W. F. HASTINGS.

Bobbin-Socket for Spindles.

No. 201,414. Patented March 19, 1878.

Fig. 1.

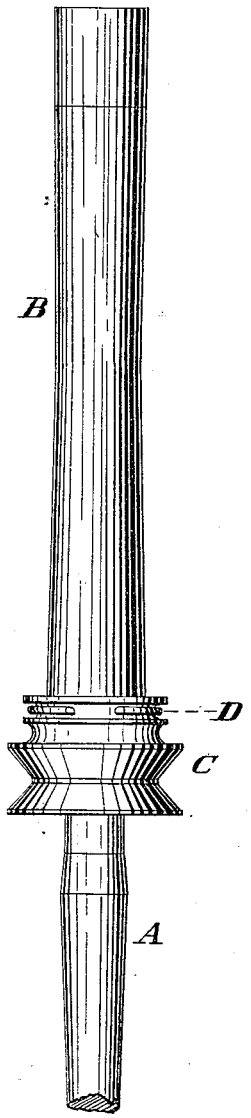


Fig 4

Fig. 2

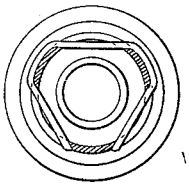
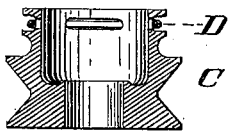


Fig. 3.



WITNESSES:

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WATSON F. HASTINGS, OF BRIDGEPORT, CONNECTICUT.

IMPROVEMENT IN BOBBIN-SOCKETS FOR SPINDLES.

Specification forming part of Letters Patent No. **201,414**, dated March 19, 1878; application filed July 31, 1877.

To all whom it may concern:

Be it known that I, WATSON F. HASTINGS, of Bridgeport, in the county of Fairfield and State of Connecticut, have invented a new and useful Improvement in Bobbin-Sockets for the Spindles of Spinning and Twisting Machinery, which improvement is fully set forth in the following specification and accompanying drawings, in which—

Figure 1 is an elevation of a spindle, bobbin, and socket; and Fig. 2, a plan of the socket, with a spring therein secured. Fig. 3 is a vertical section through the socket, showing one of the perforations or slots therein, for the reception and retention of the spring; and Fig. 4 is a plan of the spring detached from the socket.

This invention consists of a bobbin-socket, either formed upon or attached to a spindle, for carrying the bobbins used in the frames of spinning and twisting machinery, which said socket contains a spring, attached to and combined therewith, for the more secure retention of the base of the bobbin within the socket.

The object of this invention is to securely retain the bobbin upon its spindle when the latter is in rapid revolution, while still providing for the bobbin's easy and rapid removal from and replacement thereon, experience having demonstrated that as the speed of revolution of a spindle is more and more increased the greater becomes the tendency of an attached bobbin, secured thereto by its own friction only, to rise and fly therefrom.

In the drawings forming part of this specification, A is an ordinary spindle-shaft; B, the attached bobbin, resting thereon; and C, the socket, within which the bobbin is secured. D is a spring, bent into an annular polygonal shape, and passed through holes or slots in the body of the socket, as is clearly seen in the drawing.

The operation of this spring is as follows: When the base of the bobbin is inserted within the socket, it is pressed upon by the faces of the spring, which, thus clasping the said base, securely retain it within the socket, and consequently the bobbin also upon the spindle, thus preventing the bobbin from rising up from or flying off the spindle, even when running at the greatest speed attainable.

A simple device thus very efficiently accomplishes its purpose without occasioning any appreciable loss of time in either the removal or replacement of the bobbin from or upon its operative mechanism.

I do not confine myself to the use of the precise form of the spring shown in the drawing, as it is evident that such form or shape may be varied without departing from the principle underlying and governing its action.

Having thus fully described this spring-socket as of my invention, I claim—

The combination of an annular spring with a bobbin-socket, wherein the base of the bobbin is subjected to compression and retained therein at high speeds of revolution, substantially as described.

WATSON F. HASTINGS.

Witnesses:

HIRAM BARBER,

WM. T. BARBER.