THE NEW BLUES AND THEIR COMPETITORS IN COTTON DYEING.

Name of Dye.	Maker.	The solution of dye is made with	Shade of Colour.	The dye-bath at the end of dyeing is	By washing and rubbing with warm soap at 35 deg. C.			The original colour, with 10 per cent. soda at 80 deg. C. changed.	After 14 days' exposure to light.
					The original colour becomes	A white bank washed with it	The wash water.		
New Blue B	Cassella & Co.	Hydrochloric acid	Blue	Not exhausted	Violeter and duller	Remains white	Reddish, dirty	Brown	Greyer, at end green
New Blue F extra	Cassella & Co.	do.	Blue, slightly violet	Nearly exhausted	A little redder	do.	do.	Grey	Darker & duller, end grey
Indazin M	Cassella & Co.	Acetic acid	Do., a little more violet	do.	Paler	Becomes blue	Very blue, dirty	Unaltered	Darker & redder brown, at end
Fast Blue R cryst	Action Gesellsch. für Anilin Fabrik	Hydrochloric acid	Violet blue	Not exhausted	A little redder	white	Reddish, dirty	Reddish grey	nearly white A little duller
Napthylene Blue G ..	Bayer & Co.	Acetic acid	Blue, slightly greenish	Exhausted	Violet grey, insignificant	do.	do.	Brown	Greyer & greener, end grass green
New Blue G	Bayer & Co.	Hydrochloric acid	do.	Nearly exhausted	Violetter	do.	Blue, dirty	Brown	Greyer, end green
New Blue R cryst	Bayer & Co.	do.	Violet blue	Not exhausted	Redder	do.	Violet, dirty	Reddish grey	Duller
Naphthol Blue R	G. C. Zimmer	do.	Do., rather more violet	do.	do.	do.	do.	do.	Duller
Fast Cotton Blue 2B ..	Meister, Lucius and Bruning	Acetic acid	Blue, slightly violet	Exhausted	A little violetter	do.	Blueish, dirty	do.	Greyer, at end greener
New Cotton Blue B extra	do.	do.	do.	do.	do.	do.	Very blue, dirty	Blue grey	Greyer, at end grey
New Cotton Blue F extra	do.	do.	Do., rather more violet	Nearly exhausted	A little redder	do.	Blue, dirty	Violet grey	Darker & duller, at end greyer

Designing.

NEW DESIGNS.

WORSTED TROUSERINGS.

Designs 9 and 10 are two examples for this class of goods. Design 9 is a warp backed cloth, the face being composed of a combination of the 2 and 2 twill, and the Mayo or Campbell twill. The difficulties in the construction of this plan are considerable, for, in the first place, the two face weaves must be made to cut properly, and in the second, the backing warp must be bound to the face cloth in such a manner that it will not be observable on the face of the texture. In many sateen weaves there would be no difficulty in effecting this, but in this case, since the Mayo is irregularly constructed, though certainly made on the basis of an eight end sateen, difficulties unlooked for present themselves, for though we find that the 2 and 2 twill may be tied in eight end sateen order, counting 5, the Mayo, though constructed on this base, cannot be tied the same way, so we have been compelled to alter the stitching in the 2 and 2 twill section, in order to produce a regular back, but if a regular back was not needful, then the 2 and 2 twill section might be tied as suggested.

This cloth may be made to the following particulars:—

Warp.

1 thread 2/40's worsted for the face.
1 thread 2/36's worsted for the back.
20's, reed 6's.

Weft.

All 2/40's or 20's blue or olive worsted.
64 picks per inch.

This design will also give good effects with fancy colourings. The following is a suggestion:—

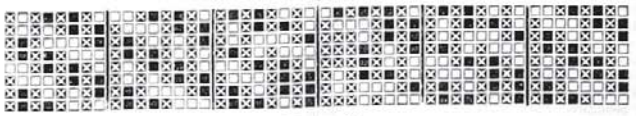
2nd Warp.

8 threads dark blue.	face.
4 dark green and blue twist.	
4 dark blue.	
3 medium brown and blue twist.	warp.
1 blue and yellow twist.	
4 threads of dark blue.	

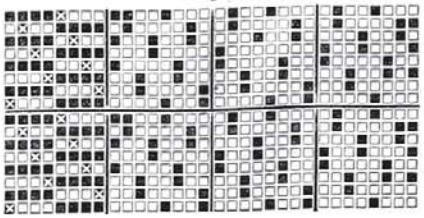
Weft.

Dark brown, olive, or blue, or black.
Colour should also be applied to the back.

Design 9.



Design 10.



Design 10 is a combination of the ordinary buckskin weave with a 4 and 4 rib. These combinations, as a rule, produce a good effect, either when used with neutral or with more pronounced colourings. The following would give a good effect:—

1st Warp.

All 2/40's brown and white twist.
20's, reed 4's.

Weft.

All 2/40's or 20's dark brown or olive.
90 picks per inch.

If the buckskin portion between the ribs were increased, effective colourings might be introduced in the following order:—

2nd Warp.

12 threads	light sage green.	Buckskin weave.
4 ,,	claret.	
8 ,,	light sage green.	
4 ,,	claret.	
12 ,,	light sage green.	
8 ,,	dark olive green.	

2nd Weft.

All dark green.

Numerous other modifications of this design at once present themselves, and with a little trouble many exceedingly good patterns may be produced.

SCOTCH TWEEDS.

Perhaps no class of fabric made requires more natural genius for the production of creditable cloths than the "Scotch Tweed." Figured designers may adapt figures according to their requirements, skill only being necessary; designers of worsted have an extensive modifier of colour in weave effect; but the designer of Scotch tweeds depends almost wholly on colour, and the fact that colour has not and cannot be made subservient to fixed rules tells us at once that good colourists as a rule must be naturally gifted with quick and keen perceptive faculties.

Since colour is such a delicate sensation to deal with, designers at first have a feeling that there is nothing for them to use, that there are not the number of colours necessary for the production of a great variety of effects, and only as we go more deep and our perception becomes finer do we recognise that the least change in tint of any colour in a combination alters the tone of the fabric entirely, and we may go still further and say that a change in the lustre, fineness, roughness, or any characteristic feature of a fabric may necessitate a change in colouring. Take, for example, the colourings applied to most worsted cloths and apply them to rough tweeds and we recognise at once their inappropriateness; and so all classes of fabrics may be dealt with, and it is found that each class requires a special adaptation of colour both in form and tone.

Perhaps the simplest patterns to produce in Scotch tweeds are where contrasts in light and shade are employed, such as in black and white, brown and white, &c. Here the beauty of the design depends upon the aptness with which form has been imparted to the colouring and the make and finish of the cloth, of course including clearness of the shades employed.

The blending of various shades and colours together also forms an important branch of pattern production. Many suitable blends are at once called to mind, such as combinations of black and white, brown and gold, blue and olive, grey, olive, and white, and many others may be used for mixture "all over" effects, and which, combined in different proportions, will yield patterns by means of gradation, though it may sometimes be necessary to add a backbone to the combination in the shape of a stronger colour.

It is not out of place now to ask the question, "What is the distinguishing characteristic of Scotch tweeds?" and the answer to this will serve as a guide in pattern production.

This question we propose answering fully next week.