

**Dictionary of Technical Terms Relating to the Textile Industry.**

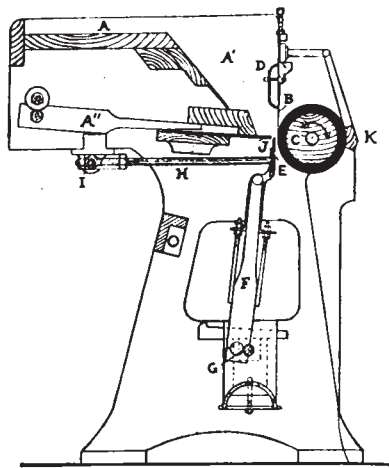
(Continued from page 79.)

**ROLL-BOIL:**—The old boiling process, as used extensively in years gone by in order to produce a high finish and lustre to woollen fabrics. In the boiling process, the goods, after proper gigning and also a thorough wet brushing, are then tightly wound on wooden rolls at the latter machine, a canvas cover being then wound around this roll of cloth and the ends tied. A number of these rolls of cloth thus prepared, are then placed by means of the protruding ends of the wooden rolls, in framings in a tank, arranged in such a manner, that the cloth of one roll will not come in contact with that of another roll neither with the sides of the tank. After the tank is filled with rolls of cloth, water and steam are turned on, so that by the time the tank is filled with water, the same will be quite warm. The tank is then covered and the water allowed to boil, and kept at a moderate boil for a length of time as regulated by the amount of finish required by the goods. The hot water is then drawn off and replaced with cold water and the goods allowed to cool in this, after which the water is drawn off, the rolls of cloth taken out and sent again to the wet brushing-gig and subjected to another thorough wet-brushing, after which they are rolled up again on wooden rolls for another boiling, but being this time rolled in the reverse way from before, in order to subject both ends of the cloth to about the same amount of boiling. These two boilings form one process, which must be repeated provided not sufficient for a certain finish required, giving a thorough wet brushing each time the goods are intended to go to the tank.

**ROLL-BOX:**—The rotating cylinder of a jack-frame.

**ROLLER DRAFT:**—The draft of the rollers is the attenuation or drawing out of roving, brought about by the difference in circumferential speeds between the front, middle, and back rollers. Thus, if one inch of roving be drawn into eight inches, there is said to be eight of a draft.

**ROLLER-GIN:**—A machine for separating the seeds



ROLLER GIN (Single Action.)

A Feed Table, A' Hopper, A'' Feeder Bar B Doctor Knife, C Leather Roller, D Spring, E Beater Blade, F Rod with G its Crank, H Lever with I its Fulcrum, J Grid, and K the Stripping Board.

from the cotton fibre by a leather roller working

against a blunt-edged doctor knife; used for ginning long stapled (Sea Island) cottons.

**ROLLER LAPS:**—Coils of sliver, roving or yarn wrapped on rollers after breakage.

**ROLLER LOOM:**—The roller loom proper is so called because the harnesses are raised or lowered by means of straps passing over rollers which are worked by an eccentric motion.

**ROLLING:**—In lace making, a knot or twist that fastens the thread to the bobbin.

**ROMNEY MARSH OR KENT SHEEP:**—An English breed



ROMNEY MARSH SHEEP.  
Native Breed.

of long-wooled sheep, inhabiting from time immemorial, the fen district on the southern coast of Kent, from which it derives its name. The native



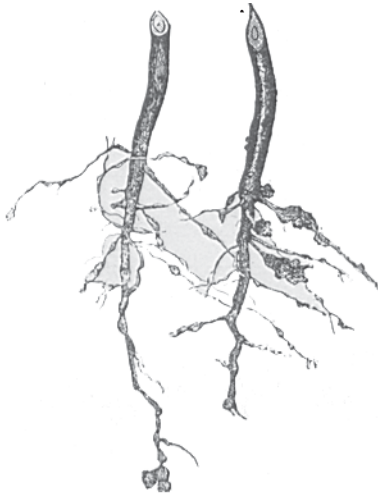
ROMNEY MARSH SHEEP.  
New Zealand Lambs.

breed of this district were large and coarse animals, rather smaller than the Lincoln, but since they have been crossed with the New Leicester they have much improved in every point, and now are represented by a large handsome sheep which yield moderately fine and deep-grown wool. They are also now raised in Australia.

**RONCHO:**—A cloak or loose garment, worn by the South American Indians and by many of the Spanish inhabitants of South America.

**ROOT GALLS OF COTTON:**—One of the diseases the cotton plant is subjected to; caused by a nema-

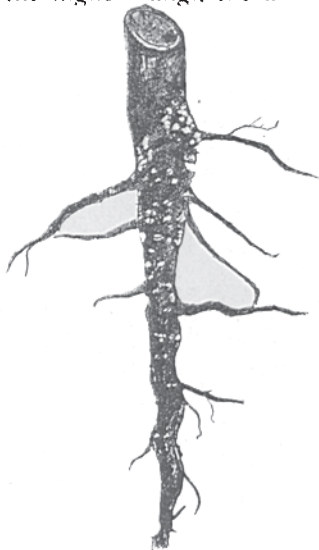
tode worm, which, living in the tissues, causes abnormal growths termed *galls*. The injuries produced by the presence of the worm cause distortions of the tissue elements, and in many cases so devitalize the tissues that putrefactive organ-



ROOT GALLS OF COTTON.

isms set to work and produce extensive diseased areas. The large amount of nutriment taken also by the roots in the development of the galls lessens the product of the plant. The greatest injury to cotton, however, seems to appear when the disease is accompanied with the *frenching* organism.

ROOT ROT OF COTTON (*Ozonium*):—One of the diseases the cotton plant is subjected to; due to fungus diseases. The disease is a true rot caused by one of the higher fungi, the affinities of which



ROOT ROT OF COTTON.

are still unknown. Nearly all classes of soil are more or less subject to it. The disease is most prevalent in the central black prairie region of Texas. A white rotten limestone, often cropping out, underlies the entire region. The soil of these black waxy prairie lands is very retentive of moisture, which is a condition favorable to the development of the fungus. The first indication manifested by the cotton plants of the activity of the fungus is the sudden wilting of one or more plants. In passing through the belt where the

disease is prevalent a striking contrast is observed between the areas made black by the dead plants, everywhere so conspicuous in the fields, and the interspersed green areas of apparently healthy plants; dry weather checks the disease. If the roots of plants just dead from the disease be examined, frequently there are small wart-like bodies on the surface. The fungus derives its nourishment from the living substances of the root, and also in its physiological processes sets up certain fermentations which kill the affected portions, causing partial decomposition, which results in the shrinking of the tissues and the formation of quite extensive depressed areas. The borders of these depressions show at first a red discoloration, which ultimately becomes brown. Near the surface of the soil an enlargement frequently is formed in which elaborate materials are apparently stored during the progress of the disease. From these enlargements new roots are frequently developed as the lower roots are placed under contribution to the parasite. These help, in favorable weather, to prolong the life of the plant, but are usually not sufficiently developed to prevent the collapse of the plant, when the older roots give way. When the roots become seriously injured, the plant wilts. In the affected areas the disease spreads from year to year in a centrifugal manner, the fungus making its way through the soil from plant to plant. The lint of the diseased cotton is injured, the fibres are wider and the spirals are fewer and more uneven than in lint from healthy plants. The disease cannot be transmitted through the seed. The results of experiments at the Texas Station show that the disease cannot be controlled by any application to the soil at present known. Rotation of crops seems to be the only method which will keep the fungus in check. Corn, sorghum, millet, wheat, oats and other members of the grass family are suggested as desirable crops to grow in rotation with susceptible plants.

#### CHRONOLOGICAL TEXTILE EVENTS.

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1805. The cloth manufacturers and dressers, in Pittsfield, Mass., had become so numerous that in April, a public proposal was made for their combination into a society for the purpose of investigating the natural qualities of chemical liquids, and improving the making and dressing of cloth.

Arthur Schofield, Pittsfield, Mass., made and sold double carding machines for \$400, or \$253 without the cards, and picking machines for \$30 each. The first machines made by him, about four years before, are said to have sold for \$1,300 each.

John Lee, who had become the proprietor of the woolen mill in Byfield, Mass., succeeded, about this time, in shipping clandestinely from England, in charge of his brother-in-law, James Mallalow, in large casks labelled *hardware*, a quantity of cotton machinery, consisting of drawing frames, and spinning frames or mule throstles. To avoid suspicion, he followed in another vessel. The machinery was at first employed in spinning wick yarn, and warp, which were in much demand for household manufactures; afterwards the factory made bed ticking, coarse gingham, and sheeting, and other heavy