

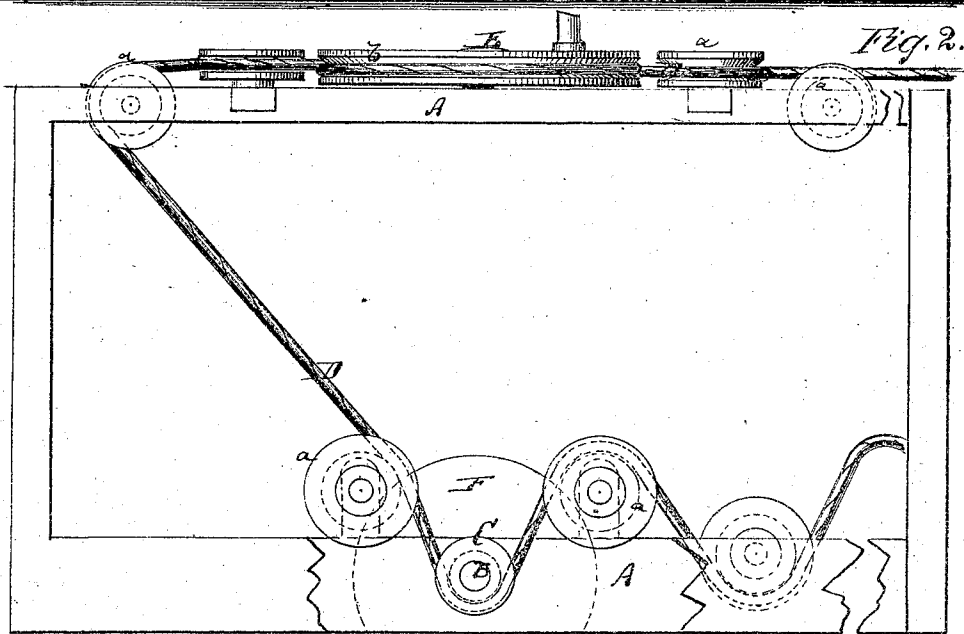
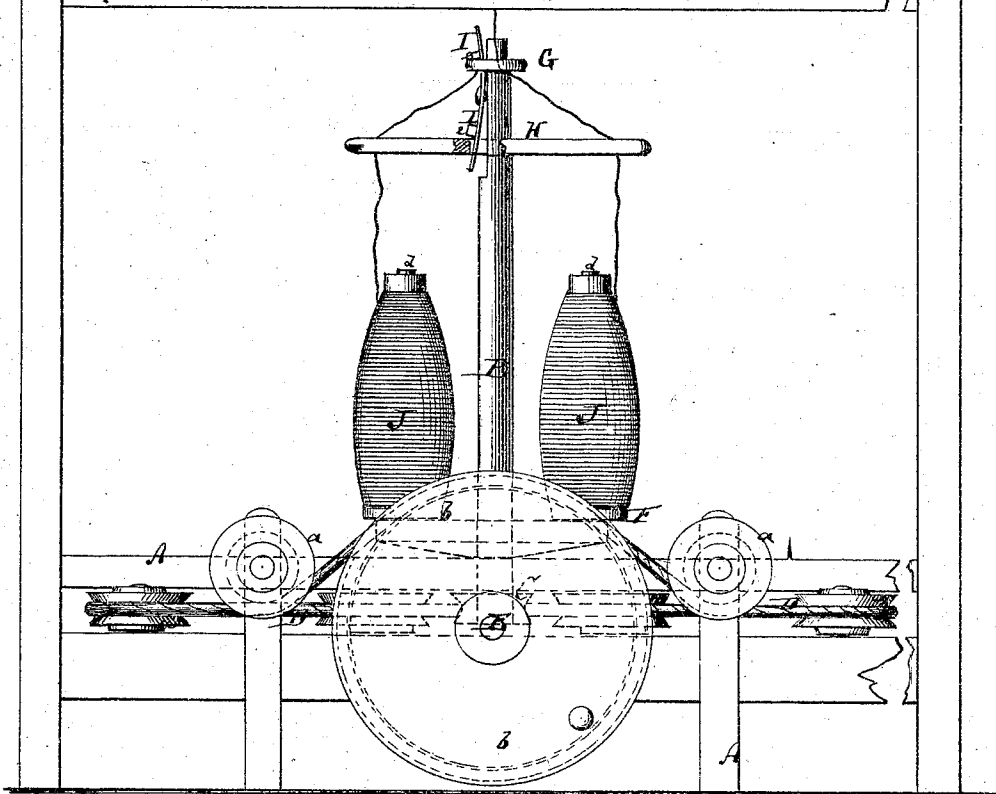
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J. H. JACKSON & S. LEAK.

Improvement in Machines for Twisting Yarn.

No. 118,536.

Patented Aug. 29, 1871.



Witnesses:

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UNITED STATES PATENT OFFICE.

JOHN HENRY JACKSON AND SAMUEL LEAK, OF PUTNAM, CONNECTICUT.

IMPROVEMENT IN MACHINES FOR TWISTING YARN.

Specification forming part of Letters Patent No. 118,536, dated August 29, 1871.

To all whom it may concern:

Be it known that we, JOHN HENRY JACKSON and SAMUEL LEAK, of Putnam, in the county of Windham and State of Connecticut, have invented a new and Improved Machine for Twisting Yarn; and we do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawing forming part of this specification, in which—

Figure 1 represents a front elevation, partly in section, of our improved twisting-frame. Fig. 2 is an inverted plan view of the moving-cord and pulleys. Fig. 3 is a detail top view of the driving-spindle and thread-guides.

Similar letters of reference indicate corresponding parts.

This invention relates to a new machine for twisting two or more strands of wool, cotton, silk, jute, hemp, or other fibrous material, together; and consists in a new arrangement of thread-guides on the driving-spindles and of mechanism for driving the latter.

A in the drawing represents the frame of our improved twisting-machine. B is one of the driving-spindles, hung vertically. C is a pulley, mounted upon the spindle B. D is a cord, placed around the pulleys C of the several spindles B, over guide-pulleys *a a*, and over a pulley, *b*, on the driving-shaft E in such manner that, by revolving the latter, the spindles B will all be revolved in the same direction. F is a disk, mounted upon the spindle B and provided with two or more projecting pins, *d d*, over which the spools of yarn to be twisted are placed. G and H are two thread-guides, fitted upon the upper part of the spindle B; they are arms projecting laterally therefrom. A spring, I, keeps the two thread-guides in place on the spindle. The spring is in the middle, firmly bolted or fastened to the spindle, and has projecting blocks *c c* at the ends that pass through apertures in the thread-guides, respectively, and spring over the faces of the same, so as to firmly hold them in place and still per-

mit their removal, when desired. Each thread-guide has two or more perforated arms, those of the upper being shorter than the lower.

The yarn to be twisted is from the spools J, which fit upon the pins *d*, drawn through apertures in the ends of the thread-guides and twisted by their rotation with the spindle, and is then carried through an aperture or loop of the main frame.

The upper thread-guide may have four apertures for the admission of the spring I, so that it can be turned to regulate the yarn as it comes off the spool, and to prevent the too rapid delivery of the yarn. The guide H is necessary in order to take the yarn off the ends of the spools and not allow it to twist around them. The upper guide is mainly to keep the yarn from coming too fast off the spools, and, having notched apertures for the yarn to run in, by turning the guide more or less on the shaft and locking it in the desired position by the spring, the friction on the arm, and thereby the tension of the same, is increased. The use of a wheel and cord or band to impart motion to the spindles or spools has these advantages over a shaft and pinion, viz., that they are not so liable to get out of order or require repair, and are better adapted to permit change of the motion from a right-hand to a left-hand twist, which is easily done by taking the cord or band off the bottom of the large wheel and putting it over the top.

Having thus described our invention, we claim as new and desire to secure by Letters Patent—

1. The thread-guides G and H, combined with the spring I and spindle B, substantially as herein shown and described.

2. The combination of the continuous cord D with the spindle B, disk F, pins *d*, and thread-guides G H, all arranged substantially in the manner set forth.

JOHN HENRY JACKSON.
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Witnesses:

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