

mention whatever is made of Holliday's processes, by which such colours were first produced, and which are really the master processes governing all after-work on this subject. It seems to us that the author, in common with all Continental writers, has ignored English workers on this subject as much as possible. Beyond a scanty reference to Perkin's discovery of the mauve, and Lightfoot's aniline black, there is absolutely no reference to English work on dyeing, and yet the present methods of dyeing with the coal-tar colours are almost purely English discoveries. No reference is made to any specialities of English colour makers, such as the gambines of Messrs. Read Holliday, the turmerine of Messrs. Brooker, Simpson, and Spiller, nor the Clayton colours of the Clayton Aniline Co.

The book is well got up, and the patterns are very numerous, and all well done. We think, however, that it would have been an improvement to have stated the processes used in their production in a more definite manner than has been done, and in the case of dyed patterns to have given the percentage of colour used for producing each shade; then, again, where, as in the case of benzo-azurine and benzo-purpurine, there are several brands of the colour, the particular brand used in the dyeing of the patterns should have been stated.

One feature of the book that calls for notice is that with each group of colours is given a table shewing the re-actions with various reagents of the colouring matters. These tables are coloured, and look nice, but we have doubts as to their actual value, as the colours of the tables are not exact representations of colours actually obtained in the tests. There are a good many typographical errors in the book—more than are noticed in the page of *errata*, but for the most part they are not serious ones.

Altogether the book is worth acquiring, and those of our readers who understand French will find it to contain much useful information.

Messrs. Fleming, Son, and Co., the eminent belting manufacturers and mill furnishers, West Grove Mill, Halifax, have just issued a revised price list of their specialities and the various wares in which they deal. The list, in addition to current prices, contains a considerable quantity of valuable information, which will be useful for ready reference in office or shop. The firm supplies it gratis on application.

The society for the development of industry at Berlin has decided to give a gold medal and a prize of 3,000 marks to the inventor of a method of manufacturing yarns and tissues from the fibre of cellulose, which itself should be produced from the woods of the country. The cellulose must be worked as far as possible in the pure state; in any case it must not be mixed with more than 50 per cent. of other textile fibres. The close of the competition is fixed for November 15th, 1893. To object is to render Germany more independent of countries beyond the sea so far as concerns vegetable fibres used in large quantities, such as cotton and jute.

## Designing.

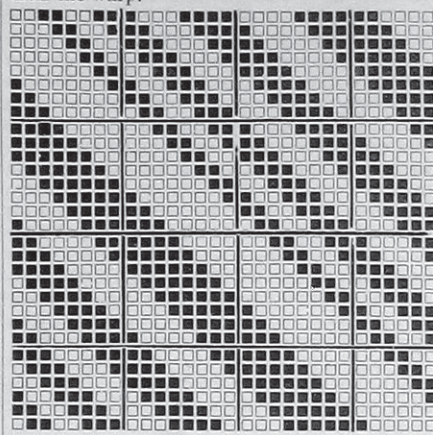
### NEW DESIGNS.

#### COTTON DRESS PLAID AND STRIPE DESIGN.

**No. 1.**—This design is an amalgamation of four distinct weaves for the purpose of breaking up the vertical and transverse lines of a dress pattern, and if properly developed in warp and weft will form a charming novelty for the summer season: 30 shafts straight-over draft, 30 to the round, 80 ends per inch, of 30's twist for warp; 80 picks per inch of 30's weft; 46 inches wide, called double width, 30 inches single. If the design, which is simply suggestive, be carefully examined it will be found capable of producing a great variety of patterns in any textile material, and in silk would be extremely effective.

We give a stripe pattern as follows: 6 chocolate, 10 maize, 4 chocolate, 4 maize, 3 chocolate, 3 maize, 2 chocolate, 2 maize, 30

chocolate; weft all chocolate of a darker tone than the warp.



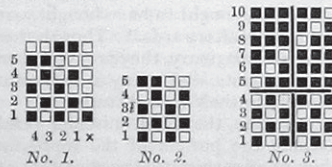
#### NO 1 COTTON DRESS PLAID AND STRIPE DESIGN.

For a fashionable plaid pattern: 160 dark heliotrope, 6 white, 14 silver grey, 12 dark olive drab, 14 silver grey, 14 light olive drab, 10 silver grey, 14 light olive drab, 4 dark heliotrope, 4 white, 4 dark heliotrope, 14 light olive, 10 silver grey, 14 light olive, 14 dark olive, 4 black, 6 white, 4 black, 14 dark olive, 14 light olive, 10 silver grey, 14 light olive, 4 dark heliotrope, 4 white, 4 dark heliotrope, 14 light olive, 10 silver grey, 14 light olive, 14 silver grey, 12 dark olive, 14 silver grey, 6 white; total 456 ends, and repeat. Weft pattern the same. A very handsome result would be obtained by the use of silk for the white ends and picks in warp and weft.

**2nd plaid pattern:** 100 deep brown, 24 black and white print, irregular block, varying from one-eighth of an inch to three-quarters, 6 deep brown, 3 white, 3 fawn, 3 white, 3 fawn, 3 white, 3 fawn, 3 white, 6 deep brown, 24 black and white print, pattern complete 181 ends. Weft pattern 100: deep brown, 24 terra-cotta, 6 deep brown, 22 dove, 6 deep brown, 24 terra-cotta.

#### NEW SHIRTING PATTERNS.

These shirtings are in request. To be made of 40's warp and weft, about 96 ends per inch; weft the same.



#### PEGGING PLANS.

**1st Pattern:** For warp, 26 light cream, 2 in a heald, one heald per dent on 1, 2, 3, 4 shafts; 2 scarlet silk, 30's organzine, two in a heald, on fifth shaft (see No. 1 pegging plan); 26 light cream, two in a heald, one heald per dent, on 1, 2, 3, 4 shafts; 8 white, two in a heald, one heald per dent, on 5, 6 shafts; 8 cream, two in a heald, on 1, 2, 3, 4 shafts; two of navy blue single, 8 cream double, 2 navy blue single, 8 cream double, 2 navy blue single, 8 cream double, all on 1, 2, 3, 4 shafts; 8 white double on 5, 6 shafts. Weft pattern: 32 picks light cream, two in a shed, 2 scarlet, two in a shed, on the tread marked X, 32 light cream, two in a shed, 2 navy blue, single 8 light cream, 2 navy blue, 8 light cream, 2 navy blue, 8 light cream, 2 navy blue.

**2nd Warp Pattern:** 4 white, 2 red fawn, 2 white, 2 red fawn, 4 white, 2 red fawn, 2 white, 2 red fawn, 4 white, 2 red fawn, 2 white, 2 red fawn, 4 white, 2 red fawn, 2 white, 2 red fawn, 4 white, 4 opal blue, all these 2 in a heald, one heald per dent. Weft the same pattern, two in a shed, using as a catcher the outside selvage and plain weave.

**3rd Warp Pattern:** 4 very bright red silk organzine, 36's, two in a heald, 2 light cream, 2 opal blue, for 37 times, all two in a heald, one heald per dent, making total ends in pattern 78.

Weft the same checking as warp pattern, using silk tram to cross the silk in the warp; plain weave.

**4th Warp Pattern:** A stripe, 6 light lilac, two in a heald, on 1, 2, 3, 4 shafts; 2 dark terra-cotta brown, two in a heald, on 5th shaft (see 2nd pegging plan); 10 dove, two in a heald, on 1, 2, 3, 4 shafts; 2 light blue green, two in a heald, on 5th shaft; 28 very light lilac, two in a heald, on 1, 2, 3, 4 shafts. Weft, all dark cream.

**5th Warp Pattern:** Stripe, 24 dark cream, 2 dark fawn drab, 2 cream, 2 dark fawn drab, 2 cream, 2 dark fawn drab, 4 cream, all two in a heald, one heald per dent; 2 bright red, two in a heald, on 5th shaft; 1st pegging plan: 4 cream, two in a heald, on 1, 2, 3, 4 shafts; 2 navy blue, two in a heald, on 6th shaft; 6 cream, two in a heald, on 1, 2, 3, 4 shafts; 2 bright red, two in a heald, on 5th shaft; 4 cream, 2 dark fawn, 2 cream, 2 dark fawn, 2 cream, 2 dark fawn, all two in a heald on 1, 2, 3, 4 shafts. Weft, all cream. These patterns will be found all that is desirable to obtain popular favour for summer and autumn wear. Being a fine class of canvas cloth it is very porous and conducive to health. There is no reason why the same fabric ought not to be adopted for ladies' wear in shirting and dress material. The designs of a few patterns specially adapted for this purpose will appear in our next issue. In these finer class of tissues—meaning cloths made of fine counts—there is a wide opening for enterprising manufacturers; but the materials and ornamentation by colours and weaves would have to be quite out of the beaten track. We will from time to time endeavour to develop this taste by giving carefully-constructed patterns, stripes, and checks, with choice arrangements in colour and weave.

#### FANCY MUSLIN STRIPE.

In a 60 reed, 50's warp twist, 50's weft, 30 picks per inch, 25 inches in cloth; clear, cold calender finish; 10 shafts, 6 for stripe, 4 for ground; 6 to the round. Draft numbered to save space and for ready reference in following the pattern.

**Warp Pattern:** 3 very light pink, one in a dent, 4 pink, two in a dent, 1 pink, one in a dent, two dents empty, 1 pink, one in a dent, two dents empty, 4 pink, two in a dent, two dents empty, 4 pink, two in a dent, two dents empty, 1 pink, one in a dent, two dents empty, 1 pink, one in a dent, two dents empty, 1 pink, one in a dent, 4 pink, two in a dent, 3 pink, one in a dent, all on 1, 2, 3, 4 shafts (see No. 3 pegging plan); 24 pink, four in a dent, on 5, 6, 7, 8, 9, 10 shafts; 4 pink, one in a dent, on 1, 2, 3, 4 shafts; 12 pink, four in a dent, in the following order, 7, 6, 5, 8, 9, 10, 5, 6, 7, 8, 9, 10 shafts; 4 pink, one in a dent, on 1, 2, 3, 4 shafts; 12 pink, four in a dent, on 5, 6, 7, 8, 9, 10, 5, 6, 7, 8, 9, 10 shafts complete pattern. Weft all very light cream. For quantity of yarn and width in reed see calculations in the last issue of *The Textile Mercury*. If this pattern be properly drawn in and dented in the reed according to the directions given, a really beautiful example of muslinette striping will be the result. The ground may be made in dark eau de Nile, stripe cerise, ground mid coral, stripe claret brown ground, light new drab, stripe dark cardinal. It may be varied in size to any extent, and the stripe may be a 5, 7, 9, or 3-shaft twill, satin, or 4-shaft twill cassimere twill. These goods are fast coming into fashion, and will be more so during the summer and autumn seasons. Brighter-hued textures are replacing the sombre neutral tinted materials which have been in vogue during the winter.

#### TWILLED STRIPES FOR EXPORT TRADE.

Ordinary four-shaft twill, two up and two down, 60 ends per inch, 24's warp twist, 24's weft, 48 picks per inch; clear calender finish. This class of goods is in demand for Africa and other foreign markets.

**1st Pattern:** 36 dark blue, 4 bright red, 2 yellow, 6 orange, 2 dark blue, 4 light blue, 6 white.

2nd Pattern : 40 dark blue, 6 bright red, 8 dark blue, 8 dark blue, 6 bright yellow canary, 8 dark blue, 2 white, 4 dark blue, 2 white, 8 dark blue, 2 white, 4 dark blue, 2 white, 8 dark blue, 2 white, 4 dark blue, 2 white.

3rd Pattern : 24 dark blue, 4 orange, 4 red, 4 white, 8 light blue, 4 white, 4 red.

4th Pattern : 4 white, 4 orange, 4 white, 4 dark blue, 4 white, 8 dark blue, 4 white, 24 dark blue, 1 white, 24 dark blue, 4 white, 8 dark blue, 4 white, 4 dark blue.

SUGGESTIONS FOR FIGURED DRESS FABRICS.

Designers of figured dress fabrics have of late given themselves over to the productions of what may perhaps be best described as "indiscriminate nothings," figures partaking of the characteristics of no natural design, however conventionalised, arranged apparently any way. Very effective are many of these, undoubtedly taxing the designer's brain to a considerable extent; but being, if we may venture to so term

them, of unnatural growth, it is questionable whether they will long survive the war which the growing love for nature is waging against them. Now it seems to us that many of Nature's forms lend themselves to development as textiles which as yet have never been treated. Among such come the multifarious forms of birds. The characteristic features of many plants, insects, animals, etc., defy suggestion by lines and curves such are admissible in textiles, but when we come to birds, not only do we find that appropriate environment which is essential to the effective rendering of natural forms, but we also find that the characteristic features of many of the denizens of the air may be delineated as completely as is necessary by such means as the textile designer can command. For example, the wings and tail of the swallow, a simple treatment of which we have attempted; the round head and bulky body of the bullfinch; the plump yet neat form of the wren; the bill of the king-fisher, and the characteristic tails of most birds, are quite capable of being so

rendered that the form in part represented suggests itself at once to the observer. Such in truth is the real art of textile design.

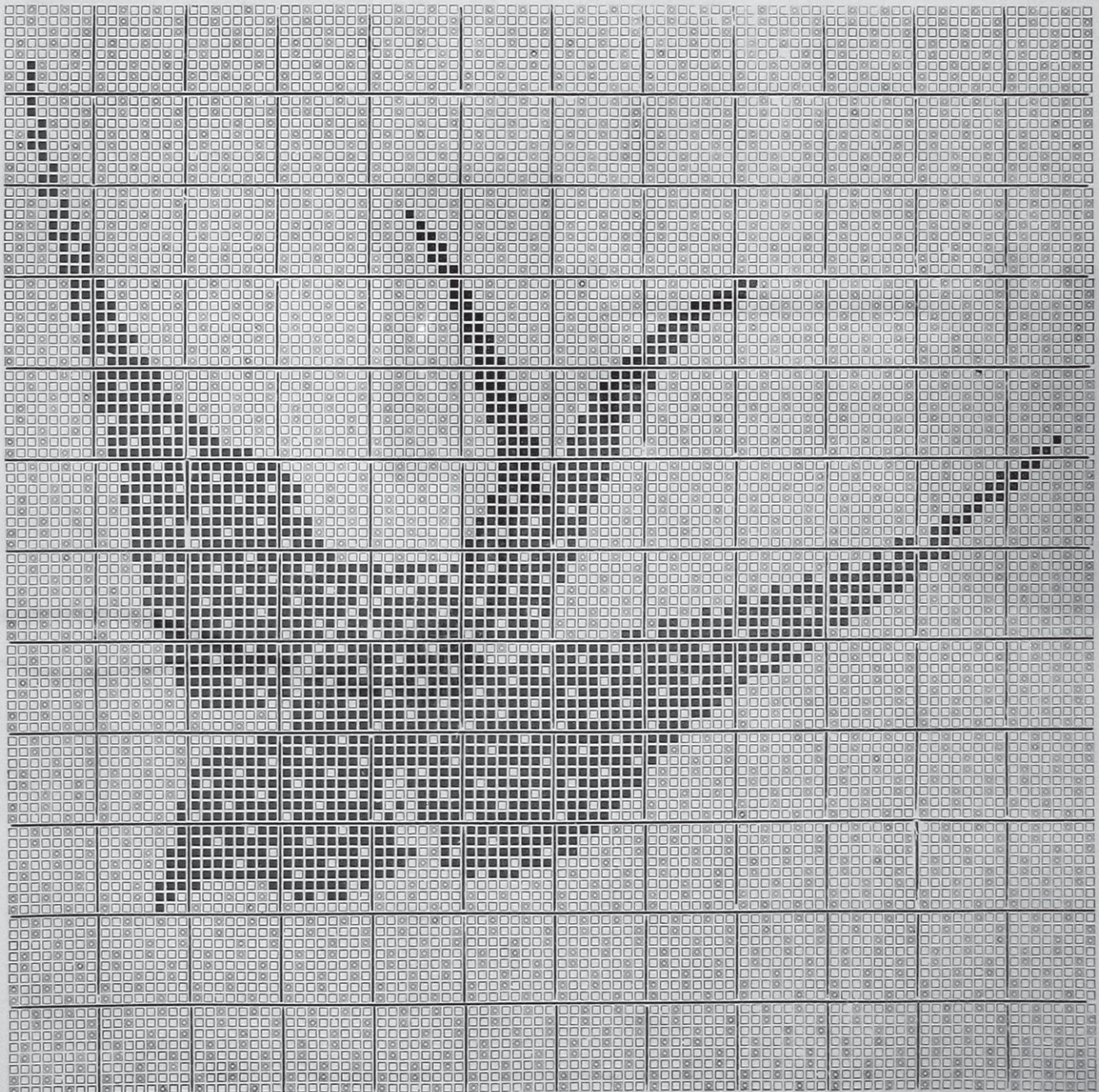
In Design 35 we give a treatment of the swallow suitable for arranging as a spot form, the development of which may be effected in various ways. If developed twice the size given here, say for a 400 machine, then with the same system of development the following sett will be found suitable:—

<i>Warp.</i>	<i>Weft.</i>
All 80 $\frac{1}{2}$ silk.	All 60's silk.
150 ends per inch.	150 picks per inch.

Another system of development would be to employ plain or 2-and-2 twill ground with weft flush figure, in which case the following sett will be useful:—

<i>Warp.</i>	<i>Weft.</i>
All 60 $\frac{1}{2}$ silk.	All 60's silk.
40's reed 2's.	80 picks per inch.

As a worsted fabric we should suggest its development in warp and weft 5-end sateen, or for a cotton warp and lustre weft the system of development given above will prove effective.



DESIGN 35.