

# Posselt's Textile Journal

*A Monthly Journal of the Textile Industries*

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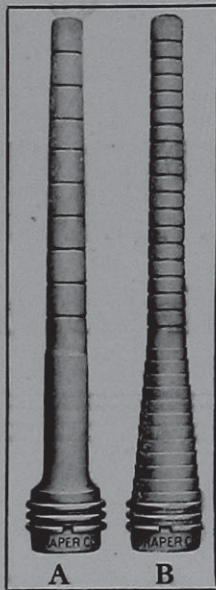
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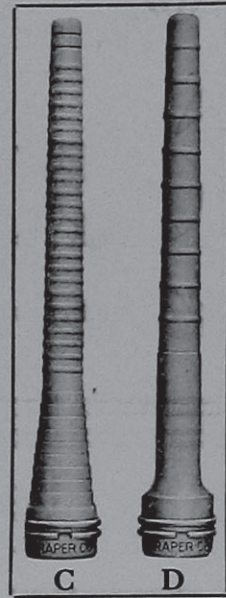
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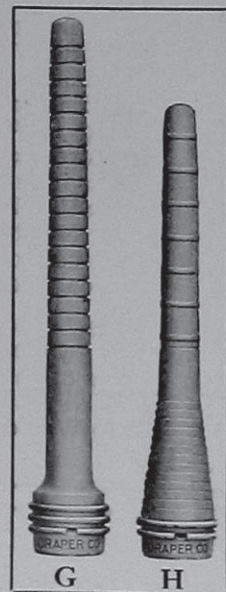
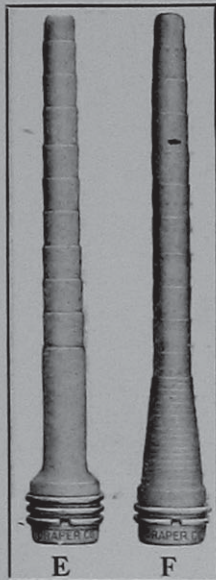
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1. White and Colored Cotton Dress Goods.—E. McKittrick & Co., New York.
2. Hair-nets and Veils.—Harry A. Staunton, Philadelphia.
3. Scouring-soap and Cleaning Powder used for Detergent and Polishing purposes.—The Holbrook Mfg. Co., New York.
4. Overalls, Jackets, Work-shirts, Dress-shirts, Knee-pants, Work-coats, Leather Gloves, Cotton Gloves, Leather Mitts, Cotton Mitts, Coats, Vests and Trousers, Undershirts, Drawers, Union Suits, Infants' Wrappers, Hosiery, and Collars made of Textile Material.—The Geo. De Wald Company, Fort Wayne, Ind.
5. Rubber Hose.—Boston Belting Company, Boston.
6. Printed and Dyed Calicos, Cloth made from Carded and Combed Cotton Yarns, Printed and Dyed Flannels, Corduroys, Velveteens and Fustians.—Merrimack Manufacturing Company, Lowell, Mass.
7. Shirtings, Cambrics, Drills, Checked and Striped Cotton Fabrics, White and Colored Cotton Prints, Cotton Velvets, Cotton Merino, Satin and Batiste, and Knitted Cotton Piece Goods.—Arnold Otto Meyer, Hamburg, Germany.
8. Cotton Piece Goods.—The Millville Manufacturing Company, Philadelphia.
9. Waterproof Adhesive Cement.—Jewell Belting Company, Hartford, Conn.
10. Cloths and Stuffs of Wool, Worsted or Hair.—J. T. Clay & Sons, Ltd., Rastrick, England.
11. Cotton Piece Goods.—Fred Butterfield & Co., New York.
12. Coats, Capes, Dresses and Outer Suits for Children, Misses and Ladies.—Harry Kitzinger, New York.
13. Hosiery.—Triangle Hosiery Mills, Philadelphia.
14. Silk Piece Goods.—B. Altman & Co., New York.
15. Cotton Piece Goods.—Burch, Bailey & Co., New York.
16. Cotton Elastic Canvas, Percalines, Butcher Linens, Buckrams, Shrunken Pocketings, Silesias, Farmers' Satins, Mercerized Sateens, Sleeve Linings, Wigans, Cambrics and Crinolines.—Chuck Bros. & Davis, New York.
17. Hosiery.—Brown Durrell Company, Boston.
18. Overalls and Workmen's Coats.—Detroit Overall Company, Detroit, Michigan.
19. Cotton Piece Goods.—Mannheimer Bros., St. Paul, Minnesota.
20. Tweeds, Cassimeres, Meltons, Serges and Broadcloths.—Tilton Mills, Tilton, N. H.
- 21, 22 and 23. Wool Blankets.—The Pittsburg Dry Goods Company, Pittsburg, Pa.
- 24 and 25. Overalls.—The Pittsburg Dry Goods Company, Pittsburg.
26. Ladies' Undershirts, Outervests and Outerwaists and Dresses.—Lack Manufacturing Company, New York.
27. Men's Dress Shirts and Negligée Shirts.—Sears, Roebuck & Company, Chicago.
28. Leather and Textile Gloves and Mittens.—Edward Lefi Company, Groversville, N. Y.
29. Chemicals used in Reducing, Discharging and Bleaching.—Badische Anilin & Soda Fabrik, Ludwigshafen-on-the-Rhine, Germany.
30. Chemicals to be used when Bucking or Scouring Dyed Textile Material.—Badische Anilin & Soda Fabrik, Ludwigshafen-on-the-Rhine, Germany.
31. Rainproof Coats.—B. Birnbaum & Son, London, England.
32. Jute Bagging for Baling Cotton.—The American Manufacturing Company, Charleston, West Virginia.
- 33, 34 and 35. Hosiery.—Chas. Chipmans Sons, Easton, Penna.
36. Superoxids, Perborates, Persulfates and Percarbonates, Bleaching, Washing and Oxidizing Substances, and Antiseptic and Disinfecting Preparations.—Chemische Werke Kirchoff & Neirath, G. m. b. H., Berlin, Germany.
37. Hosiery.—Old Fort Knitting Mills, Fort Wayne, Ind.
38. Broad Silk in the Piece, Cotton Piece Goods, and Silk and Cotton Piece Goods.—Rogers & Thompson, West New York, N. J.
39. Sheetings in the Piece, and Sheets, Pillow-cases and Bolster-cases made therefrom.—The New York Mills, New York Mills, N. Y.
40. Ladies' and Misses' Outer Suits, Dresses and Coats.—Chas. Isaacs & Co., New York.
41. Lining Canvas.—William Alsberg & Co., New York.
42. Men's, Women's and Children's Knit Underwear.—Ely & Walker Dry Goods Co., St. Louis.
43. Bifurcated Night Clothing.—George A. Ford, Chicago.
44. Muslins.—Strawbridge & Clothier, Philadelphia.
45. Ladies', Misses' and Children's Cloaks and Outer Suits.—The Sunshine Cloak and Suit Company, Cleveland.

46. Men's, Ladies' and Boys' Outer Suits.—Max Finkelstein, Chicago.
47. Women's and Misses' Bloomers and Dress Waists, Dresses and Dress Shirts.—Cohen & Perlstein, New York.
48. Silk Piece Goods and Silk-mixed Piece Goods. Susquehanna Silk Mills, New York.

The trade marks are arranged in a grid-like fashion, each with a number from 1 to 53. The brands shown include:

- 1. E.M.K. & CO. (Hand logo)
- 2. OCCASIONS (Figure)
- 3. HOLBRITE (Text)
- 4. Champion (Text)
- 5. ROXBRO (Text)
- 6. DURBAR (Text)
- 7. (Figure)
- 8. (Image)
- 9. DIVER (Figure)
- 10. (Shield logo)
- 11. HALF MOON (Text)
- 12. (Figure)
- 13. (Figure)
- 14. Barbarossa (Text)
- 15. LINAIRE (Text)
- 16. WOODCHUCK MILLS (Image)
- 17. ECONOMY (Text)
- 18. FAST LIMITED (Text)
- 19. CONVENT (Text)
- 20. (Image)
- 21. THE DUQUESNE (Text)
- 22. FAIRY (Text)
- 23. POLAR (Text)
- 24. M. & M. AJAX (Text)
- 25. (Text)
- 26. (Image)
- 27. Equity (Text)
- 28. REVOL (Text)
- 29. Burmol (Text)
- 30. Ludigol (Text)
- 31. Zambrene (Text)
- 32. FARMERS (Text)
- 33. TIGER (Text)
- 34. PIRATE (Text)
- 35. ENKA (Text)
- 36. "JUMBO" (Text)
- 37. (Image)
- 38. (Image)
- 39. (Image)
- 40. DEDRICK DUDSON (Text)
- 41. (Image)
- 42. (Text)
- 43. Unajama (Text)
- 44. (Image)
- 45. (Image)
- 46. (Image)
- 47. (Image)
- 48. Sola (Text)
- 49. Anchor brand (Text)
- 50. "The Road to Success" (Text)
- 51. BLOCK HOUSE BRAND (Image)
- 52. MARVEL (Text)
- 53. (Image)

49. Woven Fabrics for Wall-coverings.—H. B. Wiggin's Sons Company, Bloomfield, N. J.
50. Ladies' Dresses, Coats and Outer and Under Shirts.—Hyams and Hamerschlag, New York.
51. Outershirts.—Pittsburg Knitting Co., Pittsburg.
52. Men's and Boys' Outer Suits and Men's and Boys' Overcoats.—The Fair, Chicago.
53. Knitted Toques, Sweaters, Gloves, Hosiery, Leggings, Shirts, Vests and Booties.—Ellis Fischer, New York.

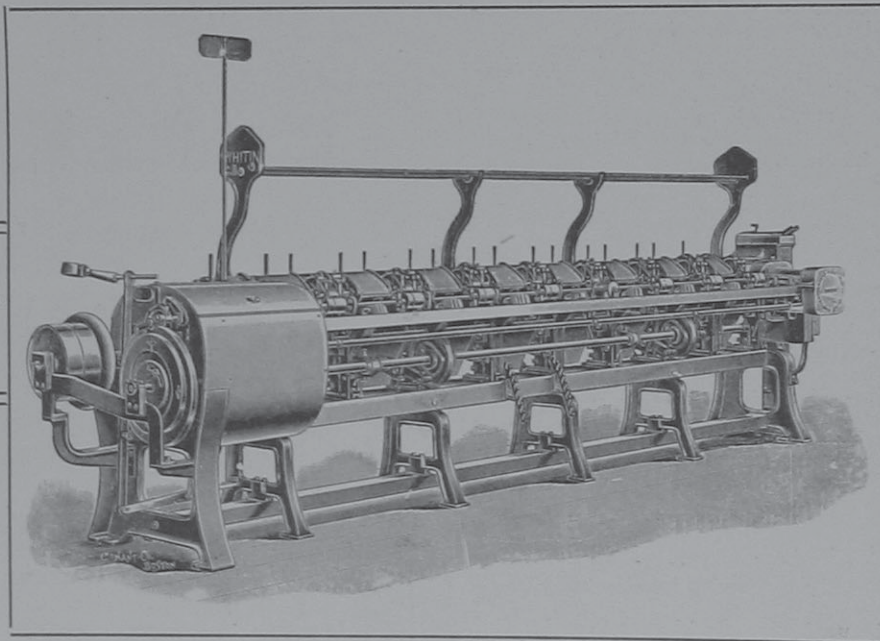


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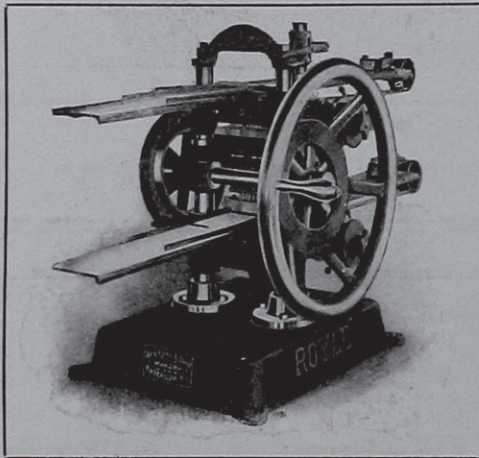
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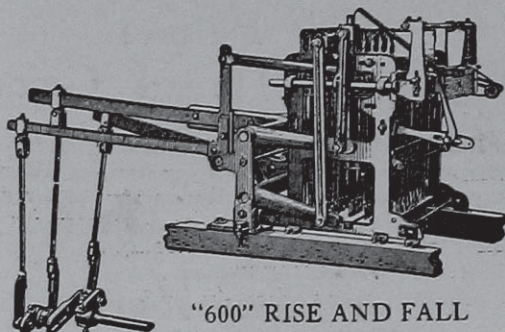
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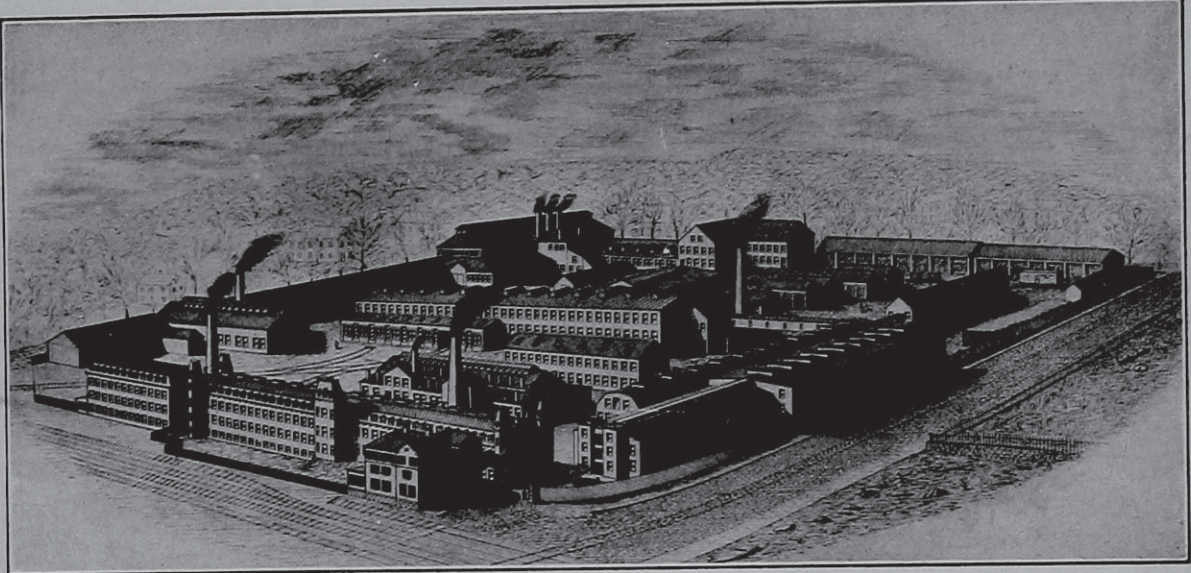
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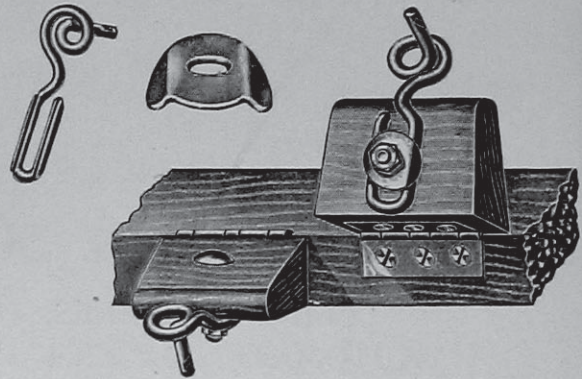
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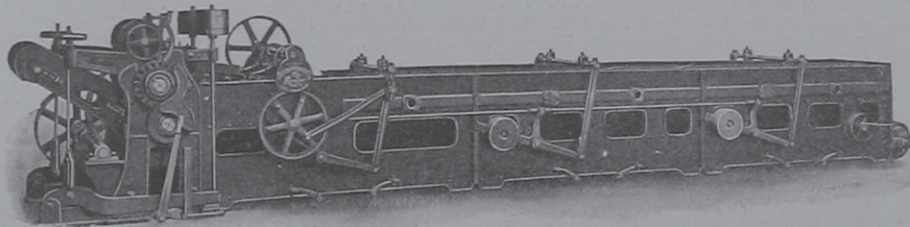
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# Posselt's Textile Journal

Vol. VI.

January, 1910.

No. 1.

## DYEING COTTON CHAINS

(Continued from page 115, Vol. V, No. 5.)

### The Long Chain System.

By this system the chains as they leave the boiling-out machine previously described, are dropped into boxes or cans and are next taken to a warp doubling machine, where each chain is doubled a certain number of times and thus reduced in its length to 1,000 yards or less.

A warp 12,000 yards in length will usually have 12 leases, or one lease every thousand yards. Such warps are then put into 12 cans for the purpose of doubling, which actually means *shortening of the warp* by folding it into thousand yard lengths, to save time in dyeing. For example, a warp of 275 ends, 12,000 yards long, would be doubled so that in dyeing it would be equal to 3,300 ends, one thousand yards long, thus shortening the time for dyeing to one-twelfth of what it would otherwise have been.

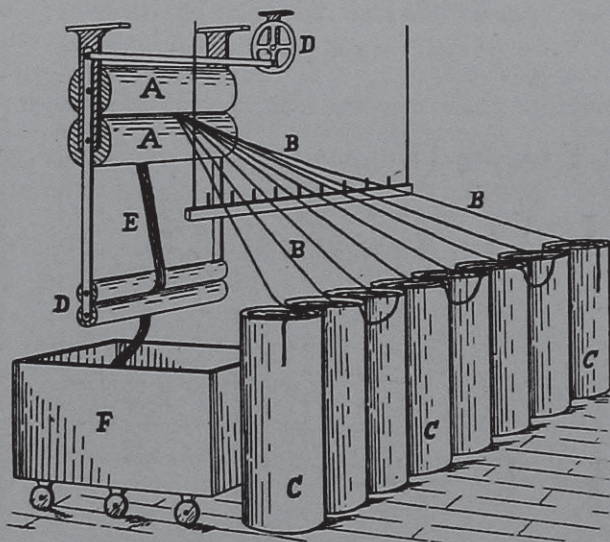


FIG. 4.

Doubling may be done by hand, but generally doubling by a machine is preferred.

Fig. 4 is a diagram illustrating this process of doubling chains by machinery, the latter consisting of a pair of rollers *A* to draw the sections of chain *B* from the cans *C* (8 being shown, more or less may be used); *D* is a swinging, folding motion to plait the chain *E*, after being doubled, into a truck *F*, or on a pile on the floor.

The cans *C*, containing the chain, are placed behind the doubling machine, and every other can is inverted into a can that is a little larger in size; this is done so that the doublings will all draw the same way. Then the operator takes a lease in the chain so

that when the chain is again split into its original length, it will not be crossed up.

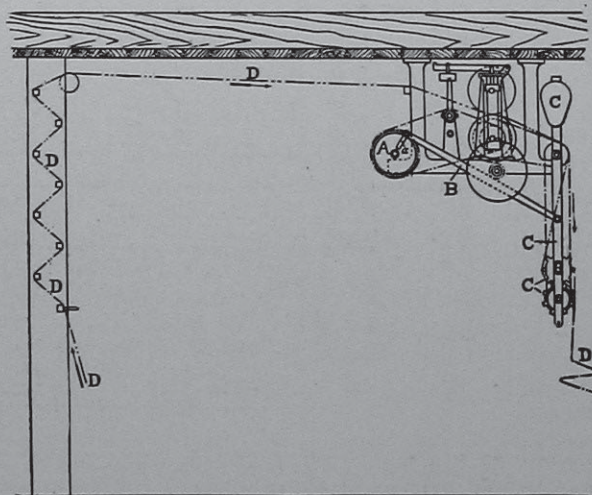


FIG. 5.

Fig. 5 is an elevation, and Fig. 6 a plan view of the warp doubling machine, as built by the Textile Finishing Machinery Co.

At its delivery end is a traverse motion *A*, *B*, and folder *C* for plaiting down the chain *D* into trucks. The amount of the traverse motion given to the folder can be regulated by adjusting the end of lever *B* higher or lower in the slot *a* of the disk *A*. *D* illustrates the doubling up of a chain into 18 cans or feeds, *i. e.*, the chain has been doubled up 18 times, and in this state is fed to the pair of drafting rollers (see *A* in Fig. 4).

### The Scotch Dye Tub.

The chains are now ready to be dyed, which is done best in the round or Scotch dye tub. Fig. 7 shows such a dye tub as built by the Textile Finishing Machinery Co., in its elevation; the chains being

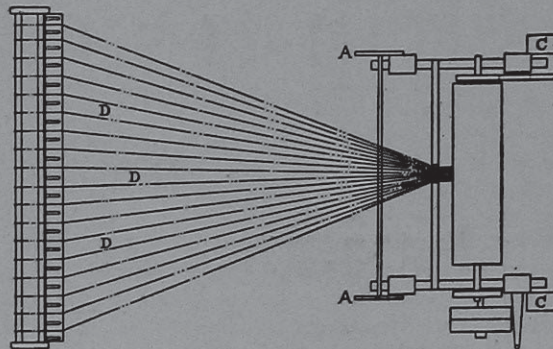


FIG. 6.

run through the tub from four to seven times, depending on the color to be dyed. This standard



Scotch dye tub consists of a round wooden tub *A* 55 inches diameter at the bottom, and 41 inches deep, fitted with iron nip stands *B*, supporting two squeeze rollers *C* and *D*, with pressure attachments (lever *E*

As the illustration shows, there is no delivery reel as on short chain dyeing machines, and the attendant in the front of the machine draws the warp and folds it hand over hand at the same time.

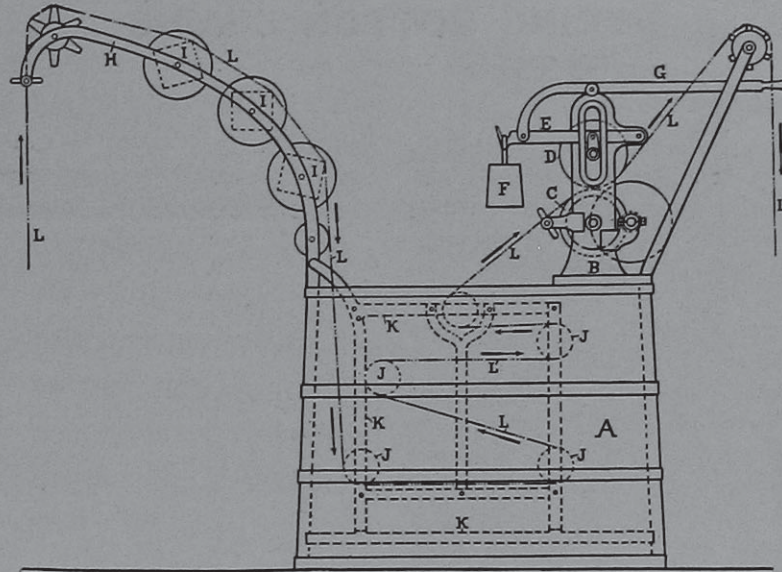


FIG. 7.

and weight *F*), so arranged that by means of the handle of the long lever *G*, the pressure, as exerted both by roller *D* and weight *F*, can be very quickly removed while the ends of the compound chain are passing through the nip of rollers *C* and *D*, in order to avoid cutting the yarn.

On the entering side of the tub, we find iron

### Splitting the Compound Chain.

After dyeing, the compound chain is taken to the splitter, where it is again split out into original lengths in order that it may dry well. This is done by passing the compound chain over a roller and putting each individual chain between two pins, under one reel and over the other reel of the splitter, and run them into

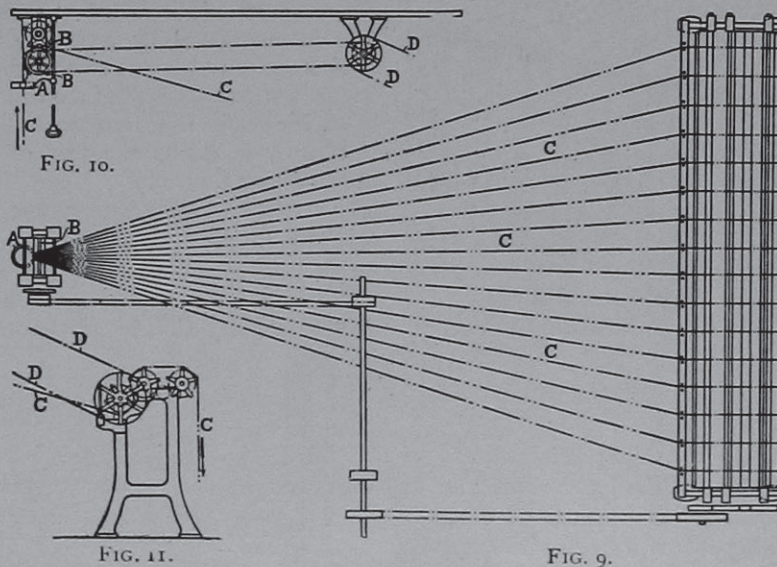


FIG. 10.

FIG. 11.

FIG. 9.

brackets *H*, with square beater or tension rollers *I*, and in the tub we find brass immersion rollers *J*, supported in brass frame *K*, for leading the chains through the dye liquor. The run of the chains through the tub is shown by line *L* accompanied by arrows. The frame of this dyeing machine can be hoisted out of the dye liquor in case of accident or when steeping in sumac.

cans again. After the compound chain is split, every other can is once more inverted and the chain is again in its original form and ready for drying.

Fig. 8 is a sketch given to illustrate the principle of splitting the compound chain back into its original length. In this illustration the compound chain *E* of Fig. 4 is shown being split up into its original eight minor chains *B*.



Fig. 9 is a plan view of the warp splitting machine as built by the Textile Finishing Machinery Co.

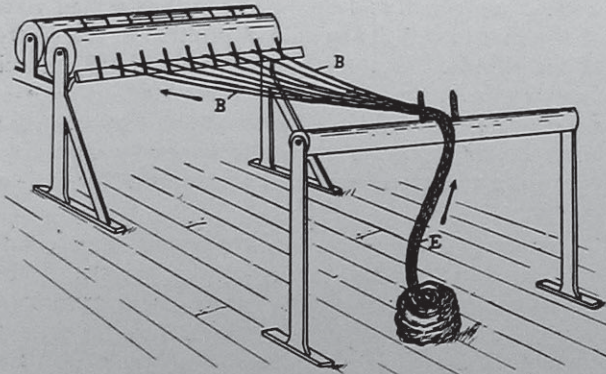


FIG. 8.

This machine consists of iron frames which support beaters, pin rail, etc. There are small iron frames to hang from the ceiling to support pot eye *A* and small beaters *B* which draw the individual lengths of chains *C* up towards the ceiling, from boxes or trucks placed on the floor. The driving of the machine is so arranged that the beaters on both frames or sections of the machine (receiving and delivery) start, stop and run in unison.

Fig. 10 is a detail illustration (elevation) of the receiving section of the machine, as is fastened to the ceiling; and Fig. 11 an elevation of the delivery section or frame of the machine. *D* in Figs. 10 and 11 indicates the drive of delivery section from overhead frame.

(To be continued.)

## COTTON SPINNING.

### The Ring Frame.

(Continued from page 164, Vol. V, No. 6.)

**Lubrication of Spindles.**—The importance of thorough and constant lubrication of spindles is a point often overlooked in mill management. On the surface, the lubrication of ring frame spindles appears one of the simplest matters, and so it is, if oil splashing or overflowing bolsters are no objection. It is extremely easy to pour oil into a hole, but it is another matter to know when to stop, as all who have filled bolsters, fountain pens and like objects will know. When oil is spilt, it not only means a waste of valuable matter and a dirty floor, but as a rule, the spindle bands receive a share and have to be replaced much sooner. This means, therefore, a bigger spindle band bill in addition to a larger oil bill, while such matters as irregular driving, add further to the disadvantages. The usual hand pours as much oil on the floor as gets in the spindle, and much of this oil, which runs down the base, gets on the bands, which is objectionable. It is evident that careful, competent help and skilled attention are needed for this job, although oil is so cheap usually as to appear to warrant little economy in trying to save it at the cost of time and labor. However, from an operating standpoint, the price of oil for a spinning room is not an important

item if compared with the cost of power, as the entire cost of the oil used may be saved in a few weeks at the coal pile, by the proper selection of a proper quality and grade of lubricant.

In order to save waste of oil when filling the oil reservoirs of spindles, an attachment has been lately invented in England. The same consists of a metal trough which carries four cups, each provided with a spout, which passes through the bottom of the trough. A measure made of a size to contain the exact amount of oil required for filling the reservoir of each spindle is also supplied. In use, after the old oil has been cleaned out of the oil reservoirs of the spindle (as is customary to do in England), the four spouts are projected into the reservoir of four spindles and a measureful of oil poured into each cup. In this way each spindle gets its requisite share of oil, and if any happens to be spilt, it runs into the trough and can be recovered therefrom. It is perhaps needless to point out also that after once getting into practice, the oiler can do his work very quickly with this device.

Spindles should be oiled every two weeks. If it were certain that they were all properly oiled, once a month might be sufficient, but for fear that some are neglected it is best to be on the safe side and require a regular bi-monthly oiling. The spinner should know that all spindles are well oiled, and to know it the spinning frames should be examined once in a while unknown to the man that oils them. A dry spindle will make poor yarn, in addition to wearing out its bearings and wasting power.

New spindles need frequent oiling at the start, as for known reasons spindles will throw out and waste oil more in the first week than ever afterwards. It is not a good policy to use spindles warranted to run without oiling for a long time. Thorough oiling means saving in power, which represents dollars and cents in the cost of production, means true running of the spindles, good work, and, in the end, dividends.

The loss of power in overcoming friction in machinery is estimated by competent authorities to average sixty per cent for cotton mills. The spinning spindles, turning at the high speed used in modern mills, consume a large part of the power required to run the mill and to reduce the power required to run these spindles insures saving in the consumption of coal and also reduces the wear on the spindles. Spinning machine builders, aware of the value of thorough lubrication of the bearings of spindles, have provided spinning machine spindles with screws, pumps and similar devices for raising the oil and feeding it to the bearing of the spindle above the oil reservoir.

By maintaining the oil level up to the level of the band on the whirl, the friction is very much reduced, and with the same proportions of spindle and load, a spindle can be run at a considerable saving in power, when the oil level is maintained at or above the band pull, compared with the same spindle when the oil level is at or below the spindle rail. The reasons are apparent when we consider that the pull of the driving band draws the spindle against the bearing in the bolster, that therefore, the greatest friction is at the point of the band pull, and that when an ample static



body of oil surrounds the spindle and bearing at this point, the best conditions for thorough lubrication exist, and that then the spindles run with the least friction and the least exertion of power.

To secure the best possible lubrication,

(1) The oil must surround the bearing;  
 (2) The bearings must be of sufficient length to sustain the strain of the band, without excluding a sufficient oil film;

(3) The oil must be subjected to the least possible motion and all churning be avoided; and

(4) The oil must be protected from the air and all floating dust or fibres.

Friction in machinery depends largely on the quality of the lubricant used, and may be reduced as much as 50% by changing from a poor lubricant to one more suitable. As a general rule, the use of a light gravity spindle oil, about 33° to 38° will be found most satisfactory. If an extremely light oil is used, it may actually leak through the pores of the cast iron bases; whereas, if a thick oil is used, it will consume a great amount of power (from friction) and is also more liable to gum and stick. Mineral oils are better than vegetable or animal oils. All oils used for lubrication should be free from any trace of free acids, due to imperfect purification and also free from water, either mechanically or chemically mixed with them, as either free acid or water will cause rapid rusting of parts in contact therewith.

Spindles, as now perfected, run very light and require very little actual lubrication, consequently the lighter the oil used the better, especially for high speeds. In this connection it is stated, that tests made at the Massachusetts Institute of Technology showed that if it were not for the rusting action, spindles would work all right if the bases were filled with water; and if insurance companies would not forbid its use, kerosene would give about as good results as the best oils. This is probably correct, but at the same time a good oil and systematic oiling are preferable. Most spindle oils in use are very light colored, in some cases almost clear, and run from thirty-one gravity for low speeds up to thirty-six for very fast work. Thirty-two or thirty-three gravity is the quality usually preferred and found best adapted for ordinary running.

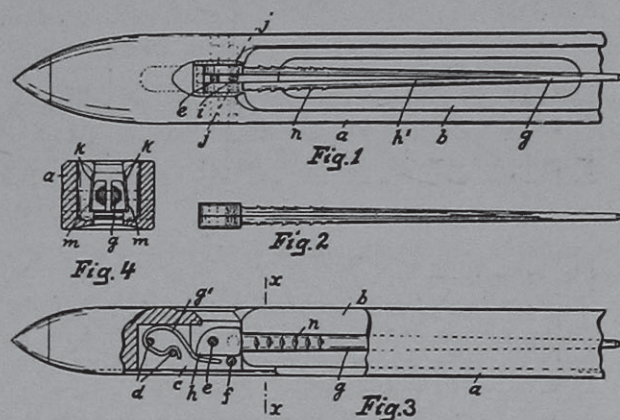
(To be continued.)

#### A New Shuttle.

The object aimed at in the construction of this shuttle is to provide a spindle which will positively hold the cop against any lengthwise movement on the shuttle during the running of the loom. This feature, the inventor of the shuttle, Mr. L. Pavia, accomplishes by forming a split in the spindle extending from its butt end to substantially its free end and providing means whereby, when the spindle is down, *i. e.*, in the axial line of the shuttle, it is automatically expanded as to its split portion, whereby to hold the cop; but when the spindle is elevated, it is contracted as to its split portion, so that a cop may be freely placed thereon or removed therefrom.

To more clearly explain the construction and operation of this shuttle, the accompanying four illustrations are given, and of which Fig. 1 is a plan view of the shuttle with its spindle in position in the cavity of the shuttle. Fig. 2 is a plan view of the spindle removed from the shuttle and contracted. Fig. 3 is a view of the shuttle in side elevation, a part thereof being broken away to show the internal mechanism. Fig. 4 is a transverse sectional view on the line *x — x* in Fig. 3.

Letters of references accompanying illustrations indicate thus: *a* the casing of the shuttle, *b* the bobbin-cavity and *c* the extension-cavity; communicating with the cavity *b*, being traversed by the pins *d*, *e* and *f*. On the pin *e* is pivoted the butt end of the



spindle *g*, which in its closed position stands in abutment with the pin *f*, which thus acts as a stop. *g'* is the bent spring which by means of acting against the nose *h* of the spindle, retains the latter either in its raised or its working position.

The new spindle is split from its butt to nearly its free end, as shown at *h'*, being normally expanded; this condition is maintained by a spiral spring *i*, arranged in opposed sockets *j*, in the butt of the spindle.

Viewing the butt endwise, it is wedge-shaped or tapering (see Fig. 4), the converging sides *k* thereof being held by the spring *i* against the sides of the extension-cavity *c*. Said sides are lined with metallic plates *m* to take the wear, and they are convergently disposed in such manner that when the spindle is down, the side faces of the butt of the spindle bear squarely against them and at substantially all points. The result of this arrangement is that when the spindle is down, it is expanded by the spring *i*; when, however, the spindle is raised, the portion of the butt which immediately adjoins the spindle proper is thus brought into the narrower space between the upper portions of the plates *m*, with the result that the spindle is contracted.

When the spindle is in the raised position, the cop may be then placed thereon or removed therefrom freely, but when in its closed position, or down, then the expanded spindle holds the cop against longitudinal movement, which is augmented by forming serrations *n* on the spindle to engage the bore of the cop.



**NOVELTIES FROM ABROAD.**

DRESSGOODS, MEN'S WEAR, CLOAKINGS.

**Gray-mix Dressgood. (Stripe-effect.)**

*Warp:* 4600 ends; single 36's worsted; gray mix.  
*Weave:* See Fig. 1; repeat 108 by 4; 8, 12 or 16-harness fancy draw.  
*Reed:* 21 @ 4 ends per dent; 84 ends per inch; 54½ inches wide in reed.  
*Filling:* 68 picks per inch, single 36's worsted, gray mix.  
*Finish:* Scour well, clip on shear, press; 52 inches finished width.

*Filling:* 75 picks per inch, single 28's worsted dark navy blue.  
*Finish:* Worsted finish, full slightly, clear face on shear; 52 inches finished width.

**Diagonal Cheviot Dressgood. (Piece Dye.)**

*Warp:* 2200 ends; 2/32's worsted in the grey.  
*Weave:* See Fig. 3; repeat 12 by 12; 12-harness.  
*Reed:* 15 @ 3 ends per dent; 45 ends per inch; 49 inches wide in reed.  
*Filling:* 46 picks per inch, single 16's worsted in the grey.  
*Finish:* Cheviot finish; piece dye—golden brown; clear

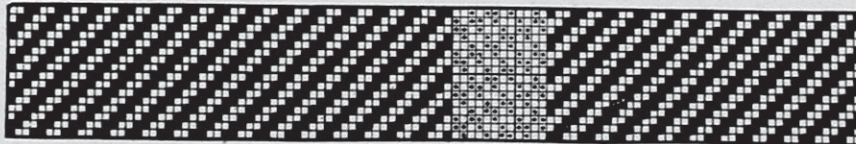


Fig. 1

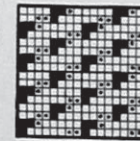


Fig. 4

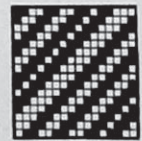


Fig. 5

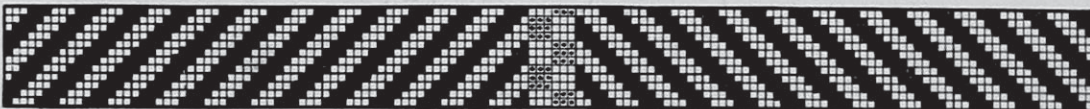


Fig. 2



Fig. 3

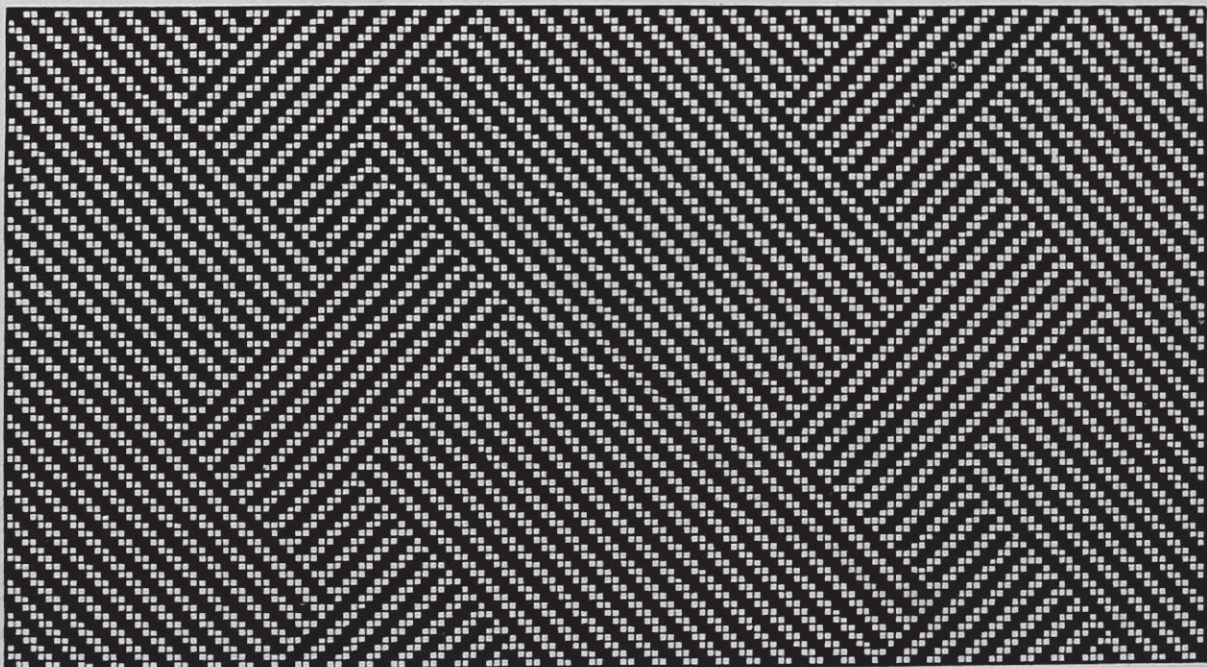


Fig. 6

**Navy Blue Dressgood.**

*Warp:* 4520 ends.  
*Weave:* See Fig. 2; repeat 138 by 6; 6 or 12-harness fancy draw.  
*Reed:* 19½ @ 4 ends per dent; 78 ends per inch; 58 inches wide in reed.  
*Dress:* 1 end 1/28's worsted navy blue.  
           1 " 2/64's " green.  
           3 ends 1/28's " navy blue.  
           1 end 2/64's " green.  
           126 ends 1/28's " navy blue.  
           1 end 1/64's " brown.  
           5 ends 1/28's " navy blue.

138 ends in repeat of pattern.

face on shear; 44 inches finished width.

**Worsted Suiting. (Men's Wear.)**

*Warp:* 7168 ends; all 2/48's worsted.  
*Weave:* See Fig. 4; repeat 16 by 4; 16-harness.  
*Reed:* 17½ @ 6 ends per dent; 105 ends per inch; 68½ inches wide in reed.  
*Dress:* 40 ends, dark blue mix.  
           4 " , light blue mix.  
           6 " , black.  
           12 " , light blue mix.  
           6 " , black.  
           4 " , light blue mix.  
           40 " , dark blue mix.  
           16 " , light blue mix.

128 ends in repeat of pattern.



*Filling:* 58 picks per inch, all 2/48's worsted, dark blue mix.  
*Finish:* Worsted finish; 56 inches finished width.

#### Diagonal Suiting. (Men's Wear.)

*Warp:* 3600 ends; all 2/26's worsted.  
*Weave:* See Fig. 5; repeat 16 by 16; 16-harness straight draw.  
*Reed:* 12½ @ 4 ends per dent; 50 ends per inch; 72 inches wide in reed.  
*Dress:* 8 ends, light olive brown.  
 3 " , dark olive brown.  
 1 end, green.  
 4 ends, dark olive brown.  
 8 " , light olive brown.  
 1 end, green.  
 7 ends, dark olive brown.  
 8 " , light olive brown } × 6.  
 8 " , dark olive brown }  
 8 " , light olive brown.  
 7 " , dark olive brown.  
 1 end, lilac.

144 ends in repeat of pattern.

*Filling:* 52 picks per inch, 2/26's worsted arranged thus:

8 picks dark olive brown.  
 8 " light olive brown.

16 picks in repeat of pattern.

*Finish:* Worsted finish; 56 inches finished width.

#### Cloaking.

*Warp:* 1976 ends; all 2/16's worsted cheviot.  
*Weave:* See Fig. 6; repeat 76 by 40; 24-harness fancy draw.  
*Reed:* 14½ @ 2 ends per dent; 29 ends per inch; 68 inches wide in reed.  
*Dress:* 2 ends, gray mix.  
 3 " , white and light gray tw.  
 2 " , gray mix.  
 3 " , white and light gray tw.  
 2 " , gray mix.  
 64 " , white and light gray tw.

76 ends in repeat of pattern.

*Filling:* 27 picks per inch, 2 ply 5 run cheviot, black.  
*Finish:* Cheviot finish, full and clear face on shear; 54 inches finished width.

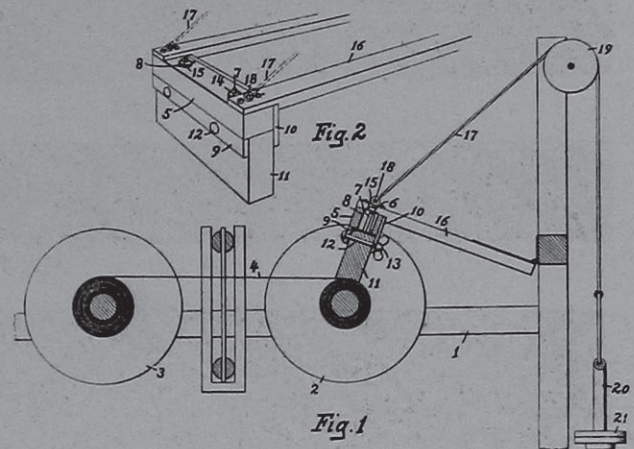
#### Mechanism for Waxing Loom Warps.

The object of the new device is to gradually feed the supply of wax onto the warp as it is being filled, providing also a suitable holding mechanism for the wax.

Of the accompanying illustrations, Fig. 1 is a detail sectional view through a warp filling machine, showing the improved wax applying mechanism in use. Fig. 2 is a detail perspective view of the wax supporting mechanism.

Numerals of reference in these two illustrations correspond, and indicate thus: 1 the frame of the machine, 2 and 3 drums onto which warp 4 is to be wound. To apply wax to the warp as it is being

wound from one spool to the other, a holder 5 is provided, to the lower face of which is secured a plate 6, being held in position on the holder by means of bolts 7, extending upwardly through oblong slots 8 in the holder 5. One edge of the plate 6 has hingedly secured thereto a bar 9, between which, and a plate 10 depending from the opposite side of the holder, is introduced the edge of a cake of wax 11, being held between the bar and plate by introducing clamping bolts 12 through the plate and bar and the interposed portion of the wax, one end of the bolts being provided with thumb nuts 13, whereby the nuts may be quickly applied or removed. By providing slots 8, the bar 9 may be moved away from the plate 10 to admit



bars of wax of various thicknesses. The bolts 7 are of such length as to extend entirely through the holder 5 and have their free ends provided with nuts 14, whereby the plate 6 is securely clamped in its adjusted position, a washer 15 being introduced between the nut 14 and the face of the holder 5. The latter has secured thereto arms 16, hingedly secured at their opposite ends to parts of the frame 1. By regulating the length of said arms, the holder 5 will be so positioned as to bring the wax in engagement with the warp at a point substantially over the axle of the drum 2, thereby thoroughly waxing the warp as it is moved from one drum to the other.

As the block of wax is of considerable weight when first placed in engagement with the warp, and would consequently over-supply the wax to the warp, means are provided for limiting this pressure by attaching cables 17 to eyes 18 adjacent the ends of the holder 5, which cables extend over sheaves 19 rotatably mounted on parts of the frame 1. The free ends of said cables have keepers 20 thereon, adapted to receive and retain weights 21. It will be readily understood that by placing additional weights on the keepers when the block of wax is first placed in the holder and then remove the weights one at a time as the wax is consumed, the pressure of the block of wax on the warp is kept uniform at all times; and the wax is consequently evenly applied to the warp.

The attachment thus described, if so desired, may be applied directly to the loom, and the warp waxed as it is being operated upon by the loom, both in connection with wide and narrow warps.



## DESIGNING AND FABRIC STRUCTURE FOR HARNESS WORK.

## Combining Twills and Baskets in the Formation of New Weaves.

This sub-division of combination weaves, finds extensive use in connection with the manufacture of worsteds, both for men's and ladies' wear. The weaves combined are generally the  $\frac{2}{2}$  4-harness twill and its mate (the 4 by 4) basket weave; or the  $\frac{3}{3}$  6-harness twill in connection with its mate (the 6 by 6) basket weave. To explain the construction of this sub-division of combination weaves, the accompanying two plates of weaves are given, and of which Figs. 1, 2 and 3 refer to the 4-harness combinations; Figs. 4, 5 and 6 referring to the 6-harness combinations.

The rule for constructing these weaves is thus: After interlacing a certain number of warp threads and picks with the regular twill, change onto its mate basket; arrange this exchange of twill to basket and vice versa after a given motive. Either the plain, or figured motives may be used for this exchange of effects.

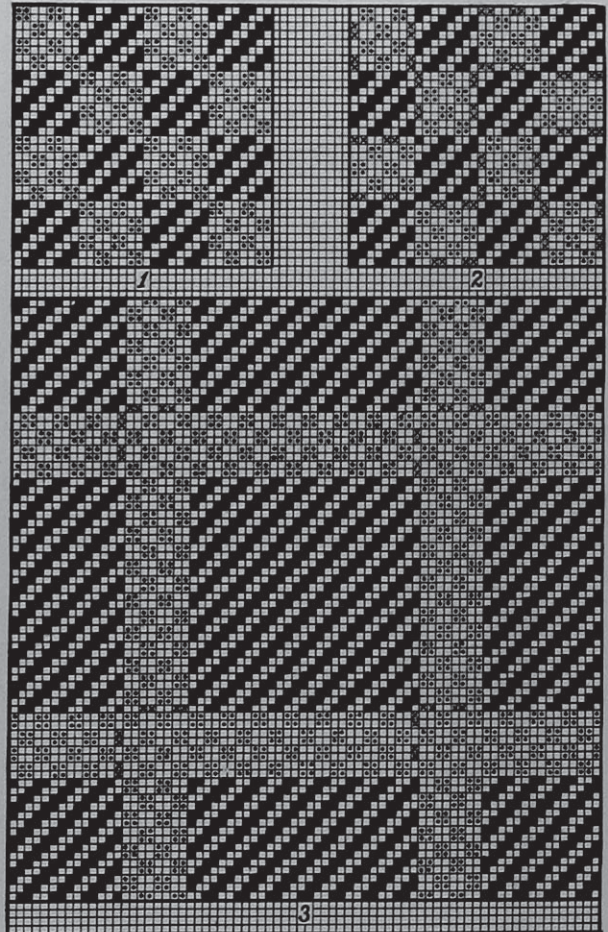
Weave Fig. 1 shows us 8 warp threads and 8 picks, interlaced with the  $\frac{2}{2}$  4-harness twill (see *black* type) to exchange after the "Plain" motive with 8 warp threads and 8 picks, interlaced with its mate basket weave (see *dot* type); the complete weave repeating on 16 warp threads and 16 picks. Examining this combination weave, we will notice that where twill and basket join, in connection with two edges of the square a clear break is produced, the other two edges of the square having the two weaves running into each other, *i. e.*, connect with each other. It is impossible to form a clear break on all four sides of the square.

If however, it is desired to have a clear cut on all four sides of the square, we then have to re-arrange either one or the other weave, a feature readily explained in connection with Weave Fig. 2, where the first and the last warp thread of the basket in four of the squares (see *cross* type, warp threads 1, 8, 9, 16, 17, 24, 25 and 32) have been re-arranged, to permit the formation of this clear cut effect on all four sides of these four squares of basket. In the other four squares of basket weave the same affair has been done with the picks (see *dot* type in connection with picks 1, 8, 9, 16, 17, 24, 25 and 32). The repeat of this weave is 32 warp threads and 32 picks, and which weave, by means of its proper fancy drawing-in-draft, can be woven on 12 or—16-harness, using respectively either draft: 1 2 3 4, 1 2 3 4; 2 5 4 6, 2 5 4 6; 7 8 9 10, 7 8 9 10; 8 11 10 12, 8 11 10 12; or 1 2 3 4, 1 2 3 4; 5 6 7 8, 5 6 7 8; 9 10 11 12, 9 10 11 12; 13 14 15 16, 13 14 15 16.

Weave Fig. 3 shows us a fancy motive, *i. e.*, a check effect, produced by means of the combination of the  $\frac{2}{2}$  4-harness twill in connection with its mate basket. The repeat of the weave is 74 warp threads and 74 picks. *Cross* type shows where we had to re-arrange, *i. e.*, connect the basket with the twill, the basket being shown in *dot* type, whereas for indicating the 4-harness twill, black squares are used.

Weave Fig. 4 shows us the combination of the  $\frac{3}{3}$  6-harness twill with its mate 6-harness basket weave. 19 ends of basket are used to exchange with 19 ends of twill, resulting in a weave repeating on 38 warp threads and 38 picks. To simplify matters, the twill has been shown by means of *black* type, the basket by means of *dot* type. *Cross* type shows the re-arrangement of the basket to produce the cut-off effect in the weave.

Weave Fig. 5 shows us the combination of twill and basket, the latter forming an over-check, over 13 warp threads and 13 picks interlaced with the  $\frac{3}{3}$  6-



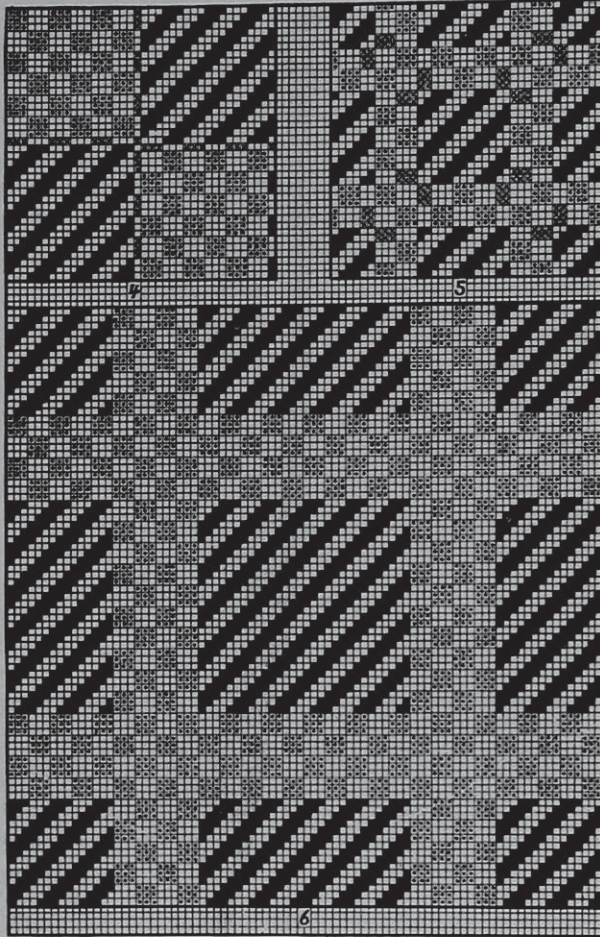
harness twill. Complete basket effects are shown by means of *dot* type, whereas such as had to be modified, in order to produce the clear cut-off on all four sides of the check, are shown by means of *cross* type. The repeat of the complete weave is 38 warp threads and 38 picks, and which by means of its fancy draw, can be woven on six or more harnesses.

Weave Fig. 6 shows us a combination (twill over-checked with basket) of the  $\frac{3}{3}$  6-harness twill and its mate 6 by 6 basket weave. Only two sides of the twill square are cut off, *i. e.*, the left hand side and the top, the weaves in connection with the other two sides of the square running into each other. The number of harnesses required for the execution of this weave is 6, if such should be found necessary, 12 being the number more convenient to use.



**Questions.**

(1) Combine the  $\frac{2}{2}$  4-harness twill with its mate basket, using 12 warp threads and 12 picks for each effect. The two weaves to be cut off on two sides of the square where they meet, running into each other on the other two sides.



(2) Over-check a square of 16 warp threads and 16 picks, interlaced with  $\frac{2}{2}$  4-harness twill, with 4 warp threads and 4 picks of its mate basket weave, having twill and basket cut off on two sides of the twill square, both weaves running into each other at the other two sides of said square. Repeat of the weave 20 warp threads and 20 picks.

(3) Over-check a square of 19 warp threads and 19 picks, interlaced with the  $\frac{3}{3}$  6-harness twill with its mate basket weave. Produce a complete cut off on either side of the twill square, modifying for this purpose, the basket weave where it joins the twill, the complete weave repeating on 50 warp threads and 50 picks.

Expecting a million and a half pounds of wool and between 100,000 and 125,000 lbs. of mohair for next spring, Vice President S. H. Hill of the Central Wool Growers' Association states that before the crop begins to come in, the association will have completed the erection of the largest storage house in the State. A Boston buyer has bought the last of the wool clip for this season at prices ranging from 23 cents to 26 cents.

**SILK FINISHING.****Watering or Moiréing.**

(Continued from page 155, Vol. V, No. 6.)

**MOIRÉ FRANÇAISE, MOIRÉ ANTIQUE.**

The two most widely known moirés are Moiré Française and Moiré Antique. They refer to the best qualities of this class of fabrics, and differ widely in their construction; the Française type calls for about 42 picks to the inch, while the Antique requires about 60 picks per inch, to produce a standard fabric.

With all grades of moiré fabrics, the warp is of minor importance, whereas the greatest of care must be bestowed upon the preparation of the filling. Both warp and filling must be previously prepared or softened; half softened for Moiré Française, and completely softened for Moiré Antique. If weighted silks must be used, it is not a good plan to weight the warp above par, however, the filling may be weighted to from 50 to 80% above par. Japanese tram is the best silk to use for the filling, since it is easily charged and soaked during the dyeing process. Milan tram is considered the next best to Japanese tram. Chinese tram is rarely used, as it is not even enough, while Canton tram, although more even than Chinese, is too downy.

In order to obtain a satisfactory fabric structure, use fine counts of filling, using preferably a higher number of ply in order to get the required weight, more particularly so if dealing with moiré française. For this reason, for example, using a 6-ply 22/26 den. tram will produce a superior fabric than a 34/38 den. 4-ply tram, although the weight of filling used in the two fabric structures is identical.

Black moirés permit a more readily weighting of the yarns, in which instance the warp can be weighted up to 60% above par and the filling up to 120%, if dealing with moiré antique, and up to 160% in connection with moiré française.

In order that the Finisher can obtain a good moiré effect, it is necessary that the loom is in perfect working order, an even dyeing being requisite for a perfect finish. Two or three picks per inch out of the way may be the cause of difference between a dull and a brilliant effect.

In connection with moiré antique, many Superintendents claim that it is a good plan to insert as many picks as possible, *i. e.*, as many picks as the loom will take up without breaking the warp. This will explain that with moirés it is necessary to use a somewhat heavier built loom than the one which is satisfactorily used for the average silk work, and where as a rule, light built looms can be used, for the fact that silk is not only a much finer fibre than any other textile fibre, but that it at the same time is a more elastic one, requiring in turn less power for the beating up of the filling during weaving.

It is more difficult to obtain a finished brilliancy in half-silk Moirés, since the best cotton yarn is inferior, as to smoothness of thread, to any second grade silk yarn.

A good texture to use in connection with half-silk Moiré Française is: Reed No. 84 @ 4 ends per



dent, 20 den. organzine, boiled-off and dyed. For filling, use a 3-ply 2/80's cotton 45 picks per inch; Sea Island stock, soft twisted, prepared and softened. The best grade of cotton must be used, provided a well finished fabric is desired, since it must be remembered that said cotton filling has to take the place of a silk filling. In connection with a 3-ply filling, it will be in the interest of the resulting fabric, to use, if possible to be obtained, a shuttle holding three bobbins, *i. e.*, every end of the 3-ply coming from its own bobbin, a feature which will result in a much smoother face to the fabric. If shuttles, holding only two spools are at our disposal, then one bobbin must deliver a 2-fold, the other a single end.

ing. Moiré Antique however, is generally woven single, and folded in the middle for the process of watering.

#### A MODERN MOIRÉING MACHINE.

An article on Moiréing would be incomplete without calling the reader's attention to the *New Moiré Machine* as built by the well-known Johnson, Van Vlaanderen Machine Company, of Paterson, N. J. As a result of their industry, they offer to the trade, *the most improved moiré machine* that has yet appeared on the silk market, an illustration of which is given in Fig. 11. The machine is so greatly improved over the older types of moiré machines, that a detailed

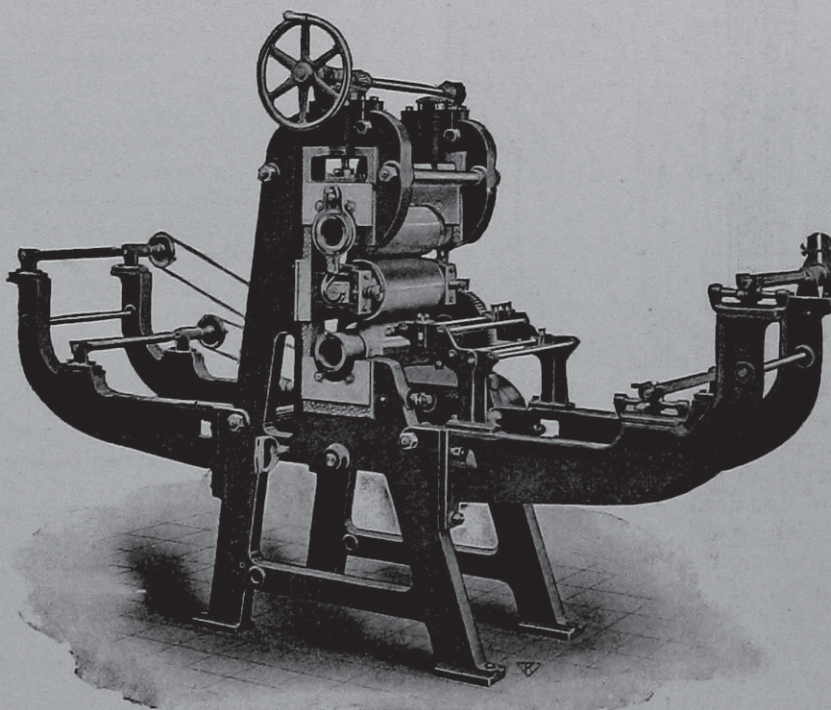


FIG. 11.

With reference to half-silk Moiré Antique, a good filling texture to use is 4/60's cotton, hard twisted, stiffened and polished, using about 68 picks per inch for blacks and about 72 picks per inch for colors. This texture will show that a fairly heavily built loom for these fabrics is necessary. See that the filling contains a sufficient number of turns of twist per inch so as to be able to get the requisite number of picks per inch in the fabric, in order to later on obtain the desired moiré finish.

If dealing with Jacquard designs, with satin effect for either figure or ground, and gros-grain for the other, see that when the cloth is prepared for the watering process, that the figured parts in both halves fit upon each other, otherwise satin portions will be watered, and gros-grain portions left undone. For this reason, designs constructed on the *point* tie up principles are to be used.

Moiré Française is generally woven with a centre selvage, the cutting being done, as a rule, after water-

description of its construction and operation is here-with given.

As readily noticed by examining the illustration, a radical departure in the right direction from the old style machines is made, in that instead of resting on tables, etc., as they did, the frame is very strongly built, is one piece and rises all the way from the floor, so as to allow it to stand any degree of pressure that can possibly be brought to bear on it, without giving in, or in any way affecting the alignment of the rollers, a basic principle for good work,—*viz.*, rigidity in its accuracy of work.

Another point noticed by a glance at the illustration, is the open type of the frame work. This affords the operator a full view of the goods as they go through the process, also ease in changing the rollers.

Whatever might have been the advantages of a closed frame is also embodied in this machine, in that the *overhang* at the top of the frame bending downwards affords additional support for the box of the



top roller, said box resting as securely as though it rested in a closed frame. This tends to keep the box rigid and exact in its right position, without a possibility of shifting or getting out of true.

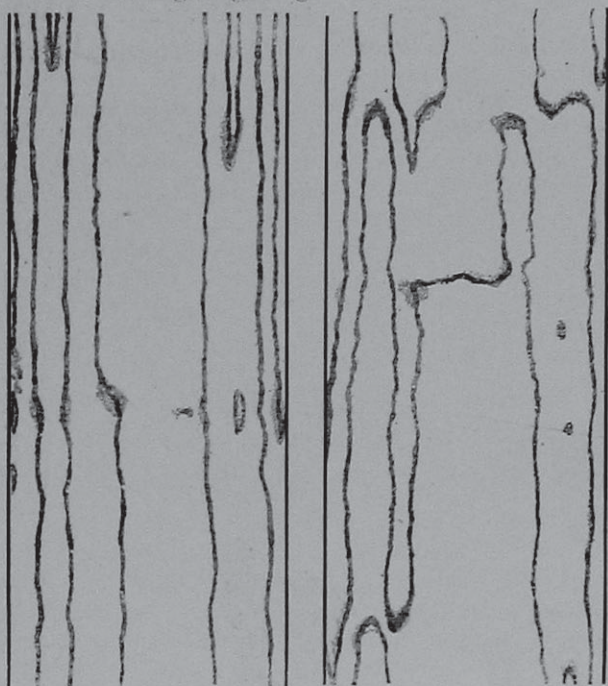


FIG. 12.

FIG. 13.

The machine is provided with take-up and let-off attachments, both of which are detachable, being securely bolted to the machine. The take-up has a friction device for winding the goods on the roller either tight or loose, as may be required, without any lengthening or shortening of the belt. The let-off has an arrangement whereby the square shaft may be moved back and forth so as to place the picks in the goods in alignment with the picks in the rollers. This is a very important matter, since the proper execution of the pattern depends on the proper adjustment of the picks in the goods in conformity with the picks in the rollers. The tension device is conveniently placed in front of the bottom roller. The paper roller is built about a strong steel shaft that revolves in a bronze box to prevent any possible shifting. The paper used is of the best imported stock, and is pressed to any degree of pressure desired. Machines are constructed either with two steel rollers, or one steel and one brass roller, or two brass rollers. The steel rollers will last much longer than the brass rollers, as they are made of a special steel. The high qualities of this steel enable them to retain the accuracy and sharpness of the engraving, which may not always be the case with rollers of other metals or of inferior steel.

A very noteworthy feature in the machine is the pressure arrangement; a great amount of pressure may be secured, and it is constructed in such a way, with machine-cut gears and provided with thrust roller bearings, that all the friction is eliminated and every pound of pressure secured is actually brought to bear upon the rollers, none of it being wasted.

The most important improvement in the construction of the machine however, is the arrangement for setting the rollers. Where formerly this was done by patient, tentative effort, an ingenious *Micrometer Adjusting Device* does away with all the difficulty and waste of time, by reducing the matter to a mechanical operation, remarkable for its accuracy.

By the magnifying of the actual shift, according to the micrometer principle, the rollers may be adjusted one-thousandth part of an inch at a time, with great ease, that slight fraction appearing on the micrometer as approximately  $\frac{1}{4}$ th of an inch. The great advantages of this mechanism will be further appreciated in such instances when a given set of rollers are used, after which another set is used, requiring an entirely different setting, and then using the first rollers again. In replacing the first rollers, the readjustment is done very easily, as the operator will only have to refer to his record of the setting, and set the rollers, by means of the micrometer, exactly in the same place they were before without the possibility of error, or without any loss of time.

The driving arrangement of the machine is also worthy of mention, in that, by means of machine-cut compound gears, all the vibration is taken away and a perfect rotary motion obtained.

Figs. 12 and 13 show two moiré antique effects in connection with ribbons (reduced in size) produced by this machine.

**MOIRÉ VELOURS.** These fabrics have for their warp a 20/22 den. organzine, boiled-off and dyed, using

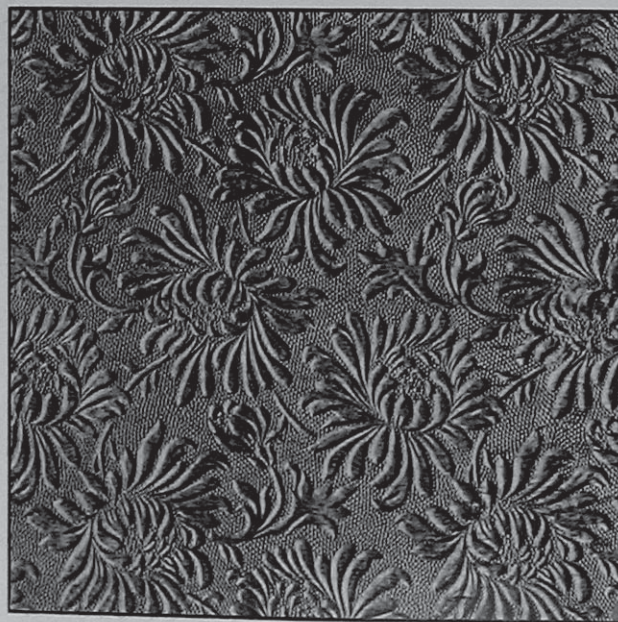


FIG. 14.

a No. 88 reed @ 4 ends per dent with it. For the filling, use either a fine worsted or a cotton filling. In connection with worsteds, use about 40 picks per inch, say 38 in blacks and 42 in colors. To prevent the filling from curling, the hanks are dyed at a tension, being permitted to shrink from 12 to 15%, thus ensuring perfect weaving. If using a cotton filling, use a



single 10's mule spun yarn, with 45 picks per inch for colors, and 42 picks for blacks. Moiré velours may also be made with stiffened and polished cotton.

**Gaufréing.**

By means of gaufréing, embossed designs are imparted upon the surface of otherwise plain woven fabric structures, by means of passing the latter be-

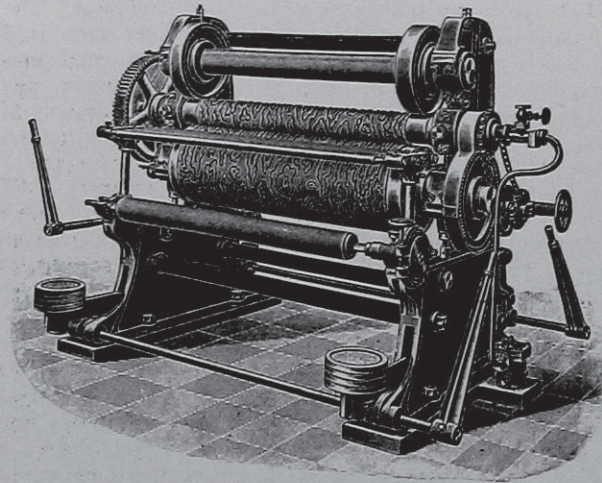


FIG. 15.

tween the nip of suitably engraved rollers. No part-way flattening of the filling threads, as is the case in the process of moiréing, comes in this instance under consideration.

Fig. 14 shows us a specimen of such a gaufré fabric structure, the same referring to what is known as Undertaker's Trimmings.

Texture of fabric 60 warp threads and 100 picks per inch in loom.

Warp 14/16 den. China silk.

Filling 110's spun silk.

These fabrics are considerably light in weight, about 30 yards of yard wide goods to one pound. In order to produce a most perfect effect in the finished fabric a most even silk must be used.

As will be readily understood, neither the effect of gaufréing nor that of watering is permanent, gaufréing being used for fabric structures which have to serve only for a temporary purpose, for example, Coffin trimmings, Ball dresses, etc.

For the process itself, we use what are known as Gaufréing calenders, *i. e.*, 2-roller calenders, in which a suitably etched or engraved roller works in conjunction with its mate, *i. e.*, matrix roller. The latter may be a paper roller, in which the pattern has been embossed in low relief by running the engraved roller as carrying the raised pattern, for some time in close contact with said paper roller, and when the pattern from the engraved roller will then be impressed into the paper roller. Such an arrangement will suit for the handling of light textured fabrics, whereas for heavier fabric structures, the rollers must carry the pattern in prominent reliefs.

In the same way, when prominently raised gaufré patterns are desired in the fabric, both rollers must

be suitably engraved, one of the rollers carrying the pattern prominently raised on its surface and a matrix roller carrying the corresponding pattern engraved in low relief on its surface.

Rollers, as will be readily understood, are rather expensive, more so since every new pattern requires a new set of rollers, for which reason the patterns are engraved on shell rollers, of a suitable size to suit the repeat of the pattern, and which shells are then placed upon the plain mandrel rollers as carried by the calender, *i. e.*, gaufréing machine. Fig. 15 shows us such a gaufréing machine.

Gaufré fabrics, as will be readily understood, are easily affected by dampness, and when the rich embossed effect which the fabric presents, will disappear; the same being the case provided you would iron such fabrics.

(To be continued.)

**New Designs for Hammocks, Prints and Woven Edgings.**

Of the accompanying plate of illustrations, Fig. 1 is a plan view of a hammock, showing a new design lately patented by Daniel W. Shoyer, of New York.

Fig. 2 is an original design for prints, lately patented by Messrs. Elms & Company, of New York.

Fig. 3 is a face view of a piece of woven edging



Fig. 1

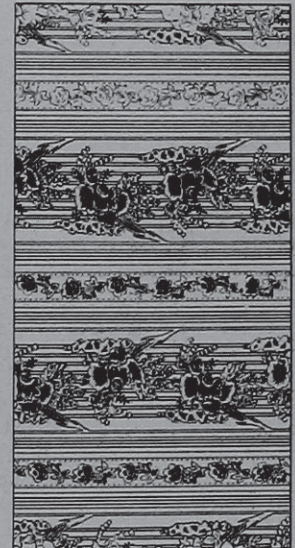


Fig. 2

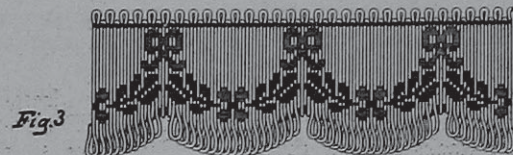


Fig. 3

showing an original design, lately patented by Franklin W. Oehrle, of Philadelphia.

The Farwell Mills is erecting a new brick weave shed, 54 by 150 feet, with a monitor roof, for accommodating 48 new Northrop looms.



# Posselt's Textile Journal

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## ADVERTISING RATES ON APPLICATION.

COPY FOR ADVERTISEMENTS must reach this office not later than the 25th of month preceding date of issue, to insure proper attention.

EUROPEAN AGENTS: Sampson Low Marston & Co., Ltd., 100 Southwark Street, London, S. E., England.

A GREAT TEXTILE EXHIBITION will be held in 1910 in Manchester, England. The Directors of the Enterprise are Mr. H. Greville Montgomery, M.P., and Hugh C. Montgomery, Esq.; they have opened offices at 43 Essex Street, Strand, London, W. C.

In connection with Dressgood sales there has been a rather fair demand in a certain range of broadcloths that was opened a short time ago, and while the demand is far from being as active as a year ago, nevertheless the total booking during the last few days in December ran into several thousand pieces.

There are rather sure prospects of a steady sale for the best grades of worsted dressgoods, once the trade settles down to business.

Secondary distributors are already paying attention to their long future needs in connection with medium priced ranges placed on sale by our larger corporations, but no transactions worth mentioning have taken place.

Jobbers have done a very good business in dressgoods of certain descriptions and it is generally believed that stocks are not abundant. This view is, in a measure, confirmed by the number of requests that are being received for additional supplies of cheap all wools, fancy mohair, and other cotton warp materials.

There is a strong tendency prevailing now that when the new lines are opened this month, that goods have been offered at a general advance in price, more particular with the better class of cotton warp fabrics, on account of the high price of the raw cotton.

## THE NEW FIFTY-SIX HOUR LAW

went into effect in Massachusetts January 1st, reducing from fifty-eight to fifty-six the maximum number of hours in a week in which women and children may be employed in mills, except where the employment is by seasons, and when the number of such hours in any week may exceed fifty-six, but not fifty-eight, if the total number of such hours in any year shall not exceed an average of fifty-six hours a week for the whole year, excluding Sundays and holidays. The employment of such person for a longer time is a violation of the law unless it appears that such employment was to make up time lost on a previous day of the same week in consequence of the stopping of machinery upon which he or she was employed or dependent for employment; but no stopping of machinery for less than thirty consecutive minutes shall justify such overtime employment, nor shall such overtime employment be authorized until a written report of the day and hour of its occurrence and its duration is sent to the chief of the district police or to an inspector of factories and public buildings.

A parent or guardian who permits a minor under his control to be employed in violation of this law, or any person who, either for himself or as superintendent, overseer or agent for another, employs any person in violation of this law, or fails to post a printed notice conspicuously in every work room, or makes a false report of the stopping of machinery, shall be punished by a fine of not less than fifty nor more than one hundred dollars. A certificate of the age of a minor made and sworn to by him and by his parent or guardian at the time of his employment shall be prima facie evidence of his age in any prosecution under the law.

A unique point in the construction of Virginia's ten-hour labor law will be tested by the Supreme Court as the result of the conviction here of the Danville Knitting Mills, for working female employees 10½ hours per day.

The mills operate 10½ hours a day for five days but only 7½ hours on Saturday. Formerly they operated 10 hours for each of the six working days, but upon the petition of the employees, a half hour was added to each of the first five days in the week, in order that they might have a half holiday on Saturday.

The following points may have a direct bearing upon the cotton season of 1910:

One is that the boll weevil can be mastered to a considerable extent.

Another feature is the abundance of labor available for farming purposes.

A third feature is the blizzard we had during the last week in December, and which covered the western half of the cotton belt. A severe freeze will do much more good than harm by destroying insect pests.

The increase in yield of Indian cotton to 4,400,000 bales may also have an influence. India's crop this year is 18 per cent larger than a year ago on a 10 per cent larger acreage.

Advancing prices in cotton cannot help but stimulate cotton growing, not only in countries where it is already grown, but also in districts which have not hitherto made the experiment; a few years of high-priced cotton cannot help but influence relation of demand and supply.



**Cotton Yarn Market.**

There has been lately a slightly better demand for cotton yarns. Trading has been in small lots and is still being done at very irregular prices. Some sales of 2/20's warps are reported at 25c., and it is known that some sales have also been made at 26c. On 2/26's skeins mills are asking not under 27c. and sales are being made below and above that figure. On 2/36's and 2/40's skeins there is a very considerable firming up in spinners' asking prices, with sales reported on 40s at 36c. and 37c.

SOUTHERN 2-PLY SKEINS.			
4s to 8s	...22c to 22½c	36s	.....35c
10s to 12s	...22½c to 23c	40s	.....36c to 37c
14s	.....22½c to 23c	50s	.....42c
16s	.....23½c to 24c	60s	.....48c
20s	.....25c	3-ply 8s, up-	
24s	.....26c	holstery	...22½c
26s	.....26½c to 27c	4-ply 9s, up-	
30s	.....28½c to 29c	holstery	...22½c
SOUTHERN SINGLE SKEINS.			
4s to 8s	...21½c to 22c	20s	.....24c
10s to 12s	...22c	22s	.....24½c to 25c
14s	.....22½c to 23c	26s	.....27c
16s	.....23c	30s	.....28c
SOUTHERN SINGLE CHAIN WARPS.			
12s	.....23c	24s	.....25½c to 26c
14s	.....23½c	26s	.....27c
16s	.....24c	30s	.....28c
20s	.....24c	40s	.....36c
22s	.....25c		
SOUTHERN 2-PLY CHAIN WARPS, ETC.			
8s to 10s		2-ply 24s	...27c
2-ply	...22½c	2-ply 26s	...28c
12s to 14s		2-ply 30s	...29c to 30c
2-ply	...23c to 23½c	2-ply 40s	...37c
2-ply 16s	...24½c to 25c	2-ply 50s	...44c
2-ply 20s	...25c		
SOUTHERN FRAME CONES.			
10s	.....23c	20s	.....25c
11s	.....23½c	22s	.....25½c
12s	.....23½c	24s	.....26c
14s	.....24c	26s	.....26½c
16s	.....24½c	28s	.....27c
18s	.....24¾c	30s	.....28c
EASTERN CARDED COPS.			
10s	.....23c	20s	.....27c
11s	.....23½c	22s	.....27½c
12s	.....24c	24s	.....28c
14s	.....25c	26s	.....28½c
16s	.....25½c	28s	.....29c
18s	.....26c	30s	.....30c
EASTERN CARDED PEELER SKEINS AND WARPS.			
20s, 2-ply	...28c	36s, 2-ply	...42c
22s, 2-ply	...29c	40s, 2-ply	...43c
24s, 2-ply	...30c	45s, 2-ply	...44c
26s, 2-ply	...31c	50s, 2-ply	...46c
30s, 2-ply	...37c	60s, 2-ply	...52c

This year's total crop of American cotton is estimated by the Government at 10,088,000 bales, against about 13,850,000 last year. The present price of about 16 cents per pound compares with 8¾ cents last year. This has been exceeded only once since 1874—by the boom in 1903-04, when the price was forced for a short time to 17½ cents.

These are the extraordinary features which are now being discussed throughout the cotton trade of the world. A serious analysis of them presents a situation that is really startling. Within the short period of one year conditions have gone from one extreme to the other. The worst of it is this disturbance is likely to continue during the next eight months which must intervene until the new crop will be ready for market to relieve the situation.

Mills are hesitating about buying cotton at the market price; merchants are hesitating about buying goods. We see the mills running short-handed, production limited, Liverpool taking what cotton we have, and the consumption of cotton goods increasing steadily, owing to broadening purchasing power and improving general conditions. Are we not shaping up for a rush for goods, with prices advancing to and beyond the 1907 level, and going higher to catch up with the settled value of raw cotton? When the rush comes, where will prices go?

Mills will have to buy cotton at any price to supply the demand for goods. To come out even—not to mention to make a profit—they will be obliged to advance values higher than they have been in a generation. Such a condition will be called a boom, but a more expressive term would be a boomerang, for a dangerous reaction will be bound to follow. It seems that the sooner merchants realize the true situation and supply their wants at the best prices obtainable, the less danger there will be later on of famine conditions besetting demoralization.

Cotton dress goods with either serge or poplin grounds and colored stripes woven with corded effects are having a large sale to retailers, and they are running side by side on the counters with zephyrs in white and colors. As a rule, mills making fine and fancy cottons are well supplied with business for some months to come. This does not mean that they cannot take more orders, but on fancy fabrics they have gone about as far as they care to with orders to be finished before the early fall. The market recently has been very quiet with primary sellers, but largely so because prices have been exceedingly strong. The mills prefer to do without business for the late spring if it cannot be secured on a basis of profit.

**SUCCESS IN SILK AND COTTON MIXTURE FABRICS.**

To properly appreciate the actual progress made in construction, finish and style in half-silk materials we must contrast the present results with those of about six years ago. At that time the lower grade of Italian silk mills and lappet dots and dobbie weaves with schappe silk filling were the most prominent factors. The dyeing and printing were controlled by cotton goods finishers in the East, who were naturally more accustomed to dyeing cotton goods and to bringing up the quality of the cotton than to finishing silk.

When fine yarn mills commenced to evince some interest in silk warp constructions, such as eoliennes, etc., Eastern finishers struck a snag and converters sent sample lots to silk finishers in Philadelphia and New Jersey, who dyed the goods in a silk way and produced entirely different results. This was the first step in the right direction and the actual beginning of the silk mixture business in better goods.

To-day half-silk goods are very close imitations of the all-silk fabrics, and have not only replaced the lower grade silks, but have created a place for themselves as a distinct line of merchandise. The range of styles and materials covered by silk and cotton goods to-day is so extensive that it is entirely too large to take up each article separately, but converters and manufacturers are alive to the possibilities, and no style or weave can become fashionable in any high priced material that will not be imitated and perhaps improved upon in silk mixtures. The future of the article is assured and it requires only *originality* to keep up the demand.—E. H. Behrens.