

saracenet ribbons were being woven in the town, the weavers were earning the amounts indicated below. There were 233 power-looms engaged in weaving ribbons at that time:—

Width.	No. of shuttles in loom.	Price per cut.	Cuts woven per week.
2 dy ..	30 and 36 ..	10s. 10J. ..	1½
4 ..	28 to 30 ..	12s. 6d. ..	1½
6 ..	24 to 26 ..	14s. ..	1½
10 ..	18 (30) ..	16s. 6J. ..	1
20 ..	12, 14 and 16 ..	20s. 4J. ..	1
30 ..	8 ..	24s. ..	1

The spurt which has taken place of late in the silk industry of the country generally has imparted additional vigour to Derby. Labour, however, cannot be obtained in sufficient quantity for the work on hand, and it seems as though skilled labour would become scarcer and scarcer every year. During "the depression" (the words have now become so familiar that one may almost employ them without further explanation just as in the States the phrase, "Before the war," is only applied to *one* war), the places of the young women engaged in the throwing mills who got married or entered into other employments, were not filled owing to the dearth of learners. Now that a busy time has come labour is, therefore, scarce. The scarcity is not of the healthy character which one might notice in Bolton and Oldham during periods of great activity in the cotton trade, owing to the constant expansion of the industry. On the contrary, it is, as has been shewn, the direct and natural result of adverse influences continued almost without cessation for a number of years, which, if prolonged, bodes ill for what silk manufacturing still remains in Derby. In this respect, the position of Derby closely resembles that of Spitalfields, where, as we have already seen in the course of these articles, young blood is sadly wanted amongst the operatives.

The weaving of silk piece goods was introduced about 1822 by Mr. Wm. Taylor, whose factory was situated in Bag-lane. His example was followed by Messrs. Bridgett and Son, and by Messrs. Ambrose Moore and Company a few years afterwards. In a short time these firms—none of which are now in existence—were producing saracenet, *gros de Naples*, and other rich silks in a style equal to the best of the Spitalfields makes, employment being thus afforded for 300 hands and 220 looms. I was speaking to an old manufacturer in Derby recently about Bridgett's mill, which, with its seven or eight storeys, is the finest in Derby. Built originally for the ribbon trade, eventually utilised as a sweets factory, and now unoccupied, the history of the structure was melancholy enough, and I was glad to change the subject, which evidently brought up painful recollections in the mind of the gentleman referred to. "This place here," said the proprietor of the Agard-street Mill, "was occupied for many years by one of the oldest firms in Derby—that of S. & J. Wright and Co. They," he continued, "came to grief, and of the firms in existence when I entered the trade scarcely one now remains." The Lombes have gone; Bridgetts have gone; Moores have gone; and Messrs. J. and C. Peet, who, in 1823, erected a large factory, and fitted it up with looms and machinery, constructed by Mr. Isaac Peet, for the weaving of galloons and doubles, have also disappeared. They were the originators of the narrow silk trade in Derby, and were also large manufacturers of silk hose. Messrs. Smith Birley, and Smith, of Glossop, and Ralph Frost, of Derby, were the other ribbon manufacturers of that day. They also are no longer in existence. Some thousands of hands, in one way or

another, were at one period employed in this branch.

THE SILK HOSIERY AND SILK LACE TRADES: COMPETITION OF ST. PIERRE LES CALAIS.

There is now no hosiery manufacture in Derby properly so-called. By this I mean to say that although stockings reside in the town their employers' places of business are situated elsewhere. Such firms as Morleys, of Nottingham, Ward, Sturt and Co., and George Brettle and Co., of Belper, give out work to these operatives. The industry is of a good age. Silk was employed as the principal material for hosiery soon after the invention of the stocking frame, but it was not until after the commencement of the 18th century that the manufacture of this elegant article by machinery began on an extensive scale in this country. In 1831, Derby manufacturers gave employment to 850 hands in this branch alone, but the largest firm in the trade was that of Messrs. Ward, Brettle, and Ward, of Belper, who are still in existence, as separate firms, as stated above, and are well known as wholesale distributors of dry goods. At the period referred to they possessed 400 silk stocking frames, producing 200 dozen pairs of hose weekly, and in addition there were 2,500 cotton hose frames at work. It is almost unnecessary to say that, as far as productive capacity is concerned, the above figures are now exceeded by many houses. At Belper to-day we have, in addition to Messrs. Brettle, the firm of Ward, Sturt, and Sharp, London warehousemen, and Messrs. J. W. Potter and Co., we believe, transact a considerable business as distributors of the ribbed and plain hand-wrought hosiery, either pure or intermixed with cashmere or merino, made in the town. The coarser counts of silk are used for the manufacture of stockings, undershirts, etc., and the finer descriptions are employed in the production of lace, gauze, crape, and other dainty fabrics. For hosiery, spun silk is chiefly in demand, and at Belper and Nottingham the trade has developed wonderfully since the preparation of silk waste by the means of machinery was made possible. Nottingham also, it may be parenthetically remarked, turns out a large quantity of woollen hosiery. Leicester and Loughborough are, however, the chief centres for this department of the business, there being nearly thirty manufacturers in the two towns.

Although the pure article is used occasionally in the Nottingham silk lace industry, it is the spun variety that is chiefly employed. The fine silk trade is very depressed at present, and large stocks of China and Japan cords for lace manufacturers are held in Derby. The competition of St. Pierre les Calais in this branch is so great, and the enterprise shewn in that town so much ahead of that of Nottingham and other English centres, that our manufacturers, being unable to dispose to a sufficient extent of the finished article, do not require large supplies of silk. For this condition of affairs we may, to a serious extent, thank the English colony at Calais, who, by means of Nottingham machines are beating their countrymen at home.

(To be continued.)

Designing.

NEW DESIGNS.

DRESS FABRICS.

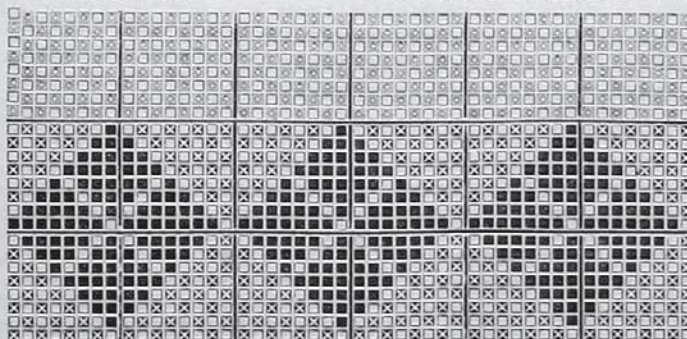
Of the various types of dress materials for summer wear, none perhaps give more pleasing effects than those fabrics in which the design, etc., is developed by means of contrast between dull and lustrous materials as, for example, cotton and silk, cotton and mohair, or wool and mohair or silk. Of the various ways in which such materials are generally blended together we will add nothing to what has already been said in these columns, but rather direct attention to a special make of cloth demonstrated in *Design 106*, and further illustrated in *Designs 106a* and *107*.

The idea of the construction of this cloth may briefly be summed up as follows:—The fabric proper consists of a series of cotton warp and weft threads interweaving plain, and possessing very much the appearance of muslin, upon which is introduced a series of silk threads (developed in crosses) which form a plain cloth in conjunction with the cotton threads and picks, save where a figure is required, as shewn in solid type, when the extra silk warp flushes as required to form the figure, and the cotton warp retires to the back, and interweaves plain with the cotton weft, thus retaining a firm, sound fabric. This will readily be understood on consulting those portions of *Design 106* where the solid type denotes the silk figure. The chief difficulty experienced here is that of changing from a plain cloth as formed by the two warps (silk and cotton) and cotton weft, to a plain cloth of cotton warp and weft and a silk flush figure. Two systems of doing this are shewn, but that employed in the section on the right hand side of the design is the best, as, in this case, the imperfections, which cannot be avoided, rather tend to shew up the figure than otherwise.

Since the silk warp is introduced in stripe form, irrespective of any figuring, there will be a crammed stripe formed by this extra material right up the piece, if the design be applied as here given, but the better way is to allow the silk warp to flush at the back between the oblongs (shewn by the crosses), and then to cut off this superfluous material, in which case the effect obtained is that of a light muslin material with an oblong figure developed upon it, and then upon each of these oblongs is developed a series of silk figures, formed by the extra silk warp flushing as required. The only modification necessary to weave the cloth for this effect is a little alteration in the plain ground (developed in circles), in order to throw the silk entirely to the back, and to allow the cotton warp to weave plain with its own cotton weft.

The figure formed on the oblong in *Design 106* is shewn in *106a*, but this may, of course, be varied as desired.

Another suggestion for this type of work is shewn in *Design 107*, in which we give similar figures opposing each other. The difficulty here would be the disposal of the extra silk not required, and since extra silk would be required right across the cloth if introduced in the warp, the better way would be to place these figures further apart and use swivels, in which case no unnecessary waste of material need occur. We would suggest the application of the principles



DESIGN 106a

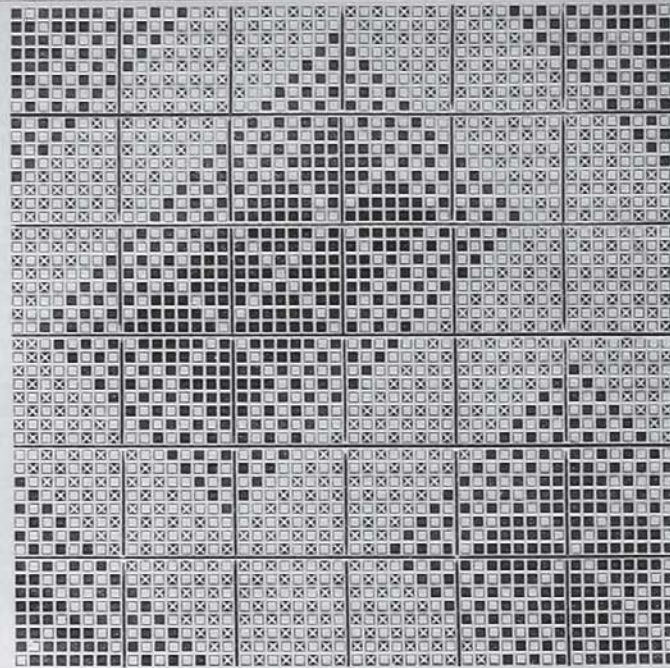
here set out to the stuff trade of Bradford and district.

ZEPHYR TARTANS.

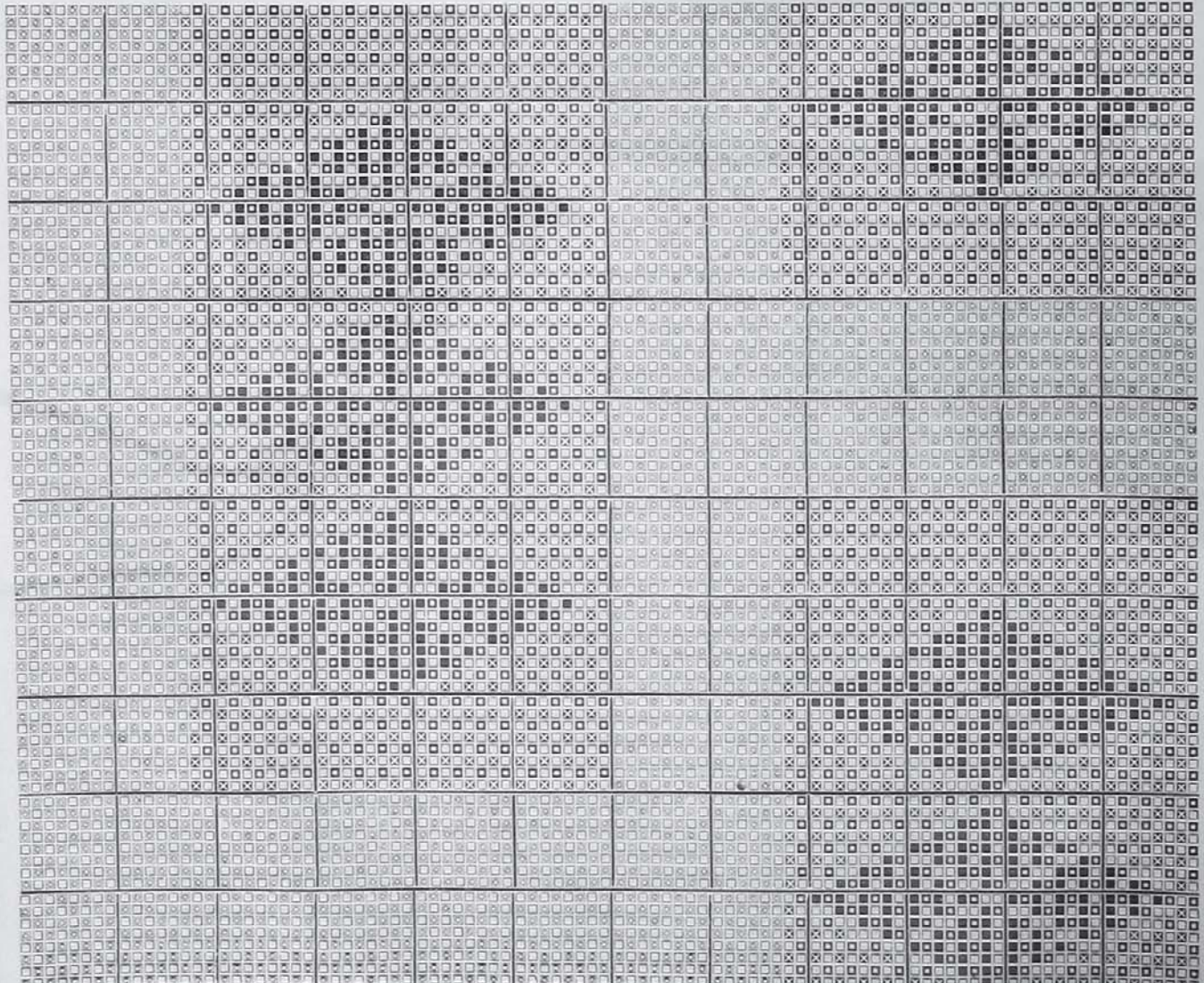
The same reed picks and yarns as mentioned for this class of goods in our last issue. Pattern and draft, 120 green drab, 4 of light brown, 6 white, 6 royal blue, 6 white, all to be on 4 shafts, straight over draft, 6 orange silk, 3 in a heald, one heald in dent; on the second shaft, 12 royal blue; on 1, 2, 3, 4 shafts, 6 orange silk, 3 in a heald, one heald in dent; on the 4th shaft, 6 white, 6 royal blue, 6 white, 4 of light brown; making complete pattern a total of 188 ends. Checking: 120 green drab, 4 dark brown, 6 green drab, 8 dark brown, 4 green drab, 2 dark brown, 8 green drab, 2 dark brown, 8 green drab, 4 dark brown, 4 green drab, 8 dark brown, 6 green drab, 4 dark brown, total 180, or same number of ends as in warp; four end twill, two up and two down.

SKIRTING PATTERN.

Reed 80, two in a dent, 40's twist, 20's weft, 80 picks per inch; warp all black. Checking, 60 picks of very dark blue cotton, woven plain on 4 shafts, the first and second up, third and fourth down for first pick; third and fourth up, first and second down for the second pick; 4 white silk, 6 light blue silk, 4 maize silk, 10 crimson silk; total 24 silk picks to be put in on the four shafts, only one up in consecutive order until six repeats are made, and return to dark blue cotton.



DESIGN 107.



DESIGN 106.—Marks here equal Warp.