

DESIGNING AND COLORING OF SCOTCH TWEEDS.

By T. Welsh.

Wherever woolen cloths are worn, the name *Scotch tweed* is recognized as the designation of all that is best in woolen clothing. Possibly the cloth originally owed something to its name. It was a fortunate error in ordering that led James Locke, a woolen merchant in London, to order *tweed* instead of *tweel*, for about the time that Galashiels tweeds were being introduced Sir Walter Scott was making the names of Abbotsford and Tweed famous in another connection, and his readers would instinctively turn with interest and expectancy to anything that bore the charmed name. Sir Walter himself was one of the earliest wearers of Scotch tweed; he wore a pair of black and white checked trousers, and it was with that design that the tweed trade began. The man who set the fashion wore trousers made from an old shepherd plaid.

The first order of tweeds sent to London in bulk was six pieces of black and white check made in Peebles, to the order of Archibald Craig, of Edinburgh.

Colored checks were introduced by accident. It happened that a manufacturer had made a number of pieces, and the white was so impure and dirty-looking from being mixed with grey wool that they could not be sold. Someone suggested that if the pieces were dyed brown the defect would be covered. The suggestion was acted upon, and a new check of black and brown was the result. The new color was sent to London, and sold rapidly, and repeats were ordered. It was a short step to dye black and green and black and blue.

Another short step was the making of broken checks to be dyed in all these colorings, and the trade increased amazingly.

All this time the cloth was made from coarse, rough wool. In 1833 fine foreign wool began to be used. Colored tweeds made from foreign wool in granite and heather mixtures in great variety of bright colors were soon put on the London market. Mr. Craig collected ideas for colors in the bed of the river Garry in the Pass of Killiecrankie—mostly granite, porphyry, and jasper—which he found rich in reds, greys, and greens, beautifully mottled and mixed in finely contrasted colors. Heather mixtures were first asked for by some gentlemen of the rod and gun, who inquired for colors which resembled their shooting ground. Galashiels manufacturers went to the hills and gathered heather, ferns, and grasses, to give them ideas for the coloring of their ranges.

Scotch tweeds are always made to order. Patterns are made and submitted to the wholesale houses a year before the cloth reaches the consumer. In this month of September, 1912, manufacturers are busy getting out new colors, new cloths, and new designs, which will be the very latest things in men's wear in November, 1913. Customers get tired of seeing the same cloth year after year, and it is easier

to get a good price for a new cloth than to raise the price of an old one when the price of wool goes up. A cloth that is not too old may be made to run another season with the addition of something new in the way of color and design.

When these are decided upon, ranges are made. First of all, trial ranges are made for designs. The designer thinks some idea he has in his mind will look well, and he makes a range to try it. On the same range he makes other four or five designs on similar lines. If they are checks there must be one checked for each section of the warp; if they are stripes two or three inches woven will show them all. Alterations are then made in the blanket warp, lines are changed or added, until the range is complete with some 25 or 30 designs all more or less different.

In most cases it is an improvement to add a line or check of bright color, but this has to be done with great care. Each warp must have a color that corresponds with the ground, and it is best to have all the colors different. Again, the colors in the several warps must show with the same strength; there must not be some bright and some soft; they must be all alike, strong or weak. To do this successfully, the designer requires several depths of the same color, so that he may have light tones for the light grounds and dark for the dark.

Frequently, ranges are made in monochrome, *i. e.*, all one color of ground. Variety is obtained by making different sizes of stripes or checks. If a range is made in blue ground with lines composed of two ends of white or color, the first section of the warp might be made with $\frac{1}{2}$ inch space between the lines, the second $\frac{3}{4}$ inch, the third $1\frac{1}{8}$ inches, the fourth $1\frac{1}{2}$ inches, and the fifth 2 inches. All the lines may be white the first pattern, lavender the second, green the third, peacock the fourth, and crimson the fifth. The buyer would then have a selection of five sizes and five colors in each size.

Reversibles.

In recent years another make of cloth quite distinct from the ordinary tweed has been put upon the market successfully by tweed manufacturers, and has established itself in the woolen trade; that is the *Reversible Cloth*. It first became exceedingly popular in the form of golf capes, and is now used for ladies' coats and costumes, for motoring coats, for men's overcoats, and for rugs. The feature of it is that the face and back are different from each other in color and very often also in make and quality. It is possible for a lady to have a reversible skirt made up in such a way that she may appear at one time in a modest blue, and at another in the tartan of her clan. It is possible to have woolen on one side and worsted on the other, or cheviot on the face and merino on the back.

The making of reversibles presents a problem that is absent from the making of ordinary double cloths. The latter are made with face and back as near each other as possible in color and design, and are tied to each other by bringing a pick from the back over a warp-thread of the face or any similar method. So

long as the weave on the face is not broken by the tying end, no harm can be done; but with reversibles, the face and back are different colors, and while being tied to each other, must be kept as separate as possible. Reversibles must be as perfect as if they were single cloths sewn together after they are made. If they interweave with each other they are almost certain to show through. The faint indistinct outline of the checked back on a plain face is a fatal defect.

To tie the face and back of a reversible, a third warp is employed. This is placed between face and back, and does not appear on either side. The tying is done by passing this centre warp over a pick on the back of the face cloth, and under a pick on the face of the back cloth.

Fig. 1 shows in section the method of tying, and Fig. 2 the full weave plan of an end-and-end reversible. In the latter, the *diagonal dashes* show all the face warp raised while the back is being woven. The *full circles* show the face, and the *crosses* the back; the *outline circles*, the centre warp lying between the two; the *empty heavy outlined squares*, the centre warp sunk to catch the back filling, and the *crosses in circles*, the centre warp raised to catch the face filling. Excepting the *empty squares*, all the marks indicate risers.

Fig. 3 shows the section, and Fig. 4 the weave plan for a fabric where there are two ends on one side and one on the other. Needless to say, there are other methods of making reversibles, but the two weaves given will illustrate how it is to be done. On the make given in Fig. 2, the different sides of the fabric may be made of different qualities, cheviot face and merino back, or woolen face and worsted back, but the yarns must be nearly the same weight. In connection with weave Fig. 4, the yarn used for the back must be $3\frac{1}{2}$ to 4 times heavier than the yarn used for the face.

When reversibles are plain or have only small patterns on both sides, ranges are made in the same way as in single cloths; that is, 3 or 4 or 5 colors in warp and filling. When they are check backs, they are made with 3 or 4 or 5 colors on the face and one large check on the back.

The famous Bannockburn tweeds are made of cheviot, and the very best dark heather over-coatings are produced in Sutherland Cheviot wool. For less highly colored cloths the various qualities of merino are employed: these make a finer looking, smoother, and softer handling cloth. The outstanding feature of a good merino cloth is the clear and clean appearance of the plain colors that compose the ground—an effect only to be obtained by careful finishing of fabrics made of good wool. A good merino woolen cloth does not need bright color; neither does a good cheviot, but where bright color is wanted cheviot shows it best. A very large proportion of tweeds are made with very little fancy color and in small designs. The average man does not like a conspicuous color, and must have his designs rather under than over 2 inches in size, and yet he must have distinction. It is this that constitutes the greatest difficulty of the

tweed designer. Everyone knows it is much easier to make something distinctive in a large design and a high color than to make something different in a small design and a quiet color. Loudness is easier produced than *quiet go*.

Not infrequently two or more qualities are combined in one cloth to get new effects. These qualities may be mixed in the carding and spinning. Camel hair may be mixed with wool to give a new handle, or mohair may be mixed to give a new effect, or they may be mixed in weaving. A merino cloth gets a new character when it has a little Cheviot mixed with

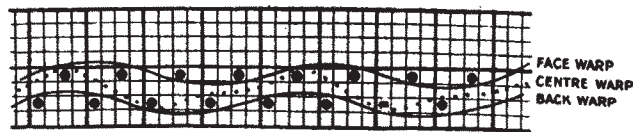


Fig. 1

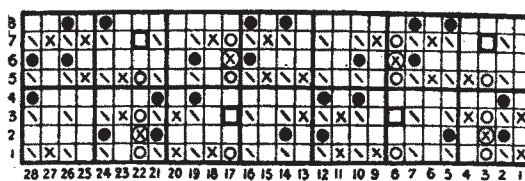


Fig. 2

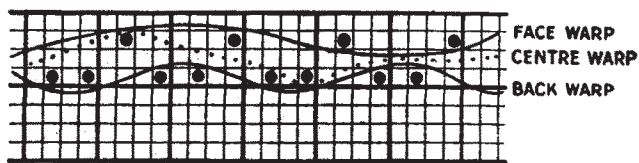


Fig. 3

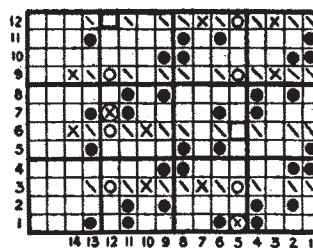


Fig. 4

it in the filling. The warp may be light color and the filling dark, composed in whole or in part of a good quality of cheviot. The latter responds to the filling more quickly and in a different way, and gives a cover on the cloth before the merino shows any signs of bursting. The clearness of the merino shines through the cover of the cheviot, and the resulting effect is very good.

Color is the most important point in Scotch tweed. The first thing a prospective buyer sees when he looks at a range is the color. After further examination he may not like the cloth, the design or the price, but if the color does not satisfy him he passes it over. If, on the other hand, the design is not to his taste, he may suggest modifications or he may even be induced to take it as it is if the colors are really well done.