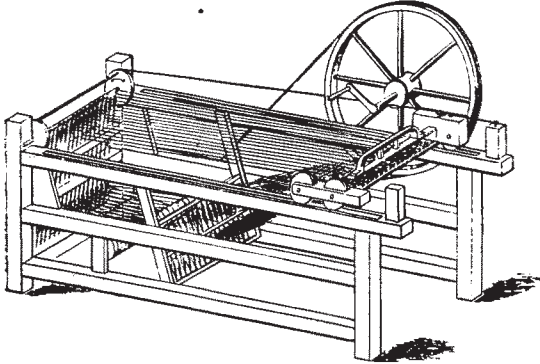


CHRONOLOGICAL EVENTS IN THE TEXTILE INDUSTRY.

(Continued from page 76, March issue.)

1742. M. Dubreuil, a French planter in Louisiana, invented a machine (Gin) for separating the seed from the cotton fibre.

1745. John Kay and Joseph Stell obtained a patent in England for applying tappets to the ribbon loom.



HARGREAVES' SPINNING JENNY.

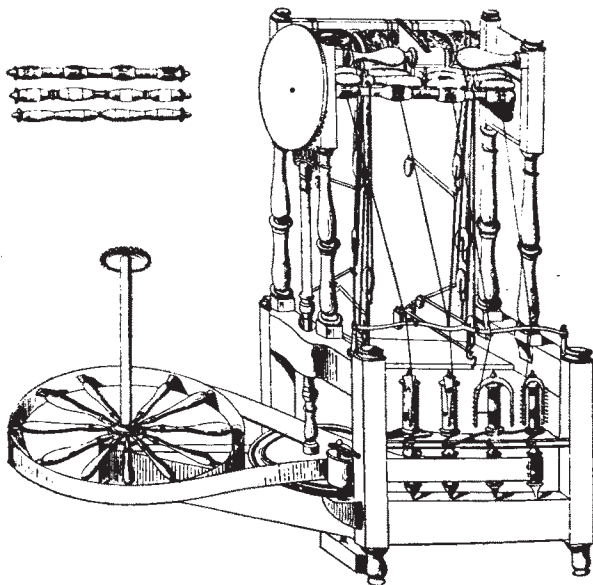
1746. M. Vancanson, a noted Frenchman, applied the griffe to Falcon's (1728) invention, and placed the apparatus on the top of the loom in the position now occupied by the Jacquard machine.

1748. Lewis Paul of Birmingham, England, procured a patent for two carding machines, one a flat, and the other a cylindrical arrangement.

1750. Brussels carpet weaving introduced into England by Belgian weavers.

1755. The first Axminster carpet woven in England.

1758. Jedediah Strutt, of Derby, Eng., invented the Derby-rib machine, being the first important modification of the stocking frame.



ARKWRIGHT'S WATER FRAME.

1760. The Drop Box to Looms, invented by Robert Kay of Bury, England, son of John Kay, the inventor (1733) of the fly-shuttle.

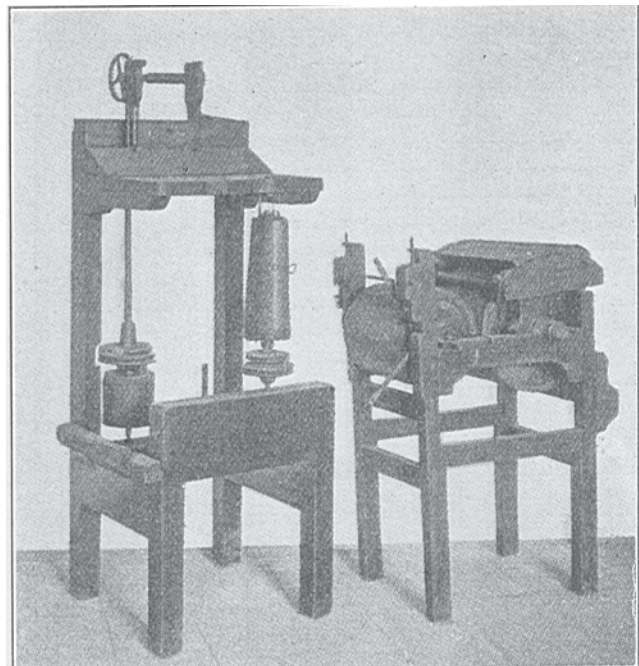
Joseph Stell obtained an English patent for the application of sundry tappets for weaving figures

in the ribbon loom, and for applying two boys or jacks instead of the old drawing engine.

Richard Arkwright, afterwards Great Britain's prominent inventor of cotton spinning machinery, established himself as a barber at Bolton, England. It is related, that his wife, in those days, burned the models he was making, which act he looked upon as a sin and a crime. He never forgave her, and when in his greatest prosperity he only allowed her a pittance of four shillings per week, being all she could, at that time, legally claim from him.

1762. James Hargreaves devised an improved carder.

George Glasgow patented the process of stitching 2, 3 or 4-ply single cloth together by a stitching shaft, in imitation of stitched women's stays.



ROVING FRAME AND CARDING ENGINE (1771) FROM ARKWRIGHT'S FIRST MILL, CROMFORD, ENG.

1764. James Hargreaves, a weaver of Sland Hill, near Blackburn, England, invented the spinning jenny.

John Morris, of Nottingham, England, patented a mechanical tickler for moving the stitches on the stocking frame, to make fancy hose.

1767. Arkwright invented his roller spinning frame.

1768. Arkwright took out a patent for the water frame.

Crane, of Edmonton, England, applied the warp frame to the stocking machine.

Hammond of Nottingham, England, made imitation Valenciennes lace on the stocking frame.

1769. The first figured lace web made by Robert Frost.

J. Crane, and J. P. Porter applied the draw-boy and slides to the stocking frame for brocading and flowering gloves, aprons, etc.

1770. James Hargreaves obtained a patent for his spinning jenny.

Mr. Crawford, a London merchant, patented the silk doubling frame, containing the first self-acting stop motion, to act when one of the minor threads breaks.

First shipment of cotton from America to England.

Else and Harvey, English mechanics, patented, in their country, the pin stocking frame.

1771. Arkwright built his first mill at Cromford, Eng., and where he then installed improved carding and spinning machinery, designed by himself.

Richard Marsh and William Horton patented their invention for a machine for making knitted hosiery.

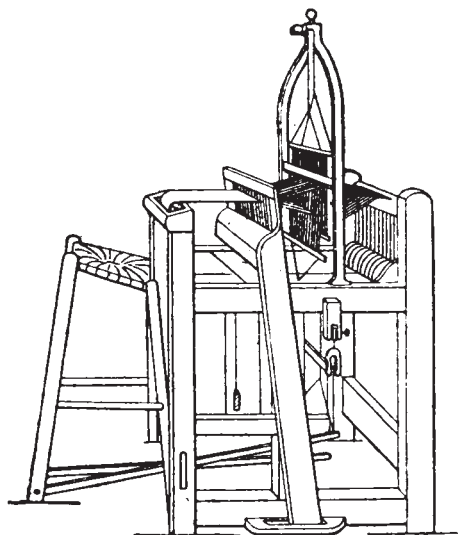
The stocking frame introduced into Scotland.

A hand loom was exhibited and worked before a committee of the Society of Arts, London, Eng., which strongly resembles in form the common power loom of the present day. This loom was invented by a Mr. Almond, and the Society awarded him fifty guineas for the new modification. It was, perhaps, the first loom with an inverted batten: it is curious to note that the fly shuttle was not included in it, although it had been invented and used previously. Almond's loom was doubtless unknown to the pioneers of power loom weaving, or they might have taken advantage of its compactness of form, as more adapted for their purpose than the common loom they used.

1772. Thomas Highs invented a double jenny, which was publicly exhibited in the Manchester (Eng.) Exchange, and for which he received a present of 200 guineas from the manufacturers of said city.

1773. Both Arkwright and Hargreaves claimed the invention of the *stripper* to the carding engine.

The first attempt made to work a power loom at Glasgow, Scotland; a Newfoundland dog, working in a race wheel, providing the necessary power to operate it.



ALMOND'S HAND LOOM.

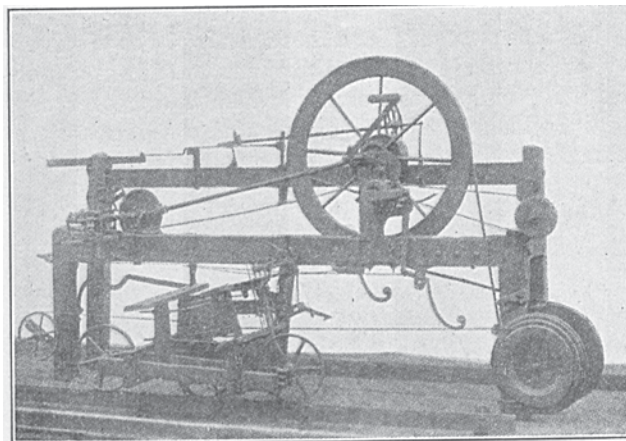
1774. Robert and Thomas Barber obtained a patent in England, for a power loom in which the cone pick is used.

Thomas Wood invented the so-called endless carding surface, *i. e.*, filleting, nailing the strips of filleting on the cylinder spirally, instead of using

sheets of card clothing nailed longitudinally.

Scheele discovered chlorine.

1775. The first spinning jenny made by Christopher Tully, exhibited in Philadelphia.



CROMPTON'S MULE.

The company for promoting American manufactures formed in Philadelphia.

The warp lace machine invented by Crane, of Edmonton, Eng.

1776. A fulling mill erected by Deacon Barber, at Pittsfield, Mass.

The first cotton mill erected in Philadelphia.

William Brockley, of Nottingham, Eng., invented a frame for giving hosiery a twilled face.

1777. The two-plain net machine invented in England, by Holmes, a stocking maker; claimed to have been the first real lace-making machine.

1779. The first machine for making card-teeth (at the rate of 1500 per minute) invented by Oliver Evans, of Philadelphia.

Samuel Crompton, of Bolton, Eng., invented the *mule jenny*, a combination of Wyatt's and Hargreaves' spinning machines, hence its name.

1780. Corduroys made at Worcester, Mass.

1782. The steam engine patented by James Watt.

1783. First shipment of cotton from the East Indies, to England.

(To be continued)

A late English patent has for its object the removing of the nap or projecting fibres from the surface of cotton or other vegetable yarns or fabrics. For this purpose the latter are scoured and then treated with a solution of "*konnnyaku*" in water or in a mixture of water and alcohol, with the addition of glycerine or any other analogous solution.

The material is then carefully stroked to remove all roughness and nap, mercerised under tension for 20 to 30 minutes with a strong alkaline solution (either hot or cold), rinsed, soured, and again rinsed.

Konnnyaku is obtained from the root of *Conophallus konnngak*. It contains no starch or glue, and the carbohydrate of which it is principally composed becomes insoluble during the mercerising.

The nap on yarn or fabric thus treated, it is claimed, does not rise again during the bleaching or dyeing processes.