

**CHRONOLOGICAL TEXTILE EVENTS.***(Continued from page 133)*

1810. Whittemore's card machine had completely excluded foreign cards in the United States. The capital employed in that branch was estimated at \$200,000, and the annual consumption amounted to 20,000 dozen pairs of hand cards and 20,000 square feet of cards for machines, worth together about \$200,000. The demand in 1809 was double that of 1808, and was still increasing. The wire was imported.

According to the census of 1810, the value of goods, manufactured in the United States, of cotton, wool, flax, hemp and silk, woven and knitted, was \$39,497,057, and that of yarn \$2,052,120.

The first lot of cotton goods printed in the United States, by engraved rollers and machinery driven by water power, reached Philadelphia, October 6th, from the Bleach and Print works of Thorp, Sidall & Co., located near Philadelphia. The cylinder machine was brought from England during the last year by Mr. Sidall, and was the first to supersede the tedious process of block printing, previously in use. One man and two boys were able to print ten thousand yards of cloth or fifty thousand children's handkerchiefs in a single day.

The Powhatan Cotton Works, on Gwinn's Falls, six miles from Baltimore, were erected at this time, and incorporated in 1815.

Robert Lloyd, Philadelphia, patented a loom for weaving girth cloth.

Amos Miner, Marcellus, N. Y., patented an improved spinning wheel head. It was built by Miner, Demming, Pierce & Co., who made weekly from six to nine thousand of these patent accelerating wheel heads. The gain of velocity, in the spindle, by the accelerating wheel, was said to be as 19 to 9, or more than double, and the saving of labor in spinning wool to be one third, in worsted one half, and for merino wool it was indispensable. It was also much employed for cotton and tow.

Leonard Beatty, of Wilkesbarre, Pa., obtained a patent for printing calico.

Maine's (then a province of Massachusetts) first cotton mill built at Brunswick.

There were three woolen mills with sundry home industry establishments in Philadelphia, and one in Germantown. Cassinet (wool and cotton) was used in the Philadelphia mills and merino wool was converted into broadcloth at the Germantown mill.

Alfred Jenks (having previously learned under Samuel Slater) established in Holmesburg (on the outskirts of Philadelphia) the first regular factory for the building of cotton machinery.

The throstle frame introduced into America.

Horace and Rodney Hanks erected the first silk mill in America, at Gurleyville, Conn. It was 10 by 20 feet, and operated by power.

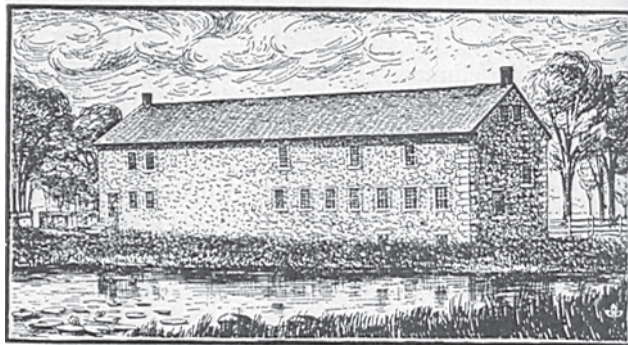
The art of dyeing Turkey-red discovered and practiced by M. Krechlin, of Mülhausen, Germany.

William Cotton invented in England a let-off motion for looms by which the warp was held between two rollers, pressed together, one of which was actuated by a worm and wheel.

Plaited-net machine invented at Croydon, England, by John Moore.

Woolen and cotton stockings first made at Leicester, England.

1811. The first cotton mill of Fall River, Mass., then called Troy, was built in that section known as



FIRST COTTON MILL IN FALL RIVER.

Globe Village, by Col. Joseph Durfee, a Revolutionary soldier.

There were in operation in Philadelphia, 273 looms and 3,648 spinning wheels in home industry establishments and 186 looms with fly shuttles, with 4,423 spindles in factories; also 165 stocking looms and 8 print works.

On motion of Mr. Clinton, the Senate of New York passed a resolution, in which the House concurred, recommending all members of the Legislature to appear at the next session in cloth of American manufacture.

Merino ewes sold at public auction in Philadelphia at \$250, bucks for \$350 each.

In New York State, where greater zeal was shown for their propagation, sums of \$500, \$1,000 and even \$1,500 were repeatedly paid during the same year.

The quantity of cotton produced throughout the world was estimated at 555,000,000 of pounds, of which 80,000,000 were the growth of the United States, valued at \$12,500,000. Of the domestic product, 62,000,000 of pounds, valued at \$9,000,000, were exported. The average price of all kinds of cottons in the United States was 15½ cents per pound. The best was raised in the valley of the Red River in Louisiana.

The number of cotton factories in Rhode Island on 31st of October, was 37, the number of spindles 32,786.

Among the textile plants chartered in the state of New York this year was: The Manlius Cotton and Woolen Manufactory; The Whitesboro Cloth Manufactory (for weaving, dyeing and finishing cloth); The Farmer's Woolen and Cotton Factory; The Rutland Woolen Manufactory; The Newport Cotton Manufactory; The Oriskany Woolen Factory, Whitesboro, Oneida Co.; The Clinton Woolen Factory; The Bristol Glass, Cotton, and Clay Factory; The Jamesville Iron and Woolen Factory; the Cornwall Cotton Manufactory.

Thomas Massey, Philadelphia, patented a water loom.

Eleazer Hovey, Canaan, N. Y., patented a shearing machine, which sheared perfectly a yard of cloth per minute. It was manufactured at New Lebanon, N. Y.

Jacob Pierson, Knoxville, Tenn., patented a wooden screw press for cotton.

Patent for hobbins-net warp traverse frame taken out in England by John Brown.

Riots of frame knitters in Nottingham, Eng-

land; they breaking about one thousand frames.

Morrison and Daycock put differential wheels and dividing bar on warp frame, and thus produced silk blonde in England.

By 1811, cotton manufacturing had increased to such an extent in Pawtucket, R. I., and vicinity, that it was difficult to find an outlet for all the yarns made, as every family for miles around was employed in the picking and weaving. It became necessary, therefore, to enter a new territory, and especially a farming country, as among the families of the farmers were to be found those skilled in the hand loom process. Samuel Slater's attention was directed to the place then known as Oxford South Gore, on account of the superior water power obtainable from Lake Chaubunagungamaug. The neighboring land was rocky and covered with forest. Along the border of the lake was a road to Providence, already an important manufacturing centre. In Mr. Slater's employ were Lyman and Bela Tiffany. The young men in journeying from Providence to their homes in Wales, Mass., had frequently passed by the lake, and had spoken to Mr. Slater about the location. It afforded superior advantages in water power and facilities for weaving. At Mr. Slater's direction, Bela Tiffany made a careful survey of the neighborhood, and reported favorably. Mr. Slater soon visited the place and purchased a large tract of land and the entire control of the water power. Bela Tiffany was taken into the firm, the name being Slater & Tiffany.

(To be continued)

**DIRECTORY OF TRADE MARKS RELATING TO THE TEXTILE INDUSTRY.**

Registered May, 1912

1. Cotton Piece Goods.—A. G. Hyde & Sons, New York.
2. Carpets and Draperies.—W. T. Smith & Son, Inc., Camden, N. J., and Philadelphia.
3. Silk, Woolen, Worsted and Cotton Piece Goods; Made of these Fibres or their Admixtures.—G. A. Stafford & Co., New York.
4. Gloves and Mittens.—The Boss Mfg. Co., Kewanee, Ill.
5. Veilings, Silk Piece Goods and Ribbons, etc.—Bonwit, Teller & Co., New York.
6. Work-Shirts.—P. W. Rouss, New York.
7. Cotton, Wool, Hair Piece Goods.—William Oddy, Bradford, England.
8. Cotton, Worsted and Woolen Dress Goods and Shirtings.—David & John Anderson Ltd., Glasgow, Scotland.
9. Hosiery.—The Wovenright Knitting Company, Cleveland, O.
10. Cotton and Silk Piece Goods.—C. A. Colman Co., New York.
11. Cotton Plaids.—Neuss, Hesslein & Co., New York.
12. Carpets and Rugs.—Hardwick & Magee Co., Philadelphia.
13. Knit Goods.—Wertheimer Bros., New York.
14. Hosiery.—Wm. R. Moore Dry Goods Co., Memphis, Tenn.
15. Hosiery.—Elizabeth City Hosiery Co., Elizabeth City, N. C.
16. Woolen and Cotton Shirtings.—William Hollins & Co., Ltd., London, England.

17. Silk and Cotton Ribbons.—The Nonotuck Silk Co., Northampton, Mass.
18. Hose and Gloves.—W. Tyler Sons & Co., Leicester, England.
19. Woolen Fabrics.—Yantic Woolen Co., Yantic, Conn.



20. Sheets and Pillow Cases.—Naumkeag Steam Cotton Co., Salem, Mass.
21. Cops, Bobbins, Cones and Packages of Thread and Yarn.—Joseph Robert Leeson, Boston, Mass.

**Improving the Compactness and Fineness of Fabrics.**

By F. Polleyn.

The method adopted for this purpose is based on the treatment of cottons with alkaline lye, followed by souring with dilute sulphuric acid, these operations producing favorable modifications in the fabric. Under the microscope the fibres of cotton look like smooth, twisted ribbons, which, when brought into contact with caustic alkalis, twist, and then contract, finally swelling up and becoming almost circular in section. When the lye is afterwards rinsed out and a little sulphuric acid is added, the modification sustained by the fibres is still retained. The process may be explained somewhat as follows:—

The lye causes the flat, tube-like cotton fibres to swell up, and also contract to an almost inappreciable extent, the liquid then penetrating the interior and being neutralized by the acidified water.

In carrying this treatment out in practice, the dried or well-squeezed fabric is passed once or twice through a starching machine or a vat fitted with bowls, and