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By LEWIS F. DAY.

I.

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LEWIS F. DAY'S

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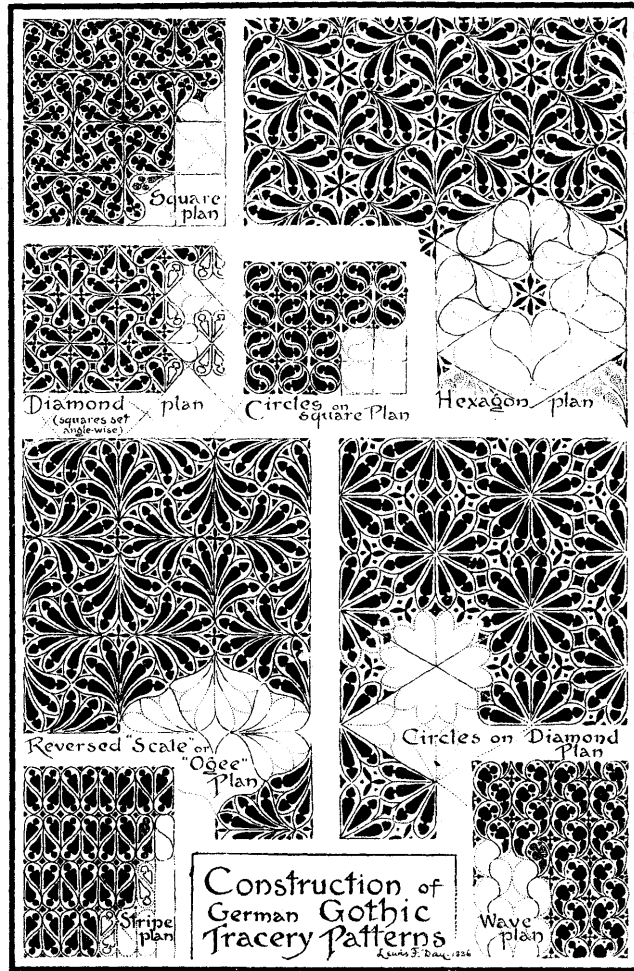
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Plate 1.



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EMBRACING

THE ANATOMY OF PATTERN.

THE PLANNING OF ORNAMENT.

THE APPLICATION OF ORNAMENT.

BY

LEWIS F. DAY.

FOURTH EDITION, REVISED, WITH
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1897.

PREFACE TO THE FOURTH EDITION.

By way of preface to a fourth edition I can only repeat that throughout this series of text books I have assumed no particular knowledge on the part of the student, but only that he is a student, that he wants to know, and that what he wants to know is what I would have liked some one to tell me when I was a beginner.

No pains of mine, of course, will save him the pains of study; but it would be hard if a man's experience during a quarter of a century could benefit none but himself; and here, in as few words as possible, is the sum of my experience—for what, that may be worth at second hand.

The book has been once more revised, and amplified, and the number of plates increased to forty-one. Five of the old illustrations have been withdrawn and ten new ones added.

*13 Mecklenburg Square, London, W.C.
January 8th, 1895.*

TABLE OF CONTENTS.

	PAGE
I. INTRODUCTORY	I
II. PATTERN DISSECTION	8
III. PRACTICAL PATTERN PLANNING	25
IV. THE "DROP" PATTERN	34
V. SKELETON PLANS	41
VI. APPROPRIATE PATTERN	50

DESCRIPTIVE LIST OF PLATES.

1. **THE CONSTRUCTION OF GOTHIC TRACERY PATTERNS**—Showing the square, diamond, hexagon, circular, or other plan on which elaborate tracery is built.
2. **THE SQUARE**—Checks and other diapers built on cross-lines.
3. **THE LATTICE AND THE DIAMOND**—Plaids, zigzags, &c., built on cross-lines.
4. **FRETS, &c.**—Showing their construction on a network of cross-lines.
5. **ALL-OVER PATTERN**—Showing the cross-lines upon which it is planned.
6. **THE TRIANGLE**—Diapers of star, hexagon, and lozenge shapes, built up on the lines of the equilateral triangle.
7. **THE TRIANGLE**—Diapers composed of the equilateral triangle and its compounds.
8. **THE HEXAGON**—Honeycomb and other diapers based upon the hexagon and its compound.
9. **DIAPER**—Designed on the lines of hexagon or triangle.
10. **THE OCTAGON**—Simple octagon diapers and the lines of their construction.
11. **ARAB LATTICE PATTERN**—Dissected, and their anatomy laid bare.
12. **CURVILINEAR PATTERNS**—Showing the construction of the wave, the ogee, the net, &c.

X

List of Plates.

13. **DIAPERS OF CIRCLES**—With lines showing the points from which they are struck.
14. **OTHER CIRCULAR DIAPER FORMS**—Produced by intersecting circles.
15. **THE SCALE PATTERN**—Together with ogee, cusped, and other shapes derived from it.
16. **A STAR PATTERN**—Showing six different ways of arriving at a simple diaper.
17. **ITALIAN DAMASK**—Showing its construction upon the lines of the scale pattern.
18. **PRINTED TEXTILE**—Designed on the lines of the square.
19. **HENRI II. BOOK COVER**—Showing result of reversing, and again reversing, the pattern.
20. **PATTERN PLANS**—Showing (A) the square plan, and (B) the dropped parallelogram plan.
21. **DESIGN FOR WEAVING**—Long in proportion to its width.
22. **SICILIAN SILK**—With the cross lines on which the design is built, and the diagonal lines it assumes.
23. **TAPESTRY OF THE XVTH CENTURY**—With the rectangular unit of repeat, in which the pattern is turned over, after the manner of the weaver.
24. **LATE-GOTHIC VELVET**—Showing horizontal effect of pattern constructed upon the lines of the ogee or hexagon.
25. **WALL-PAPER PATTERN**—Showing ogee lines on which it is planned.
26. **A DROP-PATTERN**—In which the construction is not at first apparent.

27. MAP—Showing three plans on which the design on Plate 28 might be constructed.
28. DROP PATTERN—Completion of design indicated on Plate 27.
29. TILE PATTERN—Design 12 inches square—unit of repeat a triangle which forms only one-fourth of a 6-inch tile.
30. DROP PATTERN—Parallelogram 21 inches by 10½ inches = diamond 21 inches by 21 inches from point to point.
31. DROP PATTERN—Diamond, 14 inches wide, to work in a material 21 inches wide.
32. DROP PATTERN—Giving diagonal line.
33. DROP PATTERN—Giving zigzag cross line.
34. DIAGONAL DAMASK PATTERN—Showing its construction on the diamond, which is not apparent.
35. DIAGRAM—How to prove a drop design.
36. ARAB TILE AND LATTICE PATTERNS—Showing the simple means by which intricacy is produced.
37. DESIGN—Exemplifying the intentional confusion of forms.
38. WALL-PAPER DESIGN—Showing a “drop” in the ornamental scroll, whilst the grotesque creatures introduced follow the lines of the square block.
39. PERSIAN TEXTILE—Showing the lines of the double square on which the pattern is constructed, as distinct from the lines it takes.
40. FOLIATED SCROLL—A design made on square lines, yet assuming an ogee shape.
41. ITALIAN SILK—Showing ogee, hexagon, or diamond plan.

THE
ANATOMY OF PATTERN.

I.

INTRODUCTORY.

THE dictionary scarcely helps us to a definition of the word pattern, in the somewhat technical sense in which it is used by the designer.

Inasmuch as a pattern signifies a “specimen,” one might argue that repetition is implied in ornamental pattern. But inasmuch as any “shape or model for imitation” is quite as strictly speaking a pattern, one cannot precisely define pattern as repeating ornament.

Nevertheless, pattern mostly comes of repetition. Many a pattern bears on the very face of it the evidence that it grew directly out of the necessity of repetition.

It is more than probable that some mechanical necessity gave rise to all geometric

pattern ; certainly it is impossible to plait, net, knit, weave, or otherwise mechanically make, without producing pattern. It may be infinitesimally small, as in weaving, where the warp and weft are often invisible to the naked eye ; but it is there ; and all that remains for us to do is, to efface it as far as we can, or to make the best of it.

Out of the determination to make the best of it has grown much of the most beautiful pattern-work. To neglect this source of inspiration, therefore, to say nothing of the attempt to suppress it, would seem to be wasteful of opportunity to the very last degree.

So certainly will the repetition of parts result in some sort of pattern, that one may say, wherever there is ordered repetition there is pattern. Take any form you please, and repeat it at regular intervals, and you have, whether you want it or no, a pattern, as surely as the recurrence of sounds will produce rhythm or cadence.

The distribution of the parts need not even be regular. The wave marks on the sand, the veins of marble, the grain of wood, the crystallisation of the breath upon the window-

panes, the curls of the hair, the very features of the human face—resolve themselves into pattern. So distinctly is this last the case, that the ornamentist finds himself continually devising, *malgré lui*, patterns that remind one of faces. One almost wonders whether it may not have been with a view to escaping this danger, or anticipating it rather, that the designer first took to the deliberate use of those masks and grotesque heads, which form so prominent a feature in certain styles of ornament.

The popular idea of the process of ornamental design is, that the artist has only to let his hand crawl over a piece of paper, and, like a spider, spin out the fancies that may crowd his fertile imagination. Indeed, there is scope in design for all his fancy ; but he is no Zeus, that ornament should spring, Athena-like, full-grown from his brain.

Ornament is constructed, patiently (I will not say laboriously, for the artist loves the labour), patiently built up on lines inevitable to its consistency—lines so simple, that to the expert it is not difficult to lay bare its very skeleton ; and just as the physiologist divides the animal world, according to anatomy, into

families and classes, so the ornamentist is able to classify all pattern-work according to its structure. Like the scientist, he is able even to show the affinity between groups to all first appearances dissimilar ; and, indeed, to point out how few are the varieties of skeleton upon which all this variety of form is framed.

Before enumerating those varieties, let us suppose for a moment a man to imagine (and this is by no means an imaginary case) that he will make to himself a repeating pattern without regard to its logical construction—as though in his domain there should be no skeletons. That would be, from my point of view, a profoundly foolish thing to do ; but, more than that, it is impossible. He may design a unit in which there is no repetition, and no formality ; but the moment he repeats that unit, the very order of its repetition proves to be, if I may call it so, the cupboard in which the skeleton will be found.

It might be imagined that by designing in some such hap-hazard fashion as I have just supposed, the artist would secure to his design a freedom of line, an absence of formality, not readily to be obtained by adopting the more systematic method. But this is not by any

means so. If, indeed, the design be of such absolute uniformity all over that there is no one feature in it more pronounced than another, it may pass muster, notwithstanding the want of backbone. But that is not to claim much for it as a design. And it is scarcely worth the pains to take a round-about way to this insignificant end.

If, on the other hand, a design be above the level of insignificance, there must be in it some dominant feature or features, which, when many times repeated, will appear more prominent than ever. It is to these features that the eye will irresistibly be drawn ; and it is the lines they take in relation one to another, which will assert themselves. It is hardly to be expected that, if these lines have never been taken into consideration, they should come out very satisfactorily—and, as a matter of experience, they always come out awry.

Every one must have suffered more or less from wall-paper and other patterns, in which certain ill-defined but awkward stripes impressed themselves upon him ; and he may have imagined possibly, if he thought about it, that this effect of stripes came of working

upon the vertical, horizontal, or diagonal lines, which thus asserted themselves. It was much more likely the result of not working upon definite lines at all. A designer who knew the A B C of his business, would make sure of lines not in themselves offensive; he would counteract a tendency to stripes in one direction by features directing the attention otherwards; and he would so clothe any doubtful line that there would be no fear of its unduly asserting itself, as in its nakedness it might. He foresees the danger (it is a danger even to the most experienced) and he is fore-armed against it. The mighty man of valour who disdains to be trammelled by principles, or any such encumbrance, is without defence against contingencies practically certain to arrive. It is only by a miracle, or a fluke, that he can escape failure. The overwhelming odds are, that the petty considerations he has despised will be quite enough to wreck any venture he has dared in defiance of them.

Since, then, it is practically inevitable that there shall be definite lines in ornamental design—seeing that if you don't arrange for them they arrange themselves—it is the merest

common sense to lay down those lines to begin with, and, in fact, to make them the skeleton or framework upon which you build up your pattern.

You will see, when they are laid bare for you, that these skeletons are after all very few.

II.

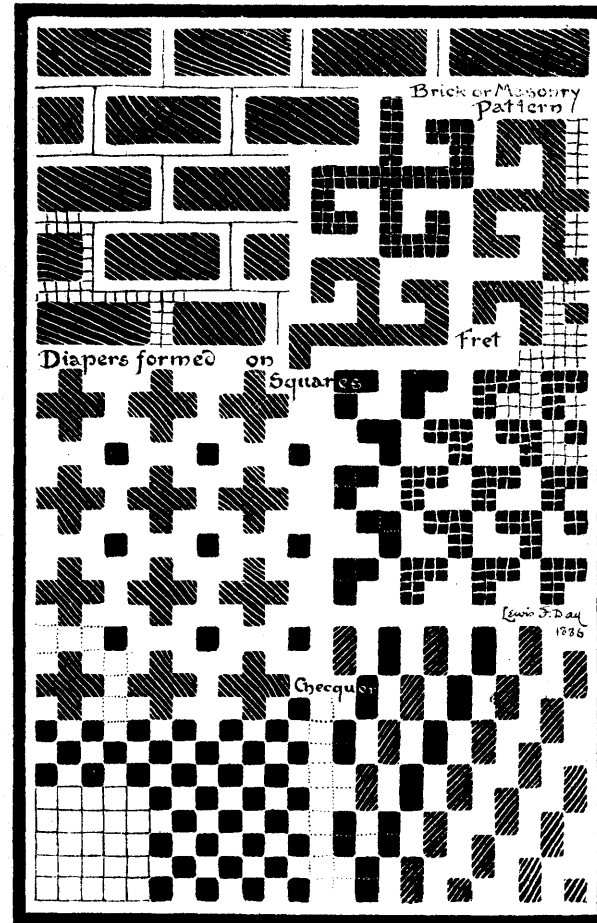
PATTERN DISSECTION.

REPEATED pattern may be classified, I said, according to its structure.

First in order of obviousness comes *the stripe*. It comes also very early in order of invention: the loom must from the beginning have suggested the stripe-pattern, which practically grows out of it.

The stripe, however, carries us only a very short distance in the direction of design. For as soon as you make any break in the repeated line, the recurrence of that break gives other lines in the cross direction.

Suppose a series of horizontal bands broken at equal intervals by a series of rosettes. It is clear, that if the rosettes fall one under the other, they give upright lines; or if they are shifted you get diagonal cross lines. If the line itself is broken, as in the case of a series of waved lines, or, still more plainly, in a



series of vandykes, the turn of the wave, or the point of the zigzag, when it is repeated, gives the cross line just the same.

And so we come at once to the vast order of patterns constructed upon *cross lines*.

This is probably quite the first in point of time, arising as it inevitably does out of the very primitive art of plaiting. You have only to interweave strips of two different colours, and you get at once a *check*, or what is familiar to us in black and white as the chess-board pattern. (Plate 2.)

Suppose the interwoven strips to be all of one colour, then *the lines of intersection* would make a *lattice* or basket-work pattern.

The simplest form of check or lattice is when the crossing is at equal intervals and at right angles. Vary the interval, and you have all manner of plaids and tartans. Alter your point of view (or turn the design 45 degrees round) and you get the diamond. The difference in point of view makes no real difference in plan: a stripe may take any direction, yet it is always a stripe. But if we alter the *angle* at which the lines cross, we get not only a fresh variety of shapes, but we may obtain also a diamond

shape which, for the sake of clearness, I will call *the diamond*. This plays a very important part in the next order of patterns, at which, however, we have not yet arrived. Various plaids, diamond patterns, and other developments of the lattice are exemplified in Plate 3.

In the case of a regular network of cross-lines there is no particular reason why they should always be filled in alternately *à la* chess-board. They may just as well be grouped in twos, threes, fives, and so on, resolving themselves into patterns of great variety and even of intricacy, as may be seen in Plate 2.

This theory, however, must not be pressed too hard, or you may squeeze something very like a false idea out of it. It might be contended that all patterns are formed on the square, or all patterns, at least, that can be woven, the threads forming the squares on which the design is laid. This is obviously absurd. The only patterns which can fairly be described as built on the square are those in which the artist (consciously or not) worked upon square lines. The actual squares apparent in a coarsely-woven scroll, or in the old-fashioned sampler, belong, not

Plate 3.

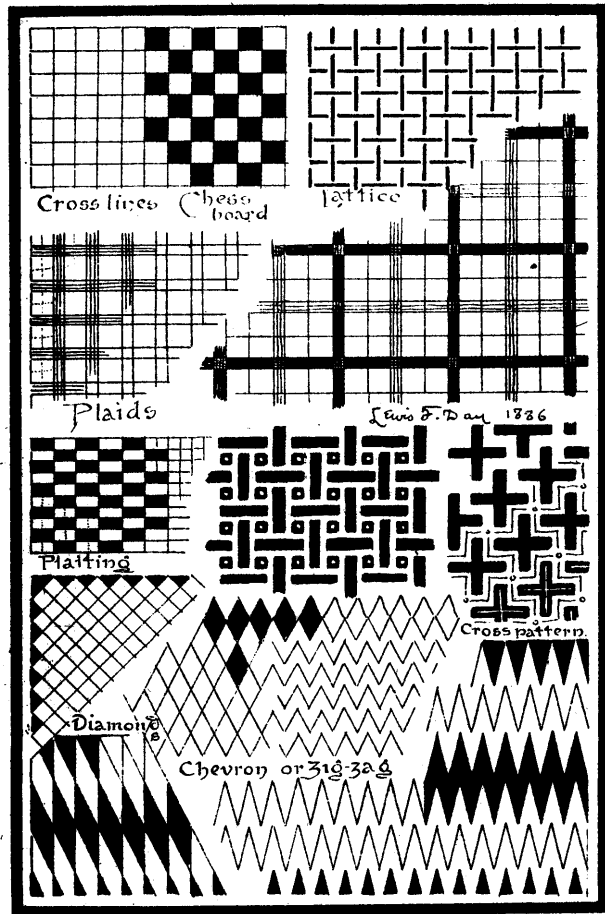
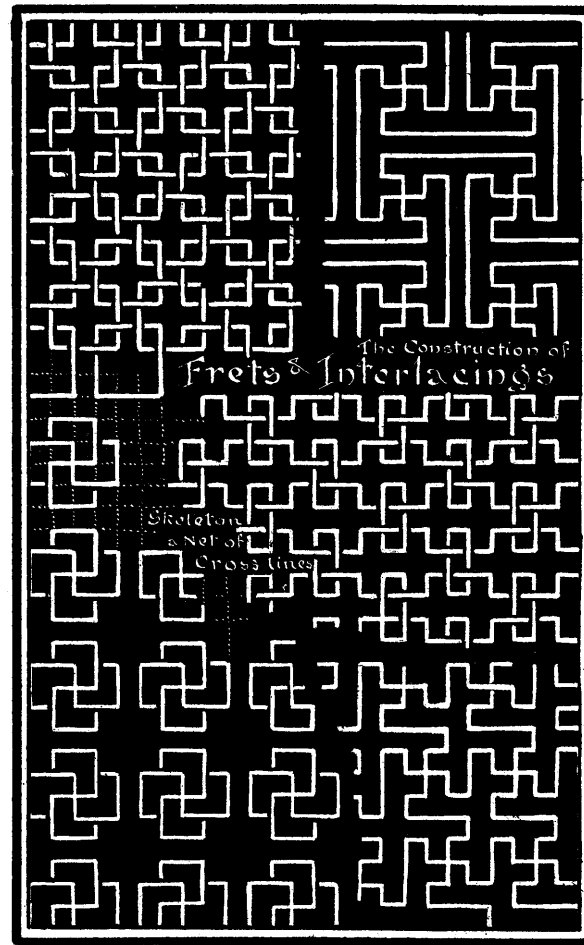


Plate 4.



to the pattern, but to its translation into a textile fabric.

If instead of the chess-board we take the *lines* of the lattice, and work upon them, we get, without departing from those lines (only intermitting them) a wonderful range of interlacements and the like; some of them of exceeding intricacy, as in the case of the "*fret*." A number of these are shown on Plate 4. There seems no limit to the ever-increasing range of pattern-work thus disclosed, all built upon the same constructional scaffolding.

From the intermission of the lines results a kind of spot pattern, more or less free, which might be mistaken for a distinct order of design (Plates 2 and 4). But it is only a variety.

In a certain sense it matters little whether a design is constructed on geometric lines, or only arranged so that it falls within them. The skeleton, when you come to dissect the two, is the same in either case. Our theory of construction, therefore, applies quite as much to sprigs, spots, and all so-called free patterns, as to those in which the constructional lines actually occur as lines. You have not done away with construction when you have succeeded in keeping the scaffolding out of

sight. Again, the use of the broken line instead of the straight, or of the curved (which we shall have to consider more particularly further on), makes no difference except in effect. The skeleton is the same, though you show no lines at all, as in the "all-over" pattern on Plate 5, which is planned on the parallelogram given by lattice lines.

So far we have had to do only with the simplest of all possible schemes, in which at most two series of lines intersect one another. The introduction of a third series of cross lines constitutes a new departure, and a most important one.

Cross the square lattice by a series of diagonal lines bisecting the right angles—cutting the squares in half, that is to say—and we have a new form to work upon, the *triangle*.

If instead of the square lattice, one starts with a lattice of diamond shape, a third series of cross lines bisecting the angles of the diamond produces equally a diaper of triangles.

And if the diamonds of the lattice be of a certain proportion—if, that is to say, the two sharp angles be together equal to one of the blunter angles,—you have only to bisect

Plate 5.

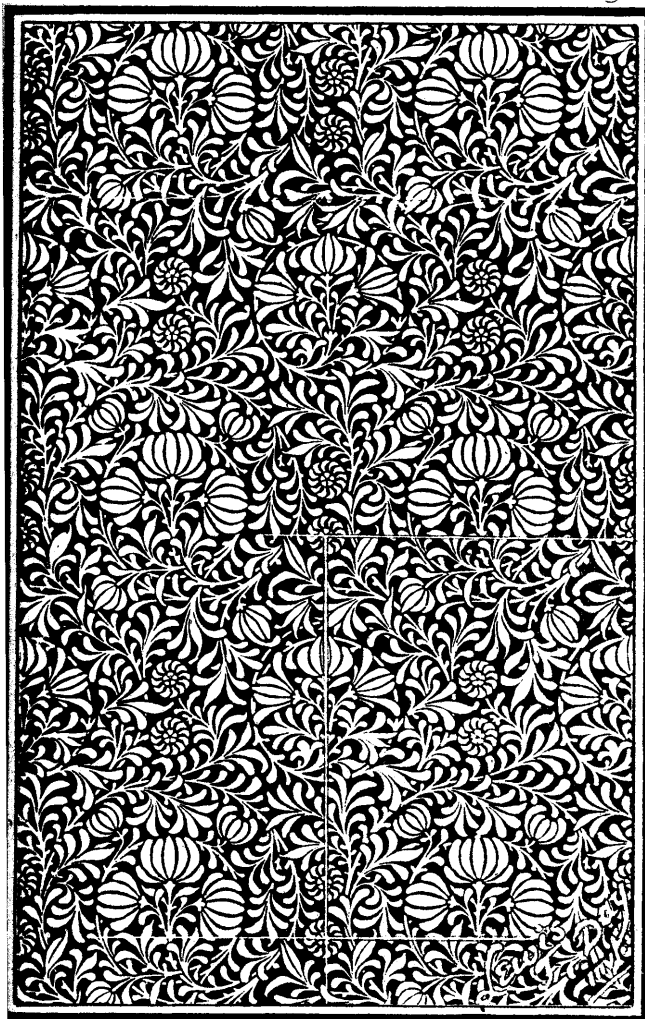


Plate 6.

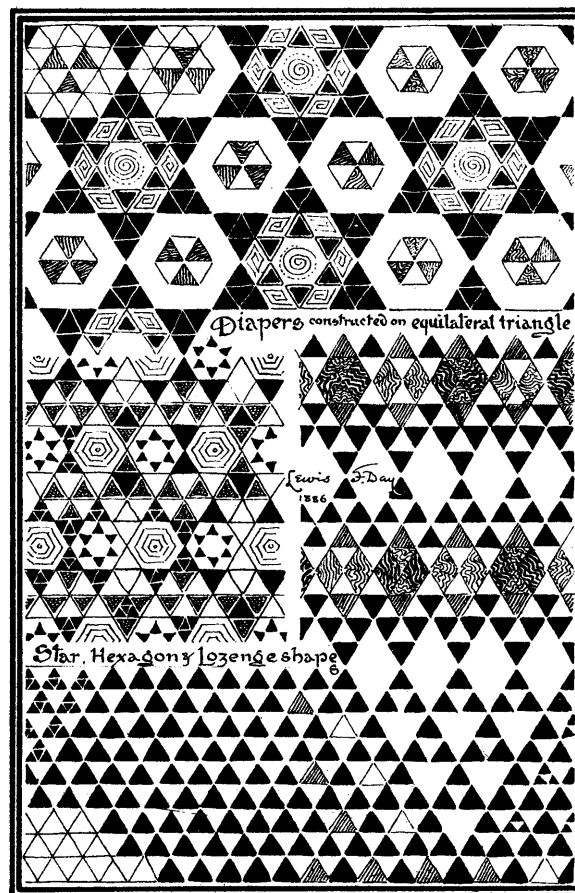
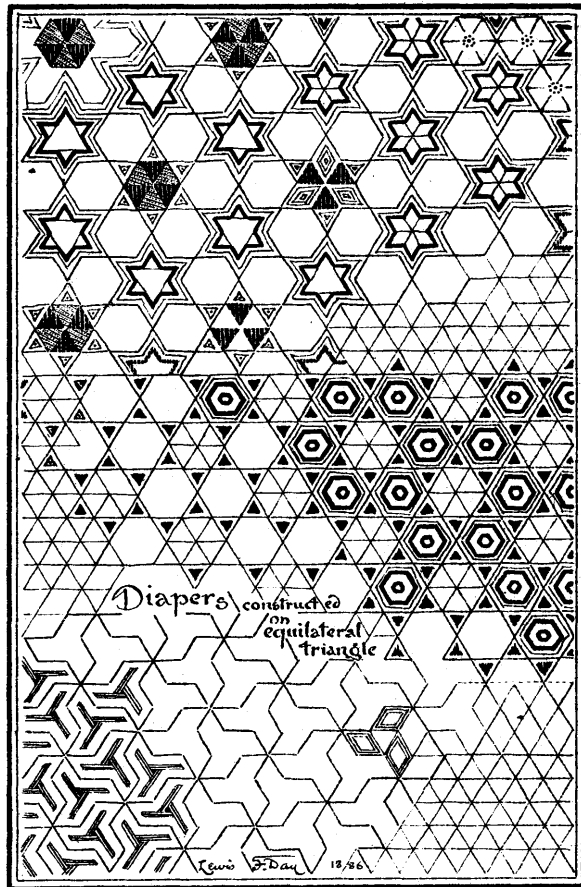
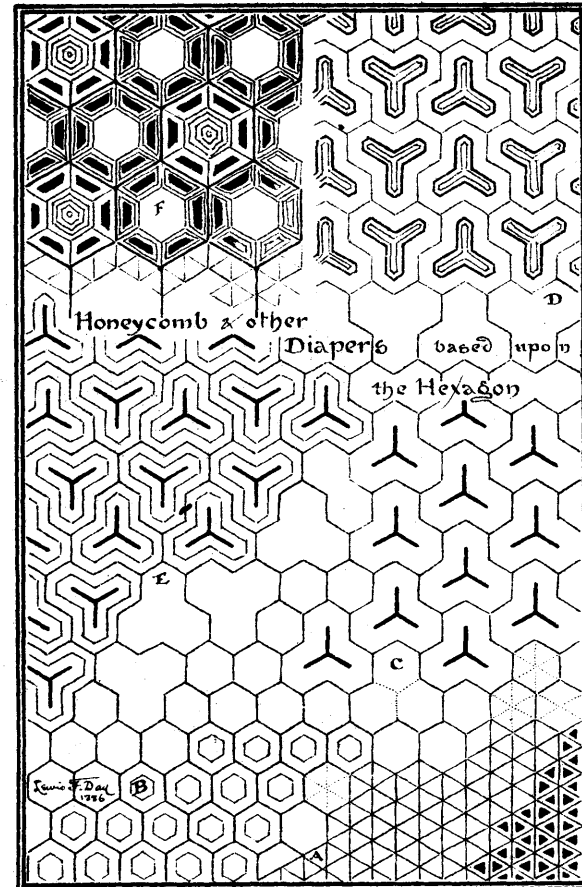


Plate 7.



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Plate 8.



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PHOTO-TINT, by J. Akerman, 6, Queen Square, W.C.

the blunt angle of the diamonds by this third series of cross lines, and you arrive at the *equilateral* triangle, which of all triangles is far away the most useful in design.

By merely grouping the equilateral triangles, as in Plate 6, we get the hexagon (a group of six triangles), the star (a group of twelve), and other shapes, such as that in the lower part of Plate 7, which is made up of seven triangles (i.e. three diamonds and a triangle); or that on Plate 8, which is composed of eighteen triangles (i.e. three hexagons.)

A glance at the three Plates 6, 7, 8, will show how immensely the designer's scope is now widened.

The design on Plate 9 is on the lines of the hexagon, the actual unit of repeat is an equilateral triangle.

We have now the basis of all that infinity of geometric pattern which we find in Byzantine mosaic, and in the Moresque tile-work derived from it.

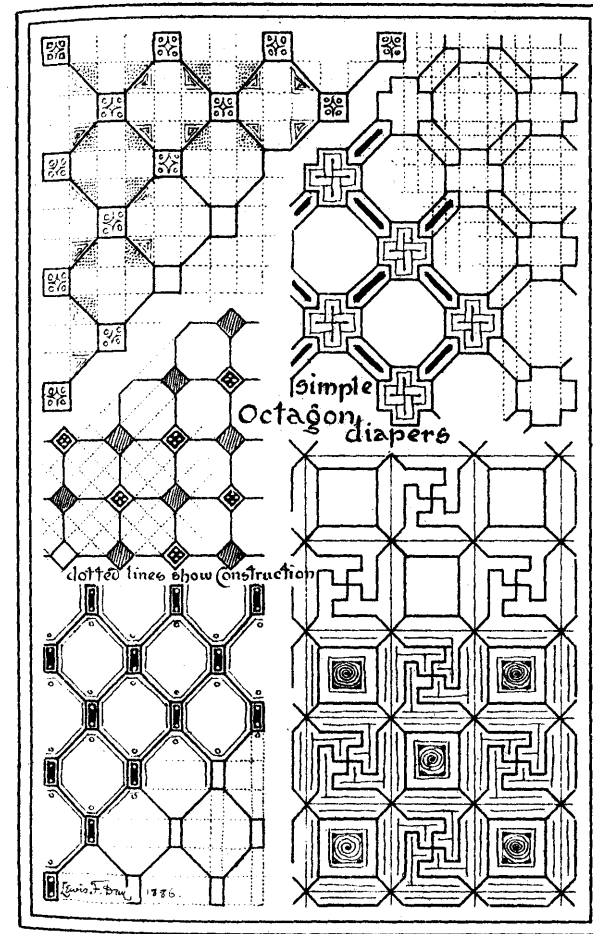
It will be seen that the triangle, the hexagon, and some of the shapes compounded of them form, of themselves, exactly-fitting diapers.

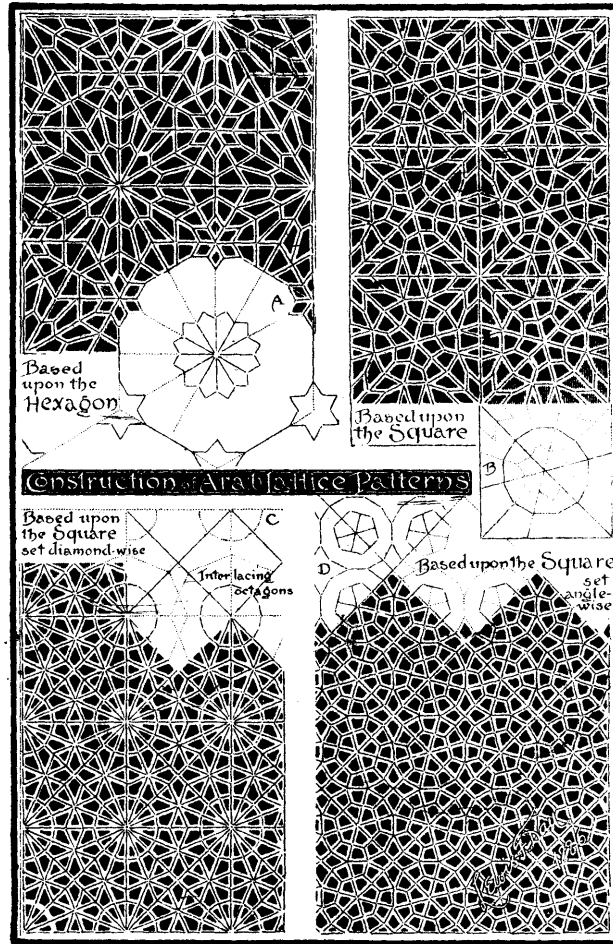
By the use of a fourth series of cross lines

another new shape is evolved. Returning once again to the square lattice, if we cross it diagonally *both ways*, cross it by itself, that is, so that each square is cut up into four, we get out of those lines the *octagon* (Plate 10); but not an equal-sided octagon; that is, built on a cross lattice of different proportions.

The octagon, however, is not a unit which will of itself form a diaper, as the hexagon will. It is only in connection with a square, diamond, or other four-sided figure, that it will "repeat." Place side by side a series of octagons, and there will appear four-sided gaps between (Plate 10). Nevertheless, this new series of lines gives us new varieties of radiated pattern: witness once more the elaborate interlacings of the Arabs; all of which, even the most magnificent, are closely related to the pattern so familiar in the seat of a common cane-bottomed chair.

It is possible to carry the principle of *radiation* further still. You may, for example, cross this more elaborate lattice by a lattice like itself; but you get by that means rather intricacy than variety—especially when the intersecting lines are in part interrupted. In

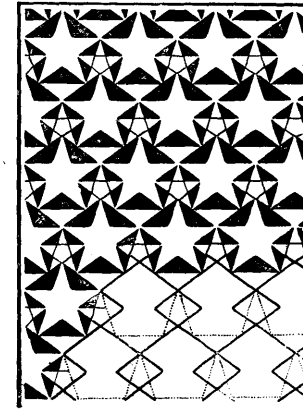




C.F. Ed. Plate 11. (a) & (b) Revised. A. H. Brown, E.C.

certain Arab patterns, where this ultra-elaboration of lines is employed, it appears almost as if a new principle had been introduced (Plate 11); but, upon analysis, the designs resolve themselves into the elements with which we have already had to deal—so few are the plans upon which pattern is constructed. Already we have come to the end of the straight-lined family.

Why, it may be asked, can you not make a diaper on other lines, on the lines of the pentagon for example? Well, you may put together so many pentagons—and a very respectable diaper they form—especially if you further enrich the pentagons with five-pointed stars. Not long since I came upon just

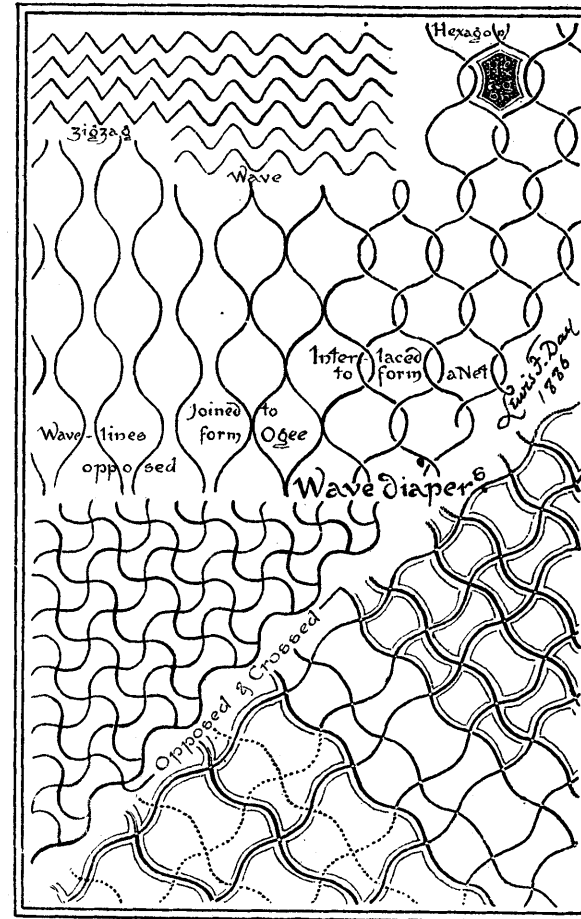


Pentagon diaper and its skeleton.

such a diaper, which, for a moment, promised to upset all my neatly arranged theories on the subject of pattern anatomy. However,

I had only to dissect it, to discover that it was our old friend the diamond in disguise ; but so artfully made up as at first sight to deceive. There it is on page 15. It consists of pentagons put side by side, the interstices between them ingeniously filled with stars and triangles, much as the pentagons themselves are filled—so that one does not readily distinguish the main divisions. It wants no telling that shapes of any kind may be put together to form a pattern ; but that does not alter the fact that the *lines* on which they are arranged, or into which they fall, must be those I have already laid down ; which are indeed the base of all possible pattern.

For further variety in design, we must resort to the use of the *circle*. The circle itself has, indeed, to be arranged on one or other of the foregoing plans. It must be struck, that is to say, from centres corresponding to the points of intersection of lines, such as have already been described. In so far it is only one of the innumerable arbitrary shapes that may be so arranged. The right lined shapes on Plate 11 are all but circular in effect. But the circle is so important a feature in itself, it so entirely alters the scope of geometric pattern,



that it deserves to be considered apart. One cannot lightly pass over the element of curvilinear design in ornament.

Whether or not the idea of flowing patterns originated in the circle, is of no great consequence. Instinctive practice must have preceded geometric principles in the mind of man.

One may very easily deduce many of the common curvilinear patterns directly from *angular* motives. (Plate 12.)

The wave, for example, is a zigzag just blunted at the points. Soften the lines of the hexagon, and you have the ogee. Interlace straight rods, and you get waved lines, as may be seen in the perspective view of the common hurdle. Round the corners of the hexagon or octagon, and you arrive at a rude circle. The relation of the hexagon or octagon diaper to the diaper of circles is obvious. Presumably, the busy bee, if one may suggest such a thing without irreverence, only works in a circle; and the hexagonal form of the cells' of the honeycomb is simply the result of gravitation; just as you find that cylinders crowded crush themselves into hexagonal prisms.

Geometric shapes offer themselves to us

from the first—stars in the heaven above and in the grass below, circles in the sun's disc and in the eye of the daisy. For all we know, the very first pattern ever traced by human hand may have consisted of circles. The primeval artist had only to pick up the nearest dry twig and indent the damp earth with the end of it, to get a series of round impressions which would pass for a very respectable diaper. I do not say that was so. I only mean to say that the ways in which patterns can be formed are of the simplest; and that they practically force themselves upon the workman—making him, as it were, an artist in spite of himself.

The circle, with its segment the curve, and its compound the spiral, assumes extreme importance when we come to the consideration of the scroll (with which just now we are not concerned); but it will be seen that even in mere diapers it leads to an apparently new order of things.

The simplest form of circle diaper is when the circles are arranged on the *square* or the *diamond* plan, and so as to touch at the edges. By the intersection of the circles one by another, an effect of much greater elabora-

tion is at once obtained: and it makes all the difference whether you determine the proportions of the circle according to the intersections of the lines on which they are struck (as in Plate 13) or not (as on the upper part of Plate 14).

Out of the circle, or its segments, we get the trefoil, the quatrefoil, and all manner of cusped shapes (Plates 14 and 15)—which also must needs be put together on one or other of the plans already set forth.

Further, out of the segments of the circle you can construct the scale pattern; which (as you may see on Plate 15) might equally have been derived from the scales of a fish or the plumage of a bird's neck. The scale may also be considered as a translation of the diamond into curved lines. Re-arrange the scales and you have a more graceful, as well as a more complicated, diaper (same plate)—in which appears the ogee shape, once before referred to as being a curvilinear modification of the hexagon.

The hexagon itself may be deduced from it. Suppose a network of interlacing wave lines or ogee shapes—it amounts to the same thing—and the result is a series of six-sided

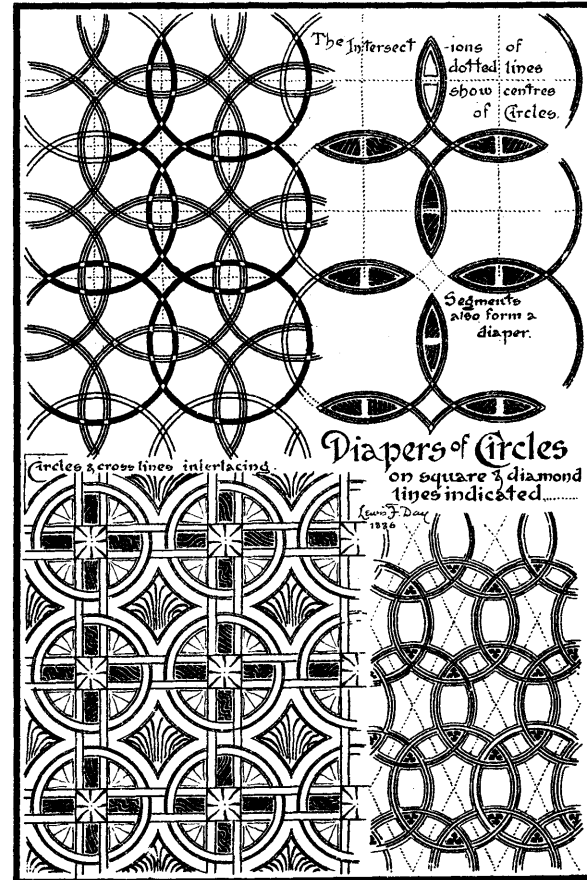


Plate 14.

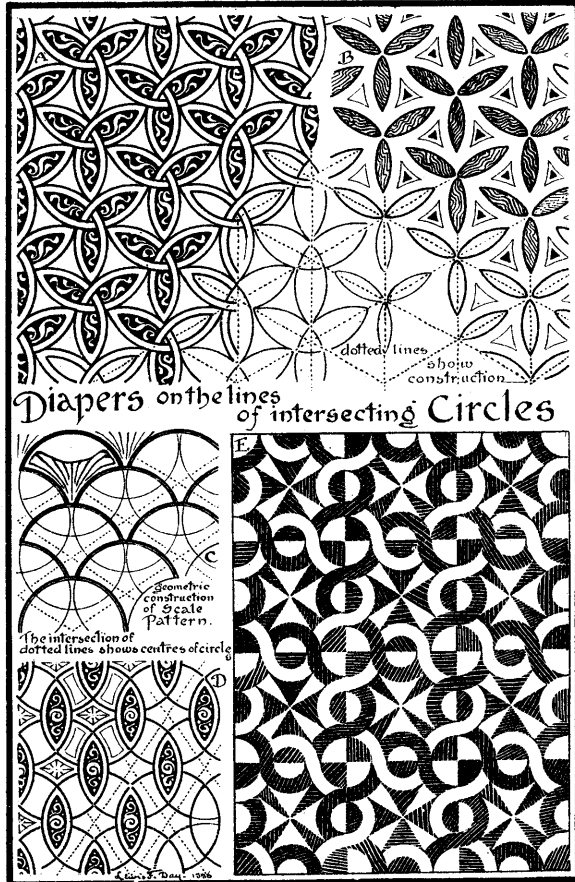
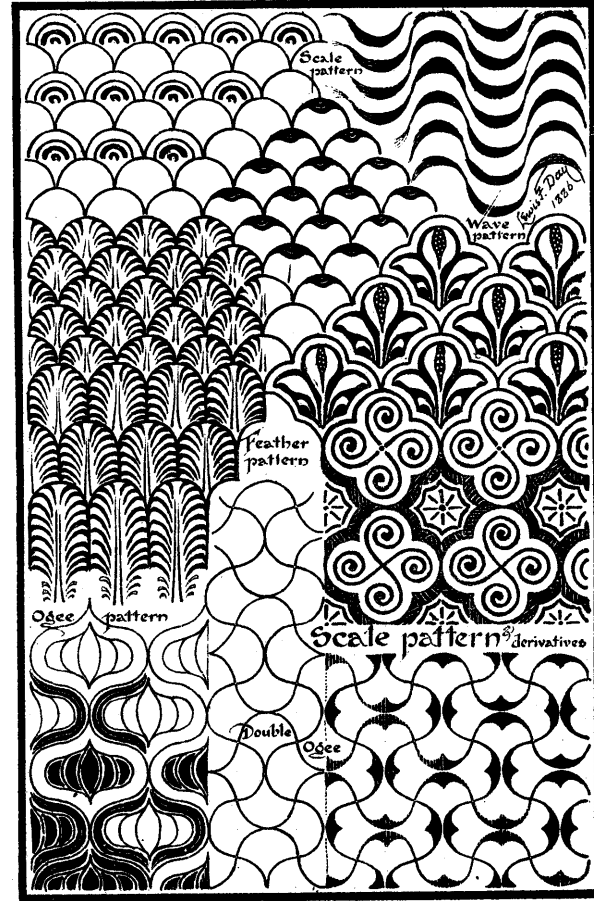


Plate 15



figures (Plate 12), very nearly approaching the straight-lined hexagon.

In this way the straight-lined series might be derived from the curved (compare Plates 1 and 11); and so once more, by a very different road, we reach always, in this maze of pattern-work, the same point, which is, the limited variety of skeleton on which pattern is built.

From the combination of straight lines with curved (Plates 13 and 14) result all manner of new diaper forms; which, however, present nothing very new in the way of skeleton.

You might start a scroll pattern, such as that given in Plate 17 (a type common in the sixteenth and seventeenth centuries), on the lines either of the hexagon or of the ogee, or of a mixture of curved and straight lines which I may call the broken ogee; and in the end it would not be very clear which of them you had taken for a groundwork; or even whether you had not founded your design upon the diamond—such close kindred do those various skeletons betray.

I have dwelt at some length upon rudimentary diaper forms, for reasons quite apart



from anything intrinsically interesting or beautiful in them, although they may be both the one and the other. More especially is this likely if tender colours be employed to soften the forms, or if the colour variations do not quite follow the pattern, as in the case of marble inlay, where the accidental colour of the material is a relief from the geometric monotony of the shapes. The Japanese sometimes go so far as to interrupt the pattern, wiping out a bit of it here and there, anticipating, indeed, the softening effect that age might impart to it.

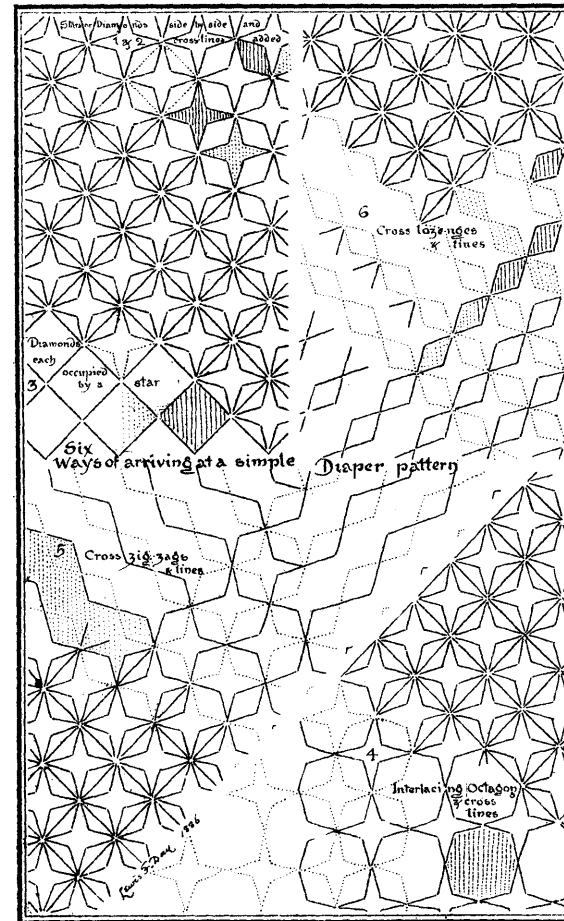
But it is more as a *basis of design* that we have at present to consider geometric forms. The basis of all repeated patterns is, as I said, geometric. And, this being so, it is as essential that the designer should be acquainted with simple geometric principles, as it is that a figure draughtsman should have some knowledge of superficial anatomy.

For all the simplicity of the skeleton lines he has to deal with, the pattern designer's art is not such a simple thing as you might suppose. He has not merely to invent pretty patterns, but patterns that can be conveniently worked—and the lines mapped out for him

by the conditions of his work, are, in most instances, not just those which beauty would have decreed.

They prove, however, to be identical with the lines already shown to be the basis of all recurring pattern-work ; and so we begin to see that, had there been no such thing as pattern design before, and no traditional forms of design for us to follow, those very forms must have been evolved as certainly out of the more complex conditions of modern manufacture as they were out of the simple contrivances of primitive handicraft. That is to say, that the lines first given to us by the primary processes of netting, plaiting, and so on, would equally have been prescribed by the printing roller or the power loom.

It is one of the most interesting points in the analysis of pattern design to see how regularly we work round, again and again, to identically the same shapes. You cannot safely dogmatise as to the origin of this or that pattern ; there are always so many ways in which it might have been suggested. Put side by side a series of waved lines so that their curves are opposed (Plate 12) and the effect is exactly the same as though you had opened



out an ogee diaper ; you can deduce either pattern from the other. Or, again (same plate), if the ogees interlace, it is impossible to say whether this was the outcome of the ogee, or of waved lines, or simply of the process of netting.

On Plate 16 are shown six different ways in which one and the same simple star pattern may be arrived at.

1. By the juxtaposition of stars and the addition of cross-lines.

2. By the juxtaposition of diamonds and the addition of cross-lines.

3. By the juxtaposition of right-angled diamonds, each occupied by a star.

4. By the interlacing of two series of octagons, and the addition of cross-lines.

5. By the crossing of two series of zigzag lines, and the addition of cross-lines.

6. By the crossing of two series of diamonds or lozenges, and the addition of cross-lines.

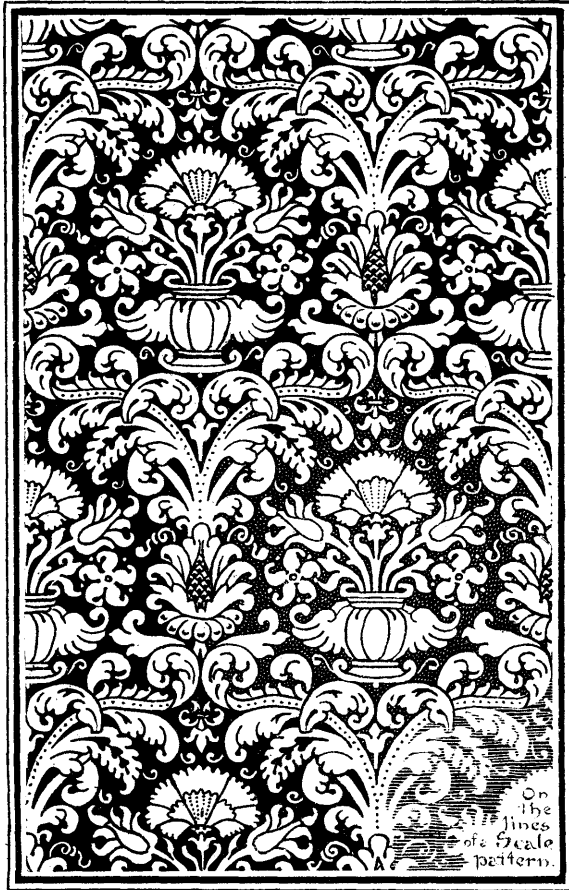
And this does not by any means exhaust the number of ways in which the same result might have been reached.

To take another instance, of a very different kind, you know how common it is to see a waved line with leaves alternating on

each side of it. This appears on the face of it, a quite mechanical and arbitrary arrangement ; but you have only to note how, in nature, the alternate leaves on a slender stem pull it out of the straight, to see the natural and inevitable origin of the idea. By merely exaggerating the slight wave of the natural stem, you get one of the most conventional of ornamental border patterns.*

So it would seem that, whether you begin with mechanical construction or with nature, it works round to the same thing in the end—in the hands of an ornamentist.

* See 'Nature in Ornament,' pp. 55, 56.



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III.

PRACTICAL PATTERN PLANNING.

PATTERN design is very seriously affected by this circumstance—that the possible lines of construction are not in all cases practicable.

In practical work for manufacture the limitations are strict ; and it is only by submission to them that success in ornamental design is possible. Nor is it only the style or character of the design that is affected, but its plan also.

The Oriental mind, delighting in geometric intricacy, has availed itself largely of the triangular unit, and has built up with it all manner of delightfully elaborate patterns. The modern European finds it more convenient to him to adopt the simpler parallelogram. He may now and then use hexagonal or other many-sided tiles, but he prefers the square. So also the weaver's cards are inevitably in the shape of parallelograms, and the wall-paper printer's blocks ;

and though the printer make use of the roller instead of the block, the conditions of design remain unaltered; for the roller is, for all practical purposes of design, only a block bent round in the shape of a cylinder. The square plan of the printed curtain design on Plate 18 was prescribed by the roller, which was 30 inches wide and the same in circumference.

Even the bookbinder of earlier days, who was comparatively free to do what he liked in the way of "tooling," was led, whether by instinct or by his tools, to adopt a rectangular repeat, as in Plate 19; in which also is exemplified what may be done in the way of reversing, and again reversing, the unit of design—so as with comparatively little drawing to produce the effect of an extensive pattern.

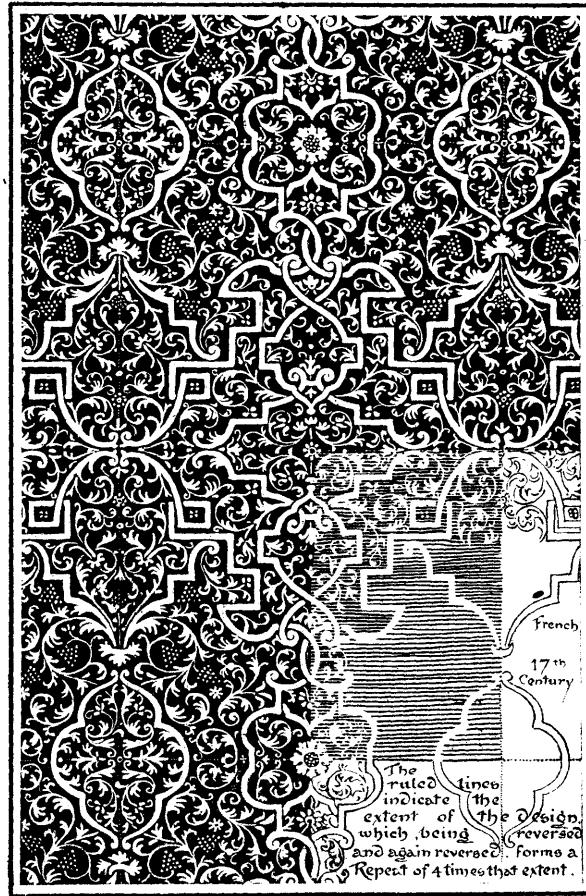
We have, ordinarily, to reconsider the possible lines of pattern construction in their relation to the rectangular figure,—that being the repeat determined for us by the conditions of nearly all modern manufacture.

The base of our operations is, then, usually a parallelogram.

Furthermore, this parallelogram is in all



"PHOTO-TINT," by J. Akerman, 5, Queen Square, W.C.



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cases restricted in size, and in most cases of more or less arbitrary proportions.

For example—in the case of wall-paper printing, it is practically determined for us that the printer's block shall be rectangular. Custom has further fixed its width at 21 inches. And, since a block of greater length than that would be unwieldy, we are restricted to a square of 21 inches by 21 inches.

The block may represent a fraction only of the design, which can theoretically be made up of as many blocks as you please. But in practice the expense of such a proceeding would make the paper-hangings cost more than paper-hangings are ordinarily worth; and, apart from commercial considerations, which would be enough to prevent that kind of extravagance, it is contrary to craftsmanship so to misapply labour. The most capable artist is he who can apply his art to most purpose, and get full value out of his materials.

As a matter of fact, the wall-paper designer has to content himself, then, except in very few instances, with a repeat of at most 21 inches square.

Within those limits he is comparatively

free ; but, as I have already shown, do what he may, his repeated pattern *will* fall into geometric lines, if only those of the parallelogram on which it is built. A pattern, such as A, on Plate 20, may seem at first sight to conform to no conditions of restraint ; but the actual lines of the repeat reveal themselves, on closer inspection, in any single feature whose recurrence is to be traced. It is based, you will find, upon the parallelogram—faintly indicated by dotted lines upon the black ground.

Apart from the conditions of actual manufacture, it is found commercially expedient to adopt certain fixed dimensions for the tile, block, roller, or whatever it may be—and we are thus constrained to design tiles (if they are to be of any use) on the usual three-, six-, eight-inch or other accepted scale ; textiles to a width fixed by the loom, and a length controlled by the consideration of economy ; block-printed fabrics under very similar conditions ; and roller-printed to a length as well as a width prescribed. The proportion of the parallelogram within which our design must be confined varies, that is to say, with the manufacture for which we are designing. An



Plate 21.

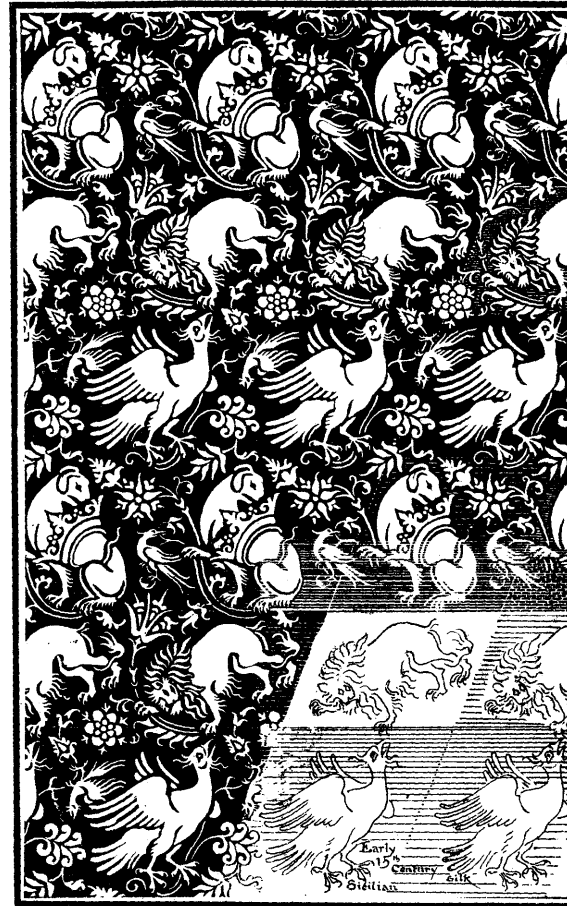


WIDTH OF MATERIAL 21"

"Photo-Tint", by J. Akerman, 6, Queen Square, W.C.

Revised Date 1893

Plate 22.



1894, Early-Late, of Journal of the Society of Arts

Early
15
Century silk
British

experienced designer could often tell, from its proportion and scale alone, for what particular manufacture a design was made. And it is in the impracticability of his ideas that the novice most infallibly betrays his lack of experience.

The production of such a pattern as that on Plate 21 in the form of a wall-paper 21 inches wide, would involve the (prohibitive) cost of four sets of blocks. Whereas to the weaver it would not prove comparatively very costly: as a matter of fact patterns of that relative length occur quite frequently in textiles.

In the width of the Sicilian silk, on Plate 22, dogs, lions, and eagles follow one another closely in a row; but in the length of the material each is separated from its like by the other two. The pattern repeats on the lines of a long upright parallelogram; but obviously it was designed on the cross lines shown.

There is no occasion to enter more fully into all the various technical reasons for the limitations to which the designer is subject. The practical convenience of them, however, is patent. It is as desirable that the architect, for example, should know what sized tiles may be available, as that he should be able

to reckon upon the "bond" of his brickwork; and it is equally clear that without some uniformity in the width of materials (such as silks, velvets, carpets, chintzes, and so on), it would be difficult to estimate, off-hand, the relative cost of each.

The upshot of it is, that the designer has habitually to shape his design according to a rectangular plan, and that of limited, if not fixed, dimensions.

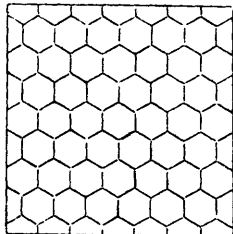
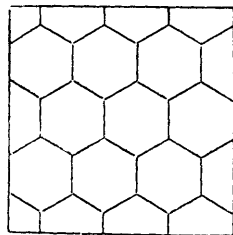
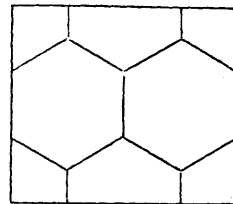
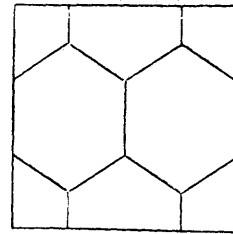
It becomes, then, a very serious question with him how far he can avail himself of any other basis.

The student might with advantage set himself to tabulate the possibilities in the way of adapting the various units of repeat to repetition, within the square. It would then be seen that, though all things are possible, there are schemes the artist would like to adopt, which, in order to be brought into the repeat permitted, would need to be worked out upon so small a scale as to become quite too insignificant for use.

One instance of this it may be worth while to give.

Suppose a square block of 21 inches, and you wish to adapt a hexagonal design to

it. Only those who have tried the experiment have any notion how small the hexagons would come. If you made your hexagons $10\frac{1}{2}$ inches wide, so as to get two in width, they would not come true in the length; they would be too long. If you made them true, they would not fill the square, but only a space of 21 inches by about 18. Three and a half hexagons in the width would work, but only as a "drop" pattern: that would give hexagons of six inches across. In order to occupy the square with true hexagons repeating without a "drop," they would need to be re-



←scale 21 inch^s→

duced to half that size; that is to say, there would have to be seven hexagons to the width, measuring each only three inches across.

Try to arrange a pattern such as that on Plate 9 to accommodate itself to a rectangular block of *given* dimensions, and you will realise how inevitably it is born of the hexagon or the triangle, and cannot be made to fit into arbitrary square lines.

It will be seen how very strictly the artist is bound by considerations which scarcely occur to the uninitiated, considerations which have always had a great deal to do with the design of pattern-work. Fashion has had her say in the matter, too, no doubt—it is a wicked way she has; but, though certain lines have been generally adopted at certain periods and in certain countries, I think it will invariably be found that there was some technical or practical reason for their adoption in the first instance.

Out of the conditions of weaving came, for example, the adoption of upright patterns, such as that on Plate 23 (from a coarse woollen fabric of the fifteenth century) and cross colouring such as occurs in Byzantine,

Plate 23

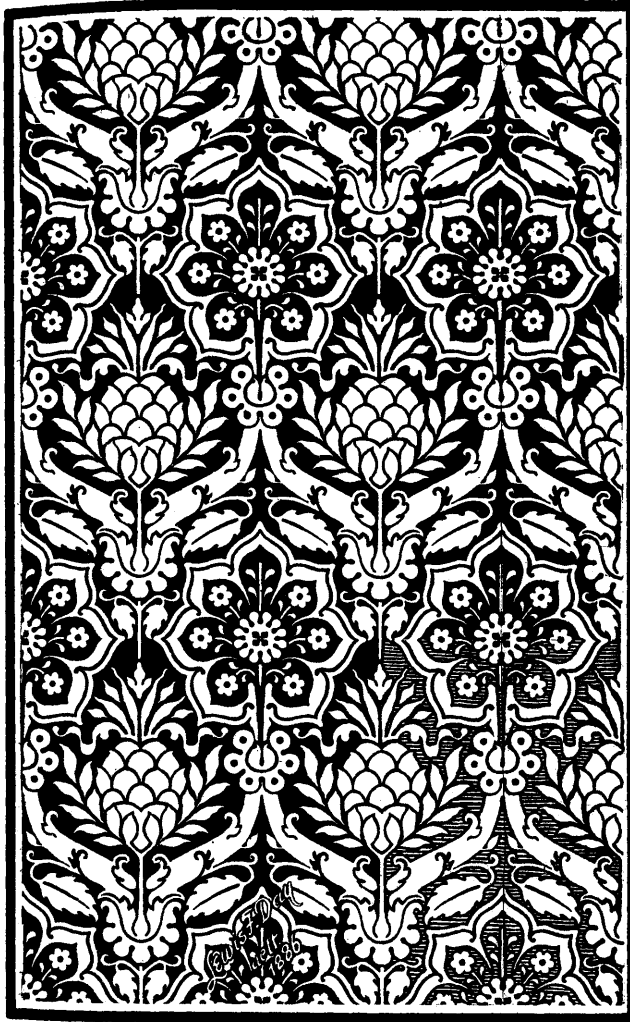
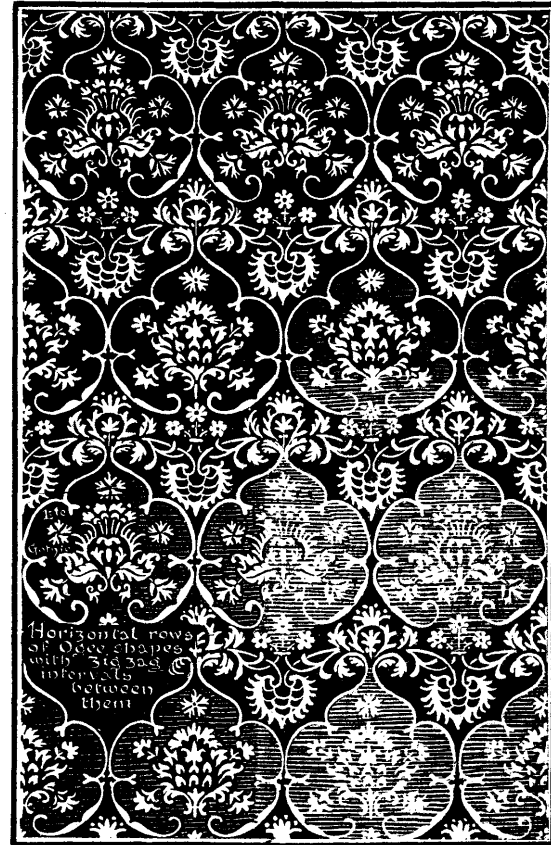


Plate 24



Horizontal rows
of Ogee shapes
with 7/8 bag &
intervals
between
them

© 1888 The Trustees of the British Museum

Plate 25.



Sicilian, and Early Italian silks (Plate 22).* Out of weaving comes also the turning over of the design on the two sides of an upright stem, or purely imaginary central line; as in Plates 23, 24, and many others.

In Plate 24 may further be seen what great influence material may exercise upon pattern. There was a whole class of patterns of this kind schemed in the 15th and 16th centuries, with the obvious purpose of disturbing as little as possible of the rich pile of the velvet for which they were designed.

When it is realised that the turning over of the pattern is essentially a weaver's device, it will be obvious that in a pattern similarly planned for *printing* there is no occasion for such rigid symmetry of the two sides; and that, on the contrary, it is desirable rather to introduce a certain amount of variation in the pattern. That is shown in Plate 25, where, though the main lines take the formal ogee shape, the termination of the branches is not alike on both sides.

* See also 'The Application of Ornament,' Plate 23.

IV.

THE "DROP" PATTERN.

THE most useful skeleton to work upon, all things considered, is the diamond. For it is on the basis of the diamond that "drop" patterns are most readily designed.

The "drop" is a device by means of which the designer is enabled, without reducing the scale of his work, to minimise the danger of unforeseen horizontal stripes in his design, a danger which is imminent when the repeats occur always side by side on the same level.

The printer's block, we will say, is a square; or the roller is its equivalent; or the cards take that form. In the printed or woven strip, whether paper, cretonne, silk, or what not, the end of one repeat must tally with the beginning of the next, in order that the pattern may be continuous throughout the piece. Equally of course the design must be so schemed that the right side of one

piece of the stuff will fit on to the left of another, and so on.

But it is clear that the design may be so contrived that each succeeding breadth has to be *dropped* in the hanging.

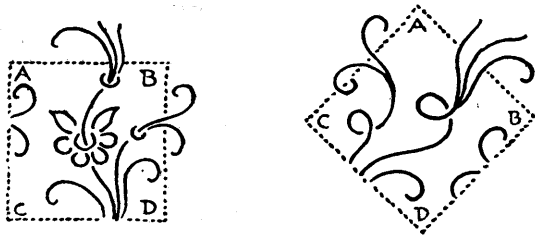
If this drop were only very slight—say three inches—it would take seven breadths, in a pattern of 21 inches deep, before a given feature in the design occurred again exactly on the same level. There would be no danger then of any *horizontal* tendency in the marked lines which recurring features of the design might take, but, on the other hand, great likelihood of a *diagonal* line developing itself, with even more unfortunate effect. The design would seem, rather, to step downwards; and the shorter the steps, the more noticeable would be the line such features might take. This difficulty is avoided if you make the "drop" just one-half the depth of the pattern, so that every alternate strip is hung on the same level. Then the diagonal lines correct themselves. If any line at all asserts itself, it is more likely a zigzag (instead of a step), which, in connection with corresponding zigzags above and below, may very possibly form a trellis or lozenge pattern.

There is good reason, therefore, for saying the diamond is a useful plan to work on; for upon it is formed the safest variety of drop pattern—that, namely, which drops one-half its depth.

Instances of drop patterns are given in Plates 17, 20 (B), 37, 41, and others.

One has heard persons, more familiar with the forms of ornament than expert in practical design, complain of the difficulty they experience in scheming a “drop.” If they would only think of the problem as the filling of a diamond shape, it would come very easily to them.

The diamond is, in fact, only a square turned part way round. That part of your



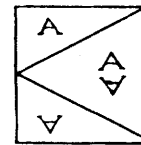
design which extends beyond the margin A B must occur again within the margin C D; that which extends beyond the margin C A

must recur within the margin D B, and *vice versa*, no matter whether the lines be vertical and horizontal or on the slant.

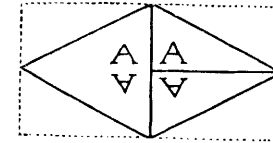
What you have to do is to see that one side of the pattern fits on to the other.

There is this further advantage in adopting the lines of the diamond—that it affords an opportunity of working out a design which is apparently twice the width of the material.

If you subdivide a block of 21 inches thus, so that the two smaller divisions A and V together equal the larger division $\frac{A}{V}$, it amounts to precisely the same thing as though you designed upon the basis of a squat diamond 21 inches high by 42 inches wide (see diagram below).



You have only to transpose the component triangles to produce the squat diamond. If, there-



fore, you design your pattern within the lines of the squat diamond, 21 inches by 42 inches, you will find that it can be printed on a material 21 inches wide from a square block measuring 21 inches each way. (Plate 26.)

The advantage gained in this way is, of course, only apparent—what is put into one strip is taken out of the other—but in the case of pattern appearance goes a long way. From the practical point of view, it is difficult to over-estimate the value of this expedient in design, the common property of designers for all manner of fabrics, but undreamt-of in the philosophy of the amateur.

In theory, it may seem all the same whether you design a drop pattern on the lines of the square, on the slant, or on the diamond: you may arrive in any case at identically the same result.

Dissect the design on Plate 28 and you will find that it may be resolved into any one of the three repeats shown on Plate 27. That is to say, it will repeat (1) as a square pattern (occupying the full width of the material) to hang as a drop; (2) as a slanting pattern of the same width, also to hang as a drop; or (3) as a diamond pattern just twice the width of the material. *Theoretically*, the design might have been started on the lines of the square; but the diamond shape would have been much more likely to suggest the lines it takes. As a matter of fact it did.

Snip from a square the two opposite corners (black in diagram) and transpose them, top and bottom, and you get the oblique shape. Snip from it the four corners, and rearrange them at the sides of the hexagon thus given, and you get the flat diamond.



Nevertheless, practically it makes all the difference in the world which plan you adopt. Your design must be influenced to a very considerable degree by the shape you set yourself to fill. It would never occur to you, for instance, to stretch a festoon, or wreath, across a width of space you did not see before you. So it may be fairly said, that such extension of the design beyond the width of the material, is the direct result of working on the lines of the diamond: whilst you are designing within the lines of the square, you have naturally less impulse to go beyond its limits.

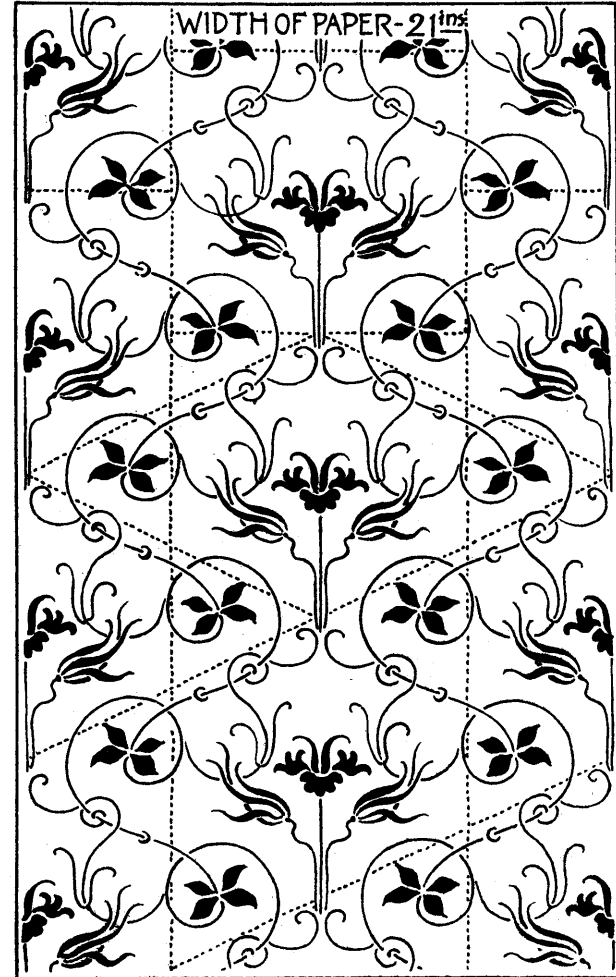
In designing for tiles and such like, where the material is not continuous, the conditions are somewhat different, and the possibilities

Plate 26.



E. F. KELL, PHOTO-LITHO. 8, FURNIVAL ST. HOLBORN, E.C.

Plate 27.



J. Akerman, Photo-lith. London.



PHOTO-TINT, by J. Akerman, 8, Queen Square W.C.

accordingly. Where the unit of design can conveniently be turned round, or half-way round, or three-quarters of the way, the scope of the designer is increased; in four repeats of a six-inch tile he can get, for



One 6-in. tile from 4 points of view.

example, a design which includes a circle 12 inches in diameter. On Plate 29 is shown how, out of a single 6-in. tile design you may get a pattern four times that size.

The actual repeat is contained in a triangle which is only one-quarter of the 6-in. square; but such a pattern would obviously be most conveniently designed on a diamond measuring 12 inches from point to point. So again, the book-binder, with a comparatively limited set of tools, has very considerable scope as to the distribution of design; but he has still to work upon the lines set forth in Chapter II.

V.

SKELETON PLANS.

THE designer finds it ordinarily more convenient to design at once upon the lines of the diamond, because their simplicity enables him better to keep in view the effect of his pattern in its repeated form than any other lines on which the "drop" can be worked.

Even though one may have no intention of taking advantage of the full width of a block, it may still be found convenient to design within the diamond, if only in order to economise design: and, mind you, economy is an absolute necessity of the case. But for economic reasons there would be no weaving, printing, stamping, and so on; we should confine ourselves to embroidery, tapestry, painting, and other work of our own hands.

Assume, for the purpose of explanation, that it is a wall-paper you want to design. If you begin by dividing the width of 21 inches into two, and make your pattern a "drop," 21 inches long by $10\frac{1}{2}$ wide, as at A

on Plate 30 (where, by the way, two widths of the material are shown), it is the same as though you had worked upon a diamond 21 inches from point to point (as at B); although, as I said before, the same pattern would probably not have suggested itself to you in either case. This particular design would have been more likely to occur to one designing on the lines of the diamond. Working on the lines of the dropped parallelogram, one is more likely to arrive at something like B on Plate 20.

Again, if you divide the width of 21 inches into three, as on Plate 31, and on those lines set out a diamond pattern 21 inches long by 14 inches wide (that is two-thirds the width of the material) so that the block ($21'' \times 21''$) contains one unit and a half in the width, the paper will hang as a drop, to fall one-half its depth.

This is a plan which lends itself as well to the design of a free, loosely distributed, all-over pattern, as of a severely bi-symmetric one.

It is clear that the half diamond on the one side of the block (A on page 43) and the two quarter diamonds on the other side (a a) must together form a complete unit, and the two

Plate 29.

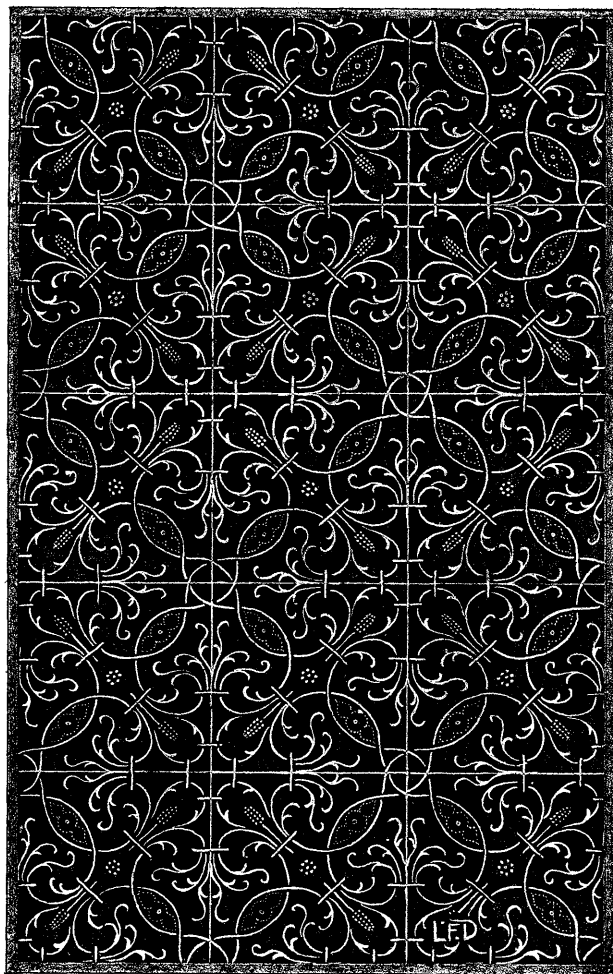


PHOTO-TINT, by James Akerman, London, W.C.

Plate 30.



PHOTO-TINT, by James Akerman, London, W.C.

Plate 31.

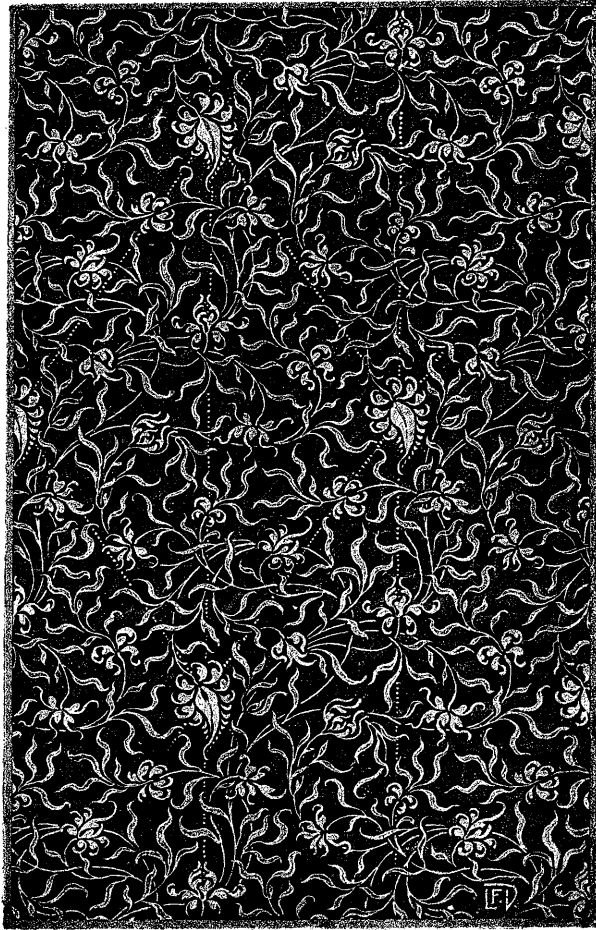


PHOTO-TINTY, by J. Akerman, 6, Queen Square, W.C.

Plate 32.



PHOTO-TINTY, by James Akerman, London, W.C.

Plate 33.

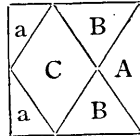


"PHOTO-TINT", by James Akerman, London, W.C.

Plate 34.



half diamonds (B B) another, or the block would not work. With that proviso, the diamonds need not all be filled alike—that is to say, the three diamonds (A B C) comprised in the repeat may be variously filled.



If you still divide your 21 inches into three and institute, as on Plate 32, a series of stripes seven inches wide, each of which drops at the same interval (whatever it may be), it is likely to result in a diagonal stripe more or less pronounced; which might, of course, equally have been designed upon diagonal lines.

If of the three stripes only one were dropped, the design would also hang as a drop, revealing very likely a zigzag line on the principle already laid down. The zigzag cross line asserts itself plainly on Plate 33, notwithstanding the very obvious vertical lines within which it is designed.

Further explanation of the ways in which a given space may be subdivided (what is said of the supposed 21 inches applies equally to any given parallelogram) would be superfluous. Enough has been said to show

how by such subdivision the utmost variety of scale may be obtained.

Although, however you start, you come back always to the same few schemes; and although in any case your pattern might, as I said, equally have been designed upon other lines, had you worked upon them it never would have occurred to you.

The diagonal stripe pattern on Plate 34 resolves itself into a diamond repeat, but it is tolerably certain that the designer did not work upon the lines of that diamond, but most likely upon a network of diagonal and horizontal cross-lines—as did also the inventor of Plate 22.

The inevitable influence on your design of the lines upon which you start, is the excuse, and the only excuse, for puzzling over all the various skeletons upon which pattern can be laid out.

It is a good test of your design, when you have roughed it out on one plan, to make the finished drawing on another. By that means you see it, as it were, from two points of view, and can form a very fair idea as to how it repeats, without drawing much of the repeat.

The practical designer (who has learnt



C. F. KELL, PHOTO-LITHO, B. FURNIVAL ST. HOLBORN, E. C.

not to attach great value to the appearance of his design as a drawing) often cuts it up deliberately, and re-arranges the parts, in order the better to prove his repeat. The use of this expedient is shown in Plate 35. The larger diagram shows a pattern as the designer might sketch it—and not much more of it than is enough to show the lines it will take in repetition. But, as I said, the simpler way of proving it would be to cut up the repeat (the square with black background to the left of the plate), and re-arrange its parts.

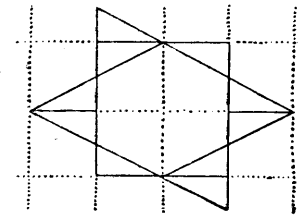
This has been partially done in Fig. 2, in which the design has been cut horizontally into two equal parts A B and C D; and, by the transposing of these two halves, what were the upper and lower edges are brought together, showing plainly how this portion of the design will appear in completion.

The joining of the side edges is tested in Fig. 3. Here the drawing has once more been cut in two, vertically this time. And, since this is a drop pattern, it is not merely the two halves that have to be transposed; but, whilst parts B and D remain relatively to each other in the same position as in Fig. 2, parts A and C are reversed in order (A C becomes C A).

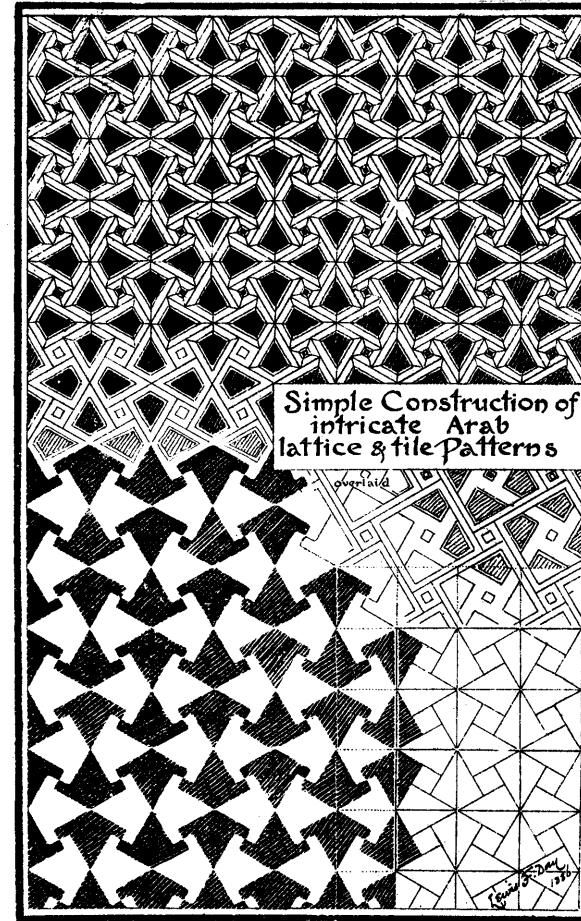
The remaining Figure, 4, supposes us to have left parts A and C in the same position relatively to one another, as in Fig. 2, and to have re-arranged (on the same principle as before) parts B and D (B D becoming D B). The four quarters of the design have thus been shuffled and dealt out in every practicable manner, and each portion of it in turn promoted to the position most in view.

In the case of a pattern which did not drop, the proving would have been, of course, a yet simpler matter. Obviously, too, the operation of cutting up might be (and in practice would be) performed at a comparatively early stage in the designing, so that the various joints might in turn be tested and adjusted before the details of the intermediate spaces were finally determined.

The way in which the parts of the diamond may be re-arranged, in like manner, is sufficiently indicated by the accompanying diagram.



But the best of all possible tests is to cut ever so rude a



E. J. KELL, PHOTO-LITHO, 8, FURNIVAL ST HOLBORN, E. C.

Plate 37.



Photo-Tint, by James Akerman, London, W.C.

Plate 38.



stencil of the broad masses of the design, so as easily to multiply it to any extent. A child can be taught to apply that test for you ; and it is infallible.

Whatever the lines of the skeleton, in any important work they are usually disguised.

Sometimes (as often in Arab art) they are so crossed and interlaced that it is difficult to follow their intricacy. The really quite simple patterns on Plates I, II, and 36 are at first sight very puzzling.

Again, the lines may be interrupted so that you lose the thread of the design. Or, further, two or more schemes of ornament may be, so to speak, interwoven, the one asserting itself here, the other there, so that neither thread of idea is too conspicuous. The effect of this is to be seen in Plate 37, a drop pattern, in which the attention is diverted from the formal lines of the scroll by a conventional growth of much freer character over-running it.

Furthermore, features may be introduced of such importance in the design that the eye is drawn to them, and fails to perceive the connecting lines between.

In Plate 38 the strongly marked bird-forms counteract to some extent the simple ogee or diamond lines on which the pattern is set out. In fact, the birds emphasise the actual repeat of the *block*, just as the scroll reveals the real *construction* of the design ; and out of the two contrasting schemes arises a certain confusion, which is of some artistic account in design.

Obviously, however, the most effective way of disguising the skeleton is to clothe it, as nature does ; and the most natural way of doing this is, with something in the nature of foliation ; beneath which the bare constructional lines are not necessarily more conspicuous than the stiff branches of a tree under their burden of leaf and blossom. (Plates 25, 26, 31, 40, &c.)

By this means, you get at once life, interest, and variety so great, that one might continue this already lengthy explanation until it became tedious,—and yet, perhaps, fail to make the sceptic quite believe in the absolute simplicity of the skeleton forms underlying all pattern.

The foliated scroll, as you see it, for example, in Roman or Renaissance Arabesque

(or even in Plate 40), looks almost as though it were impossible of geometric construction. And, of course, it never is mathematically built up. But, for all that, it falls into the familiar lines. The spiral itself is only a series of segments of circles ; and if you dissect any repeated scroll-pattern, you will find most likely that its back-bone is a wave line or spiral. Certainly you will find it has a back-bone. Pattern is a vertebrate thing ; and in a scroll the spinal cord is very decidedly pronounced. You can soon see when a scroll is broken-backed.

VI.

APPROPRIATE PATTERN.

IT is only by experience that a designer learns to know what may, and what may not, be done within given lines. Many a notion which one had a thought of adopting, turns out to be practically quite unamenable to existing conditions.

You cannot have a bold, flowing scroll without considerable allowance in the way of length in the blocks, cards, or whatever may be the mechanical contrivance used ; nor can you well avoid a certain upright tendency in patterns where the width is very much restricted ; though you may counteract it to some extent by lines in the contrary direction. In Plate 39 the horizontality of the large leaves is more than corrective of the upward growth of the design. The fact of the matter is, the characteristic lines of time-honoured patterns are mainly the direct result

Plate 39.

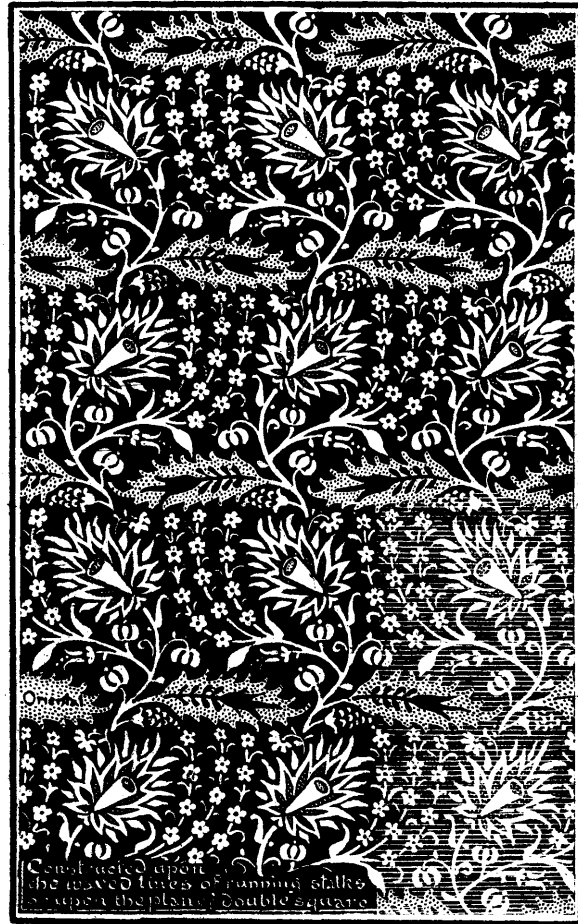
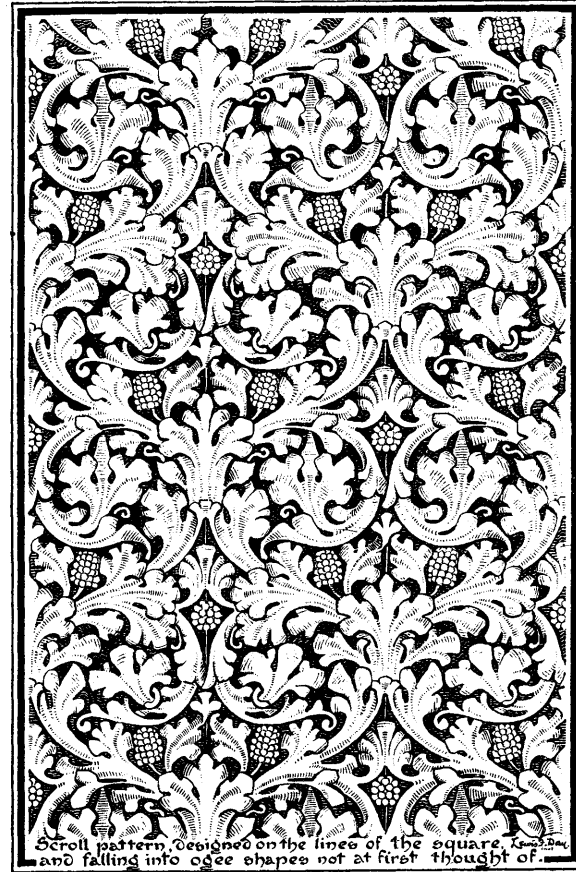


Plate 40.

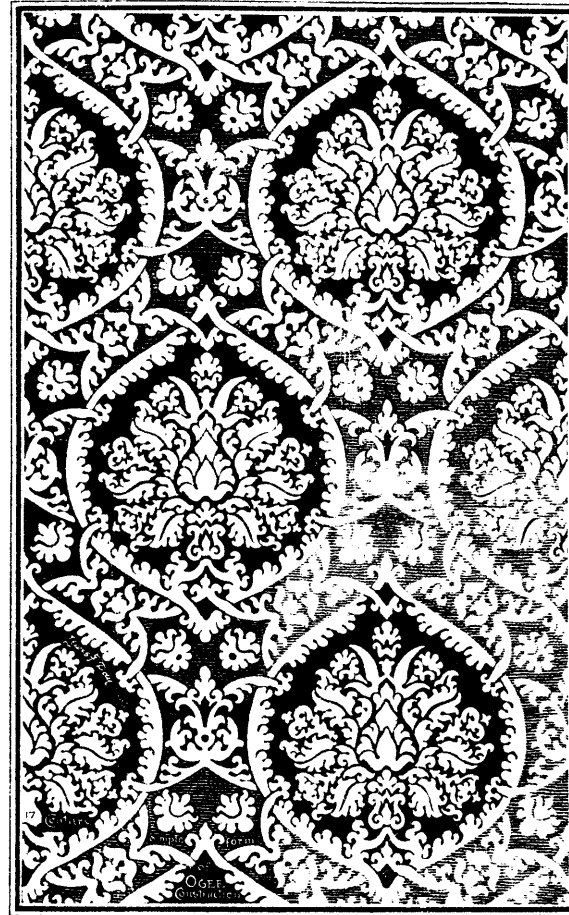


of the restrictions under which the craftsman was working.

It is owing to the facility with which triangular cubes or tiles can be arranged in patterns, that the peculiarly geometric character of much Oriental ornament is due. So also with us, the proportions of the square tile have resulted in a distinctly characteristic form of ornament.

I do not pretend to say whether the turning over of the design which prevails in early silks, was suggested by the fact that such turning over could be so readily done in weaving ; but it looks, at all events, as though the Sicilians, and, in fact, weavers generally until comparatively recent times, adopted that plan of design, because by means of it they could without more ado double the scale of their pattern.

In the Gothic scroll pattern on Plate 40, and in all such turned-over designs planned upon, or falling into the lines of, the diamond or the ogee, one-half the labour of designing and card-cutting is saved. Naturally, the nineteenth century manufacturer has not been slow to adopt a plan so obviously economical. It has been said, that the idea of reversing a pattern owes its origin to the circumstance that you



may double a sheet of paper, and so, with one action, cut out the two sides of it. If that is not so, it well might be—except that, probably, reversed patterns were common long before paper was. Very possibly it is derived from the practice of folding or doubling. One may put together, for example, several sheets of veneer, or even several planks, and, with one action of the saw, fret all of them alike. That facility gave rise at all events to Boulle's characteristic inlay patterns;* and in the balconies of Swiss châteaux one still sees a very effective kind of pierced pattern-work, which is accounted for in a similar way.†

Bands or stripes of different colours are so common in Eastern curtains, blankets, &c., because they can be so easily woven.‡ Even in more elaborate silk and other designs, certain of the colours are very often distributed band-wise. The variety of colour so obtained, is obviously due to the ease with which the weaver can change his shuttle.

At the same time, economy is thus often effected. If in such a design as that on

* 'The Planning of Ornament,' Plate 13.

† 'The Application of Ornament,' Plate 34.

‡ 'The Application of Ornament,' Plate 23.

Plate 38 the birds were meant to appear in gold, the gold thread need only be used in the bands where the birds actually occur. You have but to look at the back of any old piece of many-coloured silk damask to see the changes of the shuttle very plainly marked. The aim of the designer is usually to disguise them more or less in his pattern. But in the early days of silk weaving the unsophisticated artist had no fear of a horizontal line. In such a pattern as the Sicilian silk in Plate 22, he would boldly make the various bands of animals in various colours. He would sometimes even carry bands of colour straight *across* the animals, regardless of their shape. And the effect of this rough-and-ready proceeding, in the silk itself, certainly justifies him.*

In early examples of weaving both the turning over of the pattern, and the banded arrangement of the colour are very frequent; indeed, so much so, as to form quite marked features in the design of the eleventh and following centuries, whether Sicilian or Italian. (It was from Sicily, you know, that the art of weaving was introduced into Italy.)

* 'The Application of Ornament,' Plate 23.

Designers would be the more ready to adopt, and to adhere to, the plan suggested by the loom, in that the horizontal line, due to it, was in no way injurious to the effect of a fabric meant to fall in folds. In fact the horizontal band emphasised by the change of the shuttle had an absolute value in marking the fulness of the hangings. The dim vertical line, which was likely to occur from the turning over, was calculated to lose itself in the more strongly marked verticality of the folds.

In flat decoration the horizontal band is less unobjectionable; and it is for that reason that so many of the wall-paper patterns, borrowed or stolen from good old stuffs—by their stripes you shall know them—are altogether unsatisfactory on the wall. To me, horizontal stripes usually suggest the ample hanging, and seem to want the folds.

The bold and beautiful effect of many a fine brocade or damask pattern, such as that on Plate 41, would be lost if it were rendered in flat decoration, with no charm of texture to decoy the eye. Many an admirable textile pattern, suitable in all respects but that of its marked horizontal lines, is inapplicable to

flat wall decoration, whether in the shape of silk, or chintz, or paper.

Some persons appear to be of opinion that, a pattern (according to Dr. Johnson) being "something to be copied," design consists therefore in copying what has been done before. That is all very well so far as concerns the definition of the word pattern; but how about the meaning of the word design? I would go against the lexicographer, and say: *not every* pattern is an "exemplar."

In adapting a design, from one material to use in another, it is not enough to copy the original: it needs to be translated; which translation is not so easy, but that an artist gifted with any invention of his own, will find it, on the whole, better worth while to say what it is in him to say for himself, and not go on harping on the old, old tunes, melodious though they be.

The most perplexing thing to us just now is that we are asked to design, to-day under these conditions, to-morrow under those. We have no traditions and no style. Our consolation is that in the very variety of the efforts demanded of us there is relief of a kind: and in the presence of difficulties our

ingenuity, if we have any, is excited. The more difficult the conditions, the more they provoke solution. A designer must have in him something of pugnacity ; he must enjoy attacking a tough problem. Indeed he proves himself a designer, not when he has somehow or other arrived at a design, but inasmuch as out of unpromising material and untoward circumstances he can contrive a thing of beauty.

Plate 1.



Photo-Tint by James Skerman.

TEXT BOOKS OF ORNAMENTAL DESIGN.

THE
PLANNING OF ORNAMENT.

BY

LEWIS F. DAY,

AUTHOR OF 'SOME PRINCIPLES OF EVERY-DAY ART,'
'THE ANATOMY OF PATTERN,' 'THE APPLICATION
OF ORNAMENT,' 'NATURE IN ORNAMENT,' ETC.

*THIRD EDITION, FURTHER REVISED, AND
MANY OF THE ILLUSTRATIONS RE-DRAWN.*

LONDON :

B. T. BATSFORD, 94 HIGH HOLBORN.

1893.

PREFACE TO THE THIRD
EDITION.

THE aim and scope of these Text Books stands no longer in need of explanation. That they have come to a third edition seems to indicate that there was a want for such a series, and that they meet it.

In the third edition of 'The Planning of Ornament' I have taken occasion to reconsider my words, and also to revise the illustrations. Some that were sketchy have been carried further; others which were unsatisfactory have been entirely re-drawn.

LEWIS F. DAY.

13 *Mecklenburgh Square, London, W.C.*

April 24th, 1893.

TABLE OF CONTENTS.

	PAGE
I. INTRODUCTORY	1
II. THE USE OF THE BORDER	3
III. WITHIN THE BORDER	16
IV. SOME ALTERNATIVES IN DESIGN	27
V. ON THE FILLING OF THE CIRCLE AND OTHER SHAPES	37
VI. ORDER AND ACCIDENT	45

DESCRIPTIVE LIST OF PLATES.

1. PANEL AFTER THE MANNER OF DU CERCEAU—Order in apparent disorder.
2. BORDER IN THE MANNER OF FLÖTNER—Example of comparatively important frame.
3. ROMAN PAVEMENT—In which is shown the development of a geometric diaper into a more important scheme of ornament.
4. GREEK BORDER—Instance of simple and very formal treatment.
5. DIAPERS—Schemed to fit panels.
6. PAINTED DOOR—Showing the influence of the proportions of the panels upon the design of the decoration.
7. BOOK COVER OF XVIITH CENTURY—Illustrating the use of border within border.
8. PANEL—Invaded by ornament springing from the border.
9. INTERLACED HENRI II. BOOK COVER—In which a border line is suggested.
10. PANEL—In which the border is inseparable from the filling.
11. PANEL—In which the filling breaks over the border, in the Japanese manner.

12. PANEL—In which the border is invaded by the field.
13. INLAY, AFTER BOULLE—In which the border, so to speak, loses itself.
14. FREE DESIGN—Which by the orderly arrangement of the parts constitutes itself a border.
15. BROKEN BORDERS—Showing various ways of breaking them.
16. INLAID PANEL—Showing a break in the border, and the suspension of the principal ornamental feature.
17. CARTOUCHE, AFTER JOST AMMAN—A very free treatment of the frame.
18. PANEL—With medallion, &c.
19. PATTERN—In which the detail is grouped so as to give medallion shapes not otherwise marked.
20. DIAPER—Not schemed with reference to the panel it fills.
21. PANEL IN NIELLO—With geometric diapers disposed in eccentric Japanese fashion.
22. BANDS—Their application to a cylindrical shape.
23. DOOR PANELS—Treated from the ends.
24. BOOK COVER—Treated from the corners.
25. DOORS—One-sided scheme accounted for by the position of lock plates.
26. PART OF CABINET—In which the construction has suggested the scheme of ornament.
27. LACQUER BOX—In which the artist takes the whole object for his field.

28. PANELLING.
29. CARVED DADO—With square panel shapes within the panels.
30. DESIGN—In which the borders are interrupted.
31. DOOR—In which the disproportion of the panels is rectified by borders supplementary to the mouldings.
32. PANEL—Where the borders round a central medallion interrupt the borders of the panel itself.
33. SUBDIVISIONS—Each with its own ornamental filling.
34. PANEL—Eccentrically cut in two.
35. BROKEN SURFACE—Japanese diaper without repeat.
36. STENCILLED ROOF DECORATION—Designed in cross bands to correct the parallel lines of the joists.
37. VASES—Illustrating lines on which they may be decorated.
38. DIAGRAMS—Explanatory of the subdivision of the circle.
39. CIRCLES—Illustrating lines on which they may be decorated.
40. BOOK COVER—One ornamental feature designed to disappear behind another.
41. PANELS—Jointly symmetrical.

THE
PLANNING OF ORNAMENT.

I.

INTRODUCTORY.

“The Anatomy of Pattern” concerned itself with the lines on which repeated pattern is built. It is proposed now to discuss the order in which ornament not necessarily recurring may be distributed. And it will not be difficult to show that, illimitable as the scope of the designer may at first sight appear to be, his range is actually confined within limits which it will be my business to set forth.

The first step in design, or rather the preliminary to all design, is to determine the lines on which it shall be distributed—to plan it, that is to say.

The more clearly the designer realises to himself the lines on which it is open to him to proceed, the better; and if it can be shown

(as it can) that these are, comparatively speaking, few and simple, so much the easier will it be for him to make up his mind promptly and determinedly which of them he will in any given case adopt.

The shape of the actual space to be filled will oftentimes determine for him, more or less, the distribution of his design. That is to say, it may very likely render certain schemes altogether unavailable, and perhaps even limit his choice to a single plan; but at his very freest a man is limited, in the nature of things, to certain methods of procedure presently to be defined.

Plainly it would be out of the question to discuss at length the relation of every possible plan to every possible shape. I purpose, therefore, to take the simple parallelogram (which may stand for panel, page, floor, ceiling, carpet, curtain, wall, window, door, façade, no matter what), and to show the possibilities with regard to the distribution of ornament over its surface. It will then remain only to explain how the same principles apply, whatever the shape with which we have to deal.

II.

THE USE OF THE BORDER.

Given a panel to be filled, how is this to be done?

There are two very obvious ways of going to work, either of which, to the sophisticated modern at all events, seems equally natural. You may start as well from the centre as from the edge of it. That is to say, you may boldly attack the centre and let your design spread outwards to the margin; or you may begin with a border and creep cautiously inwards.

When once the border is marked off, the space within remains to be treated. Theoretically, indeed, you have only reduced the area over which your composition is to be distributed. But practically that is not quite so; more especially if the border be of any importance. For a border may be of such interest that nothing further is needed, and the centre of the panel is best undisturbed by ornament. Especially may this be so if the material in

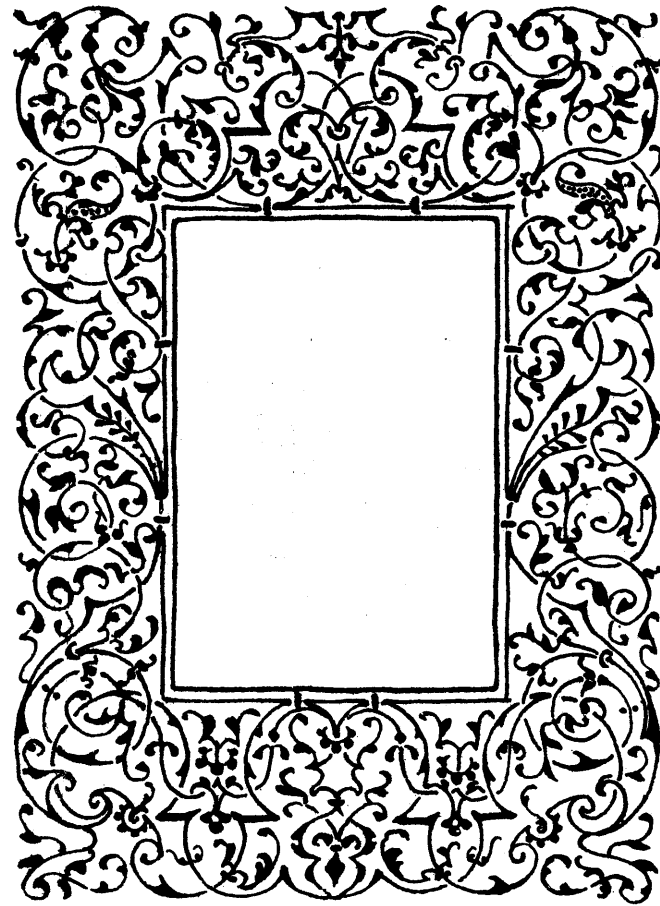
4 *The Planning of Ornament.*

use be in itself of some intrinsic interest. It is distinctly not desirable to mar the surface of beautiful wood or richly varied marble with added ornament. With the cabinet maker, for example, it resolves itself pretty generally (unless he should once in a while mean to indulge in ultra lavish enrichment), into a question of whether he shall enrich his panels or the mouldings bordering them.

The proportion of a border is of more importance to a scheme of design than might be supposed. It makes all the difference whether it is simple or elaborate in character. A very deep rich border has such an entirely different effect from a moderately simple one, that it looks something like a different treatment altogether. Compare Plates 2, 3, and 4, and see what a different part the border plays in each. The ornament on Plate 2 might appropriately enrich a page of text: that on Plate 4 requires obviously some more substantial filling. The strength of the border goes for something as well as its depth.

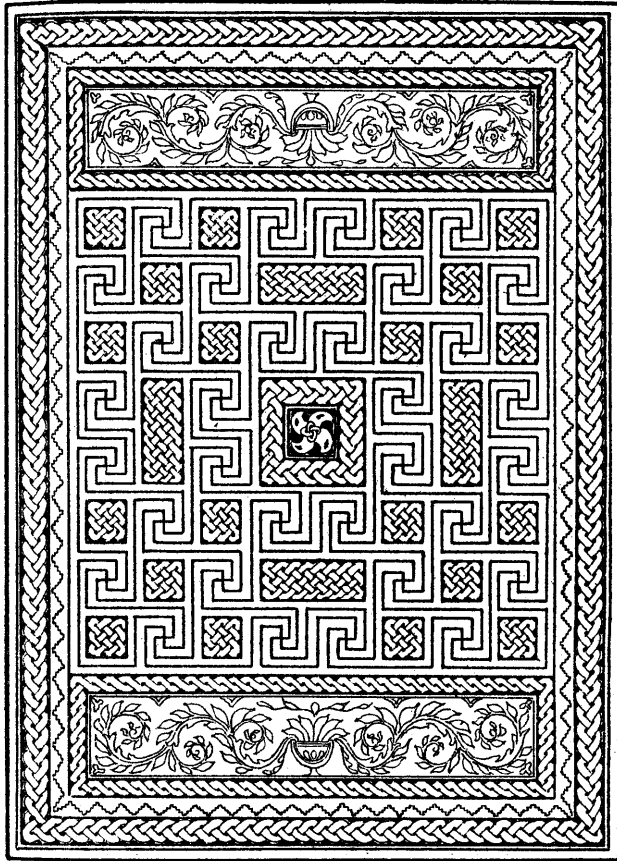
Borders may easily be so schemed (and should be so schemed) as to give panels of proportions calculated to allow of the decoration proposed for them. If, for instance, a

Plate 2.



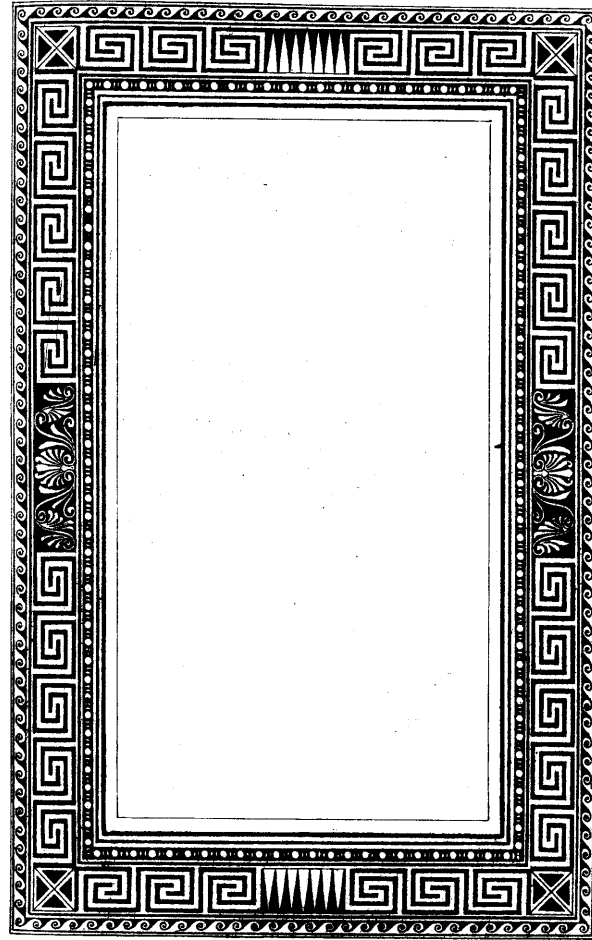
D. F. KELL, PHOTO-LITHO. B. TURNIVAL ST. HOLBORN, E. C.

Plate 3.



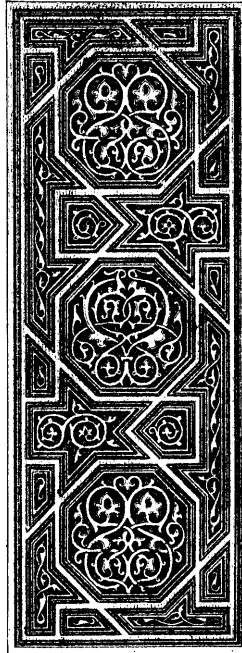
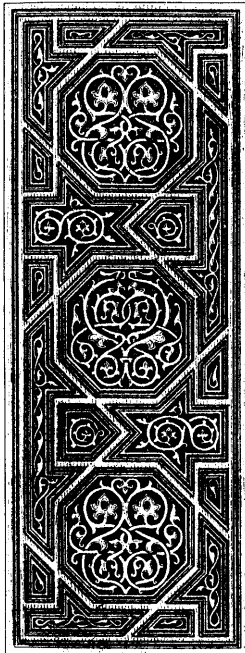
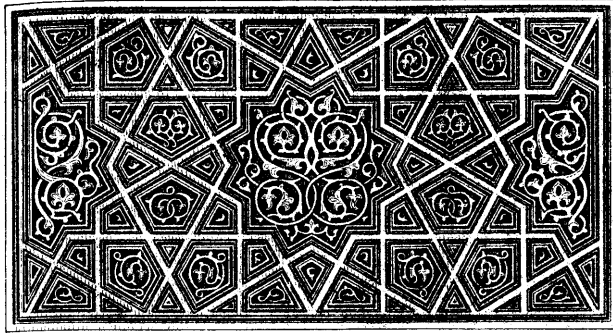
C. F. KELL. PHOTO-LITHO. G. FURNIVAL ST. HOLBORN, E.C.

Plate 4.



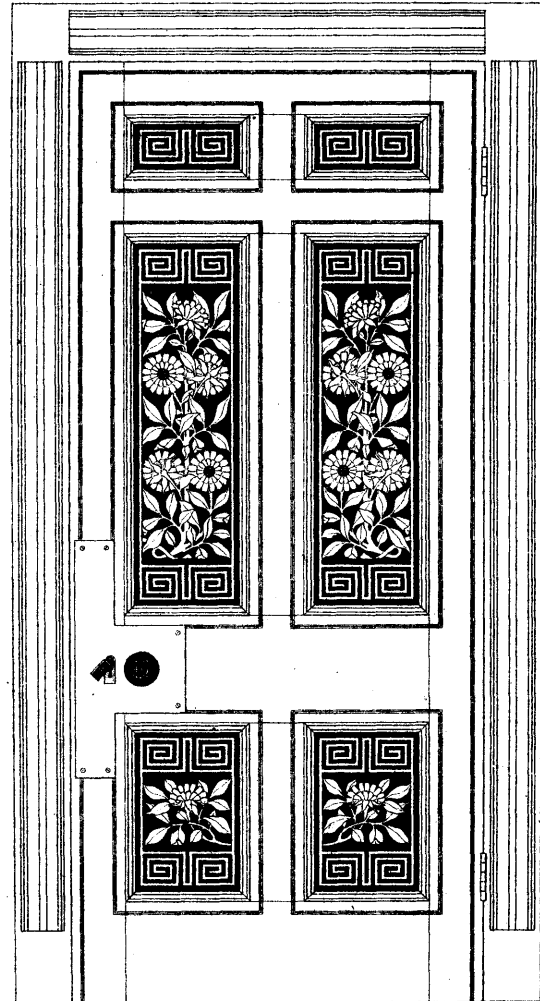
J. Akerman Photo-lith London

Plate 5

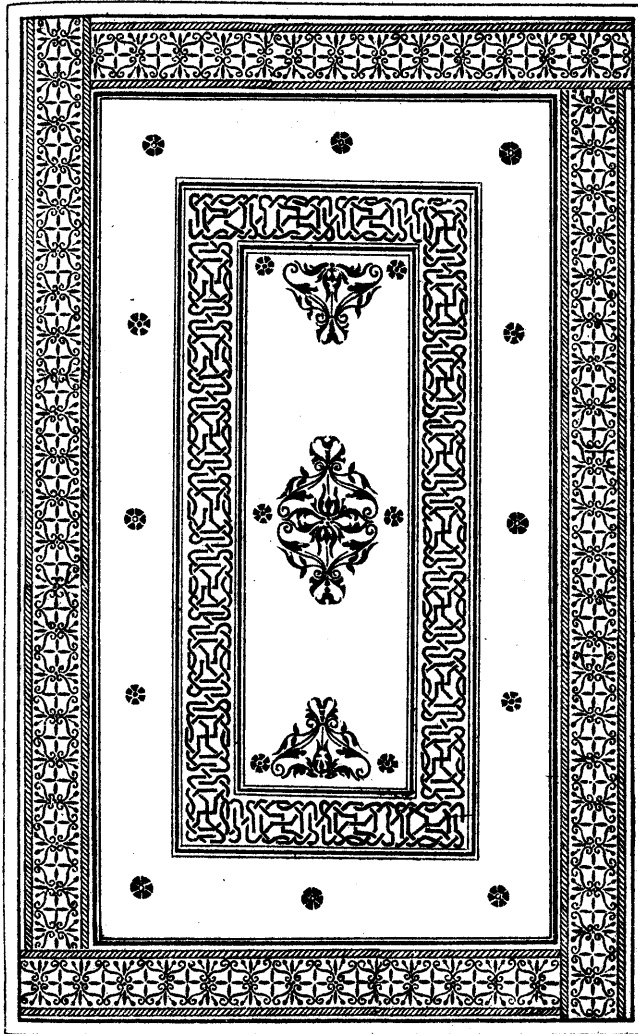


J. Akerman, Photo lith London.

Plate 6



C. F. KELL, LITHO, 8, FURNIVAL ST. HOLBORN, E.C.

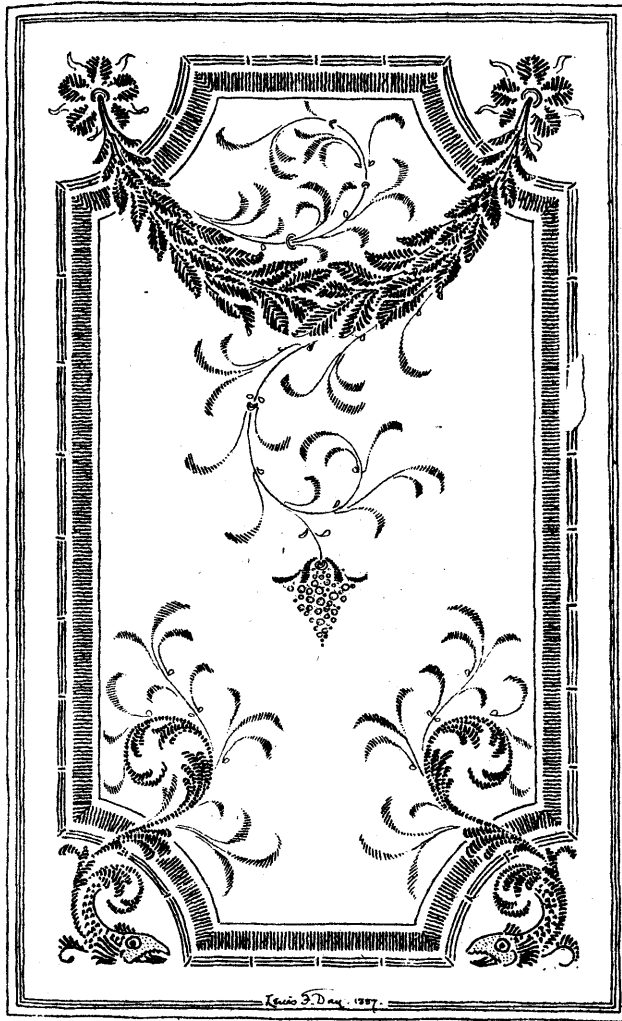


panel is to be filled with a diaper, arrangement should be made for the "repeat" of the pattern within it. It is quite clear that the Arab diaper spread over the panels in Plate 5 was devised expressly with that object. Again in Plate 6 the necessity of accommodating one's ornament to shapes so unequal as the panels of the door, has obviously to a considerable extent controlled the design. But for those small upper panels, it would never have occurred to one to break up the longer panels just so.

Panels or other spaces which are to contain figures or figure subjects should be of a proportion and size not too difficult to occupy in that way.

In the case of an isolated panel, this is perhaps of less importance—the artist ought to be equal to the occasion—but in the case of a series of panels to be treated in accord, the problem is made infinitely more difficult when they are of all manner of shapes and sizes.

It is no easy matter to scheme even the simplest ornament into panels of such awkward and widely different shapes and sizes as the decorator has only too frequently to deal with.



© F. KELL, PHOTO-LITHO. 9, FURNIVAL ST HOLBOAN, E.C.

6 *The Planning of Ornament.*

There is a salon in the palace at Fontainebleau in which the proportions of the paneling prove to be due almost entirely to the *painter*, who has brought the larger panels into scale with the smaller by means of a series of borders within the actual mouldings. It is much less trouble, of course, for the joiner, when he has an awkward space to panel, to determine the width of the stiles, and let the panels come as they may. But a very little consideration on his part would save the decorator, who comes after him, an infinity of pains. And though it may be the business of the decorator to get over difficulties of the sort, his work is not so easy that there is any occasion to put difficulties in his way.

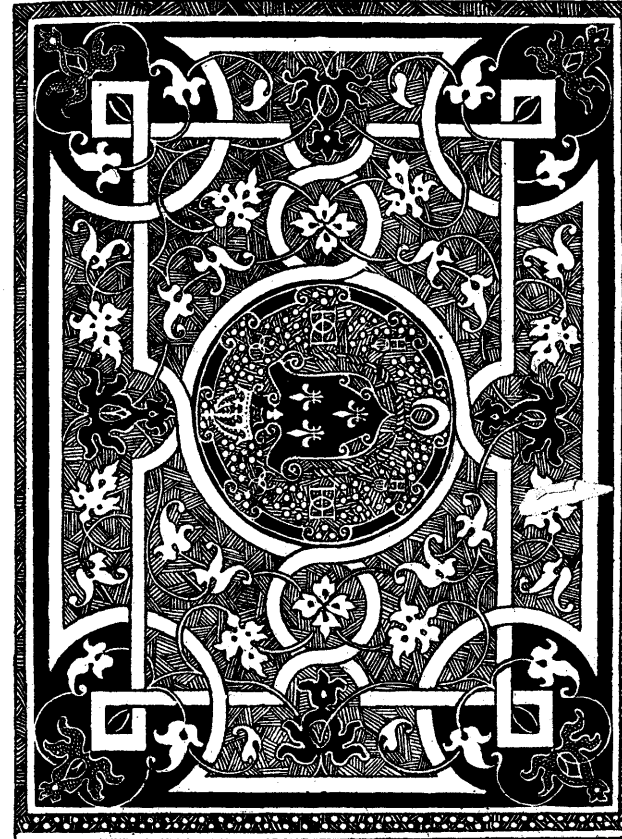
The stiles which frame a panel may be considered as its border; the mouldings again, are so many borders within borders.

A border which is made up of many lines really constitutes a series of borders one within the other. The use of border within border as a deliberate scheme of ornament is common enough: it was the case in certain tooled bookbindings of the seventeenth century, one of which is represented on Plate 7.

You may even add border to border (as was sometimes done) until the whole field is occupied. It is not altogether uncommon in Renaissance cabinet-work to find the panel en-croached upon by border after border of mouldings until it dwindles practically to nothing.

The obvious and simple thing to do with a border is to keep it of one uniform and equal width. But such equality of width is by no means essential. You may see in mediæval illuminations the effect, more or less satisfactory, of emphasising two sides of the page. Nor need the border necessarily be continued all round the space at all. Curtains have often a border on two sides only, and sometimes only on one, marking what one may call the lips of the hangings. You may look upon the architrave of a door as a border on three sides of it only. And in the same way a mantelpiece partly frames the fire-grate, the fender completing the scheme. A certain reasonableness is the most complete justification of such partial bordering.

Every frame is a border. No matter how irregular the shape of it may be, a frame's a frame "for a' that." It may take the architectural form of cornice, pilasters, and dado,



C. F. KELL, PHOTO-LITHO. B. FURNIVAL ST. HOLBORN, E. C.

8 *The Planning of Ornament.*

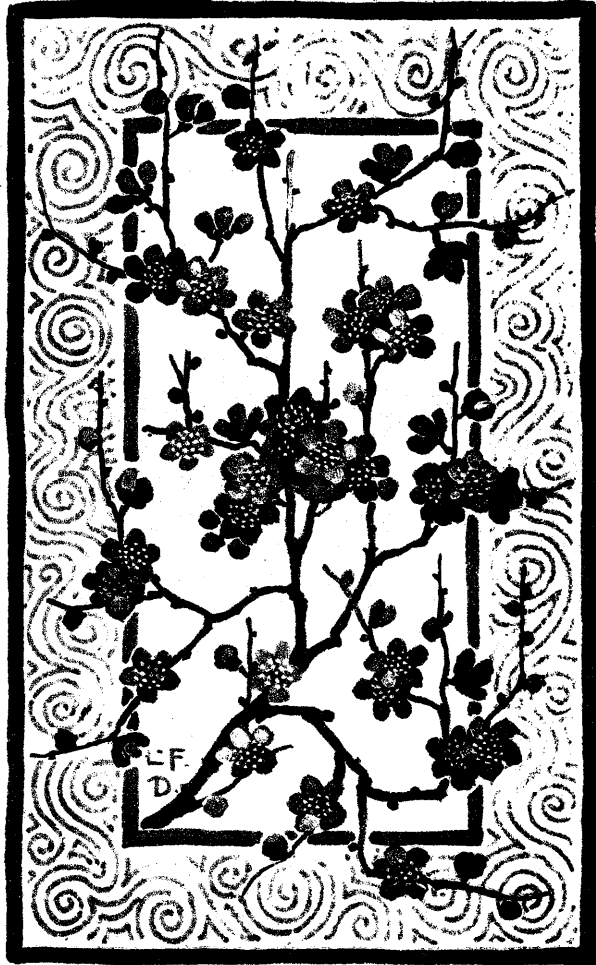
or it may be arched; and in either case the architectural members are but unequal borders. All this applies, it need scarcely be said, not only to an architectural picture frame, but to architecture itself, and to whatever may be framed.

Something like a new departure occurs when the border, so to speak, *invades* the field or centre of the panel, as it very often does in French Renaissance work, sometimes to such an extent that little or no further decoration of the field is necessary. There is an indication of such trespass in Plate 8, where the "swag" and corner ornaments, which belong to the border, cut deliberately across the face of the panel. In some of the interlacing strap work of the Henri II. period (the French equivalent to our Elizabethan ornament), you cannot always clearly tell where the border begins and ends, or even whether a border was intended at all. It looks sometimes as if the designer had started with the notion of a border, but had allowed it so to encroach upon the field, or the field upon it, that in the end it is not at all clearly recognisable as such. An example of the kind occurs in Plate 9. You may

Plate 10.



"PHOTO-TINT" by James Akerman.



"Pavlo-Tint" by James Akerman

see the idea of a border here; but you cannot be quite so certain that the designer intended it.

Nearly allied to this is another variety of border, also devised so as to be quite inseparable from the filling; in which, in fact, frame and filling are so ingeniously mixed up that but for the emphasis of colour, the effect would be confused. There is an instance of this in Plate 10, where the scroll, whilst to some extent acknowledging the boundary line, invades, and indeed entirely occupies, the border. In such a case there is at all events no fear of the exceeding preciseness which is one of the dangers to beware of in border design.

It is interesting to notice the difference between the last-mentioned method and the practice of the Japanese, who will, in the most unhesitating manner, allow the panel pattern, whatever it may be, to break over the margin or border, as impulse may prompt. It is a proceeding which may or may not result in confusion, according to the relative strength of the border and the pattern that cuts across it. In Plate 11 the border pattern is so subdued that the more important floral growth is very

well able to take care of itself. In the case of a panel in which the enrichment only partially occupies the ground, it is often advisable to introduce some sort of subsidiary border, losing itself behind the more prominent enrichment.

One appreciates the freak of the Japanese as a relief from the monotony of absolutely formal disposition; but it is not a thing to indulge in very freely. It is refreshing to see that a man is not afraid of infringing occasionally upon the margin—on sufficient grounds; but the licence needs always to be justified by some excuse other than the artist's impatience of order. We have to be on our guard against a certain spirit of anarchy which appears to have taken possession of so many a modern artist. There is a class (one cannot call it properly a school) which will repudiate, not only all the laws of art, but the need of all law whatsoever. Urgent need there may be of reform in our ideas of art, perhaps even of revolution; but sobriety recognises in the artistic anarchist only the enemy of art.

There is no peculiar sanctity implied in a margin, that it should be held inviolate; but

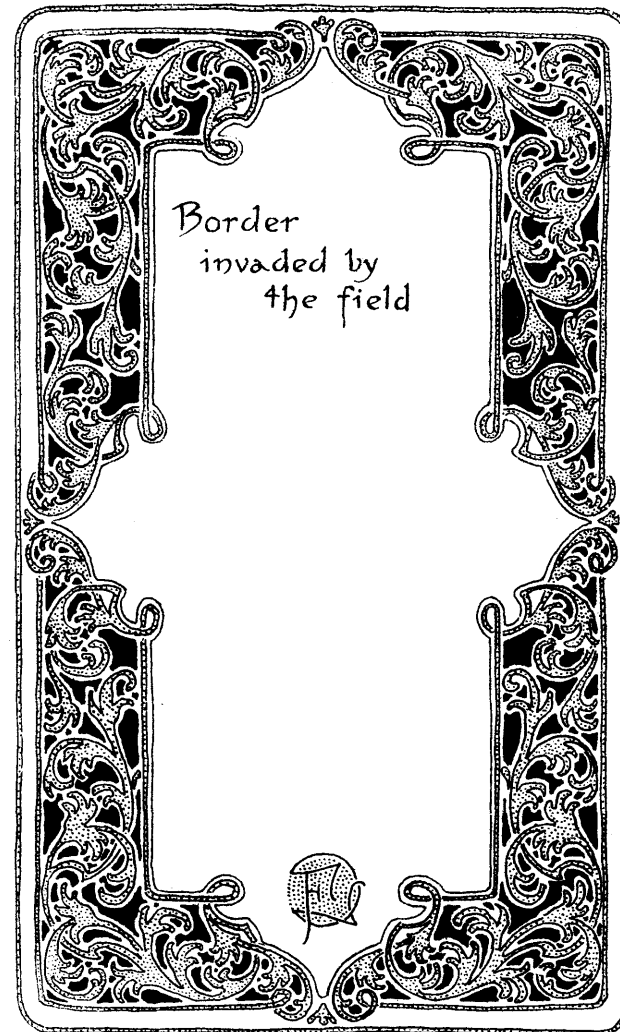


Plate 13.

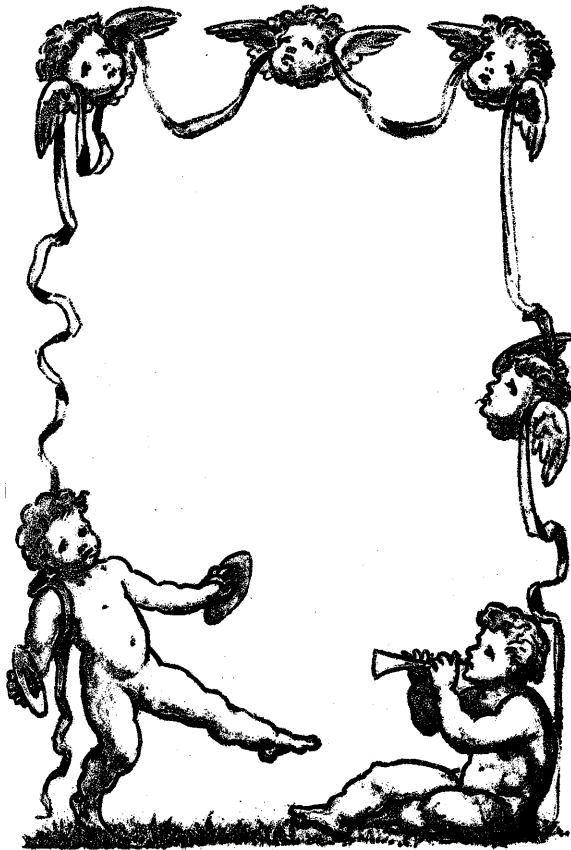


Photo-Tint, by James Akerman.

the very idea of ornament implies order. And the artist cannot afford to be forgetful of order, even when he allows his border to overgrow the field, or his filling pattern to extend beyond the frame.

There was a fashion in vogue in the seventeenth and eighteenth centuries—borrowed probably from the East—according to which the border is invaded rather by the field or ground than by the pattern on it; where the field, in fact, seems to eat into the border. It is usually, as you may observe in Plate 12, rather a symmetrical mouthful that it takes.

A border may be lost in a sort of confusion with the panel it began by pretending to enclose. No one ever managed that more cleverly than Boullée, a panel of whose design is given in Plate 13. There is considerable ingenuity in the way in which the pattern is made to appear alternately light on dark and dark on light, without actually confining such alternation within strict border lines, as on Plate 16. But a border remains a border, however undefined. Boundaries may be understood rather than expressed. Yet that makes no difference as to the lines upon which a design is constructed. You may discard the

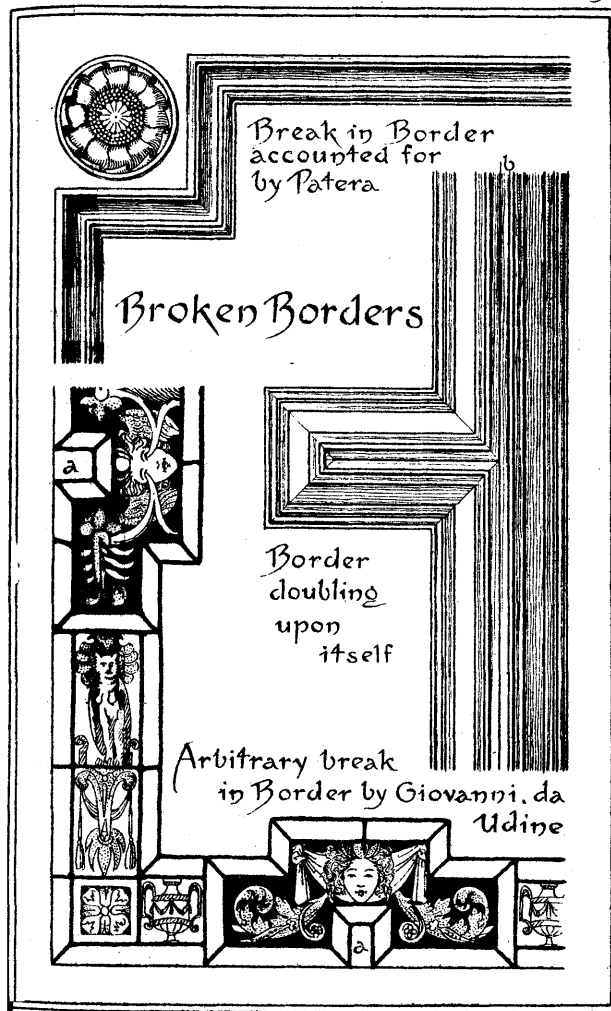


"Pueri-Tint", by James Akerman.

very idea of formality ; you may determine that you will have none of it ; that you will merely sketch upon your page such and such marginal forms, natural or ornamental ; but if you dispose them in anything like an orderly manner, you arrive at something which comes as clearly under the category of border treatment as though it had been enclosed by hard and fast boundary lines. The winged heads and boys and ribbands on Plate 14 form, after all, a border.

Every margin or marginal line is in its degree a border. The white margin of this printed page borders the type. In Indian and other Oriental work you often see the ornamental details so closely packed as to define the border-shape even without actual boundary lines. And the Germans of the sixteenth century (Jost Amman, for example) sometimes did with very different details just the same thing. The looser borders of the looser times of Louis XIV., XV., XVI., do everything they can to hide the lines of their construction ; but you may take it as a sign of artistic demoralisation to be afraid of a straight line. Hogarth, who preached "the line of beauty," was not exactly an apostle of the beautiful.

Plate 15.



© F. KELL, PHOTO-LITHO. 8, FUERNIVAL ST HOLKORN, E. O.

Plate 16.



"PHOTO-TINT" by James Akerman.

So great is the use of the border, that even they who least like formal lines are bound to adopt it; although they are perpetually rebelling against its formality, and doing their best to break it up, as in the case of the encroaching and interrupted borders already mentioned.

The very *naïvest* way of getting over the difficulty—it is a difficulty, there is no denying—is by, so to speak, snipping a piece or two out of the panel, and carrying the border round the incisions, so as to get a more or less irregular central space instead of the four-square parallelogram.

In the Certosa near Florence, there are some windows by Giovanni da Udine (the border of one of them is illustrated on Plate 15), in which he has deliberately snipped pieces (*a*) out of the space to be filled, and left them as so many gaps in the design. We can forgive this kind of thing once in a way; but it stands very much in need of justification.

Where a gap has some meaning it is different. In the case where there is a square block or patera occupying the corner, as you sometimes see in seventeenth century

Plate 17.



Photo-Tint, by James Akerman, London, W.C.



"PHOTO-TINT," by James Akerman.

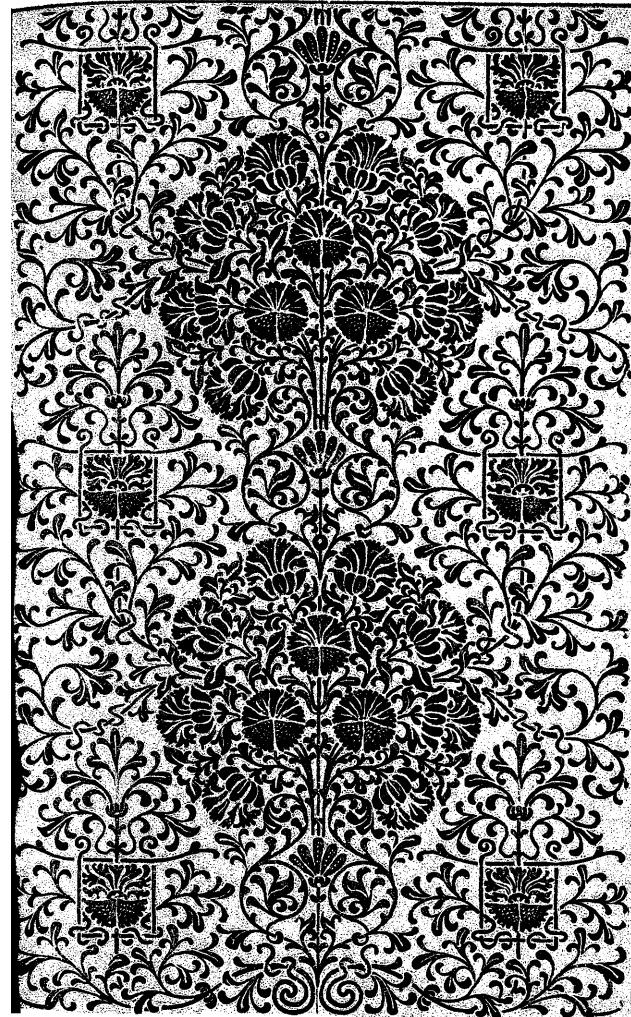
wood-panelling (and on Plates 15 and 16), that seems to account for the break in the border. It is as though the border went out of its way in order to escape the patera.

Nor is there any objection to the doubling of the border on itself occasionally (*b* on Plate 15); by which means the same end of irregularity is arrived at without the brutality of da Udine's method. The Italians of the Cinque Cento resorted freely to the foregoing plans—in their schemes of ceiling decoration to wit; and with marvellously beautiful results. Perhaps, however, they were rather too ready,—certainly the artists of the later Renaissance were too ready—to adopt any device which would enable them to depart from the simple panel form. In not a few instances, the further they went from it the worse it fared with them.

A separate treatise might be written upon the construction of the border itself. It may be continuous or broken, and broken at all manner of intervals, and in all manner of ways. It may flow, or grow. It may be symmetrical or absolutely free. The outer or the inner edge may be accentuated, or both, or neither. It may spread outwards from

a well-defined central feature or inwards from the margin, diffusing itself, and giving a less definite central shape.

But it is not so much the design of the border that we are considering at present as the place of the border in design—on which point enough for the present has been said.



"PHOTO-TINT," by James Akerman.

III.

WITHIN THE BORDER.

Though you abandon all idea of bordering, and elect to place, as you well may, some arbitrary shape within the parallelogram, the space round about that shape may indeed be considered as an irregular border to the same. If, for example, you plant in the centre of the space a medallion, and round that medallion design a cartouche, after the manner of Jost Amman in Plate 17, the cartouche and its accessories may be called the frame or border of the medallion; and, again, the ground beyond the edge of the ornament may be taken to be the margin or border to that. But it is going rather out of the way to look at Amman's design in that light.

In the example chosen for illustration we have shapes, fitted one to the other; but one might just as well have two or more independent and unconnected shapes. Nothing is easier than to take a simple field, and to spot

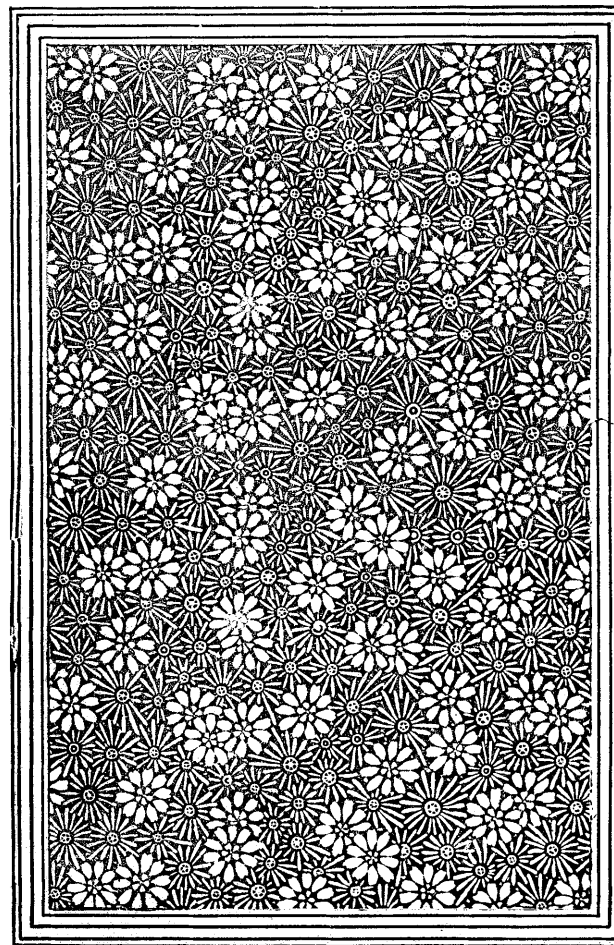
about upon it any shapes you please. That is one way, not a very ornamental way, but one way, of occupying the space.

When you proceed to connect such shapes, you bring in another principle of design—which, however, will be more conveniently approached from the other side, when we come (as we presently shall) to the discussion of the lines enclosing various shapes and subdivisions.

Abandoning all thought of border, or supposing a border already in existence, you may, as I said, plant any independent shape, medallion, shield, cartouche, tablet, what you will, within it. This form may be left, as it were, floating in space, or it may be supported by ornament; which ornament may literally seem to hold it up; or, if you will, the ornament may appear to be suspended from it, as was most frequently the case with the festoons and garlands of the later Renaissance. Instances of such support and suspension are given in Plates 16, 17, 18. Finally, the ornament may be unconnected with the central shape, and comparatively independent of it, as a powdering or sprig-diaper would be.

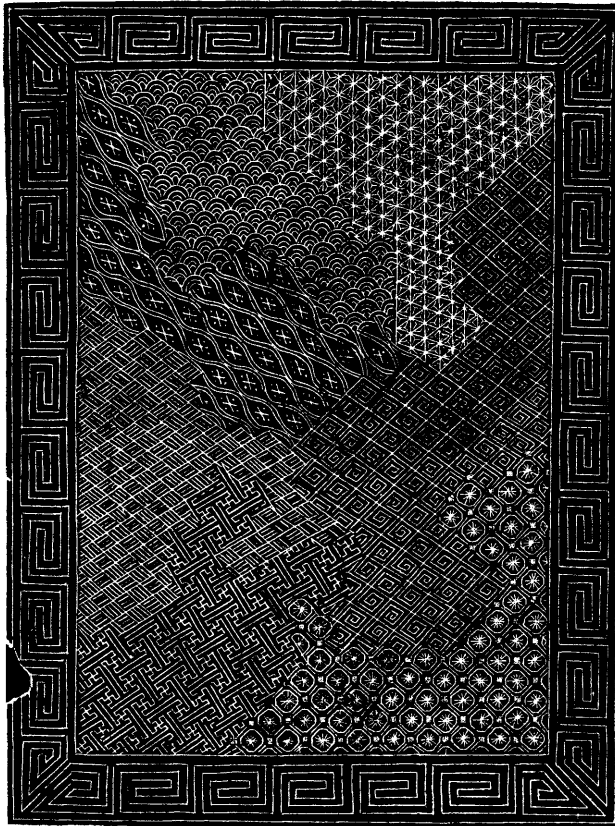
The central feature need not, of course, include a frame of any kind; it may be a figure, a spray of flowers or ornament, a vignette, a spot, a spray—as free as painter's heart could wish. Or, just as in the case of the closely-packed border the shape of it was marked without the aid of boundary lines, so any central sprig of ornament or foliage may be so densely massed within a square, circle, quatrefoil, or other imaginary form, as to assume a quite regular outline. Such grouping of the ornament is shown very plainly in Plate 19, where the circular shape is emphatically pronounced without the aid of any enclosing line. You see the same thing very commonly in Indian art.

A number of sprays, or other features, free or formal, group themselves into a sort of diaper. Such diaper should naturally have some reference to the space it fills, or it will appear less than trivial. The interlacings on Plate 5 form panels, Plates 20 and 35 are only bits of diaper work. Whether the component units of such a decoration be all alike, or of various design, is a question independent of the lines of their distribution. The variety in Plate 21 is at all events amusing. Had



"PHOTO-TINT" by James Akerman.

Plate 21.



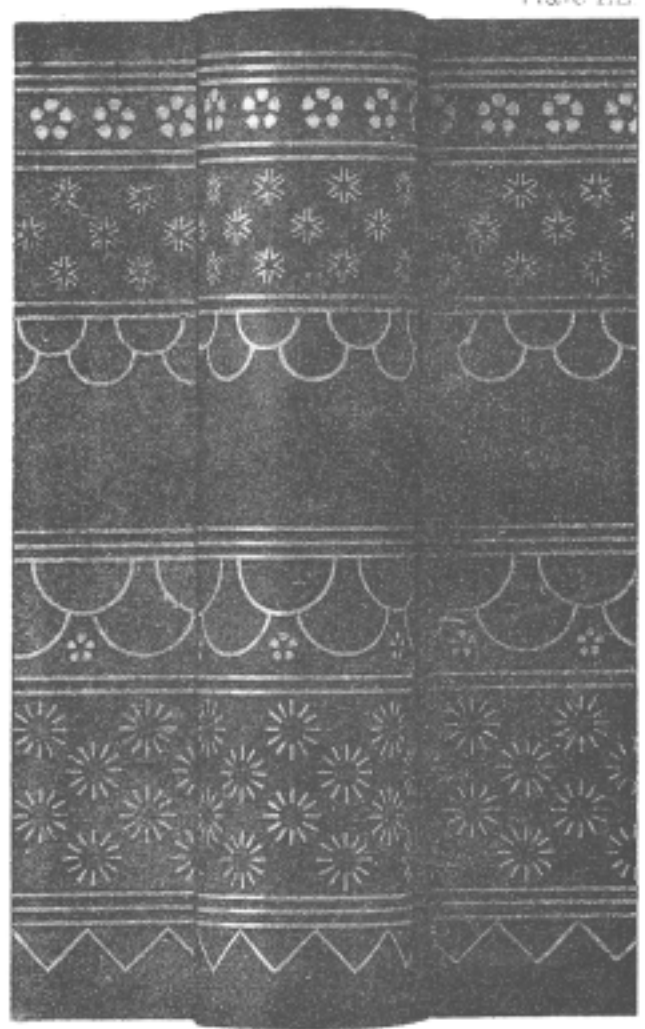
J. Akerman, Photo-lith. London.

there been evidence of order within this disorder, of any plan on which the various diapers were put together, one would have welcomed it as a relief from obvious geometry. The merely accidental patchwork is perhaps condonable once in a way. It is instanced here as a freak of Japanese perversity, not as a model of design. But it has its charm: one does not readily grasp all that is in it: there is always something to find out; which is just what there would not be in a simple and orderly geometric pattern of the European type.

A mere series of bands or stripes across the field (vertical, horizontal, diagonal, waved, or in whatever direction), is an obviously simple way of getting over the ground, about which not much further need be said. As the filling of a panel, such a treatment as that shown on Plate 22 is not very adequate. Rightly employed it forms, however, a very fit and proper method of decoration: for the slight enrichment of a vase or cylinder nothing could well be more apropos than this banded scheme of ornament.

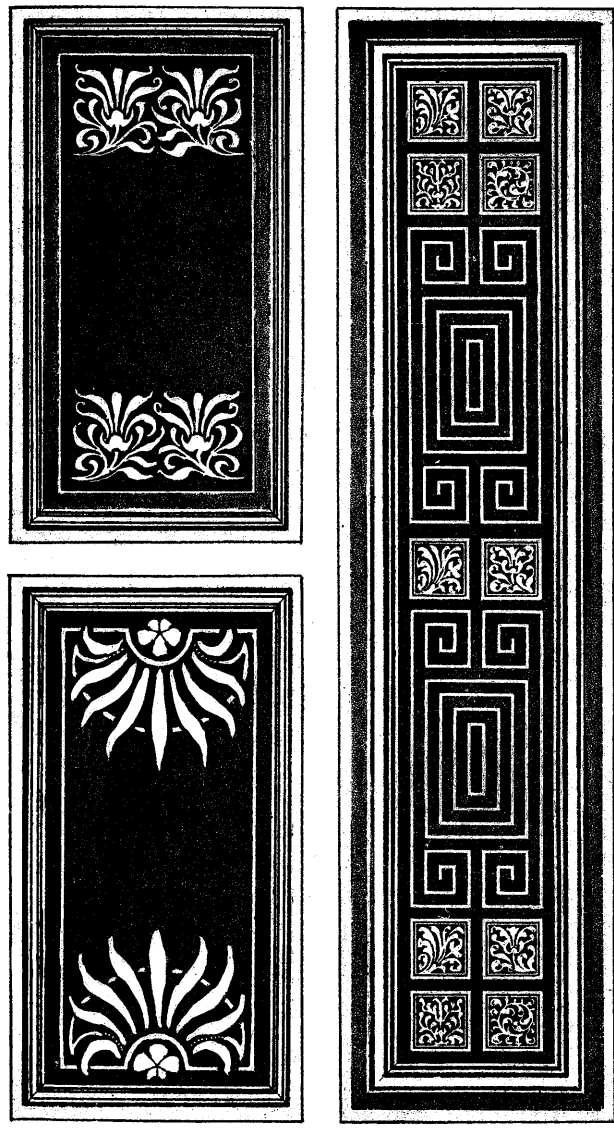
Such filling as a scroll or anything of the kind may be quite freely drawn, as on Plates

Plate 22



"Photo-Tint" by James Akerman

Plate 23.



"Photo-Tint" by James Akerman

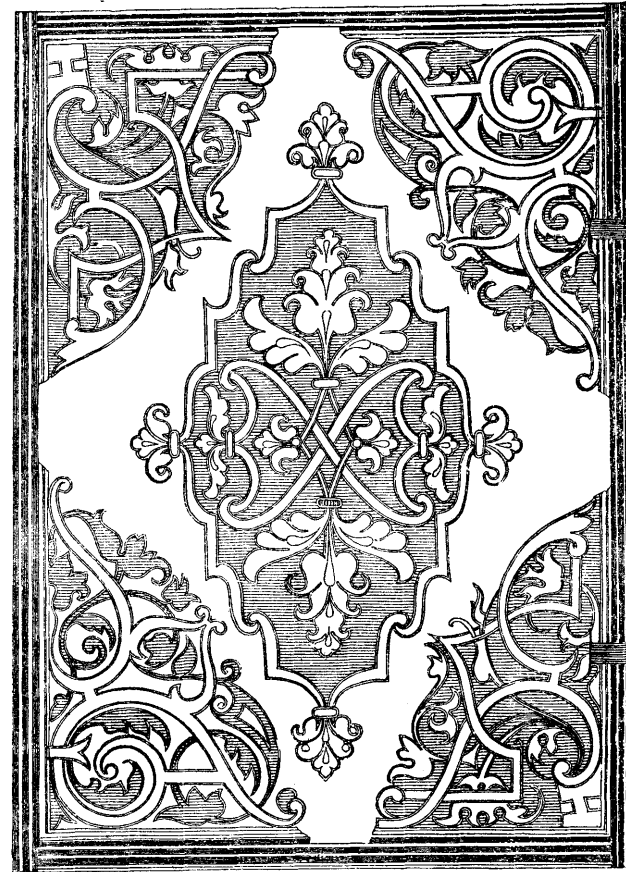
11 and 25, or disposed symmetrically in relation to an imaginary central line or spinal cord, as in Plates 10, 13, 16, &c. ; or it may radiate from the centre, as it naturally would in a ceiling, pavement, carpet, or other object demanding an all-round treatment. Something like radiation of the design occurs in Plates 3 and 9.

The scroll work, or what not, may equally proceed from two ends of the panel, as in Plate 23, or from the sides, or from both sides and ends, either symmetrically or at irregular intervals; or it may spring from the corner or corners, as in Plate 24.

The treatment from the corners is, again, adapted to, and often adopted in, ceiling decoration. In principle it is very right indeed; but in practice it is not invariably all that the decorator could desire. The "line and corner" tune, as it may be called, has been harped upon until one is pretty well sick of it, even when it is played in time—which is not always the case.

A corner-wise treatment is seen to advantage when it has been suggested by use, as in the metal garniture of old book-bindings, and in the clamps of coffer such as German

Plate 24.



J. Akershusen. Photo lith. London.

smiths of the fifteenth and sixteenth centuries elaborated with workmanlike pride. In the tooled binding of the Henri II. period, given on Plate 9, the corner is very carefully taken into consideration, such consideration being very possibly a survival from the times when the corners were habitually protected by metal-work. There is an instance of this on Plate 40. You see also in book covers of all times instances of a treatment where the design is manifestly "to be continued in our next," the side unseen being necessary to its symmetrical completeness.

Further examples of the same thing occur in the mediæval cabinet doors given in Plate 25.

The need of clasps, hinges, and so forth, no doubt gave the hint of such a manner, which, in spite of the one-sided forms it gives, is wholly satisfactory in effect. We do not sufficiently realise how readily the mind makes good what the eye does not see in design; assuming, that is to say, a certain workmanlike reasonableness in it. In Plate 26 (which is only one half of a cabinet) the design is in a very noticeable degree the outcome of the constructional idea. The

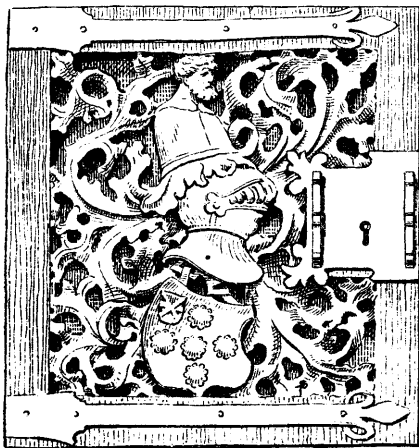
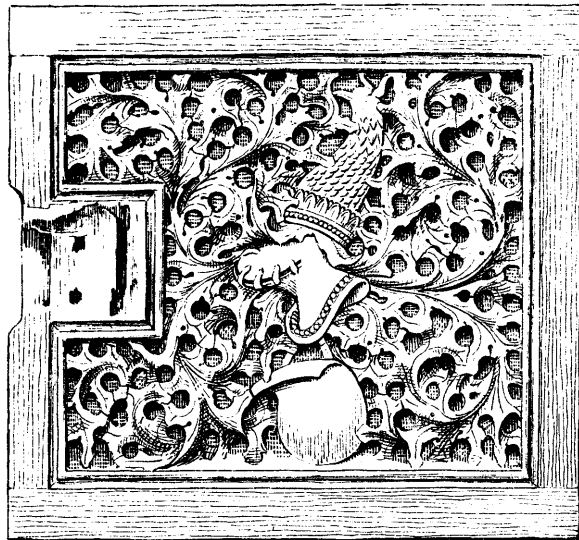
artist relied greatly upon the locks and hinges for his effect.

It is worth while to compare the above-mentioned scheme, in which the symmetry is suggested rather than expressed, with the free and easy way in which the Japanese lacquer-worker will overrun the limits of a box top or cabinet front, and trail his ornament over all or any of its sides indiscriminately. The front of the box, even with its lid, is not enough for the dragon on Plate 27. Yet you will observe that there is a certain consideration for ornamental propriety in the disposition, for example, of the creature's claws.

There also, the artist, in his very different fashion, chooses to consider the whole object his field, and not just the portion of it he sees before him. There is a certain logic in his licence, too—especially as it appears to be good manners in Japan minutely to examine your neighbour's nicknacks; but the more restrained manner of the mediæval workman is, in proportion to its restraint, the more to be preferred.

Where the design—scroll, foliage, or whatever it may be—bears no relation at all to the shape or space it occupies, like the diapers

Plate 25.

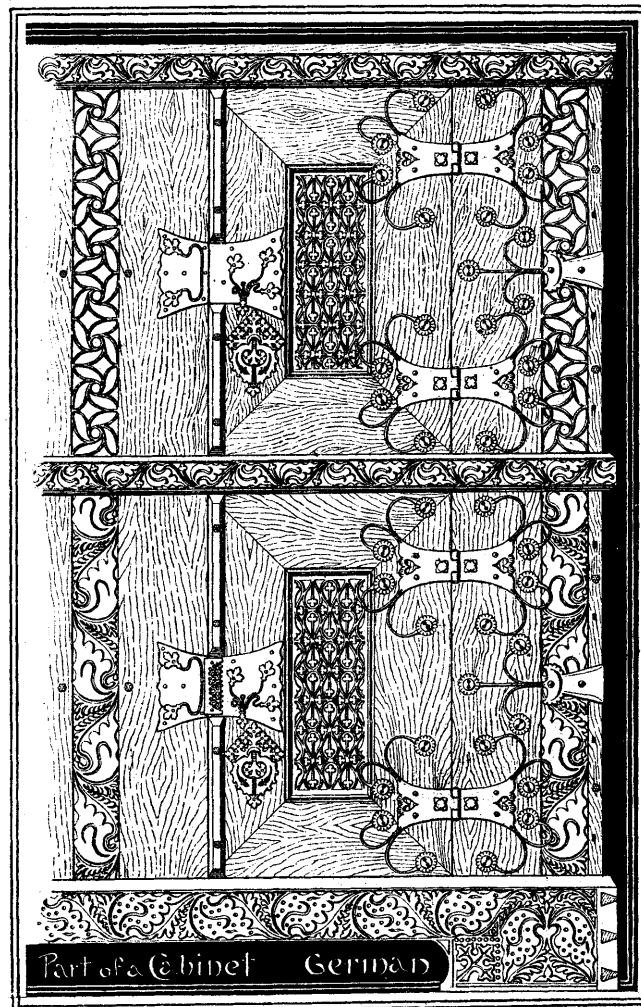


DOORS
of old
German
Cabinets
with
heraldic
carving.

Panels
incomplete
or
one-sided.

C. F. KELL, PHOTO-LITHO, B. FURNIVAL, ST. HOLBORN, E. C.

Plate 26.



Part of a Cabinet German

C. F. KELL, PHOTO-LITHO, B. FURNIVAL, ST. HOLBORN, E. C.

on Plates 20 and 35, it ceases to be surface design, and is merely a means of breaking the surface. It is only as a background that such hap-hazard distribution of forms has any meaning. But then a good deal of decorative design pretends to be no more than background.

A very satisfactory and effective result is sometimes reached where the artist starts, as it seems, with the idea of a diaper more or less geometrical, and, as he approaches the centre of the panel, gathers together the pattern, so to speak, into points of emphasis. You see this in the Roman pavement represented on Plate 3.

That is a case in which the design was unmistakably set out first of all in geometric divisions, certain of which divisions were afterwards grouped together to give point to the pattern. If you analyse any of the old Jacobean ceiling designs, or the Italian originals on which they are but variations, you will find that many of them may be resolved into very simple diapers, on a rather large scale, adapted to the space they fill, and emphasised here and there by figure subjects or other special filling of some of the more

prominent geometric compartments. The panelling of the Jacobean ceiling on Plate 28 resolves itself into just such a diaper, to which the central octagons with their rosettes give point.

The difference between the method of design employed in Plate 3, and the plan adopted in the kind of design shown on Plate 9 is, that in this last the main shapes appear rather to have suggested the corresponding interlacements than the interlacements to have led up to them. But even in such a case it seems desirable that the artist should have in his mind from the beginning some kind of idea of geometric construction. The longer he can manage to keep that geometric notion in his mind, without putting it on paper, the more freely he can go to work. That same faculty of holding a design, so to speak, in solution in the mind, is most invaluable to the designer. A notion is so much more manageable in its fluid state. Once an idea has been allowed to crystallise into definite form, it is no easy matter to modify it.

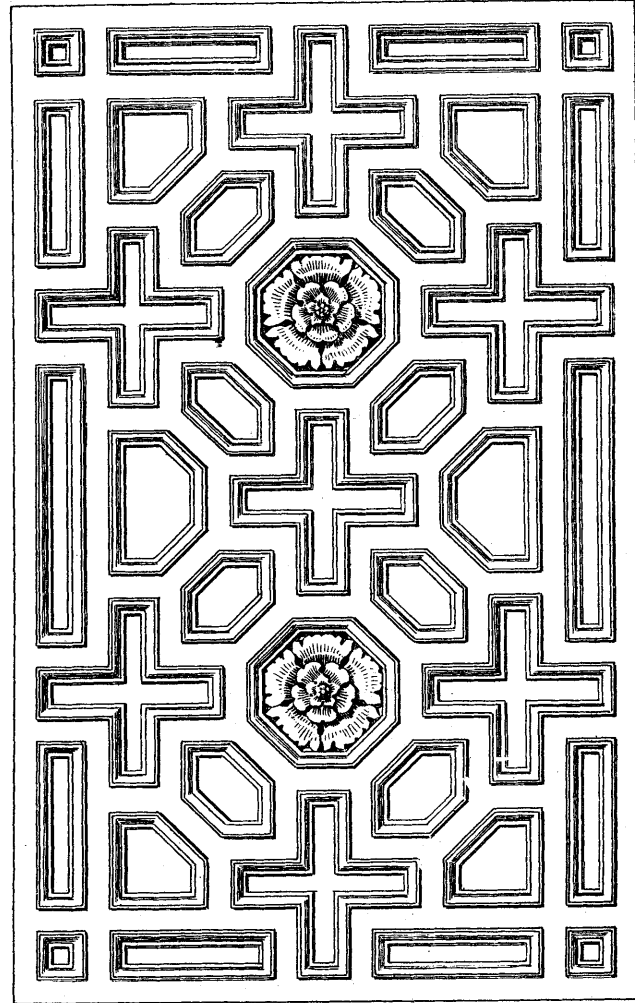
Should the space to be decorated be very considerable in extent, it is often necessary to cut it up into sections, otherwise than by

Plate 27.



'Pauro-Yuu', by James Akerman.

Plate 28.



J Akerman, Photo lith London.

merely marking off a border. A wall, for example, is divided horizontally into cornice, frieze, wall space, dado, and so on, or vertically into arcading. Some such sub-divisional process may be adopted in the case of a smaller panel, with a view to modifying its proportions.

If the subdividing lines cross at right angles, the result is a scheme of panelling, such as was commonly adopted in the domestic wainscoting of some centuries ago.

Further, by the introduction of cross-lines at various angles, or of curved lines, we arrive, by a different road, at panelling of more complicate character (see once more Plate 28), and at something like the interlaced patterns to which reference has already been made.

It is clear that these various ways and means may be associated ; and under the complex conditions of the times, they usually are more or less "highly mixed."

Thus one may, as I have said, begin with a border, and then treat the space within it in any of the ways already described ; one may divide a wall horizontally into two, with a diaper or frieze at the top, and panelling below ; or into three, with frieze, wall, and

dado, either one of which may again be broken up. Thus the dado on Plate 29, itself one division of a scheme, is again subdivided into panels—and each of these panels is further broken up by a square of carving enclosed within an irregular margin of plain wood.

Again, one may plant upon the field any independent feature, frame, shield, tablet, or such like, and then fill in the background without regard to it, as though a portion of the design were lost behind it. As many as three, or more, plans may be associated. For example, one may stretch across a book-wrapper (Plate 30) a tablet, then introduce a border disappearing behind it, and the spaces enclosed between the border and the top and bottom of the tablet one may treat again either as one interrupted panel or as two independent parts. The fact, however, that they are both, as it were, on one plane in the design, seems to require that they should both be treated in much the same way.

The possibilities opened out by this association of various plans, are obvious.



IV.

SOME ALTERNATIVES IN DESIGN.

The use of the border is not, of course, confined to the outer edge of the main space to be filled. Every sub-section of the design may be provided with its own border, as you see in the case of panelling, where each separate panel has its own border of mouldings. Plate 3 is an instance of emphasising particular panels of a design by borders of their own within the outer frame. On Plates 6 and 31, the mouldings round the door panels are supplemented by additional painted borders.

A central feature, such as the medallion on Plate 32, may have its border or borders, interlacing with, intercepting, or intercepted by, the border or borders round the panel enclosing it.

A surface once subdivided, as already described, two separate courses are open to the artist. The one is to accept each compartment as a separate panel, designing his



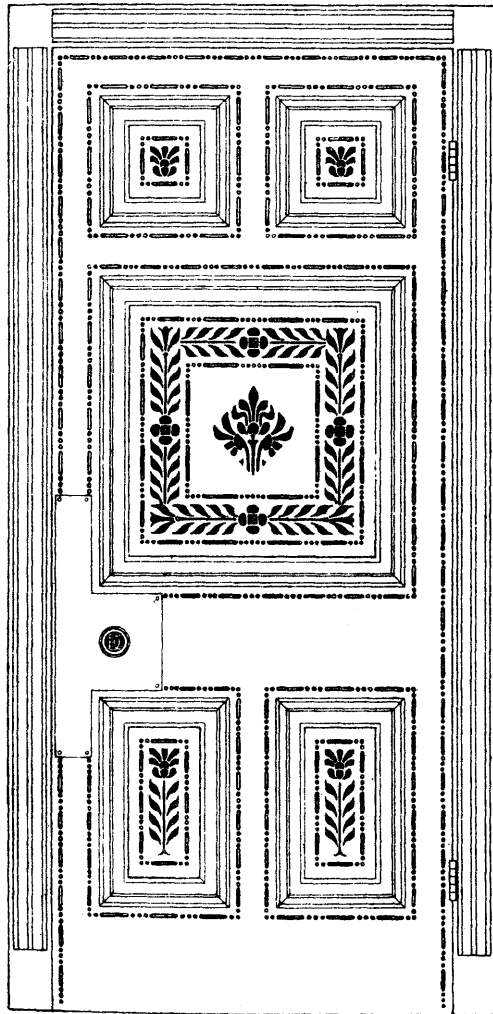
"PHOTO-TINT," by James Akerman.

ornament into it; in the manner shown on Plate 33. The other, which is no less reasonable, is to make his ornament continuous throughout; allowing it, that is to say, to cross the dividing lines or to interlace with them; more in the manner of Plate 9. The necessary thing is always to take the dividing lines duly into account even when crossing them.

Again, the two plans may be combined, certain prominent parts being reserved for individual treatment, and the subsidiary spaces only being linked together by the forms of the ornament, as though in Plate 33 the pattern had been allowed to meander through the lesser panels, the central diamond only being reserved for the grotesque head.

Which of these plans may be the better to adopt is a question of some nicety, not always easily to be decided. What question worth asking is? In proportion to the importance of the framing lines, it becomes dangerous to overstep them. Who ventures nothing runs no risk of failure; but neither will he achieve ever any great success. And then there is the charm of danger. Soldiers, sportsmen, and mountaineers are not the only class

Plate 31.



C. J. KELL, PHOTO-LITHO. B. FURNIVAL ST. HOLBORN E. C.

Plate 32.



*PHOTO-TINT; by James Akerman.