

1889. The exports of waste silk do not show such a decided falling off, having thus far been 7,239 bales, against 7,719 bales in 1889.

The Kerr Thread Co. of Fall River, Mass., are having erected the Howard and Bullough machinery they ordered with Riley and Gray of Boston, including revolving flat carding engines, electric stop-motion drawing frames, slubbing, intermediate, roving and jack frames. The latter firm also supplied them with Horrocks' stop-motion drum spoolers.

Messrs. Stephens Bros., of Greenville, Tenn., are open, it is said, to purchase a plant for a woollen mill.

FRENCH FOREIGN TRADE.—The Paris correspondent of the *Times* telegraphs:—The November trade returns show a falling off as compared with last year, with the exception of the imports of manufactured goods, which are 47,000,000*fr.* against 46,000,000*fr.* The imports of raw materials fell from 184,000,000*fr.* to 176,000,000*fr.*, the exports of the same from 82,000,000*fr.* to 63,000,000*fr.* The exports of manufactured goods fell from 18,500,000*fr.* to 16,000,000*fr.*

Designing.

NEW DESIGNS.

NOVELTIES IN WOOLLEN AND WORSTED DRESS FABRICS.

Though the novelties produced in woollen dress cloths have of late been many and varied, there seems as yet no indication that the ground is anything like exhausted. This week a new type of design claims attention—a type which is likely to come much into vogue in the coming year, and which we should recommend our readers to experiment with in all possible ways.

The structure of the cloth may be best described as plain, or two-and-two twill, with an extra slubbing weft introduced to form the figure. The more ordinary makes of these cloths will probably have a reversible pattern of some simple type developed, but users of three or four hundred machines may well undertake the production of more elaborate styles, since

open setts are effective in this case, giving a large repeat of pattern.

The following is a suitable sett for the production of the structure indicated in *Designs 213 and 213a*.—

Warp.	Wefts.
All 40 sk. woollen,	2 pick 40 sk. woollen,
11's reed 4's.	1 pick 20 sk. slubbing (woollen).
	50—60 picks per inch.

The slubbing must be of good quality, and have sufficient twist to ensure its weaving well.

Figure is an elaborate effect, designed for this type of material. The development for a 384 machine is shown in *Design 213*, and sixteen picks of this design are fully developed in *Design 213a*, the introduction of the slubbing pick between every two ground picks being clearly indicated. In section A the slubbing is shown on the surface, in section B at the back, but tied to the face cloth, and in section C the slubbing would simply float at the back, which is not at all a desirable condition, since, if it be bound, it adds to the firmness of the texture. Probably the best way to treat the binding of the slubbing is to regard it as an extra weft, which may be taken through to the back of the cloth as required, but, of course, when it runs at the back care should always be taken to bind it so that it does not show on the face.

Figure 30 if developed in the above sett, will give a pattern about 8½ inches on a 384 machine for 384 ÷ 44 = 8½ inches.

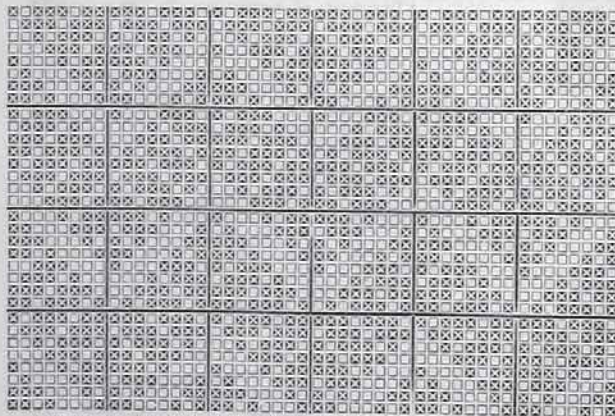
ORIGINAL DESIGN FOR UNION CLOTHS.

We give an original design for union cloths, linen and cotton, which are at present enquired about, in heavy, medium, and light makes. The weave is on nine shafts, with two separate drafts, Nos. 1, 2, and Nos. 1, 2 working plans. The draft No. 2 makes the number of ends in each heald equal, and either of the working plans may be used with it; in fact, a practical and ingenious weaver, by drafting and various twills, can easily produce an enormous quantity of changes and variety of effect. We would suggest as a basis to work upon a 30 reed, 2 in a dent, or more plainly, 60 ends on one inch, and 40 picks per inch for stripes composed of 12's cotton, 16's linen, for a heavy type of cloth,

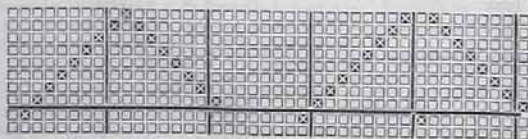
or 16's cotton, 20's linen, weft 12's cotton. It would be better in the stripe arrangement to have separate beams for the linen and cotton warps. The colours: blue cotton and white linen, brown cotton, white linen, dark green cotton, white linen, pink cotton, white linen; weft: 12's cop weft; the patterns 3, 4 and 4, 6 and 6, 9 and 9, 18 and 18, good trousering patterns for the export trade. Checks need not have the warps on separate beams, because the linen weft will equalise the strain on the linen warp. The following details will be found useful for dresses, aprons, blouses, and many other purposes:—Cotton warp and weft, 16's and 25's linen for warp and weft; 36 reed, two in a dent, or 72 ends per inch, 72 picks per inch, weft. A very superior and most durable fabric would be the product of these details. Patterns of warp:—

- 36 blue cotton, 36 white linen; weft the same pattern.
- 36 brown cotton, 36 white linen; weft the same pattern.
- 36 dark drab, 36 white linen; weft the same pattern.
- 18 pale rose, 18 white linen; weft the same pattern.
- 18 dark myrtle, 18 white linen; weft the same pattern.
- 9 tan, 9 white linen; weft the same pattern.
- 6 coral, 6 white linen; weft the same pattern.
- 6 royal blue, 6 cream colour linen; weft the same pattern.

It will be seen that an almost unlimited range of patterns may be obtained in all the fashionable shades and tints. The design is also well adapted for all-cotton fabrics, or mixed goods of silk and cotton. As a rule, the designs which we give are of almost universal adoption, as we consider it worse than useless to give figures, designs, and patterns that are restricted to one class of fabric only. It is highly important that manufacturers should have at their disposal weaves from which the greatest possible variety may be obtained at the least expense, and where the accidentals in the pattern sections of a range may turn out capital samples of the unsought-for. By these simple though effective means we consider we are doing our best to make this journal fulfil the rôle of a public and practical educator.

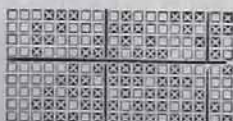


ORIGINAL DESIGN FOR UNION CLOTHS, LINEN, AND COTTON.

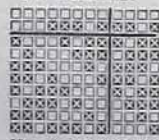


No. 1 DRAFT.

No. 2 DRAFT.



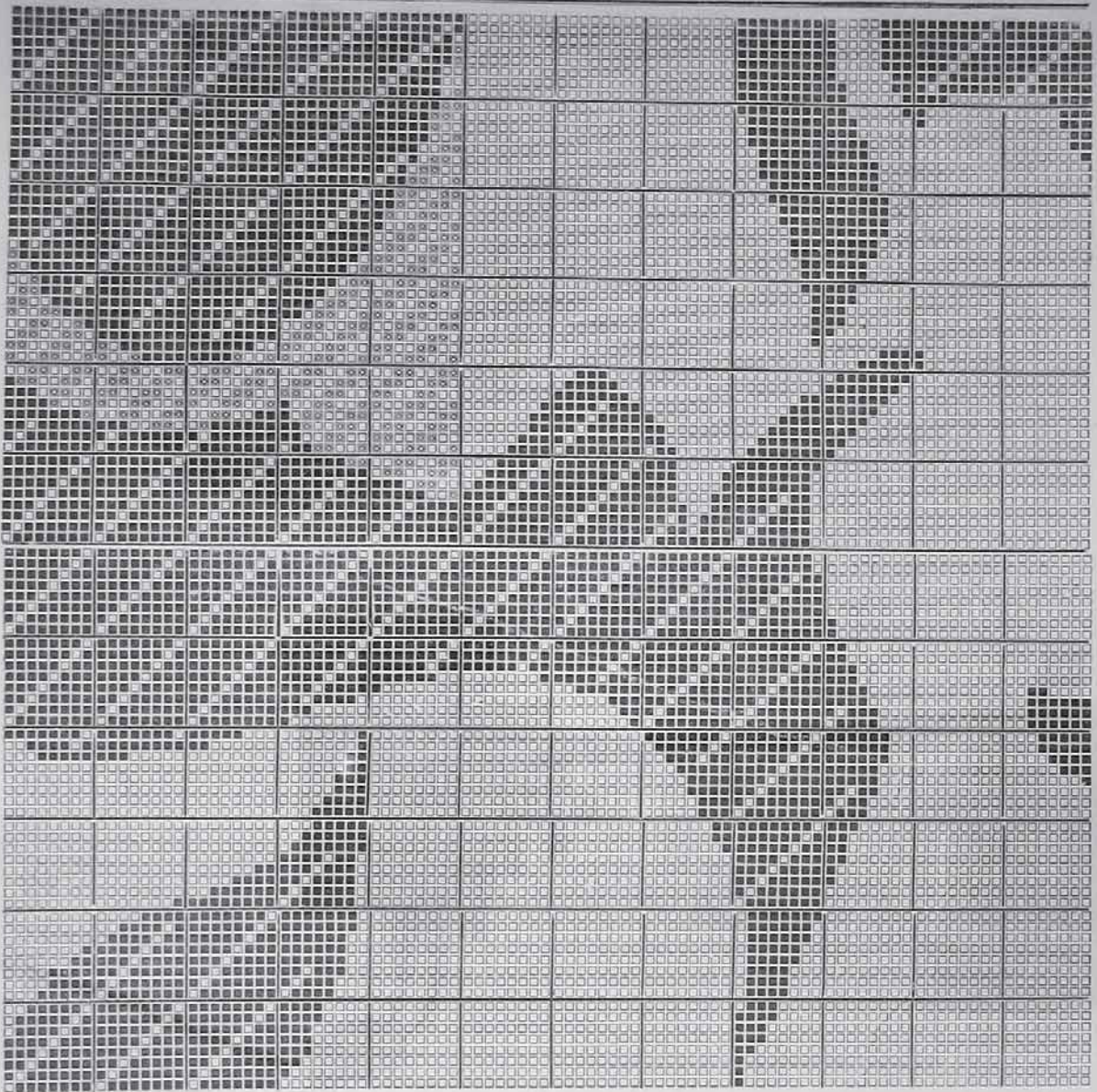
No. 1 WORKING PLAN.



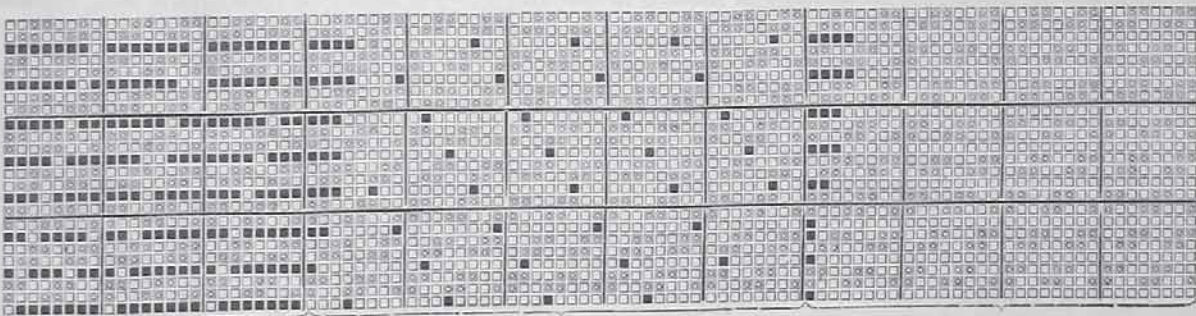
No. 2 WORKING PLAN.



FIGURE 30.



DESIGN 213.



DESIGN 213a.