

Dictionary of Technical Terms Relating to the Textile Industry.

(Continued from page 102.)

ROPE WALK:—A long shed in which ropes are laid on the hand-spinning system.

ROSEAUX:—A light grayish-green color, like that of the hue of reeds or reed-grass.

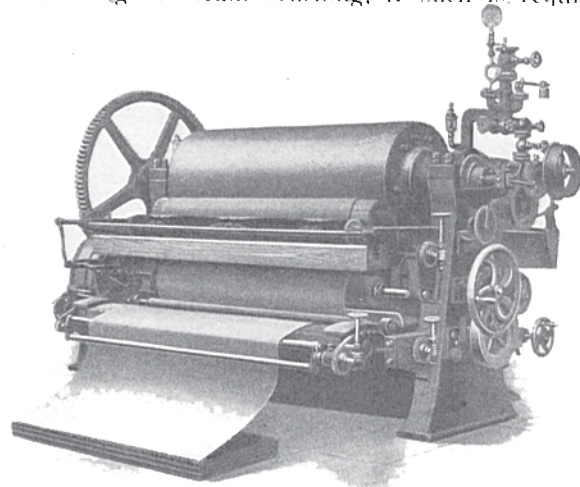
ROSE DE CHINE:—Rose of China; also a very vivid, clear pink color, or a color simulating that of the Chinese rose.

ROT-STEEP:—To steep, as cotton fabrics, in water, to remove impurities, before bleaching.

ROTARY FRAME:—The power-driven knitting machine.

ROTARY PRESS:—The object of pressing is to smoothen the fabric by means of ironing out all the wrinkles and folds, as well as to enhance its beauty of finish. This is accomplished in connection with the rotary press by running the cloth, under heavy pressure, between a press-bed and a weighted revolving cylinder. Either the cylinder may be left cold and the press-bed heated, or vice-versa, again both may be heated, the latter arrangement being the best,

gotten by the variation in this pressure or a final steaming or steam brushing, if such is required.



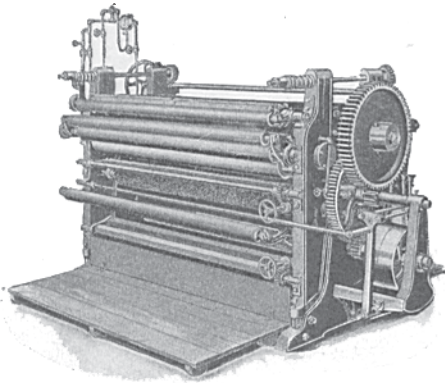
ROTARY PRESS,
A. W. Buhlmann.

The rotary press is the invention of Lambert Dacier of Duren, Germany, and was first brought to satisfactory construction on the Continent by Ernst Gessner, Aue, Germany.

ROTTING:—See Retting.

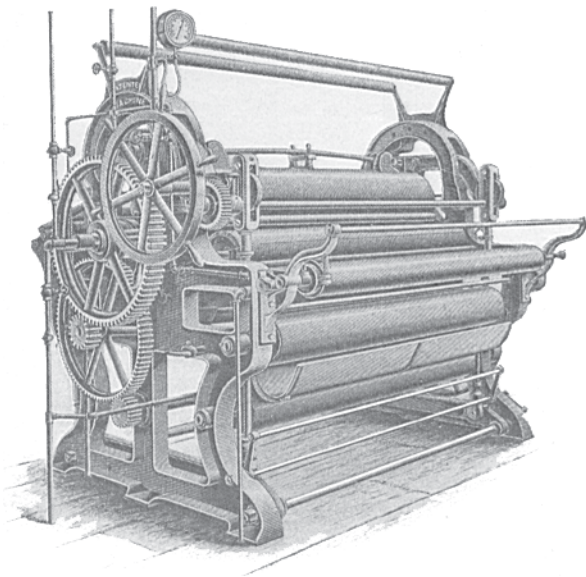
ROUGHENING:—The first process the flax is subjected to in a spinning mill. The object of the operation is to divide the flax into pieces of a certain size, this being regulated according to the description of the flax. The work is done by the rougher by means or help of a hackle.

ROUGH PERUVIAN COTTON:—This is the most important variety of Peruvian cottons, having a strong, rough, wooly, crinkly staple, about 1¼ to 1½ inches long, and is usually very clean and well handled. Its chief use is for mixing with wool in the manufacture of Merino yarns, for which reason it is called *vegetable wool*, and when carded its resemblance is so close and its characteristics so strikingly similar to wool that it might be sold as wool, even to a dealer. When woven into goods along with wool, the cotton fibres cannot be determined with any certainty except by using chemical tests. This cotton is extensively imported in this country and chiefly sold to manufacturers of woolen goods, for the purpose of mixing with wool, although some is used by itself in the manufacture of cotton yarns. When mixed with wool it reduces the tendency of the goods in which it is used to shrink, makes them more durable, lessens their cost of production, besides giving them a better lustre and finish; hence it is frequently used in the manufacture of underwear and hosiery. For dyed goods it is equally suitable, as it takes the dye very well, *i. e.*, makes fast colors. This peculiarity of the Peruvian cotton is probably the result of soil and climate, and its cultivation is therefore likely to be restricted to that country. It would be very difficult to find a section in the United States that would furnish a uniform and high heat during the ten months necessary for the development of the plant, or the other conditions



ROTARY PRESS,
Curtis & Marble Machine Co.

since satisfactory pressing of the fabric can only be had when the press is properly heated, both



ROTARY PRESS,
Woonsocket Machine & Press Company.

with reference to cylinder and press-bed, a difference with reference to the final finish having to be

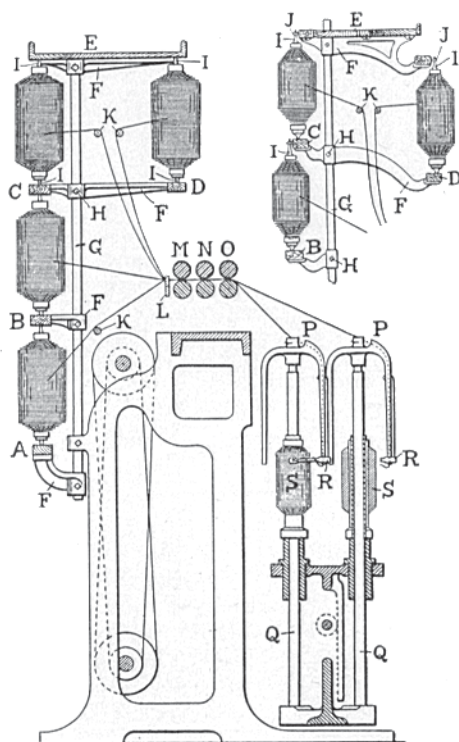
which contribute to the successful cultivation of this cotton. Some of it is high colored and some actually red, a feature explained by means of the copper soil on which it is raised.

ROUND:—The English expression for repeat of picks in a weave; for example 20 picks to the round.

ROVING:—The process of drawing before spinning.

The thin, slightly twisted wool, cotton, flax, jute or silk sliver, which by drafting and twisting, *i. e.*, final spinning, is then transformed into yarn or thread of commerce.

ROVING FRAME:—In cotton spinning, the machine in a set of fly frames in which a number of slubbings or rovings taken either from the slubber or the intermediate frame respectively, are united, drafted and compacted into roving for delivery to the Jack



ROVING FRAME.

Showing Two Shapes of Creel.

A, B, C Back Rail, *D* Front Rail, *E* Top Board carried by Arms *F* on Uprights *G*, secured by screws *H* thereto; *I* Skewers of the Bobbins, *J* Wire Eyes, *K* Guide Rods, *L* Traverse Rods; *M, N, O* Drafting Rollers; *P* Flyer, *Q* Spindle, *R* Presser Foot, *S* Bobbin.

Frame in connection with high counts, above 60 s, or are taken direct to the ring frame or mule for spinning into yarn or thread of commerce.

ROVING MACHINE, Rover, Roving Head or Roving Frame:—In worsted spinning, in connection with Open and French Drawing the last machine of the set of drawing machines used. In connection with Open Drawing, the slivers from the Reducer are put up at the back of the Roving Machine; in connection with French Drawing the bobbins from the Second Intermediate Frame are put up in the creel of the Roving Frame.

ROVING REEL:—A device for measuring the length of a roving, sliver, etc. It consists essentially of two flat-faced wheels, between which the sliver is made to pass, the revolutions of one of the wheels, as turned by a crank, recording by a dial the measurement.

ROVING OR JACK SPOOLS:—Large wooden spools of a length corresponding to the width of the card, upon which the roving is wound as it comes, in



ROVING OR JACK SPOOL.

woolen spinning, from the finisher carding engine.

ROWDY:—Streaked; specifically, in weaving.

ROYALE:—A modification of Gros de Tours; the rib line, which in the latter extends across the entire width of the cloth, is in Royale broken off at intervals, after a given number of warp-threads, using what is technically known as figured rib weaves for interlacing warp and filling.

RUCHE:—A quilted or ruffled strip of some fine fabric, as muslin or ribbon, worn as part of a woman's costume, usually at the neck or wrist in place of a collar or cuff, or around the inside of the edge of a bonnet.

RUG:—A heavy textile covering for a floor, differing from a carpet in that it is properly made in one piece, of a size sufficient to cover only a portion of a floor, often showing rich designs and elaborate workmanship, hence sometimes used for hangings; also, sometimes, a covering made from the skin or skins of an animal dressed with the hair or wool on.

RUNG:—The act or process (in the Shetland Islands) of pulling out the wool of the fleece by the root from the live sheep.

RULES OF THUMB:—Practical, not theoretical, receipts for any process.

RUMAL:—An India term for a handkerchief, a small square shawl or veil, a silk square used as a head-dress, etc.

RUMSWIZZEL:—An Irish fabric made of undyed wool.

RUN:—One of the systems used for grading woolen yarns, in the United States, as to its counts; the other system used is the *cut* standard. The run has for its standard 1600 yards to the hank, and the number of such hanks in 1 lb. is the count of the yarn. In addition to using whole numbers, the run is divided into halves, quarters, and eighths, hence; 200 yards equal $\frac{1}{8}$ run, etc.

RUN-LACE:—Lace made by embroidering with the needle upon a reseau ground. It has been in fashion at different times, and was made extensively in England in the 18th century.

RUSSEL CORD:—A worsted cloth of a fine cord twill, first made in Norwich, England.

RUSSET:—A so-called tertiary color, composed of the two secondaries, violet and orange, in equal strength.

RUSSIA BRAID:—Mohair or silk braid.

RUSSIAN BATH GOWN:—A bath gown made of Turkish toweling, of very delicate tissues, with cuffs and hood of chenille and sleeves straight and loose.

RUSSIAN CRASH:—A stout, unbleached, linen fabric, used for toweling, etc.

RUSSIAN-TAPESTRY:—A stout linen or hempen stuff used for window blinds, etc.

RYELAND SHEEP:—An English breed of sheep, preserved from a remote time in the County of Hereford, and from thence has extended itself into Shropshire, Monmouthshire, Gloucester, and Warwickshire, where it has received various names. These sheep are small, without horns, and distinguished for the great fineness of the wool, which is superior for carding purposes to all others which are produced in England, the merino alone excepted. The introduction of fine foreign wool into England has much interfered with the cultivation of this sheep, because any attempts to improve its character so as to compete with this, have resulted either in the deterioration of the sheep for food purposes, or else its deterioration as a wool bearer if the former character was preserved. The cross with the Leicester has been most successful, but the quality of the fleece has been entirely changed and rendered fit for combing purposes.

FABRIC ANALYSIS.

(Continued from page 90)

TESTING TRUE AND WILD SILK.

Tussah and all wild silks of commerce are less reactive chemically than true silk. In an alkaline solution of copper hydrate in glycerine, tussah silk is scarcely affected, whereas true silk is readily dissolved.

Hot caustic soda (10%) dissolves true silk in 12 minutes, tussah silk in 50 minutes. Cold hydrochloric acid (sp. gr. 1.16) dissolves true silk very rapidly, but tussah silk is only slightly affected in 48 hours.

With reference to distinguishing the various kinds of artificial silk amongst each other and against true silk, the following table will clearly permit of distinguishing them.

Table of Reactions of Artificial and Natural Silks.

REAGENT	CELLULOSE SILK	COLLODION SILK	GELATIN SILK	NATURAL SILK
Water	Swells	Swells	Swells	No action
Diphenylamin in Sulphuric Acid	No change	Changes slowly to blue	No change	No action
Schweitzer's Reagent	Slowly swells	Swells and dissolves	Changes to violet, but does not dissolve	Dissolves
Iodine in Sulphuric Acid	Pure blue	Pure blue	Brownish yellow	Yellow coloration
Chlor-iodide of Zinc	Grey blue	Blue violet	Yellow	Yellow coloration
Vetillard's Reagent	Not colored	Reddish-blue, grey on washing	Red, vanishes on washing	Yellow coloration
Caustic Potash 40%	Swells, but does not dissolve; colored yellow	Swells, but does not dissolve	Dissolves rapidly	Dissolves on boiling
Chromic Acid	Rapidly dissolves	Rapidly dissolves	Rapidly dissolves	Dissolves very slowly
Conc. Sulphuric Acid	Becomes transparent and dissolves slowly	Dissolves rapidly	Dissolves when heated slowly	Little action
Acetic Acid	Slowly swells	Slowly swells	Dissolves completely when heated	Dissolves
Alcohol	Fibre contracts	Fibre contracts	Fibre contracts	No action
Conc. Hydrochloric Acid	Little action	Little action	Dissolves rapidly	Little action

TO DETECT COTTON IN LINEN.

Treat the sample submitted with a solution of caustic potash (1 : 6). The flax will become more curly than the cotton, and the latter finally turns grayish white, whereas the flax is dyed orange.

Another procedure calls for treating the sample with a stronger solution of caustic potash (1 : 2) and boiling for two minutes, then washing, and drying between blotting paper, and when flax becomes of a deep yellow color as compared to the cotton which assumes a whitish or straw color.

By means of another process, the sample is boiled in water and then steeped in concentrated sulphuric acid for two minutes and when the cotton is dissolved, while the flax remains white and unaltered, and can be separated by washing with a weak solution of caustic potash.

Another test: Steep the sample in a solution of magenta in spirit, and after rinsing, dip in a bath of ammonium chloride. Flax will retain a pink color, while the cotton becomes colorless.

TO DISTINGUISH JUTE FROM HEMP.

Aniline sulphate stains jute a dark yellow, while concentrated nitric acid gives a red-brown stain, distinguishing it from hemp, which is turned yellow.

TO DISTINGUISH JUTE FROM FLAX.

When treated with dilute chromic acid, to which a little hydrochloric acid has been added, jute turns blue, while iodine and sulphuric acid produce a dark yellow stain, which may be used to distinguish jute from flax.

TO DISTINGUISH JUTE FROM FLAX AND HEMP.

The threads are placed in a solution of nitric acid