hindered. Men, by their nature, are prone to fight; they will fight for any cause, or for none. It is for you to choose their cause for them, and to forbid them when there is no cause. There is no suffering, no injustice, no misery, in the earth, but the guilt of it lies with you. Men can bear the sight of it, but you should not be able to bear it. Men may tread it down without sympathy in their own struggle ; but men are feeble in sympathy, and contracted in hope; it is you only who can feel the depths of pain, and conceive the way of its healing. Instead of trying to do this, you turn away from it; you shut yourselves within your park walls and garden gates; and you are content to know that there is beyond them a whole world in wil-derness-a world of secrets which you dare not penetrate; and of suffering which you dare not conceive.
92. I tell you that this is to me quite the most amazing among the phenomena of humanity. I am surprised at no depths to which, when once warped from its honor, that humanity can be degraded. I do not wonder at the miser's death, with his hands, as they relax, dropping gold. I do not wonder at the sensualist's life, with the shroud wrapped about his feet. I do not wonder at the single-handed murder of a single rictim, done by the assassin in the darkness of the railway, or reed shadow of the marsh. I do not even wonder at the myriad-handed murder of multitudes, done boastfully in the daylight, by the frenzy of nations, and the immeasurable, unimaginable guilt heaped up from hell to hearen, of their priests, and kings. But this is wonderful to me-oh, how wonderful!-to see the tender and delicate woman among you, with her child at her breast, and a power, if she would wield it, over it, and over its father, purer than the air of heaven, and stronger than the seas of earth-nay, a magnitude of blessing which her husband would not part with for all that earth itself, though it were made of one entire and perfect chrysolite:-to see her abdicate this
majesty to play at precedence with her next-door neighbor! This is wonderful-oh, wonderful!--to see her, with every imnocent feeling fresh within her, go out in the morning into her garden to play with the fringes of its guarded flowers, and lift their heads when they are drooping, with her happy smile upon her face, and no cloud upon her brow, because there is a little wall around her place of peace: and yet she knows, in her heart, if she would only look for its knowledge, that, outside of that little rose-corered wall, the wild grass, to the horizon, is torn up by the agony of men, and beat level by the drift of their life-blood.
93. Have you ever considered what a deep under meaning there lies, or at least may be read, if we choose, in our custom of strewing flowers before those whom we think most happy? Do you suppose it is merely to deceive them into the hope that happiness is always to fall thus in showers at their feet?-that wherever they pass they will tread on herbs of sweet scent, and that the rough ground will be made smooth for them ly depths of roses? So surely as they believe that, they will have, instead, to walk on bitter herbs and thorms; and the only softness to their feet will be of snow. But it is not thus intended they should beliese; there is a better meaning in that old custom. The path of a good woman is indeed strewn with flowers; but they rise behind her steps, not before them. "Her feet have touched the meadows, and left the daisies rosy."
94. You think that only a lover's fancy; -false and rain ! How if it could be true? You think this also, perhaps, only a poet's fancy-

> "Eren the light harebell raised its head Elastic from her airy tread."

But it is little to say of a woman, that she only does not destroy where she passes. She should revive; the harebells should bloom, not stoop, as she passes. You think I am rushing into wild hyperbole! Pardon me, not a whit-I mean what I say in calm English, spoken in resolute truth.

You have heard it said-(and I believe there is more than fancy even in that saying, but let it pass for a fanciful one) -that flowers only flourish rightly in the garden of some one who loves them. I know you would like that to be true; you would think it a pleasant magic if you could flush your flowers into brighter bloom by a kind look upon them: nay, more, if your look had the power, not only to checr, but to guard;-if you could bid the black blight turn away, and the knotted caterpillar spare-if you could bid the dew fall upon them in the drought, and say to the south wind, in frost -" Come, thou south, and breathe upon my garden, that the spices of it may flow out." This you would think a great thing? And do you think it not a greater thing, that all this, (and how much more than this!) you can do, for fairer flowers than these-flowers that could bless you for having blessed them, and will love you for having loved them; flowers that have thoughts like yours, and lives like yours; and which, once saved, you save for ever? Is this only a little power? Far among the moorlands and the rocks,-far in the darkness of the terrible streets,- these feeble florets are lying, with all their fresh leaves torn, and their stems broken: will you never go down to them, nor set them in order in their little fragrant beds, nor fence them in their trembling, from the fierce wind? Shall morning follow morning, for you, but not for them; and the dawn rise to wateh, far away, those frantic Dances of Death ; * but no dawn rise to breathe upon these living banks of wild violet, and woodbine, and rose; nor call to you, through your casement-call (not giving you the name of the English poet's lady, but the name of Dante's great Matilda, who, on the edge of happy Lethe, stood, wreathing flowers with flowers), saying:-
> "Come into the garden, Maud, For the black bat, night, has flown, And the woodbine spices are wafted abroad, And the musk of the roses blown"?

Will you not go down among them?-among those sweet * See note, p. 34.
living things, whose new courage, sprung from the earth with the deep color of heaven upon it, is starting up in strength of goodly spire; and whose purity, washed from the dust, is opening, bud by bud, into the flower of promise; -and still they turn to you, and for you, "The Larkspur listens-I hear, I hear! And the Lily whispers-I wait."
95. Did you notice that I missed two lines when I read you that first stanza; and think that I had forgotten them? Hear them now:-

> "Come into the garden, Maud, For the black bat, night, has flown, Come into the garlen, Maud, I am here at the gate, alone."

Who is it, think you, who stands at the gate of this sweeter garden alone, waiting for you? Did you ever hear, not of a Maud, but a Madeleine, who went down to her garden in the dawn, and found One waiting at the gate, whom she supposed to be the gardener? Have you not sought Him often; -sought IIim in vain, all through the night;-sought Him in vain at the gate of that old garden where the fiery sword is set? He is nerer there; but at the gate of this garden He is waiting always-waiting to take your hand-ready to go down to see the fruits of the valley, to see whether the vine has flourished, and the pomegranate budded. There you shall see with Him the little tendrils of the vines that His hand is guiding-there you shall see the pomegranate springing where IIis hand cast the sanguine seed;-more: you shall see the troops of the angel keepers that, with their wings, ware away the hungry birds from the pathsides where He has sown, and call to each other between the rineyard rows, "Take us the foxes, the little foxes, that spoil the vines, for our vines have tender grapes." Ol-you queens-you quecns! among the hills and happy greenwood of this land of yours, shall the foxes have holes, and the birds of the air lave nests; and in your cities, shall the stones cry out against you, that they are the only pillows where the Son of Man can lay His head?

## LECTURE III.

THE MYSTERY OF LIFE AND ITS ARTS.
(Lecture delivered in the theatre of the Royal College of Science, Dublin, 1868.)
96. When I accepted the privilege of addressing you to-day, I was not aware of a restriction with respect to the topics of discussion which may be brought before this Society*-a restriction which, though entirely wise and right under the circumstances contemplated in its introduction, would necessarily have disabled me, thinking as I think, from preparing any lecture for you on the subject of art in a form which might be permanently useful. Pardon me, therefore, in so far as I must transgress such limitation; for indeed my infringement will be of the letter-not of the spirit-of your commands. In whatever I may say tonching the religion which has been the foundation of art, or the policy which has contributed to its power, if I offend one, I sliall offend all; for I shall take no note of any separations in creeds, or antagonisms in parties: neither do $I$ fear that ultimately I shall offend any, by proving-or at least stating as capable of positive proof-the connection of all that is best in the crafts and arts of man, with the simplicity of his faith, and the sincerity of his patriotism.
97. But I speak to you under another disadvantage, by which I am checked in frankness of utterance, not here only, but everywhere: namely, that I am never fully aware how far my audiences are disposed to give me credit for real knowledge of my subject, or how far they grant me attention only because I have been sometimes thought an ingenious or * That no reference should be made to religious questions.
pleasant essayist upon it. For I have had what, in many respects, I boldly call the misfortme, to set my words sometimes prettily together; not without a foolish vanity in the poor knack that I had of doing so: until I was heavily punished for this pride, by finding that many people thought of the words only, and cared nothing for their meaning. Happily, therefore, the power of using such pleasant lan-guage-if indeed it ever were mine-is passing away from me ; and whatever I am now able to say at all, I find myself forced to say with great plainness. For my thoughts have changed also, as my words have; and whereas in earlier life, what little influence I obtained was due perhaps chiefly to the enthusiasm with which I was able to dwell on the beauty of the physical clouds, and of their colors in the sky; so all the influence I now desire to retain must be due to the carnestness with which I am endeavoring to trace the form and beanty of another kind of cloud than those; the bright cloud of which it is written-" What is your life? It is even as a vapor that appeareth for a little time, and then vanisheth away."
98. I suppose few people reach the middle or latter period of their age, without having, at some moment of change or disappointment, felt the truth of those bitter words; and been startled by the fading of the sunshine from the cloud of their life into the sudden agony of the knowledge that the fabric of it was as fragile as a dream, and the endurance of it as transient as the dew. But it is not always that, even at such times of melancholy surprise, we can enter into any true perception that this human life shares in the nature of it, not only the evanescence, but the mystery of the cloud; that its arenues are wreathed in darkness, and its forms and courses no less fantastic, than spectral and obscure; so that not only in the vanity which we cannot grasp, but in the shadow which we cannot pierce, it is true of this clondy life of ours, that " man walketh in a vain shadow, and disquieteth himself in vain."
99. And least of all, whatever may have been the eagerness
of our passions, or the height of our pride, are we able to understand in its depth the third and most solemn character in which our life is like those clouds of heaven; that to it belongs not only their transcience, not only their mystery, but also their power; that in the clond of the human soul there is a fire stronger than the lightning, and a grace more precious than the rain; and that though of the good and evil it shall one day be said alike, that the place that knew them knows them no more, there is an infinite separation between those whose brief presence had there been a blessing, like the mist of Eden that went up from the earth to water the garden, and those whose place knew them only as a drifting and changeful shade, of whom the hearenly sentence is, that they are "wells without water; clonds that are carried with a tempest, to whom the mist of darkness is reserved for ever."
100. To those among us, howerer, who have lived long enough to form some just estimate of the rate of the changes which are, hour by hour in accelerating catastrophe, manifesting themselves in the laws, the arts, and the creeds of men, it seems to me, that now at least, if never at any former time, the thoughts of the true nature of our life, and of its powers and responsibilities, should present themselves with absolute sadness and sternness. And although I know that this fecling is much deepened in my own mind by disappointment, which, by chance, has attended the greater number of my cherished purposes, I do not for that reason distrust the feeling itself, though I am on my guard against an exaggerated degree of it: nay, I rather believe that in periods of new effort and violent change, disappointment is a wholesome medicine; and that in the secret of it, as in the twilight so beloved by Titian, we may see the colors of things with deeper truth than in the most dazzling sunshine. And because these truths about the works of men, which I want to bring to-day before you, are most of them sad ones, though at the same time helpful; and becanse also I believe that your kind Irish hearts will answer more gladly to the truthful expression of a personal feeling, than to the exposition of
an abstract principle, I will permit myself so much unreserved speaking of my own causes of regret, as may enable you to make just allowance for what, according to your sympathies, you will call either the bitterness, or the insight, of a mind which has surrendered its best hopes, and been foiled in its favorite aims.
101. I spent the ten strongest years of my life, (from twenty to thirty, ) in endeavoring to show the excellence of the work of the man whom I believed, and rightly believed, to be the greatest painter of the schools of England since lieynolds. I had then perfect faith in the power of every great truth of beauty to prevail ultimately, and take its right place in usefulness and honor; and I strove to bring the painter's work into this due place, while the painter was yet alive. But he knew, better than $I$, the uselessness of talking about what people could not see for themselves. He always discouraged me scornfully, eren when he thanked me-and he died before even the superficial effect of my work was visible. I went on, howerer, thinking I could at least be of use to the public, if not to him, in proring his power. My books got talked about a little. The prices of modern pictures, generally, rose, and I was beginning to take some pleasure in a sense of gradual victory, when, fortunately or unfortunately, an opportunity of perfect trial undeceived me at once, and for ever. The Trustees of the National Gallery commissioned me to arrange the Turner drawings there, and permitted me to prepare three hundred examples of his studies from nature, for exhibition at Kensington. At Kensington they were, and are, placed for exhibition; but they are not exhibited, for the room in which they hang is always empty.
102. Well-this showed me at once, that those ten years of my life had been, in their chief purpose, lost. For that, I did not so much care ; I had, at least, learned my own business thoroughly, and should be able, as I fondly supposed, after such a lesson, now to use my knowledge with better effect. But what I did care for was the-to me frightful-
discovery, that the most splendid genius in the arts might be permitted by Providence to labor and perish uselessly; that in the very fineness of it there might be something rendering it invisible to ordinary eyes; but that, with this strange excellence, faults might be mingled which would be as deadly as its virtues were vain; that the glory of it was perishable, as well as invisible, and the gift and grace of it might be to us as snow in summer and as rain in harvest.
103. That was the first mystery of life to me. But, while my best energy was given to the study of painting, I had put collateral effort, more prudent if less enthusiastic, into that of architecture; and in this I could not complain of meeting with no sympathy. Among several personal reasons which cansed me to desire that I might give this, my closing lecture on the subject of art here, in Ireland, one of the chief was, that in reading it, I should stand near the beautiful building,--the engineer's school of your college,-which was the first realization I had the joy to sce, of the principles I had, until then, been endeavoring to teach! but which, alas, is now, to me, no more than the richly canopied monument of one of the most earnest souls that ever gave itself to the arts, and one of my truest and most loving friends, Benjamin Woodward. Nor was it here in Ireland only that I received the help of Irish sympathy and genius. When to another friend, Sir Thomas Deane, with Mr. Woodward, was entrusted the building of the museum at Oxford, the best details of the work were executed by sculptors who had been born and trained here; and the first window of the façade of the building, in which was inangurated the study of natural science in England, in true fellowship with literature, was carved from my design by an Irish sculptor.
104. You may perhaps think that no man ought to speak of disappointment, to whom, even in one brancli of labor, so much success was granted. Had Mr. Woodward now been beside me, I had not so spoken ; but his gentle and passionate spirit was cut off from the fulfilment of its purposes, and the work we did together is now become vain. It may not be so
in future; but the arehitecture we endeavored to introduce is inconsistent alike with the reekless luxury, the deforming mechanism, and the squalid misery of modern cities; among the formative fashions of the day, aided, especially in England, by ecelesiastical sentiment, it indeed obtained notoriety; and sometimes behind an engine furnace, or a railroad bank, you may detect the pathetic diseord of its momentary grace, and, with toil, decipher its floral carrings ehoked with soot. I felt answerable to the schools I loved, only for their injury. I perceived that this new portion of my strength had also been spent in vain; and from amidst streets of iron, and palaces of erystal, shrank back at last to the carving of the mountain and color of the flower.
105. And still I could tell of failure, and failure repeated, as year's went on; but I have trespassed enough on your patience to show rou, in part, the causes of my discouragement. Now let me more deliberately tell you its results. You know there is a tendency in the minds of many men, when they are hearily disappointed in the main purposes of their life, to feel, and perhaps in warning, perhaps in mockery, to declare, that life itself is a ranity. Because it has disappointed them, they think its nature is of disappointment always, or at best, of pleasure that can be grasped by imagination only; that the clond of it has no strength nor fire within; but is a painted cloud only, to be delighted in, yet despised. You know how beantifully Pope has expressed this particular phase of thought:-

> "Meanwhile opinion gilds, with rarying rays, These painted clouls that beautify our days; Each want of happiness by hope supplied, And each racuity of sense, by pride. Hope builds as fast as Knowledge can destroy ; In Folly's cup, still laughs the bubble joy. One pleasure past, another still we gain, And not a vanity is given in vain."

But the effect of failure upon my own mind has been just the reverse of this. The more that me life disappointed me,
the more solemn and wonderful it became to me. It seemed, contrarily to Pope's saying, that the ranity of it was indeed given in vain; but that there was something behind the reil of it, which was not ranity. It became to me not a painted cloud, but a terrible and impenetrable one: not a mirage, which ranished as I drew near, but a pillar of darkness, to which I was forbidden to draw near. For I saw that both my own failure, and such success in petty things as in its poor triumph seemed to me worse than failure, came from the want of sufficiently earnest effort to understand the whole law and meaning of existence, and to bring it to noble and due end; as, on the other hand, I saw more and more elearly that all enduring success in the arts, or in any other occupation, had come from the ruling of lower purposes, not by a conviction of their nothingness, but by a solemn faith in the advancing power of human nature, or in the promise, lowever dimly apprehended, that the mortal part of it would one day be swallowed up in immortality; and that, indeed, the arts themselves never had reached any vital strength or honor, but in the effort to proclaim this immortality, and in the service cither of great and just religion, or of some unselfish patriotism, and law of such national life as must be the foundation of religion.
106. Nothing that I have ever said is more true or neces-sary-nothing has been more misunderstood or misappliedthan my strong assertion that the arts can never be right themselves, unless their motive is right. It is misunderstood this way: weak painters, who have never learned their business, and cannot lay a true line, continually come to me, crying out-" Look at this picture of mine; it must be good, I had such a lovely motive. I have put my whole heart into it, and taken years to think over its treatment." Well, the only answer for these people is-if one had the cruclty to make it-" Sir, you cannot think over anything in any number of years, - you haven't the head to do it ; and though you had fine motives, strong enough to make you burn yourself in a slow fire, if only first you could paint a picture, you can't
paint one, nor half an inch of one; you haven't the hand to do it."

But, far more decisively we have to say to the men who do know their business, or may know it if they choose-"Sir, you have this gift, and a mighty one; see that you serve your nation faitlufully with it. It is a greater trust than ships and armies: you might cast them away, if you were their captain, with less treason to your people than in casting your own glorious power away, and serving the devil with it instead of men. Ships and armies you may replace if they are lost, but a great intellect, once abused, is a curse to the earth for ever."
107. This, then, I meant by saying that the arts must have noble motive. This also I said respecting them, that they never had prospered, nor could prosper, but when they had such true purpose, and were devoted to the proclamation of divine truth or law. And yet I saw also that they had always failed in this proclamation-that poetry, and seulpture, and painting, though only great when they strove to teach us something about the gorls, never had tanght us anything trustworthy about the gods, but had always betrayed their trust in the crisis of it, and, with their powers at the full reach, became ministers to pride and to lust. And I felt also, with increasing amazement, the unconguerable apathy in ourselves and hearers, no less than in these the teachers; and that while the wisdom and rightness of every act and art of life conld only be consistent with a right understanding of the ends of life, we were all plunged as in a languid dream-our hearts fat, and our eyes heavy, and our ears closed, lest the inspiration of hand or voice should reach us-lest we should see with our eyes, and understand with our hearts, and be healed.
108. This intense apathy in all of us is the first great mystery of life; it stands in the way of every perception, every virtue. There is no making ourselves feel enough astonishment at it. That the occupations or pastimes of life should have no motive, is understandable; but-That life
itself should have no motive-that we neither care to find out what it may lead to, nor to guard against its being for ever taken away from us-here is a mystery indeed. For just suppose I were able to call at this moment to any one in this audience by name, and to tell him positively that I knew a large estate had been lately left to him on some curions conditions; but that though I knew it was large, I did not know how large, nor even where it was-whether in the East Indies or the West, or in England, or at the Antipodes. I ouly knew it was a vast estate, and that there was a chance of his losing it altogether if he did not soon find out on what terms it had been left to him. Suppose I were able to say this positively to any single man in this audience, and he knew that I did not speak without warrant, do you think that he would rest content with that vague knowledge, if it were anywise possible to obtain more? Would he not give every energy to find some trace of the facts, and never rest till he had ascertained where this place was, and what it was like? And suppose he were a young man, and all he could discover by his best endeavor was that the estate was never to be his at all, unless he persevered, during certain years of probation, in an orderly and industrious life; but that, according to the rightness of his conduct, the portion of the estate assigned to him would be greater or less, so that it literally depended on his behavior from day to day whether he got ten thousand a year, or thirty thousand a year, or nothing whatever-would you not think it strange if the youth never troubled himself to satisfy the conditions in any way, nor eren to know what was required of him, but lived exactly as he chose, and never inquired whether his chances of the estate were increasing or passing away? Well, you know that this is actually and literally so with the greater mumber of the educated persons now living in Christian countries. Nearly every man and woman in any company such as this, outwardly professes to believe-and a large number unquestionably think they believe-much more than this; not only that a quite unlimited estate is in pros-
peet for them if they please the Holder of it, but that the infinite contrary of such a possession-an estate of perpetual misery-is in store for them if they displease this great Land-Holder, this great Heaven-Holder. And yet there is not one in a thousand of these human souls that cares to think, for ten minutes of the day, where this estate is, or how beautiful it is, or what kind of life they are to lead in it, or what kind of life they must lead to obtain it.
109. You fancy that you care to know this: so little do you care that, probably, at this moment many of you are displeased with me for talking of the matter! You came to hear about the Art of this world, not about the Life of the next, and you are provoked with me for talking of what you can hear any Sunday in church. But do not be afraid. I will tell you something before you go about pictures, and carvings, and pottery, and what else you would like better to hear of than the other world. Nay, perhaps you say, ". We want you to talk of pictures and pottery, because we are sure that you know something of them, and you know nothing of the other world." Well-I don't. That is quite true. But the rery strangeness and mystery of which I urge you to take notice, is in this-that I do not;-nor you either. Can you answer a single bold question unflinchingly about that other world?-Are you sure there is a heaven? Sure there is a hell? Sure that men are dropping before your faces through the parements of these strects into eternal fire, or sure that they are not? Sure that at your own death you are going to be delivered from all sorrow, to be endowed with all virtue, to be gifted with all felicity, and raised into perpetual companionship with a King, compared to whom the kings of the earth are as grasshoppers, and the nations as the dust of His feet? Are you sure of this? or, if not sure, do any of us so much as care to make it sure? and, if not, how can anything that we do be right--how can anything we think be wise? what honor can there be in the arts that amuse us, or what profit in the possessions that please?

Is not this a mystery of life?
110. But farther, you may, perhaps, think it a beneficent ordinance for the generality of men that they do not, with earnestness or anxiety, dwell on such questions of the future because the business of the day could not be done if this kind of thought were taken by all of us for the morrow. Be it so: but at least we might anticipate that the greatest and wisest of us, who were evidently the appointed teachers of the rest, would set themselves apart to seek out whatever could be surely known of the future destinies of their race; and to teach this in no rhetorical or ambiguous manuer, but in the plainest and most severely earnest words.

Now, the highest representatives of men who have thus endeavored, during the Christian cra, to search out these deep things, and relate them, are Dante and Milton. There are none who for earnestness of thought, for mastery of word, ean be classed with these. I am not at present, mind you, speaking of persons set apart in any priestly or pastoral office, to deliver creeds to us, or doctrines; but of men who try to discover and set forth, as far as by human intellect is possible, the facts of the other world. Divines may perhaps teach us how to arrive there, but only these two poets have in any powerful manner striven to discover, or in any definite words professed to tell, what we shall see and become there; or how those upper and nether worlds are, and have been, inhabited.
111. And what have they told us? Milton's account of the most important event in his whole system of the universe, the fall of the angels, is evidently unbelievable to himself; and the more so, that it is wholly founded on, and in a great part spoiled and degraded from, Hesiod's account of the deeisive war of the younger gods with the Titans. The rest of his poem is a picturesque drama, in which every artifice of invention is visibly and consciously employed; not a single fact being, for an instant, conceived as tenable by any living faith. Dante's conception is far more intense, and, by himself, for the time, not to be escaped from; it is indeed a vision, but a vision only, and that one of the wildest that
ever entranced a soul-a dream in which every grotesque type or fantasy of heathen tradition is renewed, and adorned; and the destinies of the Christian Church, under their most sacred symbols, become literally subordinate to the praise, and are only to be understood by the aid, of one dear . Florentine maiden.
112. I tell you tiuly that, as I strive more with this strange lethargy and trance in myself, and awake to the meaning and power of life, it seems daily more amazing to me that men such as these should dare to play with the most precions truths, (or the most deadly untruths,) by which the whole human race listening to them could be informed, or deceived;-all the world their andiences for ever, with pleased ear, and passionate heart; -and yet, to this submissive infinitude of souls, and evermore succeeding and succeeding multitude, hungry for bread of life, they do but play upon swectly modulated pipes; with pompous nomenclature adorn the councils of hell; touch a troubadour's guitar to the courses of the suns; and fill the openings of eternity, before which prophets have veiled their faces, and which angels desire to look into, with idle puppets of their scholastic imagination, and melancholy lights of frantic faith in their lost mortal love.

Is not this a mystery of life?
113. But more. We have to remember that these two great, teachers were both of them warped in their temper, and thwarted in their search for truth. They were men of intellectual war, unable, throngh darkness of controversy, or stress of personal grief, to discern where their own ambition modified their utterances of the moral law ; or their own agony mingled with their anger at its violation. But greater men than these have been-innocent-hearted-too great for contest. Men, like Homer and Shakespeare, of so unrecognized personality, that it disappears in future ages, and becomes ghostly, like the tradition of a lost heathen god. Men, therefore, to whose unoffended, uncondemning sight, the whole of human nature reveals itself in a pathetic weak-
ness, with which they will not strive; or in mournful and transitory strength, which they dare not praise. And all Pagan and Christian Civilization thus becomes subject to them. It does not matter how little, or how much, any of us have read, either of Homer or Shakespeare; everything round us, in substance, or in thought, has been molded by them. All Greek gentlemen were educated under Homer. All Roman gentlemen, by Greek literature. All Italian, and French, and English gentlemen, by Roman literature, and by its principles. Of the scope of Shakespeare, I will say only, that the intellectual measure of every man since born, in the domains of creative thought, may be assigned to him, according to the degree in which he has been taught by Shakespeare. Well, what do these two men, centers of mortal intelligence, deliver to us of conviction respecting what it most behooves that intelligence to grasp? What is their hope-their crown of rejoicing? what manner of exhortation have they for us, or of rebuke? what lies next their own hearts, and dictates their undying words? Have they any peace to promise to our unrest-any redemption to our misery?
114. Take Homer first, and think if there is any sadder image of human fate than the great Homeric story. The main features in the character of Achilles are its intense desire of justice, and its tenderness of affection. And in that bitter song of the Iliad, this man, though aided continually by the wisest of the gods, and burning with the desire of justice in his heart, becomes yet, through ill-governed passion, the most unjust of men: and, full of the deepest tenderness in his heart, becomes yet, through ill-governed passion, the most cruel of men. Intense alike in lore and in friendship, he loses, first his mistress, and then his friend; for the sake of the one, he surrenders to death the armies of his own land; for the sake of the other, he surrenders all. Will a man lay down his life for his friend? Yea-even for his dead friend, this Achilles, though goddess-born, and goddess-taught, gives up his kingdom, his country, and his
life-casts alike the immoeent and guilty, with himself, into one gulf of slaughter, and dies at last by the hand of the hasest of his adversaries.
Is not this a mystery of life?
115. But what, then, is the message to us of our own poet, and searcher of hearts, after fifteen hundred years of Christian faith have been numbered over the graves of men? Are his words more checrful than the Heathen's-is his hope more near-his trust more sure-his reading of fate more happs? Ah, no! IIe differs from the IIeathen poet chiefly in this-that le recognizes, for deliverance, no gods nigh at hand; and that, by petty chance-by momentary folly-by broken message-by fool's tyranny-or traitor's snare, the strongest and most righteous are brought to their ruin, and perish without word of hope. He indeed, as part of his rendering of character, ascribes the power and modesty of habitual devotion to the gentle and the just. The death-bed of Katharine is bright with visions of angels; and the great soldier-king, standing by his few dead, acknowledges the presence of the IIand that ean save alike ly many or by few. But observe that from those who with deepest spirit, meditate, and with deepest passion, mourn, there are no such words as these ; nor in their hearts are any such consolations. Instead of the perpetual sense of the helpful presence of the Deity, which, through all heathen tradition, is the source of heroie strength, in battle, in exile, and in the valley of the shadow of death, we find only in the great Christian poet, the consciousness of a moral law, through which "the gods are just, and of our pleasant vices make instruments to scourge us;" and of the resolved arbitration of the destinies, that conclude into precision of doom what we feebly and blindly began; and force us, when our indiscretion serves us, and our deepest plots do pall, to the confession, that " there's a divinity that shapes our ends, rough hew them how we will."

Is not this a mystery of life?
116. Be it so, then. About this human life that is to be, or that is, the wise religious men tell us nothing that we can.
trust ; and the wise contemplative men, nothing that can give us peace. But there is yet a third class, to whom we may turn-the wise practical men. We have sat at the feet of the poets who sang of heaven, and they have told us their dreams. We have listened to the poets who sang of earth, and they have chanted to us dirges and words of despair. But there is one class of men more:-men, not capable of vision, nor sensitive to sorrow, but firm of purpose-practiced in business; learned in all that can be, (by handling,) known. Men, whose hearts and hopes are wholly in this present world, from whom, therefore, we may surely learn, at least, how, at present, conveniently to live in it. What will they say to us, or show us by example? These kingsthese councilors-these statesmen and builders of kingdoms -these capitalists and men of business, who weigh the earth, and the dust of it, in a balance. They know the world, surely; and what is the mystery of life to us, is none to them. They can surely show us how to live, while we live, and to gather out of the present world what is best.
117. I think I can best tell you their answer, by telling you a dream I had once. For though I am no poet, I have dreams sometimes:-I dreamed I was at a child’s May-day party, in which every means of entertainment had been prorided for them, by a wise and kind host. It was in a stately house, with beantiful gardens attached to it; and the children had been set free in the rooms and gardens, with no care whatever but how to pass their afternoon rejoicingly. . They did not, indeed, know much about what was to happen next day; and some of them, I thought, were a little frightened, because there was a chance of their being sent to a new school where there were examinations; but they kept the thoughts of that out of their heads as well as they could, and resolved to enjoy themselves. The house, I said, was in a beautiful garden, and in the garden were all kinds of flowers; sweet, grassy banks for rest; and smooth lawns for play; and pleasant streams and woods; and rocky places for climbing. And the children were happy for a little while, but presently
they separated themselves into parties; and then each party declared it would have a piece of the garden for its own, and that none of the others should have anything to do with that piece. Next, they quarreled violently which pieces they would have; and at last the boys took up the thing, as boys should do, " practically," and fought in the flower-beds till there was hardly a flower left standing; then they trampled down each other's bits of the garden out of spite; and the girls cried till they could ery no more; and so they all lay down at last breathless in the ruin, and waited for the time when they were to be taken home in the evening.*
118. Mcanwhile, the children in the house had been making themselves happy also in their manner. For them, there had been provided every kind of indoor pleasure: there was music for them to dance to ; and the library was open, with all manner of amusing books; and there was a museum full of the most curious shells, and animals, and birds; and there was a workshop, with lathes and carpenter's tools, for the ingenious boys; and there were pretty fantastic dresses, for the girls to dress in; and there were mieroscopes, and kaleidoseopes; and whatever toys a child could fancy; and a table, in the dining-room, loaded with everything nice to eat.

But, in the midst of all this, it struck two or three of the more "practical" children, that they would like some of the brass-headed nails that studded the chairs; and so they set to work to pull them out. Presently, the others, who were reading, or looking at shells, took a faney to do the like; and, in a little while, all the children, nearly, were spraining their fingers, in pulling ont brass-headed nails. With all that they could pull out, they were not satisfied; and then, everybody wanted some of somebody else's. And at last, the really practical and sensible ones declared, that nothing was of any real consequence, that afternoon, except to get plenty of brassheaded nails; and that the books, and the cakes, and the

[^183]microscopes were of no use at all in themselves, but only, if they could be exchanged for nail-heads. And at last they began to fight for nail-heads, as the others fonght for the bits of garden. Only here and there, a despised one shrank away into a corner, and tried to get a little quiet with a book, in the midst of the noise; but all the practical ones thought of nothing else but counting nail-heads all the afternoon-even though they knew they would not be allowed to carry so much as one brass knob away with them. But no-it was-" Who has most nails? I have a hundred, and you have fifty; or, I have a thousand, and you have two. I must have as many as you before I leave the house, or I cannot possibly go home in peace." At last, they made so much noise that I awoke, and thought to myself, "What a false dream that is, of children!" The child is the father of the man; and wiser. Children never do such foolish things. Only men do.
119. But there is yet one last class of persons to be interrogated. The wise religious men we have asked in vain; the wise contemplative men, in vain; the wise worldly men, in vain. But there is another group yet. In the midst of this vanity of empty religion-of tragic contemplation-of wrathful and wretched ambition, and dispute for dust, there is yet one great group of persons, by whom all these disputers live-the persons who have determined, or have had it by a beneficent Providence determined for them, that they will do something useful; that whatever may be prepared for them hereafter, or happen to them here, they will, at least, deserve the food that God gives them by winning it honorably: and that, however fallen from the purity, or far from the peace, of Eden, they will carry out the duty of human dominion, though they have lost its felicity; and dress and keep the wilderness, though they no more can dress or keep the garden.

These,-hewers of wood, and drawers of water,-these, bent under burdens, or torn of scourges-these, that dig and weave-that plant and build; workers in wood, and in marble, and in iron-by whom all food, clothing, habitation,
furniture, and means of delight are produced, for themselves, and for all men beside; men, whose deeds are good, though their words may be few; men, whose lives are serviceable, be they never so short, and worthy of honor; be they never so humble;-from these, surely, at least, we may receive some clear message of teaching; and pierce, for an instant, into the mystery of life, and of its arts.
120. Yes ; from these, at last, we do receive a lesson. But I grieve to say, or rather-for that is the deeper truth of the matter-I rejoice to say-this message of theirs can only be receised by joining them-not by thinking about them.

You sent for me to talk to you of art; and I have obeyed you in coming. But the main thing I have to tell you is, that art must not be talked about. The fact that there is talk about it at all, signifies that it is ill done, or cannot be done. No true painter ever speaks, or ever has spoken, much of his art. The greatest speak nothing. Even Reynolds is no exception, for he wrote of all that he could not himself do, and was utterly silent respecting all that he himself did.

The moment a man can really do his work he becomes speechless abont it. All words become idle to him-all theories.
121. Does a bird need to theorize about building its nest, or boast of it when built? All good work is essentially done that way-without hesitation, without difficulty, withont boasting; and in the doers of the best, there is an inner and involuntary power which approximates literally to the instinct of an animal-nay, I am certain that in the most perfect human artists, reason does not supersede instinct, but is added to an instinct as much more divine than that of the lower animals as the human body is more beautiful than theirs; that a great singer sings not with less instinct than the nightingale, but with more-only more various, applieable, and governable; that a great architect does not build with less instinct than the beaver or the bee, but with more-with an innate cunning of proportion that embraces
all beauty, and a divine ingenuity of skill that improvises all construction. But be that as it may-be the instinct less or more than that of inferior animals-like or unlike theirs, still the human art is dependent on that first, and then upon an amount of practice, of science, -and of imagination disciplined by thought, which the true possessor of it knows to be incommunicable, and the true critic of it, inexplicable, except through long process of laborious years. That journey of life's conquest, in which hills orer hills, and Alps on Alps arose, and sank,-do you think you can make another trace it painlessly, by talking? Why, you cannot even carry us up an Alp, by talking. You can guide us up it, step by step, no otherwise-even so, best silently. You girls, who have been among the hills, know how the bad guide chatters and gesticulates, and it is " Put your foot here ; " and " Mind how you balance yourself there; " but the good guide walks on quietly, without a word, only with his eyes on you when need is, and his arm like an iron bar, if need be.
122. In that slow way, also, art can be taught-if you have faith in your guide, and will let his arm be to you as an iron bar when need is. But in what teacher of art have you such faith? Certainly not in me; for, as I told rou at first, I know well enough it is only because sou think I can talk, not because you think I know my business, that you let me speak to rou at all. If I were to tell you anything that seemed to you strange you would not beliere it, and yet it would only be in telling rou strange things that I could be of use to you. I could be of great use to you-infinite usewith brief saying, if you would believe it; but you would not, just because the thing that would be of real use would displease you. You are all wild, for instance, with admiration of Gustare Doré. Well, suppose I were to tell you, in the strongest terms I could use, that Gustave Dore's art was bad-bad, not in weakness,-not in failure,-but bad with dreadful power-the power of the Furies and the Harpies mingled, enraging, and polluting; that so long as rou looked at it, no perception of pure or beautiful art was possible for
you. Suppose I were to tell you that! What would be the use? Would you look at Gustave Doré less? Rather, more, I fancy. On the other hand, I could soon put you into good humor with me, if I chose. I know well enough what you like, and how to praise it to your better liking. I could talk to you about moonlight, and twilight, and spring flowers, and autumn leaves, and the Madonnas of Raphael-how motherly! and the Sibyls of Michael Angelo-how majestic! and the Saints of Angelico-how pious! and the Cherubs of Correggio-how delicious! Old as I am, I could play you a tune on the harp yet, that you would dance to. But neither you nor I should be a bit the better or wiser; or, if we were, our increased wisdom could be of no practical effect. For, indced, the arts, as regards teachableness, differ from the sciences also in this, that their power is founded not merely on facts which can be communicated, but on dispositions which require to be created. Art is neither to be achieved by effort of thinking, nor explained by accuracy of speaking. It is the instinctive and necessary result of power, which can only be developed through the mind of successive generations, and which finally burst into life under social conditions as slow of growth as the faculties they regulate. Whole eras of mighty listory are summed, and the passions of dead myriads are concentrated, in the existence of a noble art; and if that noble art were among us, we should feel it and rejoice; not caring in the least to hear lectures on it; and since it is not among us, be assured we have to go back to the root of it, or, at least, to the place where the stock of it is yet alive, and the branches began to die.
123. And now, may I have your pardon for pointing out, partly with reference to matters which are at this time of greater moment than the arts-that if we undertook such recession to the vital germ of national arts that have decayed, we should find a more singular arrest of their power in Ireland than in any other European country? For in the eighth century Ireland possessed a school of art in her manuseripts and sculpture, which, in many of its qualities-
apparently in all essential qualities of decorative inventionwas quite without rival ; seeming as if it might have advanced to the highest triumphs in architecture and in painting. But there was one fatal flaw in its nature, by which it was stayed, and stayed with a conspicuousuess of pause to which there is no parallel: so that, long ago, in tracing the progress of European schools from infancy to streugth, I chose for the students of Kensington, in a lecture since published, two characteristic examples of early art, of equal skill; but in the one case, skill which was progressive-in the other, skill which was at pause. In the one case, it was work receptive of correction-hungry for correction; and in the other, work which inherently rejected correction. I chose for them a corrigible Ere, and an incorrigible Angel, and I griceve to say that the incorrigible Angel was also an Trish Angel!*

12t. And the fatal difference lay wholly in this. In both pieces of art there was an equal falling short of the needs of fact; but the Lombardic Eve knew she was in the wrong, and the Irish Angel thought himself all right. The eager Lombardic sculptor, though firmly insisting on his childish idea, yet showed in the irregular broken touches of the features, and the imperfect struggle for softer lines in the form, a perception of beauty and law that he could not render; there was the strain of effort, under conscious imperfection, in every line. But the Irish missal-painter had drawn his angel with no sense of failure, in happy complacency, and put red dots into the palm of each hand, and rounded the eyes into perfect circles, and, I regret to say, left the mouth out altogether, with perfect satisfaction to himself.
125. May I without offence ask you to consider whether this mode of arrest in ancient Irish art may not be indicative of points of claracter which even yet, in some measure, arrest your national power? I have seen much of Irish character, and have watched it closely, for I have also much loved it. And I think the form of failure to which it is most liable is this,-that being generous-hearted, and wholly intending

[^184]always to do right, it does not attend to the external laws of right, but thinks it must necessarily do right because it means to do so, and therefore does wrong without finding it out; and then, when the consequences of its wrong come upon it, or upon others connected with it, it cannot conceive that the wrong is in anywise of its causing or of its doing, but flics into wrath, and a strange agony of desire for justice, as feeling itself wholly innocent, which leads it farther astray, until there is nothing that it is not capable of doing with a good conscience.
126. But mind, I do not mean to say that, in past or present relations between Ireland and England, you have been wrong, and we right. Far from that, I believe that in all great questions of principle, and in all details of administration of law, you have been usually right, and we wrong; sometimes in misunderstanding you, sometimes in resolute iniquity to you. Nevertheless, in all disputes between states, though the stronger is nearly always mainly in the wrong, the weaker is often so in a minor degree; and I think we sometimes admit the possibility of our being in error, and you never do.
127. And now, returning to the broader question, what these arts and labors of life have to teach us of its mystery, this is the first of their lessons-that the more beautiful the art, the more it is essentially the work of people who feel themselves wrong; -who are striving for the fulfilment of a law, and the grasp of a loveliness, which they have not yet attained, which they feel even farther and farther from attaining the more they strive for it. And yet, in still deéper sense, it is the work of people who know also that they are right. The very sense of inevitable error from their purpose marks the perfectness of that purpose, and the continued sense of failure arises from the continued opening of the eyes more clearly to all the sacredest laws of truth.
128. This is one lesson. The sccond is a very plain, and greatly precious one: namely-that whenever the arts and labors of life are fulfilled in this spirit of striving against
misrule, and doing whatever we have to do honorably and perfectly, they invariably bring happiness, as much as seems possible to the nature of man. In all other paths by which that happiness is pursued there is disappointment, or destruction: for ambition and for passion there is no rest-no fruition; the fairest pleasures of youth perish in a darkness greater than their past light: and the loftiest and purest love too often does but inflame the clond of life with endless fire of pain. But, ascending from lowest to highest, through every scale of human industry, that industry worthily followed, gives peace. Ask the laborer in the field, at the forge, or in the mine; ask the patient, delicate-fingered artisan, or the strong-armed, fiery-hearted worker in bronze, and in marble, and with the colors of light; and none of these, who are true workmen, will ever tell you, that they have found the law of heaven an unkind one-that in the sweat of their face they should eat bread, till they return to the ground; nor that they ever found it an unrewarded obedience, if, indeed, it was rendered faithfully to the command-" Whatsoever thy hand findeth to do-do it with thy might."
129. These are the two great and constant lessons which our laborers teach us of the mystery of life. But there is another, and a sadder one, which they cannot teach us, which we must read on their tombstones.
"Do it with thy might." There have been myriads upon myriads of human creatures who have obeyed this law-who have put every breath and nerve of their being into its toilwho have devoted every hour, and exhausted every facultywho have bequeathed their unaceomplished thoughts at death -who, being dead, have yet spoken, by majesty of memory, and strength of example. And, at last, what has all this "Might" of humanity accomplished, in six thousand years of labor and sorrow? What has it done? Take the three chief occupations and arts of men, one by one, and count their achievements. Begin with the first-the lord of them allAgriculture. Six thousand years have passed since we were set to till the ground, from which we were taken. How
much of it is tilled? How much of that which is, wisely or well? In the rery center and chief garden of Europewhere the two forms of parent Christianity have had their fortresses-where the noble Catholics of the Forest Cantons, and the noble Protestants of the Vaudois valleys, have maintained, for dateless ages, their faiths and liberties-there the unchecked Alpine rivers yet run wild in derastation; and the marshes, which a few hundred men could redeem with a year's labor, still blast their helpless inhabitants into ferered idiotism. That is so, in the center of Europe! While, on the near coast of Africa, once the Garden of the Hesperides, an Arab woman, but a few sunsets since, ate her child, for famine. And, with all the treasures of the East at our feet, we, in our own dominion, could not find a few grains of rice, for a people that asked of us no more; but stood by , and saw five hundred thousand of them perish of hunger.
130. Then, after agriculture, the art of kings, take the next head of human arts-Wearing; the art of queens, honored of all noble Heathen women, in the person of their virgin goddess-honored of all Hebrew women, by the word of their wisest king-" She layeth her hands to the spindle, and her hands hold the distaff; she stretcheth out her hand to the poor. She is not afraid of the snow for her household, for all her household are clothed with scarlet. She maketh herself covering of tapestry; her clothing is silk and purple. She maketh fine linen, and selleth it, and delivereth girdles to the merchant." What have we done in all these thousands of years with this bright art of Greek maid and Christian matron? Six thousand years of weaving, and have we learned to weave? Might not every naked wall have been purple with tapestry, and every fceble breast fenced with sweet colors from the cold? What have we done? Our fingers are too few, it seems, to twist together some poor covering for our bodies. We set our streams to work for us, and choke the air with fire, to turn our spinning-wheels-and, -are we yet clothed? Are not the streets of the capitals of

Europe foul with sale of cast clouts and rotten rags? Is not the beauty of your sweet children left in wretehedness of disgrace, while, with better honor, nature clothes the brood of the bird in its nest, and the suckling of the wolf in her den? And does not every winter's snow robe what you have not robed, and shroud what you have not shronded; and every winter's wind bear up to heaven its wasted souls, to witness against you hereafter, by the voice of their Christ, "I was naked, and ye clothed me not"?
131. Lastly-take the Art of Building-the strongest-proudest-most orderly-most enduring of the arts of man; that of which the produce is in the surest manner aceumulative, and need not perish, or be replaced; but if once well done, will stand more strongly than the unbalanced rocksmore prevalently than the crumbling hills. The art which is associated with all civic pride and sacred principle; with which men record their power-satisfy their enthusiasmmake sure their defence-define and make dear their habitation. And in six thousand years of building, what have we done? Of the greater part of all that skill and strength, no vestige is left, but fallen stones, that encumber the fields and impede the streams. But, from this waste of disorder, and of time, and of rage, what is left to us? Constructive and progressive creatures, that we are, with ruling brains, and forming hands, capable of fellowship, and thirsting for fame, can we not contend, in comfort, with the insects of the forest, or, in achievement, with the worm of the sea? The white surf rages in vain against the ramparts built by poor atoms of searcely nascent life; but only ridges of formless ruin mark the places where once dwelt our noblest multitudes. The ant and the moth have cells for each of their young, but our little ones lie in festering heaps, in homes that consume them like graves; and night by night, from the corners of our streets, rises up the cry of the homeless-" I was a stranger, and ye took me not in."
132. Must it be always thus? Is our life for ever to be without profit-without possession? Shall the strength of
its generations be as barren as death; or cast away their labor, as the wild fig-tree easts her untimely figs? Is it all a dream then-the desire of the eyes and the pride of lifeor, if it be, might we not live in nobler dream than this? The poets and prophets, the wise men, and the seribes, though they have told us nothing about a life to come, have told us much about the life that is now. They have had-they also, -their dreams, and we have laughed at them. They have dreamed of mercy, and of justice; they have dreamed of peace and good-will; they have dreamed of labor undisappointed, and of rest undisturbed; they have dreamed of fulness in harvest, and overfiowing in store; they have dreamed of wisdom in council, and of providence in law; of gladness of parents, and strength of children, and glory of gray hairs. And at these visions of theirs we have nocked, and held them for idle and vain, unreal and unaccomplishable. What have we accomplished with our realities? Is this what has come of our worldly wisdom, tried against their folly? this, our mightiest possible, against their impotent ideal? or, have we only wandered among the spectra of a baser felicity, and chased phantoms of the tombs, instead of visions of the Amighty ; and walked after the imaginations of our evil hearts, instead of after the counsels of Eternity, until our lives-not in the likeness of the cloud of heaven, but of the smoke of hell-hare become " as a rapor, that appeareth for a little time, and then ranisheth away?"
133. Does it vanish then? Are you sure of that?-sure, that the nothingness of the grave will be a rest from this troubled nothingness; and that the coiling shadow, which disquiets itself in vain, cannot change into the smoke of the torment that ascends for ever? Will any answer that they are sure of it, and that there is no fear, nor hope, nor desire, nor labor, whither they go? Be it so: will you not, then, make as sure of the Life that now is, as you are of the Death that is to come? Your hearts are wholly in this world-will you not give them to it wisely, as well as perfectly? And see, first of all, that you have hearts, and sound hearts, too,
to give. Because you have no heaven to look for, is that any reason that you should remain ignorant of this wonderful and infinite earth, which is firmly and instantly given you in possession? Although your days are numbered, and the following darkness sure, is it necessary that you should share the degradation of the brute, because you are condemned to its mortality ; or live the life of the moth, and of the worm, because you are to companion them in the dust? Not so; we may have but a few thousands of days to spend, perhaps hundreds only-perhaps tens; nay, the longest of our time and best, looked back on, will be but as a moment, as the twinkling of an eye; still we are men, not insects; we are living spirits, not passing clouds. "He maketh the winds His messengers; the momentary fire, His minister; " and shall we do less than these? Let us do the work of men while we bear the form of them; and, as we snatch our narrow portion of time out of Eternity, snatch also our narrow inheritance of passion out of Immortality-even though our lives be as a rapor, that appeareth for a little time, and then vanisheth away.
134. But there are some of you who beliere not this-who think this cloud of life has no such close-that it is to float, revealed and illumined, upon the floor of heaven, in the day when He cometh with clouds, and erery eye shall see Tim. Some dar, you believe, within these fire, or ten, or twenty years, for every one of us the judgment will be set, and the books opened. If that be true, far more than that must be true. Is there but one day of judgment? Why, for us every day is a day of judgment-every day is a Dies Irec, and writes its irrevocable verdiet in the flame of its West. Think you that judgment waits till the doors of the grave are opened? It waits at the doors of your honses-it waits at the corners of your streets; we are in the midst of judgment -the insects that we crush are our judges-the moments we fret away are our judges-the elements that feed us, judge, as they minister-and the pleasures that deceire us, judgo, as they indulge. Let us, for our lives, do the work of Men
while we bear the form of them, if indeed those lives are Not as a vapor, and do Not vanish away.
135. "The work of men "-and what is that? Well, we may any of us know very quickly, on the condition of being wholly ready to do it. But many of us are for the most part thinking, not of what we are to do, but of what we are to get ; and the best of us are sunk into the sin of Ananias, and it is a mortal one -we want to keep back part of the price; and we continually talk of taking up our cross, as if the only harm in a cross was the weight of it-as if it was only a thing to be carried, instead of to be-crucificd upon. "They that are His have crucified the flesh, with the affections and lusts." Does that mean, think you, that in time of national distress, of religious trial, of crisis for every interest and hope of humanity-none of us will cease jesting, none cease idling, none put themselves to any wholesome work, none take so much as a tag of lace off their footmen's coats, to save the world? Or does it rather mean, that they are ready to leave houses, lands, and kindreds-yes, and life, if need be? Life!-some of us are ready enough to throw that away, joyless as we have made it. But "station in Life" -how many of us are ready to quit that? Is it not always the great objection, where there is question of finding something useful to do-" We cannot leave our stations in Life" ?

Those of us who really cannot-that is to say, who can only maintain themselves by continuing in some business or salaricd office, have already something to do; and all that they have to see to is, that they do it honestly and with all their might. But with most people who use that apology, "remaining in the station of life to which Providence has called them" means keeping all the carriages, and all the footmen and large houses they can possibly pay for; and, once for all, I say that if ever Providence did put them into stations of that sort-which is not at all a matter of certainty -Providence is just now rery distinctly calling them out again. Levi's station in life was the receipt of custom; and

Petcr's, the shore of Galilee ; and Paul's, the ante-chambers of the High Priest,-which "station in life" each had to leave, with brief notice.

And, whatever our station in life may be, at this crisis, those of us who mean to fulfil our duty ought first to live on as little as we can; and, secondly, to do all the wholesome work for it we can, and to spend all we can spare in doing all the sure good we can.

And sure good is, first in feeding people, then in dressing people, then in lodging people, and lastly in rightly pleasing people, with arts, or sciences, or any other subject of thought.
136. I say first in feeding; and, once for all, do not let yourselves be deceived by any of the common talk of "indiscriminate charity:" The order to us is not to feed the deserving hungry, nor the industrious hungry, nor the amiable and well-intentioned hungry, but simply to feed the hungry. It is quite true, infallibly true, that if any man will not work, neither should he eat-think of that, and every time you sit down to your dinner, ladies and gentlemen, say solemnly, before you ask a blessing, "How much work have I done to-day for my dinner?" But the proper way to enforce that order on those below you, as well as on yourselves, is not to leave vagabonds and honest people to starve together, but very distinctly to discern and seize your vagabond; and shut your vagabond up out of honest people's way, and very sternly then see that, until he has worked, he does not eat. But the first thing is to be sure you have the food to give; and, therefore, to enforce the organization of vast activities in agriculture and in commerce, for the production of the wholesomest food, and proper storing and distribution of it, so that no famine shall any more be possible among civilized beings. There is plenty of work in this business alone, and at once, for any number of people who like to engage in it.
137. Secondly, dressing people-that is to say, urging every one within reach of your influence to be always neat and clean, and giving them means of being so. In so far as
they absolutely refuse, you must give up the effort with respect to them, only taking care that no children within your sphere of influence shall any more be brought up with such habits; and that every person who is willing to dress with propriety shall have encouragement to do so. And the first absolutely necessary step towards this is the gradual allontion of a consistent dress for different ranks of persons, so that their rank shall be known by their dress; and the restriction of the chamges of fashion within efrtain limits. All which appears for the present quite impossible; but it is only so far eren difficult as it is diffienlt to conquer our ranity, frivolity, and desire to appear what we are not. And it is not, nor erer shall be, ereed of mine, that these mean and shallow viees are unconquerable by Christian women.
138. And then, thirdly, lodging people, which you may think should have been put first, hut I put it third, becanse we must feed and clothe penple where we find them, and lodge them afterwards. And providing lodgment for them means a great deal of vigorous legislature, and cutting down of rested interests that stand in the way, and after that, or before that, so far as we can get it, therough sanitary and remedial action in the houses that we have; and then the building of more, strongly, beautifully, and in groups of limited extent, kept in proportion to their streams, and walled round, so that there may be no festering and wretehed suburb anywhere, but clean and busy street within, and the open country without, with a belt of beautiful garden and orehard round the walls, so that from any part of the city perfectly fresh air and grass, and sight of far horizon, might be reachable in a few minntes' walk. This the final aim; but in immediate action erery minor and possible good to be instantly done, when, and as, we can; roofs mended that have holes in them-fences patehed that have gaps in themwalls buttressed that totter-and floors propped that shake; cleanliness and order enforced with our own hands and eyes, till we are breathless, every day. And all the fine arts will healthily follow. I myself have washed a flight of stone
stairs all down, with bucket and broom, in a Savoy inn, where they hadn't washed their stairs since they first went up them; and I never made a better sketch than that afternoon.
139. These, then, are the three first needs of civilized life; and the law for every Christian man and woman is, that they shall be in direct service towards one of these three needs, as far as is consistent with their own special occupation, and if they have no special business, then wholly in one of these services. And out of such exertion in plain duty all other good will come; for in this direct contention with material evil, you will find out the real nature of all evil; you will discern by the various kinds of resistance, what is really the fault and main antagonism to good; also you will find the most unexpected helps and profound lessons given, and truths will come thus down to us which the speculation of all our lives would never have raised us up to. You will find nearly every educational problem solved, as soon as you truly want to do something; everybody will become of use in their own fittest way, and will learn what is best for them to know in that use. Competitive examination will then, and not till then, be wholesome, because it will be daily, and calm, and in practice; and on these familiar arts, and minute, but certain and serviceable knowlerlges, will be surely edified and sustained the greater arts and splendid theoretical sciences.
140. But much more than this. On such holy and simple practice will be founded, indeed, at last, an infallible religion. The greatest of all the mysteries of life, and the most terrible, is the corruption of even the sincerest religion, which is not daily founded on rational, effective, humble, and helpful action. Helpful action, observe! for there is just one law, which, obeyed, keeps all religions pure-forgotten, makes them all false. Whenever in any religious faith, dark or bright, we allow our minds to dwell upon the points in which we differ from other people, we are wrong, and in the devil's power! That is the essence of the Pharisee's thanksgiving"Lord, I thank Thee that I am not as other men are." At
every moment of our lives we should be trying to find out, not in what we differ from other people, but in what we agree with them; and the moment we find we can agree as to anything that should be done, kind or good, (and who but fools couldn't?) then do it; push at it together: you can't griarrel in a side-by-side push; but the moment that even the best men stop pushing, and begin talking, they mistake their pugnacity for piety, and it's all over. I will not speak of the crimes which in past times have been committed in the name of Christ, nor of the follies which are at this hour held to be consistent with obedience to Him ; but I will speak of the morbid corruption and waste of vital power in religious sentiment, by which the pure strength of that which should be the guiding soul of every nation, the splendor of its youthful manhood, and spotless light of its maidenhood, is averted or cast away. You may see continually girls who have never been taught to do a single useful thing thoroughly; who cannot sew, who cannot cook, who cannot cast an account, nor prepare a medicine, whose whole life has been passed either in play or in pride; you will find girls like these, when they are earnest-hearted, cast all their innate passion of religious spirit, which was meant by God to support them through the irksomeness of daily toil, into grievous and vain meditation over the meaning of the great Book, of which no syllable was ever yet to be understood but through a deed; all the instinetive wisdom and mercy of their womanhood made vain, and the glory of their pure consciences warped into fruitless agony concerning questions which the laws of common serviceable life would have either solved for them in an instant, or kept out of their way. Give such a girl any true work that will make her active in the dawn, and weary at night, with the conscionsness that her fellowcreatures have indeed been the better for her day, and the powerless sorrow of her enthusiasm will transform itself into a majesty of radiant and beneficent peace.

So with our youths. We once taught them to make Latin verses, and called them educated; now we teach them to leap
and to row, to hit a ball with a bat, and call them educated. Can they plow, can they sow, can they plant at the right time, or build with a steady hand? Is it the effort of their lives to be chaste, knightly, faithful, holy in thought, lovely in word and deed? Indeed it is, with some, nay, with many, and the strength of England is in them, and the hope; but we have to turn their courage from the toil of war to the toil of mercy; and their intellect from dispute of words to discernment of things; and their knighthood from the errantry of adventure to the state and fidelity of a kingly power. And then, indeed, shall abide, for them and for us, an incorruptible felicity, and an infallible religion; shall abide for us Faith, no more to be assailed by temptation, no more to be defended by wrath and by fear;-shall abide with us Hope, no more to be quenched by the years that overwhelm, or made ashamed by the shadows that betray:-shall abide for us, and with us, the greatest of these; the abiding will, the abiding name of our Father. For the greatest of these is Charity.

# THE ETHICS OF THE DUST 

TEN LECTURES

TO
LITTLE HOUSEWIVES
$\mathrm{O} . \mathrm{V}$
THE ELEMENTS OF CRYSTALLIZATION.

## THE REAL LITTLE HOUSEWIVES

whose gentle listening
AND THOUGHTFUL QUESTIONING
ENABLED THE WRITER TO WRITE THIS BOOK
IT IS DEDICATED With his love
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## PREFACE TO THE SECOND EDITION. (1877.)

1. I have seldom been more disappointed by the result of my lest pains given to any books, than by the earnest request of my late publishers, after the opinion of the public had been taken on the 'Ethics of the Dust,' that I would "write no more in dialogue!" However, I bowed to public judgment in this matter at once, (knowing also my inventive powers to be of the feeblest) ; but in reprinting the book (at the prevailing request of my kind friend, Mr. Henry Willett, ) I would pray the readers whom it may at first offend by its disconnected method, to examine, nevertheless, with care, the passages in which the principal speaker sums the conclusions of any dialogue: for these summaries were written as introductions, for young people, to all that I have said on the same matters in my larger books; and on re-reading them, they satisfy me better, and seem to me calculated to be more generally useful, than anything else I have done of the kind.

The summary of the contents of the old book, beginning, " You may at least earnestly believe," at p. 125, is thus the clearest exposition I have ever yet given of the general conditions under which the Personal Creative Power manifests itself in the forms of matter; and the analysis of heathen conceptions of Deity, beginning at p. 126, and closing at p. 134, not only prefaces, but very nearly supersedes, all that in more lengthy terms I have since asserted, or pleaded for, in 'Aratra Pentelici' and the 'Queen of the Air.'
2. And thus, however the book may fail in its intention of suggesting new occupations or interests to its younger readers, I think it worth reprinting, in the way I have also
reprinted 'Unto this Last,'-page for page; that the students of my more adranced works may be able to refer to these as the original documents of them ; of which the most essential in this book are these following.
I. The explanation of the baseness of the araricious functions of the Lower Pthah, p. 31, with his beetle-gospel, p. 34, "that a nation can stand on its vices better than on its virtues," explains the main motive of all my books on Political Economy.
II. The examination of the connection between stupidity and crime, pp. 49-54, anticipated all that I have had to urge in 'Fors Clavigera' against the commonly alleged excuse for public wickedness,-" They don't mean it-they don't know any better."
III. The examination of the roots of Moral Power, pp. S4, S6, is a summary of what is afterwards developed with utmost care in my inaugural lecture at Oxford on the relation of Art to Morals; compare in that lecture, §§ 83-S5, with the sentence in p. 85 of this book,--"Nothing is ever done so as really to please our Father, unless we would also have done it, though we had had no Father to know of it."

This sentence, however, it must be observed, regards only the general conditions of action in the children of God, in consequence of which it is foretold of them by Christ that they will say at the Judgment, "When saw we Thee ?" It does not refer to the distinct cases in which virtue consists in faith given to command, appearing to foolish human judgment inconsistent with the Moral Law, as in the sacrifice of Isaac; nor to those in which any directly-given command requires nothing more of virtue than obedience.
IV. The subsequent pages, 86-92, were written especially to check the dangerous impulses natural to the minds of many amiable young women, in the direction of narrow and selfish religious sentiment: and they contain, therefore, nearly everything which I believe it necessary that young people should be made to observe, respecting the errors of monastic life. But they in nowise enter on the
reverse, or favorable side ; of which indeed I did not, and as yet do not, feel myself able to speak with any decisiveness; the evidence on that side, as stated in the text, having " nerer yet been dispassionately examined."
V. The dialogue with Lucilla, beginning at p. 55, is, to my own fancy, the best bit of conversation in the book; and the issue of it, at p. 60, the most practically and immediately useful. For on the idea of the inevitable weakness and corruption of human nature, has logically followed, in our daily life, the horrible creed of modern "Social science," that all social action must be scientifically founded on vicious impulses. But on the habit of measuring and reverencing our powers and talents that we may kindly use them, will be founded a true Social science, developing, by the employment of them, all the real powers and honorable feclings of the race.
VI. Finally, the account given in the second and third lectures, of the real nature and marvelousness of the laws of crystallization, is necessary to the understanding of what farther teaching of the beauty of inorganic form I may be able to give, either in 'Deucalion,' or in my ' Elements of Drawing.' I wish however that the second lecture had been made the beginning of the book; and would fain now cancel the first altogether, which I perceive to be both obscure and dull. It was meant for a metaphorical description of the pleasures and dangers in the kingdom of Mammon, or of worldly wealth; its waters mixed with blood, its fruits entangled in thickets of trouble, and poisonous when gathered; and the final captivity of its inhabitants within frozen walls of cruelty and disdain. But the imagery is stupid and ineffective throughout ; and I retain this chapter only because I am resolved to leave no room for any one to say that I have withdrawn, as erroneous in principle, so much as a single sentence of any of my books written since 1860 .
3. One license taken in this book, howerer, though often permitted to essay-writers for the relief of their dullness, I never mean to take more,-the relation of composed meta-
phor as of actual dream, pp. 14 and 99. I assumed, it is true, that in these places the supposed dream would be easily seen to be an invention; but must not any more, even under so transparent disguise, pretend to any share in the real powers of Vision possessed by great poets and true painters.

Brantwood, 10th October, 1877.

## PREFACE TO THE FIRST EDITION. (1865.)

1. The following Lectures were really given, in substance, at a girls' school (far in the country) ; which, in the course of various experiments on the possibility of introducing some better practice of drawing into the modern scheme of female education, I visited frequently enough to enable the children to regard me as a friend. The Lectures always fell more or less into the form of fragmentary answers to questions; and they are allowed to retain that form, as, on the whole, likely to be more interesting than the symmetries of a continuous treatise. Many children (for the school was large) took part, at different times, in the conversations; but I have endeavored, without confusedly multiplying the number of imaginary* speakers, to represent, as far as I could, the general tone of comment and inquiry among young people.
2. It will be at once seen that these Lectures were not intended for an introduction to mineralogy. Their purpose was merely to awaken in the minds of young girls, who were ready to work earnestly and systematically, a vital interest in the subject of their study. No science can be learned in play; but it is often possible, in play, to bring good fruit out of past labor, or show sufficient reasons for the labor of the future.

The narrowness of this aim does not, indeed, justify the

[^185]absence of all reference to many important principles of structure, and many of the most interesting orders of mincrals; but I felt it impossible to go far into detail without illustrations; and if readers find this book useful, I may, perhaps, endearor to supplement it by illustrated notes of the more interesting phenomena in separate groups of familiar minerals;-flints of the chalk; agates of the basalts; and the fantastic and exquisitely beautiful varictics of the vein-ores of the two commonest metals, lead and iron. But I have always found that the less we speak of our intentions, the more chance there is of our realizing them; and this poor little book will sufficiently have done its work, for the present, if it engages any of its young readers in study which may enable them to despise it for its shortcomings.

## Denmark Hill, <br> Christmas 1865.

## THE ETHICS OF THE DUST.

LECTURE I.<br>THE VALLEY OF DIAMONDS.<br>$A$ very idle talk, by the dining-room fire, after raisin-and-almond-time.

Old Lecturer; Florrie, Isabel, May, Lily, and Sibyl.

1. Old Lecturer (L.). Come here, Isabel, and tell me what the make-believe was, this afternoon.

Isabel (arranging herself very primly on the footstool). Such a dreadful one! Florrie and I were lost in the Valley of Diamonds.
L. What! Sindbad's, which nobody could get out of?

Isabel. Yes; but Florrie and I got out of it.
L. So I see. At least, I see you did; but are you sure Florrie did?

Isabel. Quite sure.
Florrie (putting her head round from behind L.'s sofacushion). Quite sure. (Disappears again.)
L. I think I could be made to feel surer about it.
(Florrie reappears, gives L. a kiss, and again exit.)
L. I suppose it's all right; but how did you manage it?

Isabel. Well, you know, the eagle that took up Sindbad was very large-very, very large-the largest of all the eagles.
L. How large were the others?

Isabel. I don't quite know-they were so far off. But this one was, oh, so big! and it had great wings, as wide astwice over the ceiling. So, when it was picking up Sindbad, Florrie and I thought it wonldn't know if we got on its back
too: so I got up first, and then I pulled up Florrie, and we put our arms round its neck and away it flew.
L. But why did you want to get out of the valley? and why haven't you brought me some diamonds?

Isabel. It was because of the serpents. I conldn't piek up even the least little bit of a diamond, I was so frightened.
L. You should not have minded the serpents.

Isabel. Oh, but suppose they had minded me?
L. We all of us mind you a little too much, Isabel, I'm afraid.

Isabel. No-no-no, indeed.
2. L. I tell you what, Isabel-I don't believe either Sindbad, or Florrie, or you, ever were in the Valley of Diamonds.

Isabel. You naughty! when I tell you we were!
L. Because you say you were frightened at the serpents.

Isabel. And wouldn't you have been?
L. Not at those scrpents. Nobody who really goes into the valley is ever frightened at them-they are so beautiful.

Isabel (suddenly serious). But there's no real Valley of Diamonds, is there?
L. Yes, Isabel; very real indced.

Florrie (reappearing). Oh, where? Tell me about it.
L. I cannot tell you a great deal about it ; only I know it is very different from Sindbad's. In his valley, there was only a diamond lying here and there; but, in the real valley, there are diamonds eovering the grass in showers every morning, instead of dew: and there are clusters of trees, which look like lilac trees; but, in spring, all their blossoms are of amethyst.

Florrie. But there can't be any serpents there, then?
L. Why not?

Florrie. Because they don't come into such beautiful places.
L. I never said it was a beautiful place.

Florrie. What! not with diamonds strewed about it like dew?
L. That's according to your fancy, Florrie. For myself, I like dew better.

Isabel. Oh, but the dew won't stay ; it all dries!
L. Yes; and it would be much nicer if the diamonds dried too, for the people in the ralley have to sweep them off the grass, in heaps, whenever they want to walk on it; and then the heaps glitter so, they hurt one's eyes.
3. Florrie. . Now you're just playing, you know.
L. So are you, you know.

Florrie. Yes, but you mustn't play.
L. That's very hard, Florrie; why mustn't I, if you may?

Florrie. Oh, I may, because I'm little, but you mustn't, because you're-(hesitates for a delicate expression of magnitude).
L. (rudely taking the first that comes). Because I'm big? No; that's not the way of it at all, Florrie. Because you're little, you should have very little play; and because I'm big, I should have a great deal.

Isabel and Florrie (both). No-no-no-no. That isn't it at all. (Isabel, sola, quoting Miss Ingelow.) 'The lambs play always-they know no better.' (Putting her head very much on one side.) Ah, now-please-pleasetell us true; we want to know.
L. But why do you want me to tell you true, any more than the man who wrote the 'Arabian Nights' ?

Isabel. Because-because we like to know about real things; and you can tell us, and we can't ask the man who wrote the stories.
L. What do you call real things?

Isabel. Now, you know! Things that really are.
L. Whether you can see them or not?

Isabel. Yes, if somebody else saw them.
L. But if nobody has ever seen them ?
4. Isabel (evading the point). Well, but, you know, if there were a real Valley of Diamonds, somebody must have seen it.
L. You cannot be so sure of that, Isabel. Many people go to real places, and never see them; and many people pass through this valley, and never sce it.

Florrie. What stupid people they must be!
L. No, Florric. They are much wiser than the people who do see it.

May. I think I know where it is.
Is.abel. Tell us more about it, and then we'll guess.
L. Well-there's a great broad road, by a river-side, leading up into it.

May (gravely cunning, with emphasis on the last word). Does the road really go up?
L. You think it should go down into a valley? No, it gocs up; this is a valley among the hills, and it is as high as the clouds, and is often full of them; so that even the people who most want to see it, cannot, always.

Isabel. And what is the river beside the road like?
L. It ought to be rery beantiful, because it flows over diamond sand-only the water is thick and red.

Isabel. Red water?
L. It isn't all water.

Mar. Oh, please never mind that, Isabel, just now; I want to hear about the valley.
5. L. So the entrance to it is very wide, under a steep rock; only such numbers of people are always trying to get in, that they keep jostling each other, and manage it but slowly. Some weak ones are pushed back, and never get in at all; and make great moaning as they go away: but perhaps they are none the worse in the end.

May. And when one gets in, what is it like?
L. It is up and down, broken kind of ground: the road stops directly; and there are great dark rocks, covered all over with wild gourds and wild vines; the gourds, if you cut them, are red, with black seeds, like water-melons, and look ever so nice; and the people of the place make a red pottage of them ; but you must take care not to eat any if you ever want to leave the valley, (though I believe putting plenty of
meal in it makes it wholesome). Then the wild rines have clusters of the color of amber; and the people of the country say they are the grape of Eshcol; and sweeter than honey: but indeed, if anybody else tastes them, they are like gall. Then there are thickets of bramble, so thorny that they would be cut away directly, anywhere else; but liere they are corered with little cinque-foiled blossoms of pure silver; and, for berries, they have clusters of rubies. Dark rubies, which you only see are red after gathering them. But you may fancy what blackberry parties the children have! Only they get their frocks and hands sadly torn.

Lily. But rubies can't spot one's frocks, as blackberries do?
6. L. No; but I'll tell you what spots them-the mulberries. There are great forests of them, all up the hills, covered with silkworms, some munching the leaves so loud that it is like mills at work; and some spinning. But the berries are the blackest you ever saw; and, wherever they fall, they stain a deep red; and nothing ever washes it out again. And it is their juice, soaking through the grass, which makes the river so red, because all its springs are in this wood. And the bonghs of the trees are twisted, as if in pain, like old olive branches; and their leaves are dark. And it is in these forests that the serpents are ; but nobody is afraid of them. They have fine crimson erests, and they are wreathed about the wild branches, one in every tree, nearly; and they are singing serpents, for the serpents are, in this forest, what birds are in ours.

Florrie. Oh, I don't want to go there at all, now.
L. You would like it very much indeed, Florrie, if you were there. The serpents would not bite you; the only fear would be of your turning into one!

Florrie. Oh, dear, but that's worse.
L. You wouldn't think so if you really were turned into one, Florrie ; you would be very prond of your crest. And as long as you were yourself (not that you could get there if you remained quite the little Florrie you are now), you
would like to hear the serpents sing. They liss a iittle through it, like the cicadas in Italy; but they keep good time, and sing delightful melodies; and most of them have seven heads, with throats which each take a note of the octave; so that they can sing chords-it is very fine indeed. And the fireflies fly round the edge of the forests all the night long; you wade in fireflies, they make the fields look like a lake trembling with reflection of stars; but you must take care not to touch them, for they are not like Italian fireflies, but burn, like real sparks.

Florrie. I don't like it at all ; I'll never go there.
7. L. I hope not, Florrie ; or at least that you will get out again if you do. And it is very difficult to get out, for beyond these serpent forests there are great cliffs of dead gold, which form a labyrinth, winding always higher and higher, till the gold is all split asunder by wedges of ice; and glaciers, welded, half of ice seven times frozen, and half of gold seren times frozen, hang down from them, and fall in thunder, cleaving into deadly splinters, like the Cretan arrowheads; and into a mixed dust of snow and gold, ponderous, yet which the mountain whirlwinds are able to lift and drive in wreaths and pillars, hiding the paths with a burial cloud, fatal at once with wintry chill, and weight of golden ashes. So the wanderers in the labyrinth fall, one by one, and are buried there:-yet, over the drifted graves, those who are spared climb to the last, through coil on coil of the path;-for at the end of it they see the king of the valley, sitting on his throne: and beside him, (but it is only a false vision), spectra of creatures like themselves, set on thrones, from which they seem to look down on all the kingdoms of the world, and the glory of them. And on the canopy of his throne there is an inscription in fiery letters, which they strive to read, but cannot; for it is written in words which are like the words of all languages, and yet are of none. Men say it is more like their own tongue to the English than it is to any other nation ; but the only record of
it is by an Italian, who heard the king himself cry it as a war cry, ' Pape Satan, Pape Satan Aleppe.'*
8. Sibil. But do they all perish there? You said there was a way through the valley, and out of it.
L. Yes; but few find it. If any of them keep to the grass paths, where the diamonds are swept aside; and hold their hands over their eyes so as not to be dazzled, the grass paths lead forward gradually to a place where one sees a little opening in the golden rocks. You were at Chamouni last year, Sibyl; did your guide chance to show you the piereed rock of the Aiguille du Midi?

Sibyl. No, indeed, we only got up from Geneva on Monday night; and it rained all Tuesday: and we had to be back at Genera again, early on Wednesday morning.
L. Of course. That is the way to see a country in a Sibylline manner, by inner consciousness: but you might have seen the pierced rock in your drive up, or down, if the clouds broke: not that there is much to see in it; one of the crags of the aiguille-edge, on the southern slope of it, is struck sharply through, as by an awl, into a little eyelet hole; which you may see, seven thousand feet above the valley, (as the clouds flit past behind it, or leave the sky), first white, and then dark blue. Well, there's just such an eyelet hole in one of the upper crags of the Diamond Valley; and, from a distance, you think that it is no bigger than the eye of a needle. But if you get up to it, they say you may drive a loaded camel through it, and that there are fine things on the other side, but I have never spoken with anybody who had been through.

Sibil. I think we understand it now. We will try to write it down, and think of it.
9. L. Meantime, Florrie, though all that I have been telling you is very true, yet you must not think the sort of diamonds that people wear in rings and necklaces are found lying about on the grass. Would you like to see how they really are found?

[^186]Florrie. Oh, yes-yes.
L. Isabel-or Lily-run up to my room and fetch me the little box with a glass lid, out of the top drawer of the chest of drawers. (Race between Lily and Isabel..)
(Re-enter Isabel with the box, very much out of breath. Lily behind.)
L. Why, you never can beat Lily in a race on the stairs, can you, Isabel?

Isabel (panting). Lily-beat me-erer so far-but she gave me-the box-to carry in.
L. Take off the lid then; gently.

Florrie (after peeping in, disappointed). There's only a great ugly brown stone!
L. Not much more than that, certainly, Florrie, if people were wise. But look, it is not a single stone; but a knot of pebbles fastened together by gravel; and in the gravel, or compressed sand, if you look close, you will see grains of gold glittering everywhere, all through ; and then, do you see these two white beads, which shine, as if they had been covered with grease?

Florrie. May I touch them?
L. Yes; you will find they are not greasy, only very smooth. Well, those are the fatal jewels; native here in their dust with gold, so that you may see, cradled here together, the two great enemies of mankind,-the strongest of all malignant physical powers that have tormented our race.

Sibyl. Is that really so? I know they do great harm; but do they not also do great good?
10. L. My dear child, what good? Was any woman, do you suppose, ever the better for possessing diamonds? but how many have been made base, frivolous, and miserable by desiring them? Was ever man the better for having coffers full of gold? But who shall measure the guilt that is incurred to fill them? Look into the history of any civilized nations; analyze, with reference to this one cause of crime and misery, the lives and thoughts of their nobles, priests,
merchants, and men of luxurious life. Every other temptation is at last concentrated into this; pride, and lust, and envy, and anger, all give up their strength to avarice. The $\sin$ of the whole world is essentially the $\sin$ of Judas. Men do not disbelieve their Christ; but they sell Him.

Sibyi. But surely that is the fault of human nature? it is not caused by the accident, as it were, of there being a pretty metal, like gold, to be found by digging. If people could not find that, would they not find something else, and quarrel for it instead?
11. L. No. Wherever legislators have succeeded in excluding, for a time, jewels and precious metals from among national possessions, the national spirit has remained healthy. Covetousness is not natural to man-generosity is ; but covetousness must be excited by a special cause, as a given disease by a given miasma; and the essential nature of a material for the excitement of covetousness is, that it shall be a beautiful thing which can be retained without a use. The moment we can use our possessions to any good purpose ourselves, the instinct of communicating that use to others rises side by side with our power. If you can read a book rightly, you will want others to hear it ; if you can enjoy a picture rightly, you will want others to see it: learn how to manage a horse, a plow, or a ship, and you will desire to make your subordinates good horsemen, plowmen, or sailors: you will never be able to see the fine instrmment you are master of, abused; but, once fix your desire on anything useless, and all the purest pride and folly in your heart will mix with the desire, and make you at last wholly inhuman, a mere ugly lump of stomach and suckers, like a cuttle-fish.
12. Sibyl. But surely, these two beautiful things, gold and diamonds, must have been appointed to some good purpose?
L. Quite conceirably so, my dear: as also earthquakes and pestilences; but of such ultimate purposes we can have no sight. The practical, immediate office of the earthquake
and pestilence is to slay us, like moths; and, as moths, we shall be wise to live out of their way. So, the practical, immediate office of gold and diamonds is the multiplied destruction of souls, (in whatever sense you have been taught to understand that phrase) ; and the paralysis of wholesome human effort and thought on the face of God's carth: and a wise nation will live out of the way of them. The money which the English habitually spend in cutting diamonds would, in ten years, if it were applied to eutting roeks instead, leave no dangerous reef nor difficult harbor round the whole island coast. Great Britain would be a diamond worth cutting, indeed, a true piece of regalia. (Leaves this to their thoughts for a little while.) Then, also, we poor mineralogists might sometimes have the chance. of sceing a fine crystal of diamond unhacked by the jeweler.

Sibyl. Would it be more beautiful uncut?
L. No; but of infinite interest. We might even come to know something about the making of diamonds.

Sibyl. I thought the chemists could make them already?
13. L. In very small black crystals, yes; but no one knows how they are formed where they are found; or if indeed they are formed there at all. These, in my hand, look as if they had been swept down with the gravel and gold; only we can trace the gravel and gold to their native rocks, but not the diamonds. Read the account given of the diamond in any good work on mineralogy;-you will find nothing but lists of localities of gravel, or conglomerate rock (which is only an old indurated gravel). Some say it was once a vegetable gum; it may have been charred wood; but what one would like to know is, mainly, why charcoal should make itself into diamonds in India, and only into black lead in Borrowdale.

Sibyl. Are they wholly the same, then?
L. There is a little iron mixed with our black lead; but nothing to hinder its crystallization. Your pencils in fact are all pointed with formless diamond, though they would be н н н pencils to purpose, if it crystallized.

Sibyl. But what is crystallization?
L. A pleasant question, when one's half asleep, and it has been tea time these two hours. What thoughtless things girls are!

Sibyl. Yes, we are; but we want to know, for all that. L. My dear, it would take a week to tell you. Sibyl. Well, take it, and tell us.
L. But nobody knows anything about it. Sibyl. Then tell us something that nobody knows.
L. Get along with you, and tell Dora to make tea.
(The house rises; lut of course the Lecturer wanted to be forced to lecture again, and was.)

## LECTURE II.

## THE PYRAMID BUILDERS.

## In the large Schoolroom, to uhich everybody has been summoned by ringing of the great bell.

14. L. So you have all actually come to hear about crystallization! I cannot conceive why, unless the little ones think that the discussion may involve some reference to sugar-candy.
(Symptoms of high displeasure among the younger members of council. Isabel frowns severely at L., and shakes her head violently.)
My dear children, if you knew it, you are yourselves, at this moment, as you sit in your ranks, nothing, in the eyes of a mineralogist, but a lovely group of rosy sugar-candy, arranged by atomic forces. And even admitting you to be something more, you have certainly been crystallizing without knowing it. Did not I hear a great lurrying and whispering, ten minutes ago, when you were late in from the playground; and thought you would not all be quietly seated by the time I was ready:-besides some discussion about places-something about 'it's not being fair that the little ones should always be nearest ' ? Well, you were then all being crystallized. When you ran in from the garden, and against one another in the passages, you were in what mineralogists would call a state of solution, and gradual confluence; when you got seated in those orderly rows, each in her proper place, you became crystalline. That is just what the atoms of a mineral do, if they can, whenever they get disordered: they get into order again as soon as may be.

I hope you feel inclined to interrupt me, and say, 'But we know our places; how do the atoms know theirs? And
sometimes we dispute about our places; do the atoms- (and, besides, we don't like being compared to atoms at all)-never dispute about theirs?' Two wise questions these, if you had a mind to put them! it was long before I asked them myself, of myself. And I will not call you atoms any more. May I call you-let me see-' primary molecules'? (General dissent indicated in subdued but decisive murmurs.) No! not even, in familiar Saxon, 'dust'?
(Pause, with expression on faces of sorrowful doubt;
Lily gives roice to the general sentiment in a timid
'Please don't.')
15. No, children, I won't call you that; and mind, as you grow up, that you do not get into an idle and wicked habit of calling yourselves that. You are something better than dust, and have other duties to do than ever dust can do ; and the bonds of affection you will enter into are better than merely 'getting into order.' But see to it, on the other hand, that you always behave at least as well as 'dust;' remember, it is only on compulsion, and while it has no free permission to do as it likes, that it ever gets out of order: but sometimes, with some of us, the compulsion has to be the other way-hasn't it? (Remonstratory whispers, expressive of opinion that the Lecturer is becoming too personal.) I'm not looking at anybody in particular-indeed I am not. Nay, if you blush so, Kathleen, how can one help looking? We'll go back to the atoms.
'How do they know their places?' you asked, or should have asked. Yes, and they have to do much more than know them; they have to find their way to them, and that quietly and at once, without rumning against each other.
16. We mar, indeed, state it briefly thus:-Suppose you have to build a castle, with towers and roofs and buttresses, out of bricks of a given shape, and that these bricks are all lying in a huge heap at the bottom, in utter confusion, upset out of carts at random. You would have to draw a great many plans, and count all your bricks, and be sure you had enough for this and that tower, before you began, and then
you would have to lay your foundation, and add layer by layer, in order, slowly.

But how would you be astonished, in these melancholy days, when children don't read children's books, nor believe any more in fairies, if suddenly a real benevolent fairy, in a bright-red gown, were to rise in the midst of the red bricks, and to tap the heap of them with her wand, and say: 'Pricks, bricks, to your places!' and then you saw in an instant the whole heap rise in the air, like a swarm of red bees, andyou have been used to see bees make a honeycomb, and to think that strange enongh, but now you would see the honeycomb make itself!-You want to ask something, Florrie, by the look of your eyes.

Florrie. Are they turned into real bees, with stings?
L. No, Florrie; you are only to fancy flying bricks, as you saw the slates flying from the roof the other day in the storm; only those slates didn't seem to know where they were going, and, besides, were going where they had no business: but my spell-bound bricks, though they have no wings, and what is worse, no heads and no eyes, yet find their way in the air just where they should settle, into towers and roofs, each flying to his place and fastening there at the right moment, so that every other one shall fit to him in his turn.

Lily. But who are the fairies, then, who build the crystals?
L. There is one great fairy, Lily, who builds much more than crystals; but she builds these also. I dreamed that I saw her building a pyramid, the other day, as she used to do for the Pharaohs.

Isabel. But that was only a dream?
L. Some dreams are truer than some wakings, Isabel; but I won't tell it you unless you like.

Isabel. Oh, please, please.
L. You are all such wise children, there's no talking to you; you won't believe anything.

Lily. No, we are not wise, and we will believe anything, when you say we ought.

17．L．Well，it came about this way．Sibyl，do you recollect that evening when we had been looking at your old cave by Cumæ，and wondering why you didn＇t live there still：and then we wondered how old you were；and Egypt said you wouldn＇t tell，and nobody else could tell but she； and you laughed－I thought very gaily for a Sibyl—and said you would harness a flock of cranes for us，and we might fly over to Egypt if we liked，and see ？

Sibyl．Yes，and you went，and couldn＇t find out after all．
L．Why，you know，Egypt had been just doubling that third prramid of hers；＊and making a new entrance into it； and a fine entrance it was！First，we had to go through an ante－room，which had both its doors blocked up with stones ； and then we had three granite portcullises to pull up，one after another；and the moment we had got under them， Egypt signed to somebody above ；and down they came again behind us，with a roar like thunder，only louder；then we got into a passage fit for nobody but rats，and Egypt wouldn＇t go any further herself，but said we might go on if we liked ； and so we came to a hole in the parement，and then to a granite trap－door－and then we thought we had gone quite far enough，and came back，and Egypt laughed at us．

Egyrt．You would not have had me take my crown off， and stoop all the way down a passage fit only for rats？

L．It was not the crown，Egypt－you know that very well．It was the flounces that would not let you go any farther．I suppose，however，you wear them as typical of the inundation of the Nile，so it is all right．

Isabel．Why didn＇t you take me with you？Where rats can go，mice can．I wouldn＇t have come back．

18．L．No，mousie；you would have gone on by yourself， and you might have waked one of Pasht＇s cats，$\dagger$ and it would have eaten you．I was very glad you were not there．But after all this，I suppose the imagination of the heary granite blocks and the underground ways had troubled me，and dreams are often shaped in a strange opposition to the impres－

[^187]sions that have caused them; and from all that we had been reading in Bumsen about stones that couldn't be lifted with levers, I began to dream about stomes that lifted themselves with wings.

Sibyl. Now you must just tell us all about it.
L. I dreamed that I was standing beside the lake, out of whose clay the bricks were made for the great pyramid of Asychis.* They had just been all finished, and were lying by the lake margin, in long ridges, like waves. It was near evening; and as I looked towards the sunset, I saw a thing like a dark pillar standing where the rock of the desert stoops to the Nile valley. I did not know there was a pillar there, and wondered at it ; and it grew larger, and glided nearer, becoming like the form of a man, but rast, and it did not move its feet, but glided, like a pillar of sand. And, as it drew nearer, I looked by chance past it, towards the sun; and saw a silver cloud, which was of all the clouds closest to the sun, (and in one place crossed it,) draw itself back from the sum, suddenly. And it turned, and shot towards the dark pillar; leaping in an arch, like an arrow out of a bow. And I thought it was lightning; but when it came near the shadowy pillar, it sank slowly down beside it, and changed into the shape of a woman, very beautiful, and with a strength of deep calm in her blue eyes. She was robed to the feet with a white robe; and above that, to her knees, by the cloud which I had scen across the sun; but all the golden ripples of it had become plumes, so that it had changed into two bright wings like those of a vulture, which wrapped round her to her knees. She had a weaver's shuttle hanging over her shoulder, by the thread of it, and in her left hand, arrows, tipped with fire.

Isaber (clapping her hands). Oh! it was Neith, it was Neith! I know now.
19. L. Yes; it was Neith herself ; and as the two great spirits came nearer to me, I saw they were the Brother and Sister-the pillared shadow was the Greater Pthah. $\dagger$ And

[^188]1 heard them speak, and the sound of their words was like a distant singing. I could not understand the words one by one; yet their sense came to me; and so I knew that Neith had come down to see her brother's work, and the work that he had put into the mind of the king to make his serrants do. And she was displeased at it; because she saw only pieces of dark clay; and no porphyry, nor marble, nor any fair stone that men might engrave the figures of the gods upon. And she blamed her brother, and said, 'Oh, Lord of truth! is this then thy will, that men should mold only four-square pieces of clay: and the forms of the gods no more?' Then the Lord of truth sighed, and said, 'Oh! sister, in truth they do not love us; why should they set up our images? Let them do what they may, and not lie-let them make their clay four-square; and labor; and perish.'

Then Neith's dark blue eyes grew darker, and she said, ' Oh, Lord of truth! why should they love us? their love is vain; or fear us? for their fear is base. Yet let them testify of us, that they knew we lived for ever.'

But the Lord of truth answered, "They know, and yet they know not. Let them keep silence; for their silence only is truth.'
20. But Neith answered, 'Brother, wilt thou also make league with Death, because Death is true? Oh! thou potter, who hast cast these human things from thy wheel, many to dishonor, and few to honor; wilt thou not let them so much as see my face; but slay them in slavery ?'

But Pthah only answered, 'Let them build, sister, let them build.'

And Neith answered, 'What shall they build, if I build not with them?'

And Pthah drew with his measuring rod upon the sand. And I saw suddenly, drawn on the sand, the outlines of great cities, and of raults, and domes, and aqueducts, and bastions, and towers, greater than obelisks, covered with black clouds. And the wind blew ripples of sand amidst the lines that Pthah drew, and the moving sand was like the
marching of men. But I saw that wherever Neith looked at the lines, they faded, and were effaced.
'Oh, Brother!' she said at last, 'what is this vanity? If I, who am Lady of wisdom, do not mock the children of men, why shouldst thou mock them, who art Lord of truth ?'

But Pthah answered, 'They thought to bind me; and they shall be bound. They shall labor in the fire for vanity.'

And Neith said, looking at the sand, 'Brother, there is no true labor here-there is only weary life and wasteful death.'

And Pthah answered, 'Is it not truer labor, sister, than thy sculpture of dreams?'

Then Neith smiled; and stopped suddenly.
She looked to the sun; its edge touched the horizon-edge of the desert. Then she looked to the long heaps of pieces of clay, that lay, each with its blue shadow, by the lake shore.
'Brother,' she said, 'how long will this pyramid of thine be in building?'
'Thoth will have sealed the seroll of the years ten times, before the summit is laid.'
21. 'Brother, thou knowest not how to teach thy children to labor,' answered Neith. 'Look! I must follow Phre beyond Atlas; shall I build your pyramid for you before he goes down?' And Pthah answered, 'Yea, sister, if thou canst put thy winged shoulders to such work.' And Neith drew herself to her height; and I heard a clashing pass through the plumes of her wings, and the asp stood up on her helnet, and fire gathered in her eyes. And she took one of the flaming arrows out of the sheaf in her left hand, and stretched it out orer the heaps of clay. And they rose up like flights of locusts, and spread themselves in the air, so that it grew dark in a moment. Then Neith designed them places with her arrow point; and they drew into ranks, like dark clouds laid level at morning. Then Neith pointed with her arrow to the north, and to the south, and to the east, and to the west, and the flying motes of earth drew asunder into four great ranked crowds; and stood, one in the north, and
one in the south, and one in the east, and one in the westone against another. Tlien Neith spread her wings wide for an instant, and closed them with a sound like the sound of a rushing sea; and waved her hand towards the foundation of the pyramid, where it was laid on the brow of the desert. And the four flocks drew together and sank down, like seabirds settling to a level rock; and when they met, there was a sudden flame, as broad as the pyramid, and as high as the clouds; and it dazzled me; and I closed my eyes for an instant; and when I looked again, the pyramid stood on its rock, perfect; and purple with the light from the edge of the sinking sun.

The younger Children (variously pleased). I'm so glad! How nice! But what did Pthah say?
L. Neith did not wait to hear what he would say. When I turned back to look at her, she was gone; and I only saw the level white cloud form itself again, close to the arch of the sun as it sank. And as the last edge of the sun disappeared, the form of Pthah faded into a mighty shadow, and so passed away.

Egypt. And was Neith's pyramid left?
L. Yes; but you could not think, Egypt, what a strange feeling of utter loneliness came over me when the presences of the two gods passed away: It seemed as if I had never known what it was to be alone before; and the unbroken line of the desert was terrible.

Egrpt. I used to feel that, when I was queen; sometimes I had to carve gods, for company, all over my palace. I would fain have seen real ones, if I could.
22. L. But listen a moment yet, for that was not quite all my dream. The twilight drew swiftly to the dark, and I conld hardly see the great pyramid; when there came a heavy murmuring sound in the air; and a horned beetle, with terrible claws, fell on the sand at my feet, with a blow like the beat of a hammer. Then it stood up on its hind claws, and waved its pincers at me: and its fore claws became strong arms, and hands; one grasping real iron pincers, and
the other a huge hammer; and it had a helmet on its head, without any eyelet holes, that I could see. And its two hind claws became strong crooked legs, with feet bent inwards. And so there stood by me a dwarf, in glossy black armor, ribbed and embossed like a beetle's back, leaning on his hammer. And I could not speak for wonder; but he spoke with a murmur like the dying away of a beat upon a bell. He said, ' I will make Neith's great pyramid small. I am the lower Pthah; and have power over fire. I can wither the strong things, and strengthen the weak: and everything that is great I can make small, and everything that is little I can make great.' Then he turned to the angle of the pyramid and limped towards it. And the pyramid grew deep purple; and then red like blood, and then pale rosecolor, like fire. And I saw that it glowed with fire from within. And the lower Pthah touched it with the hand that held the pincers; and it sank down like the sand in an hour-glass,-then drew itself together, and sank, still, and became nothing, it seemed to me; but the armed dwarf stooped down, and took it into his land, and brought it to me, saying, 'Everything that is great I can make like this pyramid: and give into men's hands to destroy.' And I saw that he had a little pyramid in his hand, with as many courses in it as the large one; and built like that,-only so small. And because it glowed still, I was afraid to touch it ; but Pthah said, 'Touch it-for I have bound the fire within it, so that it camot burn.' So I touched it, and took it into my own hand; and it was cold ; only red, like a ruby. And Pthah langhed, and became like a beetle again, and buried himself in the sand, fiercely; throwing it back over his shoulders. And it seemed to me as if he would draw me down with him into the sand; and I started back, and woke, holding the little pyramid so fast in my hand that it hurt me.

Egypt. Holding what in your hand?
L. The little pyramid.

Egypt. Neith's pyramid?
L. Neith's, I believe; though not built for Asychis. I
know only that it is a little rosy transparent pyramid, built of more courses of bricks than I can count, it being made so small. You don't believe me, of course, Egyptian infidel; but there it is. (Giving crystal of rose Fluor.)
(Confused examination by crowded audience, over each other's shoulders and under each other's arms. Disappointment begins to manifest itself.)
23. Sibyl (not quite knowing why she and others are disappointed). But you showed us this the other day!
L. Ies; but you would not look at it the other day.

Sibyl. But was all that fine dream only about this?
L. What finer thing could a dream be about than this? It is small, if you will; but when you begin to think of things rightly, the ideas of smallness and largeness pass away. The making of this pyramid was in reality just as wonderful as the dream I have been telling yon, and just as incomprehensible. It was not, I suppose, as swift, but quite as grand things are done as swiftly. When Neith makes erystals of snow, it needs a great deal more marshaling of the atoms, by her flaming arrows, than it does to make crystals like this one; and that is done in a moment.

Egrpt. But how you do puzzle us! Why do you say Neith does it? You don't mean that she is a real spirit, do you?
L. What $I$ mean, is of little consequence. What the Egyptians meant, who called her 'Neith,'-or Homer, who called her ' Athena,'-or Solomon, who called her by a word which the Greeks render as 'Sophia,' you must judge for' yourselves. But her testimony is always the same, and all nations lave received it: ' I was by $\operatorname{Him}$ as one brought up with IIm, and I was daily IIis delight; rejoicing in the habitable parts of the earth, and my delights were with the sons of men.'

Mary. But is not that only a personification?
L. If it be, what will you gain by mpersonifying it, or what right have you to do so ? Cannot you accept the image given you, in its life ; and listen, like children, to the words
which chiefly belong to you as children; 'I love them that love me, and those that seek me early shall find me'?
(They are all quiet for a minute or two; questions begin to appear in their cyes.)
I cannot talk to you any more to-day. Take that rose crystal away with you, and think.

## LECTURE III.

## THE CRYSTAL LIFE.

A very dull Lecture, willfully brought upon themselves by the elder children. Some of the young ones have, however, managed to get in by mistake. SCENE, the Schoolroom.
24. L. So I am to stand up here merely to be asked questions, to-day, Miss Mary, am I?

Mary. Yes; and you must answer them plainly; without telling us any more stories. You are quite spoiling the children; the poor little things' heads are turning round like kaleidoscopes; and they don't know in the least what you mean. Nor do we old ones, either, for that matter: to-day you must really tell us nothing but facts.
L. I am sworn; but you won't like it, a bit.

Mary. Now, first of all, what do you mean by 'bricks'? -Are the smallest particles of minerals all of some accurate shape, like bricks?
L. I do not know, Miss Mary; I do not even know if anybody knows. The smallest atoms which are visibly and practically put together to make large crestals, may better be described as 'limited in fixed directions' than as 'of fixed forms.' But I can tell you nothing clear about ultimate atoms: you will find the idea of little bricks, or, perhaps, of little spheres, available for all the uses you will have to put it to.

Mary. Well, it's very provoking; one seems always to be stopped just when one is coming to the very thing one wants to know.
L. No, Mary, for we should not wish to know anything
but what is easily and assuredly knowable. There's no end to it. If I could show you, or myself, a group of ultimate atoms, quite clearly, in this magnifying glass, we should both be presently rexed because we could not break them in two picces, and see their insides.
25. Mary. Well then, next, what do you mean by the flying of the bricks? What is it the atoms do, that is like flying?
L. When ther are dissolved, or unerystallized, they are really separated from each other, like a swarm of gnats in the air, or like a shoal of fish in the sea;-generally at about equal distances. In currents of solutions, or at different depths of them, one part may be more full of the dissolved atoms than another; but, on the whole, you may think of them as equidistant, like the spots in the print of your gown. If they are separated by force of heat only, the substance is said to be melted; if they are separated by any other substance, as particles of sugar by water, they are said to be 'dissolved.' Note this distinction carefully, all of you.

Dors. I will be very particular. When next you tell me there isn't sugar enough in your tea, I will say, "It is not yet dissolved, sir."
L. I tell you what shall be dissolved, Miss Dora; and that's the present parliament, if the members get too saucy.
(Dora folds her hands and casts down her eyes.)
L. (proceeds in state). Now, Miss Mary, you know already, I believe, that nearly everything will melt, under a sufficient heat, like wax. Limestone melts (under pressure) ; sand melts; granite melts; the lava of a volcano is a mixed mass of many kinds of rocks, melted: and any melted substance nearly, always, if not always, crystallizes as it cools; the more slowly, the more perfectly. Water melts at what we call the frcezing, but might just as wisely, though not as conveniently, call the melting, point; and radiates as it cools into the most beautiful of all known crystals. Glass melts at a greater heat, and will crystallize, if you let it cool slowly enough, in stars, much like snow.

Gold needs more heat to melt it, but crystallizes also exquisitely, as I will presently show you. Arsenic and sulphur crystallize from their vapors. Now, in any of these cases, either of melted, dissolved, or vaporous bodies, the particles are usually separated from each other, either by heat, or by an intermediate substance; and in crystallizing they are both brought nearer to each other, and packed, so as to fit as closely as possible; the essential part of the business being not the bringing together, but the packing. Who packed your trunk for you, last holidays, Isabel ?

Isabel. Lily does, always.
L. And how mnch can you allow for Lily's good packing, in guessing what will go into the trunk?

Isabel. Oh! I bring twice as much as the trunk holds. Lily always gets everything in.

Lily. Ah! but, Isey, if you only knew what a time it takes! and since you've had those great hard buttons on your frocks, I can't do anything with them. Buttons won't go anywhere, you know.
26. L. Yes, Lily, it would be well if she only knew what a time it takes; and I wish any of us knew what a time crystallization takes, for that is consummately fine packing. The particles of the rock are thrown down, just as Isabel brings her things-in a heap; and innumerable Lilies, not of the valley, but of the rock, come to pack them. But it takes such a time!

However, the best-out and out the best-way of understanding the thing, is to crystallize yourselves.

The Audience. Oursclves!
L. Yes; not merely as you did the other day, carelessly, on the schoolroom forms; but carefully and finely, out in the playground. You can play at crystallization there as much as you please.

Katilleen and Jessie. Oh! how?-how?
L. First, you must put yourselves together, as close as you can, in the middle of the grass, and form, for first practice, any figure you like.

Jessie. Any dancing figure, do you mean?
L. No; I mean a square, or a cross, or a diamond. Any figure you like, standing close together. You had better outline it first on the turf, with sticks, or pebbles, so as to see that it is rightly drawn; then get into it and enlarge or diminish it at one side, till you are all quite in it, and no empty space left.

Dora. Crinoline and all?
L. The crinoline may stand eventually for rough crystalline surface, unless you pin it in; and then you may make a polished crystal of yourselves.

Lily. Oh, we'll pin it in-we'll pin it in!
L. Then, when you are all in the figure, let every one note her place, and who is next her on each side; and let the outsiders count how many places they stand from the corners.

Kathleen. Yes, yes,-and then?
L. Then you must seatter all over the playground-right over it from side to side, and end to end; and put yourselves all at equal distances from each other, everywhere. You needn't mind doing it very accurately, but so as to be nearly equidistant ; not less than about three yards apart from each other, on every side.

Jessie. We can easily cut pieces of string of equal length, to hold. And then ?
L. Then, at a given signal, let everybody walk, at the same rate, towards the outlined figure in the middle. You had better sing as you walk; that will keep you in good time. And as you close in towards it, let each take her place, and the next comers fit themselves in beside the first ones, till you are all in the figure again.

Kathleen. Oh! how we shall run against each other! What fun it will be!
L. No, no, Miss Katie ; I can't allow any running against each other. The atoms never do that, whatever human creatures do. You must all know your places, and find your way to them without jostling.

Lily. But how ever shall we do that?

Isabel. Mustn't the ones in the middle be the nearest, and the outside ones farther off-when we go away to scatter, I mean?
L. Yes; you must be very careful to keep your order; you will soon find out how to do it; it is only like soldiers forming square, except that each must stand still in her place as she reaches it, and the others come round her; and you will have much more complicated figures, afterwards, to form, than squares.

Isabel. I'll put a stone at my place; then I shall know it.
L. You might each nail a bit of paper to the turf, at your place, with jour name upon it: but it would be of no use, for if you don't know your places, you will make a fine piece of business of it, while you are looking for your names. And, Isabel, if with a little head, and eyes, and a brain, (all of them very good and serviceable of their kind, as such things go), you think you cannot know your place withont a stone at it, after examining it well,-how do you think each atom knows its place, when it never was there before, and there's no stone at it?
27. Isabel. But does every atom know its place?
L. How else could it get there ?

Mary. Are they not attracted into their places?
L. Corer a piece of paper with spots, at equal intervals; and then imagine any kind of attraction you choose, or any law of attraction, to exist betwcen the spots, and try how, on that permitted supposition, you can attract them into the figure of a Maltese cross, in the middle of the paper.

Mary (having tried it). Yes; I see that I cannot:-one would need all kinds of attractions, in different ways, at different places. But you do not mean that the atoms are alive?
L. What is it to be alive?

Dora. There now ; you're going to be provoking, I know.
L. I do not see why it should be provoking to be asked what it is to be alive. Do you think you don't know whether you are alive or not?

## (Isabel slips to the end of the room and back.)

L. Yes, Isabel, that's all very fine; and you and I may call that being alive : but a modern philosopher calls it being in a 'mode of motion.' It requires a certain quantity of heat to take you to the sideboard; and cxactly the same quantity to bring you back again. That's all.

Isabel. Noo, it isn't. And, besides, I'm not hot.
L. I am, sometimes, at the way they talk. Howerer, you know, Isabel, you might have been a particle of a mineral, and yet have been carried round the room, or anywhere clse, by chemical forces, in the liveliest way.

Isabel. Yes; but I wasn't carried; I carried myself.
L. The fact is, mousie, the difficulty is not so much to say what makes a thing alive, as what makes it a Self. As soon as you are shut off from the rest of the universe into a Self, you begin to be alive.
Violet (indignant). Oh, surely-surely that cannot be so. Is not all the life of the soul in communion, not separation?
28. L. There can be no communion where there is no distinction. But we shall be in an abyss of metaphysics presently, if we don't look out ; and besides, we must not be too grand, to-day, for the younger children. We'll be grand, some day by ourselves, if we must. (The younger children are not pleased, and prepare to remonstrate; but knowing by experience, that all conversations in which the word 'communion' occurs, are unintelligible, think better of it.) Meantime, for broad answer about the atoms. I do not think, we should use the word 'life,' of any energy which does not belong to a given form. A seed, or an egg, or a young animal, are properly called 'alive' with respect to the force belonging to those forms, which consistently develops that form, and no other. But the force which crystallizes a mineral appears to be chiefly external, and it does not produce an entirely determinate and individual form, limited in size, but only an aggregation, in which some limiting laws must be observed.

Mary. But I do not see much difference, that way, between a crystal and a tree.
L. Add, then, that the mode of the energy in a living thing implies a continual change in its elements; and a period for its end. So you may define life by its attached negative, death; and still more by its attached positive, birth. But I won't be plagued any more about this, just now; if you choose to think the crystals alive, do, and welcome. Rocks have always been called 'living' in their native place.

Mary. There's one question more; then I've done.
L. Only one?

Mary. Only one.
L. But if it is answered, won't it turn into troo?

Mary. No; I think it will remain single, and be comfortable.
L. Let me hear it.
29. Mary. You know, we are to crystallize ourselves out of the whole playground. Now, what playground hase the minerals? Where are they scattered before they are crystallized; and where are the crystals generally made?
L. That sounds to me more like three questions than one, Mary. If it is only one, it is a wide one.

Mary. I did not say anything about the width of it.
L. Well, I must keep it within the best compass I can. When rocks either dry from a moist state, or cool from a heated state, they necessarily alter in bulk; and cracks, or open spaces, form in them in all directions. These cracks must be filled up with solid matter, or the rock would eventually become a ruinous heap. So, sometimes by water, sometimes by vapor, sometimes nobody knows how, erystallizable matter is brought from somewhere, and fastens itself in these open spaces, so as to bind the rock together again, with crystal cement. A vast quantity of hollows are formed in lavas by bubbles of gas, just as the holes are left in bread well baked. In process of time these cavities are generally filled with various crystals.

Mary. But where does the crystallizing substance come from?
L. Sometimes out of the rock itself; sometimes from below or above, through the veins. The entire substance of the contracting rock may be filled with liquid, pressed into it so as to fill every pore;-or with mineral rapor ; or it may be so charged at one place, and empty at another. There's $n o$ end to the 'may be's.' But all that you need fancy, for our present purpose, is that hollows in the rocks, like the caves in Derbyshire, are traversed by liquids or vapor containing certain elements in a more or less free or separate state, which crystallize on the cave walls.
30. Sibrl. There now;-Mary has had all her questions answered; it's my turn to have mine.
L. Ah, there's a conspiracy among you, I see. I might have guessed as much.

Dord. I'm sure you ask us questions enough! How can you have the heart, when you dislike so to be asked them yourself?
L. My dear child, if people do not answer questions, it does not matter how many they are asked, because they've no trouble with them. Now, when I ask you questions, I never expect to be answered; but when you ask me, you always do; and it's not fair.

Dora. Very well, we shall understand next time.
Sibyil. No, but seriously, we all want to ask one thing more, quite dreadfully.
L. And I don't want to be asked it quite dreadfully; but you'll have your own way, of course.

Sibyi. We none of us understand about the lower Pthah. It was not merely yesterday; but in all we have read about him in Wilkinson, or in any book, we cannot understand what the Egyptians put their god into that ugly little deformed shape for.
L. Well, I'm glad it's that sort of question ; because I can answer anything I like, to that.

Egrpt. Anything you like will do quite well for us; we shall be pleased with the answer, if you are.
L. I am not so sure of that, most gracious queen ; for I must begin by the statement that queens seem to have disliked all sorts of work, in those days, as much as some queens đislike sewing to-day.

Egypt. Now, it's too bad! and just when I was trying to say the civilest thing I could!
L. But, Egypt, why did you tell me you disliked sewing so?

Egrpt. Did not I show you how the thread cuts my fingers? and I always get cramp, somehow, in my neck, if I sew long.
31. L. Well, I suppose the Egyptian queens thought everybody got cramp in their neek, if they sewed long; and that thread always cut people's fingers. At all events, every kind of manual labor was despised both by them, and the Greeks ; and, while they owned the real good and fruit of it, they yet held it a degradation to all who practiced it. Also, knowing the laws of life thoroughly, they perceived that the special practice necessary to bring any manual art to perfection strengthened the body distortelly; one energy or member gaining at the expense of the rest. They especially dreaded and despised any kind of work that had to be done near fire : yet, feeling what they owed to it in metal-work, as the basis of all other work, they expressed this mixed reverence and scorn in the raried types of the lame Hephrestus, and the lower Pthah.

Sibyl. But what did you mean by making him say, 'Everything great I can make small, and everything small great'?
L. I had my own separate meaning in that. We have seen in modern times the power of the lower Pthah developed in a separate way, which no Greek nor Egrptian could have conceived. It is the character of pure and eyeless manual labor to conceive every-thing as suljected to it: and, in reality, to disgrace and diminish all that is so subjected, aggrandizing
itself, and the thought of itself, at the expense of all noble things. I heard an orator, and a good one too, at the Working Men's College, the other day, make a great point in a description of our railroads; saying, with grandly condueted emphasis, 'They have made man greater, and the world less.' His working audience were mightily pleased; they thought it so very fine a thing to be made bigger themselves; and all the rest of the world less. I should have enjoyed asking them (but it would have been a pity-they were so pleased), how much less they would like to have the world made; and whether, at present, those of them really felt themselves the biggest men, who lived in the least houses.
32. Sibyl. But then, why did you make Pthah say that he could make weak things strong, and small things great?
L. My dear, he is a boaster and self-assertor, by nature; but it is so far truc. For instance, we used to have a fair in our neighborhood-a very fine fair we thought it. You never saw such an one; but if you look at the engraving of Turner's 'St. Catherine's Hill,' you will see what it was like. There were curious booths, carried on poles; and peepshows; and music, with plenty of drums and eymbals; and much barley-sugar and ginger-bread, and the like; and in the alleys of this fair the London populace would enjoy themselves, after their fashion, very thoroughly. Well, the little Pthah set to work upon it one day; he made the wooden poles into iron ones, and put them across, like his own erooked legs, so that you always fall over them if you don't look where you are going; and he turned all the canvas into panes of glass, and put it $u p$ on his iron cross-poles; and made all the little booths into one great booth;-and people sairl it was rery fine, and a new style of architecture; and Mr. Dickens said nothing was ever like it in Fairy-land, which was very true. And then the little Pthah set to work to put fine fairings in it; and he painted the Nineveh bulls afresh, with the blackest eyes he could paint (because he had none himself), and he got the angels down from Lincoln choir, and gilded their wings like his gingerbread of old
times; and he sent for everything else he could think of, and put it in his booth. There are the casts of Niobe and her children; and the Chimpanzee; and the wooden Caffres and New-Zealanders; and the Shakespeare House ; and Le Grand Blondin, and Le Petit Blondin; and Handel ; and Mozart; and no end of shops and buns, and beer; and all the little-Pthah-worshipers say, never was anything so sublime!
33. Sibyl. Now, do you mean to say you never go to these Crystal Palace Concerts? They're as good as good can be.
L. I don't go to the thundering things with a million of bad roices in them. When I want a song, I get Julia Mannering and Lucy Bertram and Counsellor Pleydell to sing 'We be three poor mariners' to me; then I've no headache next morning. But I do go to the smaller concerts, when I can; for they are very good, as you say, Sibyl; and I always get a reserved seat somewhere near the orehestra, where I am sure I can see the kettle-drummer drum.

Sibyl. Now do be serious, for one minute.
L. I am serious-never was more so. You know one can't see the modulation of violinists' fingers, but one can see the ribration of the drummer's hand; and it's lovely.

Sibyl. But fancy going to a concert, not to hear, but to see!
L. Yes, it is very absurd. The quite right thing I believe, is to go there to talk. I confess, however, that in most musie, when very well done, the doing of it is to me the chiefly interesting part of the business. I'm alwass thinking how good it would be for the fat, supercilious people, who care so little for their half-crown's worth, to be set to try and do a half-crown's worth of anything like it.

Mary. But surely that Crystal Palace is a great good and help to the people of London?
L. The fresh air of the Norwood hills is, or was, my dear; but they are spoiling that with smoke as fast as they can. And the palace (as they call it) is a better place for them, by much, than the old fair; and it is always there,
instead of for three days only; and it shuts up at proper hours of night. And good use may be made of the things in it, if you know how: but as for its teaching the people, it will teach them nothing but the lowest of the lower Pthah's work-nothing but hammer and tongs. I saw a wonderful piece, of his doing, in the place, only the other day. Some unhappy metal-worker-I am not sure if it was not a metalworking firm-had taken three years to make a golden eagle.

Sibyl. Of real gold?
34. L. No; of bronze, or copper, or some of their foul patent metals-it is no matter what. I meant a model of our chief British eagle. Every feather was made separately; and every filament of every feather separately, and so joined on; and all the quills modeled of the right length and right section, and at last the whole cluster of them fastened together. You know, children, I don't think much of my own drawing; but take my prond word for once, that when I go to the Zoological Gardens, and happen to have a bit of chalk in my pocket, and the gray Harpy will sit, without screwing his head round, for thirty seconds,-I can do a better thing of him in that time than the three years' work of this industrious firm. For, during the thirty seconds, the eagle is my object-not myself; and during the three years, the firm's object, in every fiber of bronze it made, was itself, and not the eagle. That is the true meaning of the little Pthah's having no eyes-he can see only himself. The Egyptian beetle was not quite the full type of him; our northern ground beetle is a truer one. It is beautiful to see it at work, gathering its treasures (such as they are) into little round balls; and pushing them home with the strong wrong end of it, -head downmost all the way, -like a modem political econoinist with his ball of capital, declaring that a nation can stand on its vices better than on its virtues. But away with you, children, now, for I'm getting cross.

Dora. I'm going downstairs; I shall take care, at any rate, that there are no little Pthahs in the kitchen cupboards.

## LEC'TURE IV.

## THE CRYSTAL ORDERS.

## A working Lecture, in the large Schoolroom ; with experimental Interludes. The great bell has rung unexpectedly.

35. Kathleen (entering disconsolate, though first at the summons). Oh dear, oh dear, what a day! Was ever anything so provoking! just when we wanted to crystallize ourselves;-and I'm sure it's going to rain all day long.
L. So am I, Kate. The sky has quite an Irish way with it. But I don't see why Irish girls should also look so dismal. Fancy that you don't want to crystallize yourselves: you didn't the day before yesterday, and you were not unhappy when it rained then.

Florme. Ah! but we do want to-day; and the rain's so tiresome.
L. That is to say, children, that because you are all the richer by the expectation of playing at a new game, you choose to make yourselves unhappier than when you had nothing to look forward to, but the old ones.

Isabel. But then, to have to wait-wait-wait; and before we've tried it ;-and perhaps it will rain to-morrow, too!
L. It may also rain the day after to-morrow. We can make ourselves uncomfortable to any extent with perhapses, Isabel. You may stick perhapses into your little minds like pins, till you are as uncomfortable as the Lilliputians made Gulliver with their arrows when he would not lie quiet.

Isabel. But what are we to do to-day?
L. To be quiet, for one thing, like Gulliver when he saw there was nothing better to be done. And to practice
patience. I can tell you, children, that requires nearly as much practicing as music; and we are constantly losing our lessons when the master comes. Now, to-day, here's a nice little adagio lesson for us, if we play it properly.

Is.abel. But I don't like that sort of lesson. I ean't play it properly.
L. Can you play a Mozart sonata yet, Isabel? The more need to practice. All one's life is a musie, if one touches the notes rightly and in time. But there must be no hurry.

Katileen. I'm sure there's no music in stopping in on a rainy day.
36. L. There's no music in a 'rest,' Katie, that I know of: but there's the making of music in it. And people are always missing that part of the life-melody; and scrambling on without counting-not that it's easy to count; but nothing on which so much depends ever is easy. People are always talking of perseverance, and courage, and fortitude; but patience is the finest and worthiest part of fortitude, -and the rarest too. I know twenty persevering girls for one patient one: but it is only that twenty-first who can do her work, out and out, or enjoy it. For patience lies at the root of all pleasures, as well as of all powers. Hope herself ceases to be happiness, when impatience companions her.
(Is.abel and Lily sit down on the floor, and fold their hands. The others follow their example.)
Good children! but that's not quite the way of it, neither. Folded hands are not necessarily resigned ones. The Patience who really smiles at grief usually stands, or walks, or even runs: she seldom sits; though she may sometimes have to do it, for many a day, poor thing, by monuments; or like Chaucer's, 'with face pale, upon a hill of sand.' But we are not reduced to that to-day. Suppose we use this calamitons forenoon to choose the shapes we are to crystallize into? we know nothing about them yet.
(The pictures of resignation rise from the floor, not in the patientest manner. General applause.)

Mary (with one or two others). The very thing we wanted to ask you about!

Lily. We looked at the books about crystals, but they arè so dreadful.
37. L. Well, Lily, we must go through a little dreadfulness, that's a fact : no road to any good knomledge is wholly among the lilies and the grass; there is rough climbing to be done always. But the crystal-books are a little too dreadful, most of them, I admit ; and we shall have to be content with very little of their help. You know, as you camot stand on each other's heads, you can only make yourselves into the sections of crystals-the figures they show when they are cut through ; and we will ehoose some that will be quite easy. You shall make diamonds of yourselves-

Isabel. Oh, no, no! we won't be dianonds, please.
L. Yes, you shall, Isalel ; they are very pretty things, if the jewelers, and the kings and queens, would only let them alone. You shall make diamonds of yourselves, and rubies of yourselves, and emeralds; and Irish diamonds; two of these-with Lily in the middle of one, which will be very orderly, of course; and Kathleen in the middle of the other, for whieh we will hope the best; -and you shall make Derbyshire spar of yourselves, and Iceland spar, and gold, and silver, and-Quicksilver there's enough of in you, without any making.

Mary. Now, you know, the children will be getting quite wild: we must really get pencils and paper, and begin properly.
L. Wait a minute, Miss Mary; I think, as we've the schoolroom elear to-day, I'll try to give you some notion of the three great orders or ranks of errstals, into which all the others seem more or less to fall. We shall only want one figure a day, in the playground; and that can be drawn in a minute; but the general idea had better be fastened first. I must show you a great many minerals; so let me have three tables wheeled into the three windows, that we may keep
our specimens separate;-we will keep the three orders of crystals on separate tables.
(First Interlude, of pushing and pulling, and spreading of baize covers. Violet, not particularly minding what she is about, gets leerself jammed into a corner, and bid to stand out of the way; on which, she derotes herself to meditation.)
38. Violet (after interval of meditation). How strange it is that everything scems to divide into threes!
L. Everything doesn't divide into threes. Iyy won't, though shamrock will; and daisies won't, though lilies will.

Violet. But all the nicest things seem to divide into threes.
L. Violets won't.

Violet. No; I should think not, indeed! But I mean the great things.
L. I've always heard the globe had four quarters.

Isabel. Well; but you know you said it hadn't any quarters at all. So mayn't it really be divided into three?
L. If it were divided into no more than three, on the outside of it, Isabel, it would be a fine world to live in ; and if it were divided into three in the inside of it, it would soon be no world to live in at all.

Dora. We shall never get to the crystals, at this rate. (Aside to Mary.) He will get off into political economy before we know where we are. (Aloud.) But the crystals are divided into three, then ?
L. No; but there are three general notions by which we may best get hold of them. Then between these notions there are other notions.

Lily (alarmed). A great many? And shall we have to learn them all?
L. More than a great many-a quite infinite many. So you cannot learn them all.

Lily (greatly relicied). Then may we only learn the three?
L. Certainly; unless, when you have got those three
notions, you want to have some more notions;-which would not surprise me. But we'll try for the three, first. Katie, you broke your coral necklace this morning?

Kathleen. Oh, who told you? It was in jumping. I'm so sorry!
L. I'm very glad. Can you fetch me the beads of it ?

Kithleen. I've lost some; here are the rest in my pocket, if I can only get them out.
L. You moan to get them out some day, I suppose ; so try now. I want them.
(Kitilleen empties her poclict on the floor. The beads disperse. The school disperses also. Sccond In-terlude-hunting piece.)
39. L. (after.waiting patiently for a quarter of an hour, to Is.abel, who comes up from under the table with her hair all about her ears, and the last findable beads in her hand). Mice are useful little things sometimes. Now, mousie, I want all those beads crystallized. How many ways are there of putting them in order?

Isabel. Well, first one would string them, I suppose?
L. Yes, that's the first way. Yoll cannot string ultimate atoms; but you can put them in a row, and then they fasten themselves together, somehow, into a long rod or needle. We will eall these 'Needle-crystals.' What would be the next way?

Isabel. I suppose as we are to get together in the playground, when it stops raining, in different shapes?
L. Yes; put the beads together then, in the simplest form you can, to begin with. Put them into a square, and pack them close.

Isabel (after careful endeavor). I can't get them closer.
L. That will do. Now you may see beforehand, that if you try to throw yourselves into square in this confused way, you will never know your places; so you had better consider every square as made of rods, put side by side. Take four beads of equal size, first, Tsabel ; put them into a little square. That, you may consider as made up of two rods of two beads
each. Then you can make a square a size larger, out of three rods of three. Then the next square may be a size larger. How many rods, Lily?

Lily. Four rods of four beads each, I suppose.
L. Yes, and then five rols of five, and so on. But now, look here ; make another square of four beads again. You sce they leave a little opening in the center.

Isabel (pushing two oppositc ones closer together). Now they don't.
L. No ; but now it isn't a square ; and by pushing the two together you have pushed the two others farther apart.

Isabel. And yet, somehow, they all seem closer than they were!
L. Yes; for before, each of them only touched two of the others, but now each of the two in the mildle touches the other threc. Take away one of the outsiders, Isabel: now you have three in a triangle-the smallest triangle you can make out of the beads. Now put a rod of three beads on at one side. So, you have a triangle of six beads; lut just the shape of the first one. Next a rod of four on the side of that ; and you have a triangle of ten beads: then a rod of five on the side of that: and you have a triangle of fifteen. Thus you have a square with five beads on the side, and a triangle with five beads on the side; equal-sided, therefore, like the square. So, however few or many you may be, you may soon learn how to erystallize quickly into these two figures, which are the foundation of form in the commonest, and therefore actually the most important, as well as in the rarest, and therefore, by our esteem, the most important, minerals of the world. Look at this in my hand.

Violet. Why, it is leaf gold!
40. L. Yes ; but beaten by no man's hammer ; or rather, not beaten at all, but woven. Besides, feel the weight of it. There is gold enough there to gild the walls and ceiling, if it were beaten thin.

Violet. How beautiful! And it glitters like a leaf covered with frost.
L. You only think it so beautiful because you know it is gold. It is not prettier, in reality, than a bit of brass: for it is Transylvanian gold; and they say there is a foolish gnome in the mines there, who is always wanting to live in the moon, and so alloys all the gold with a little silver. I don't know how that may be: but the silver always is in the gold; and if he does it, it's rery provoking of him, for no gold is woren so fine anywhere else.

Mary (uho has been looking through her magnifying glass). But this is not woren. This is all made of little triangles.
L. Say 'patched,' then, if you must be so particular. But if you faney all those triangles, small as they are (and many of them are infinitely small), made up again of rods, and those of grains, as we built our great triangle of the beads, what word will you take for the manufacture?

May. There's no word--it is beyond words.
L. Yes; and that would matter little, were it not beyond thoughts too. But, at all events, this yellow leaf of dead gold, shed, not from the ruined woodlands, but the ruined rocks, will help you to remember the second kind of erystals, Leafcrystals, or Foliated-crystals; though I show yon the form in gold first only to make a strong impression on you, for gold is not generally, or characteristically, crystallized, in leaves; the real type of foliated crystals is this thing, Mica; which if you once feel well, and break well, you will always know again; and you will often have occasion to know it, for you will find it everywhere, nearly, in hill countries.

Kathleen. If we break it well! May we break it?
L. To powder, if you like.
(Surrenders plate of brown mica to public incestigation. Third Interlude. It sustains severely philosophical treatment at all hands.)
41. Florrie (to whom the last fragments have descended). Always leares, and leaves, and nothing but leaves, or white dust!
L. That dust itself is nothing but finer leaves.
(Shows them to Florrie through magnifying glass.)

Isabel (peeping over Florrie's shoulder). But then this bit under the glass looks like that bit out of the glass. If we could break this bit under the glass, what would it be like?
L. It would be all leaves still.

Isabel. And then if we broke those again?
L. All less leaves still.

Isabel (impatient). And if we broke them again, and again, and again, and again, and again ?
L. Well, I suppose you would come to a limit, if you could only see it. Notice that the little flakes already differ somewhat from the large ones; because I can bend them up and down, and they stay bent; while the large flake, though it bent easily a little way, sprang back when you let it go, and broke, when you tried to bend it far. And a large mass would not bend at all.

Mary. Would that leaf gold separate into finer leaves, in the same way?
L. No; and therefore, as I told you, it is not a characteristic specimen of a foliated crystallization. The little triangles are portions of solid crystals, and so they are in this, which looks like a black mica ; but you see it is made up of triangles, like the gold, and stands, almost accurately, as an intermediate link, in crystals, between mica and gold. Yet this is the commonest, as gold the rarest, of metals.
42. Mary. Is it iron? I never saw iron so bright.
L. It is rust of iron, finely erystallized: from its resemblance to mica, it is often called micaceous iron.

Kathleen. May we break this too?
L. No, for I could not easily get such another crystal; besides, it would not break like the mica; it is much harder. But take the glass again, and look at the fineness of the jagged edges of the triangles where they lap over each other. The gold has the same: but you see them better here, terrace above terrace, countless, and in successive angles, like superb fortified lastions.

May. But all foliated crystals are not made of triangles?
L. Far from it; miea is occasionally so, but usually of hexagons; and here is a foliated crystal made of squares, which will show you that the leares of the rock-land have their summer green, as well as their autumnal gold.

Florrie. Oh! oh! oh! (jumps for joy).
L. Did you never see a bit of green leaf before, Florrie?

Florrie. Yes, but never so bright as that, and not in a stone.
L. If you will look at the leares of the trees in sunshine after a shower, you will find they are much brighter than that; and surely they are none the worse for being on stalks instead of in stones?

Florrie. Yes, but then there are so many of them, one never looks, I suppose.
L. Now you have it, Florrie.
43. Violet (sighing). There are so many beautiful things we never see!
L. You need not sigh for that, Violet ; but I will tell you what we should all sigh for,-that there are so many ugly things we nerer see.

Yrolet. But we don't want to see ugly things !
L. You had better say, ' We don't want to suffer them.' You ought to be glad in thinking how much more beauty God has made, than human eyes can ever see; but not glad in thinking how much more evil man has made, than his own soul can erer conceive,-much more, than his hands can erer heal.

Violet. I don't understand;-how is that like the leaves?
L. The same law holds in our neglect of multiplied pain, as in our negleet of multiplied beauty. Florrie jumps for joy at sight of half an inch of a green leaf in a brown stone; and takes more notice of it than of all the green in the wood: and you, or I, or any of us, would be unhappy if any single human creature beside us were in sharp pain; but we can read, at breakfast, day after day, of men being killed, and of women and children dying of hunger, faster than the leaves
strew the brooks in Vallombrosa;-and then go out to play croquet, as if nothing had happened.

May. But we do not see the people being killed or dying.
44. L. I You did not see your brother, when you got the telegram the other day, saying he was ill, May ; but you cried for him; and played no croquet. But we cannot talk of these things now; and what is more, you must let me talk straight on, for a little while; and ask no questions till I've done; for we branch ('exfoliate,' I should say, mineralogically ) always into something else,-though that's my fault more than romrs; but I must go straight on now. Sou have got a distinct notion, I hope, of leaf-crystals; and you sce the sort of look they have; you can easily remember that 'folium ' is Latin for a leaf, and that the separate flakes of mica, or any other such stones, are called 'folia; ' but, because mica is the most characteristic of these stones, other things that are like it in structure are called 'micas;' thus we have Uran-mica, which is the green leaf I showed you; and Copper-mica, which is another like it, made chiefly of copper: and this foliated iron is called 'micaceous iron.' You have then these two great orders, Needle-crystals, made (probably) of grains in rows; and Leaf-crystals, made (probably) of needles interwoven; now, lastly, there are crustals of a third order, in heaps, or knots, or masses, which may be made, either of leaves laid one upon another, or of needles bound like Roman fasces; and mica itself, when it is well crystallized, puts itself into such masses, as if to show us how others are made. Here is a brown sixsided crystal, quite as beautifully chiseled at the sides as any castle tower; but you see it is entirely built of folia of mica, one laid above another, which break away the moment I touch the edge with my knife. Now, here is another hexagonal tower, of just the same size and color, which I want you to compare with the mica carefully; but as I cannot wait for you to do it just now, I must tell you quickly what main differences to look for. First, you will feel it is far heavier than the mica. Then, though its surface looks quite mica-
ceous in the folia of it, when you try them with the knife, you will find you cannot break them array-_
45. Kathleen. May I try ?
L. Yes, fou mistrusting Katic. Here's my strong knife for you. (Experimental pause. Kathleen doing her best.) You'll have that knife shutting on your finger presently, Kate ; and I don't know a girl who would like less to have her hand tied up for a week.

Kathleen (who also does not like to be beaten-giving up the hnife despondently). What can the nasty hard thing be?
L. It is nothing but indurated clay, Kate: very hard set certainlr, yet not so hard as it might be. If it were thoroughly well crystallized, you would see none of those micaceous fractures; and the stone would be quite red and clear, all through.

Kitimeen. Oh, cannot you show us one?
L. Egypt can, if you ask her ; she has a beautiful one in the clasp of her farorite bracelet.

Katileen. Why, that's a ruby!
L. Well, so is that thing you've beeu scratching at.

Kathleen. My goodness!
(Takes up the stone again, very delicately; and drops it. General consternation.)
L. Nerer mind, Katic; you might drop it from the top of the house, and do it no harm. But though you really are a rery good girl, and as good-natured as anybody can possibly be, remember, you hare your faults, like other people; and, if I were you, the next time I wanted to assert anything energetically, I would assert it by 'my badness,' not 'my goodness.'

Kithleen. Ah, now, it's too bad of you!
45. L. Well, then, I'll invoke, on occasion, my 'toobadness.' But jou may as well pick up the ruby, now you have dropped it; and look carefully at the beautiful hexagonal lines which gleam on its surface: and here is a pretty white sapphire (essentially the same stone as the ruby), in which you will see the same lovely structure, like the threads
of the finest white cobweb. I do not know what is the exact method of a ruby's construction, but you see by these lines, what fine eonstruction there is, even in this hardest of stones (after the diamond), which usually appears as a massise lump or knot. There is therefore no real mineralogical distinction between needle crystals and knotted crystals, but, practically, crystallized masses throw themselves into one of the three groups we have been examining to-day; and appear either as Needles, as Folia, or as Knots; when they are in needles (or fibers), they make the stones or rocks formed out of them 'fibrous;' when they are in folia, they make them 'foliated;' when they are in knots (or grains), 'granular.' Fibrons rocks are comparatively rare, in mass; but fibrous minerals are immerable; and it is often a question which really no one but a coung lady could possibly settle, whether one should call the fibers composing them 'threads' or ' needles.' Here is amianthus, for instance, which is quite as fine and soft as any cotton thread you ever sewed with; and here is sulphide of bismuth, with sharper points and brighter luster than your finest needles lave; and fastened in white welos of quartz more delicate than your finest lace; and here is sulphide of antimony; which looks like mere purple wool, but it is all of purple needle errstals; and here is red oxide of copper (you must not breathe on it as you look, or you may blow some of the films of it off the stone), which is simply a woren tissue of scarlet silk. However, these finer thread forms are comparatively rare, while the bolder and needle-like crystals occur constantly; so that, I believe, 'Needle-crystal' is the best word, (the grand one is 'Acicular errstal,' but Sibyl will tell you it is all the same, only less easily understood; and therefore more scientific). Then the Leaf-erystals, as I said, form an immense mass of foliated rocks; and the Gramular crestals, which are of many kinds, form essentially granular, or granitic and porphyritic rocks; and it is always a point of more interest to me (and I think will ultimately be to you), to consider the causes which force a given mineral to take any one of these three general
forms, than what the peculiar geometrical limitations are, belonging to its own crystals.* It is more interesting to me, for instance, to try and find out why the red oxide of copper, usually crystallizing in cubes or octahedrons, makes itself exquisitely, out of its cubes, into this red silk in one particular Cornish mine, than what are the absolutely necessary angles of the octahedron, which is its common form. At all events, that mathematical part of crustallography is quite beyond girls' strength ; but these questions of the rarious tempers and manners of crystals are not only comprehensible by you, but full of the most curious teaching for you. For in the fulfilment, to the best of their power, of their adopted form under given circumstances, there are conditions entirely resembling those of human rirtue; and indeed expressible under no term so proper as that of the Virtue, or Courage, of crystals:-which, if you are not afraid of the crystals making you ashamed of yourselves, we will try to get some notion of, to-morrow. But it will be a byelecture, and more about yourselves than the minerals. Don't come unless you like. .

Mary. I'm sure the crystals will make us ashamed of ourselves; but we'll come, for all that.
L. Meantime, look well and quietly orer these needle, or thread crystals, and those on the other two tables, with magnifring glasses; and see what thoughts will come into your little heads about them. For the best thoughts are generally those which come without being forced, one does not know how. And so I hope you will get through your wet day patiently.

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## LECTURE V.

## CRISTAL VIRTUES.

A quiet talk, in the afternoon, by the sunniest window of the Drawingroom. Present, Florrie, Isabel, May, Lucilla, Kathleen, Dora, Mary, and some others, who have saved time for the bye-Lecture.
47. L. So you have really come, like good girls, to be made ashamed of yourselves?

Dons (very meekly). No, we needn't be made so; we always are.
L. Well, I believe that's truer than most pretty speeches: but you know, you saucy girl, some people have more reason to be so than others. Are you sure everybody is, as well as you?

The General Voice. Yes, yes; everybody.
L. What! Florrie ashamed of herself?
(Florrie hides behind the curtain.)
L. And Isabel?
(Isabel hides under the table.)
L. And May?
(May runs into the corner behind the piano.)
L. And Lucilla?
(Lucilla hides her face in her hands.)
L. Dear, dear; but this will never do. I shall have to tell you of the faults of the crystals, instead of virtues, to put you in heart again.

May (coming out of her corner). Oh! have the crystals faults, like us?
L. Certainly, May. Their best virtues are shown in fighting their faults. And some have a great many faults; and some are very naughty crystals indeed.

Florrie (from behind her curtain). As naughty as me? Isabel (peeping from under the table cloth). Or me?
L. Well, I don't know. They never forget their syntax, children, when once they've been taught it. But I think some of them are, on the whole, worse than any of you. Not that it's amiable of you to look so radiant, all in a minute, on that account.

Dora. Oh! but it's so much more comfortable.
(Everybody seems to recover their spirits. Eclipse of Florrie and Isabel terminates.)
48. L. What kindly creatures girls are, after all, to their neighbors' failings! I think you may be ashamed of yourselves, indeed, now children! I can tell you, you shall hear of the highest crystalline merits that I can think of to-day: and I wish there were more of them ; but crrstals have a limited, though a stern, code of morals; and their essential virtues are but two;-the first is to be pure, and the second to be well shaped.

Mary. Pure! Docs that mean elear-transparent?
L. No; unless in the case of a transparent substance. You cannot have a transparent erystal of gold; but you may have a perfectly pure one.

Isabel. But you said that it was the shape that made things be crystals; therefore oughtn't their shape to be their first virtue, not their second?
L. Right, you troublasome mousie. But I call their shape only their second virtue, because it depends on time and accident, and things which the erystal cannot help. If it is cooled too quickly, or shaken, it must take what shape it can; but it seems as if even then, it had in itself the power of rejecting impurity, if it has crystalline life enough. Here is a crystal of quartz, well enough shaped in its way; but it seems to have been languid and sick at heart; and some white milky substance has got into it, and mixed itself up with it, all through. It makes the quartz quite yellow, if you hold it up to the light, and milky blue on the surface. Here is another, broken into a thousand separate facets, and
out of all traceable shape; but as pure as a mountain sp:ing. I like this one best.

The Audience. So do I-and I—and I.
Mary. Would a erystallographer?
L. I think so. He would find many more laws curiously exemplified in the irregularly grouped but pure crystal. But it is a futile question, this of first or second. Purity is in most cases a prior, if not a nobler, virtue; at all events it is most convenient to think about it first.

Mary. But what ought we to think about it? Is there much to be thought-I mean, much to puzzle one?
L. I don't know what you call ' much.' It is a long time since I met with anything in which there was little. There's not much in this, perhaps. The crystal must be either dirty or clean-and there's an end. So it is with one's hands, and with one's heart;-only you can wash your hands without changing them, but not hearts, nor crystals. On the whole, while you are young, it will be as well to take care that your hearts don't want much washing; for they may perhaps need wringing also, when they do.
(Audience doubtful and uncomfortable. Lucilla at last takes courage.)
49. Lucilla. Oh! but surely, sir, we cannot make our hearts clean?
L. Not easily, Lucilla; so you had better keep them so, when they are.

Lucilla. When they are! But, sir-
L. Well?

Lecilla. Sir-surely-are we not told that they are all evil?
L. Wait a little, Lucilla: that is difficult ground you are getting upon; and we must keep to our crystals, till at least we understand what their good and evil consist in ; they may help us afterwards to some useful hints about our own. I said that their goodness consisted chiefly in purity of substance, and perfectness of form: but those are rather the effects of their goodness, than the goodness itself. The
inherent virtues of the crrstals, resulting in these outer conditions, might really seem to be best described in the words we should use respecting living creatures-' force of heart' and 'steadiness of purpose.' There seem to be in some crrstals, from the beginning, an unconquerable purity of rital power, and strength of crystal spirit. Whatever dead substance, unacceptant of this encroy, comes in their way, is either rejected, or forced to take some beautiful subordinate form ; the purity of the crestal remains unsullied, and every atom of it bright with coherent energy. Then the second condition is, that from the beginning of its whole structure, a fine crestal seems to have determined that it will be of a certain size and of a certain shape; it persists in this plan, and completes it. Here is a perfect cristal of quartz for you. It is of an unusual form, and one which it might seem verer difficult to build-a pyramid with convex sides, composed of other minor prramids. But there is not a flaw in its contour throughout; not one of its myriads of component sides but is as bright as a jeweler's faceted work (and far finer, if you saw it close). The crystal points are as sharp as jarelins; their edges will cut glass with a touch. Anything more resolute, consummate, determinate in form, cannot be conceived. Here, on the other hand, is a crystal of the same substance, in a perfectly simple type of form-a plain six-sided prism; but from its base to its point,-and it is nine inches long, -it has never for one instant made up its mind what thickness it will have. It seems to have begun by making itself as thick as it thought possible with the quantity of material at command. Still not being as thick as it wonld like to be, it has clumsily glued on more substance at one of its sides. Then it has thimed iteelf, in a panic of economy ; then puffed itself out again; then starred one side to enlarge another; then warped itself quite out of its first line. Opaque, rough-surfaced, jagged on the edge, distorted in the spine, it exhibits a quite human image of docrepitude and dishonor; but the worst of all the signs of its decay and helplessness is that, halfway up, a parasite crystal, smaller, but just as sickly, has
rooted itself in the side of the larger one, eating out a cavity round its root, and then growing backwards, or downwards, contrary to the direction of the main crystal. Yet I cannot trace the least difference in purity of substance between the first most noble stone, and this ignoble and dissolute one. The impurity of the last is in its will, or want of will.

Mary. Oh, if we could but understand the meaning of it all!
50. L. We can understand all that is good for us. It is just as true for us, as for the crrstal, that the nobleness of life depends on its consistency,-clearness of purpose,quiet and ceaseless energy. All doubt and repenting, and botching, and retouching, and wondering what it will be best to do next, are vice, as well as misery.

Mary (much wondering). But must not one repent when one does wrong, and hesitate when one can't see one's way?
L. Iou have no business at all to do wrong; nor to get into any way that you camot see. Your intelligence should always be far in adrance of four act. Whencrer you do not know what you are about, you are sure to be doing wrong.

Kathleen. Oh, dear, but I never know what I am about!
L. Very true, Katie, but it is a great deal to know if you know that. And you find that you have done wrong afterwards; and perhaps some day you may begin to know, or at least, think, what you are about.

Ismbel. But surely people can't go very wrong if they don't know, can they ? I mean, they can't be rery naughty. They can be wrong, like Kathleen, or me, when we make mistakes; but not wrong in the dreadful way. I can't express what I mean ; but there are two sorts of wrong, are there not?
L. Yes, Isabel ; but you will find that the great difference is between kind and unkind wrongs, not between meant and unmeant wrong. Very few people really do mean to do wrong,-in a deep sense, none. They only don't know what they are about. Cain did not mean to do wrong when he killed Abel.
(Isabel draw's a deep breath, and opens her eyes very wide.)
51. No, Isabel; and there are countless Cains among us now, who kill their brothers by the score a day, not only for less prorocation than Cain had, but for no provocation,-and merely for what they can make of their bones,-yet do not think they are doing wrong in the least. Then sometimes you have the business reversed, as over in America these last years, where you have seen Abel resolutely killing Cain, and not thinking he is doing wrong. The great difficulty is always to open people's eyes: to tonch their feelings, and break their hearts, is casy; the difficult thing is to break their heads. What does it matter, as long as they remain stupid, whether you change their feclings or not? Yon camnot be always at their elbow to tell them what is right: and they may just do as wrong as before, or worse ; and their best intentions merely make the road smooth for them, -you know where, children. For it is not the place itself that is paved with them, as people say so often. You can't pare the bottomless pit ; but you may the road to it.

May. Well, but if people do as well as they can see how, surely that is the right for them, isn't it?
L. No, May, not a bit of it; right is right, and wrong is wrong. It is only the fool who does wrong, and says he 'did it for the best.' And if there's one sort of person in the world that the Bible speaks harder of than another, it is fools. Their particular and chief way of saying ' There is no Gorl' is this of declaring that whatever their 'public opinion' may be, is right; and that God's opinion is of no consequence.
52. Mar. But surely nobody can always know what is right?
L. Yes, you always can, for to-day ; and if you do what you see of it to-day, you will see more of it, and more clearly, to-morrow. Here, for instance, you children are at school, and have to learn French, and arithmetic, and music, and several other such things. That is your 'right' for the present;
the 'right' for us, your teachers, is to see that you learn as much as you can, without spoiling your dinner, your sleep, or your play; and that what you do learn, you learn well. You all know when you learn with a will, and when you dawdle. There's no doubt of conscience about that, I suppose ?

Violet. No; but if one wants to read an amusing book, instead of learning one's lesson?
L. Yon don't eall that a 'question,' serionsly, Violet? You are then merely deciding whether you will resolutely do wrong or not.

Mary. But, in after life, how many fearful diffieulties may arise, however one tries to know or to do what is right!
L. You are much too sensible a girl, Mary, to have felt that, whatever you may have seen. A great many of young ladies' difficulties arise from their falling in love with a wrong person: lont they have no business to let themselves fall in lore, till they know he is the right one.

Dora. How many thousands ought he to lave a year?
L. (disdaining reply). There are, of course, certain erises of fortune when one has to take care of one-self; and mind shrewdly what one is abont. There is never any real doubt about the path, but you may have to walk very slowly.
53. Mary. And if one is forced to do a wrong thing by some one who has anthority over yon?
L. My dear, no one can be forced to do a wrong thing, for the guilt is in the will: but you may any day be foreed to do a fatal thing, as yon might be foreed to take poison; the remarkable law of nature in such cases being, that it is always unfortunate you who are poisoned, and not the person who gives you the dose. It is a rery strange law, but it is a law. Nature merely sees to the carrying out of the normal operation of arsenic. She never troubles herself to ask who gave it you. So also you may be starved to death, morally as well as physically, by other people's faults. You are, on the whole, very good children sitting here to-day:-do you think that your goodness comes all by your own contriving?
or that you are gentle and kind because your dispositions are naturally more angelic than those of the poor girls who are playing, with wild eyes, on the dustheaps in the alleys of our great towns; and who will one day fill their prisons,or, better, their graves? Heaven only knows where they, and we who have cast them there, shall stand at last. But the main judgment question will be, I suppose, for all of us, 'Did you keep a good heart through it?' What you were, others may answer for; what you tried to be, you must anstrer for yourself. Was the heart pure and true-tell us that?

And so we come back to your sorrowful question, Lucilla, which I put aside a little ago. Yon would be afraid to answer that your heart was pure and true, would not sou ?

Lucilla. Yes, indeed, sir.
L. Because you have been tanght that it is all evil-' only evil continually.' Somehow, often as people say that, they never seem, to me, to believe it. Do you really believe it ?

Lecilla. Yes, sir; I hope so.
L. That you have an entirely bad heart?

Lucilla (a little uncomfortable at the substitution of the monosyllable for the dissyllable, nevertheless persisting in her orthodoxy). Yes, sir.
54. L. Florrie, I am sure you are tired; I never like you to stay when you are tired; but, you know, you must not play with the kitten while we're talking.

Florrie. Oh! but I'm not tired; and I'm only nursing her. Slie'll be asleep in my lap directly.
L. Stop! that puts me in mind of something I had to show you, about minerals that are like hair. I want a hair out of Tittie's tail.

Florrie (quite rude in her surprise, cren to the point of repeating expressions). Ont of Tittie's tail!
L. Yes; a brown one: Lucilla, rou can get at the tip of it nicely, under Florrie's arm ; just pull one out for me.

Lucilla. Oh! but, sir, it will hurt her so!
L. Never mind; she can't scratch you while Florrie is
holding her. Now that I think of it, you had better pull out two.

Lecelda. But then she may scrateh Florrie! and it will hurt her so, sir! if you only want brown hairs, wouldn't two of mine do?
L. Would you really rather pull out your own than Tittie's?

Lucilla. Oh, of course, if mine will do.
L. But that's very wicked, Lucilla!

Lucilla. Wicked, sir?
L. Yes; if your heart was not so bad, you would much rather pull all the eat's hairs out, than one of your own.

Lecilla. Oli! but, sir, I didn't mean bad like that.
55. L. I believe, if the truth were told, Lucilla, you would like to tie a kettle to Tittie's tail, and hunt her round the playground.

Lucilla. Indeed, I should not, sir.
L. That's not true, Lucilla; you know it cannot be.

Lucllia. Sir?
L. Certainly it is not;-how can you possibly speak any truth out of such a heart as you have? It is wholly deceitful.

Lucilla. Oh! no, no; I don't mean that way; I don't mean that it makes me tell lies, quite out.
L. Only that it tells lies within you?

Lúcilla. Yes.
L. Then, outside of it, you know what is true, and say so ; and I may trust the outside of your heart ; but within, it is all foul and false. Is that the way ?

Luculia. I suppose so: I don't understand it, quite.
L. There is no oceasion for understanding it ; but do you feel it? Are you sure that your heart is deceitful above all things, and desperately wicked?

Lucilla (much relieved by finding herself among phrases with which she is acquainted). Yes, sir. I'm sure of that.
L. (pensively). I'm sorry for it, Lucilla.

Lucilla. So am I, indeed.
L. What are you sorry with, Lucilla?

Lucilla. Sorry with, sir?
L. Yes; I mean, where do you feel sorry? in your feet?

Lucilla (laughing a little). No, sir, of course.
L. In your shoulders, then?

Lucilla. No, sir.
L. You are sure of that? Because, I fear, sorrow in the shoulders would not be worth mueh.

Lucilla. I suppose I feel it in my heart, if I really am sorry.
L. If you really are! Do you mean to say that you are sure you are utterly wicked, and yet do not care ?

Lucilla. No, indeed; I have cried about it often.
L. Well, then, you are sorry in your heart ?

Lucilla. Yes, when the sorrow is worth anything.
L. Even if it be not, it cannot be anywhere else but there. It is not the crystalline lens of your eyes which is sorry, when you cry?

Lucilla. No, sir, of course.
L. Then, have yon two hearts; one of which is wicked, and the other grieved? or is one side of it sorry for the other side?
56. Lecilla (weary of cross-examination and a little rexed). Indeed, sir, you know I ean't understand it; but you know how it is written-' another law in my members, warring against the law of my mind.'
L. Yes, Lneilla, I know how it is written ; but I do not see that it will help us to know that, if we neither understand what is written, nor feel it. And you will not get nearer to the meaning of one rerse, if, as soon as you are puzzled by it, you eseape to another, introdueing three new words-' law,' ' members,' and 'mind '; not one of which you at present know, the meaning of; and respecting which, you probably never will be much wiser; since men like Montesquieu and Locke have spent great part of their lives in endeavoring to explain two of them.

Lucilla. Oh! please, sir, ask somebody else.
L. If I thought anyone else could answer better than you,

Lucilla, I would : but suppose I try, instead, myself to explain your feelings to you?

Lucilla. Oh, yes; please do.
L. Mind, I say your' feelings,' not your 'belief.' For I camnot undertake to explain anybody's beliefs. Still I must try a little, first, to explain the belief also, because I want to draw it to some issuc. As far as I understand what you say, or any one else, taught as you have been tanght, says, on this matter,-you think that there is an external goodness, a whited-sepulcher kind of goodness, which appears beautiful outwardly, but is within full of uncleanness: a deep secret guilt, of which we ourselves are not sensible; and which can only be seen by the Maker of us all. (Approving murmurs from audience.)
L. Is it not so with the body as well as the soul? (Loolied notes of interrogation.)
L. A skull, for instance, is not a beautiful thing? (Grave faces, signifying 'Certainly not,' and 'What next?')
L. And if you all could see in each other, with clear eyes, whaterer God sees beneath those fair faces of yours, you would not like it?
(Murmured ' No,s.')
L. Nor would it be good for you? (Silence.)
L. The probability being, that what God does not allow you to sce, He does not wish you to see; nor eren to think of? (Silence prolonged.)
57. L. It would not at all be good for you, for instance, whenever you were washing your faces, and braiding your hair, to be thinking of the shapes of the jawbones, and of the eartilage of the mose, and of the jagged sutures of the scalp?
(Resolutely whispered ' No's.')
L. Still less, to see through a clear glass the daily processes of nourishment and decay?
(No.)
L. Still less, if instead of merely inferior and prepara-
tory conditions of structure, as in the skeleton,-or inferior offices of structure, as in operations of life and death,-there were actual disease in the body; ghastly and dreadful. You would try to cure it ; but having taken such measures as were necessary, you would not think the cure likely to be promoted by perpetually watching the wounds, or thinking of them. On the contrary, you would be thankful for every moment of forgetfulness: as, in daily health, you must be thankful that your Maker has veiled whatever is fearful in your frame under a sweet and manifest beantr; and has made it your duty, and your only safety, to rejoice in that, both in yourself and in others:-not indeed concealing, or refusing to believe in sickness, if it come; but never dwelling on it.

Now, your wisdom and duty touching soul-sickness are just the same. Ascertain clearly what is wrong with you; and so far as you know any means of mending it, take those means, and have done; when you are examining yourself, never call yourself merely a 'sinner;' that is very cheap abuse, and utterly useless. You may even get to like it, and be proud of it. But call yourself a liar, a coward, a sluggard, a glutton, or an evil-eyed, jealous wretch, if rou indeed find yourself to be in any wise any of these. Take steady means to check yourself in whatever fault you have ascertained, and justly accused yourself of. And as soon as you are in active way of mending, you will be no more inclined to moan orer an undefined corruption. For the rest, you will find it less easy to uproot faults, than to choke them by gaining virtues. Do not think of your faults; still less of others' faults: in every person who comes near you, look for what is good and strong: honor that; rejoice in it; and, as you can, try to imitate it: and your faults will drop off, like dead leaves, when their time comes. If, on looking back, sour whole life should seem rugged as a palm tree stem; still, never mind, so long as it has been growing; and has its grand green shade of leares, and weight of honeved fruit, at top. And eren if you cannot find much good in yourself at last, think that it does not much matter to the universe either what you vere, or
are; think how many people are noble, if you cannot be ; and rejoice in their nobleness. An immense quantity of modern confession of sin, even when honest, is merely a sickly egotism; which will rather gloat over its orm evil, than lose the centralization of its interest in itself.
58. Mary. But then, if we ought to forget ourselves so much, how did the old Greek pricrerb 'Know thyself' come to be so highly esteemed?
L. My dear, it is the proverb of proverbs;-Apollo's proverh, and the sun's;-but do you think you can know yourself by looking into yourself? Never. You can know what you are, only ly looking out of yourself. Measure your own powers with those of others; compare your own interests with those of others; try to understand what you appear to them, as well as what they appear to you; and judge of yourselves, in all things, relatively and subordinately; not positively: starting always with a wholesome conviction of the probability that there is nothing particular about you. For instance, some of you perhaps think you can write poetry. Dwell on your own feelings and doings;-and you will soon think yourselves Tenth Muses; but forget your own feelings; and try, instead, to understand a line or two of Chaucer or Dante; and you will soon begin to feel yourselves very foolish girls-which is much like the fact.

So, something which befalls you may seem a great mis-fortune;-you meditate over its effeets on you personally; and begin to think that it is a chastisement, or a warning, or a this or that or the other of profound significance; and that all the angels in heaven have left their business for a little while, that they may wateh its effects on your mind. But give up this egotistic indulgence of your fancy; examine a little what misfortmes, greater a thousandfold, are happening, every second, to twenty times worthier persons: and your self-conseiousness will change into pity and humility; and you will know yourself, so far as to understand that 'there hath nothing taken thee but what is common to man.'
59. Now, Lucilla, these are the practical conclusions which
any person of sense would arrive at, supposing the texts which relate to the inner evil of the heart were as many, and as prominent, as they are often supposed to be by careless readers. But the way in which common people read their Bibles is just like the way that the old monks thought hedgehogs ate grapes. They rolled themselves (it was said), over and over, where the grapes lay on the ground. What fruit stuck to their spines, they carried off, and ate. So your hedgehoggy readers roll themselves over and over their Bibles, and declare that whatever sticks to their own spines is Scripture; and that nothing else is. But you can only get the skins of the texts that way. If you want their juice, you must press them in cluster. Now, the clustered texts about the human heart, insist, as a body, not on any inherent corruption in all hearts, but on the terrific distinction between the bad and the good ones. 'A good man, out of the good treasure of his heart, bringeth forth that which is good; and an evil man, out of the evil treasure, bringeth forth that which is evil.' 'They on the rock are they which, in an honest and good heart, having heard the word keep it.' 'Delight thyself in the Lord, and IIe shall give thee the desires of thine heart.' 'The wicked have bent their bow, that they may privily shoot at him that is upright in heart.' And so on ; they are countless, to the same effect. And, for all of us, the question is not at all to ascertain how much or how little corruption there is in human nature; but to ascertain whether, out of all the mass of that nature, we are of the sheep or the goat breed; whether we are people of upright heart, being shot at, or people of crooked heart, shooting. And, of all the texts bearing on the subject, this, which is a quite simple and practical order, is the one you have chiefly to hold in mind. 'Keep thy heart with all diligence, for out of it are the issues of life.'

Lucilla. And yet, how inconsistent the texts seem!
L. Nonsense, Lucilla! do you think the universe is bound to look consistent to a girl of fifteen? Look up at your own room window ;-you can just see it from where you sit. I'm
glad that it is left open, as it ought to be, on so fine a day. But do you see what a black spot it looks, in the sun-lighted wall ?

Lucilla. Yes; it looks as black as ink.
L. Yet you know it is a very bright room when you are inside of it; quite as bright as there is any occasion for it to be, that its little lady may see to keep it tidy. Well, it is very probable, also, that if you could look into your hoart from the sun's point of view, it might appear a very black hole to you indeed: nay, the sun may sometimes think good to tell you that it looks so to Him ; but He will come into it, and make it very checrful for you, for all that, if you don't put the shutters up. And the one question for you, remember, is not 'dark or light?' but 'tidy or untidy ?' Look well to your sweeping and garnishing; and be sure it is only the banished spirit, or some of the seven wickeder ones at his back, who will still whisper to you that it is all black.

## LECTURE VI.

## CRYSTAL QUARRELS.

Full conclare, ín Schoolrnom. Therc has been a game at crystallization in the morning, of which various account has to be rendered. In particular, everybody has to explain why they were aluays where they were not intendeal to be.
60. L. (having received and considered the report). You have got on pretty well, children: but you know these were easy figures you have been trying. Wait till I have drawn you out the plans of some errstals of snow!

Many. I don't think those will be the most diffieult : they are so beautiful that we shall remember our places better; and then they are all regular, and in stars; it is those twisty oblique ones we are afraid of.
L. Read Carlyle's account of the battle of Leuthen, and learn Friedrich's 'oblique order.' You will' get it done for once, I think, prorided you can march as a pair of compasses would.' But remember, when you can construct the most difficult single figures, you hare only learned half the gamenothing so much as the half, indeed, as the crystals themselres play it.

Mari. Indeed; what else is there?
L. It is seldom that any mineral crystallizes alone. Usually two or three, under quite different crystalline laws, form together. They do this absolutely without flaw or fault, when they are in fine temper: and observe what this signifies. It signifies that the two, or more, minerals of different natures agree, somehow, between themselves, how much space each will want;-agree which of them shall give way to the other at their junction; or in what measure each
will accommodate itself to the other's shape! And then each takes its permitted shape, and allotted share of space; yielding, or being yielded to, as it builds, till each crystal has fitted itself perfectly and gracefully to its differently-natured neighbor. So that, in order to practice this, in even the simplest terms, you must divide into two parties, wearing different colors ; each must choose a different figure to construct; and you must form one of these figures through the other, both going on at the same time.
61. Mary. I think we may, perhaps, manage it ; but I cannot at all understand how the crystals do. It seems to imply so much preconcerting of plan, and so much giving way to each other, as if they really were living.
L. Yes, it implies both concurrence and compromise, regulating all willfulness of design ; and, more curiously still, the crystals do not always give way to each other. They show exactly the same varieties of temper that human creatures might. Sometimes they yield the required place with perfect grace and courtesy ; forming fantastic, but exquisitely finished, groups: and sometimes they will not yield at all; but fight furiously for their places, losing all shape and honor, and even their own likeness, in the contest.

Mary. But is not that wholly wonderful? How is it that one never sees it spoken of in books?
L. The scientific men are all busy in determining the constant laws under which the struggle takes place; these indefinite humors of the elements are of no interest to them. And unsciontific people rarely give themselves the trouble of thinking at all, when they look at stones. Not that it is of much use to think; the more one thinks, the more one is puzzled.
62. Mary. Surely it is more wonderful than anything in botany?
L. Everything has its own wonders ; but, given the nature of the plant, it is easier to understand what a flower will do, and why it does it, than, given anything we as yet know of stone-nature, to understand what a crystal will do, and why
it does it. You at once admit a kind of volition and choice, in the flower; but we are not accustomed to attribute anything of the kind to the crystal. Yet there is, in reality, more likeness to some conditions of human feeling among stones than among plants. There is a far greater difference between kindly-tempered and ill-tempered erystals of the same mineral, than between any two specimens of the same flower: and the friendships and wars of crystals depend more definitely and curiously on their varieties of disposition, than any associations of flowers. Here, for instance, is a good garnet, living with good mica; one rich red, and the other silver white: the mica leares exactly room enough for the garnet to crystallize comfortably in ; and the garnet lives happily in its little white house; fitted to it, like a pholas in its cell. But here are wicked garnets living with wicked mica. See what ruin they make of each other! You cannot tell which is which; the garnets look like dull red stains on the crumbling stone. By the way, I never could understand, if St. Gothard is a real saint, why he can't keep his garnets in better order. These are all under his care; but I suppose there are too many of them for him to look after. The streets of Airola are pared with them.

May. Paved with garnets?
63. L. With mica-slate and garnets; I broke this bit out of a paring stone. Now garnets and mica are natural friends, and generally fond of each other; but you see how they quarrel when they are ill brought up. So it is always. Good crystals are friendly with almost all other good crystals, however little they chance to see of each other, or however opposite their habits may be; while wicked crystals quarrel with one another, though they may be exactly alike in habits, and see each other continually. And of course the wicked crystals quarrel with the good ones.

Isabel. Then do the good ones get angry?
L. No, never; they attend to their own work and life; and live it as well as they can, though they are always the sufferers. Here, for instance, is a rock-crystal of the
purest race and finest temper, who was born, unhappily for him, in a bad neighborhood, near Beaufort in Savoy; and he has had to fight with vile calcareous mud all his life. See here, when he was but a child, it came down on him, and nearly buried him; a weaker crystal would have died in despair; but he only gathered himself together, like Hercules against the serpents, and threw a layer of crystal over the clay; conquered it,-imprisoned it,-and lived on. Then, when he was a little older, came more clay; and poured itself upon him here, at the side; and he has laid crystal over that, and lived on, in his purity. Then the clay came on at his angles, and tried to cover them, and round them away; but upon that he threw out buttress-crystals at his angles, all as true to his own central line as chapels round a cathedral apse; and clustered them round the clay; and conquered it again. At last the clay came on at his summit, and tried to blunt his summit; but he could not endure that for an instant; and left his flanks all rough, but pure; and fought the clay at his crest, and built crest over crest, and peak over peak, till the clay surrendered at last; and here is his summit, omooth and pure, terminating a pyramid of alternate clay and crystal, half a foot high :

Lily. Oh, how nice of him! What a dear, brave crystal! But I can't bear to see his flanks all broken, and the clay within them.
64. L. Tes; it was an evil chance for him, the being born to such contention; there are some enemies so base that even to hold them captive is a kind of dishonor. But look, here has been quite a different kind of struggle: the adverse power has been more orderly, and has fought the pure crystal in ranks as firm as its own. This is not mere rage and impediment of crowded evil: here is a disciplined hostility ; army against army.

Lily. Oh, but this is much more beautiful!
L. Yes, for both the elements have true virtue in them; it is a pity they are at war, but they war grandly.

Mary. But is this the same clay as in the other crystal?
L. I used the word clay for shortness. In both, the cnemy is really limestone; but in the first, disordered, and mixed with true clay; while, here, it is nearly pure, and crystallizes into its own primitive form, the oblique six-sided one, which you know; and out of these it makes regiments; and then squares of the regiments, and so charges the rock crystal, literally in square against column.

Isabel. Please, please, let me see. And what does the rock crystal do ?
L. The rock crystal seems able to do nothing. The calcite cuts it through at every charge. Look here-and here! The loveliest crystal in the whole group is hewn fairly into two pieces.

Is.abel. Oh, dear! but is the calcite harder than the crystal then?
L. No, softer. Very much softer.

Mary. But then, how can it possibly cut the crystal?
65. L. It did not really cut it, though it passes through it. The two were formed together, as I told you; but no one knows how. Still, it is strange that this hard quartz has in all cases a good-natured way with it, of yielding to everything else. All sorts of soft things make nests for themselves in it; and it never makes a nest for itself in anything. It has all the rough outside work; and every sort of cowardly and weak mineral can shelter itself within it. Look; these are hexagonal plates of mica; if they were outside of this crystal they would break, like burnt paper; but they are inside of it,-nothing can hurt them,-the crystal has taken them into its very heart, keeping all their delicate edges as sharp as if they were under water, instead of bathed in rock. Here is a picce of branched silver: you can bend it with a touch of your finger, but the stamp of its every fiber is on the rock in which it lay, as if the quartz had been as soft as wool.

Lily. Oh, the good, good quartz! But does it never get inside of anything?
L. As it is a little Irish girl who asks, I may perhaps
answer, without being laughed at, that it gets inside of itself sometimes. But I dou't remember seeing quartz make a nest for itself in anything else.
66. Isabel. Please, there was something I heard you talking about, last term, with Miss Mary. I was at my lessons, but I heard something about nests; and I thought it was birds' nests; and I couldn't help listening; and then, I remember, it was about 'nests of quartz in granite.' I remember, because I was so disappointed!
L. Yes, mousie, you remember quite rightly ; but I can't tell you about those nests to-day, nor perhaps to-morrow : but there's no contradiction between my saying then, and now; I will show you that there is not, some day. Will you trust me meanwhile?

Isabel. Won't I!
L. Well, then, look, lastly, at this piece of courtesy in quartz; it is on a small scale, but wonderfully pretty. Here is nobly born quartz living with a green mineral, called epidote; and they are immense friends. Now, you see, a comparatively large and strong quartz-crystal, and a very weak and slender little one of epidote, have begun to grow, close by each other, and sloping unluckily towards each other, so that at last they meet. They cannot go on growing together ; the quartz crystal is fire times as thick, and more than twenty times as strong, ${ }^{*}$ as the epidote; but he stops at once, just in the very crowning moment of his life, when he is building his own summit! He lets the pale little film of epidote grow right past him ; stopping his own summit for it ; and he never himself grows any more.
67. Lily (after some silence of wonder). But is the quartz never wicked then?
L. Yes, but the wickedest quartz seems good-natured compared to other things. Here are two very characteristic examples; one is good quartz, living with good pearlspar, and the other, wicked quartz, living with wicked pearlspar.

[^190]In both, the quartz yields to the soft carbonate of iron; but, in the first piece, the iron takes only what it needs of room; and is inserted into the planes of the rock crystal with such precision, that you must break it away before you can tell whether it really penetrates the quartz or not; while the crystals of iron are perfectly formed, and have a lovely bloom on their surface besides. But here, when the two minerals quarrel, the unhappy quartz has all its surfaces jagged and torn to pieces; and there is not a single iron crystal whose shape you can completely trace. But the quartz has the worst of it, in both instances.
68. Violet. Might we look at that piece of broken quartz again, with the weak little film across it? it seems such a strange lovely thing, like the self-sacrifice of a human being.
L. The self-sacrifice of a human being is not a lovely thing, Violet. It is often a necessary and noble thing; but no form nor degree of suicide can be ever lovely.

Violet. But self-sacrifice is not suicide!
L. What is it then?

Violet. Giving up one's self for another.
L. Well; and what do you mean by 'giving up one's self'?

Violet. Giving up one's tastes, one's feelings, one's time, one's happiness, and so on, to make others happy.
L. I hope you will never marry anybody, Violet, who expects you to make him happy in that way.

Violet (hesitating). In what way ?
L. By giving up your tastes, and sacrificing your feelings, and happiness.

Violet. No, no, I don't mean that; but jou know, for other people, one must.
L. For people who don't love you, and whom you know nothing about? Be it so; but how does this 'giving up' differ from suicide then?

Violet. Why, giving up one's pleasures is not killing one's self?
L. Giving up wrong pleasure is not; neither is it self-
sacrifice, but self-culture. But giving up right pleasure is. If you surrender the pleasure of walking, your foot will wither; you may as well cut it off: if you surrender the pleasure of seeing, your eyes will soon be unable to bear tho light ; you may as well pluck them out. And to maim yourself is partly to kill yourself. Do but go on maining, and you will soon slay.
69. Tiolet. But why do you make me think of that verse then, about the foot and the eye ?
L. You are indeed commanded to cut off and to pluck out, if foot or eye offend you; but why should they offend you?

Violet. I don't know; I never quite understood that.
L. Yet it is a sharp order; one needing to be well understood if it is to be well obeyed! When Helen sprained her ankle the other day, you saw how strongly it had to be bandaged; that is to say, prevented from all work, to recover it. But the bandage was not 'lovely.'

Violet. No, indeed.
L. And if her foot had been crushed, or diseased, or snake-bitten,. instead of sprained, it might have been needful to cut it off. But the amputation would not have been ' lovely.'

## Tiolet. No.

L. Well, if eye and foot are dead already, and betray you; --if the light that is in you be darkness, and your feet run into mischief, or are taken in the snare,-it is indeed time to pluck out, and cut off, I think: but, so crippled, you can never be what you might have been otherwise. You enter into life, at best, halt or maimed; and the sacrifice is not beautiful, though necessary.

Violet (after a pause). But when one sacrifices one's self for others?
L. Why not rather others for you?

Violet. Oh! but I couldn't bear that.
L. Then why should they bear it?

Dors (bursting in, indignant). And Thermoprle, and

Protesilaus, and Marcus Curtins, and Arnold de Winkelried, and Iphigenia, and Jephthah's danghter ?
L. (sustaining the indignation unmoved). And the Samaritan woman's son?

Dora. Which Samaritan woman's?
L. Read 2 Kings vi. 29.

Dora (obeys). How horrid! As if we meant anything like that!
L. You don't seem to mo to know in the least what you do mean, children. What practical difference is there between 'that,' and what you are talking about? The Samaritan children had no voice of their own in the business, it is true; but neither had Iphigenia: the Greek girl was certainly neither boiled, nor eaten; but that only makes a difference in the dramatic effect ; not in the principle.

Dora (biting her lip). Well, then, tell us what we ought to mean. As if you didn't teach it all to us, and mean it yourself, at this moment, more than we do, if you wouldn't be tiresome!
70. L. I mean, and always have meant, simply this, Dora;-that the will of God respecting us is that we shall live by each other's happiness, and life; not by each other's misery, or death. I made you read that verse which so shocked you just now, because the relations of parent and child are typical of all beantiful human help. A child may have to die for its parents; but the purpose of Heaven is that it shall rather livo for them;-that not by sacrifice, but by its strength, its joy, its force of being, it shall be to them renewal of strength; and as the arrow in the hand of the giant. So it is in all other right relations. Men help each other by their joy, not by their sorrow. They are not intended to slay themselves for each other, but to strengthen themselves for each other. And among the many apparently beautiful things which turn, through mistaken use, to utter evil, I am not sure but that the thoughtlessly meek and selfsacrificing spirit of good men must be named as one of the fatalest. They have so often been tanght that there is a
virtue in mere suffering, as such; and foolishly to hope that good may be brought by Heaven out of all on which Heaven itself has set the stamp of evil, that we may avoid it, -that they aceept pain and defeat as if these were their appointed portion; never understanding that their defeat is not the less to be mourned beeause it is more fatal to their enemies than to them. The one thing that a good man has to do, and to see done, is justice; he is neither to slay himself nor others causelessly: so far from denying himself, since he is pleased by good, he is to do his utmost to get his pleasure accomplished. And I only wish there were streugth, fidelity, and sense enough, among the good Englishmen of this day, to render it possible for them to band together in a rowed brotherhood, to enforce, by strength of heart and hand, the doing of human justice among all who came within their sphere. And finally, for your own teaching, observe, although there may be need for much self-sacrifice and selfdenial in the correction of faults of character, the moment the character is formed, the self-denial ceases. Nothing is really well done, which it costs you pain to do.
71. Violet. But surely, sir, you are always pleased with us when we try to please others, and not ourselves?
L. My dear child, in the daily course and discipline of right life, we must continually and reciprocally submit and surrender in all kind and courteous and affectionate ways: and these submissions and ministries to each other, of which you all know (none better) the practice and the preciousness, are as good for the jielder as the receiver: they strengthen and perfect as much as they soften and refine. But the real saerifice of all our strength, or life, or happiness to others (though it may be needed, and though all brave creatures hold their lives in their hand, to be given, when such need comes, as frankly as a soldier gives his life in battle), is yet always a mournful and momentary necessity; not the fulfillment of the continuous law of being. Self-sacrifice which is sought after, and triumphed in, is usually foolish; and calamitous in its issue: and by the sentimental proclamation
and pursuit of it, good people have not only made most of their own lives useless, but the whole framework of their religion so hollow, that at this moment, while the English nation, with its lips, pretends to teach every man to 'love his neighbor as himself,' with its hands and feet it clutches and tramples like a wild beast; and practically lives, every soul of it that can, on other people's labor. Briefly, the constant duty of every man to his fellows is to ascertain his own powers and special gifts; and to strengthen then for the help of others. Do you think Titian would have helped the world better by denying himself, and not painting: or Casella by denying himself, and not singing? The real virtue is to be ready to sing the moment people ask us; as he was, even in purgatory. The very word 'virtue' means, not 'conduct,' but 'strength,' vital energy in the heart. Were not you reading about that group of words beginning with V ,-vital, virtuous, vigorous, and so on,-in Max Müller, the other day, Sibyl? Can't you tell the others about it?

Sibyl. No, I can't; will you tell us, please?
L. Not now, it is too late. Come to me some idle time to-morrow, and I'll tell you about it, if all's well. But the gist of it is, children, that you should at least know two Latin words; recollect that 'mors' means death, and delaying; and 'vita' means life, and growing: and try always, not to mortify yourselves, but to vivify yourselves.
72. Violet. But then, are we not to mortify our earthly affections? and surely we are to sacrifice ourselves, at least in God's service, if not in man's?
L. Really, Violet, we are getting too serious. I've given you enough ethies for one talk, I think! Do let us have a little play. Lily, what were you so busy about, at the anthill in the wood, this morning?

Lily. Oh, it was the ants -who were busy, not I; I was only trying to help them a little.
L. And they wouldn't be helped, I suppose ?

Lily. No, indeed, I can't think why ants are alwass so tiresome, when one tries to help them! They were earrying
bits of stick, as fast as they could, through a piece of grass; and pulling and pushing so hard; and tumbling over and over,-it made one quite pity them; so I took some of the bits of stick, and carried them forward a little, where I thought they wanted to put them; but. instead of being pleased, they left them directly, and ran about looking quite angry and frightened; and at last ever so many of them got up my sleeves, and bit me all over, and I had to come away.
L. I couldn't think what you were about. I saw your French grammar lying on the grass behind you, and thought perhaps you had gone to ask the ants to hear you a French verb.

Isabel. Ah! but you didn't, though !
L. Why not, Isabel? I knew well enough, Lily couldn't learn that verb by herself.

- Isabel. No; but the ants couldn't help her.
L. Are you sure the ants could not have helped you, Lily?

Lily (thinking). I ought to have learned something from them, perhaps.
L. But none of them left their sticks to help you through the irregular verb?

Lily. No, indeed. (Laughing with some others.)
L. What are you langhing at, children? I cannot see why the ants should not have left their tasks to help Lily in hers,-since here is Violet thinking she ought to leave her tasks, to help God in His. Perhaps, however, she takes Lily's more modest view, and thinks only that 'He ought to learn something from her.'
(Tears in Violet's eyes.)
Dora (scarlet). It's too bad-it's a shame:-poor Violet!
L. My dear children, there's no reason why one should be so red, and the other so pale, merely because you are made for a moment to feel the absurdity of a phrase which you have been tanght to nse, in common with half the religions world. There is but one way in which man can ever help God-that is, by letting God help him: and there is no way
in which His name is more guiltily taken in vain than by ealling the abandonment of our own work, the performance of His.

God is a kind Father. He sets us all in the places where He wishes us to be employed; and that employment is truly 'our Father's business.' He chooses work for every ereature which will be delightful to them, if they do it simply and humbly. He gives us always strength enough, and sense enough, for what IIe wants us to do; if we either tire ourselves or puzzle ourselves, it is our own fault. And we may always be sure, whatever we are doing, that we camnot be pleasing Him, if we are not happy ourselves. Now, away with you, children; and be as happy as you can. And when you cannot, at least don't plume yourselves upon pouting.

## LECTURE VII.

## HOME VIRTUES.

By the fireside, in the Draving-room. Evening.
73. Dora. Now, the curtains are drawn, and the fire's bright, and here's your armehair-and you're to tell us all about what you promised.
L. All about what?

Dora. All about virtue.
Kathleen. Yes, and about the words that begin with V .
L. I heard you singing about a word that begins with V , in the playground, this morning, Miss Katie.

Kathleex. Me singing!
May. Oh tell us-tell us.
L. 'Vilikens and his-_'

Kathleen (stopping his mouth). Oh! please don't. Where were you?

Isabel. I'm sure I wish I had known where he was! We lost him among the rhododendrons, and I don't know where he got to; oh, you naughty-naughty-(climbs on his inee).

Dor.. Now, Isabel, we really want to talk.
L. I don't.

Dor.. Oh, but you must. You promised, you know.
L. Yes, if all was well; but all's ill. I'm tired, and cross; and I won't.

Dora. You're not a bit tired, and you're not crosser than two sticks; and we'll make you talk, if you were crosser tham six. Come here, Egypt; and get on the other side of him.
(Egypt talies up a commanding position near the hearth brush.)

Dora (reviewing her forces). Now, Lily, come and sit on the rug in front.
(Lily does as she is bid.)
L. (seeing he has no chance against the odds). Well, well; but I'm really tired. Go and dance a little, first; and let me think.

Dora. No; you mustn't think. You will be wanting to make us think next; that will be tiresome.
74. L. Well, go and dance first, to get quit of thinking: and then I'll talk as long as you like.

Dora. Oh, but we can't dance to-night. There isn't time; and we want to hear about virtue.
L. Let me see a little of it first. Dancing is the first of girls' virtues.

Egypt. Indeed! And the second?
L. Dressing.

Egypt. Now, you needn't say that! I mended that tear the first thing before breakfast this morning.
L. I cannot otherwise express the ethical principle, Egypt: whether you have mended your gown or not.

Dora. Now don't be tiresome. We really must hear about virtue, please: seriously.
L. Am not I telling you about it, as fast as I can?

Dora. What! the first of girls' virtues is dancing?
L. More accurately, it is wishing to dance, and not wishing to tease, nor to hear about virtue.

Dora (to Egypt). Cross?
Egypt. How many balls must we go to in the season, to be perfectly virtuous?
L. As many as you can without losing your color. But I did not say you should wish to go to balls. I said you should be always wanting to dance.

Egypt. So we do; but everybody says it is very wrong.
L. Why, Egypt, I thought-

[^191]You were complaining the other day of having to go out a great deal oftener than you liked.

Egrpt. Yes, so I was; but then, it isn't to dance. There's no room to dance: it's-(Pausing to consider what it is for).
75. L. It is only to be seen, I suppose. Well, there's no harm in that. Girls ought to like to be seen.

Doka (her eyes flashing). Now, you don't mean that; and you're too provoking; and we won't dance again, for a month.
L. It will answer every purpose of revenge, Dora, if you only banish me to the library; and dance by yourselves; but I don't think Jessic and Lily will agree to that. You like me to see you dancing, don't you, Lily?

Lily. Yes, certainly,-when we do it rightly.
L. And besides, Miss Dora, if young ladies really do not want to be seen, they should take care not to let their eyes flash when they dislike what people say; and, more than that, it is all nonsense from beginning to end, about not wanting to be seen. I don't know any more tiresome flower in the borders than your especially 'modest' snowdrop; which one always has to stoop down and take all sorts of tiresome trouble with, and nearly break its poor little head off, before you can see it ; and then, half of it is not worth seeing. Girls should be like daisies; nice and white, with an edge of red, if you look close; making the ground bright wherever they are; knowing simply and quietly that they do it, and are meant to do it, and that it would be very wrong if they didn't do it. Not want to be seen, indeed! How long were you in doing your back hair, this afternoon, Jessic?
(Jessie not immediatcly answering, Dora comes to her assistance.)
Dora. Not above three-quarters of an hour, I think, Jess? Jessie (pulting her finger up). Now, Dorothy, you needn't talk, you know !
L. I know she needn't, Jessie; I shall ask her about those dark plaits presently. (Dora looks round to see if there is
any way open for retreat.) But never mind; it was worth the time, whatever it was; and nobody will ever mistake that golden wreath for a chignon: but if you don't want it to be seen, you had better wear a cap.

Jessie. Ah, now, are you really going to do nothing but play? And we all hare been thinking and thinking, all day; and hoping you would tell us things; and now-!
L. And now I am telling you things, and true things, and things good for you; and you won't believe me. You might as well have let me go to sleep at once, as I wanted to. (Endeavors again to make himself comfortable.)

Isabel. Oh, no, no, you sha'n't go to sleep, you naughty ! -Kathleen, come here.
L. (knowing what he has to expect if Kithleen comes). Get away, Isabel, you're too heary. (Sitting up.) What have I been saying?

Dora. I do believe he has been asleep all the time! You never heard anything like the things you've been saying.
L. Perhaps not. If you have heard them, and anything like them, it is all I want.

Egypt. Yes, but we don't understand, and you know we don't ; and we want to.
76. L. What did I say first?

Dors. That the first virtue of girls was wanting to go to balls.
L. I said nothing of the kind.

Jessif. 'Always wanting to dance,' you said.
L. Yes, and that's true. Their first virtue is to be intensely happy;-so happy that they don't know what to do with themselves for happiness,-and dance, instead of walking. Don't jou recollect 'Louisa'?

## ' No fountain from a rocky care <br> E'er tripped with foot so free ; She seemed as happy as a wave That dances on the sea.'

A girl is always like that, when everything's right with her.

Tiolet. But, surely, one must be bad sometimes?
L. Yes, Violet; and dull sometimes, and stupid sometimes, and cross sometimes. What must be, must; but it is always either our own fault, or somebody else's. The last and worst thing that can be said of a nation is, that it has made its young girls sad, and weary.

Mar. But I am sure I have heard a great many good people speak against dancing?
L. Ies, May; but it does not follow they were wise as well as good. I suppose they think Jeremiah liked better to have to write Lamentations for his people, than to have to write that promise for them, which everybody seems to hurry past, that they may get on quickly to the verse about Rachel weeping for her children; though the verse they pass is the counter blessing to that one: 'Then shall the virgin rejoice in the dance; and both young men and old together; and I will turn their mourning into joy.'
(The children get rery serious, but look at each other, as if pleased.)
77. Miry. They understand now: but, do you know what you said next?
L. Yes; I was not more than half asleep. I said their second virtne was dressing.

Mary. Well! what did you mean by that?
L. What do you mean by dressing ?

Mary. Wearing fine clothes.
L. Ah! there's the mistake. I mean wearing plain ones.

Mary. Yes, I daresay! but that's not what girls understand by dressing, you know.
L. I can't help that. If they understand by dressing, buying dresses, perhaps they also understand by drawing, buying pictures. But when I hear them say they can draw, I understand that they can make a drawing; and when I hear them say they can dress, I understand that they can make a dress; and-which is quite as difficult-wear one.

Dors. I'm not sure about the making; for the wearing, we can all wear them-out, before anybody expects it.

Egypt (aside to L., piteously). Indeed, I have mended that torn flounce quite neatly; look if I haven't!
L. (aside to Egypt). All right; don't be afraid. (Aloud, to Dora.) Yes, doubtless ; but you know that is only a slow way of undressing.

Dors. Then, we are all to learn dressmaking, are we ?
L. Yes; and always to dress yourselves beantifully-not finely, unless on occasion; but then very finely and beautifully too. Also you are to dress as many other people as you can ; and to teach them how to dress, if they don't know; and to consider every ill-dressed woman or child whom you see anywhere, as a personal disgrace ; and to get at them, somehow, until everybody is as beantifully dressed as birds.
(Silence; the children drawing their breaths hard as if they had come from under a shower bath.)
7S. L. (seeing objections begin to express themselves in the eyes). Now you needn't say you can't, for you can : and it's what you were meant to do, always; and to dress your houses, and your gardens, too; and to do very little else, I believe, except singing; and dancing, as we said, of course: and-one thing more.

Dora. Our third and last virtue, I suppose?
L. Yes; on Violet's system of triplicities.

Dora. Well, we are prepared for anything now. What is it?
L. Cooking.

Dora. Cardinal, indeed! If only Beatrice were here with her seven handmaids, that she might see what a fine eighth we had found for her!

Mary. And the interpretation? What does 'cooking' mean?
L. It means the knowledge of Medea, and of Circe, and of Calypso, and of Helen, and of Rebekah, and of the Queen of Sheba. It means the knowledge of all herbs, and fruits, and balns, and spices; and of all that is healing and sweet in fields and groves, and savory in meats; it means carefulness, and inrentiveness, and watchfulness, and willingness,
and readiness of appliance; it means the economy of your great-grandmothers, and the science of modern chemists; it means much tasting, and no wasting; it means English thoroughness, and French art, and Arabian hospitality ; and it means, in fine, that you are to be perfectly and always, ' ladies'-' loaf-givers;' and, as you are to see, imperatively, that everybody has something pretty to put on,-so you are to see, yet more imperatively, that everybody has something nice to eat. (Another pause, and long-drawn breath.)
Dora (slowly recovering herself) to Eaypt. We had better have let him go to slecp, I think, after all!
L. You had better let the younger ones go to sleep, now: for I haven't half done.

Isabel (panic-struck). Oh! please, please! just one quarter of an hour.
L. No, Isabel; I cannot say what I've got to say, in a quarter of an hour ; and it is too hard for you, besides;-you would be lying awake, and trying to make it out, half the night. That will never do.

Isabel. Oh, please!
L. It would please me exceedingly, mousie; but there are times when we must both be displeased; more's the pity. Lily may stay for half an hour, if she likes.

Lily. I can't; because Isey never goes to sleep if she is waiting for mo to come.

Isabel. Oh, yes, Lily; I'll go to ṣleep to-night ; I will, indeed.

Lily. Yes, it's very likely, Isey, with thnse fine round eyes! (To L.) You'll tell me something of what you've been saying, to-morrow, won't yon?
L. No, I won't, Lily. You must choose. It's only in Miss Edgeworth's novels that one can do right, and have one's cake and sugar afterwards as well; (not that I consider the dilemma, to-night, so grave).
(Lily, sighing, takes Is.abel's hand.)
Yes, Lily dear, it will bo better, in the outcome of it, so,
than if you were to hear all the talks that ever were talked, and all the stories that ever were told. Good-night.
(The door leading to the condemned cells of the Dormitory closes on Lily, Isabel, Florrie, and other diminutive and submissive victims.)
79. Jessie (after a pause). Why, I thought you were so fond of Miss Edgeworth!
L. So I am; and so you ought all to be. I ean read her over and over again, without ever tiring: there's no one whose every page is so full, and so delightful; no one who brings you into the company of pleasanter or wiser people; no one who tells you more truly how to do right. And it is very nice, in the midst of a wild world, to have the very ideal of poetical justice done always to one's hand:-to have ererybody found out, who tells lies; and everrbody decorated with a red ribbon, who doesn't ; and to see the good Laura, who gave away her half sovereign, receiving a grand ovation from an entire dinner party disturbed for the purpose; and poor, dear little Rosamond, who chooses purple jars instead of new shoes, left at last without either her shoes or her bottle. But it isn't life; and, in the way children might easily understand it, it isn't morals.

Jessie. How do you mean we might understand it?
L. You might think Miss Edgeworth meant that the right was to be done mainly because one was always rewarded for doing it. It is an injustice to her to say that: her heroines always do right simply for its own sake, as they should; and her examples of conduct and motive are wholly admirable. But her representation of erents is false and misleading. Her good characters never are brought into the deadly trial of goodness,- the doing right, and suffering for it, quite finally. And that is life, as God arranges it. 'Taking up one's cross' does not at all mean having orations at dinner partios, and being put over everybody else's head.

S0. Dora. But what does it mean then? That is just what we couldn't understand, when you were telling us about not sacrificing ourselves resterdar.
L. My dear, it means simply that you are to go the road which you see to be the straight one: carrying whatever you find is given you to carry, as well and stoutly as you can; without making faces or calling people to come and look at you. Above all, you are neither to load, nor unload, yourself; nor cut your cross to your own liking. Some people think it would be better for them to have it large; and many, that they could carry it much faster if it were sinall; and even those who like it largest are usually very particular about its being ornamental, and made of the best ebony. But all that you have really to do is to keep your back as straight as you can; and not think about what is upon it-above all, not to boast of what is upon it. The real and essential meaning of 'virtue' is in that straightness of back. Yes; you may laugh, children, but it is. You know I was to tell you about the words that began with V. Sibyl, what does 'virtue' mean, literally?

Sibyl. Does it mean courage?
L. Yes; but a particular kind of courage. It means courage of the nerve; vital courage. That first syllable of it, if you look in Max Miiller, you will find really means ' nerve,' and from it comes 'vis,' and 'vir,' and 'virgin' (through vireo), and the connected word 'virga'-a 'rod;' -the green rod, or springing bough of a tree, being the type of perfect human strength, both in the use of it in the Mosaic story, when it becomes a serpent, or strikes the rock; or when Aaron's bears its almonds; and in the metaphorical expressions, the 'Rod out of the stem of Jesse,' and the ' Man whose name is the Branch,' and so on. And the essential idea of real virtue is that of a vital human strength, which instinctively, constantly, and without motive, does what is right. You must train men to this by habit, as you would the branch of a tree; and give them instincts and manners (or morals) of purity, justice, kindness, and courage. Once rightly trained, they act as they should, irrespectively of all motive, of fear, or of reward. It is the blackest sign of putrescence in a national religion, when men speak as if it
were the only safeguard of conduct ; and assume that, but for the fear of being burned, or for the hope of being rewarded, everybody would pass their lives in lying, stealing, and murdering. I think quite one of the notablest historical events of this century, (perhaps the very notablest), was that council of clergymen, horror-struck at the idea of any diminution in our dread of hell, at which the last of English clergymen whom one would have expected to see in such a function, rose as the devil's adrocate; to tell us how impossible it was we could get on without him.
81. Violet (after a pause). But, surely, if people weren't afraid-(hesitates again).
L. They should be afraid of doing wrong, and of that only, my dear. Otherwise, if they only don't do wrong for fear of being punished, they have done wrong in their hearts, already.

Violet. Well, but surely, at least one ought to be afraid of displeasing God; and one's desire to please Him should be one's first motive?
L. He never would be pleased with us, if it were, my dear. When a father sends his son out into the worldsuppose as an apprentice-fancy the boy's coming home at night, and saying, 'Father', I conld have robbed the till to-day; but I didn't, because I thought you wouldn't like it.' Do you think the father would be particularly pleased? (Violet is silent.)
He would answer, wonld he not, if he were wise and goorl, ' My bor, though you had no father, you must not rob tills ' ? And nothing is ever done so as really to please our Great Father, umless we would also have done it, though we had had no Father to know of it.

Violet (after long pause). But, then, what continual threatenings, and promises of reward there are!
L. And how rain both! with the Jews, and with all of us. But the fact is, that the threat and promise are simply statements of the Divine law, and of its consequences. The fact is truly told you,-make what use you may of it: and as
collateral warning, or encouragement, or comfort, the knowlcdge of future consequences may often be helpful to us; but helpful chiefly to the better state when we can act without reference to them. And there's no measuring the poisoned intluence of that notion of future reward on the mind of Christian Europe, in the early ages. Half the monastic system rose out of that, acting on the oceult pride and ambition of good people (as the other half of it came of their follics and misfortunes). There is alwars a considerable quantity of pride, to begin with, in what is called 'giving one's self' to God. As if one had erer belonged to anybody else!
82. Dor.s. But surely, great good has come out of the monastic system-our books,-our sciences-all saved by the monks?
L. Saved from what, my dear? From the abyss of misery and ruin which that false Christianity allowed the Whole active world to live in. When it had become the principal ammsement, and the most admired art, of Christian men, to cut one another's throats, and burn one another's towns; of course the few feeble or reasonable persons left, who desired quiet, safetr, and kind fellowship, got into cloisters: and the gentlest, thoughtfulest, noblest men and women shut themselves up, precisely where they could be of least use. They are very fine things, for us painters, now-the towers and white arches upon the tops of the rocks; always in places where it takes a day's elimbing to get at them: but the intense tragi-comedy of the thing, when one thinks of it, is unspeakable. All the good people of the world getting themselves hung up out of the way of mischief, like Bailie Nicol Jarvie;-poor little lambs, as it were, dangling there for the sign of the Golden Fleece; or like Socrates in his basket in the 'Clouds'! (I must read yon that bit of Aristophanes again, by the way). And believe me, children, I am no warped witness, as far as regards monasteries; or if I am, it is in their favor. I have always had a strong leaning that way; and have pensively shivered with Augustines at

St. Bernard; and happily made hay with Franciscans at Fesolé, and sat silent with Carthusians in their little gardens, south of Florence; and mourned through many a day-dream, at Melrose and Bolton. But the wonder is always to me, not how much, but how little, the monks have, on the whole, done, with all that leisure, and all that good-will! What nonsense monks characteristically wrote;-what little progress they made in the sciences to which they deroted themselves as a duty,-medicine especially; -and, last and worst, what depths of degradation they can sometimes see one another, and the population round them, sink into; without either doubting their system, or reforming it!
83. (S'ceing questions rising to lips.) Hold your little tongues, children; it's very late, and you'll make me forget what I've to say. Fancy yourselves in pews, for five minutes. There's one point of possible good in the conventual system, which is always attractive to young girls; and the idea is a very dangerous one; - the notion of a merit, or exalting virtue, consisting in a habit of meditation on the "things above, or things of the next world. Now it is quite true, that a person of beautiful mind, dwelling on whatever appears to them most desirable and lovely in a possible future, will not only pass their time pleasantly, but will even acquire, at last, a vague and wildly gentle charm of manner and feature, which will give them an air of peculiar sanctity in the eyes of others. Whatever real or apparent good there may be in this result, I want you to observe, children, that we have no real authority for the roveries to which it is owing. We are told nothing distinctly of the heavenly world; except that it will be free from sorrow, and pure from sin. What is said of pearl gates, golden floors, and the like, is accepted as merely figurative by religious enthusiasts themselves: and whaterer they pass their time in conceiving, whether of the happiness of risen sonls, of their intercourse, or of the appearance and employment of the hearenly powers, is entirely the product of their own imagination; and as completely and distinctly a work of fiction, or romantic invention,
as any novel of Sir Walter Scott's. That the romance is founded on religious theory or doctrine;-that no disagreeable or wicked persons are admitted into the story; -and that the inventor fervently hopes that some portion of it may hereafter come true, does not in the least alter the real nature of the effort or enjoyment.
84. Now, whatever indulgence may be granted to amiable people for pleasing themselves in this imnocent way, it is beyond question, that to seclude themselves from the rough duties of life, merely to write religious romances, or, as in most cases, merely to dream them without taking so much trouble as is implied in writing, ought not to be received as an act of heroic virtue. But, observe, even in admitting thus much, I have assumed that the fancies are just and beautiful, though fictitious. Now, what right have any of us to assume that our own fancies will assuredly be either the one or the other? That they delight us, and appear lovely to us, is no real proof of its not being wasted time to form them: and we may surely be led somewhat to distrust our judgment of them by observing what igmoble imaginations have sometimes sufficiently, or even enthusiastically, occupied the hearts of others. The principal source of the spirit of religious contemplation is the East ; now I have here in my hand a Byzantine image of Christ, which, if you will look at it seriously, may, I think, at once and forever render you cautions in the indulgence of a merely contemplative habit of mind. Observe, it is the fashion to look at such a thing only as a piece of barbarous art ; that is the smallest part of its interest. What I want you to see, is the baseness and falseness of a religious state of enthusiasm, in which such a work could be dwelt upon with pious pleasure. That a figure, with two suall round black beads for eyes; a gilded face, deep cut into horrible wrinkles; an open gash for a mouth, and a distorted skeleton for a body, wrapped about, to make it fine, with striped enamel of blue and gold:- that such a figure, I say, should ever have been thought helpful towards the conception of a Redeeming Deity, may make you, I think, very
doubtful, even of the Divine approval,-much more of the Divine inspiration,-of religious reverie in general. You feel, doubtless, that your own idea of Christ would be something very different from this; but in what does the difference consist? Not in any more Divine authority in your imagination; but in the intellectual work of six intervening centuries; which, simply, by artistic discipline, has refined this crude conception for you, and filled you partly with an innate sensation, partly with an acquired knowledge, of higher forms,-which render this Byzantine crucifix as horrible to you, as it was pleasing to its maker. More is required to excite your fancy; but your fancy is of no more authority than his was: and a point of national art-skill is quite conceivable, in which the best we can do now will be as offensive to the religious dreamers of the more highly cultivated time, as this Byzantine crucifix is to you.
85. Mary. But surely, Angelico will always retain his power over everybody?
L. Yes, I should think, always; as the gentle words of a child will: but you would be much surprised, Mary, if you thoroughly took the pains to analyze, and had the perfect means of analyzing, that power of Angelico,-to discover its real sources. Of course it is natural, at first, to attribute it to the pure religious fervor by which he was inspired; but do you suppose Angelico was really the only monk, in all the Christian world of the middle ages, who labored, in art, with a sincere religious enthusiasm?

Mary. No, certainly not.
L. Anytling more friglitful, more destructive of all religious faith whatever, than such a supposition, could not be. And yet, what other monk ever produced such work? I have myself examined carefully upwards of two thousand illuminated missals, with especial view to the discovery of any evidence of a similar result upon the art, from the monkish devotion; and utterly in vain.

Mary. But then, was not Fra Angelico a man of entirely separate and exalted genius?
L. Unquestionably; and granting him to be that, the peculiar phenomenon in his art is, to me, not its loveliness, but its weakness. The effect of 'inspiration,' had it been real, on a man of consummate genius, should have been, one would have thought, to make everything that he did faultless and strong, no less than lovely. But of all men, deserving to be called 'great,' Fra Angelico permits to himself the least pardonable faults, and the most palpable follies. There is evidently within him a sense of grace, and power of invention, as great as Ghiberti's:-we are in the habit of attributing those high qualities to his religious enthusiasm; but, if they were produced hy that enthusiasm in him, they ought to be produced by the same feelings in others; and we see they are not. Whereas, comparing him with contemporary great artists, of equal grace and invention, one peculiar character remains notable in him-which, logically, we ought therefore to attribute to the religions fervor;-and that distinctive character is, the contented indulgence of his own weaknesses, and perseverance in his own ignorances.

S6. Mary. But that's dreadful! And what is the source of the peculiar charm which we all feel in his work?
L. There are many sources of it, Mary; united and seeming like one. You would never feel that charm but in the work of an entirely good man; be sure of that: but the goodness is only the recipient and modifying element, not the creative one. Consider carefully what delights you in any original picture of Angelieo's. You will find, for one minor thing, an exquisite variety and brightness of ormamental work. That is not Angelico's inspiration. It is the final result of the labor and thought of millions of artists, of all nations; from the earliest Egrptian potters downwardsGreeks, Byzantines, Hindoos, Arabs, Gauls, and Northmen -all joining in the toil; and consummating it in Florence, in that century, with such embroidery of robe and inlaying of armor as had never been seen till then; nor, probably, ever will be seen more. Angelico merely takes his share of this inheritance, and applies it in the tenderest way to subjects
which are peculiarly acceptant of it. But the inspiration, if it exist anywhere, flashes on the knight's shield quite as radiantly as on the monk's picture. Examining farther into the sourees of your emotion in the Angelico work, you will find much of the impression of sanctity dependent on a singular repose and grace of gesture, consummating itself in the floating, flying, and above all, in the dancing groups. That is not Angelico's inspiration. It is only a peculiarly tender use of systems of grouping which had been long before developed by Giotto, Memmi, and Orcagna; and the real root of it all is simply-What do you think, children? The beautiful dancing of the Florentine maidens !

Dors (indignant again). Now, I wonder what next! Why not say it all depended on Herodias' daughter, at once?
L. Yes; it is certainly a great argument against singing, that there were once sirens.

S7. Dora. Well, it may be all very fine and philosophical ; but shouldn't I just like to read you the end of the second volume of 'Modern Painters'!
L. My dear, do you think any teacher could be worthy our listening to, or anybody else's listening to, who had learned nothing, and altered his mind in nothing, from seven and twenty to seven and forty? But that second volume is very good for you as far as it goes. It is a great advance and a thoronghly straight and swift one, to be led, as it is the main business of that second volume to lead you, from Dutch cattle-pieces, and ruffian-pieces, to Fra Angelico. And it is right for you also, as you grow older, to be strengthened in the general sense and judgment which may enable you to distinguish the weaknesses from the virtues of what you love: else you might come to love both alike; or even the weaknesses without the virtues. You might end by liking Overbeek and Cormelins as well as Angelico. However, I have perhaps been leaning a little too much to the merely practical side of things, in to-night's talk; and you are always to remember, children, that I do not deny, though I cannot affirm, the spiritual adrantages resulting, in certain cases,
from enthusiastic religious reverie, and from the other practices of saints and anchorites. The evidence respecting them has never yet been honestly collected, much less dispassionately examined: but assuredly, there is in that direction a probability, and more than a probability, of dangerous error, while there is none whatever in the practico of an active, cheerful, and benevolent life. The hope of attaining a higher religious position, which induces us to encounter, for its exalted alternative, the risk of unhealthy error, is often, as I said, founded more on pride than piety; and those who, in modest usefulness, have accepted what seemed to them here the lowliest place in the kingdom of their Father, are not, I believe, the least likely to receive hereafter the command, then unmistakable, 'Friend, go up higher.'

## LECTURE VIII.

## CRYSTAL CAPRICE.

## Formal Lecture in Schoolroom, after some practical examination of minerals.

S8. L. We have seen enough, children, though very little of what might be seen if we had more time, of mineral structures produced by risible opposition, or contest among elements; structures of which the variety, however great, need not surprise us: for we quarrel, ourselves, for many and slight causes;-much more, one should think, may crystals, who can only feel the antagonism, not argue about it. But there is a yet more singular mimicry of our human ways in the varieties of form which appear owing to no antagonistic force; but merely to the variable humor and caprice of the crystals themselves: and I have asked you all to come into the schoolroom to-day, because, of course, this is a part of the crystal mind which must be peculiarly interesting to a feminine audience. (Great symptoms of disapproval on the part of said audience.) Now, you need not pretend that it will not interest you; why should it not? It is true that we men are never capricious; but that only makes us the more dull and disagreeable. You, who are crystalline in brightness, as well as in caprice, charm infinitely, by infinitude of change. (Audible murmurs of 'Worse and worse!' 'As if we could be got over that way!' etc. The Lecturer, however, observing the expression of the features to be more complacent, proceeds.) And the most curious mimicry, if not of your changes of fashion, at least of your various modes (in healthy periods) of national costume, takes place among the crystals of different countries. With a little experience, it
is quite possible to say at a glance, in what districts certain crystals have been found; and although, if we had knowledge extended and accurate enough, we might of course ascertain the laws and circumstances which have necessarily produced the form peculiar to each locality, this would be just as true of the fancies of the human mind. If we could know the exact circumstances which affect it, if we could foretell what now secms to us only caprice of thought, as well as what now secms to us only caprice of crystal: nay, so far as our knowledge reaches, it is on the whole easier to find some reason why the peasant girls of Berne should wear their caps in the shape of butterflies; and the peasant girls of Munich theirs in the shape of shells, than to say why the rock-crystals of Dauphine should have all their summits of the shape of lip pieces of flageolets, while those of St. Gothard are symmetrical; or why the fluor of Chamouni is rose-colored, and in octahedrons, while the fluor of Weardale is green, and in cubes. Still farther removed is the hope, at present, of accounting for minor differences in modes of grouping and construction. Take, for instance, the caprices of this single mineral, quartz;-rariations upon a single theme. It has many forms; but see what it will make out of this one, the six-sided prism. For shortness' sake, I shall call the body of the prism its 'column,' and the prramid at the extremitics its 'cap.' Now, here, first you have a straight column, as long and thin as a stalk of asparagus, with two little caps at the ends; and here you have a short thick column, as solid as a hay-stack, with two fat caps at the ends; and here you have two caps fastened together, and no column at all between them! Then here is a crystal with its column fat in the middle, and tapering to a little cap; and here is one stalked like a mushroom, with a luge cap put on the top of a slender column! Then here is a column built wholly out of little eaps, with a large smooth cap at the top. And here is a column built of columns and caps; the eaps all truncated about half way to their points. And in both these last, the little crystals are set anyhow, and build the large one in a
disorderly way; but here is a cerystal made of columns and truncated caps set in regular terraces all the way up.

S9. Mary. But are not these, groups of crystals, rather than one crystal?
L. What do you mean by a group, and what by one crystal?

Dora (audibly aside, to Marr, who is brought to pause). You know you are never expected to answer, Mary.
L. I'm sure this is easy enough. What do you mean by a group of people ?

Mary. Three or four together, or a good many together, like the caps in these crystals.
L. But when a great many persons get together they don't take the shape of one person?
(Mhry still at pause.)
Isabel. No, liecause they can't ; but, you know, the crystals can; so why shouldn't they?
L. Well, they don't; that is to say, they don't always, nor even often. Look here, Isabel.

Isabel. What a nasty ugly thing!
L. I'm glad you think it so ugly. Yet it is made of beautiful crystals; they are a little gray and cold in color, but most of them are clear.

Isabei. But they are in such horrid, horrid disorder!
L. Yes; all disorder is horrid, when it is among things that are naturally orderly. Some little girls' rooms are naturally disorderly, I suppose ; or I don't know how they could live in them, if they ery out so when they only see quartz crystals in confusion.

Isabel. Oh! but how come they to be like that?
L. You may well ask. And yet you will always hear people talking as if they thought order more wonderful than disorder! It is wonderful-as we have seen; but to me, as to you, child, the supremely wonderful thing is that nature should ever be ruinons, or wasteful, or dreadful! I look at this wild piece of crystallization with endless astonishment.

MLary. Where does it come from?
L. The Tête Noire of Chamouni. What makes it more strange is, that it should be in a vein of fine quartz rock. If it were in a moldering rock, it would be natural enough; but in the midst of so fine substance, here are the crystals tossed in a heap; some large, myriads small, (almost as small as dust,) tumbling over each other like a terrified crowd, and glued together by the sides, and edges, and backs, and heads; some warped, and some pushed out and in, and all spoiled, and each spoiling the rest.

Mary. And how flat they all are!
L. Yes; that's the fashion at the Tête Noire.

Mary. But surely this is ruin, not caprice?
90. L. I believe it is in great part misfortune; and we will examine these crystal troubles in next lecture. But if you want to see the gracefulest and happiest caprices of which dust is capable, you must go to the Hartz; not that I ever mean to go there myself, for I want to retain the romantic feeling about the name; and I have done myself some harm already by sceing the monotonous and heavy form of the Brocken from the suburbs of Brunswick. But whether the mountains be picturesque or not, the tricks which the goblins (as I am told,) teach the crystals in them, are incomparably pretty. They work chiefly on the mind of a docile, bluish-colored carbonate of lime; which comes out of a gray limestone. The goblins take the greatest possible care of its education, and see that nothing happens to it to hurt its temper: and when it may be supposed to have arrived at the crisis which is, to a well brought up mineral, what presentation at court is to a young lady-after which it is expected to set fashions-there's no end to its pretty ways of behaving. First it will make itself into pointed darts as fine as hoar-frost; here it is changed into a white fur as fine as silk; here into little crowns and circlets, as bright as silver, as if for the gnome princesses to wear ; here it is in beautiful little plates for them to eat off; presently it is in towers, which they might be imprisoned in; presently in caves and cells, where they may make nun-gnomes of themselves, and
no gnome ever hear of them more; here is some of it in sheaves, like corn; here, some in drifts, like snow; here, some in rays, like stars: and, though these are, all of them, necessarily, shapes that the mineral takes in other places, they are all taken here with such a grace that you recognize the high caste and breeding of the crystals wherever you meet them; and know at once they are Hartz-born.

Of course, such fine things as these are only done by crystals which are perfectly good, and good-humored; and of course, also, there are ill-humored crystals who torment each other, and annoy quieter crystals, yet without coming to anything like serious war. Here (for once) is some ill-disposed quartz, tormenting a peaceable octahedron of fluor, in mere caprice. I looked at it the other night so long, and so wonderingle, just before putting my candle out, that I fell into another strange dream. But you don't care about dreams.

Dora. No; we didn't, yesterday; but you know we are made up of caprice; so we do, to-day: and you must tell it us directly.
91. L. Well, you see, Neith and her work were still much in my mind; and then, I had been looking orer these Hartz things for you, and thinking of the sort of grotesque sympathy there seemed to be in them with the beautiful fringe and pinnacle work of Northern architecture. So, when I fell asleep, I thought I saw Neith and St. Barbara talking together.

Dora. But what had St. Barbara to do with it? **
L. My dear, I am quite sure St. Barbara is the patroness of good architects: not St. Thomas, whatever the old builders thought. It might be very fine, according to the monks' notions, in St. Thomas, to give all his employer's money away to the poor: but breaches of contract are bad foundations; and I believe, it was not he, but St. Barbara, who overlooked the work in all the buildings you and I care about. However that may be, it was certainly she whom I saw in my dream with Neith. Neith was sitting wearing, and I thought

[^192]she looked sad, and threw her shuttle slowly; and St. Barbara was standing at her side, in a stiff little gown, all ins and outs, and angles; but so bright with embroidery that it dazz]ed me whenever she moved; the train of it was just like a heap of broken jewels, it was so stiff, and full of corners, and so many-colored, and bright. Her hair fell over her shoulders in long, delicate waves, from under a little threepinnacled crown, like a tower. She was asking Neith about the laws of architecture in Egypt and Greece; and when Neith told her the measures of the pyramids, St. Barbara said she thought they would have been better three-cornered: and when Neith told her the measures of the Parthenon, St. Barbara said she thought it onght to have had two transepts. But she was pleased when Neith told her of the temple of the dew, and of the Caryan maidens bearing its frieze : and then she thought that perhaps Neith would like to hear what sort of temples she was building herself, in the French valleys, and on the crags of the Rhine. So she began gossiping, just as one of you might to an old lady: and certainly she talked in the sweetest way in the world to Neith; and explained to her all about crockets and pinnacles: and Neith sat, looking very grave; and always graver as St. Barbara went on ; till at last, I'm sorry to say, St. Barbara lost her temper a little.

May (very grave herself). 'St. Barbara?'
L. Yes, May. Why shouldn't she? It was very tiresome of Neith to sit looking like that.
92. May. But, then, St. Barbara was a saint?
L. What's that, May?

May. A saint! A saint is-I'm sure you know!
L. If I did, it would not make me sure that you knew too, May: but I don't.

Violet (expressing the incredulity of the audience). Oh,-sir?
L. That is to say, I know that people are called saints who are supposed to be better than others: but I don't know: how much better they must be, in order to be saints; nor
how nearly anybody may be a saint, and yet not be quite one; nor whether everybody who is called a saint was one; nor whether everybody who isn't called a saint, isn't one.
(General silence; the audience fecting themselves on the verge of the Infinities-and a little shocked-and much puzzled by so many questions at once.)
L. Besides, did you never hear that verse about being ' ealled to be saints'?

May (repeats Rom. i. 7).
L. Quite right, May. Well, then, who are called to be that? People in Rome only?

May. Everybody, I suppose, whom God loves.
L. What! little girls as well as other people?

May. All grown-up people, I mean.
L. Why not little girls? Are they wiekeder when they are little?

May. Oh, I hope not.
L. Why not little girls, then?
(Pause.)
Lily. Because, you know, we can't be worth anything if we're ever so good; - I mean, if we try to be ever so good; and we can't do difficult things-like saints.
93. L. I am afraid, my dear, that old people are not more able or willing for their difficulties than you children are for yours. All I can say is, that if ever I see any of you, when you are seven or eight and twenty, knitting your brows over any work you want to do or to understand, as I saw you, Lily, knitting your brows over your slate this morning, I should think you very noble women. But-to come back to my dream-St. Barbara did lose her temper a little; and I was not surprised. For you can't think how provoking Neith looked, sitting there just like a statue of sandstone; only going on weaving, like a machine, and never quickening the east of her shuttle; while St. Barbara was telling her so eagerly all about the most beautiful things, and chattering away, as fast as bells ring on Christmas Ere, till she saw that Neith didn't care ; and then St. Barbara got as red as
a rose, and stopped, just in time ;-or I think she would really have said something naughty.

Isabel. Oh, please, but didn't Neith say anything then?
L. Yes. She said quite quietly, 'It may be very pretty, my love; but it is all nonsense.'

Isabel. Oh dear, oh dear! and then ?
L. Well; then I was a little angry myself, and hoped St. Barbara would be quite angry; but she wasn't. She bit her lips first; and then gave a great sigh—such a wild, sweet sigh-and then she knelt down and hid her face on Neith's knees. Then Neith smiled a little, and was moved.

Isabel. Oh, I am so glad!
L. And she touched St. Barbara's forehead with a flower of white lotus; and St. Barbara sobbed once or twice, and then said: 'If you could only see how beantiful it is, and 'how much it makes people feel what is good and lovely; ' and if you could only hear the children singing in the Lady ' chapels!' And Neith smiled,-but still sadly,-and said, 'How do you know what I have seen or heard, my love? ' Do you think all those vaults and towers of yours have 'been built without me? There was not a pillar in your 'Giotto's Santa Maria del Fiore which I did not set true 'by my spearshaft as it rose. But this pinnacle and flame 'work which has set your little heart on fire is all vanity; ' and you will see what it will come to, and that soon; and 'none will grieve for it more than I. And then every one 'will dishehieve your pretty symbols and types. Men must 'be spoken simply to, my dear, if you would guide them 'kindly, and long.' But St. Barbara answered, that, 'Indeed she thought every one liked her work,' and that 'the people of different towns were as eager about their cathedral towers as about their privileges or their markets;' and then she asked Neith to come and build something with her, wall against tower; and 'see whether the people will be as much pleased with your building as with mine.' But Neith answered, 'I will not contend with you, my dear. I strive ' not with those who love me; and for those who hate me, it
'is not well to strive with me, as weaver Arachne knows. 'And remember, child, that nothing is ever done beautifully, 'which is done in rivalship; nor nobly, which is done in 'pride.'
94. Then St. Barbara hung her head quite down, and said she was very sorry she had been so foolish; and kissed Neith; and stood thinking a minute: and then her eyes got bright again, and she said, she would go directly and build a chapel with five windows in it; four for the four cardinal virtues, and one for humility, in the middle, bigger than the rest. And Neith very nearly laughed quite out, I thought; certainly her beautiful lips lost all their sternness for an instant ; then she said, 'Well, love, build it, but do not put so many colors into your windows as you usually do ; else no one will be able to see to read, inside: and when it is luilt, let a poor village priest consecrate it, and not an archbishop.' St. Barbara started a little, I thought, and turned as if to say something; but changed her mind, and gathered up her train and went out. And Neith bent herself again to her loom, in which she was weaving a web of strange dark colors, I thought; but perhaps it was only after the glittering of St. Barbara's embroidered train: and I tried to make out the figures in Neith's web, and confused myself among them, as one always does in dreams; and then the dream changed altogether, and I found myself, all at once, among a crowd of little Gothic and Egyptian spirits, who were quarreling: at least the Gothic ones were trying to quarrel ; for the Egyptian ones only sat with their hands on their knees, and their aprons sticking out very stiffly; and stared. And after a while I began to understand what the matter was. It seemed that some of the troublesome building imps, who meddle and make continually, even in the best Gothic work, had been listening to St. Barbara's talk with Neith; and had made up their minds that Neith had no workpeople who conld build against them. They were but dull imps, as you may faney, by their thinking that; and never had done much, except disturbing the great Gothic building angels at their work,
and playing tricks to each other; indeed, of late they had been living years and years, like bats, up under the cornices of Strasbourg and Cologne cathedrals, with nothing to do but to make mouths at the people below. However, they thought they knew everything about tower building; and those who had heard what Neith said, told the rest; and they all flew down directly, chattering in German, like jackdaws, to show Neith's people what they could do. And they had found some of Neith's old workprople somewhere near Sais, sitting in the sun, with their hands on their knees; and abused them heartily: and Neith's people did not mind, at first, but, after a while, they seemed to get tired of the noise; and one or two rose up slowly, and laid hold of their measuring rods, and said, ' If St. Barbara's people liked to build with them, tower against pyramid, they would show them how to lay stones.' Then the Gothic little spirits threw a great many double somersaults for joy; and put the tips of their tongues out slily to each other, on one side; and I heard the Egyptians say, ' they must be some new kind of frogthey didn't think there was much building in them.' However, the stiff old workers took their rods, as I said, and measured out a square space of sand ; but as soon as the German spirits saw that, they declared they wanted exactly that bit of ground to build on, themselves. Then the Egyptian builders offered to go farther off, and the German ones said, 'Ja wohl.' But as soon as the Egyptians had measured out another square, the little Germans said they must lave some of that too. Then Neith's people laughed; and said, 'they might take as much as they liked, but they would not move the plan of their pyramid again.' Then the little Germans took three pieces, and began to build three spires directly; one large, and two little. And when the Egyptians saw they had fairly begun, they laid their foundation all round, of large square stones: and began to build, so steadily that they had like to have swallowed up the three little German spires. So when the Gothic spirits saw that, they built their spires leaning, like the tower of Pisa, that they might stick out at
the side of the pyramid. And Neith's people stared at them; and thought it very clever, but very wrong: and on they went, in their own way, and said nothing. Then the little Gothie spirits were terribly provoked because they could not spoil the shape of the pyramid; and they sat down all along the ledges of it to make faces; but that did no good. Then they ran to the corners, and put their elbows on their knees, and stuck themselves out as far as they could, and made more faces; but that did no good, neither. Then they looked up to the sky, and opened their mouths wide, and gobbled, and said it was too hot for work, and wondered when it would rain; but that did no good, neither. And all the while the Egyptian spirits were laying step above step, patiently. But when the Gothic ones looked, and saw how high they had got, they said, 'Ach, Himmel!' and flew down in a great black cluster to the bottom; and swept out a level spot in the sand with their wings, in no time, and began building a tower straight up, as fast as they could. And the Egyptians stood still again to stare at them ; for the Gothic spirits had got quite into a passion, and were really working very wonderfully. They cut the sandstone into strips as fine as reeds; and put one reed on the top of another, so that you could not see where they fitted: and they twisted them in and out like basket work, and knotted them into likenesses of ugly faees, and of strange beasts biting each other; and up they went, and up still, and they made spiral staircases at the corners, for the loaded workers to come up by (for I saw they were but weak imps, and could not fly with stones on their baeks), and then they made traceried galleries for them to run round by; and so up again; with finer and finer work, till the Egyptians wondered whether they meant the thing for a tower or a pillar; and I heard them saying to one another, ' It was nearly as•pretty as lotus stalks; and if it 'were not for the ugly faces, there would be a fine temple, 'if they were going to build it all with pillars as big as that!' But in a minute afterwards,-just as the Gothie spirits had carried their work as high as the upper course, but three or
four, of the pyramid,--the Egyptians called out to them to ' mind what they were about, for the sand was running away from under one of their tower corners.' But it was too late to mind what they were about; for, in another instant, the whole tower sloped aside; and the Gothic imps rose out of it like a flight of puffins, in a single cloud; but screaming worse than any puffins you ever heard; and down came the tower, all in a piece, like a falling poplar, with its head right on the flank of the pyramid; against.which it snapped short off. And of course that waked me!
95. Mary. What a shame of you to have such a dream, after all you have told us about Gothic architecture!
L. If you have understood anything I ever told you about it, you know that no architecture was ever corrupted more miserably; or abolished more justly by the accomplishment of its own follies. Besides, even in its days of power, it was subject to catastrophes of this kind. I have stood too often, mourning, by the grand fragment of the apse of Beauvais, not to have that fact well burnt into me. Still, you must have seen, surely, that these imps were of the Flamboyant school ; or, at least, of the German schools correspondent with it in extravagance.

Mary. But, then, where is the crystal about which you dreamed all this?
L. Here ; but I suppose little Pthah has touched it again, for it is very small. But, you see, here is the pyramid, built of great square stones of fluor spar, straight up; and here are the three little pinnacles of mischievous quartz, which have set themselves, at the same time, on the same foundation; only they lean like the tower of Pisa, and come out obliquely at the side: and here is one great spire of quartz which seems as if it had been meant to stand straight up, a little way off; and then had fallen down against the pyramid base, breaking its pinnacle away. In reality, it has crystallized horizontally, and terminated imperfectly : but, then, by what caprice does one erystal form horizontally, when all the rest stand upright? But this is nothing to the fantasies of
fluor, and quartz, and some other such companions, when they get leave to do anything they like. I could show you fifty specimens, about every one of which you might fancy a new fairy tale. Not that, in truth, any crystals get leave to do quite what they like; and many of them are sadly tired, and have little time for caprices-poor things!

Mary. I thought they always looked as if they were either in play or in mischief! What trials have they?
L. Trials much like our own. Sickness, and starvation; fevers, and agues, and palsy; oppression; and old age, and the necessity of passing away in their time, like all else. If there's any pity in you, you must come to-morrow, and take some part in these crystal griefs.

Dora. I am sure we shall cry till our eyes are red.
L. Ah, you may laugh, Dora : but I've been made grave, not once, nor twice, to see that even crystals ' cannot choose but be old' at last. It may be but a shallow proverb of the Justice's; but it is a shrewdly wide one.
Dor. (pensive for once). I suppose it is very dreadful to be old! But then (brightening again) what should we do without our dear old friends and our nice old lecturers?
L. If all nice old lecturers were minded as little as one I know of

Dora. And if they all meant as little what they say, would they not deserve it? But we'll come-we'll come, and cry.

## LECTURE IX.

## CRYSTAL SORROWS.

## Working Lecture in Schoolroom.

96. L. We have been hitherto talking, children, as if crystals might live, and play, and quarrel, and behave ill or well, according to their characters, without interruption from anything else. But so far from this being so, nearly all crystals, whatever their characters, have to live a hard life of it, and meet with many misfortunes. If we could see far enough, we should find, indecd, that, at the root, all their vices were misfortunes: but to-day I want you to see what sort of troubles the best crystals have to go through, occasionally, by no fault of their own.

This black thing, which is one of the prettiest of the very few pretty black things in the world, is called 'Tourmaline.' It may be transparent, and green, or red, as well as black; and then no stone can be prettier ; (only, all the light that gets into it, I believe, comes out a good deal the worse ; and is not itself again for a long while). But this is the commonest state of it,-opaque, and as black as jet.

Mary. What does 'Tourmaline' mean?
L. They say it is Ceylonese, and I don't know Ceylonese ; but we may always be thankful for a graceful word, whatever it means.

Mary. And what is it made of?
L. A little of everything; there's always flint, and clay, and magnesia in it; and the black is iron, according to its fancy; and there's boracic acid, if you know what that is; and if you don't, I cannot tell you to-day; and it doesn't signify: and there's potash, and soda; and, on the whole, the
chemistry of it is more like a mediæval doctor's prescription, than the making of a respectable mineral: but it may, perhaps, be owing to the strange complexity of its make, that it has a notable habit which makes it, to me, one of the most interesting of minerals. You see these two crystals are broken right across, in many places, just as if they had been shafts of black marble fallen from a rumous temple ; and here they lie, imbedded in white quartz, fragment succeeding fragment, keeping the line of the original crystal, while the quartz fills up the intervening spaces. Now tommaline has a trick of doing this, more than any other mineral I know: here is another bit which I picked up on the glacier of Macugnaga; it is broken, like a pillar built of very flat broad stones, into about thirty joints, and all these are heaved and warped away from each other sideways, almost into a line of steps: and then all is filled up with quartz paste. And here, lastly, is a green Indian piece, in which the pillar is first disjointed, and then wrung round into the shape of an S .
97. Mary. How can this have been done?
L. There are a thousand ways in which it may have been done; the difficulty is not to account for the doing of it ; but for the showing of it in some crystals, and not in others. You never by any chance get a quartz crystal broken or twisted in this way. If it break or twist at all, which it does sometimes, like the spire of Dijon, it is by its own will or fault ; it never secms to have been passively crushed. But, for the forces which cause this passive ruin of the tourma-line,-here is a stone which will show you multitudes of them in operation at once. It is known as 'brecciated agate,' beautiful, as you see; and highly valued as a pebble: yet so far as I can read or hear, no one has ever looked at it with the least attention. At the first glance, you see it is made of very fine red striped agates, which have been broken into small pieces, and fastened together again by paste, also of agate. There would be nothing wonderful in this, if this were all. It is well known that by the movements of strata, portions of rock are often shattered to pieces:-well known
also that agate is a deposit of flint by water under certain couditions of heat and pressure: there is, therefore, nothing wonderful in an agate's being broken; and nothing wonderful in its being mended with the solution out of which it was itself originally congealed. And with this explanation, most people, looking at a breceiated agate, or breceiated anything, seem to be satisfied. I was so myself, for twenty years; but, lately happening to stay for some time at the Swiss Baden, where the beach of the Limmat is almost wholly composed of breceiated limestones, I began to examine them thonghtfully' ; and perecived, in the end, that they were, one and all, knots of as rich mystery as any poor little human brain was ever lost in. That piece of agate in your hand, Mary, will show you many of the common phenomena of breceias: but you need not knit your brows orer it in that way; depend upon it, neither you nor I shall ever know anything about the way it was made, as long as we live.

98 . Dord. That does not seem much to depend upon.
L. Pardon me, puss. When once we gain some real notion of the extent and the unconquerableness of our ignorance, it is a very broad and restful thing to depend upon; you can throw yourself upon it at case, as on a cloud, to feast with the gods. You do not thenceforward trouble yourself, nor any one clse, with theories, or the contradiction of theories; you neither get headache nor heartburning; and you nevermore waste your poor little store of strength, or allowance of time.

However, there are certain facts, about this agate-making, which I can tell you; and then you may look at it in a pleasant wonder as long as you like; pleasant wonder is no loss of time.

First, then, it is not broken freely by a blow; it is slowly wrung, or ground, to pieces. You can only with extreme dimness conceive the force exerted on mountains in transitional states of movement. You have all read a little geology ; and you know how coolly geologists talk of mountains being raised or depressed. They talk coolly of it, because
they are accustomed to the fact; but the very universality of the fact prevents us from ever conceiving distinctly the conditions of force involved. You know I was living last year in Savoy: my house was on the back of a sloping mountain, which rose gradually for two miles behind it; and then fell at once in a great precipice towards Genera, going down three thousand feet in four or five cliffs, or steps. Now that whole group of cliffs had simply been torn away by sheer strength from the rocks below, as if the whole mass had been as soft as biscuit. Put four or five captain's biscuits on the floor, on the top of one another; and try to break them all in half, not by bending, but by holding one half down, and tearing the other halves straight up;-of course you will not be able to do it, but you will feel and comprehend the sort of force needed. Then, fancy each captain's biscuit a bed of rock, six or seren hundred feet thick; and the whole mass torn straight through; and one half heaved up three thousand feet, grinding against the other as it rose,-and you will have some idea of the making of the Mont Salève.

May. But it must crush the rocks all to dust!
L. No; for there is no room for dust. The pressure is too great; probably the heat developed also so great that the rock is made partly ductile; but the worst of it is, that we can nerer see these parts of mountains in the state they were left in at the time of their elevation; for it is precisely in these rents and dislocations that the crystalline power principally exerts itself. It is essentially a strptic power, and wherever the earth is torn, it heals and binds; nay, the torture and grieving of the earth seem necessary to bring out its full energy; for you only find the crystalline living power fully in action, where the rents and faults are deep and many.
99. Dora. If you please, sir,-would you tell us-what are 'faults'?
L. You never heard of such things?

Dora. Never in all our lives.
L. When a vein of rock which is going on smoothly, is
interrupted by another troublesome little rein, which stops it, and puts it out, so that it has to begin again in another place-that is called a fault. I alwass think it ought to be called the fault of the vein that interrupts it; lont the miners always call it the fault of the vein that is interrupted.

Dors. So it is, if it does not begin again where it left off.
L. Well, that is certainly the gist of the business; but, whatever good-natured old lecturers may do, the rocks have a bad habit, when they are once interrupted, of never asking 'Where was I ?'

Dors. . When the two hailses of the dining table came separate, resterdar, was that a fault'?
L. Yes; but not the table's. Howerer, it is not a bad illustration, Dora. When beds of rock are only interrupted by a fissure, but remain at the same level, like the two halres of the table, it is not called a fault, but only a fissure; but if one half of the table be either tilted higher than the other, or pushed to the side, so that the two parts will not fit, it is a fault. You had better read the chapter on faults in Jukes's Geology; then you will know all about it. And this rent that I am telling you of in the Salive, is one only of myriads, to which are owing the forms of the Alps, as, I believe, of all great mountain chains.' Wherever you see a precipice on any seale of real magnificence, you will nearly always find it owing to some dislocation of this kind; but the point of chief wonder to me, is the delicacy of the touch by which these gigantic rents have been apparontly accomplished. Note, however, that we have no clear evidence, hitherto, of the time taken to produce any of them. We know that a change of temperature alters the position and the angles of the atoms of crustals, and also the entire bulk of rocks. We know that in all roleanic, and the greater part of all subterranean action, temperatures are continually changing, and therefore masses of rock must be expanding or contracting, with infinite slowness, but with infinite force. This pressure must result in mechanical strain somewhere, both in their
own substance, and in that of the rocks surrounding them; and we can form no conception of the result of irresistible pressure, applied so as to rend and raise, with imperceptible slowness of gradation, masses thousands of feet in thickness. We want some experiments tried on masses of iron and stone; and we can't get them tried, because Christian creatures never will seriously and sufficiently spend money, except to find out the shortest ways of killing each other. But, besides this slow kind of pressure, there is eridence of more or less sudden violence, on the same terrific scale; and, through it all, the wonder, as I said, is always to me the delicacy of touch. I cut a block of the Salève limestone from the edge of one of the principal faults which have formed the precipice; it is a lovely compact limestone, and the fanlt itself is filled up with a red breccia, formed of the crushed fragments of the torn rock, cemented by a rich red crystalline paste. I have had the picce I cut from it smoothed, and polished across the junction; here it is ; and you may now pass your soft little fingers orer the surface, without so much as feeling the place where a rock which all the hills of England might have been sunk in the body of, and not a summit seen, was torn asunder through that whole thickness, as a thin dress is torn when you tread upon it.
(The audience examine the stone and touch it timidly; but the matter remains inconceirable to them.)
100. Mary (struck by the beauty of the stone). But this is almost marble?
L. It is quite marble. And another singular point in the business, to my mind, is that these stones which men have been cutting into slabs, for thousands of years, to ornament their principal buildings with,-and which, under the general name of ' marble,' have been the delight of the eves, and the wealth of architecture, among all civilized nations,-are precisely those on which the signs and brands of these earthagonies have been chicfly struck; and there is not a purple vein nor flaming zone in them, which is not the record of their ancient torture. What a boundless capacity for sleep,
and for serene stupidity, there is in the human mind! Fancy reflective beings, who cut and polish stones for three thousand years, for the sake of the pretty stains upon them; and educate themselves to an art at last, (such as it is,) of imitating these reins by dexterous painting:-and never a curious sonl of them, all that while, asks, 'What painted the rocks?'
(The audience look dejected, and ashamed of themselies.)
The fact is, we are all, and always, asleep, through our lives; and it is only by pinching ourselves very hard that we erer come to see, or understand, anything. At least, it is not always we who pinch ourselves: sometimes other people pinch us; which I suppose is very good of them,-or other things, which I suppose is very proper of them. But it is a sad life; made up chiefly of naps and pinches.
(Some of the audience, on this, appearing to think that the others require pinching, the Lecturer changes the subject.)
101. Now, however, for once, look at a piece of marble carefully, and think about it. Tou see this is one side of the fault; the other side is down or up, nobody knows where; but, on this side, you can trace the evidence of the dragging and tearing action. All along the edge of this marble, the ends of the fibers of the rock are torn, here an inch, and there half an inch away from each other; and you see the exact places where they fitted, before they were torn separate; and you see the rents are now all filled up with the sanguine paste, full of the broken pieces of the rock; the paste itself seems to have been half melted, and partly to have also melted the edge of the fragments it contains, and then to have crystallized with them, and around them. And the brecciated agate I first showed you contains exactly the same phenomena; a zoned crystallization going on amidst the cemented fragments partly altering the structure of those fragments themselves, and subject to continual change, either in the intensity of its own power, or in the nature of the materials submitted to it;
-so that, at one time, gravity acts upon them, and disposes them in horizontal layers, or causes them to droop in stalactites; and at another, gravity is entirely defied, and the substances in solution are crystallized in bands of equal thickness on every side of the cell. It would require a course of lectures longer than these, (I have a great mind,-you have behaved so saucily-to stay and give them) to describe to you the phenomena of this kind, in agates and chalcedonies only; -nay, there is a single sarcophagus in the British Museum, corered with grand sculpture of the 1Sth dynasty, which contains in the magnificent breccia (agates and jaspers imbedded in porphyry), out of which it is hewn, material for the thought of years; and record of the earth-sorrow of ages, in comparison with the duration of which, the Egyptian letters tell us but the history of the evening and morning of a dar.
102. Agates, I think, of all stones, confess most of their past history ; but all crystallization goes on under, and partly records, circumstances of this kind-circumstances of infinite variety, but always inrolving difficulty, interruption, and change of condition at different times. Observe, first, you have the whole mass of the rock in motion, either contracting itself, and so gradually widening the cracks; or being compressed, and thereby closing them, and crushing their edges; -and, if one part of its substance be softer, at the giren temperature, than another, probably squeezing that softer substance out into the reins. Then the reins themselves, when the rock leares them open by its contraction, act with various power of suction upon its substance; -by capillary attraction when they are fine,-by that of pure vacuity when they are larger, or by changes in the constitution and condensation of the mixed gases with which they lave been originally filled. Those gases themselves may be supplied in all rariation of volume and power from below; or, slowly, by the decomposition of the rocks themselves: and, at changing temperatures, must exert relatively changing forces of decomposition and combination on the walls of the veins they fill; while water, at every degree of heat and pressure, (from beds of ererlast-
ing ice, alternate with cliffs of native rock, to volumes of red hot, or white hot, steam) congeals, and drips, and throbs, and thrills, from crag to crag; and breathes from pulse to pulse of foaning or fiery arteries, whose beating is felt through chains of the great islands of the Indian seas, as your own pulses lift your bracelets, and makes whole kingdoms of the world quiver in deadly earthquake, as if they were light as aspen leaves. And, remember, the poor little crystals have to live their lives, and mind their own affairs, in the midst of all this, as best they may. They are wonderfully like human creatures,-forget all that is going on if they don't see it, however dreadful; and never think what is to happen to-morrow. They are spiteful or loving, and indolent or painstaking, and orderly or licentious, with no thouglit whatever of the lara or the flood which may break over them any day, and evaporate them into air bubbles, or wash them into a solution of salts. And you may look at them, once understanding the surrounding conditions of their fate, with an endless interest. You will see crowds of unfortunate little erystals, who have been foreed to constitute themselves in a hurry, their dissolving element being fierecly scorehed away; you will see them doing their best, bright and numberless, but tiny. Then you will find indulged crystals, who have had centuries to form themselves in, and have changed their mind and ways continually; and have been tired, and taken heart again; and have been sick, and got well again; and thought they would try a different diet, and then thonght better of it; and made but a poor use of their advantages, after all. And others you will see, who have begun life as wicked crystals; and then have been impressed by alarming circumstances, and have become converted crystals, and behaved amazingly for a little while, and fallen away again, and ended, but disereditably, perhaps eren in decomposition; so that one doesn't know what will become of them. And sometimes rou will see deceitful erystals, that look as soft as relvet, and are deadly to all near them; and sometimes you will see deceitful crystals, that seem flint-edged, like our
little quartz-crystal of a housekeeper here, (hush! Dora,) and are endlessly gentle and true wherever gentleness and truth are needed. And sometimes you will see little childcrystals put to school like school-girls, and made to stand in rows; and taken the greatest care of, and taught how to hold themselves up, and behave: and sometimes you will see unhappy little child-crystals left to lie about in the dirt, and pick $u_{l}$ their living, and learn manners, where they can. And sometimes you will see fat erystals eating up thin ones, like great capitalists and little laborers; and politico-economic crystals teaching the stupid ones how to eat each other, and cheat each other; and foolish erystals getting in the way of wise ones; and impatient crystals spoiling the plans of patient ones, irreparably; just as things go on in the world. And sometimes you may see hypocritical crystals taking the shape of others, though they are nothing like in their minds; and vampire crystals eating out the hearts of others; and hermit-crab crystals living in the shells of others; and parasite crystals living on the means of others; and courtier crystals glittering in attendance upon others; and all these, besides the two great companies of war and peace, who ally themselves, resolutely to attack, or resolutely to defend. And for the close, you see the hroad shatow and deadly force of ineritable fate, above all this; you sce the multitudes of crystals whose time has come; not a set time, as with us, but yet a time sooner or later, when they all mnst give up their crystal ghosts:-when the strength by which they grew, and the strength given them to breathe, pass away from them; and they fail, and are consumed, and vanish away: and another generation is brought to life, framed out of their ashes.
103. Mars. It is very terrible. Is it not the complete fulfillment, down into the very dust, of that verse: "The whole creation groaneth and travaileth in pain'?
L. I do not know that it is in pain, Mary : at least, the evidence tends to show that there is much more pleasure than pain, as soon as sensation becomes possible.

Lucilla. But then, surely, if we are told that it is pain, it must be pain?
L. Yes; if we are told; and told in the way you mean, Lucilla; but nothing is said of the proportion to pleasure. Unmitigated pain would kill any of us in a few hours; pain equal to our pleasures would make us loathe life; the word itself cannot be applied to the lower conditions of matter, in its ordinary sense. But wait till to-morrow to ask me about this. To-morrow is to be kept for questions and difficulties; let us keep to the plain facts to-day. There is yet one group of facts connected with this rending of the rocks, which I especially want you to notice. You know, when you have mended a very old dress, quite meritoriously, till it won't mend any more-

Egrpt (interrupting). Could not you sometimes take gentlemen's work to illustrate by ?
L. Gentlemen's work is rarely so useful as yours, Egypt ; and when it is useful, girls cannot easily understand it.

Dora. I am sure we should understand it better than gentlemen understand about sewing.
L. My dear, I hope I always speak modestly, and under correction, when I touch upon matters of the kind too high for me; and besides, I never intend to speak otherwise than respectfully of sewing; -though you always seem to think I am laughing at you. In all seriousness, illustrations from sewing are those which Neith likes me best to use; and which young ladies ought to like everybody to use. What do you think the beautiful word 'wife' comes from?

Dora (tossing her head). I don't think it is a particularly beautiful word.
L. Perhaps not. At your ages you may think 'bride' sounds better ; but wife's the word for wear, depend upon it. It is the great word in which the English and Latin languages conquer the French and the Greek. I hope the French will some day get a word for it, yet, instead of their dreadful 'femme.' But what do you think it comes from?

Dora. I never did think about it.

## L. Nor you, Sibyl?

Sibyl. No; I thought it was Saxon, and stopped there.
L. Yes; but the great good of Saxon words is, that they usually do mean something. Wife means 'weaver.' You have all the right to call yourselves little 'housewives,' when you sew neatly.

Dora. But I don't think we want to call ourselves ' little housewives.'
L. You must either he house-Wives, or house-Moths; remember that. In the deep sense, you must either weave men's fortunes, and embroider them; or feed upon, and bring them to decay. You had better let me keep my sewing illustration, and help me out with it.

Dora. Well, we'll hear it, under protest.
I. You have heard it before ; but with reference to other matters. When it is said, ' no man putteth a piece of new cloth on an old garment, else it taketh from the old,' does it not mean that the new piece tears the old one away at the sewn edge?

Dor.a. Yes, certainly.
L. And when you mend a decayed stuff with strong thread, does not the whole edge come away sometimes, when it tears again ?

Dor.. Yes ; and then it is of no use to mend it any more.
10t. L. Well, the rocks don't seem to think that; but the same thing happens to them contimually. I told you they were full of rents, or reins. Large masses of rock are sometimes as full of veins as your hand is; and of veins nearly as fine; (only you know a rock vein does not mean a tube, hut a crack or cleft). Now these clefts are mended, usually, with the strongest material the rock can find; and often literally with threads; for the gradually opening rent seems to draw the substance it is filled with into fibers, which cross from one side of it to the other, and are partly crystalline; so that, when the crystals become distinct, the fissure has often exactly the look of a tear, brought together with strong cross stitches. Now when this is completely done, and all has
been fastened and made firm, perlaps some new change of temperature may occur, and the rock begin to contract again. Then the old rein must open wider; or else another open elsewhere. If the old rein widen, it may do so at its center; but it constantly happens, with well-filled reins, that the cross stitehes are too strong to break; the walls of the vein, instead, are torn away by them; and another little supplementary rein-often three or four successively-will be thus formed at the side of the first.

Mary. That is really very much like our work. But what do the mountains use to sew with?
L. Quartz, whenever they can get it; pure limestones are obliged to be content with carbonate of lime; but most mixed rocks can find some quartz for themselves. Here is a piece of black slate from the Buet: it looks merely like dry dark mud-you could not think there was any quartz in it; but, you see, its rents are all stitched together with beautiful white thread, which is the purest quartz, so close drawn that you can break it like flint, in the mass; but, where it has been exposed to the weather, the fine fibrous structure is shown: and, more than that, you see the threads have been all twisted and pulled aside, this way and the other, by the warpings and shifting of the sides of the rein as it widened.
105. Mary. It is wonderful! But is that going on still? Are the mountains being torn and sewn together again at this moment?
L. Yes, certainly, my dear: but I think, just as certainly (though geologists differ on this matter), not with the violence, or on the scale, of their ancient ruin and renewal. All things seem to be tending towards a condition of at least temporary rest; and that groaning and travailing of the creation, as, assuredly, not wholly in pain, is not, in the full sense, 'until now.'

Mary. I want so much to ask you about that!
Sibyl. Yes; and we all want to ask you about a great many other things besides.
L. It seems to me that you have got quite as many new
ideas as are good for any of you at present: and I should not like to burden you with more ; but I must see that those you have are clear, if I can make them so ; so we will have one more talk for answer of questions, mainly. Think orer all the ground, and make your difficulties thoroughly presentable. Then we'll see what we can make of them.

Dor.. They shall all be dressed in their very best; and curtsey as they come in.
L. No, no, Dora; no eurtsers, if sou please. I harl enough of them the day you all took a fit of reverence, and curtsied me out of the room.

Dora. But, you know, we eured ourselves of the fault, at once, by that fit. We have never been the least respectful since. And the difficulties will only curtsey themselyes ont of the room, I hope;-come in at one door-ranish at the other.
L. What a pleasant world it would be, if all its difficulties were taught to behave so! However, one can generally mako something, or (better still) nothing, or at least less, of them, if they thoronghly know their own minds; and your difti-culties-I must say that for you, children,-generally do know their own minds, as you do yourselves.

Dors. That is very kindly said for us. Some people would not allow so much as that girls had any minds to know.
L. They will at least admit you have minds to change, Dora.

Mary. You might have left us the last specch, without a retouch. But we'll put our little minds, such as they are, in the best trim we can, for to-morrow.

## LECTURE X.

## THE CRYSTAL REST.

## Evening. The fireside. L.'s armchair in the comfortablest corner.

106. L. (perceiving various arrangements being made of footstool, cushion, screen, and the like). Yes, yes, it's all very fine; and I am to sit here to be asked questions till supper-time, am I?

Dors. I don't think you can have any supper to-night:we've got so much to ask.

Lily. Ol, Miss Dora! We can fetch it him here, you know, so nicely!
L. Yes, Lily, that will be pleasant, with competitive examination going on orer one's plate; the competition being among the examiners. Really, now that I know what teasing things girls are, I don't so much wonder that people used to put up patiently with the dragons who took them for supper. But I can't help myself, I suppose; -no thanks to St. George. Ask away, children, and I'll answer as civilly as may be.

Dora. We don't so much care about being answered civilly, as about not being asked things back again.
L. 'Ayez seulement la patience que je pare.' There shall be no requitals.

Dors. Well, then, first of all-What shall we ask first, Mary?

Mary. It does not matter. I think all the questions come into one, at last, nearly.

Dors. You know, you always talk as if the crystals were alive; and we never understand how much you are in play, and how much in carnest. That's the first thing.
L. Neither do I understand, myself, my dear, how much I am in carnest. The stones puzzle me as much as I puzzle
you. They look as if they were alive, and make me speak as if they were ; and I do not in the least know how much truth there is in the appearance. I'm not to ask things back again to-night, but all questions of this sort lead necessarily to the one main question, which we asked, before, in vain, 'What is it to be alive?'

Dora. Yes; but we want to come back to that: for we've been reading scientific books about the 'conservation of forces,' and it seems all so grand, and wonderful; and the experiments are so pretty: and I suppose it must be all right: but then the books never speak as if there were any such thing as 'life.'
L. They mostly omit that part of the subject, certainly, Dora: but they are beautifully right as far as they go ; and life is not a convenient element to deal with. They seem to have been getting some of it into and out of bottles, in their 'ozone' and 'antizone' lately: but ther still know little of it ; and, certainly, I know less.

Dora. You promised not to be provoking, to-night.
107. L. Wait a minute. Though, quite truly, I know less of the secrets of life than the philosophers do, I yet know one corner of ground on which we artists can stand, literally as 'Life Guards ' at bay, as steadily as the Guards at Inkermann; however hard the philosophers push. And you may stand with us, if once you learn to draw nicely.

Dors. I'm sure we are all trying! but tell us where we may stand.
L. You may always stand by Form, against Force. 'To a painter the essential character of anything is the form of it; and the philosophers cannot touch that. They come and tell you, for instance, that there is as much heat, or motion, or calorific energy, (or whatever else they like to call it) in a tea-kettle as in a Gier-eagle. Very good; that is so; and it is very interesting. It requires just as much heat as will boil the kettle, to take the Gier-eagle up to his nest; and as much more to bring hịm down again on a hare or a partridge, But we painters, acknowledging the equality and
similarity of the kettle and the bird in all scientific respects, attach, for our part, our principal interest to the difference in their forms. For us, the primarily cognizable facts, in the two things, are, that the kettle has a spout, and the eagle a beak; the one a lid on its back, the other a pair of wings; -not to speak of the distinction also of volition, which the philosophers may properly call merely a form or mode of force; -but then, to an artist, the form, or mode, is the gist of the business. The kettle chooses to sit still on the hob; the eagle to recline on the air. It is the fact of the choice, not the equal degree of temperature in the fulfillment of it, which appears to us the more interesting circumstance; though the other is rery interesting too. Execedingly so! Don't laugh, children; the philosophers lave been doing quite splendid work lately, in their own way: especially, the transformation of force into light is a great piece of systematized diseovery; and this notion about the sun's being supplied with his flame by ceaseless meteoric hail is grand, and looks very likely to be true. Of course, it is only the old gunlock,-flint and steel,-on a large seale : but the order and majesty of it are sublime. Still, we sculptors and painters care little about it. 'It is very fine,' we say, ' and very use' ful, this knocking the light out of the sun, or into it, by an 'eternal cataract of planets. But you may hail away, so, 'forever, and you will not knock out what we can. Here ' is a bit of silver, not the size of half-a-crown, on which, ' with a single hammer stroke, one of us, two thousand and ' odd years ago, hit out the head of the Apollo of Clazomenre. ' It is merely a matter of form; but if any of you philoso'phers, with your whole planctary system to hammer with, 'can hit out such another bit of silver as this,-we will 'take off our hats to you. For the present, we keep them on.'

10s. Mary. Yes, I understand; and that is nice; but I don't think we shall any of us like having only form to depend upon.
L. It was not neglected in the making of Ere, my dear. Mary. It does not seem to separate us from the dust of
the ground. It is that breathing of the life which we want to understand.
L. So we should: but hold fast to the form, and defend that first, as distinguished from the mere transition of forces. Discern the molding hand of the potter commanding the clay, from his merely beating foot, as it turns the wheel. If you can find incense, in the rase, afterwards, well: but it is curious how far mere form will carry you ahead of the philosophers. For instance, with regard to the most interesting of all their modes of force-light;-they never consider how far the existence of it depends on the putting of certain vitreous and nerrous substances into the formal arrangement which we call an cye. The German philosophers began the attack, long ago, on the other side, by telling us there was no such thing as light at all, unless we chose to see it: now, German and English, both, have reversed their engines, and insist that light would be exactly the same light that it is, though nobody could ever see it. The fact being that the force must be there, and the eyes there ; and 'light ' means the effect of the one on the other; and perhaps, also--(Plato saw farther into that mystery than any one has since, that I know of), -on something a little way within the eyes; but we may stand quite safe, close behind the retina, and defy the philosophers.

Sibrl. But I don't care so much about defying the philosophers, if only one could get a clear idea of life, or soul, for one's self.
L. Well, Sibyl, you used to know more about it, in that cave of yours, than any of us. I was just going to ask you about inspiration, and the golden bough, and the like; only I remembered I was not to ask anything. But, will not you, at least, tell us whether the ideas of Life, as the power of putting things together, or 'making' them; and of Death, as the power of pushing things separate, or 'unmaking' them, may not be very simply held in balance against each other ?

Sibyl. No, I am not in my cave to-night; and cannot tell you anything.
109. L. I think they may. Modern Philosophy is a great separator; it is little more than the expansion of Molière's great sentence, 'Il s'ensuit de là, que tout ce qu'il $y$ a de beau est dans les dictionnaires; il n'y a que les mots qui sont transposés.' But when you used to be in your cave, Sibyl, and to be inspired, there was, (and there remains still in some small measure) beyond the merely formative and sustaining power, another, which we painters call 'passion' -I don't know what the philosophers call it; we know it makes people red, or white; and therefore it must be something, itself: and perhaps it is the most truly 'poetic' or ' making' force of all, creating a world of its own out of a glance, or a sigh: and the want of passion is perhaps the truest death, or 'unmaking' of everything;-even of stones. By the way, you were all reading about that ascent of the Aiguille Verte, the other day?

Sibyl. Because you had told us it was so difficult, you thonght it could not be ascended.
L. Yes; I believed the Aiguille Verte would have held its own. But do you recollect what one of the climbers exclaimed, when he first felt sure of reaching the summit?

Sibrl. Y'es, it was, ' Oh, Aiguille Verte, vous êtes morte, vous êtes morte!'
L. That was true instinct. Real philosophic joy. Now can you at all fancy the difference between that feeling of triumph in a mountain's death; and the exultation of your beloved poet, in its life-

> 'Quantus Athos, aut quantus Eryx, aut ipse coruscis Quum fremit ilicibus, quantus, gaudetque nivali Vertice, se attollens pater Apenninus ad auras'?

Dora. You must translate for us mere housekeepers, please;-whatever the cave-keepers may know about it.

Mary. Will Dryden do?
L. No. Dryden is a far way worse than nothing, and nobody will 'do.' You can't translate it. But this is all you need know, that the lines are full of a passionate sense of the

Apennines' fatherhood, or protecting power, over Italy; and of sympathy with their joy in their snowy strength in hearen; and with the same joy, shuddering through all the leaves of their forests.
110. Mary. Yes, that is a difference indeed! but then, you know, one can't help feeling that it is fanciful. It is very delightful to imagine the mountains to be alive; but then,-are they alive?
L. It seems to me, on the whole, Mary, that the feelings of the purest and most mightily passioned human souls are likely to be the truest. Not, indeed, if they do not desire to know the truth, or blind themselves to it that ther may please themselves with passion; for then they are no longer pure: but if, continually seeking and accepting the truth as far as it is discernible, they trust their Maker for the integrity of the instincts He has gifted them with, and rest in the sense of a higher truth which they cannot demonstrate, I think they will be most in the right, so.

Dord and Jessie (clapping their hands). Then we really may believe that the mountains are living?
L. You may at least earnestly believe, that the presence of the spirit which culminates in your own life, shows itself in dawning, wherever the dust of the earth begins to assume any orderly and lovely state. You will find it impossible to separate this idea of gradated manifestation from that of the vital power. Things are not either wholly alive, or wholly dead. They are less or more alive. Take the nearest, most easily examined instance-the life of a flower. Notice what a different degree and kind of life there is in the calyx and the corolla. The calyx is nothing but the swaddling clothes of the flower; the child-blossom is bound up in it, hand and foot; guarded in it, restrained by it, till the time of birth. The shell is hardly more subordinate to the germ in the egg, than the calyx to the blossom. It bursts at last ; but it never lives as the corolla does. It may fall at the moment its task is fulfilled, as in the poppy; or wither gradually, as in the buttercup; or persist in a ligneous apathy,
after the flower is dead, as in the rose; or harmonize itself so as to share in the aspect of the real flower, as in the lily; but it never shares in the corolla's bright passion of life. And the gradations which thus exist between the different members of organic creatures, exist no less between the different ranges of organism. We know no higher or more energetic life than our own ; but there seems to me this great good in the idea of gradation of life-it admits the idea of a life above us, in other creatures, as much nobler than ours, as ours is nobler than that of the dust.
111. Marr. I am glad you have said that; for I know Violet and Lncilla and May want to ask you something; indeed, we all do; only you frightened Violet so, about the ant-hill, that she can't say a word; and May is afraid of your teasing her, too: but I know they are wondering why you are always telling them about heathen gods and goddesses, as if you half believed in them; and you represent them as good; and then we see there is really a kind of truth in the stories about them; and we are all puzzled: and, in this, we camot even make our difficulty quite clear to ourselves; -it would be such a long confused question, if we could ask you all we should like to know.
L. Nor is it any wonder, Mary; for this is indeed the longest, and the most wildly confused question that reason can deal with; but I will try to give you, quickly, a few clear ideas about the heathen gods, which you may follow out afterwards, as your knowledge increases.

Erery heathen conception of deity in which you are likely to be interested, has three distinct characters:-
I. It has a physical character. It represents some of the great powers or objects of nature-sun or moon, or heaven, or the winds, or the sea. And the fables first related about each deity represent, figuratively, the action of the natural power which it represents; such as the rising and setting of the sun, the tides of the sea, and so on.
II. It has an ethical character, and represents, in its history, the moral dealings of God with man. Thus Apollo
is first, physically, the sun contending with darkness; but morally, the power of divine life contending with corruption. Athena is, physically, the air; morally, the breathing of the divine spirit of wisdom. Neptune is, physically, the sea; morally, the supreme power of agitating passion; and so on.
III. It has, at last, a personal character ; and is realized in the minds of its worshipers as a living spirit, with whom men may speak face to face, as a man speaks to his friend.
112. Now it is impossible to define exactly how far, at any period of a national religion, these three ideas are mingled; or how far one prevails orer the other. Each inquirer usually ta'es up one of these ideas, and pursues it, to the exclusion of the others; no impartial efforts seem to have been made to discern the real state of the heathen imagination in its successive phases. For the question is not at all what a mythological figure meant in its origin; but what it became in each subsequent mental development of the nation inheriting the thought. Exactly in proportion to the mental and moral insight of any race, its mythological figures mean more to it, and become more real. An early and savage race means nothing more, (because it has nothing more to mean,) by its Apollo, than the sun; while a cultivated Greek means every operation of divine intellect and justice. The Neith, of Egypt, meant, physically, little more than the blue of the air; but the Greek, in a climate of alternate storm and calm, represented the wild fringes of the storm-cloud by the scrpents of her ægis; and the lightning and cold of the highest thuader-clouds, by the Gorgon on her shield: while morally, the same types represented to him the mystery and changeful terror of knowledge, as her spear and helm its ruling and defensive power. And no study can be more interesting, or more useful to you, than that of the different meanings which have been created by great nations, and great poets, out of mythological figures given them, at first, in utter simplicity. But when we approach them in their third, or personal, character (and, for its power over the whole
national mind, this is far the leading one), we are met at once by questions which may well put all of you at pause. Were they idly imagined to be real beings? and did they so usurp the place of the true God? Or were they actually real beings,-eril spirits-leading men away from the true God! Or is it conceivable that they might have been real beings,-good spirits,-intrusted with some message from the true God? These were the questions you wanted to ask; were they not, Lueilla?

Lucilli. Ies, indeed.
113. L. Well, Lueilla, the answer will much depend upon the clearness of cour faith in the personality of the spirits which are described in the book of your own re-ligion;-their personality, observe, as distingnished from merely symbolical visions. For instance, when Jeremiah has the vision of the seething pot with its month to the north, you know that this which he sees is not a real thing; but merely a significant dream. Also, when Zechariah sees the speckled horses among the myrtle trees in the bottom, you still may suppose the vision symbolical;-you do not think of them as real spirits, like Pegasus, seen in the form of horses. But when you are told of the four riders in the $A$ pocalypse, a distinct sense of personality begins to foree itself upon you. And though you might, in a dull temper, think that (for one instance of all) the fourth rider on the pale horse was merely a symbol of the power of death,-in your stronger and more earnest moods you will rather conceive of him as a real and living angel. And when you look back from the rision of the Apocalypse to the account of the destruction of the Egyptian first-born, and of the army of Sennacherib, and again to David's vision at the threshing floor of Araunah, the idea of personality in this death-angel becomes entirely defined, just as in the appearance of the angels to Abraham, Manoah, or Mary.
114. Now, when you have once consented to this idea of a personal spirit, must not the question instantly follow: ' Doos this spirit exercise its functions towards one race of
men only, or towards all men? Was it an angel of death to the Jew only, or to the Gentile also?' You find a certain Divine agency made visible to a King of Isracl, as an armed angel, exceuting rengeance, of which one special purpose was to lower his kingly pride. You find another (or perhaps the same) ageney, made risible to a Christian prophet as an angel standing in the sum, calling to the birds that fly under hearen to come, that they may eat the flesh of kings. Is there anything impious in the thought that the same agency might have been expressed to a Greek king, or Greek scer, by similar visions ?-that this figure, standing in the sum, and armed with the sword, or the bow (whose arrows were drunk with blood), and exercising especially its power in the humiliation of the proud, might, at first, have been called only ' Destroyer,' and afterwards, as the light, or sun, of justice, was recognized in the chastisement, called also, 'Physician' or 'Healer'? If you fecl hesitation in admitting the possibility of such a manifestation, I beliere you will find it is caused, partly indeed by such trivial things as the difference to your ear between Greek and English terms; but, far more, by uncertainty in your own mind respecting the nature and truth of the risions spoken of in the Bible. Have any of you intently examined the nature of your belief in them? You, for instance, Lucilla, who think often, and serionsly, of such things?

Lucilia. No; I never could tell what to believe abont them. I know they must be true in some way or other ; and I like reading about them.
L. Yes; and I like reading about them too, Lucilla; as I like reading other grand poetry. But, surely, we ought both to do more than like it? Will God be satisfied with us, think you, if we read His words, merely for the sake of an entirely meaningless poetical sensation?
115. Lucilla. But do not the people who give themselves to seek out the meaning of these things, often get very strange, and extraragant?
L. More than that, Lucilla. They often go mad. That
abandonment of the mind to religious theory, or contemplation, is the very thing I have been pleading with you against. I ner aaid rous should set rourself to discover the meanings: but you should take careful pains to understand them, so far as they are clear; and you should always accurately ascertain the state of your mind about them. I want you never to read merely for the pleasure of fancy;-still less as a formal religious duty; (else you might as well take to repeating Paters at once; for it is surely wiser to repeat one thing we understand, than read a thousand which we cannot). Either, therefore, acknowledge the passages to be, for the present, unintelligible to rou; or else determine the sense in which you at present receive them; or, at all events, the different senses between which you clearly see that you must choose. Make either your belief, or your difficulty, definite; but do not go on, all through your life, believing nothing intelligently, and yet supposing that your having read the words of a divine book must give you the right to despise every religion but your own. I assure you, strange as it may seem, our seorn of Greek tradition depends, not on our belief, but our disbelief, of our own traditions. We have, as jet, no sufficient clue to the meaning of either; but you will always find that, in proportion to the earnestness of our own faith, its tendency to accept a spiritual personality increases: and that the most rital and beantiful Christian temper rests joyfully in its conviction of the multitudinous ministry of liring angels, infinitely varied in rank and power. You all know one expression of the purest and happiest form of such faith, as it exists in modern times, in Richter's lovely illustrations of the Lord's prayer. The real and living death angel girt as a pilgrim for journer, and softly crowned with flowers, beckons at the dying mother's door ; child-angels sit talking face to face with mortal children, among the flowers; -hold them by their little coats, lest they fall on the stairs; -whisper dreams of heaven to them, leaning over their pillows; earry the sound of the church bells for them far through the air; and, even descending lower in service, fill
little cups with honey to hold out to the weary bee. By the way, Lily, did you tell the other children that story about your little sister, and Alice, and the sea ?
116. Lily. I told it to Alice, and to Miss Dora. I don’t think I did to anybody elsc. I thought it wasn't worth.
L. We shall think it worth a great deal now, Lily, if you will tell it us. How old is Dotty, again? I forget.

Lily. She is not quite three; but she has such odd little old ways, sometimes.
L. And she is rery fond of Alice?

Lily. Yes; Alice was so good to her always!
L. And so when Alice went away?

Lily. Oh, it was nothing, you know, to tell about; only it was strange at the time.
L. Well; but I want you to tell it.

Lidy. The morning after Alice had gone, Dotty was rery sad and restless when she got up, and went about, looking into all the corners, as if she could find Alice in them, and at last she came to me, and said, 'Is Alie gone over the great sea?' And I said, 'Yes, she is gone orer the great, deep sca, but she will come back again some day.' Then Dotty looked round the room; and I had just poured some water out into the basin; and Dotty ran to it, and got up on a chair, and dashed her hands through the water, again and again; and cried, 'Oh, deep, deep sea! send little Alie back to me.'
L. Isn't that pretty, children? There's a dear little heathen for you! The whole heart of Greek mythology is in that; the idea of a personal being in the elemental power; -of its being moved by praver; and of its presence everywhere, making the broken diffusion of the element sacred.
117. Now, remember, the measure in which we may permit ourselves to think of this trusted and adored personality, in Greek, or in any other, mythology, as conceivably a shadow of truth, will depend on the degree in which we hold the Greeks, or other great nations, equal or inferior, in privilege and character, to the Jews, or to ourselves. If we believe that the great Father would use the imagination of the

Jew as an instrument by which to exalt and lead him; but the imagination of the Greek only to degrade and mislead him; if we can suppose that real angels were sent to minister to the Jews and to punish them; but no angels, or only mocking spectra of angels, or even devils in the shapes of angels, to lead Lyeurgus and Leonidas from desolate cradle to hopeless grave:-and if we can think that it was only the influence of specters, or the teaching of demons, which issued in the making of mothers like Cornelia, and of sons like Clenhis and Bito, we may, of course, reject the heathen Mifthology in our privileged scorn : but, at least, we are bound to examine strictly by what faults of our own it has come to pass, that the ministry of real angels among ourselves is oceasionally so ineffectual, as to end in the production of Cornelias who intrust their child-jewels to Charlotte Winsors for the better keeping of them; and of sons like that one who, the other day, in France, beat his mother to death with a stick; and was brought in by the jury, 'guilty, with extenuating circumstances.'

## Mir. Was that really possible?

L. Yes, my dear. I am not sure that I can lay my hand on the reference to it (and I should not have said 'the other day '-it was a year or two ago), but you may depend on the fact; and I could give you many like it, if I chose. There was a murder done in Russia, very lately, on a traveler. The murderess's little daughter was in the way, and found it out somehow. Her mother killed her, too, and put her into the oven. There is a peculiar horror about the relations between parent and child, which are being now brought about by our variously degraded forms of European white slavery. Here is one reference, I see, in my notes on that story of Cleobis and Bito; though I suppose I marked this chiefly for its quaintness, and the beautifully Christian names of the sons; but it is a good instance of the power of the King of the Talley of Diamonds * among us.

In 'Galignani' of July 21-22, 1862, is reported a trial

[^193]of a farmer's son in the department of the Yonne. The father, two years ago, at Malay le Grand, gave up his property to his two sons, on condition of being maintained by them. Simon fulfilled his agreement, but Pierre would not. The tribunal of Sens condemns Pierre to pay eightyfour franes a year to his father. Pierre replies, 'he would rather die than pay it.' Actually, returning home, he tlirows himself into the river, and the body is not found till next day.
118. Mary. But-but-I can't tell what you would have us think. Do you seriously mean that the Greeks were better than we are; and that their gods were real angels?
L. No, my dear. I mean only that we know, in reality, less than nothing of the dealings of our Maker with our fellow-men; and can only reason or conjecture safely about them, when we have sincerely humble thoughts of ourselves and our creeds.

We owe to the Greeks every noble discipline in literature; every radical principle of art; and every form of convenient beauty in our household furniture and daily occupations of life. We are unable, ourselves, to make rational use of half that we have received from them; and, of our own, we have nothing but discoveries in science, and fine mechanical adaptations of the discovered physical powers. On the other hand, the vice existing among certain classes, both of the rich and poor, in London, Paris, and Vienna, could have been conceived by a Spartan or Roman of the heroic ages only as possible in a Tartarus, where fiends were employed to teach, but not to punish, crime. It little becomes us to speak contemptuously of the religion of races to whom we stand in such relations; nor do I think any man of modesty or thoughtfulness will ever speak so of any religion, in which God has allowed one good man to die, trusting.

The more readily we admit the possibility of our own cherished convictions being mixed with error, the more vital and helpful whatever is right in them will become: and no error is so conclusively fatal as the idea that God will not
allow us to err, though He has allowed all other men to do so. There may be doubt of the meaning of other visions; but there is none respecting that of the dream of St. Peter; and you may trust the Rock of the Church's Foundation for true interpreting, when he learned from it that ' in every nation, he that feareth God and worketh righteousness, is accepted with Him.' See that you understand what that righteousness means; and set hand to it stoutly: you will always measure your neighbors' creed kindly, in proportion to the substantial fruits of your own. Do not think you will erer get harm by striving to enter into the faith of others, and to sympathize, in imagination, with the guiding principles of their lives. So only can you justly love them, or pity them, or praise. By the gracious effort you will double, treble-nay, indefinitely multiply, at once the pleasure, the reverence, and the intelligence with which you read: and, believe me, it is wiser and holier, by the fire of your own faith to kindle the ashes of expired religions, than to let your soul shiver and stumble among their graves, through the gathering darkness, and communicable cold.
119. Mary (after some pause). We shall all like reading Greek history so much better after this! but it has put everything else out of our heads that we wanted to ask.
L. I can tell you one of the things; and I might take credit for generosity in telling you; but I have a personal reason-Lucilla's rerse about the creation.

Dora. Oh, yes-yes; and it's 'pain together, until nowr.'
L. I call you back to that, because I must warn yon against an old error of my own. Somewhere in the fourth volume of 'Modern Painters,' I said that the earth seemed to have passed through its lighest state: and that, after ascending by a series of phases, culminating in its habitation by man, it seems to be now gradually becoming less fit for that habitation.

## Mary. Yes, I remember.

L. I wrote those passages under a very bitter impression of the gradual perishing of beauty from the loveliest scenes
which I knew in the physical world; not in any doubtful way, such as I might have attributed to loss of sensation in myself -but by riolent and definite physical action; such as the filling up of the Lac de Chêde by landslips from the Rochers des Fiz; -the narroming of the Lake Lucerne by the gaining delta of the stream of the Muotta-Thal, which, in the course of years, will cut the lake into two, as that of Brientz has been divided from that of Thun;-the steady diminishing of the glaciers north of the Alps, and still more, of the sheets of snow on their southern slopes, which supply the refreshing streams of Lombardy ;--the equally steady inerease of deadly maremna round Pisa and Venice; and other such phenomena, quite measurably traceable within the limits even of short life, and unaccompanied, as it seemed, by redeeming or compensatory agencies. I am still under the same impression respecting the existing phenomena; but I feel more strongly, every day, that no evidence to be collected within historieal periods can be accepted as any clue to the great tendencies of geologieal change; but that the great laws which never fail, and to which all change is subordinate, appear such as to accomplish a gradual advance to lovelier order, and more calmly, yet more deeply, animated Rest. Nor has this conviction ever fastened itself upon me more distinetly, than during my endearor to trace the laws which govern the lowly framework of the dust. For, through all the phases of its transition and dissolution, there seems to be a continual effort to raise itself into a higher state ; and a measured gain, through the fierce rerulsion and slow renewal of the earth's frame, in beauty, and order, and permanence. The soft white sediments of the sea draw themselves, in process of time, into smooth knots of sphered symmetry; burdened and strained under increase of pressure, they pass into a nascent marble; scorched by fervent heat, they brighten and blanch into the snowy rock of Paros and Carrara. The dark drift of the inland river, or stagnant slime of inland pool and lake, divides, or resolves itself as it dries, into layers of its sereral elements; slowly purifying each by the patient withdrawal
of it from the anarchy of the mass in which it was mingied. Contracted by increasing drought, till it must shatter into fragments, it infuses continually a finer ichor into the opening reins, and finds in its weakness the first rudiments of a perfect strength. Rent at last, rock from rock, nay, atom from atom, and tormented in lambent fire, it knits, through the fusion, the fibers of a perennial endurance; and, during countless subsequent centuries, declining, or, rather let me say, rising, to repose, finishes the infallible luster of its crystalline beauty, under harmonies of law which are wholly beneficent, because wholly inexorable.
(The children seemed pleased, but more inclined to think over these matters than to talk.)
120. L. (after giving them a little time). Mary, I seldom ask you to read anything out of books of mine; but there is a passage about the Law of Help, which I want you to read to the children now, because it is of no use merely to put it in other words for them. You know the place I mean, do not you?

Mary. Yes (presently finding it) ; where shall I begin?
L. Here; but the elder ones had better look afterwards at the piece which comes just before this.

Mary (reads) :

[^194]with soot, a little sand, and water. All these elements are at helpless war with each other, and destroy reciprocally each other's nature and power: competing and fighting for place at every tread of your foot ; sand squeezing out clay, and clay squeezing out water, and soot meddling everywhere, and defiling the whole. Let us suppose that this ounce of mud is left in perfect rest, and that its elements gather together, like to like, so that their atoms may get into the closest relations possible.
' Let the clay begin. Ridding itself of all foreign substance, it gradually becomes a white earth, already very beautiful, and fit, with help of congealing fire, to be made into finest porcelain, and painted on, and be kept in kings' palaces. But such artificial consistence is not its best. Leave it still quiet, to follow its own instinct of unity, and it becomes, not only white, but clear ; not only clear, but hard ; not only clear and hard, but so set that it can deal with light in a wonderful way, and gather out of it the loveliest blue rays only, refusing the rest. We call it then a sapphire.
'Such being the consummation of the clay, we give similar permission of quiet to the sand. It also becomes, first, a white earth ; then proceeds to grow clear and hard, and at last arranges itself in mysterious, infinitely fine parallel lines, which have the power of reflecting, not merely the blue rays, but the blue, green, purple, and red rays, in the greatest beauty in which they can be seen through any hard material whatsoever. We call it then an opal.
' In next order the soot sets to work. It cannot make itself white at first ; but, instead of being discouraged, tries harder and harder ; and comes out clear at last; and the hardest thing in the world: and for the blackness that it had, obtains in exchange the power of reflecting all the rays of the sun at once, in the viridest blaze that any solid thing can shoot. We call it then a diamond.
' Last of all, the water pulifies or unites itself ; contented enough if it only reach the form of a dewdrop: but, if we insist on its proceeding to a more perfect consistence, it crystallizes into the shape of a star. And, for the ounce of slime which we had by political economy of competition, we hare, by political economy of co-operation, a sapphire, an opal, and a diamond, set in the midst of a star of snow.'
121. L. I have asked you to hear that, ehildren, because, from all that we have seen in the work and play of these past days, I would have you gain at least one grave and enduring thought. The seeming trouble,-the unquestionable degradation, -of the elements of the physical earth, must passively wait the appointed time of their repose, or their restoration. It can only be brought about for them by the agency of
external law. But if, indeed, there be a nobler life in us than in these strangely moving atoms;-if, indeed, there is an eternal difference between the fire which inhabits them, and that which animates us,-it must be shown, by each of us in his appointed place, not merely in the patience, but in the activity of our hope; not merely ly our desire, but our labor, for the time when the Dust of the generations of men shall be confirmed for foundations of the gates of the city of God. The human clar, now trampled and despised, will not be,-cannot be,-knit into strengtl and light by accidents or ordinances of unassisted fatc. By human cruelty and iniquity it has been afflicted;-by hmman merey and justice it must be raised : and, in all fear or questioning of what is or is not, the real message of creation, or of revelation, you may assuredly find perfect peace, if you are resolved to do that which your Lord has plainly required,-and content that IIe should indeed require no more of you,-than to do Justice, to love Mercy, and to walk humbly with Him.

## NOTES.

## Note I.

Page 15.

## 'That third pyramid of hers.'

Throcghout the dialogues, it must be obserred that 'Sibyl' is addressed (when in play) as having once been the Cumæan Sibyl; and 'Egypt' as haring been queen Nitocris,-the Cinderella, and 'the greatest hernine and beauty ' of Egyptian story. The Egyptians called her 'Neith the victorious ' (Nitocris). and the Greeks ' Face of the Rose' (Rhodope). Chaucer's beautiful conception of Cleopatra in the 'Legend of Good Wromen," is much more founded on the traditions of her than on those of Cleopatra: and, especially in its close, modified by Herodotus's terible story of the death of Nitocris. which, howerer, is mythologically mothing more than a part of the deep monotonous ancient dirge for the fulfillment of the earthly destiny of Beauty : 'She cast berself into a chamber full of ashes.

I believe this Queen is now sufficiently ascertained to lave either built, or increased to double its former size, the third prramid of Gizeh : and the passage following in the text refers to an imaginary endeavor, by the Old Lecturer and the children together. to make out the description of that pramid in the 16ath page of the second volume of Bunsen's • Egypt's Place in Universal History'-ideal endearor,-which ideally terminates as the Old Lecturer's real endeavors to the same end always hare terminated. There are, howerer, valuable notes respecting Nitocris at page 210 of the same volume: but the 'Early Egyptian History for the Young, by the author of 'Sidney Gray, contains. in a pleasant form, as much information as young readers will usually need.

Note II.
Page 16.
' Pyramid of Asychis.'
This pyramid, in mythology, divides with the Tower of Babel the shame, or rainglory, of being presumptuousl $y$, and first among great
edifices, built with 'brick for stone.' This was the inscription on it, according to Herodotus :-
> ' Despise me not in comparing me with the pyramids of stone; for I hare the pre-cminence over them, as far as Jupiter has preeminence over the gods. For, striking with staves into the pool, men gathered the clay which fastened itself to the staff, and kneaded bricks out of it, and so made me.'

The word I have translated 'kneaded' is literally 'drew;' in the sense of drawing, for which the Latins used 'duco ;' and thus gave us our 'ductile' in speaking of dead clay, and Duke, Doge, or leader. in speaking of living clay. As the asserted pre-eminence of the edifice is made, in this inscription, to rest merely on the quantity of labor consumed in it, this pyramid is considered, in the text, as the type, at once, of the base building, and of the lost labor, of future ages; so far at least as the spirits of measured and mechanical effort deal with it: but Neith, exercising her power upon it, makes it a type of the work of wise and inspired builders.

## Note III.

## Page 16.

## 'The Greater Pthah.'

It is impossible, as yet, to define with distinctness the personal agencies of the Egrptian deities. They are continually associated in function, or hold derivative powers, or are related to each other in mysterions triads; uniting always symbolism of physical phenomena with real spiritual power. I have endeavored partly to explain this in the text of the tenth Lecture: here, it is only necessary for the reader to know that the Greater Pthal more or less represents the formative power of order and measurement : he always stands on a foursquare pedestal, 'the Egyptian cubit, metaphorically used as the hieroglyphic for truth;' his limbs are bound together, to signify fixed stability, as of a pillar; he has a measuring-rod in his hand; and at Philæ, is represented as holding an egg on a potter's wheel ; but I do not know if this symbol occurs in older sculptures. His usual title is the 'Lord of truth.' Others, very beautiful: 'King of the Two Worlds, of Gracious Countenance,' 'Superintendent of the Great Abode,' etc., are given by Mr. Birch in Arundale's ' Gallery of Antiquities,' which I suppose is the book of best authority easily accessible. For the full titles and utterances of the gods, Rosellini is as yet the only-and I believe, still a very questionable-authority; and Arundale's little book, excellent in the text, has this great defect, that its drawings give
the statues invariably a ludicrous or ignoble character. Readers who have not access to the originals must be warned against this frequent fault in modern illustration, (especially existing also in some of the painted casts of Gothic and Norman work at the Crystal Palace). It is not owing to any willful want of veracity: the plates in Arundale's book are laboriously faithful: but the expressions of both face and body in a figure depend merely on emphasis of touch ; and, in barbaric art, most draughtsmen emphasize what they plainly see-the barbarism: and miss conditions of nobleness, which they must approach the monmment in a different temper before they will discover, and draw with great subtlety before they can express.

The character of the Lower Pthah, or perhaps I ought rather to say, of Pthah in his lower office, is sufficiently explained in the text of the third Lecture : only the reader must be warned that the Egyptian symbolism of him by the beetle was not a scornful one; it expressed only the idea of his presence in the first elements of life. But it may not unjustly be used, in another sense, by us, who hare seen his power in new development; and, even as it was, I cannot conceive that the Egyptians should have regarded their beetle-headed image of him, (Champollion, 'Pantheon,' pl. 12) without some occult scorn. It is the most painful of all their types of any beneficent power ; and even among those of evil influences, none can be compared with it, except its opposite, the tortoise-headed demon of indolence.

Pasht (p. 15, line 32 ) is counected with the Greek Artemis, especially in her offices of judgment and rengeance. She is usually lionessheaded; sometimes cat-headed; her attributes seeming often trivial or ludicrous unless their full meaning is known: but the inquiry is much too wide to be followed here. The cat was sacred to her ; or rather to the sun, and secondarily to her. She is alluded to in the text because she is always the companion of Pthah (called 'the beloved of Pthah,' it may be as Judgment, demanded and longed for by Truth) ; and it may be well for young readers to hare this fixed in their minds, eren by chance association. There are more statues of Pasht in the British Museum than of any other Egyptian deity ; several of them fine in workmanship; nearly all in dark stone, which may be, presumably, to connect her, as the moon, with the night; and in her office of a renger, with grief.

Thoth (p. 18, line 19) is the Recording Angel of Judgment; and the Greek Hermes. Phre (line 22) is the Sun.

Neith is the Egyptian spirit of divine wisdom; and the Athena of the Greeks. No sufficient statement of her many attributes, still less of their meanings, can be shortly giren; but this should be noted respecting the veiling of the Egyptian image of her by rulture wingsthat as she is, physically, the goddess of the air, this bird, the most powerful creature of the air known to the Egyptians, naturally became
her symbol. ITt had other significations; but certainly this, when in connection with Neith. As representing her, it was the most important sign. next to the wingel sphere, in Egyptian sculpture: and, just as in Homer, Athena herself guides her leroes into battle, this symbol of wisdom, giving rictory, flats over the heads of the Egyptian kings. The Greeks, representing the godless herself in human form, yet would not lose the power of the Egyptian symbol, and changed it into an angel of victory. First scen in loveliness on the early coins of Syracuse and Leontinm, it gradually became the received sign of all conquests, and the so-called 'Victory' of later times; which, little by little, loses its truth, and is accepted by the moderns only as a personification of rictory itself,-not as an actual picture of the living Angel who led to victory. There is a ride difference between these two con-ceptions,-all the difference between insincere poetry, and sincere religion. This I have also endearored farther to illustrate in the tenth Lecture; there is howerer one part of Athenas character which it would have been irrelerant to dwell upon there ; set which I must not wholly leare unnoticed.

As the goddess of the air. she physically represents both its beneficent calm, and necessary tempest : other storm-deities (as Chrysaor and Æolus), being invested with a subordinate and more or less malig. nant function, which is exchusively their own, and is related to that of Athena as the power of Mars is related to hers in war. So also Virgil makes her able to wield the lightning herself, while Jumo cannot, but must pray for the interrention of Æolus. She has precisely the correspondent moral authority orer calmness of mind, and just anger. She soothes Achilles, as she incites Tydides: her physical power orer the air being always hinted correlatively. She grasps Achilles by his hair-as the wind would lift it-softly.
' It fanned his cheek, it raised his hair, Like a meadow gale in spring.'
She does not merely turn the lance of Mars from Diomed; but seizes it in both her hands, and casts it asile, with a sense of making it vain, like chaff in the wind ; to the shout of Achilles, she adds her own roice of storm in hearen-but in all cases the moral power is still the principal one-most beautifully in that seizing of Achilles by the hair, which was the talisman of his life (because he had vowed it to the Sperchins if he returned in safety), and which, in giving at Patroclus' tomb, he, knowingly, yields up the linpe of return to his comntry, and signifies that he will die with his friend. Achilles and Tydides are, above all other heroes, aided by her in war, because their prevailing characters are the desire of justice, united in both with deep affections; and, in Achilles, with a passionate tenderness, which is the real root of his passionate anger. Ulysses is her favorite chiefly in her office as the goddess of conduct and design.

## Note IV.

Page 47.

## 'Geometrical limitation.'

It is difficult, without a tedious accuracy, or without full illustration, to express the complete relations of crystalline structure, which dispose minerals to take, at different times. fibrous massive, or foliated forms; and I am afraid this chapter will be generally skipped by the reader : yet the arrangement itself will be found useful, if kept broadly in mind ; and the transitions of state are of the highest interest, if the subject is entered upon with any earnestness. It would have been vain to add to the scheme of this little volume any account of the geometrical forms of crystals: an a a ailable one, though still far too difficult and too copious, has been arranged by the Rev. Mr. Mitchell, for Orr's ' Circle of the Sciences'; and, I believe, the 'nets' of crystals, which are therein given to be cut out with scissors, and put prettily together, will be found more conquerable by young ladies than by other students. They should also, when an opportunity occurs, be shown, at any public library, the diagram of the crystallization of quartz referred to poles, at p. 8 of Cloizanx's ' Manuel de Minéralogie': that they may know what work is; and what the subject is.

With a view to more careful examination of the nascent states of silica, I have made no allusion in this volume to the influence of mere segregation, as connected with the crystalline power. It has only been recently, during the study of the breccias alluded to in page 108, that I have fully seen the extent to which this singular force often modifies rocks in which at first its influence might hardly have been suspected; many apparent conglomerates being in reality formed chiefly by segregation, combined with mysterious brokenly-zoned structures, like those of some malachites. I hope some diy to know more of these and several other mineral phenomena, ( especially of those connected with the relative sizes of crystals) which otherwise I should have endeavored to describe in this volume.

## Note V.

Page 97.

## 'St. Barbara.'

I would have given the legends of St. Barbara, and St. Thomas, if I had thought it always well for young readers to have everything at once told them which they may wish to know. They will remenber
the stories better after taking some trouble to find them; and the text is intelligible enough as it stands. The idea of St. Barbara, as there given, is founded partly on her legend in Peter de Natalibus, partly on the beautiful photograph of Van Eyck's picture of her at Antwerp: which was some time since published at Lille.

## Note VI.

Page 132.

## ' King of the Valley of Diamonds.'

ISABEL interrupted the Lecturer here, and was briefly bid to hold her tongue; which gave rise to some talk, apart, afterwards, between L. and Sibyl, of which a word or two may be perhaps adrisably set down.

Sibric. We shall spoil Isabel, certainly, if we don't mind: I was glad you stopped her, and yet sorry ; for she wanted so much to ask about the Valley of Diamonds again, and she has worked so liard at it, and made it nearly all out by herself. She recollected Elisha's throwing in the meal, which nobody else did.
L. But what did she want to ask?

Sibyl. About the mulberry trees and the serpents; we are all stopped by that. Won't you tell us what it means?
L. Now, Sibyl, I am sure you, who nerer explained yourself, should be the last to expect others to do so. I hate explaining myself.

Sibyl. And yet how of ten you complain of other people for not saying what they meant. How I have heard you growl orer the three stone steps to purgatory, for instance!
L. Yes; because Dante's meaning is worth getting at; but mine matters nothing: at least, if ever I think it is of any consequence, I speak it as clearly as may be. But you may make anything you like of the serpent forests. I could hare helped you to find out what they were, by giving a little more detail, but it would hare been tiresome.

SibyL. It is much more tiresome not to find out. Tell us, please, as Isabel says, because we feel so stupid.
L. There is no stupidity ; you could not possibly do more than guess at anything so rague. But I think you, Sibyl, at least, might hare recollected what first dyed the mulberry.

Sibyl. So I did: but that helped little ; I thought of Dante's forest of suicides, too, but you would not simply have borrowed that?
L. No. If I had had strength to use it, I should have stolen it, to beat into another shape; not borrowed it. But that idea of souls in trees is as old as the world; or at least, as the world of man. And I did mean that there were souls in those dark branches;-the souls of all who had perished in misery through the pursuit of riches; and that
the river was of their blood gathering gradually, and flowing out of the valley. Then I meant the serpents for the souls of those who had lived carelessly and wantonly in their riches; and who have all their sins forgiven by the world, because they are rich : and therefore they have seven crimson-crested heads, for the seven mortal sins; of which they are prond: and these, and the memory and report of them, are the chief canses of temptation to others, as showing the pleasantness and absolving power of riches; so that thus they are singing serpents. And the worms are the souls of the common money-getters and traffickers, who do nothing but eat and spin : and who gain habitually by the distress or foolishness of others (as you see the butchers have been gaining out of the panic at the cattle plague, among the poor), -so they are made to eat the dark leaves, and spin, and perish.

Sibyl. And the souls of the great, cruel, rich people who oppress the poor and lend money to governments to make unjust war, where are they?
L. They change into the ice, I believe, and are knit with the gold; and make the grave-dust of the valley. I believe so, at least, for no one ever sees those souls any where.
(SibyL ceases questioning.)
Isabel (who las crept up to her side without any one's seeing). Oh, Sibyl, please ask him about the fire-flies !
L. What, you there, monsie! No; I won't tell either Sibyl or you about the fire-flies; nor a word more about anything else. You ought to be little fire-flies yourselves, and find your way in twilight by your own wits.

Isabel. But you said they burned, you know?
L. Yes : and you may be fire-flies that way too, some of you, before long, though I did not mean that.* Away with you, children. You have thought enough for to-day.

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[^0]:    * Or, more accurately, appears to be so, because any one can see an error in a circle.

[^1]:    * If the student is fond of architecture, and wishes to know more of perspective than he can learn in this rough way, Mr. Runciman (of 49 Acacia Road, St. John's Tood), who was my first drawing-master, and to whom I owe many happy hours, can teach it him quickly, easily, and rightly. [Mr. Runciman has died since this was written: Mr. Ward's present address is Bedford Chambers, 28 Southampton Street, Strand, London, W.C.]

[^2]:    * (N.B.-This note is only for the satisfaction of incredulous or curious readers. You may miss it if you are in a hurry, or are willing to take the statement in the text on trust.)
    The perception of solid Form is entirely a matter of experience. We see nothing but flat colors ; and it is only by a series of experiments that we find out that a stain of black or gray indicates the dark side of a solid substance, or that a faint lue indicates that the object in which it appears is far away. The whole technical power of painting depends on our recovery of what may be called the innocence of the eye; that is to say, of a sort of childish perception of these flat stains of color, merely as such, without consciousness of what they signify, -as a blind man would see them if suddenly gifted with sight.

    For instance: when grass is lighted strongly by the sun in certain directions, it is turned from green into a peculiar and somewhat dusty-looking yellow. If we had been born blind, and were suddenly endowed with sight on a piece of grass thus lighted in some parts by the sun, it would

[^3]:    * Stale crumb of bread is better, if you are making a delicate drawing, than india-rubber, for it disturbs the surface of the paper less: but it crumbles about the room and makes a mess; and, besides, you waste the good bread, which is wrong; and your drawing will not for a long while be worth the crumbs. So use india rubber very lightly; or, if heavily, pressing it only, not passing it over the paper, and leave what pencil marks will not come away so, without minding them. In a finished drawing the uneffaced penciling is often serviceable, helping the general tone, and enabling you to take out little bright lights.

[^4]:    * If you can get any pieces of dead white porcelain, not glazed, they will be useful models.

[^5]:    * Or, if you feel able to do so, scratch them in with confused quick touches, indicating the gencral shape of the cloud or mist of twigs round the main branches; but do not take much trouble about them.

[^6]:    * It is more difficult, at first, to get, in color, a narrow gradation than an extended one; but the ultimate difficulty is, as with the pen, to make the gradation go for.

[^7]:    * The degree of darkness you can reach with the given color is always indicated by the color of the solid cake in the box.

[^8]:    * The figure a, Fig. 5, is very dark, but this is to give an example of all kinds of depths of tint, without repeated figures.

[^9]:    * Nearly neutral in ordinary circumstances, but yet with quite different tones in its neutrality, according to the colors of the various reflected rays that compose it.

[^10]:    * If we had any business with the reasons of this, I might perhaps be able to show you some metaphysical ones for the enjoyment, by truly artistical minds, of the changes wrought by light and shade and perspective in patterned surfaces; but this is at present not to the point; and all that you need to know is that the drawing of such things is good exereise, and moreover a kind of exercise which Titian, Veronese, Tintoret, Giorgione, and Turner, all enjoyed, and strove to excel in,

[^11]:    * The use of acquiring this habit of execution is that you may be able, when you begin to color, to let one hue be scen in minute portions, gleaming between the touches of another.

[^12]:    * If you understand the principle of the stereoseope you will know why; if not, it does not matter; trust me for the truth of the statement, as I cannot explain the principle without diagrams and much loss of time. See, however, Note 1, in Appendix I.

[^13]:    * The plates marked with a star are peculiarly desirable. See note at the end of Appendix I. The letters mean as follows:-
    $a$ stands for architecture, including distant grouping of towns, cottages, etc. $c$ clouds, including mist and aerial effects.
    $f$ foliage.
    $g$ ground, including low hills, when not rocky.
    $l$ effects of light.

[^14]:    * As rell ;-not as minutely: the diamond cuts finer lines on the steel than you can draw on paper with your pen; but you must be able to get tones as even, and touches as firm.

[^15]:    * See, for account of these plates, the Appendix on "Works to be studied."

[^16]:    * See Note 2 in Appendix I.

[^17]:    * It is meant, I believe, for "Salt Hill,"

[^18]:    * I do not mean that you can approach Turner or Dürer in their strength, that is to say, in their imagination or power of design. But yon may approach them, by perseverance, in truth of manner.

[^19]:    * The impressions vary so much in color that no brown can be specified.
    $\dagger$ You had better get such a photograph, even though you have a Liber print as well.

[^20]:    * See the closing letter in this volume.

[^21]:    [* In 1857.]
    † If you are not acquainted with Harding's works, (an unlikely supposition, considering their popularity, ) and cannot meet with the one in question, the diagrams given here will enable you to understand all that is needful for our purposes.

[^22]:    * I draw this figure (a young shoot of oak) in outline only, it being impossible to express the refinements of shade in distant foliage in a wood-cut.

[^23]:    * On this law you do well, if you can get access to it, to look at the fourth chapter of the fourth volume of Modern Painters.

[^24]:    * See Note 3 in Appendix I.

[^25]:    * The student may hardly at first believe that the perspective of buildings is of little consequence; but he will find it so ultimately. See the remarks on this point in the Preface.

[^26]:    * Sce Note 4 in Appendix I.

[^27]:    * See Note 5 in Appendix I.
    t It is a useful piece of study to dissolve some Prussian blue in water,

[^28]:    * I give Rossetti this pre-eminence, because, though the leading PreRaphaelites have all about equal power over color in the abstract. Rossetti and IIolman Hunt are distinguished above the rest for rendering color under effects of light; and of these two, Rossetti composes with richer fancy, and with a deeper sense of beauty, Hunt's stern realism leading him continually into harshness. Rossetti's carelessness, to do him justice, is only in water-color, never in oil.

[^29]:    * All the degradation of art which was brought about, after the rise of the Dutch school, by asphaltum, yellow varnish, and brown trees would have been prevented, if only painters had been forced to work in dead color. Any color will do for some people, if it is browned and slining; but fallacy in dead color is detected on the instant. I eren believe that whenever a painter begins to wish that he could touch any portion of his work with gum, he is going wrong.

    It is necessary, however, in this matter, carefully to distinguish between translucency and luster. Translucency, though, as I have said above, a dangerous temptation, is, in its place, beantiful: but luster or shininess is always, in painting, a defect. Nay, one of my best painter-friends (the "best" being understood to attach to both divisions of that awkward compound word, ) tried the other day to persuade me that luster was an ignobleness in anything; and it was only the fear of treason to ladies' eyes, and to mountain streams, and to morning dew, which kept me from yielding the point to him. One is apt always to generalize too quickly

[^30]:    * But not shiny or greasy. Bristol board, or hot-pressed imperial, or gray paper that feels slightly adhesive to the hand, is best. Coarse, gritty, and sandy papers are fit only for blotters and blunderers; no good draughtsman would lay a line on them. Turner worked much on a thin tough paper, dead in surface; rolling up his sketches in tight bundles that would go deep into his pockets.

[^31]:    * I insist upon this unalterability of color the more because I address you as a beginner, or an amateur: a great artist can sometimes get out of a difficulty with credit, or repent without confession. Yet even Titian's alterations usually show as stains on his work.
    $\dagger$ It is, I think, a piece of affectation to try to work with few eolors: it saves time to have enough tints prepared without mixing, and you may at once allow yourself these twenty-four. If you arrange them in your color-box in the order I have set them down, you will always easily put your finger on the one you want.

    | Cobalt | Smalt | Antwerp blue | Prussian blue |
    | :--- | :--- | :--- | :--- |
    | Black | Gamboge | Emerald green | Hooker's green |
    | Lemon yellow | Cadminm yellow | Yellow ocher | Roman ocher |
    | Raw sienna | Burnt sienna | Light red | Indian red |
    | Mars orange | Extract of vermilion | Carmine | Violet carmine |
    | Brown madder | Burnt umber | Vandyke brown | Sepia |

[^32]:    * A more methodical, though under general circumstances uselessly prolix way, is to cut a square hole, some half an inch wide, in the sheet of carlboard, and a series of small circular holes in a slip of cardboard an inch wide. Pass the slip over the square opening, and match each color beside one of the circular openings. You will thus have no oceasion to wash any of the colors away. But the first rough method is generally all you want, as, after a little practice, you only need to look at the hue through the opening in order to be able to transfer it to your drawing at once.

[^33]:    * If colors were twenty times as costly as they are, we should have many more good painters. If I were Chancellor of the Exchequer I would lay a tax of twenty shillings a cake on all colors except black, Prussian blue, Vandyke brown, and Chinese white, which I would leave for students. I don't say this jestingly; I believe such a tax would do more to adrance real art than a great many schools of design.

[^34]:    * I say modern, because Titian's quiet way of blending colors, which is the perfectly right one, is not understood now by any artist. The best color we reach is got by stippling; but this is not quite right.

[^35]:    * The worst general claracter that color can possibly have is a prevalent tendency to a dirty yellowish green, like that of a decaying heap of vegetables; this color is accurately indicative of decline or paralysis in missal-painting.
    $\dagger$ That is to say, local color inhereut in the object. The gradations of color in the various shadows belonging to various lights exhibit form, and therefore no one but a colorist can ever draw forms perfectly (see Modern Painters, vol. iv. chap. iii. at the end); but all notions of explaining form by superimposed color, as in architectural moldings, are absurd. Color adorns form, but does not interpret it. An apple is prettier because it is striped, but it does not look a bit rounder; and a cheek is prettier because it is flushed, but you would see the form of the cheek bone better if it were not. Color may, indeed, detach one shape from another, as in grounding a bas-relief, but it always diminishes the appearance of projection, and whether you put bluc, purple, red, yellow, or green, for your ground, the bas-relief will be just as clearly or just as imperfectly relieved, as long as the colors are of equal depth. The bluc ground will not retire the hundredth part of au inch more than the red one.

[^36]:    * Sce, however, at the close of this letter, the notice of one more point connected with the management of color, under the head "Law of Harmony."

[^37]:    * See farther, on this subject, Modern Painters, vol. iv. chap, viii. § 6.

[^38]:    * See Note $\begin{aligned} \\ \text { in A Apendix I. }\end{aligned}$
    $\dagger$ "In general, throughout Nature, reflection and repetition are peaceful things, associated with the idea of quict succession in events; that one day should be like another day, or one history the repetition of another history, being more or less results of quietness, while dissimilarity and non-succession are results of interference and disquietude. Thus, though an echo actually increases the quantity of sound heard, its repetition of the note or syllable gives an idea of calmness attainable in no other way; lence also the feeling of calm given to a landscape by the voice of a cuckoo."

[^39]:    * The cost of art in getting a bridge level is aleays lost, for you must get up to the height of the central arch at any rate, and you only can make the whole bridge level by putting the liill farther back, and pretending to have got rid of it when you have not, but have only wasted money in building an unnecessary embankment. Of course, the bridge should not be difficultly or dangerously steep, but the necessary slope, whaterer it may be, should be in the bridge itself, as far as the bridge can take it, and not pushed aside into the approach, as in our Waterloo road; the only rational excuse for doing which is that when the slope must be long it is inconvenient to put on a drag at the top of the bridge, and that any restiveness of the horse is more dangerous on the bridge than on the embankment. To this I answer: first, it is not more dangerous in reality, though it looks so, for the bridge is always guarded by an effective parapet, but the embankment is sure to have no parapet, or only a useless rail; and secondly, that it is better to have the slope on the bridge and make the roadway wide in proportion, so as to be quite safe, because a little waste of space on the river is no loss, but your wide embankment at the side loses good ground; and so my picturesque bridges are right as well as beautiful, and I hope to see them built again some day instead of the frightful straight-backed things which we fancy are fine, and accept from the pontifical rigidities of the engineering mind.

[^40]:    * I cannot waste space here by reprinting what I have said in other books: but the reader ought, if possible, to refer to the notices of this part of our subject in Modern Painters, vol. iv. chap xvii.; and Stones of Venice, vol. iii. chap. i. §8.

[^41]:    * If you happen to be reading at this part of the book, without having gone through auy previous practice, turn back to the sketch of the ramification of stone pine, Fig. 4, p. 17, and examine the curves of its boughs one by one, trying them by the conditions here stated under the heads $\mathbf{A}$ and $B$.

[^42]:    * The reader, I hope, observes always that every line in these figures is itself one of varying curvature, and cannot be drawn by compasses.

[^43]:    * I hope the reader understands that these wood-cuts are merely facsimiles of the sketches I make at the side of my paper to illustrate my meaning as I write-often sadly scrawled if I want to get on to something else. This one is really a little too careless; but it would take more time and trouble to make a proper drawing of so odd a boat than the matter is worth. It will answer the purpose well enongla as it is.

[^44]:    * There is a very tender lesson of this kind in the shadows of leaves upon the ground; sladows which are the most likely of all to attract attention, by their pretty play and change. If you examine them, you will find that the shadows do not take the forms of the leaves, but that, through each interstice, the light falls, at a little distance, in the form of a round or oval spot; that is to say, it produces the image of the sum itself, cast either vertically or obliquely, in circle or ellipse according to the slope of the ground. Of course the sun's rays produce the same effect, when they fall through any small aperture: but the openings between leaves are the only ones likely to show it to an ordinary observer, or to attract his attention to it by its frequency, and lead him to think what this type may signify respecting the greater Sun; and how it may show us that, even when the opening through which the earth receives light is too small to let us see the Sun Himself, the ray of light that enters, if it comes straight from Him, will still bear with it His image.

[^45]:    * In the smaller figure (32), it will be seen that this interruption is caused by a cart coming down to the water's edge; and this object is serviceable as beginning another system of curves leading out of the picture on the right, but so obscurely drawn as not to be easily represented in outline. As it is unnecessary to the explanation of our point here, it has been omitted in the larger diagram, the direction of the eurve it begins being indicated by the dashes only.

[^46]:    * Both in the Sketches in Flanders and Germany.

[^47]:    * If you happen to meet with the plate of Dürer's representing a coat-of-arms with a skull in the shield, note the value given to the concave curves and sharp point of the helmet by the convex leafage carried round it in front; and the use of the blauk white part of the shield in opposing the rich folds of the dress.
    $\dagger$ Turner hardly ever, as far as I remember, allows a strong light to oppose a full dark, without some intervening tint. His suns never set behind dark mountains without a film of cloud above the mountain's edge.

[^48]:    * " A prudent chief not always must display His powers in equal ranks and fair array, But with the occasion and the place comply, Conceal his force; nay, seem sometimes to fly. Those oft are stratagems which errors scem, Nor is it Homer nods, but we that dream."

[^49]:    * I am describing from an MS., circa 1300, of Gregory's Decretalia, in my own possession.

[^50]:    * Oise of the most wonderful compositions of Tintoret in Venice, is little more than a field of subdued crimson, spotted with flakes of scattered gold. The upper clouds in the most beantiful skies owe great part of their power to infinitude of divisions; order being marked through this division.

[^51]:    * I fully beliere that the strange gray gloom, accompanied by considerable power of effect, which prevails in moderu French art, must be owing to the use of this mischievous instrument; the French landscape always gives me the idea of Nature seen carelessly in the dark mirror, and painted coarsely, but scientifically, throngh the veil of its perversion.
    $\dagger$ Various other parts of this subject are entered into, especially in their bearing on the ideal of painting, in Modern Painters, vol. iv. chap. iii.

[^52]:    * In all the best arrangements of color, the delight occasioned by their mode of succession is entirely inexplicable, nor can it be reasoned about; we like it just as we like an air in music, but cannot reason any refractory person into liking it, if they do not: and yet there is distinctly a right and a wrong in it, and a sood taste and bad tastẹ respecting it, as also in music.

[^53]:    * "Puseyism" was unknown in the days when this drawing was made; but the kindly and helpful influences of what may be called ecelesiastical sentiment, which, in a morbidly exaggerated condition, forms one of the principal elements of "Puseyism,"-I use this word regretfully, no other existing which will serve for it, -had been known and felt in our wild northern districts long before.

[^54]:    * I do not mean necessarily to imply inferiority of rank in saying that this second class of painters have questionable qualities. The greatest men hare often many faults, and sometimes their faults are a part of their greatuess; but such men are not, of course, to be looked upon by the student with absolute implicitness of faith.
    $\dagger$ Including, under this term, John Lewis, and William Hunt of the Old Water-color, who, take him all in all, is the best painter of still life, I believe, that ever existed.

[^55]:    * This is especially the case in the St. Cecily, Rossetti's first illustration to the "Palace of Art," which would have been the best in the book had it been well engraved. The whole work should be taken up again, and done by line eugraving, perfectly; and wholly from Pre-Raphaelite designs, with which no other modern work can bear the least comparison.

[^56]:    * The praise I have given incidentally to Flaxman's sculpture in the "Seven Lamps," aṇd elsewhere, refers wholly to his studies from Nature, and simple groups in marble, which were always good and interesting. Still, I have overrated him, even in this respect; and it is generally to be remembered that, in speaking of artists whose works I cannot be supposed to have specially studied, the errors I fall into will always be on the side of praise. For, of course, praise is most likely to be given when the thing praised is above one's knowledge; and, therefore, as our knowldedge increases, such things may be found less praiseworthy than we thought. But blame can only be justly given when the thing blamed is below one's level of sight; and, practically, I never do blame anything until I have got well past it, and am certain that there is demonstrable falsehood in it. I believe, therefore, all my blame to be wholly trustworthy, haring never yet had occasion to repent of one depreciatory word that I have ever written, while I have often found that, with respect to things I had not time to study closely, I was led too far by sudden admiration, helped, perbaps, by peculiar associations, or other deceptive accidents; and this the more, because I never care to check an expression of celight, thinking the chances are, that, even if mistaken, it will do

[^57]:    more good than harm; but I weigh every word of blame with scrupulous caution. I have sometimes erased a strong passage of blame from second editions of my books; but this was only when I found it offended the reader without convincing him, never because I repented of it myself.

    * Large line engravings, I mean, in which the lines, as such, are conspicuous. Small vignettes in line are often beautiful in figures no less than landseape; as, for iustance, those from Stothard's drawings in Rogers's Italy; and, therefore, I have just recommended the vignettes to Tennyson to be doue by line engraving.

[^58]:    * Chapman's, if not the original.
    $\dagger$ Cary's or Cayley's, if not the original. I do not know which are the best translations of Plato. Herodotus and Asehylus can only be read in the original. It may seem strange that I name books like these for " beginners:" but all the greatest books contain food for all ages; and an intelligent and rightly bred youth or girl ought to enjoy much, even in Plato, by the time they are fifteen or sixteen.

[^59]:    * Some irregularities of arrangement have been admitted merely for the sake of conrenient reference; the eighth problem, for instance, ought to have been given as a case of the seventh, but is separately enunciated on account of its importance.
    Several constructions, which ought to have been given as problems, are on the contrary given as corollaries, in order to keep the more directly connected problems in closer sequence; thus the construction of rectangles and polygons in vertical planes would appear by the Table of Contents to have been omitted, being given in the corollary to Problem IX.

[^60]:    * I say "height" instead of "magnitude," for a reason stated in Appendix I., to which you will soon be referred. Read on here at present.

[^61]:    * $P$ and $Q$ being points indicative of the place of the tower's base and top. In this figure both are above the sight-line; if the tower were below the spectator both would be below it, and therefore measured below D.

[^62]:    * More accurately, " the three distances of any point, either in the object itself, or indicative of its distance."

[^63]:    * More accurately, "To fix on the plane of the picture the apparent position of a point given in actual position." In the headings of all the following problems the words "on the plane of the picture" are to be understood after the words "to draw." The plane of the picture means a surface extended indefinitely in the direction of the picture.
    $\dagger$ The sentence within brackets will not be repeated in succeeding statements of problems. It is always to be understood.

[^64]:    * The reflection in water of any luminous point or isolated object (such as the sun or moon) is therefore, in perspective, a vertical line; since such reflection, if produced, would pass under the feet of the spectator. Many artists (Claude among the rest) knowing something of optics, but nothing of perspective, have been led occasionally to draw such reflections towards a point at the center of the base of the picture.

[^65]:    * I spare the student the formality of the reductio ad absurdum, which would be necessary to prove this.

[^66]:    * See page 96 (note), after you have read Problem XVI.

[^67]:    * The demonstration is in Appendix II., p. 104.

[^68]:    * As in algebraic science, much depends, in complicated perspective, on the student's ready invention of expedients, and on his quick sight of the shortest way in which the solution may be accomplished, when there are several ways.

[^69]:    * The greatest masters are also fond of parallel perspective, that is to say, of having one side of their buildings fronting them full, and therefore parallel to the picture plane, while the other side ranishes to the sight-point. This is almost always done in figure backgrounds, securing simple and balanced lines.

[^70]:    * This point coincides in the figure with the extremity of the horizontal diameter, but only accidentally.

[^71]:    * The student may perhaps understand this construction batter by completing the rectangle ADFE, drawing DF to the ranishing-point of $A E$, and EF to $V$. The whole figure, bF, may then be conceived as representing half the gable roof of a house, A F the rectangle of its base, and A C the rectangle of its sloping side.
    In nearly all picturesque buildings, especially on the Continent, the slopes of gables are much varied (frequently unequal on the two sides), and the vanishing-points of their inclined lines become very important, if accuracy is required in the intersections of tiling, sides of dormer windows, etc.

    Obviously, also, irregular triangles and polygons in vertical planes may be more easily constructed by finding the vanishing-points of their sides, than by the construction given in the corollary to Problem IX. ; and if such triangles or polygons have others concentrically inscribed within them, as often in Byzantine mosaics, etc., the use of the vanishing-points will become essential.

[^72]:    * A few introductory words, in which. at the opening of this lecture, I thanked the Chairman (Mr. Cockerell), for his support on the occasion, and asked his pardon for any hasty expressions in my writings, which might have seemed discourteous towards him, or other architects whose general opinions were opposed to mine, may be found by those who care for preambles, not much misreported, in the Building Chronicle; with such comments as the genius of that journal was likely to suggest to it.

[^73]:    * The great poets of Scotland, like the great poets of all other countries, never write dissolutely, either in matter or method; but with stern and measured meaning in every syllable. Heres a bit of firstrate work for example :-
    "Tweed said to Till,
    'What gars ye rin sae still ?'
    Till said to Tweed,
    'Though ye rin wi' speed,
    And I rin slaw,
    Whar ye droon ae man, I droon twa.'"

[^74]:    * See below, the farther notice of the real spirit of Greek work, in the address at Bradford,

[^75]:    *I copy this woodcut from Westwood's "Palæographia Sacra."

[^76]:    *I have said elsewhere, "The root of all art is struck in the thirteenth century." This is quite true : but of course some of the smallest fibers run lower, as in this instance.
    $\dagger$ This cut is ruder than it should be; the incisions in the marble have a lighter effect than these rough black lines; but it is not worth while to do it better.

[^77]:    * This part of the lecture was illustrated by two drawings, made admirably by Mr. J. T. Laing, with the help of photographs, from

[^78]:    * There are many photographs of this door and of its central statue. Its seulpture in the tympanum is farther described in the Fourth Lecture.

[^79]:    * The two transopts of Romen Cathedral illustrate this style. There are plenty of photographs of them. I take this opportunity of repeating what I have several times before stated, for the sake of travelers. that St. Onen, impressive as it is, is entirely inferior to the transepts of Rouen Catherlral,

[^80]:    * Literally. I know how exaggerated this statement sounds ; but I mean it,-every syllable of it. See Appendix IV.

[^81]:    * This principle, here cursorily stated, is one of the chief subjects of inquiry in the following Lectures.

[^82]:    * I was prevented, by press of other engagements, from preparing this address with the care I wished; and forced to trust to such expression as I could give at the moment to the points of principal importance : reading, however, the close of the preceding lectme, which I thought contained some truths that would bear repetition. The whole was reported, better than it deserved, by Mr. Pitman of the Manchester Courier, and published nearly verbatim. I have here extracted, from the published report, the facts which I wish especially to enforce; and have a little cleared their expression ; its loose and colloquial character I cannot now help, unless by re-writing the whole, which it seems not worth while to do.

[^83]:    * And Murillo, of all true painters the narrowest, feeblest, and most superficial, for those reasons the most popular.

[^84]:    " The master" [Velasquez] "stiffy bowed his figure tall
    And said, • For Rafael, to speak the truth-
    I always was plain-spoken from my youth-
    I cannot say I like his works at all.'
    "' Well,' said the other" [Salrator], " 'if you can run down So great a man, I really cannot see
    What you can find to like in Italy ;
    To him we all agree to give the crown.'

[^85]:    * See Appendix I. : "Right and Wrong."

[^86]:    * See Appendix II., Sir Joshua Reynolds' disappointment.

[^87]:    * Plate 75 in Vol. V. of Wilkinson's " Ancient Egypt "will give the student an idea of how to set to work.

[^88]:    * I shall endearor for the future to putmy self-contradictions in short sentences and direct terms, in order to save sagacious persons the trouble of looking for them.

[^89]:    * If their superiors would give them simplicity and economy to imitate, it would, in the issue, be well for themselves, as well as for those whom they guide. The typhoid ferer of passion for dress, and all other display. which has struck the upper classes of Europe at this time, is one of the most dangerous political elements we have to deal with. Its wickedness I have shown elsewhere (Polit. Economy of Art,

[^90]:    * The tympanum of the south transept door; it is to be found generally among all collections of architectural photographs.

[^91]:    * See Appendix III. ; " Classical Architecture."

[^92]:    * No fine art, that is. See the previous definition of fine art at § 54.
    † See Appendix IV.; "Subtlety of Hand."

[^93]:    * I do not mean to attach any degree of blame to the effort to represent leafage in marble for certain expressive purposes. The later works of $\mathbf{M r}$. Munro have depended for some of their most tender thonghts on a delicate and skilful use of such accessories. And in general, leaf sculpture is good and admirable, if it renders, as in Gothic work, the grace and lightness of the leaf by the arrangement of light and shadow -supporting the masses well by strength of stone below; but all carring is base which proposes to itself slightness as an aim, and tries to imitate the absolute thinness of thin or slight things, as much modern wood-carving does. I saw in Italy, a year or two ago, a marble sculpture of birds' nests.

[^94]:    * The analysis of this error will be found completely carried out in my lectures on the political economy of art. And it is an error worth analyzing; for until it is fimally trodden under foot, no healthy political, economical, or moral action is possible in any state. I do not soy this impetmonsly or suldenly, for I have inrestigated this subject as loeply, and as long, as my orn special suloject of art; and the pinciples of politiont economy which I have stated in those lectures are as sure as the principles of Euclid. Foolish readers donbted their certainty b canse I toll them I had "never read any books on Political Ecomome." Dil they suppose I had got my knowledge of art by reading books?

[^95]:    * At least after his style was formed ; early pictures, like the Adoration of the Magi in our Gallery, are of little value.

[^96]:    * He must, however, be careful to distinguish blame-however strongly expressed. of some especial fault or error in a true painter,from these general statements of inferiority or worthlessness. Thus he will find me contimully laughing at Wikon's trec-painting ; not because Wilson could not paint, but because he had never looked at a tree.

[^97]:    * The subtle proportions of the Byantine Palaces, given in precise measurements in the second rolume of 'The Stones of Venice, were alleged by architects to be accidental irregularities. They will he found. by erery one who will take the pains to examine them, most assuredly and indisputable intentional, -and not only so, but one of the principal subjects of the designer's care.
    $\dagger$ Smith, Soho Square, 1859.

[^98]:    *A sketch, observe,-nota finished drawing. Sketches are only proper subjects of comparison with each other when they contain about the same quantity of work : the test of their merit is the quantity of truth told with a given number of touches. The assertion in the Catalogue which this letter was written to defend, was made respecting the sketch of Rome, No. 101.

[^99]:    * Note to Second Edition.-An addition is made to the note in the Serenth page of the preface of this book; which, being the most precious, in its essential contents, of all that I have ever written, I reprint word for word and page for page, after that addition, and make as accessible as I can, to all.

[^100]:    * It will probably be inquired by near-sighted persons, out of what funds such schools could be supported. The expedient modes of direct provision for them I will examine hereafter; indirectly, they would be far more than self-supporting. The economy in crime alone, (quite one of the most costly articles of luxury in the modern European market,) which such schools would induce, would suffice to support them ten times over. Their economy of labor would be pure gain, and that too large to be presently calculable.

[^101]:    * Now ' A Joy for Ever' Addenda.
    $\dagger$ " P. Valerius, omnium consensu princeps belli pacisque artibus, anno post moritur ; gloriâ ingenti, copiis familiaribus adeo exiguis, ut funeri sumtus deesset : de publico est elatus. Luxêre matronæ ut Brutum."Lib, ii. c. xri.

[^102]:    * The difference between the two modes of treatment, and between

[^103]:    * I have been naturally asked several times with respect to the sentence in the first of these papers, "the bad workmen unemployed," "But what are you to do with your bad unemployed workmen?" Well, it seems to me the question might have occurred to you before. Your housemaid's place is racant-you give twenty pounds a yeartwo girls come for it, one neatly dressed, the other dirtily ; one with good recommendations, the other with none. You do not, under these circumstances, usually ask the dirty one if she will come for fifteen pounds, or twelve; and, on her consenting, take her instead of the well-recommended one. Still less do you try to beat both down by making them bid against each other, till you can hire both, one at twelve pounds a year, and the other at eight. You simply take the one fittest for the place, and send away the other, not perhaps concerning yourself quite as much as you should with the question which you now impatiently put to me, "What is to become of her?" For, all that I advise you to do, is to deal with workmen as with servants; and verily the question is of weight: "Your bad workman, idler, and roguewhat are you to do with him?"
    We will consider of this presently : remember that the administration of a complete system of national commerce and industry cannot be explained in full detail within the space of twelve pages. Meantime, consider whether, there being confessedly some difficulty in dealing with rogues and idlers, it may not be advisable to produce as few of them as possible. If you examine into the history of rogues, you will find they are as truly manufactured articles as anything else, and it is just because our present system of political economy gives so large a stimulus to that manufacture that you may know it to be a false one. We had better seek for a system which will develop honest men, than for one which will deal cunningly with ragabonds. Let us reform our schools, and we shall find little reform needed in our prisons.

[^104]:    * The disputes which exist respecting the real nature of money arise

[^105]:    "These are my Jewels."

[^106]:    * More accurately, Sun of Justness ; but, instead of the harsh word "Justness," the old English "Righteousness" being commonly em-ployed,-has, by getting confused with " godliness," or attracting about it various vague and broken meanings, prevented most persons from receiving the force of the passage in which it occurs. The word "righteousness " properly refers to the justice of rule, or right, as distinguished from "equity," which refers to the justice of balance. More broadly, Righteousness is King's justice ; and Equity Judge's justice ; the King guiding or ruling all, the Judge dividing or discerning between opposites (therefore, the double question, "Man, who made me a ruler- $\delta \iota \kappa a \sigma t \geqslant \eta_{s}-$ or a divider- $\left.\mu \varepsilon \rho \epsilon \sigma \bar{\eta} s-o v e r ~ y o u ? "\right) ~ T h u s, ~$ with respect to the Justice of Choice (selection, the feebler and passive justice), we have from lego,-lex, legal, loi, and loyal; and with respect to the Justice of Rule (direction, the stronger and active justice), we have from rego,-rex, regal, roi, and royal.

[^107]:    * In another place written with the same meaning, " Just, and having salration."
    $\dagger$ "Length of days in her right hand; in her left, riches and honor."

[^108]:    * I hear that several of our lawyers have been greatly amused by the statement in the first of these papers that a lawyer's function was to do justice. I did not intend it for a jest; nevertheless it will be seen that in the above passage neither the determination nor doing of justice are contemplated as functions wholly peculiar to the lawyer. Possibly, the more our standing armies, whether of soldiers, pastors, or legislators (the generic term "pastor" including all teachers, and the generic term "lawyer" including makers as well as interpreters of law), can be superseded by the force of national heroism, wisdom, and honesty, the better it may be for the nation.
    $\dagger$ It being the privilege of the fishes, as it is of rats and wolves, to live by the laws of demand and supply ; but the distinction of limanity, to live by those of right.

[^109]:    * It might appear at first that the market price of labor expressed such an exchange : but this is a fallacy, for the market price is the momentary price of the kind of labor required, but the just price is its equivalent of the productive labor of mankind. This difference will be analyzed in its place. It must be noted also that I speak here only of the excliangeable value of labor, not of that of commodities. The exchangeable value of a commodity is that of the labor required to produce it, multiplied into the force of the demand for it. If the value of the labor $=x$ and the force of demand $=y$, the exchangeable value of the commodity is $x y$, in which if either $x=0$, or $y=0, x y=0$.

[^110]:    * I am sorry to lose time by answering, however curtly, the equivocations of the writers who sought to obscure the instances given of regulated labor in the first of these papers, by confusing kinds, ranks, and quantities of labor with its qualities. I nerer said that a colonel should have the same pay as a private, nor a bishop the same pay as a curate. Neither did I say that more work ought to be paid as less work (so that the curate of a parish of two thousand souls should have no more than the curate of a parish of five hundred). But I said that, so far as you employ it at all, bad work should be paid no less than good work; as a bad clergyman yet takes his tithes, a bad physician takes his fee, and a bad lawyer his costs. And this, as will be farther shown in the conclusion, I said, and say, partly because the best work

[^111]:    * I should be glad if the reader wrould first clear the ground for himself so far as to determine whether the difficulty lies in getting the work or getting the pay for it. Does he consider occupation itself to be an expensive luxury, difficult of attainment, of which too little is to be found in the world? or is it rather that, while in the enjoyment even of the most athletic delight, men must nevertheless be maintained, and this maintenance is not always forthoming? We must be clear on this head before going farther, as most people are loosely in the habit of talking of the difficulty of "finding employment." Is it employment that we want to find, or support during employment? Is it idleness we wish to put an end to, or lhunger? We have to take up both questions in succession, only not both at the same time. No doubt that work is a luxury, and a very great one. It is, indeed, at once a luxury and a necessity; no man can retain either health of mind or body without it. So profoundly do I feel this, that, as will be seen in the sequel, one of the principal objects I would recommend to benevolent and practical persons, is to induce rich people to seek for a larger quantity of this luxury than they at present possess. Nevertheless, it appears by experience that even this healthiest of pleasures may be indulged in to excess, and that human beings are just as liable to surfeit of labor as to surfeit of meat; so that, as on the one hand, it may be charitable to provide, for some people, lighter dinner, and more work,-for others, it may be equally expedient to provide lighter work, and more dinner.

[^112]:    * Book I. chap. iv. s. 1. To sare space, my future references to Mr. Mill's work will be by numerals only, as in this instance, I. iv. 1. Ed. in 2 vols. 8vo, Parker, 1848.

[^113]:    * I take Mr. Helps' estimate in his essay on War.
    $\dagger$ Also, when the wrought silver vases of Spain were dashed to fragments by our custom-house officers because bullion might be imported free of duty, but not brains, was the ax that broke them produc-tive?-the artist who wrought them unproductive? Or again. If the woodman's ax is productive, is the executioner's? as also, if the hemp of a cable be productive, does not the productiveness of hemp in a halter depend on its moral more than on its material application?
    $\ddagger$ Filigree; that is to say, generally, ornament dependent on complexity, not on art.

[^114]:    * These statements sound crude in their brevity ; but will be found of the utmost importance when they are dereloped. Thus, in the abore instance, economists have never perceived that disposition to buy is a wholly moral element in demand: that is to say, when you gire a man half a crown, it depends on his disposition whether he is rich or poor with it-whether he will buy disease, ruin, and hatred, or buy health,

[^115]:    * Compare George Herbert, 'The Church Porch,' Stanza 28.

[^116]:    
    
    

[^117]:    * Zech. v. 11. See note on the passage, at p. 69.

[^118]:    * Labor which is entirely good of its kind, that is to say, effective, or efficient, the Greeks called "weighable," or $\dot{a} \xi \omega \rho$, translated usually " worthy," and because thus substantial and true, they called its price $\tau \iota \mu$, the "honorable estimate" of it (honorarium): this word being founded on their conception of true labor as a divine thing, to be honored with the kind of honor given to the gods; whereas the price of false labor, or of that which led away from life, was to be, not honor, but rengeance; for which they reserved another word, attributing the exaction of such price to a peculiar goddess, called Tisiphone, the "requiter (or quittance-taker) of death"; a person versed in the lighest branches of arithmetic, and punctual in her habits; with whom accounts current have been opened also in modern days.

[^119]:    * The most accurately nugatory labor is, perhaps, that of which not enough is given to answer a purpose effectually, and which, therefore, has all to be done orer again. Also, labor which fails of effect through non-co-operation. The cure of a little village near Bellinzona, to whom I had expressed wonder that the peasants allowed the Ticino to flood their fields, told me that they would not join to build an effectual embankment high up the valley, because everybody said "that would help his neighbors as much as himself." So every proprietor built a bit of low embankment about his own field; and the Ticino, as soon as it had a mind, swept away and swallowed all up together.
    + Observe, I say, "rearing," not "begetting." The praise is in the serenth season not in $\sigma \pi o p n \tau o ́ s$, nor in $\dot{\varphi} \tau a \eta i a$, but in $\dot{o} \pi \dot{\omega} \rho a$. It is strange that men always praise enthusiastically any person who, by a momentary exertion, saves a life; but praise very hesitatingly a person who, by exertion and self-denial prolonged throngh years, creates one. We give the crown "ob civem servatum";-why not "ob cirem natum"? Born, I mean, to the full, in soul as well as body. England has oak enough, I think, for both chaplets.

[^120]:    * When Mr. Mill speaks of productive consumption, he only means consumption which results in increase of capital or material wealth. See I. iii. 4, and I. iii. 5.

[^121]:    * So also in the vision of the women bearing the ephah, before quoted, "the wind was in their wings," not wings " of a stork," as in our rersion ; but " milvi," of a kite, in the Vulgate, or perhaps more accurately" still in the Septuagint, "hoopoe," a bird connected typically with the power of riches by many traditions, of which that of its petition for a crest of gold is perhaps the most interesting. The "Birds " of Aristophanes, in which its part is principal, are full of them ; note especially the "fortification of the air with baked bricks, like Babylon," 1. 550 ; and, again, compare the Plutus of Dante, who (to show the influence of riches in destroying the reason) is the only one of the powers of the Inferno who cannot speak intelligibly ; and also the cowardliest; he is not merely quelled or restrained, but literally "collapses "at a word ; the sudden and helpless operation of mercantile panic being all told in the brief metaphor, " as the sails, swollen with the wind, fall, when the mast breaks,"

[^122]:    * The value of raw material, which has, indeed, to be deducted from the price of the labor, is not contemplated in the passages referred to, Mr. Mill having fallen into the mistake solely by pursuing the collateral results of the payment of wages to middlemen. He says-"The consumer does not, with his own funds, pay the weaver for his day's work." Pardon me: the consumer of the velvet pays the weaver with his own funds as much as he pays the gardener. He pays, probably, an intermediate ship-owner, velvet merchant, and shopman; pays carriage money, shop rent, damage money, time moner, and care money; all these are above and beside the velvet price, (just as the wages of a head gardener would be above the grass price); but the velvet is as much produced by the consumer's capital, thongh he does not pay for it till six months after production, as the grass is produced

[^123]:    * "In all reasoning about prices, the proviso must be understood, 'supposing all parties to take care of their own interest.' "-Mill, III. i. 5.

[^124]:    * James r. 4. Observe, in these statements I am not taking up, nor countenancing one whit, the common socialist idea of division of property: division of property is its destruction ; and with it the destruction of all hope, all industry, and all justice : it is simply chaosa chaos towards which the believers in modern political economy are fast tending, and from which I am striving to save them. The rich man does not keep back meat from the poor by retaining his riches; but by basely using them. Riches are a form of strength; and a strong man does not injure others by keeping his strength, but by using it injuriously. The socialist, seeing a strong man oppress a weak one, cries out-" Break the strong man's arms; " but I say, "Teach him to use them to better purpose." The fortitude and intelligence which acquire riches are intended, by the Girer of both, not to scatter, nor to give away, but to employ those riches in the service of mankiud; in other words, in the redemption of the erring and aid of the weakthat is to say, there is first to be the work to gain money; then the Sabbath of use for it-the Sabbath, whose law is, not to lose life, but to sare. It is continually the fault or the folly of the poor that they are poor, as it is usually a child's fault if it falls into a pond, and a cripple's weakness that slips at a crossing; nevertheless, most passersby would pull the child out, or help up the cripple. Put it at the worst,

[^125]:    * The quantity of life is the same in both cases; but it is differently allotted.

[^126]:    * The proper offices of middlemen, namely, overseers (or authoritative workmen), conveyancers (merchants, sailors, retail dealers, etc.), and order-takers (persons employed to receive directions from the consumer), must, of course, be examined before I can enter farther into the question of just payment of the first producer. But I have not spoken of them in these introductory papers, because the evils attendant on the abuse of such intermediate functions result not from any alleged principle of modern political economy, but from private carelessness or iniquity.

[^127]:    "In our own country, this certainty against risk of loss is provided by the public funds;"
    and again, as on the question of rent, the Professor proceeds,

    * The onitted sentences merely amplify the statement; they in no wise modify it.

[^128]:    [* The Wanderings, observe, not the Right goings, of Imagination. She is very far from despising these.]

[^129]:    * See Appendix III.

[^130]:    * See Appendix IV.

[^131]:    [* I little thought, what Trionfo della Morte would be, for this very cause, and in literal fulfilment of the closing words of the 47 th paragraph, over the fields and houses of Europe, and over its fairest citywithin seven years from the day I wrote it.]

[^132]:    * This "greater ease "ought to be allowed for by a diminution in the times of the divided work; but as the proportion of times would remain the same, I do not introduce this unnecessary complexity into the calculation.

[^133]:    * Compare Unto this Last, p. 115, et seq.

[^134]:    [* That is to say, the lore of money is founded first on the intenseness of desire for given things; a youth will rob the till, now-a-days, for pantomime tickets and cigars; the "strength" of the currency being irresistible to him, in consequence of his desire for those luxuries.]

[^135]:    * It is difficult to estimate the curions futility of discussions such as that which lately occupied a section of the British Association, on the absorption of goll, while no one can produce even the simplest of the data necessary for the inquiry. To take the first occurring one.What means have we of ascertaining the weight of gold employed this year in the toilettes of the women of Europe (not to speak of Asia); and, supposing it known, what means of conjecturing the weight by which, next year, their fancies, and the changes of style among their jewelers, will diminish or increase it?
    + See, in Pope's epistle to Lord Bathurst, his sketch of the difficulties and uses of a currency literally "pecuniary"-(consisting of lierds of cattle).
    " His Grace will game-to White's a bull be led," etc.
    $\ddagger$ Perhaps both; perhaps silver only. It may be found expedient ultimately to leave gold free for use in the arts. As a means of reckoning, the standard might be and in some cases has already been, entirely idceal.-See Nill's Political Economy, book iii. chap. vir. at beginning.

[^136]:    * The purity of the drachma and zecchin were not without significance of the state of intellect, art, and policy, both in Athens and Venice ;-a fact first impressed upon me ten years ago, when, in taking daguerreotypes at Venice, I found no purchasable gold pure enough to gild them with, except that of the old Venetian zecchin.

[^137]:    * Under which term, observe, we include all documents of debt which, being honest, might be transferable, though they practically are not transferred; while we exclude all documents which are in reality worthless, though in fact transferred temporarily as bad money is. The document of honest deht, not transferred, is merely to paper currency as gold withdrawn from circulation is to that of bullion. Much confusion has crept into the reasoning on this subject from the idea that the withdrawal from circulation is a definable state, whereas it is a graduated state. and indefinable. The sovereign in my pocket is withdrawn from circulation as long as I choose to keep it there. It is no otherwise withdrawn if I bury it, nor even if I choose to make it, and others. into a golden cup, and drink out of them; since a rise in the price of the wine, or of other things, may at any time cause me to

[^138]:    * For example, suppose an active peasant, haring got his ground into good orler and built himself a comfortable house, finding time still on his hands, sees one of his neighbors little able to work, and ill-lodged, aud offers to build him also a honse, and to put his land in order, on combition of receiving for a given period rent for the building and tithe of the fruits. The offer is accepted, and a document given promissory of rent and tithe. This note is money. It can only be good money if the man who has incurred the debt so far recovers his strength as to be able to take advantage of the help he has received, and meet the demand of the note ; if he lets his house fall to ruin, and his field to waste, his promissory note will soon be valueless : but the existence of the note at all is a consequence of his not having worked so stoutly as the other. Let him gain as much as to be able to pay back the entire debt; the note is canceled, and we have two rich store-holders and no currency.
    [ $\dagger$ You need not trouble yourself to make out the sentence in paren-

[^139]:    [* What follows, to the end of the chapter, was a note only, in the first printing; but for after service, it is of more value than any other part of the book, so I have put it into the main text.]

[^140]:    * Hence Dante's companionship of Cahors, Inf., canto xi., supported by the view taken of the matter throughout the Middle Ages, in common with the Greeks.

[^141]:    [* I do not wonder when I re-read this, that people talk alont my "sentiment." But there is no sentiment whatever in the matter. It is a hard and bare commercial fact, that if two people deal together who don't try to cheat each other, they will, in a given time, make more money out of each other than if they do. See § 104.]

[^142]:    * As Charis becomes Charitas, the word "Cher," or " Dear," passes from Shylock's sense of it (to buy cheap and sell dear) into Antonio's sense of it : emphasized with the final $i$ in tender "Cheri," and hushed to English calmmess in our noble "Cherish." The reader must not think that any care can be misspent in tracing the connection and power of the words which we have to use in the sequel. (See Appendix VI.) Much education sums itself in making men economize their worls, and understand them. Nor is it possible to estimate the harm which has been done, in matters of higher speculation and conduct, by loose verbiage, though we may gness at it by observing the dislike which people show to having anything about their religion said to them in simple words, because then they understand it. Thus congregations meet weekly to invoke the influence of a Spirit of Life and Truth ; yet if any part of that character were intelligibly expressed to them by the formulas of the service, they wonld be offended. Suppose, for instance, in the closing benediction, the clergyman were to give vital significance to the rague word "Holy," and were to say, "the fellowship of the Helpful and Honest Ghost be with you, and remain with you always," what would be the horror of many, first at the irreverence of so intelligible an expression ; and secondly, at the discomfortable occurrence of the suspicion that while throughout the commercial dealings of the week they had denied the propriety of Help, and possibility of Honesty, the Person whose company they had been now asking to be blessed with could have no fellowship with cruel people or knaves.

[^143]:    [* My way now, is to say things plainly, if I can, whether they sound harsh or not;-this is the translation-"Is it possible, then, that as a horse is only a mischief to any one who attempts to use him without knowing how, so also our brother, if we attempt to use him without knowing how, may be a mischief to us?"]

[^144]:    [* Read this and the next paragraph with attention; they contain c.ear statements, which I cannot mend, of things most necessary.]

[^145]:    * Compare Chaucer's " villany" (clownishness).

    Full foul and chorlishe seemed she,
    And eke rillanous for to be,
    And little coulde of norture
    To worship any creature.

[^146]:    [* I leave this paragraph, in every syllable, as it was written, during the rage of the American war; it was meant to refer, however, chiefly to the Northerns : what modification its hot and partial terms require I will give in another place: let it stand hore as it stood.]

[^147]:    * Supply and demand! Alas! for what noble work was there erer any amlible "demand" in that poor sense (Past aud Present)? Nay, the demand is not loud, eren for ignoble work. See "Average Earnings of Betty Tarlor," in Times of 4th February of this year [1803]: ". Worked from Monday moming at 8 A . m. to Friday night at 5.30 P . M. $\mathrm{f}(1)^{1 s} 5 \frac{1}{2} d$."-Laissez faire. [This kind of slavery finds no Abolitionists that I hear of.]
    
    $\ddagger$ Ames, by report of Waldo Emerson, says "that a monarchy is a merchantman, which sails well, but will sometimes strike on a rock, and (g) to the bottom; whilst a republic is a raft, which would never sink, but then your feet are always in the water." Yes, that is comfortable; and though your raft cannot sink (heing too worthless for that). it may go to pieces, I suppose, when the four winds (yom only pilots) steer computitively from its four corners, and carry it, ís öñopròs Bopéns фopénorv áár $\theta a s$, and then more than your feet will be in the water.
    [ "Not with water, but with ruin." The worst ruin being that which the Americans chiefly boast of. They sent all their best and honestest youths, Harvard Uni versity menand the like, to that accursed war: got them nearly all shot; wrote pretty biographies (to the ages of $17,18,19$ ) and epitaphis for them ; and so, having washed all the salt out of the nation in blood, left themselves to putrefaction, and the morality of New York.]

[^148]:    [* Permit me to enforce and reinforce this statement, with all earnestness. It is the sum of what needs most to be understood, in the matter of education.]

[^149]:    * In the present general examination I concede so much to ordinary economists as to ignore all innocent poverty. I adapt my reasoning, for once, to the modern English practical mind, by assuming porerty to be always criminal ; the conceivable exceptions we will examine afterirards.

    It I have no terms of English, and can find none in Greek nor Latin, nor in any other strong language known to me, contemptuous enough to attack the bestial idiotism of the modern theory that wages are to be measured by competition.]

[^150]:    * I say nothing yet of the quality of the servants, which, nevertheless, is the gist of the business. Will you have Paul Veronese to paint your ceiling, or the plumber from over the way? Both will work for the same money : Paul, if anything, a little the cheaper of the two. if you keep him in good humor ; only you have to discern him first, which will need eyes.

[^151]:    [* Observe this ; the legal right to keep what you have worked for, and use it as you please, is the corner-stone of all economy : compare the end of Chap. II.]

[^152]:    [* I should now put the time of necessary labor rather under than over the third of the day.]

[^153]:    * I have not hitherto touched on the subject of interest of money ; it is too complex, and must be reserved for its proper place in the body of the work. The definition of interest (apart from compensation for risk) is, "the exponent of the comfort of accomplished labor. separated from its power ; " the power being what is lent : and the French economists who have maintained the entire illegality of interest are wrong : yet by no means so curiously or wildly wrong as the English and French ones opposed to them, whose opinions have been collected by Dr. Whewell at page 41 of his Lectures; it never seeming to occur to the mind of the compiler, any more than to the writers whom he quotes, that it is quite possible, and even (according to Jewish proverb) prudent, for men to hoard as ants and mice do, for use, not usury ; and lay by something for winter nights, in the expectation of rather sharing than lending the scrapings. My Saroyard squirrels would pass a pleasant time of it under the snow-laden pine-branches, if they always declined to economize because no one would pay them interest on nuts.
    [I leave this note as it stood: but, as I have above stated, should now side wholly with the French economists spoken of, in asserting the absolute illegality of interest.]

[^154]:    * Compare Chaucer's feeling respecting birds (from Canace's falcon, to the nightingale, singing, "Domine, labia-" to the Lord of Love) with the usual modern British sentiments on this subject. Or even Cowley's:-
    " What prince's choir of music can excel
    That which within this shade does dwell,
    To which we nothing pay, or give,
    They, like all other poets, live
    Without reward, or thanks for their obliging pains !
    'Tis well if they become not prey."

[^155]:    * The fury of modern trade arises chiefly out of the possibility of making sulden fortunes by largeness of transaction, and accident of discovery or contrivance. I have no doubt that the final interest of every nation is to check the action of these commercial lotteries; and that all great accidental gains or losses should be national,-not individual. But speculation absolute, uncounected with commercial effort, is an unmitigated evil in a state, and the root of countless evils beside.
    [ + I desire in the strongest terms to reinforce all that is contained in this paragraph.]

[^156]:    * It is especially necessary that the reader should keep his mind fixed on the methods of consumption and destruction, as the true sources of national porerty. Men are apt to call every exchange "expenditure," but it is only consumption which is expenditure. A large number of the purchases made by the richer classes are mere forms of interchange of unused property, wholly without effect on national prosperity. It, matters nothing to the state whether, if a china pipkin be rated as worth a hundred pounds, A has the pipkin and B the pounds, or A the prouds and B the pipkin. But if the pipkin is pretty, and A or B breaks it, there is national loss, not otherwise. So again, when the loss has really taken place, no shifting of the shoulders that bear it will do away with the reality of it. There is an intensely ludicrous notion in the public mind respecting the abolishment of debt by densing it. When a debt is denied, thie lender loses instead of the borrower, that is all; the loss is precisely, accurately, everlastingly the same. The Americans borrow money to spend in blowing up their own houses. They deny their debt, by one-third already [1863], gold being at fifty premium ; and they will probably deny it wholly. That merely means that the holders of the notes are to be the losers instead of the issuers. The quantity of loss is precisely equal, and irrerocable: it is the quantity of human industry spent in effecting the explosion, plus the quantity of goods exploded. Honor only decides who shall pay the sum lost, not whether it is to be paid or not. Paid it must be, and to the uttermost farthing.

[^157]:    [* Written in 1862. I little thought that when I next corrected my type, the "existing" war best illustrative of the sentence, would be between Frenchmen in the Elysian Fiells of Paris.]

[^158]:    * Compare the close of the Fourth Lecture in Aratra Pentelici.

[^159]:    * $\phi_{i} i \eta$.

[^160]:    * Note this sentence carefully, and compare the 'Queen of the Air,' § 106.

[^161]:    * 2 Peter iii. 5 -7.

[^162]:    * Compare the 13th Letter in 'Time and Tide.'

[^163]:    * Modern "Education" for the most part signifies giving people the faculty of thinking wrong on every conceivable subject of importance to them.

[^164]:    * Inf. xxiii. 12J, 126 ; xix. 49, 50.

[^165]:    * Compare § 13 above.

[^166]:    * See note at end of lecture. I have put it in large type, becanse the course of matters since it was written has made it perhaps better worth attention.

[^167]:    * Since this was written, the answer has become definitely-No; we having surrendered the field of Arctic discovery to the Continental nations, as being ounselres too poor to pay for ships.

[^168]:    * I state this fact without Professor Owen's permission ; which of course he could not with propriety have granted, had I asked it; but I consider it so important that the public should be aware of the fact, that I do what seems to me right, though rude.

[^169]:    * That was our real idea of "Free Trade"-_" All the trade to myself." You find now that by "competition " other people can manage to sell something as well as you-and now we call for Protection again. Wretches !

[^170]:    * I meant that the beautiful places of the world-Switzerland. Italy, South Germany, and so on-are, indeed, the trmest cathedrals-places to be reverent in, and to worship in ; and that we only care to drive throngh them : and to eat and drink at their most sacred places.
    $\dagger$ I was singularly struck, some years ago, by finding all the river shore at Richmond, in Yorkshire. black in its earth, from the mere drift of soot-laden air from places many miles away.

[^171]:    * The next three pages were printed in red in original text.
    $\dagger$ One of the things which we must very resolutely enforce, for the good of all classes, in our future arrangements, must be that they wear no "trauslated" articles of dress. See the preface.

[^172]:    * This abbreviation of the penalty of useless labor is curiously coincident in rerbal form with a certain passage which some of us may remember. It may perhaps be well to preserve beside this paragraph another cutting out of my store-drawer, from the 'Morning Post,' of about a parallel date, Friclay, March 10th, 1865 :-"The salons of Mme. C-_, who did the honors with clever imitative grace and elegance, were crowded with princes, dukes, marquises, and counts-in fact, with the same male company as one meets at the parties of the Princess Metternich and Madame Drouyn de Lhuys. Some English peers and members of Parliament were present, and appeared to enjoy the animated and dazzlingly improper scene. On the second floor the supper tahles were loaded with every delicacy of the season. That your readers may form some idea of the dainty fare of the Parisian demi-monde, I copy the menu of the supper, which was served to all the guests (about 200) seated at four o clock. Choice Yquem Johannisberg, Laffitte, Tokay, and champagne of the finest vintages were serced most lavishly throughout the morning. After supper dancing was resumed with increased animation, and the ball terminated with a chaîne diabolique and a cancan d'enfer at seven in the morning. (Morning service-'Ere the fresh lawns appeared, under the opening eyelids of the Morn.-') Here is the menu :-'Consommé de volaille à la Bagration: 16 hors-

[^173]:    * Please observe this statement, and think of it, and consider how it happens that a poor old woman will be ashamed to take a shilling a week from the country-but no one is ashamed to take a pension of a thousand a year.

[^174]:    supposed greater than those of any single person, is the foundation of all law respecting pauperism." (Since this was written the "Pall Mall Gazette' has become a mere party paper-like the rest; but it writes well, and does more good than mischief on the whole.)

[^175]:    

[^176]:    "It is one very awful form of the operation of wealth in Europe that it is entirely capitalists' wealth which supports unjust wars. Just wars do not need so much money to support them; for most of the men who wage such. wage them gratis ; but for an unjust war, men's bodies and souls have both to be bought; and the best tools of war for them besides, which make such war costly to the maximum ; not to speak of the cost of base fear, and angry suspicion, between nations which have not grace nor honesty enough in all their multitudes to

[^177]:    * I ought, in order to make this assertion fully understood, to have noted the various weaknesses which lower the ideal of other great characters of men in the Warerley norels-the selfishness and narrowness of thought in Redgauntlet. the weak religions enthusiasm in Edward Glendinning, and the like ; and I ought to have noticed that there are several quite perfect characters sketched sometimes in the backgrounds; three-let us accept joyously this courtesy to England and her soldiers-are English officers: Colonel Gardiner, Colonel Talbot, and Colonel Mannering.

[^178]:    * Coventry Patmore. You cannot read him too often or too carefully; as far as Iknow he is the only living poet whoalways strengthens and purifies; the others sometimes darken, and nearly always depress and discourage, the imagination they deeply seize.

[^179]:    * Observe, it is "Nature" who is speaking throughout, and who says, "while slie and I together live."

[^180]:    "The education of this poor girl was mean, according to the present standard; was ineffably grand, according to a purer philosophic standard ; and only not good for our age, because for us it would be unattainable.* **
    "Next after her spiritual adrantages, she owed most to the advantages of her situation. The fountain of Domrémy was on the brink of a boundless forest; and it was haunted to that degree by fairies, that the parish priest (curé) was obliged to read mass there once a year, in order to keep them in decent bounds.* * *
    "But the forests of Domremy-those were the glories of the land; for in them abode mysterious powers and ancient secrets that towered into tragic strength. Abbeys there were, and abbey windows,-' like Moorish temples of the Hindoos.' that exercised even princely power both in Touraine and in the German Diets. These had their sweet bells that pierced the forests for many a league at matins or respers, and each in its own dreamy legend. Few enough, and scattered enough, were these abbeys, so as in no degree to disturb the deep solitude of the region ; yet many enough to spread a network or awning of Christian sanctity over what else might hare seemed a heathen wilderness." *

[^181]:    * "Joan of Arc : in reference to M. Michelet's ' History of France.' " De Quincey's Works. Vol, iii. p. 21\%.

[^182]:    * I wish there were a true order of chivalry instituted for our English youth of certain ranks, in which both boy and girl should receive, at a given age, their knighthood and ladyhood by true title ; attainable only by certain probation and trial both of character and accomplishment ; and to be forfeitel, on conviction, by their peers, of any dishonorable act. Such an institution would be entirely, and with all noble results, possible, in a nation which loved honor. That it would not be possible among us, is not to the discredit of the scheme.

[^183]:    * I have sometimes been asked what this means. I intended it to set forth the wisdom of men in war contending for Kingdoms, and what follows to set forth their wisdom in peace, contending for wealth.

[^184]:    * See " The Tro Paths," $\S \S 28$ et seq.

[^185]:    * I do not mean, in saying 'imaginary,' that I have not permitted to myself, in sereral instances, the affectionate discourtesy of some reminiscence of personal character ; for which I must hope to be forgiven by my old pupils and their friends, as I could not otherwise have written the book at all. But only two sentences in all the dialogues, and the anecdote of 'Dotty,' are literally 'historical.'

[^186]:    * Dante, Inf. 7. 1.

[^187]:    ＊Note i．
    $\dagger$ Note iii．

[^188]:    * Note ii.
    $\dagger$ Note iii.

[^189]:    * Note iv.

[^190]:    * Quartz is not much harder than epidote; the strength is only supposed to be in some proportion to the squares of the diameters.

[^191]:    - There was a lady once, That would not be a queen,-that would she not, For all the mud in Egypt.'

[^192]:    * Note v.

[^193]:    * Note vi.

[^194]:    - A pure or holy state of anything is that in which all its parts are helpful or consistent. The highest and first law of the universe, and the other name of life, is, therefore, "help." The other name of death is "separation." Government and co-operation are in all things, and eternally, the laws of life. Anarcly and competition, eternally, and in all things, the laws of death.
    'Perhaps the best, though the most familiar, example we could take of the nature and power of consistence, will be that of the possible changes in the dust we tread on.
    ' Exclusive of animal decay, we can hardly arrive at a more absolute type of impurity, than the mud or slime of a damp over-trodden path, in the outskirts of a manufacturing town. I do not say mud of the road, because that is mixed with animal refuse; but take merely an ounce or two of the blackest slime of a beaten footpath, on a rainy day; near a manufacturing town. That slime we shall find in most cases composed of clay, (or brickdust, which is burnt clay,) mixed

[^195]:    * Sentence out of letter from May, (who is staying with Isabel just now at Cassel, ) dated 15th June, 1877:-
    "I am reading the Ethics with a nice Irish girl who is staying here, and she's just as puzzled as I've always been about the fire-flies, and we both want to know so much.-Please be a rery nice old Lecturer, and tell us, won't you?"

    Well, May, you never were a vain girl ; so could scarcely guess that I meant them for the light, unpursued ranities, which yet blind us confused among the stars. One evening, as I came late into Siena, the fire-flies were flying high on a stormy sirocco wind, -the stars themselves no brighter, and all their host seeming, at moments, to fade as the insects faded.-Note to Second Edition.

