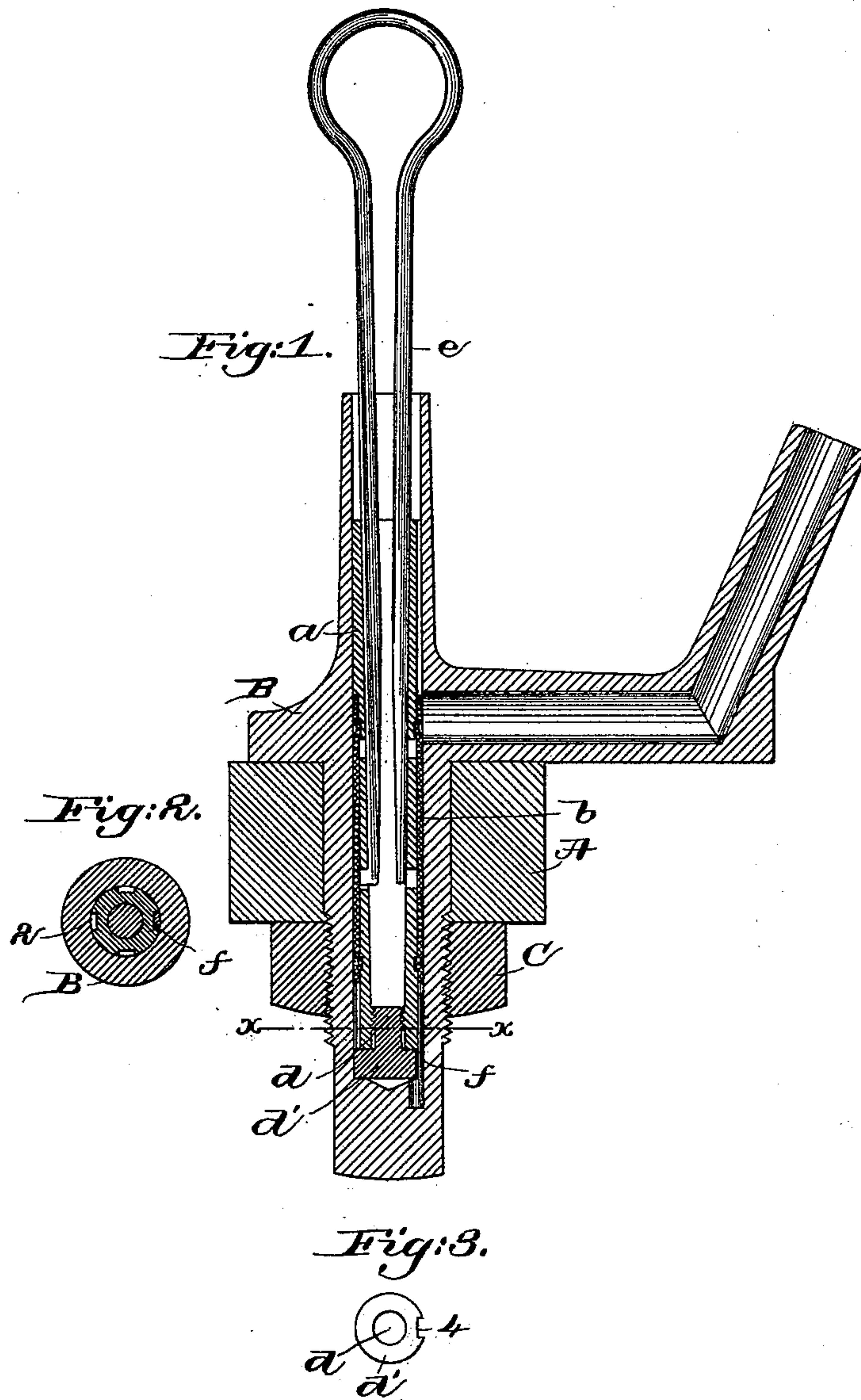


(No Model.)

J. H. NORTROP.
SUPPORT FOR SPINNING SPINDLES.

No. 403,855.

Patented May 21 1889.



Witnesses.
Howard F. Eaton.
Frederick L. Emery.

Inventor.
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UNITED STATES PATENT OFFICE.

JAMES H. NORTHROP, OF HOPEDALE, MASSACHUSETTS, ASSIGNOR TO
GEORGE DRAPER & SONS, OF SAME PLACE.

SUPPORT FOR SPINNING-SPINDLES.

SPECIFICATION forming part of Letters Patent No. 403,855, dated May 21, 1889.

Application filed January 2, 1889. Serial No. 295,190. (No model.)

To all whom it may concern:

Be it known that I, JAMES H. NORTHROP, of Hopedale, county of Worcester, State of Massachusetts, have invented an Improvement in
5 Supports for Spinning-Spindles, of which the following description, in connection with the accompanying drawings, is a specification, like letters on the drawings representing like parts.

10 This invention has for its object to prevent the rotation of the step and the bolster in the supporting-case with the spindle, my improvement being represented in connection with a bolster and step substantially such as shown
15 in United States Patent No. 383,048, dated May 15, 1888.

In the invention herein to be described the bolster and step are adjustably connected together by means of a screw-thread, and the
20 lower end of the bolster is notched and the step at the lower end of the bolster is also notched, the notches in both the bolster and step being entered by one and the same pin or stop, the latter preventing the rotation of
25 both the bolster and the step with the spindle. Herein by the employment of a single pin I am enabled to accomplish all that has been heretofore accomplished by the employment of two pins or stops.

30 The particular features in which my invention consist will be pointed out in the claims at the end of the specification.

Figure 1 is a vertical section of a spindle-bearing embodying my invention, the drawings showing the bolster-hook as inserted therein; Fig. 2, a cross-section thereof in the line $x x$, and Fig. 3 shows the step separately.

The rail A and the supporting-case B, mounted thereon and held in place by the nut
40 C, are and may be of any usual construction.

The bolster a —a tube of metal, shown in this instance of my invention as surrounded for part of its length by an elastic packing, b —has at its lower end, and externally thereto, a series of holding-notches, 2, and at its interior,
45 at its lower end, the bolster has a screw-threaded portion, as represented in the drawings, in which is screwed the threaded step d . The step d has an enlarged foot, d' , which is notched externally, (see Fig. 3,) as at 4.
50 The step and bolster are united by a screw,

and by rotating one or the other their relative positions may be changed, as provided for in United States Patent No. 383,048, to enable the tapering inner surface of the bolster
55 to be kept at proper height to contact with the usual tapering surface of the spindle, (not shown,) but which may be as in the said patent. By means of the hook or tool e , it having prongs to enter the usual oil-holes in the
60 bolster, the latter may be engaged to be more or less withdrawn and rotated, as may be desired. The lower end of the spindle in practice rests on the upper end of the step. For the best results, the step, as well as the bolster,
65 should be restrained from rotating with the spindle. To do this I have drilled a hole into the bottom of the bore of the supporting-case, in which I have inserted a locking pin or stop, f , which is of sufficient length to receive on it
70 the grooved part of the head of the step d' , and also the grooved part 2 of the bolster, thus restraining both the step and bolster from rotating. When it is desired to rotate the bolster to place it at a higher level in the supporting-case with relation to the bolster, the
75 operator, by removing the spindle and inserting the hook, may engage the bolster and pull it outwardly far enough to remove the grooved part 2 of the bolster from the pin or projection f , and then he will rotate the bolster to the proper extent while the pin f yet holds the step. By providing four notches, 2, it is possible to turn the bolster less than a whole rotation, as will be understood. By placing
85 the locking-pin f in vertical position, instead of putting the same in a hole made transversely through the supporting-case, all possibility of the escape of oil at or about the pin is avoided.
90

I am aware that spindle-bolsters have been prevented from being rotated in a supporting-case by the employment of a pin or projection, and I am also aware that spindle-steps have been likewise restrained from rotation with the spindle by means of a pin or projection; but prior to my invention I am not aware that one and the same pin or projection has been employed to restrain both the bolster and the step from rotation.
100

I claim—

1. The supporting-case, the bolster, and the

step therein, each notched as described, combined with a single vertically-placed pin or stop, *f*, to engage both the step and bolster, substantially as described.

- 5 2. The supporting-case, the bolster notched at its lower end, and the step therein, notched as described, the bolster and step being connected together adjustably by screw-threads, combined with a pin or stop to engage both

the step and the bolster to restrain them from rotation, substantially as described.

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

JAMES H. NORTHROP.

Witnesses:

E. D. BANCROFT,
H. F. SEARLES.