

No. 647,072.

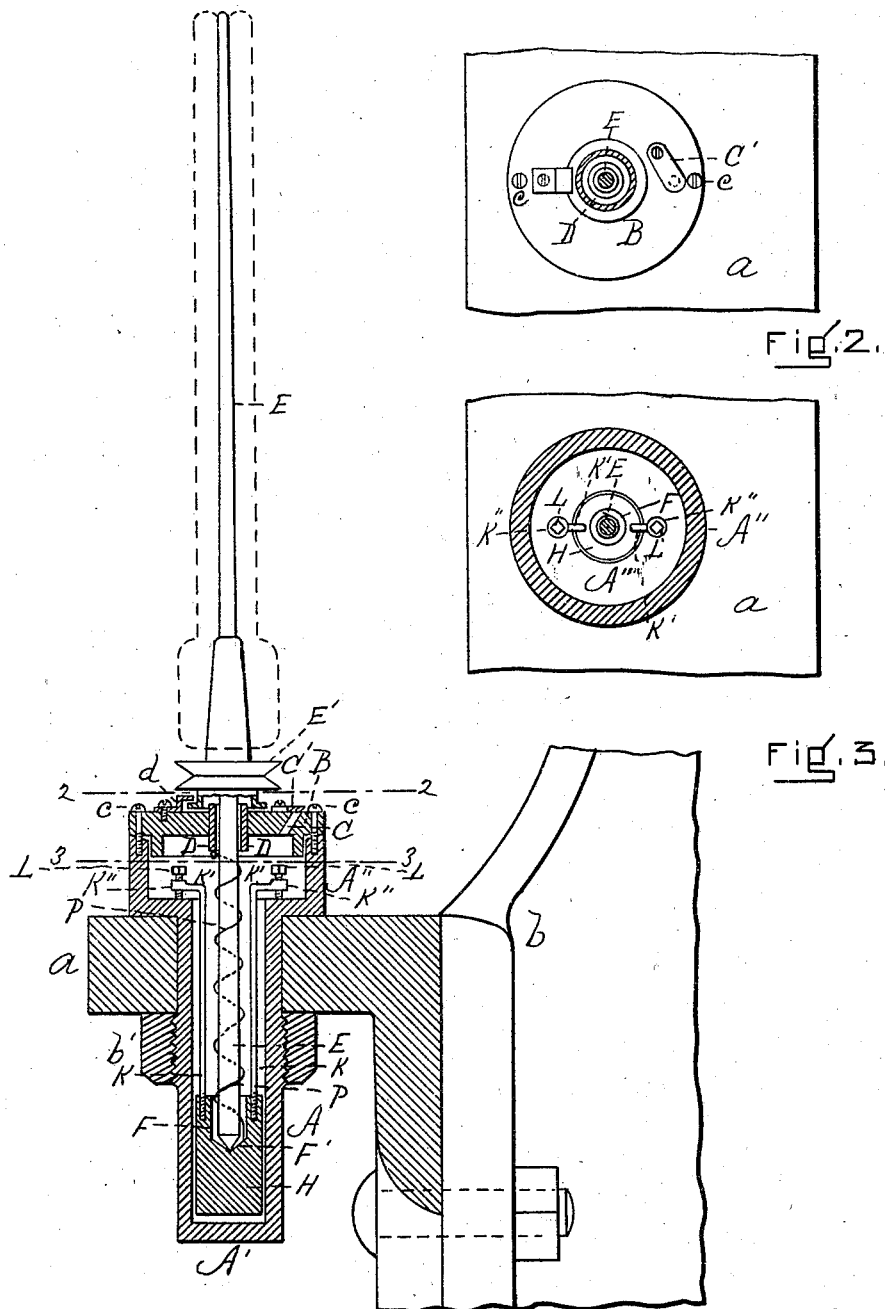
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M. BRODEUR.

RING SPINNING SPINDLE FOR SPINNING FRAMES.

(Application filed Jan. 2, 1900.)

(No Model.)



WITNESSES  
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# UNITED STATES PATENT OFFICE.

MAGLOIRE BRODEUR, OF LOWELL, MASSACHUSETTS.

## RING-SPINNING SPINDLE FOR SPINNING-FRAMES.

SPECIFICATION forming part of Letters Patent No. 647,072, dated April 10, 1900.

Application filed January 2, 1900. Serial No. 64. (No model.)

*To all whom it may concern:*

Be it known that I, MAGLOIRE BRODEUR, a citizen of the United States, residing in Lowell, in the county of Middlesex and State of Massachusetts, have invented new and useful Improvements in Ring-Spinning Spindles for Spinning-Frames, of which the following is a specification.

This invention consists of a novel construction and arrangement of parts having for the principal objects to take up the wear of the spindle and to render the spindle self-lubricating, and the nature of the invention is fully described in detail below and illustrated in the accompanying drawings, in which—

Figure 1 is a vertical section taken through a part of a spinning-frame with my improvement applied, the position of the bobbin being indicated by dotted lines. Fig. 2 is a horizontal section taken on line 2, Fig. 1. Fig. 3 is a horizontal section taken on line 3, Fig. 1.

Similar letters of reference indicate corresponding parts.

*a* represents the spindle-rail, secured to the frame *b*, said rail being provided with a round hole to receive the cylindrical case *A*, having a closed bottom *A'*. This case is enlarged at its upper portion *A''*, and thereby a shoulder *A'''* is produced which rests upon the rail. Under the rail the case is screw-threaded to receive a nut *b'*. This case is provided at its upper end with a cap *B*, secured in place by suitable screws *c* and provided with an oil-hole *C*, closed by an ordinary cover *C'*, and with the usual lip *d* for preventing the spindle from jumping.

The cap *B* is provided with a central hole lined with the bushing *D*, through which the spindle *E*, provided with the ordinary whirl *E'*, extends. The lower end or heel of the spindle rests on the cone-shaped bottom *F'* of a recess *F*, formed in the upper end of a metallic sustaining-block *H*. This block is within the case *A*, near its lower end, and is sustained by rods *K*, screwed into the block, said rods extending up within the case, as shown, and bent outward at *K'* and with their upper ends *K''* enlarged and formed with

threaded holes for engagement with screws *L*, whose blunt lower ends rest on the portion *A'''* of the metallic case *A*.

As the spindle wears it can be lifted and the wear taken up by operating the screws *L*, and thus lifting the sustaining-rods *K* and the block *H*.

The most common method of applying the oil which is within the case *A* to the spindle is to wrap that portion of the spindle which is within the case with cloth. In my present contrivance I attach a piece of common cotton, linen, silk, or woolen thread *P* at its upper end to the bushing *D* and allow it to coil spirally around the spindle, as shown. As the spindle rotates this thread retains the position indicated in the drawings and operates to work the oil in the case up to the bushing, and thus lubricate the bushing, so that it will last a long time without any necessity for driving it out and replacing it by another. The wrapping of the spindle with cloth had a tendency to prevent the oil from working into the bushing, thus shortening its wear.

Having thus fully described my invention, what I claim, and desire to secure by Letters Patent, is—

1. In a ring-spinning spindle for spinning-frames, the case supported by the rail; the cap screwed to the case; the block *H* formed with the recess *F*, *F'*; vertically-adjustable sustaining-rods secured at their lower ends to said block; and the spindle supported in the recess in the block, and having bearings in the cap said rods being supported at their upper ends by the case, whereby the block supporting the heel of the spindle can be adjusted as to height as the spindle wears, substantially as described.

2. In a ring-spinning spindle for spinning-frames, the case *A* formed with the enlarged portion *A''* and shoulder *A'''*; the cap *B*; the block *H* formed with the recess *F*, *F'*; the rods *K* secured at their lower ends to the block, and bent outwardly at their upper ends at *K'*; screws extending through and in engagement with the portions *K''* and resting on the shoulder *A'''*; and the spindle sup-

ported at its lower end in the recess of the block and having bearings in the cap, substantially as set forth.

3. In a ring-spinning spindle for spinning-  
5 frames, the case A provided with the cap B having a suitable oil-inlet; the bushing D in said cap; the spindle having bearings in the bushing; and the piece of common thread P secured at its upper end to the bushing and

hanging freely therefrom and adapted to be 10 wound spirally around that portion of the spindle which is inside the case by the rotation of said spindle, substantially as and for the purpose set forth.

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