

J. Morse.

Throstle^o Spinning.

N^o 13,795.

Patented Nov. 13, 1855.

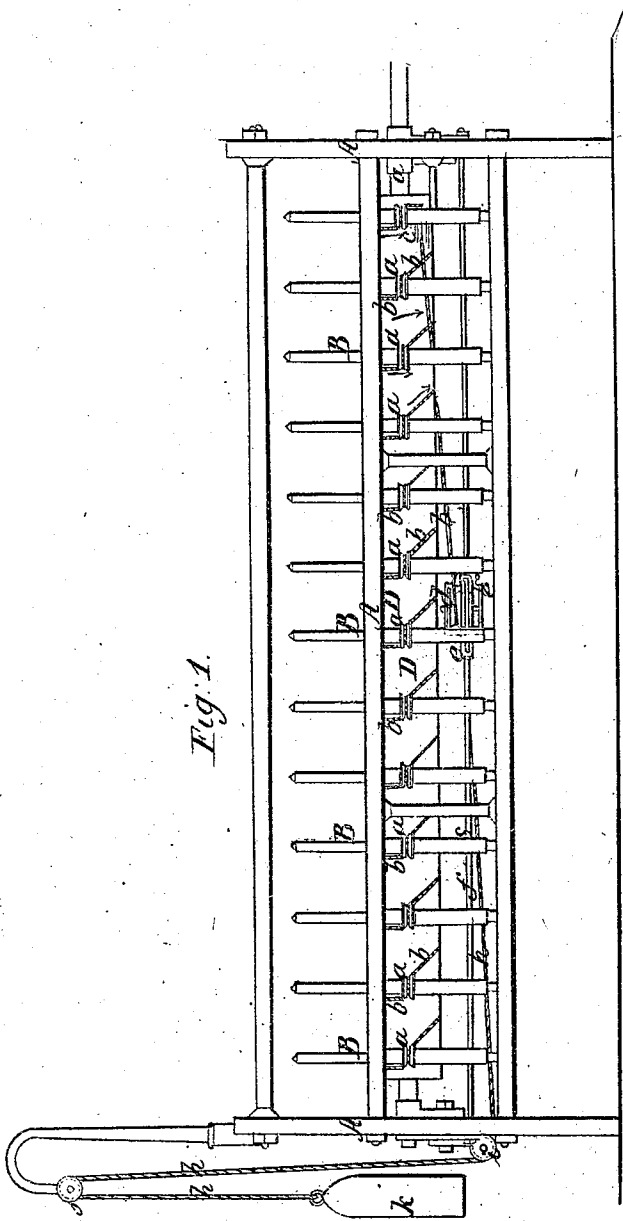


Fig. 1.

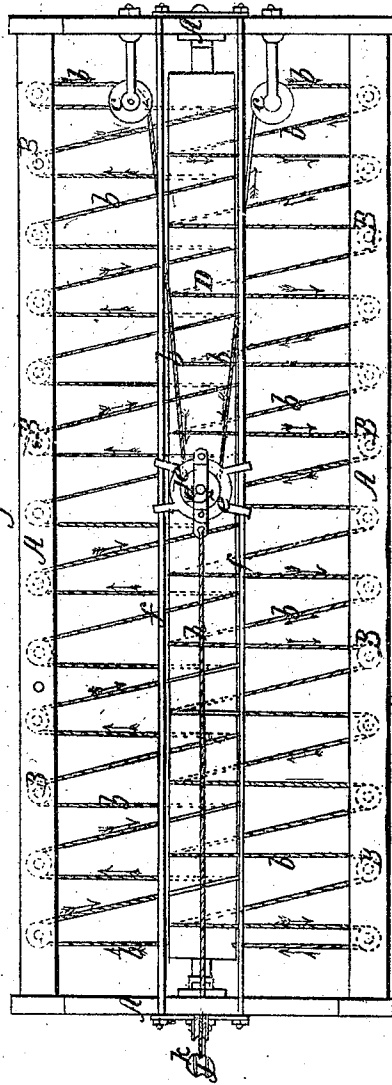


Fig. 2.

UNITED STATES PATENT OFFICE.

JOSEPH MORSE, OF WOONSOCKET, RHODE ISLAND.

GIVING TENSION TO THE ENDLESS BANDS OF THROSTLE-FRAMES.

Specification of Letters Patent No. 13,795, dated November 13, 1855.

To all whom it may concern:

Be it known that I, JOSEPH MORSE, of Woonsocket, in the county of Providence and State of Rhode Island, have invented a new and useful Improvement in the Manner of Driving Spindles or Throstles of Spinning-Frames; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1, is a side elevation of a cop spinning frame constructed according to my invention, but not showing any more of the working parts than is necessary to illustrate the invention. Fig. 2, is an inverted plan of the same.

Similar letters of reference indicate corresponding parts in both figures.

In this invention the whole or any desired number of the spindles or throstles, are driven by a single endless band. The invention consists in a certain arrangement of the said band, combined with certain means of preserving a uniform tension upon the same whereby the band is caused at all times to produce a uniform and proper degree of friction upon the whirls for the purpose of driving them, thereby obviating the inconvenience arising from slackness of bands consequent upon their stretching and from excessive friction consequent upon unnecessary tightness produced by their shrinkage.

To enable those skilled in the art to make and use my invention, I will proceed to describe its construction and operation.

A, is the framing.

B, B, are the spindles; (a), (a), the whirls, and D, a drum precisely like the drum commonly employed to drive the spindles by separate bands.

(b), (b), (b), is the endless band by which the whole of the spindles B, B, are driven from the drum D, by the revolution of the latter. At one end of the frame (see the left hand of the drawing) the band passes directly over the drum to or from the first spindle on each side of the frame around the whirl thereof from thence around the drum and around the whirls of the next spindles on either side and so on from the drum to the several whirls in succession all along to the other side of the

frame and from thence passing around two guide pulleys (c), (c), which occupy fixed positions and around a pulley (d), which is carried by a slide (e), which is arranged to slide along two fixed horizontal bars (f), (f). To the slide (e), is connected a cord or chain (h), which passes under a pulley (i), occupying a fixed position at the left hand end of the frame and from thence over another fixed pulley (j), above, and having a weight (k), attached to its end. The weight (k), acting through the cord (h), on the slide (e), and pulley (d) is what regulates the tension of the band (b), and keeps it tight and therefore the tightness of the said band never varies however much it may be caused to stretch or shrink by atmospheric changes or by other means. The direction of the movement of the band is indicated by a number of arrows in Fig. 1. The guide pulleys (c), (c), are not indispensable as the band may run directly from the spindles at the end of the frame around the pulley (d).

I do not claim driving all the spindles or throstles of a spinning frame by means of a single endless band as I am aware that an endless band has been used for that purpose, but without success owing to the want of proper means of compensating for stretching and shrinkage which rendered it more objectionable than the employment of a separate band for each spindle. Neither do I claim of itself the keeping of the band of a machine tight by a weight as I am aware that a weight has been employed for that purpose in some machines, but

What I claim as my invention and desire to secure by Letters Patent is—

The arrangement of the endless band (b), (b), (b), to run to and fro between every one of the spindles and the drum D, and around a pulley (d), carried by a slide (e), which is movable on suitable guides and has a weight attached to it by a cord (h), so arranged as to draw the said slide in the proper direction to produce tension on the band substantially as herein described.

JOSEPH MORSE.

Witnesses:

E. B. CRAIG,
ALBERT JERCKES,
WM. H. ALDRICH.