

ing, and no matter what the quality of the logwood product employed may be, unless the preparation and mordanting of the wool is perfect, the results will not be satisfactory. This brings us back to the preliminary scouring of the wool, and the necessity for the complete removal of all natural grease and oils. If these are not thoroughly removed, proper mordanting or chroming is out of the question, and consequently the dyeing cannot be good. The reason for this is, that where oils or grease are still adhering to the fibres, they act as a resist to the chrome and unequal or uneven deposit of chrome occurs, which in turn prevents a level shade, as the depth of any logwood shade is in direct proportion to the amount of mordant deposited.

IN SILK DYEING, logwood is employed exclusively for the production of blacks, and chiefly upon a mordant of iron. The broad principle of black dyeing on silk is to fix oxide of iron on the fibre by any suitable means, and then dye the silk so treated by working in the logwood bath just under the boil until a good body is secured, and finishing in a second bath of logwood. One of the best known logwood blacks on silk is obtained in the following manner:

The silk, previously stripped, is passed three times through a bath of nitrate of iron (copperas iron) standing at 15° Tw., and afterwards fixed each time by giving a passage through a weak soap bath. Each iron treatment adds close to four per cent to the weight of the silk. Now work the silk in a fresh bath, containing 15 per cent of yellow prussiate of potash, calculated on the weight of oxide of iron on the silk, together with an equal amount of muriatic acid, added in two successive portions; the temperature of this bath should be kept close to 125° F., afterwards lift, drain, and wash. The silk should now be a deep blue, and if properly done should show no streaky patches—a sure sign that the handling was not done regularly. The skeins are now worked for one hour in, preferably, an old bath of gambir, standing at 7° Tw., and heated to 125° F., after which lift, rinse the excess of gambir liquor off, and proceed to dye in the logwood bath prepared as follows:

Logwood Extract, solid....	12 per cent
Fustic Extract, solid.....	6 per cent
Copperas (clean crystals)..	5½ per cent
Acetate of Copper.....	2½ per cent

Work for half an hour at 135° F., and gradually increase the temperature to 160° F., lift, and transfer to a second bath prepared with:

Logwood Extract, solid....	12 per cent
Soap	25 per cent

Work in this bath for one hour at 160° F., lift, and brighten with olive oil and muriatic acid.

No two black silk dyers work exactly to the same recipe, each modifying it according to his own ideas, but the chief features are the same.

Regarding logwood products, whether ordinary extracts, refined extracts, pastes, solid products, or so-called crystals, price is too often considered when making purchases. It is a well known fact, that for some classes of work a low grade extract will answer

and produce equal results to those obtained with a better grade, but it is also a fact, too often lost sight of by both buyers and dyers, that, knowing how to use a product, the best results will always be secured by using a high grade article. A logwood product, well suited for certain good qualities of blacks on wool, would be found entirely unsuited for fine, clear, bloomy blacks on silks. It is poor economy to buy cheap logwood products, simply because the price appears to be low, when as a matter of fact, the cost of the final dyeings may total up greater per yard than if a higher grade had been used.

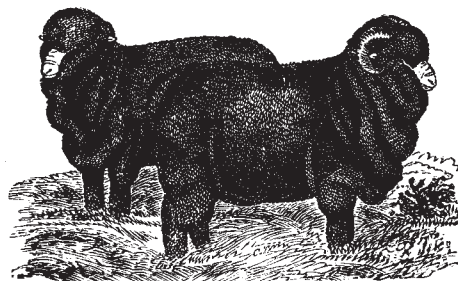
Formerly, many dyers regarded the chips as boiled out in the dyehouse as the ideal decoction, on account of the resins in the wood, and which were believed to impart a certain tone to the dyeings. In later years, when the claims of extract makers were put out, that their processes made a resin-free extract, the dyers were slow to use them. Now, the extracts as put upon the market, are remarkably free from all so-called resinous matters, and produce shades and tones of exceptional purity, so that, except in isolated instances whenever anything goes wrong in dyeing, specially wool, with logwood, the difficulty may be generally traced to one of several causes, imperfect scouring of the material to be dyed, or defective mordanting, or lack of thorough and effective washing after mordanting. Any one of these is sufficient to be the cause of defective results.

While no one can say what the future has for us in the way of new colors or substitutes for old ones, yet it is safe to rely for a long time upon logwood, as being the standard, against which all other blacks upon wool and silk are to be judged—in the same way as aniline blacks upon cotton is the standard for all types of cotton blacks.

DICTIONARY OF TECHNICAL TERMS RELATING TO THE TEXTILE INDUSTRY.

(Continued from page 166.)

MERINO:—The name of a breed of sheep. The original home of this animal is Spain, from where they have been spread, during the last two centuries, through every quarter of the globe. The great value of the merino wool consists in the

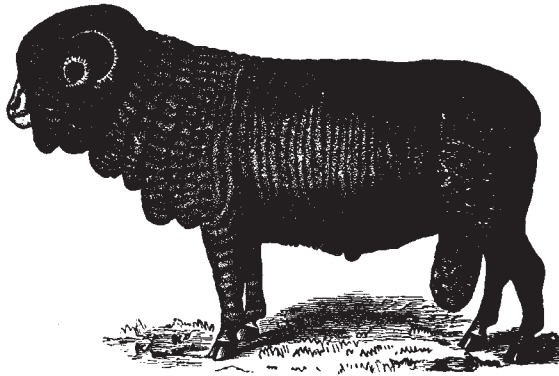


MERINO : AMERICAN.

fineness and felting property of their fibres, as well as the weight of the fleece, the average weight of which is 8 pounds from the ram, and 5 pounds from the ewe. As prominent types, we have Spanish, Silesian, Saxon, and Australian merinos. The wool produced by these sheep has always served as a standard of comparison, thus the pro-

portion of merino blood in sheep is indicated by the terms $\frac{1}{2}$ blood, $\frac{2}{3}$ blood, $\frac{1}{4}$ blood, etc.

A term applied to hosiery or underwear of soft quality, which is properly made by using both cotton and wool mixed together, but which is



MERINO : SAXON.

sometimes made for cotton only. Also to the yarn, whether used for knitting or weaving purposes—merino yarn.

A fine French all wool ladies dress-goods, twilled on both sides, originally made of merino wool.

MESH UNDERWEAR:—Knit underwear having a net-like appearance.

MESSALINE:—A fine, soft satin of peculiar texture, originally made in Lyons, with organzine filling. A finish imparted to any silk fabric, rendering it soft and supple.

MESTIZO WOOL:—A wool grown in South America; a cross between full blooded imported merino and the native South American Criolla sheep. The latter were driven into Argentina from Peru, about the year 1600, and had Spanish blood in them at that time. About the same time, sheep, descended from the mountain breeds of Spain, were driven from Peru to the River Plata. This wool is much contaminated with what is known as screw-burrs, and which are most difficult to remove, requiring a special construction of a burr picker for this purpose, where as in other cases, carbonizing is the process employed. Also known as River Plata wool.

METHANILIN:—See Dimethylaniline.

MEXICAN SHEEP:—An American breed of sheep found in Mexico, Texas, New Mexico, Arizona, parts of California and Colorado. They are strong, hardy animals, yielding, if not crossed with other breeds, a fleece of about two pounds of coarse wool. If crossed with merinos, the weight of the fleece increases to about 4 pounds. The wool is mostly used in the Western States for spinning such yarns as are used for the manufacture of home spun fabrics, and in the East for carpet yarns.

MIGNONETTE NETTING:—A simple kind of netting used for window curtains.

MIKADO TAFFETALINE:—A trade name for a peculiar light textured taffeta.

MILAN BRAID:—A variety of mohair braid, used for trimming and binding. The number of size of this braid is indicated by the number of ribs or cords extending from end to end of the web.

MILL:—The same as felting or fulling; also, the process by which felting or fulling is carried on. The process of thickening woolen cloth by moisture and heating, produced by pressure to the fabric under operation, while in a fulling mill.

To throw, as undyed silk.

MINERAL:—This is the name given by cotton finishers to calcium sulphate. It does not give so much weight as barytes; on the other hand, it gives a softer feel, and is much more easily fixed to the cloth. Many cotton finishers, therefore, prefer to use it in place of barytes.

MIORO:—The native sheep of Sardinia; from its wool a coarse common cloth called Arbaccio is made.

MIRROR-VELVET:—A pliable, soft velvet, having a compressed pile, presenting a highly glossy face.

MIRZAPUR CARPETS:—Carpets made in Mirzapur, India; formerly these carpets were of exquisite coloring and serviceable texture, the designs being suited to the coarse wools of that district; carpets now sold under this name are more or less a misnomer.

MISPICK:—A defect caused at weaving, by the filling running out in the bobbin, by the thread breaking (or by starting the loom, after picking out, on a wrong pick.)

MIT AFIFI:—One of the principal varieties of Egyptian cotton grown in lower Egypt, at the present time. Its growth first attracted attention in 1888, although for several years previous to that date, it had been grown by the growers of the village of Mit Afifi, where it was first grown. It is capable of withstanding drought and attacks by worms, better than other varieties, requiring less attention for picking, and proportionately to other growths, it gives a better outturn in ginning. Its brown color has a tendency to become lighter; its length and strength of fibre appeals to fine yarn spinners, hence is in demand.

MIXING PICKER:—A machine to disentangle the wool fibres and more perfectly mix the materials previously to carding; also called (in England) Fearnought, Mixing-Willey and Tenter-Hook-Willey.

MOCH:—A package of spun silk, a French word (Mosh) issued in English for the unbroken parcels of silk received from the continent of Europe.

MOCK EGYPTIAN COTTON:—Ordinary cotton, tinted a light buff by special preparations, in imitation of the genuine Egyptian cotton.

MOCK LENO:—A variety of cotton fabric made with a weave which produces openwork in imitation of the real leno. This open effect is produced by interlacing warp and filling so that they are drawn together into groups of 3, 4 or more threads, this forming open spaces between the different groups, which appear in the woven fabric. To heighten the effect, *i. e.*, produce prominently defined, large open spaces one, two or three dents are left empty in the reed, between the groups of threads previously referred to, and which are drawn respectively in one dent. To produce a similar effect, filling ways, a special take-up arrangement, is some times made use of. The openwork in mock leno is not as pronounced as in real leno, neither is it as durable, hence is used only in cheap fabrics.