

The two new reds referred to are named
GERANINE B B AND GERANINE G.

These dye cotton from a salt bath a fine pink to deep red. The pink shades with $\frac{1}{10}$ to $\frac{2}{10}$ % of the dye-stuff are very bright, the G giving yellowish tones and the B B bluish tones of pinks. With $\frac{1}{2}$ to 2 % scarlets with the G, to ruby-red with the B B brands, are obtainable. The dyeings from Geranine G are turned a shade browner by strong acids, and blue by alkalis, and are not fast to soaping. Those obtained from Geranine B B are similarly affected by acids and alkalis, but are decidedly faster to soaping, which causes them to bleed but little. On wool and silk the new reds may be dyed in a bath of Glauber's salt and acetic acid, giving deeper and brighter shades than on cotton, the dyeings being affected by acids, alkalis, and soaping in the same manner as those dyed on cotton. In calico-printing the new Geranine may be used for padding light pink grounds, a solution containing a little phosphate of soda being used. Altogether the new Geranine are a decided acquisition to the range of direct dyes, and should meet with a favourable reception from dyers.

Letters from our Readers.

ASHWORTH versus LAW.

(TO THE EDITOR OF *The Textile Mercury*.)

SIR,—It would appear from the reply of the defendants to mine of the 27th ult. that the only consolation now afforded them is to be found in the answer of plaintiff given to counsel's question 143, and which, strange to say, the defendants' counsel, the Solicitor-General, dismissed at once, "as not being a question for the plaintiff at all." Evidently the Solicitor-General found no comfort in either the question or answer, though his clients now see in both more than he did, and indeed all they require is to establish a position I have previously shewn to be untenable. Still, so far so good. It clears the matter considerably to know on what portion of the evidence reliance is placed in proof, or explanatory of the statement contained in their previous letter, i.e., "By our machinery we do and always have ground down the sides of card teeth to any depth required." Now, either the defendants can, or they can not, side-grind to any depth required. If the former, surely the evidence ought to leave no room for any ambiguity on the point; and if the latter, then either the evidence, or the judgment, or both together, should be equally clear that no such claim has ever existed. With regard to question 143, it is quite possible that the plaintiff had in his mind a totally different idea from that which is ascribed to him by the defendants, and which the evidence leading up to and following this point will best explain. Let us see if that is so. By Mr. Aston to plaintiff (referring to defendants' machine):—

Q 114: "Are you able to tell his Honour whether there was an effective cutting away of the sides of the teeth such as you describe and claim in your specification?"—A: "Undoubtedly there was. That was the object of using the discs and putting the disc one-eighth of an inch, as it were, between the rows and space."

Q 115: "Will you say that again?"—A: "I say that was the object of their using the disc and pressing it to a distance of one-eighth of an inch between the space and the wires."

Q 116: "Was it pressed an eighth of an inch between the space and the wires?"—A: "Yes, I know that, because we took up a part of one of the discs and found it to be so marked."

Q 117: The Judge.—"That was the object of what, do you say?"—A: "The object of using the disc and pressing it to a distance of one-eighth of an inch between the rows of wires, that is, the cutting away the sides of the teeth."

Q 126: "Just look at that, will you?" (A broken disc was handed to plaintiff).—A: "Yes, I see it, sir."

Q 127: "Is that like anything you have been speaking of?"—A: "Yes, I think that is the disc I saw at defendants' works."

Q 128: "At all events, it is like it?"—A: "Yes, it is like it exactly."

Q 129: "Now, shew that to his Honour, and tell his Honour why it is that you say that shews a penetration?"—A: "Well, sir, it is marked about an eighth of an inch down the sides where it has been operating between the teeth. It shews that it has been operating to that depth."

The Solicitor-General: "I do not think it is necessary to put this in at all. There is no doubt about the penetration, as far as that goes."

Your readers will now see that the penetration, or side-grinding, and the extent of it, is hereby conclusively established and admitted by defendants' counsel to be one-eighth of an inch—neither more nor less. This, therefore, is not side-grinding "to any depth required," but side-grinding "to some extent," as so described by the terms of the judgment, or to the limited extent of one-eighth of an inch. The claim of the defendants, therefore, to side-grind "to any depth required" is thus far seen to be completely outside both the evidence and the judgment, which latter is most important of all, and cannot be questioned. But I now come to that portion of the evidence on which they rely.

Q 143: "Now, are you able to say whether the defendants do sharpen card teeth substantially as set forth in your specification?"—A: "I consider that that is what they do exactly."

The Solicitor-General: "Well, I submit that is not a question for the witness at all."

Here it will be seen from the foregoing evidence that the interpretation of the terms "substantially" and "exactly" have special reference to the extent to which there is any sharpening at all, and which has already been proved to be limited to one-eighth of an inch. But the reference is not complete unless the subsequent connection be shewn:

Q 144: Mr. Aston.—"Now, I will take you through them *seriatim*. Do they sharpen teeth by means of revolving grinding discs of consolidated emery?"—A: "They do."

Q 145: "Do these revolving grinding discs of consolidated emery traverse the spaces between the rows of teeth?"—A: "They do."

Q 146: "Are the grinders or the cards traversed in that case, and if so, which?"—A: "The grinder is traversed."

Q 147: "And if the grinders are traversed to the extent that there is any sharpening, is that sharpening like Ashworth's?"—A: "I think so. Yes, it is."

This, then, is the whole case. Side-grinding to the same extent as Ashworth's is only possible by the Ashworth patent by means of a plough, and not by the traversing side-grinder, which passes over the tops of the wires to the depth of penetration shewn. Were it practicable otherwise, the trade generally would not have accepted by licence the former method, as against the latter, for so many years, and still continue to do so by preference, notwithstanding the result of the action.

With the other side questions of your correspondents I am not concerned, and am willing now to leave the whole bearings of the case to the judgment of your readers.—Yours, etc., CHAS. J. HALL.

Manchester, May 11th, 1892.

A CLOTH factory at Tornton, on the Neva, four storeys high, collapsed recently, and four lives were lost.

ANOTHER NEW FIBRE.—A large tree is found in Mexico, but more especially in the State of Tabasco, known as the Jocolin (*Acrocarpus Americanus*) majagua, or pea-tree. It grows with such rapidity that it is really dangerous to fields lying waste. Hitherto, the fibre obtained from the bark of this tree has been used for merely making cordage, its power of resistance being equal to that of hemp. In all probability, "jocolin" will soon be included in the raw materials used for making paper, and, thanks to its polish and fineness, it may some day play an important part in the manufacture of tissues. The cultivation is exceedingly simple, consisting merely of two or three weeding per annum. At the end of two years the tree is ripe for the market; it is cut down, the bark taken off, and steeped in water. After soaking for eight days, a simple washing suffices to lay bare all the fibres.

A SILK EXHIBITION.—The London correspondent of the *Manchester Guardian* writes:—"Yesterday (Saturday) there was a private view at the 'Aesthetic Gallery,' New Bond-street, of a collection of silks which should be deeply interesting to those concerned in the trade of Macclesfield and Leek. It is the third annual show, and Mr. Goodyer, the proprietor of the gallery, has taken a commendable part in reviving the English silk industry, and in proving that by taking pains we can hold our own against all foreign competition. Particularly effective and beautiful are the embroideries from Mr. and Mrs. Wardle's school at Leek, with a fringe of Macclesfield silk. Very many cushions of this kind were shewn, and all the Leek embroideries were charming as to design and colour harmonies. It would seem that silks are now being used more for decorative purposes than for dress. For instance, it is, I understand, no uncommon thing when a room has to be furnished as perfectly as possible for the exact hue of the silk curtains and hangings, so as to suit the furniture and surroundings, to be settled by an artist. The order is then sent to Macclesfield to be executed. A beautiful decorative effect is also given by antique Cretan embroideries with fringes of Macclesfield silk. This Cretan work is in hand-made linen, and the dyes are vegetable. The fabric lasts almost 'for ever,' and the colours are scarcely more than mellowed by

time. In the exhibition are also some lovely brocades of ancient French design from Spitalfields, and some brocettes from Braintree. A curious exhibit is a fragment of silk lately found by Mr. Flinders Petrie in a Christian Coptic tomb of the sixth century. The design has been reproduced, and is simple and effective. There is also shewn some Clutha glass from Scotland, of a green shade, which cannot be described in words, but obviously lends itself to floral decoration. With better modelling as to shape this peculiar industry ought to flourish."

Designing.

NEW DESIGNS.

MATTING CLOTH.

A matting cloth in plain weave, two in a heald and two in a shed, as follows: 20's cotton warp and weft, 64 ends, and 64 picks per inch, 30 inches out of loom in width; good beetle finish; best cotton materials; fast colours suitable for the washing process.

Pattern: 6 chocolate, 2 light fawn, 2 white, 2 light fawn, 4 white, 6 light green, 4 white, 2 light fawn, 2 white, 2 light fawn, 4 white, 6 bright red, 4 white, 2 azure, 2 white, 2 azure, 4 white, 2 azure, 2 white, 2 azure, 2 azure, 4 white, 2 azure, 2 white, 2 azure, 4 white, 2 faint pink, 2 light green, 2 faint pink, 4 white, and repeat from the 6 chocolate. The weft checking may be the same pattern, or, to save so many shuttles, may be worked with white and fawn all through.

FIGURED MANTLING.

As the characteristics appertaining to the various weaves used in worsted goods become better known, and more under control, we may expect a very decided development of the figured mantle trade. Already a few of the better known effects have been utilised in the production of weave figures of considerable merit. In *Figure 1* and *Design 1* is demonstrated a system of development from which much may be gained. In the first place note should be made of the fact that simply warp and weft weaves and a simple twill are the only effects used; but it need hardly be stated that there is something more about the combination than appears at first sight. Why not have used 3-and-3 or 4-and-4 twill, or the pure warp and weft sateens?

Now the designer of experience knows that the 8-end diagonal yields a very characteristic effect when rightly treated; he also knows that to add a dot to the pure sateen, either at the top or side, may mean more than is apparent at first sight. These are the means of development, which have yet to be used in their best form, and our readers will do well to thoroughly acquaint themselves with the principles here briefly indicated.

Respecting the figure, we need only say that it is of the figured mantling type and is here given rather as indicating weave development than as a specimen floral design. The warp, etc., given below will yield a pleasing effect:—

Warp.—All 2-48's worsted; 12's reed 6's.

Weft.—All 36's mohair or 24's worsted; 72 picks per inch.

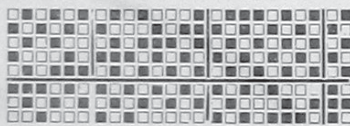
COTTON FABRICS.

The designer's and manufacturer's skill is directed in every possible way to combine weaves, colours, and materials that will produce goods to captivate the taste of the public and command a ready sale, particularly in the home market. There seems to be a growing desire for cotton fabrics, especially in dress materials, the reason adduced for this change of fancy being the fact that they are less costly, quite as durable, and more cleanly, while the colours always appear brighter; and when made of good materials and sound fast colours, they can be washed, and come out of the laundry always looking fresh. In point of economy many more changes can be obtained at a less price than in more costly goods. Many in the higher classes of society are setting an example in this way—at all events, so far as the summer and early autumn seasons permit. If the fashionable intelligence is to be a guide, quite an ideal material is found in cotton for tennis blouses and cycling costumes. Cotton fabrics



FIGURE A.

in new shades for covering settees and cushions are likewise becoming highly popular, and are fast displacing expensive embroidery; there is a wave of economy, and King Cotton is once more in the ascendant. In shirtings some very neat and effective patterns are being prepared, all-cotton, for summer wear. We will give a few of these really handsome stripes and checks as early as possible. We now submit a design, A, for a cotton blouse or dress material; it is merely indicative of style, and may be constructed to suit requirements. We have reduced it to the lowest working point, as may be seen by the two pegging plans. The object held in view relative to this design is to give a ground and small figure of a matting cloth—that is, with a certain amount of porosity, which seems very desirable for all summer fabrics, especially when worn during active exercise. It may be made on 8 shafts, straight-over draft, either with the first pegging plan, 48 to the round; or with the second pegging plan, 24 to the round; in the latter case the weft would have to be

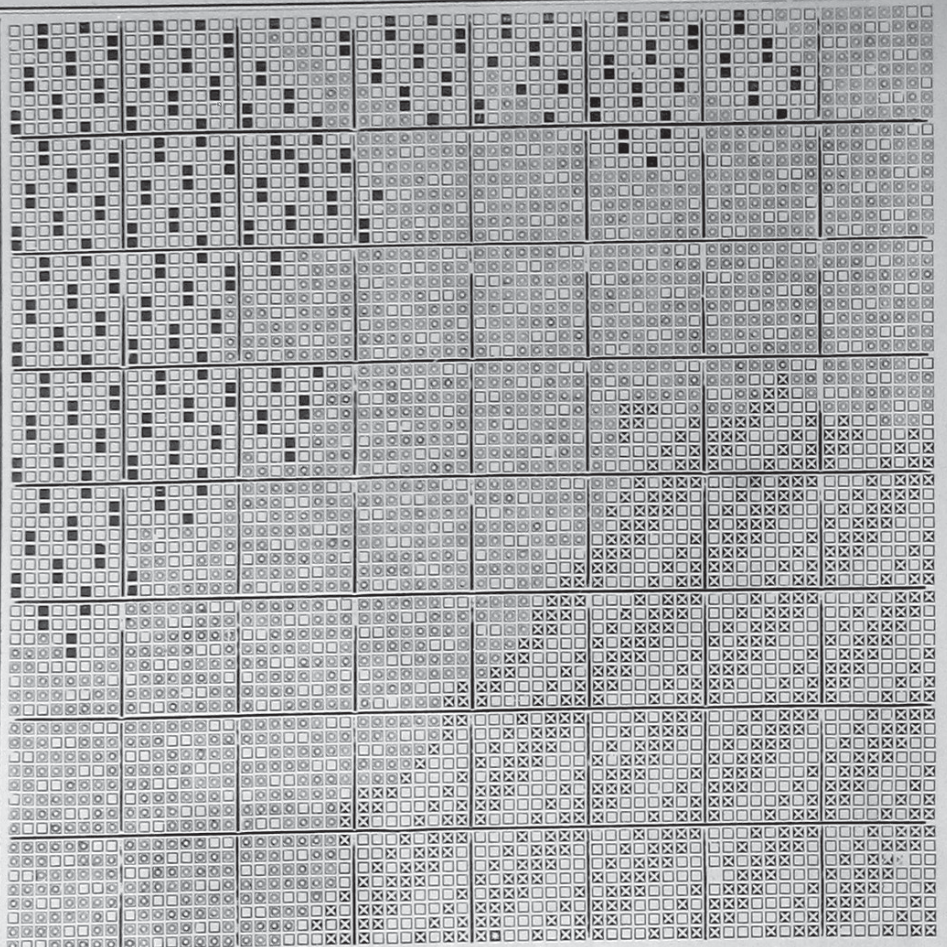


A: 2nd PEGGING PLAN.

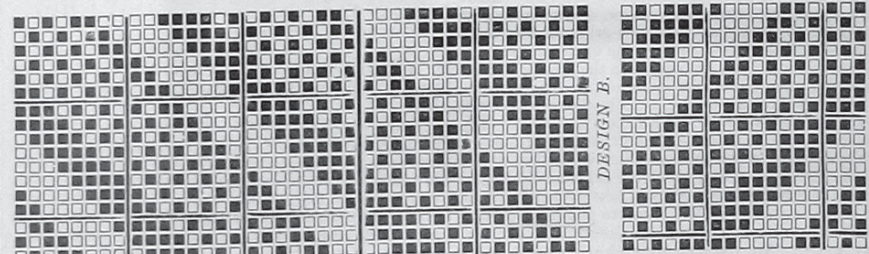
wound double on the bobbin for the shuttle; the warp to be drawn in two in a heald, all dark colours; the weft grey cop, cream, or very light tints of the ground shade; violent contrasts are out of date, and not permissible except for export goods.

GINGHAM DIAGONAL.

Design B is a diagonal for a fancy dress gingham in cotton; warp 40's, in 40 dents per inch; weft 40's, with 80 picks per inch. It is on 17 shafts, straight-over draft, 17 to the round. The great peculiarity in this running diagonal stripe is that any pattern in the warp cannot be continuous, but will be broken up, and take a new direction on account of the odd number of shafts. For instance, 6 coral, 6 white, would have an extent of 204 warp ends before the measure of 17 would be met; and with a pattern of 8 and 8, two warp colours, 272 ends would only meet the measure. This will clearly indicate the almost unlimited scope of varieties that may easily be obtained by colour arrangements in the warp, without taking into consideration the innumerable changes obtainable by weft checking. As an example with three colours, say simply 6 red, 6 blue, 6 white, in this warp pattern, 306 ends would be the repeat; and if the weft pattern crossed these with three shuttles, a novel *mélange* of 306 weft picks in a mingling of shade would be produced with 6 fawn, 6 dark green, 6 cream. It will thus be seen without further examples, and with a change of the pegging plan to some other broken twill within the compass of the 17 shafts, that the variations are scarcely within the bounds of calculation. A fabric of this peculiar disposition is capable of producing patterns that should command a market as dress goods.

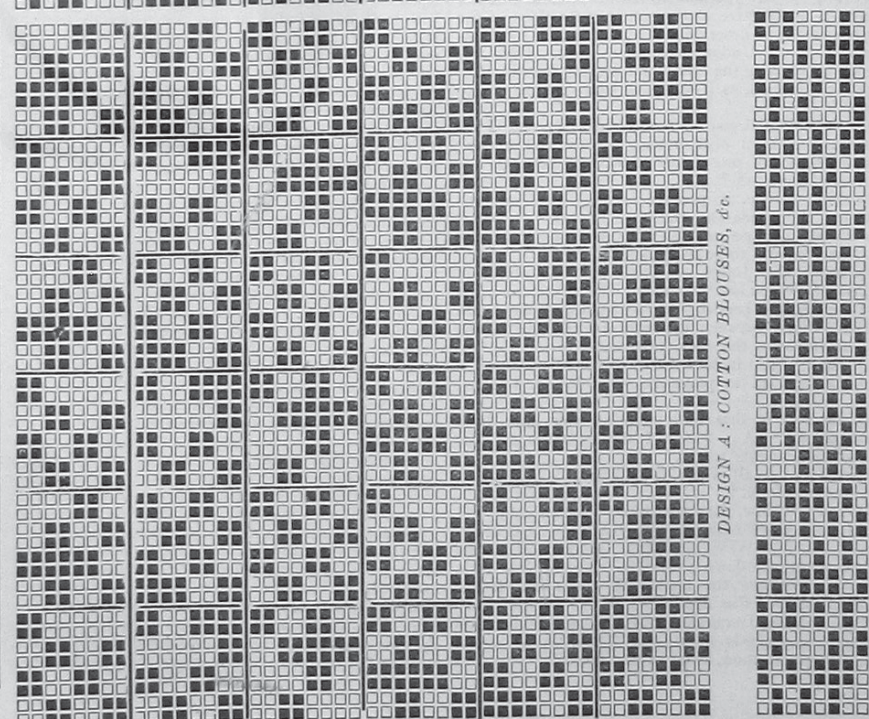


DESIGN I.



DESIGN B.

B: PEGGING PLAN.



DESIGN A: COTTON BLOUSES, &c.

A: PEGGING PLAN.