

# Posselt's Textile Journal

*A Monthly Journal of the Textile Industries*

## *Table of Contents*

Trade Marks Relating To The Textile Industry: November, 1909.....	i
The Manufacture of Damask Table Cloth.....	141
Cotton Finishing: Bleaching.....	143
Bleaching with Peroxide of Sodium.....	144
Water-Proofing Woolens.....	145
Dictionary of Technical Terms Relating to the Textile Industry.....	147
Figuring Upon the Plain Weave: Harness and Jacquard Work.....	148
History of Silk Culture in this Country.....	153
True Silk.....	154
Silk Finishing.....	155
Ribbons, Trimmings, Edgings, Etc.....	156
Palmer's Improved Shuttle Picking Mechanism.....	157
The Heddle.....	157
Harris Tweeds—Scotch Homespun.....	158
An Improvement to Latch Needles.....	160
Lace Pattern Mechanism for Straight Knitting Machines.....	161
An Ingenious Hosiery-Turner.....	162
Cotton Spinning: The Ring Frame.....	163
Air Conditioning for Textile Mills: Humidifiers.....	164
The Dyeing of Awning Stripes.....	165
An Improved Dye-Jigger.....	166
A New Sizing Composition.....	167
Logwood and Hematine.....	167
Dictionary of Weaves: 10-Harness.....	168
New Dyestuffs.....	xiv
The Neutralization of Turkey-red Oils.....	xvi
Buyers' Index.....	vi
Mill News.....	xviii

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# TRADE MARKS RELATING TO THE TEXTILE INDUSTRY.

REGISTERED NOVEMBER 2, 9, 16 and 23, 1909. (Complete)

1. Infants' Clothing.—Dora T. Cook, Springfield, Mass.
2. Dress Negligée and Work Shirts.—Ridley-Williamson-Spain Co., Atlanta, Ga.
3. Cotton Flannel.—Merrimack Manufacturing Co., Lowell, Mass.
- 4, 5 and 6. Hair-Nets.—Leop. Pfeiffer, Vienna, Austria.
7. Dress-Skirts.—Gem Petticoat Co., Louisville, Ky.
8. Sweater-Coats and Knitted Shirts.—Neustadter Bros., San Francisco.

BABYCRAFT



4



13



15

LISFUR

16



19



20

OXOWEVE

23



27



28

"OLD FORT"

29



17

CONGRESS

18



22

Co-Legian

26



30

9. Knitted Underwear.—Wm. Moore Knitting Co., Cohoes, N. Y.
10. Hair-Nets.—Theo. H. Gary Co., New York.
11. Handkerchiefs.—Heller & Long, New York.
12. Rugs, Art-Squares, Mattings, Wall-Coverings, Box-Covers, and Furniture-Covers, made Wholly or in Part of Woven Goods, in which Fibre, Wool, Cotton and Jute may be employed.—American Fibre Matting Co., Lawrence, Mass., and New York.
13. Cotton Piece Goods.—Boott Mills, Lowell, Mass.
14. Broad Silk in the Piece, Cotton Piece Goods, and Silk and Cotton Piece Goods.—Rogers & Thompson, West New York, N. J.

15. Silk in the Piece.—Williams Silk Mfg. Co., New York.
16. Carpets and Rugs.—Lister and Company, Ltd., Bradford, England.
17. Malines.—L. & E. Stirn, New York.
18. Spooled Sewing Thread.—The Bullard Thread Co., Holyoke, Mass.
19. Waterproof Cloth.—Federal Waterproofing Co., St. Joseph, Mo.
20. Undershirts and Drawers, Night-Robes, and Pajamas made of Woven Material.—Tanchum Silberman, Baltimore, Md.
21. Soap Powder in Highly Concentrated Form used for Softening Purposes in Connection with Textile Materials.—The Arabol Mfg. Co., New York.
22. Hosiery.—Halcyon Knitting Mills Co., South Bethlehem, Pa.
23. Towels.—Oxford Linen Mills, North Brookfield, Mass.
24. Undershirts, Drawers, Union Suits, and Knee-Drawers made of Textile Material.—North Bros. & Strauss, Baltimore, Md.
25. Hammocks.—D. W. Shoyer & Co., New York.
26. Ladies' and Misses' Cloaks and Outer Suits.—Harrison and Siegel, New York.
27. Knitted Underwear and Hosiery.—Walter R. Lett, San Francisco.
28. Knitted Undergarments, Hosiery, Jerseys, and Sweaters.—John J. Cook, New York.
29. Hosiery.—Hinman Knitting Company, Decatur, Ill.
30. Cotton Waste.—Massasoit Mfg. Co., Fall River, Mass.

We are now the largest wool-consuming country in the world. It is claimed that the wages earned here are double those in Great Britain, two and a half times greater than in France, and three times what they are in Germany.

The regular monthly report of the National Ginners' Association, states that 70 per cent of the entire cotton crop was ginned up to November 1. The report in addition states the Egyptian crop is 25 per cent short of what was expected recently. The report states that the crop in the Mississippi Valley is very short. Following is the report by States:

Alabama, 670,000; Arkansas, 469,000; Florida, 44,000; Georgia, 1,363,000; Louisiana, 186,000; Mississippi, 566,000; Oklahoma, 410,000; Missouri and Virginia, 29,000; North Carolina, 356,000; South Carolina, 798,000; Tennessee, 147,000; Texas, 1,905,000. Total bales, 6,943,000.

The Chadwick-Hoskins Mills, Pineville, N. C., are placing Draper Shuttles on their looms. The change is considered by the mill as a great improvement over the former shuttles.

The General Produce Association of Alexandria quotes the cotton grown for the season 1909-10 at 6,250,000 to 6,500,000 cantars (99.05 pounds). In that event the crop will fall short of any crop since 1905-6, and may not exceed the 1897-8, 1899 and 1901-2 crops. But those earlier crops were grown on a much smaller acreage, and the difference in the cultivated area was used for cereals.

POSSELT'S  
TEXTILE JOURNAL

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A PRACTICAL AND  
EDUCATIONAL JOURNAL

DEVOTED TO  
THE TEXTILE INDUSTRIES.

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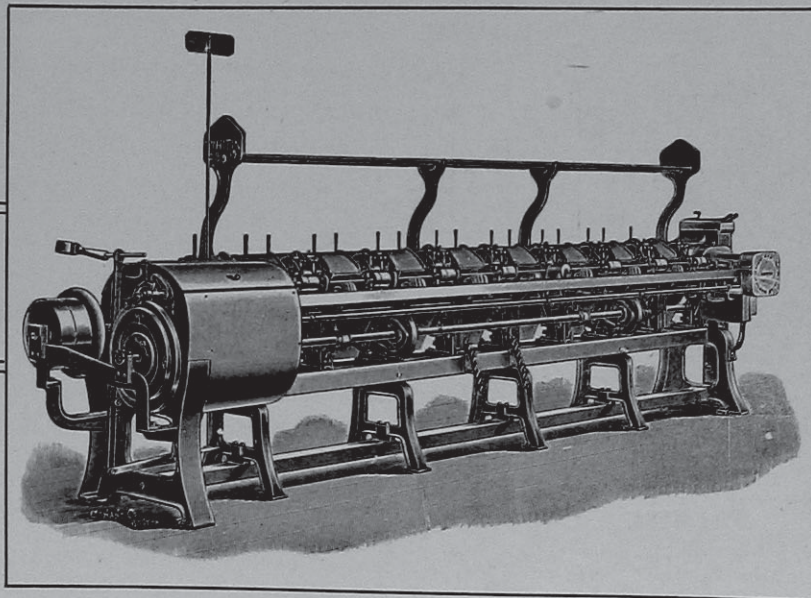


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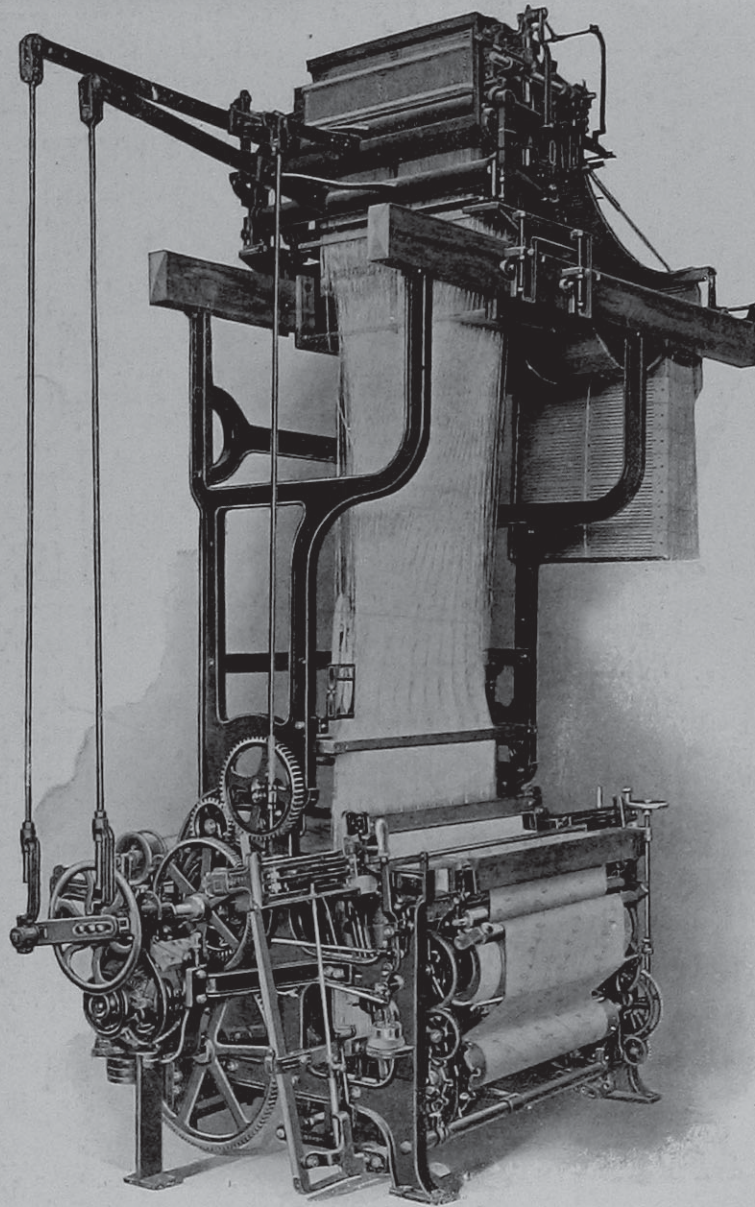
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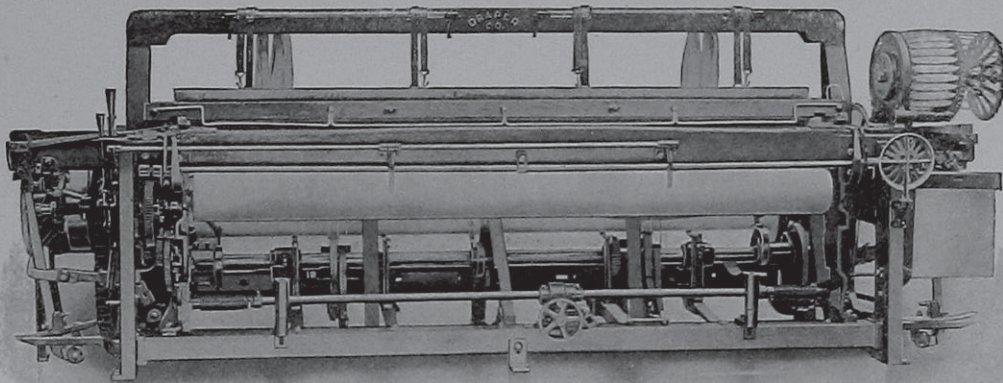
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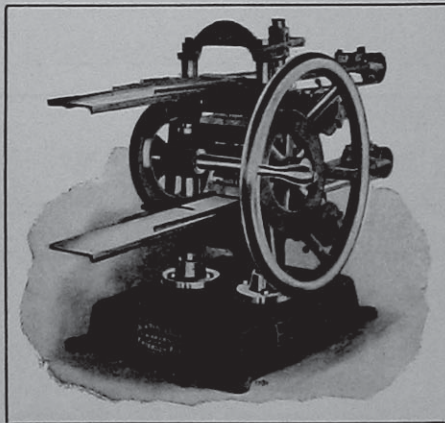
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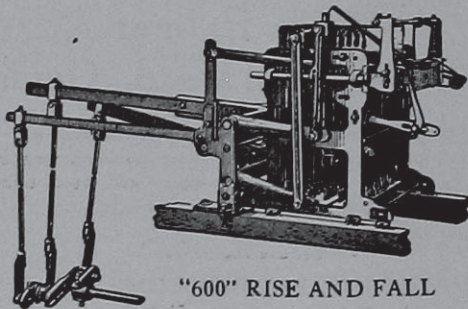
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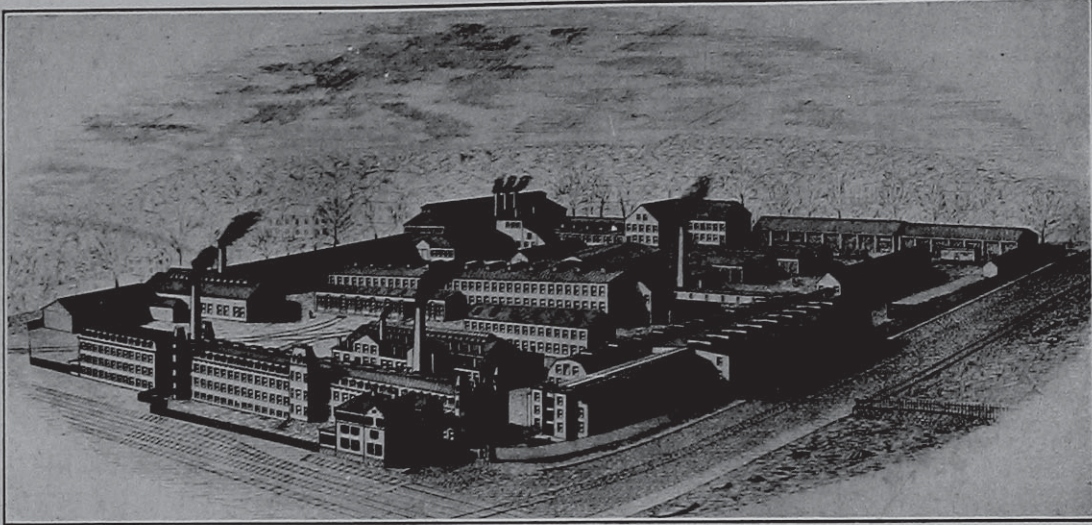
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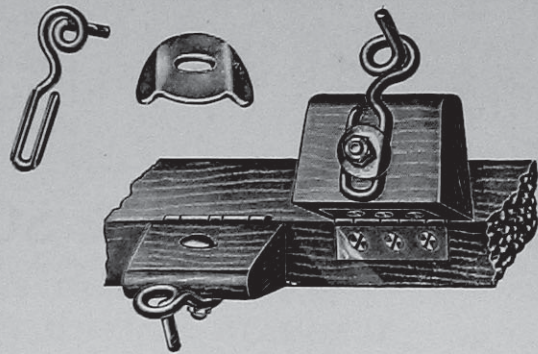
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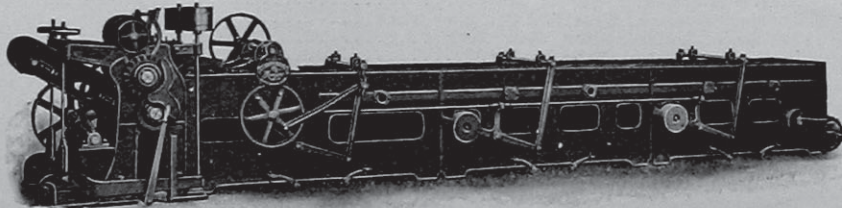
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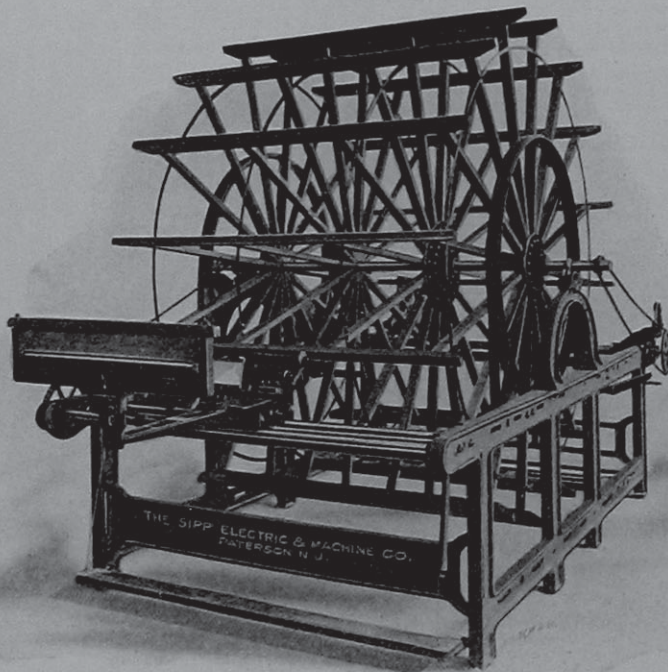
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# Posselt's Textile Journal

Vol. V.

December, 1909.

No. 6.

## THE MANUFACTURE OF DAMASK TABLE CLOTH.

(Continued from page 90.)

### CALCULATIONS FROM A WOVEN FABRIC.

Fig. 8 is the actual reproduction (reduced 25" in fabric to 6 $\frac{3}{4}$ " in our illustration) of a woven Turkey-red Damask Table Cloth, given for two reasons.

First showing the *Daisy* applied to Textiles, and Second showing one of the best grades of Turkey-red Damasks in the market, constructed thus:

*Texture:* 70 by 105

*Point paper:* 8 by 12

*Border:* 10 $\frac{1}{2}$ " wide and 8 $\frac{5}{8}$ " long

*Centre:* 8 $\frac{1}{8}$ " wide and 9 $\frac{3}{8}$ " long.

*Ground weave:* 8-leaf satin, filling effect.

105 picks per inch  $\times$  8 $\frac{5}{8}$ ", length of design in fabric = 905 picks and  $905 \div 8 = 113$  plus 1, thus 904 picks or cards in repeat of pattern.

*Centre:* 70 ends per inch  $\times$  8 $\frac{1}{8}$ " wide = 622, and  $622 \div 8$  (leaf satin) = 77 plus 6, and for which reason we have to use for the centre 624 needles, i. e., a full 600-Jacquard Machine.

105 picks per inch  $\times$  9 $\frac{3}{8}$ " (length of design in fabric) = 984 picks or cards required for repeat of pattern ( $984 \div 8 = 113$ ).

Thus we find the following two Jacquard Machines required to be used for the production of fabric shown in Fig. 8.



FIG. 8

The same as in the previous example Fig. 5, we find here again that Centre and Border repeats do not balance. For this reason, the same as before, two Jacquard Machines must be used, one for Border, one for Centre, thus:

*Border:* The two sub-borders are identical in design and worked with *point tie-up*, thus the actual size of design (for the working out on point paper) in Border reduces in its width from 10 $\frac{1}{2}$ " to 8 $\frac{1}{4}$ " size of design in fabric to be taken into consideration when preparing point paper design.

Thus: 70 ends per inch  $\times$  8 $\frac{1}{4}$ ", width of design in cloth = 600 needles

8 needles for 8-leaf satin Margin, between Border design and Selvage

4 needles for Selvage.

612 needles of a 600-Jacquard Machine are required for Border.

600-Jacquard, using 612 needles with 904 cards  
600 " " 624 " " 984 "

### BORDER FABRICS.

Fig. 9 is a sketch of a Turkey-red Damask table cloth having Borders on all four sides.

One complete quarter of fabric is given, being all that is necessary to be made by the designer in his practical working design on point paper, since the duplicate in width of fabric is produced by means of a point tie-up, and the duplicate in length of fabric by cutting a duplicate set of cards lacing it to the first set in reverse order. The texture of fabric is 63 by 71, calling for 8-by 9 point paper.

Examining our sketch, we find that part *A — B* of the design works on the point tie-up principle, with the part *B — C*, independent of the complete design also being designed on the point tie-up; thus the working design on point paper is only required for





FIG. 9



part of sketch, *B—C* (for border) and *C—D* (for centre).

This gives us the following details as to practical working design from our sketch.

Selvage	4 needles	} = 1 row
Margin	8 needles	
Border design <i>B—C</i> ,	} = 360 needles = 30 rows	
5 $\frac{3}{4}$ " width in fabric		
Centre design <i>C—D</i> ,	} = 876 needles = 73 rows	
14" width in fabric		

1248 needles = 104 rows,

calling for 104 rows, 12 deep, of a 1200-Jacquard Machine.

Length of design in fabric 40"  $\times$  71 picks per inch = 2840 figure picks in design  $\times$  2 (once repeated) = 5680 figure cards and (80 picks 8-leaf satin on each end of fabric for Margin =) 160 satin cards, giving us total of 5840 cards for the complete set.

## COTTON FINISHING.

### Bleaching.

(Continued from page 117.)

**Scutching.** After the final wash, the cloth is then either hydro-extracted, or better extracted by passing between squeeze rollers, after which it is then brought back (opened out) to its full width. Sometimes this may be done by hand, but a machine, known as a scutcher, is more commonly used for this purpose. Scutchers vary in construction and working detail, but all involve the principle of taking out, *i. e.*, beating back the twist in the string of cloth, opening out the folds in the goods and delivering the latter perfectly smooth and free from wrinkles, creases or curled edges, for further operations, by stretching the cloth from its middle towards its selvages, in passing it over spirally grooved or fluted rollers, or diagonally grooved surfaces.

Fig. 15 represents in its perspective, a plain cylindrical scutcher.

Figs. 16 and 17 show a scutcher of conical construction, Fig. 16 showing an end view, and Fig. 17 a plan view of the latter.

If the cloth is to be printed, it is simply dried by passing over drying cans; but if it is to be finished white, it is passed through a starch mangle and other machinery such as calenders, beatlers, etc.

**Turkey Red Bleach.** The same refers to the bleaching of cloth which is in turn dyed a full shade of Turkey or Alizarine red, and when it is not necessary to give it the madder bleach, for there is no white ground coming into consideration; in fact many manufacturers are of the opinion that a previous treatment with bleaching powder detracts from the production of a brilliant red, due to the formation of oxycellulose, which in turn prevents the proper fixation of the mordant. The Turkey Red Bleach only calls for the Lye Boil and the White Sour with its necessary Washings. The slight yellow color left on the cloth after

this bleach, tends to increase the fiery character of the shade produced.

**Market Bleach.** This term is sometimes applied to the bleach given to cloth sold in the white. This bleach is similar to the Madder Bleach, only not as thorough, the essential difference between them being the absence of the boiling with rosin soap, and the introduction of

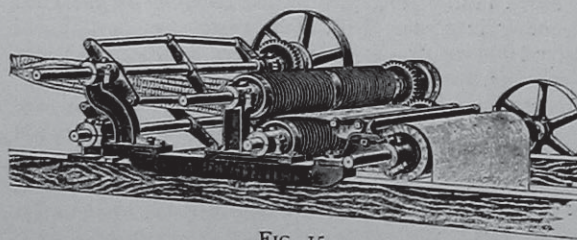


FIG. 15

tinging the cloth with some blue coloring matter previous to drying. Cloth thus bleached is in turn generally starched, often slightly weighted and calendered.

**RAPID BLEACH.** If dealing with cotton cloth to be dyed a solid dark shade, bleaching is of minor importance, a simple rapid bleach being a sufficient preliminary treatment to remove the wax, grease and dirt from the cloth. The latter is for this purpose commonly washed and boiled several hours with soda ash. In some instances, a rapid treatment with bleaching powder and a sour is added.

**IMPERFECTIONS CAUSED BY BLEACHING.** Unequal bleaching is a trouble sometimes met with, and is caused by using the wrong make of a kier, and when the goods are improperly packed so that a thorough circulation of the liquors is prevented. It is not only necessary to saturate the goods with the bleaching solution, thinking that the operation will take care of itself; this is not the case, since unless the fatty and waxy matters of the fibres have been thoroughly lib-

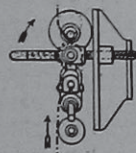


FIG. 16

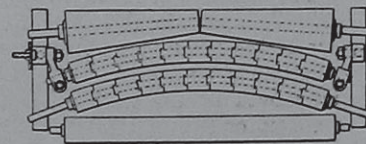


FIG. 17

erated by means of hot caustic alkalies and are thoroughly rinsed off previous to chemicking, it will be found that the bleach will not be permanent, the goods gradually assuming a yellow shade until the cotton will have again resumed its original color. For this reason it will be well not to slight or omit one of the processes; that is provided we are after a thorough, *i. e.*, madder bleach.

The bleacher will off and on be troubled with stains in the goods. It may puzzle him, he may not be able to ascertain their origin for the moment. Many of these stains are iron stains. There may be a chance that the cause for some of these stains was in the goods previous to their ever reaching the kier. Alkaline solutions have no actions on traces of iron or iron compounds, but when goods containing the latter reach



the chemicking process, their solution is then started, but the process of dissolving goes on too slow and when they are then not completely dissolved nor removed by the time the bleaching is finished. This shows the stain at too late a stage of the bleaching process, in order to remove it.

Another cause for stains in the goods is iron rust, caused in most instances by the goods to be bleached coming in contact with some rusty iron portions of the building or of the machinery in the room, for example, girders, columns, outside parts of the kier, trucks in which goods, in their wet condition, are taken to and from machinery, benches or floors on which the goods lay; iron nail heads, hinges or screws being exposed, etc. These stains are hard to remove, and for a fact seldom any attempt is made by the mills to do this.

Oil stains may be caused by oil dropping from overhead shaftings, hangers, pulleys, etc., onto the cloth; these oils are frequently heavily charged with very finely divided iron, and which at once is taken up by the goods. Provided oil stains are caused from a pure oil, they are readily removed by gasoline.

The character of the size used for the warp in slashing, to permit perfect weaving, may be at the bottom of stains; paraffin wax if used will combine with the chlorine in the chemicking process, causing a yellowish substance to form, which it will be found is somewhat difficult to remove.

Materials used in the weighting may be at the bottom of discoloring goods; being of mineral origin, they are liable to carry traces of iron which become oxidized through the moisture in the finished goods.

Tender goods may be caused by excessively long treatment in the bleaching liquors; again imperfect washings after the *sours* may be at the bottom.

Excessive chemicking, as mentioned before in the Article, will become the cause of oxycellulose, and when then the cotton has a strong affinity for basic colors. To ascertain this state of affairs, immerse a piece of the goods in a dilute solution of fuchsine. To ascertain if all acid traces from the souring have been removed by the washing, test the wash water with a drop or two of a solution of barium chloride; if oil of vitriol was used for the sour, cloudiness in the water will indicate that not all traces of the acid have been removed.

To insure strong yarns, care must be taken to thoroughly kill the chlorine after bleaching, and for which reason the use of *Anti-Chlorine* is recommended; care being taken to thoroughly wash after its application, in order to prevent the deposit of finely divided sulphur.

A deficiency in the rosin soap used in the preliminary treatment of the goods may be at the bottom of some of the defects in bleaching fabrics. A good recipe for preparing this soap is: 62 per cent of 85% soda ash; 26 per cent rosin, and 12 per cent of 75% caustic soda; using about 7 per cent of this soap mixture to work with, in turn carry into the kier a quantity of rosin amounting to about  $1\frac{3}{4}$  per cent of the weight of the goods to be boiled.

#### Bleaching with Peroxide of Sodium.

Thus far this process has developed in the direction of bleaching cotton piece goods, such as underwear, hosiery and also of the finer grades of dress goods, more particularly if the latter have any admixtures of other fibres, such as silk, mercerized cotton, etc. It has not yet been adopted for the whitening of ordinary sheet-goods, primarily because the process takes longer than does lime bleaching and chemicking, although the cost is not very materially higher.

THE PRINCIPAL ADVANTAGES ARE: The preservation of the strength of fibre; a durable white which incidentally is the best possible bottom for the dyeing of light colors which thereby also become permanent and not subject to streaking and fading while in storage.

For knit goods the additional advantage is the retention to the greatest extent of flexibility, elasticity and softness, all of which are materially affected by the lime bleach, due to the eating of the fibre by the chlorine compounds.

Such goods as can be bleached in the rope are run through bleaching machines constructed on the lines of the ordinary dyeing machines, and are built, among others, by The Rodney Hunt Machine Co., of Orange, Mass. Garments and yarns are placed in rectangular vats made of clear white pine, having a lead heating coil under a false bottom through which the live steam passes and exhausts on the outside. To blow steam into the bleach bath would produce rapid local decomposition and consequent uneconomical working, together with uneven effects on the goods, as they would be whitened more rapidly at the points where they came in contact with the steam. The goods are kept under the liquor, from which they would have a tendency to rise, due to the generation of gas, by a wooden grid held down by a lever attached to the tub. There must be no metal anywhere in the vat or connected with Peroxide work, except lead. Old tubs can be lead-sheathed and are then very durable.

The bleaching liquor is made up in the well known way with sulphuric acid and Peroxide of Sodium, which is quickly done by adding the powder to the solution of the acid in the required quantity of water, by means of a spoon. The Peroxide is sprinkled on the water while this is being vigorously stirred, and even an ordinary workman can acquire in a short time, the knack of making up the bleaching solution correctly. There is no danger connected with the process if the most ordinary precautions are observed, such as would also hold good for most of the acids. Moreover the powder comes packed in small tins so that at no time a considerable quantity is open.

The goods, after immersion in the bleach bath, into which they must not be crowded too closely, remain therein from two to five hours according to condition and quality of the goods, at a temperature of from 130 to 180 degrees F., after which they are rinsed in warm water. They are then in practically a chemically pure condition, free of all chemicals, and ready for any further process that may be required.



### Water-Proofing Woolens.

In a natural state, the fur of animals and the feathers of birds are all more or less water-proof, more particular the aquatic birds and the amphibious mammalia. The clothing of some nomadic tribes has been noticed as being quite as efficient in repelling water as any of our modern shower-proofed materials, due to the wool or hair of which they are made being in a natural state of grease. Raw wool from the sheep's back is much more difficult to wet than the same after

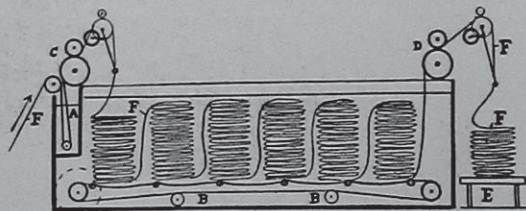


Fig. 1

scouring. This, of course, is owing to the presence of wool-fat and other greasy bodies, although the repelling power itself is greatly increased by the parallelism of the fibres.

#### MODERN SYSTEMS OF WATER-PROOFING.

Every year the public demand is more strong for garments made on nature's principle, and mackintosh or rubber-coated fabrics are being replaced by shower-proof cloths more and more daily. This is exactly as it should be, there being no matter of opinion between the hygienic values of air-proof and air-permeable textiles.

Water-proofing may be divided into two classes: (a) that which is absolutely impervious to water such as oil-skins and rubber goods, and (b) such as is simply water repellent. The quality of the latter depends upon the use of some body for which water has no affinity—such as resins, fats, some gums, and many chemicals.

If water is spilled upon the surface of a proofed cloth, it will be noticed how it assumes the spheric form, this being naturally the shape in which the maximum of bulk is got into the minimum of space.

In the water-proofing of woolens, solid bodies introduced between the fibres destroy to a large extent the woolen appearance and handle, the fibres are matted and caked together, while the elastic spring of the fabric is lost. For this reason, many water-proofing substances cannot be used, the most suitable agents being those which give little bulk and do not alter materially the appearance.

#### ALUMINA AND ITS SALTS.

This base forms one of the most serviceable bodies for imparting a shower-proof finish, and is well known under the time honored recipe of sugar of lead and alum. Mixed together in solution, acetate of alumina is formed together with a precipitate of lead sulphate, the clear solution of acetate alone conferring the water-proofing quality. When mixed together in the old style, brown sugar of lead and common alum, the resulting liquor had generally a tarry smell arising

from the crude acid (pyroligneous) in combination with the lead, while in using common alum there would also be acetate of potash along with the acetate of alumina. This potash salt would be detrimental to some extent, first by preventing the absorption of alumina, and secondly by being easily washed out by the first shower.

Theoretically, it is only necessary to impregnate the cloth by passing it through a bath of acetate of alumina and then drying it without squeezing; in practice however, it will be found that thorough impregnation is more difficult than it appears at first sight, and requires time and care.

Fig. 1 shows a machine well adapted for this purpose; in it the fabric may be steeped for considerable time to ensure thorough penetration. As will be seen from the illustration, the cloth is folded down on to an endless apron as situated at the bottom of the tank B, said apron being moved forward (at intervals) until filled with piles of fabrics. A is a small reservoir, situated at the front part of the machine, holding a solution of hot alumina acetate, while the tank B contains the same liquor at 9 deg. Tw., cold. By entering the fabric F to be treated (see arrow), through reservoir A, the dry material is more thoroughly wetted, the complete absorption being finished afterwards in the large tank B, by allowing the cloth to steep there for some hours. C and D show two pairs of squeeze rollers together with folding frame for plaiting the fabric F on table E. In practical working, the piled cloth will be upset in the last layer, as the material is drawn from the bottom of the pile.

#### DRYING ARRANGEMENTS.

After impregnation, a thorough drying is essential, since the acetic acid must be driven off to leave the hydrate of alumina, which is the repelling body. Although the common tentering machine may be used

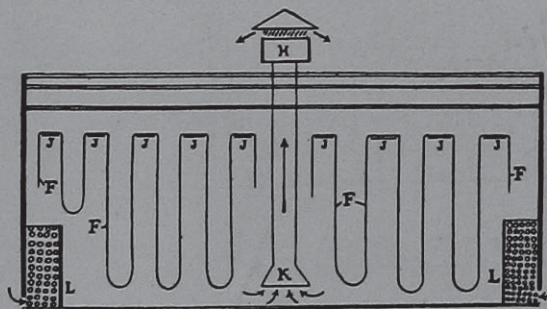


Fig. 2

for this purpose, it is advisable to allow the cloth to remain for some time in a hot chamber. Fig. 2 illustrates an approved construction of such a drying chamber. Here the fabric is hung on lathes J, and being already dry may be hung in folds as shown. In this illustration, the air is shown to enter through two batteries of steam-pipes at L. By the laws of gravity, the moisture laden air falls to the bottom and when in turn it is sucked up through the central pipe K, and discharged at H. If necessary, a small fan may be placed at H to expedite circulation, but



this is not absolutely necessary, since ventilation will proceed on its own accord.

#### EFFECT OF ALUMINA ON WOOL.

Beyond a harsh crisp feeling, there is nothing to indicate the presence of hydrate of alumina, but the material treated with it will present marked water-proof qualities, and moisture falling on it will roll off again in globules. Thin textured, light fabrics will take this water-proofing well, and although it gradually grows less by friction in wear in garment, it, as a rule, lasts as long as the fabric to which it is applied.

#### PROOFING WITH METALLIC SOAPS.

This also is an old system and depends upon the insolubility of fatty acids when in combination with

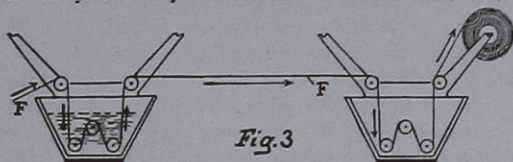


Fig. 3

a metal base. Alumina is once more the favorite for this purpose, and stearate and oleate of alumina form white insoluble bodies with strong adhesive powers. The method of impregnation is similar to the one just described, but after drying, the fabric is run through a hot soap bath. This may be conveniently done by using a pair of jiggers as is shown in Fig. 3. The soap bath is applied in the first machine, the second being used solely to wind the cloth conveniently on a roll. By using two tanks, the soap liquor is not contaminated by droppings from the roller holding the cloth, resulting at the same time in a saving all around. After soaping, the fabric should be allowed to remain batched, which gives time for the alumina to combine properly with the soap. Following this, it may be given a good squeeze between the rollers

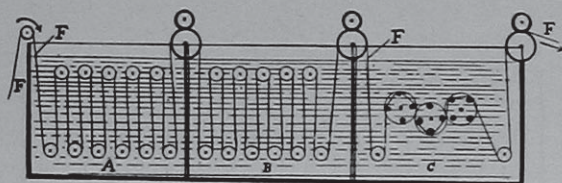


Fig. 4

of a padding machine, which serves to squeeze the water-proofing material used well into the body of the structure. The subsequent drying must not, however, be done over cylinders or the alumina soap will adhere to the surface of the rollers in a sticky cake. The tentering machine may be used or the drying chamber as was explained in connection with Fig. 2, or still better, a combination of the two may be used.

#### DRAWBACKS TO THE METHOD.

These are the stiff cakey finish often imparted, and the fact that it is not adapted for thin fabrics. Thick ones with plenty of substance may be so manipulated that the water-proofing is in the centre of the cloth, while the surfaces are left comparatively free. Over-doing the process with dark colored cloths may result

in a white streaky appearance, and coloring matters could not very well be added to the soap to hide this, as the finished cloth would then rub very badly. Before the impregnation of a fabric with a soluble salt such as alumina, the cloth should be quite clean, dry, and free from any carried or added impurity.

Fig. 4 shows us a diagram for a washer which will give satisfaction. Here the first compartment *A* may contain a weak solution of alkali in warm water, followed by clean warm water in compartment *B* and cold in the washing section *C*. After washing, it is not sufficient to merely squeeze or hydro-extract the fabric previous to impregnation. To get the maximum absorption, the cloth should enter the water-proofing liquor dry, and when treated thus will be found to carry much more of the dissolved salt than if entered in a damp state.

#### PROOFING BY RESINS AND GUMS.

This is now one of the most approved modern methods for conferring shower-proof qualities upon thin material, and this without giving a stiff or caked effect. The principle is to dissolve resin or a gum which is insoluble in water, in a large bulk of benzene or petroleum spirit.

Through this dilute solution the fabric is caused to travel, heavy rollers forcing the solvent well into the structure, after which the material is dried carefully until all the volatile bodies are driven off.

If this be effected in a proper manner, each single fibre composing the fabric, will have a slight film of resin deposited on it, however not sufficient to be appreciable to the eye or hand, but just sufficient to give it repellent properties to water.

#### IMPORTANCE OF ABSOLUTE DRYNESS.

Previous to passing through the bath of resin and solvent, it is most important that the cloth be free from moisture, and to ensure this, the fabric should have been recently dried and cooled. Even lying a few hours after drying, will mean the re-absorption of moisture from the atmosphere, and this will militate against the free and even deposit of the resin. Should too strong a solution be used, this will render the cloth stiff and will naturally cement the fibres together. The point to be aimed at is simply the deposition of the resin in a delicate film on the fibre surface. Heat, applied to the cloth after the solvent is driven off, should not be of a temperature which will melt the water-proofing, as this will have a tendency to creep together into a globular form. As a test for thorough water-proofing, a sample of the fabric is tied over the mouth of a glass tube, the latter being then inverted and filled to the height of a foot with water. The length of time taken for the water to percolate is now noted. One taking five hours before a single drop gets through may be considered water-proof, but it should not be lost sight of that friction and pressure are important factors in actual wear. (The Dyer and Calico Printer.)

It is the special requirements of the American trade which practically fixes the standard values of the best Australasian wools.



## Dictionary of Technical Terms Relating to the Textile Industry

### J

**JABOT**:—A frill of lace, lawn or like materials, worn by women on the bodice.

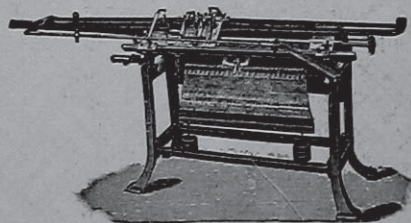
**JACK FRAME**:—A finer roving frame, only used in connection with higher counts of cotton yarns, above 60's; also called *Fine* frame.

**JACK TOWEL**:—A coarse towel for general use, hanging from a roller—a roller towel.

**JACONET**:—A slight, soft muslin, sometimes plain and sometimes figured, made at Manchester and Glasgow. The finer qualities are used principally for ladies' summer and evening dresses, the lower qualities being exported to Egypt and the East.

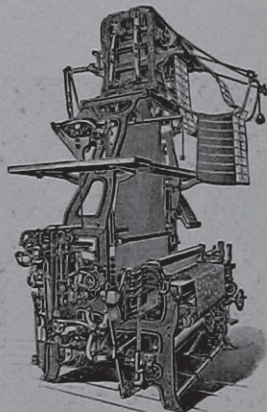
A hard finished cloth, the weight of Victoria Lawn, having a smooth lustrous cambric finish, used for book binding, and formerly in the southern part of the United States for shrouds.

**JACQUARD KNITTING MACHINES**:—Knitting machines on which the patterns are made by automatically moving parts which work with independent threads to form



Jacquard Knitting Machine  
(Grosser Knitting Machine Co.)

combinations in color or design not possible to be made on ordinary knitting machinery.



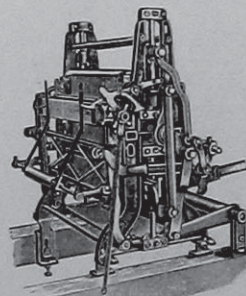
Jacquard Loom  
(Crompton & Knowles Loom Works)

**JACQUARD LOOM**:—A loom fitted with a Jacquard machine on its top, for operating the warp threads by means of leashes; i. e., the Jacquard harness.

**JACQUARD MACHINE**:—The apparatus for separating the warp threads in the loom, similar to the dobbie, but on a more extended scale, and consequently permitting the production of more elaborate patterns. Invented by Joseph Marie Jacquard, born in Lyons, France, in 1752. Jacquard's invention in itself was based upon the older inventions in the line of weaving machinery by Buchon, Falcon and Vancanson.

**JAEGER'S SANITARY WOOLENS**:—The trade mark for a special class of woolen underwear, garments, and fabrics made of pure wool, that has not been dyed; the color being

gotten by blending together white, and natural black wool. Scouring of black wool does not alter its shade, the process only removing the grease, etc., from the fibre.



Jacquard Machine

**JAMEWAR**:—A coarse woolen shawl, woven in broad stripes of patterns. They are known in the European trade, as Turkish shawls, and are sometimes sold as that. They are chiefly made in the Gurdaspur District in the Panjab, India.

**JANUS CLOTH**:—A fabric, the color of one face of which is different from that of the other; used for reversible garments, etc.

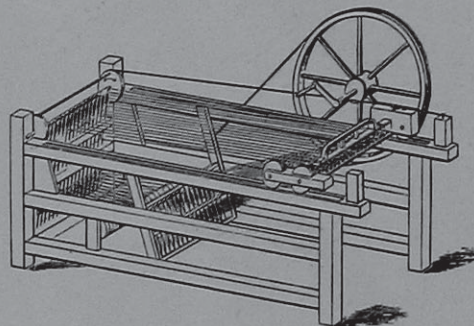
**JANUS CORD**:—A double faced cotton and woolen rep.

**JASPER**:—A fabric constructed with a black warp and white filling, or vice versa, forming gray, or gun metal shades.

**JEAN**:—A twilled, calendered cotton cloth, either striped or white, usually twenty-seven inches in width; used chiefly for dress lining and in the manufacture of corsets; also an undressed cloth having a cotton warp and woolen filling. Satin Jean has a different twill which gives it a smooth, glossy surface.

**JELLABIA**:—The hooded woolen blouse worn by Arabs and Moors.

**JENNY**:—Spinning Jenny or Hand Jenny. The invention of Hargreaves of Blackburn, England in 1767; named after his daughter Jenny. Before this period a person could only tend one spindle and spin only one thread at a time.



Hargreaves' Spinning Jenny

By means of the Jenny he could work 20 or 30 threads at once.

**JERKIN**:—A waistcoat; still in use in the north of England.

**JERSEY**:—A fine thick knit shirt worn by athletes. A close fitting elastic woolen or silk jacket.

**JERSEY FLANNEL**:—An elastic woolen fabric having a nap on one side.

**JERSEY UNDERWEAR**:—Underwear made on the crocheted principle, which distinguishes it from flat or knitted goods.