J. E. BRAUNSDORF.

Spindle-Driving Mechanism for Spinning-Machines.

No. 214,356. Patented April 15, 1879.

Fig. 1.

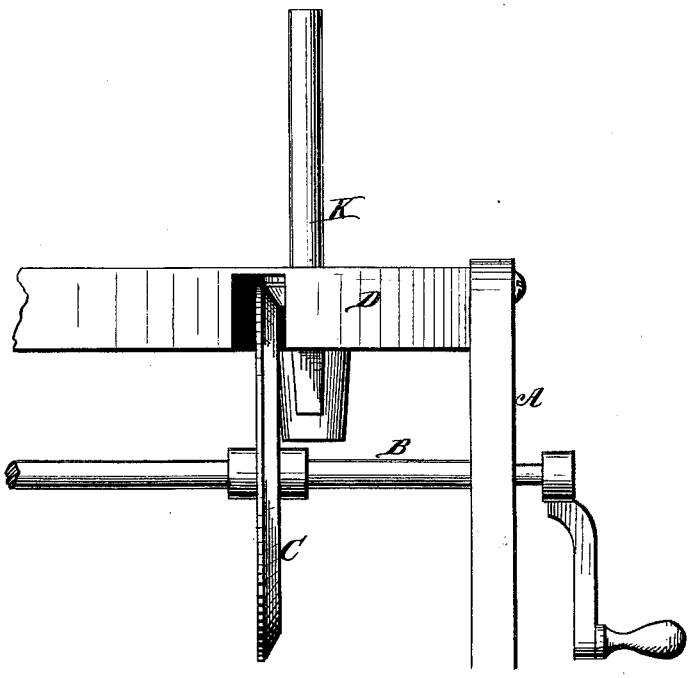
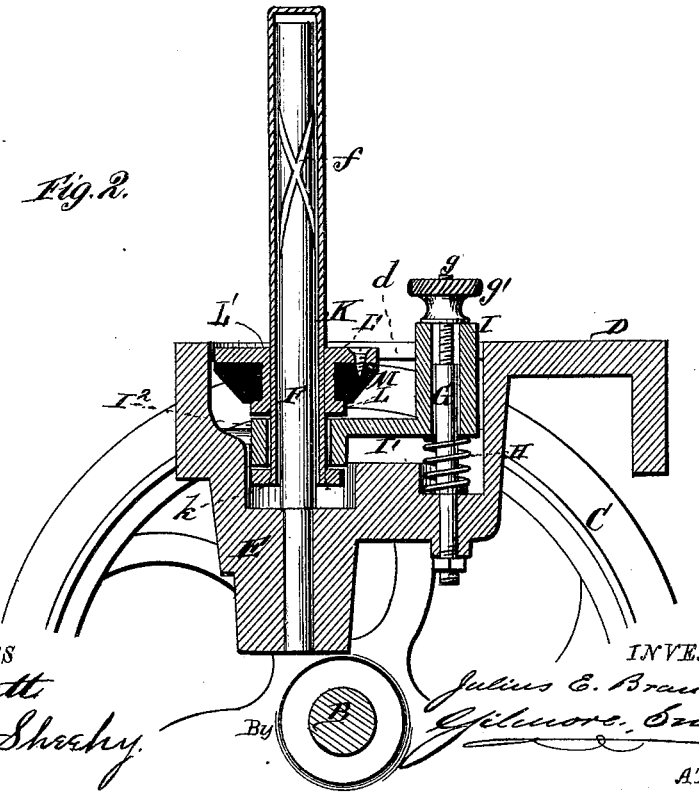


Fig. 2.



WITNESSES

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JULIUS E. BRAUNSDORF, OF PEARL RIVER, NEW YORK.

IMPROVEMENT IN SPINDLE-DRIVING MECHANISMS FOR SPINNING-MACHINES.

Specification forming part of Letters Patent No. **214,356**, dated April 15, 1879; application filed September 21, 1878.

To all whom it may concern:

Be it known that I, JULIUS E. BRAUNSDORF, of Pearl River, in the county of Rockland and State of New York, have invented a new and valuable Improvement in Spinning-Spindles; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawings is a representation of a front of my spinning-spindle and the parts connected therewith. Fig. 2 is a vertical central sectional view of the same.

My invention relates to spindles for spinning-machines, with regulator for throwing the live-spindle into and out of gear with the drive-wheel, thereby causing the spindle to revolve or remain idle, as may be desired; and the novelty consists in the construction and arrangement of parts, as will be more fully hereinafter set forth.

Suitably journaled in proper standards is a shaft driven by any motor, and upon this shaft is hung the series of driving-wheels, of ordinary construction, having the beveled friction-surfaces, which operate the correspondingly-beveled friction-pulleys upon and rigid with the spindles below and secured to the flanged sleeve.

Immediately above the driving-wheels is the spindle-rail, in which recesses are cast for one or more spindles, friction-pulleys, and regulator-brackets. The construction of the rail is such that nothing but the live-spindle and thumb or set nut of the regulator appear above the rail, and no oil can come in contact with the yarn or thread.

A casting is formed under the rail, in which are provided apertures to receive the dead-spindle and a regulator-spindle, and these spindles are driven home and securely fixed. The portion of the casting above the base of the dead-spindle forms a cup to hold a lubricant, and the said spindle is spirally grooved in opposite directions, so as to force the lubricant upward and downward when the live-spindle revolves.

Around the regulator-spindle is placed a coil of spiral wire or other equivalent material, and upon this rests the regulator-cylinder. The regulator-spindle is screw-threaded at its upper portion, upon which operates a set-nut. From the lower portion of the cylinder, and formed in one therewith, is a horizontal arm, having an eye or socket cast or formed therein, which socket loosely receives the lower end of the live-spindle, the latter being secured from longitudinal motion therein by a collar on the lower end of the flanged sleeve, between the socket and the friction-pulley, and a collar below on the end of the live-spindle. This socket-arm and cylinder form the regulator-bracket.

The regulator-cylinder being passed over the regulator-spindle, the nut is screwed down upon the cylinder, which, in turn, forces the live-spindle downward and brings the friction-face of the pulley in contact with the driving-wheel.

A flanged sleeve fits neatly in the recess around the dead-spindle, is rigidly secured to or formed in one with the live-spindle, and to it the friction-pulley is secured.

By my construction of devices the gripe of the friction-pulley upon the driving-wheel can be regulated by the operator on each spindle when in motion, or any spindle may be instantly stopped without interfering with the rest of the spindles of the machine, and thereby entangling and loss of thread when it breaks are prevented.

Referring to the drawings, A represents the standards, one only being shown, in which is journaled the shaft B, carrying the driving-wheel C. D represents the rail, recessed at *d* to receive the spindles and bracket. A casting, E, beneath the rail, is provided with two chambers, in one of which is secured the dead-spindle F, having spiral grooves *f*, and which also serves to hold a lubricant, and in the other is secured the regulator-spindle G, with screw-thread *g*, adapted to receive a set-nut, *g'*. In this chamber is housed a spiral spring, H, which exerts a constant upward force on a regulator-bracket. This bracket is formed of a cylinder, I, which fits loosely over the regulator-spindle G, from the bottom of which ex-

tends a horizontal arm, I^1, provided with a socket, I^2, which embraces the live-spindle K between a collar, *k*, at its lower extremity and a collar, L, on the flanged sleeve L′, which carries the friction-pulley M.

I have a pending application for an analogous invention, and I make no claim in this application for anything shown therein. The application referred to was filed on the 19th day of October, 1878.

What I claim as new, and desire to secure by Letters Patent, is—

The flanged sleeve L′ L, spindle K *k*, pulley M, and driving-wheel C, in combination with the regulator I I^1 I^2, spindle G *g*, set-nut *g′*, and spring H, as and for the purpose set forth.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

JULIUS E. BRAUNSDORF.

Witnesses:
GEORGE E. UPHAM,
JAMES J. SHEEHY.