

Colonial wool is not sorted at all in this country, but is merely classed in the fleece at the sheep-shearing station and packed in bales which only contain one quality of fleece, each fleece, however, having had the coarsest wool, or skirtings, round the legs and tail end removed, these portions being packed by themselves and sold as inferior qualities.

In the coarser wools, similar to the English classes, the variation in quality in the fleece is very much greater, and they are carefully sorted, and the different qualities placed separately for use as required. At the present time sorting is not carried out to anything near the extent that it was 15 to 20 years ago, for in some cases then 14 to 17 different qualities would be taken out of some of the English fleeces, while at the present time not more than five or six would be taken from the fleece of the same class, and in these earlier days the Colonial and cross-bred wools were also sorted to a much larger extent than now. Many firms specify their different qualities of wool by letters or numbers, which are merely private marks indicating certain qualities, but there is a growing and advantageous tendency to specify all the qualities of wool as the counts to

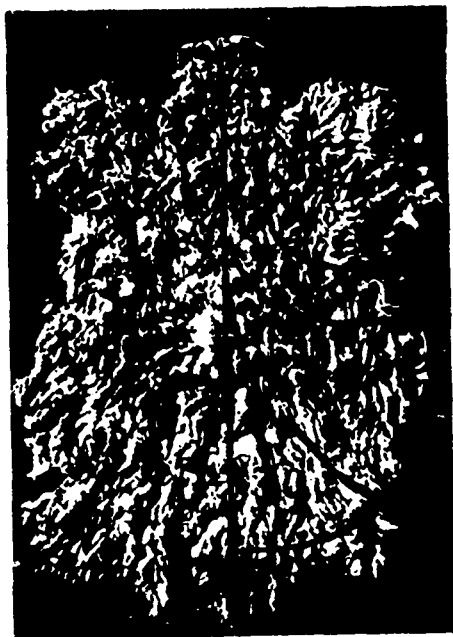


FIG. 1.—DISTRIBUTION OF QUALITIES IN A LEICESTER FLEECE.

which they will spin. It being impossible to spin the coarser wools to fine counts, each quality of wool is specified by a number representing the highest counts to which that particular wool may be spun satisfactorily, thus 40's quality would indicate that this wool may be spun to any counts up to and including 40's, but that you could not produce 50's or 70's counts from it. Again a wool of 100's quality would satisfactorily spin any counts up to 100's, and so on. If a fine wool is used to produce coarse counts or thick yarn, the counts and quality are generally both specified, thus we may have 2/40's/72's, indicating that we have 2/40's counts spun from a 72's quality of wool.

In any fleece the finest wool is always found on the shoulders, and the next qualities on the sides, neck and back, the worst being always towards the tail end, while the skirtings round the legs and tail and some portions of the belly are always much lower in quality than the rest of the fleece.

In Fig. 1 a photograph is shown of a fleece of Leicester wool, spread out flat, and the figures in the spaces indicate on

one side of the centre the qualities which we might expect to find in these parts of the fleece; thus on the shoulder we have 44's quality, and round this up to the neck and extending slightly backwards a portion of 40's quality, then a strip of 36's along the sides towards the hind legs, followed by 30's quality along the top of the back and extending down to the legs, while the tail end of the fleece and the skirtings might be about 24's quality. The opposite side of the fleece contains a similar division of qualities, for if any fleece is divided fairly evenly down the centre of the back the two halves will contain similar qualities in the corresponding portions. It is not intended to imply that we shall always find 44's quality in

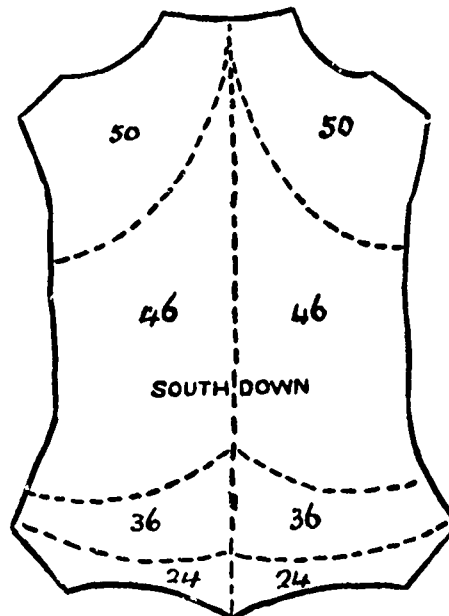


FIG. 2.—DISTRIBUTION OF QUALITIES IN A SOUTHDOWN FLEECE.

the position indicated in every Leicester fleece, or that the qualities of 40's, 36's, and 30's will always occupy the proportion of spaces indicated, but the qualities here given may be taken to represent a good average fleece, and more or less divergence from this might be expected in different fleeces both as regards the qualities and their proportion to each other.

Again, in Fig. 2, the position of the various qualities is indicated in an average Southdown fleece, and, in this case, ranging from 50's down to 24's; but the sorting is not carried out to as great a degree as in the Leicester, because the greater portion of the fleece shows less variation than in that class; and as will be seen from the diagram, more than three-fourths of the wool ranges from 50's to 44's or 45's, and then there is a considerable falling off in quality at the tail end of the fleece.

STATIONARY "CELLS" IN THE DRYING OF TEXTILE FIBERS.*

In the ordinary and well-known method of drying fabrics or yarn, the material is led on to steam-heated rotating cans or cylinders, passing from one to another for the entire length of the machine, with or without the assistance of guide rolls, as the case may be. There is more or less trouble with this method of drying, arising from the fact that these cylinders must rotate while they are receiving their steam supply, and that the water of condensation must be continually removed.

The only apparent way to admit steam to the cylinders, and to get the water out of them, is through the journals. These

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