(No Model.)

D. JACKSON.

TOP ROLL FOR SPINNING MACHINERY.

No. 327,691. Patented Oct. 6, 1885.

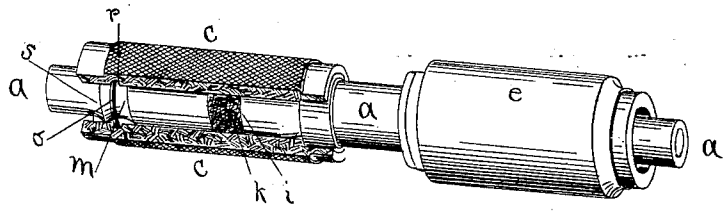


Fig. 1.

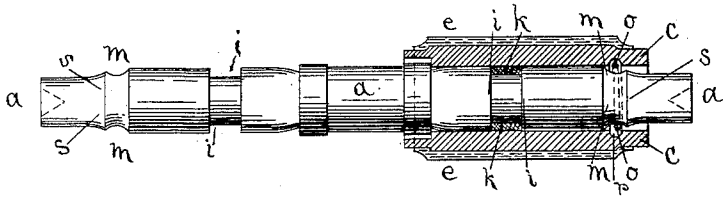
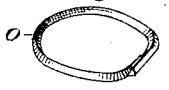


Fig. 2.

Fig. 3.



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UNITED STATES PATENT OFFICE.

DAVID JACKSON, OF PAWTUCKET, RHODE ISLAND.

TOP ROLL FOR SPINNING MACHINERY.

SPECIFICATION forming part of Letters Patent No. 327,691, dated October 6, 1885.

Application filed October 25, 1884. Serial No. 146,450. (No model.)

To all whom it may concern:

Be it known that I, DAVID JACKSON, a citizen of the United States, residing at Pawtucket, in the county of Providence and State of Rhode Island, have invented a new and useful Improvement in Top Rolls for Spinning Machinery, of which the following is a specification.

My said invention consists of self-oiling and self-locking devices for the shell-rolls of spinning machinery, the self-oiler consisting of rectangular grooves in the circumference of the shaft or spindle filled with oiled wicking or similar substances, and the self-locker consisting of a formed wire clasp-spring into and carried in a channel in the inner side of the shell and fitting into a curvilinear groove bordered by a shoulder, over which the clasp is slipped when the shell is placed on the spindle.

The accompanying drawings are hereby made part of this specification, similar letters of reference thereon indicating corresponding parts.

Figure 1 of said drawings is a perspective view of top rolls embodying my invention, parts of one shell thereof being broken away to show the oiler and locker in their respective positions. Fig. 2 is a view of the shaft or arbor and one of the shells that is placed upon the same, the shaft being in elevation, and the shell, its locking-ring, and the oiling-filler that is placed upon the shaft being in section; and Fig. 3, a view of the wire clasp detached.

In said drawings, *a a* show the spindle or shaft aforesaid. *c c* indicate the shell fitted to the part *a*, and *e* is the leather covering around the shell. *i i* show the rectangular grooves in the spindle, and *k* the oiled wicking which fills these grooves. *m m* are curvilinear grooves near the ends of the spindle, and *o* is the formed wire clasp-spring into and carried in the channel *r* in the inner periphery of the shell *c*. The shoulder *s* is placed between the spindle end and the groove *m*, and serves to keep the clasp *o*, and hence the shell itself, in place upon the spindle until removed by the operative.

The formed wire clasp *o* may be made of any suitable stock; but I have preferred to use three-cornered or angular-surfaced wire, thinking it better adapted to the uses to which I apply it, as aforesaid. When formed and sprung into the channel in the inner surface of the shell, as described, it will have the appearance of a horseshoe-shaped ring, rather smaller than the shoulder *s*, but of about the same diameter as the center of the curvilinear groove *m*.

The characteristics and operation of my invention will readily appear from the above description and drawings thereof. To secure the sleeve on the spindle by means of a clip-ring is not broadly new; but it has heretofore been necessary, in putting on or taking off the shell, to pass it nearly its whole length over the clip-ring attached to the spindle. This has had the effect to abrade the inner surface of the shell. By my invention, wherein the ring is secured in and carried by the shell, this objection is avoided, the shell being passed over the spindle until the ring comes to the rounded shoulder, over which it easily rides, and when opposite the groove in the spindle it will spring into said groove and hold the shell in place. The covering has also been subject to injury from omission to oil the spindle frequently enough. The self-oiler above described will keep the spindle lubricated for a period of six or even of nine months. The self-locking device aforesaid will keep the covered shell on the spindle until it is purposely removed, and yet the formed wire clasp *o* can be pressed over the shoulder *s* so easily that the shell can be removed and replaced without trouble or delay.

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

A shaft or spindle for top rolls of spinning-machines having a rounded shoulder, *s*, and a curvilinear groove, *m*, and also having a rectangular groove, *i*, supplied with an oiled filler, *k*, in combination with the internally-grooved shell-roll *c* and wire clasp *o*, formed of triangular-shaped material and carried in the groove in the shell, substantially as described, and for the purposes specified.

DAVID JACKSON.

Witnesses:

THOS. P. BARNEFIELD,

JOSEPH H. PAINE.