

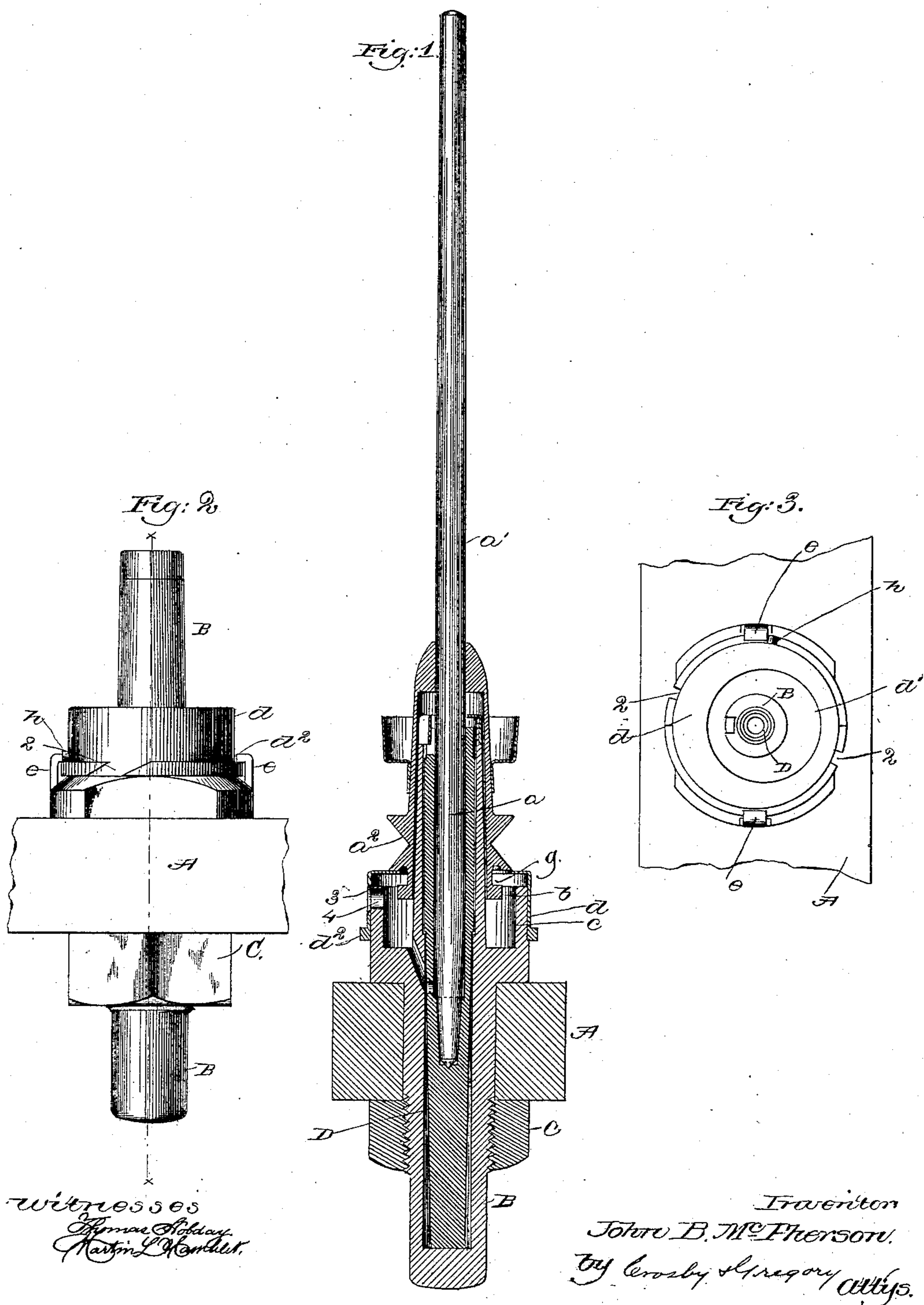
(No Model.)

J. B. McPHERSON.

SPINDLE SUPPORT.

No. 353,409.

Patented Nov. 30, 1886.



UNITED STATES PATENT OFFICE.

JOHN B. MCPHERSON, OF LOWELL, ASSIGNOR OF ONE-HALF TO GEORGE DRAPER & SONS, OF HOPEDALE, MASSACHUSETTS.

SPINDLE-SUPPORT.

SPECIFICATION forming part of Letters Patent No. 353,409, dated November 30, 1886.

Application filed July 12, 1886. Serial No. 207,755. (No model.)

To all whom it may concern:

Be it known that I, JOHN B. MCPHERSON, of Lowell, county of Middlesex, and State of Massachusetts, have invented an Improvement in Spindle-Supports, of which the following description, in connection with the accompanying drawings, is a specification, like letters on the drawings representing like parts.

This invention has for its object to provide means whereby a sleeve-whirl spindle may be retained in its bolster while the bobbin is being doffed.

My invention is shown as embodied in a well-known class of spindle-support, wherein a bolster is fitted loosely in a bolster-case attached to a rail, the pintle of the spindle entering the bolster, the sleeve-whirl surrounding the bolster-case.

In accordance with my invention, the lower end of the sleeve-whirl is provided with an annular groove, which receives a lip forming part of a cap, the said lip being formed by cutting through the top of the cap eccentrically, thus forming a lip of variable width, so that in one position of the cap the collar or a suitable projection at the lower end of the sleeve-whirl will enter the said opening, and thereafter the partial rotation of the cap will place the lip in such position that the sleeve-whirl cannot be lifted or withdrawn from the cap.

This cap has at its lower end a flange, which is slotted to co-operate with cap-holding projections extending upwardly from the rail and being attached to some rigid part of the apparatus, the connection, as herein shown, being with the bolster-case.

Figure 1 illustrates an apparatus embodying my invention, the spindle being in elevation, all the other parts being in vertical section in the line *x*, Fig. 2. Fig. 2 is a side elevation of Fig. 1, the sleeve-whirl spindle being removed; and Fig. 3 is a plan or top view of Fig. 2.

The rail A, bolster-case B, nut C, and bolster D placed loosely therein and constituting not only the lateral bearing but the step for the pintle *a* of the spindle *a'*, having an attached sleeve-whirl, are and may be all as usual. The sleeve-whirl *a''*, as herein shown, is provided below the band-groove with an annular groove, *g*, to leave below it a projection, *b*.

The supporting-case, or the annular curb *c* thereof, which constitutes the oil-well, receives about it a cap, *d*, the top of which (see Fig. 3) is cut out eccentrically, as shown at *d'*, leaving a lip, which varies in width. The cap *d* is provided with a projection, *d''*, slotted at one or more points, as at 2. (See Fig. 2.) One or more projections, *e*, bent inwardly to form lips, (see Figs. 2 and 3,) are extended upwardly above the supporting-case. These projections *e* enter the grooves 2 and co-operate with the projection *d''* of the cap to constitute a locking device therefor. The spindle being removed from the bolster, and it being desired to replace it, the operator will insert the grooved part *b* of the sleeve-whirl into the eccentric hole *d'* in the cap *d*, and then place the cap upon the curb *c*, so that the slots 2 come opposite the projections *e*, and the cap will then be turned until the lips *d''* at the lower end of the cap pass under the projections *e*, the lips of the projection *e* riding above the projection *d''* of the cap, the eccentric hole *d'* in the top of the cover, when applied to the curb, occupying a position out of center with relation to the projection *b* of the sleeve-whirl, a portion of the lip of the cap extending into the groove about the projection *b* and preventing the lifting of the sleeve-whirl out of the cap.

Instead of the particular groove 2 and projection *e*, I may use any equivalent form of bayonet-locking device.

The cap is shown as provided with an opening, 3, and the curb *c* of the bolster-case with a hole, 4, through which may be introduced the point of an oil-can when it is desired to supply oil for the lubrication of the bolster and spindle, the cap having sufficient freedom of movement without disengaging it from the projection *e* to enable the hole 4 to be readily covered or uncovered. The hole in the top of the cap *d* is of less area than the under side of the whirl, so that the whirl, when the spindle is in operative position, acts as a cover for the said opening.

I claim—

1. A sleeve-whirl spindle provided with a projection, *b*, and a bolster-case, combined with a cap or cover having an eccentric opening therein to leave a lip of varying width to co-

operate with the projection of the sleeve-whirl and prevent the spindle from being removed from the bolster when doffing a bobbin, substantially as described.

- 5 2. A bolster-case having a projection, as *e*, and a cap having an eccentric opening in its top, and provided with a projection having a slot, combined with a sleeve-whirl spindle having a projection, *b*, below the whirl, to operate, all substantially as described.

- 10 3. The sleeve-whirl spindle provided with a projection, *b*, and a bolster-case having a curb provided with a hole, 4, combined with

the cap *d*, for the said curb, the cap being provided with a hole, 3, at its side and with an opening in its top, which is covered by the sleeve-whirl, the holes 3 4 when in line serving for the admission of the nose of an oil-can, as set forth.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

JOHN B. McPHERSON.

Witnesses:

MARTIN L. HAMBLET,
JOSHUA N. MARSHALL.