Rippon & Robinson,

Spindle Bolster.

No. 45,752. Patented Jan. 3, 1865.

Fig. 2.

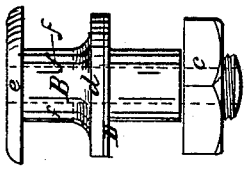


Fig. 3.

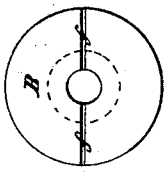
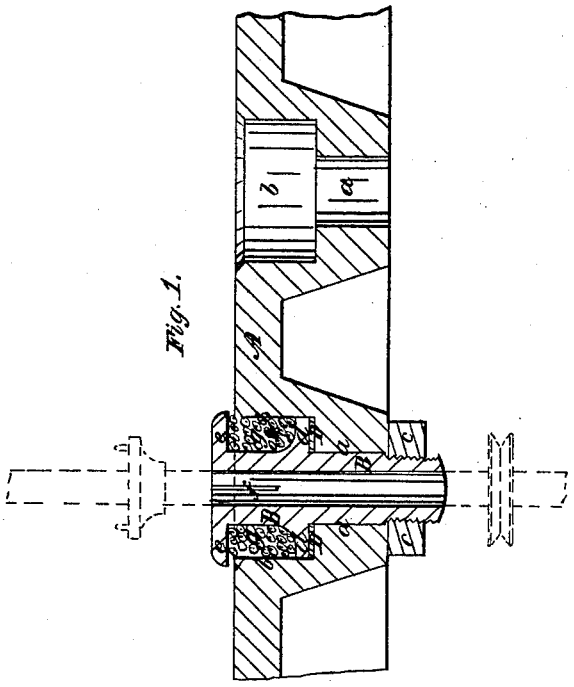


Fig. 1.



Witnesses.

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UNITED STATES PATENT OFFICE.

WILLIAM F. RIPPON AND THOMAS R. ROBINSON, OF PROVIDENCE, R. I.

IMPROVEMENT IN SELF-OILING SPINDLE-BOLSTERS FOR SPINNING-FRAMES.

Specification forming part of Letters Patent No. **45,752**, dated January 3, 1865.

To all whom it may concern:

Be it known that we, WILLIAM F. RIPPON and THOMAS R. ROBINSON, of the city of Providence, in the county of Providence and State of Rhode Island, have invented a new and Improved Spindle-Bolster for Spinning-Frames; and we do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a central vertical longitudinal section of a portion of the bolster-rail of a spinning-frame, illustrating the application of our invention. Fig. 2 is an elevation of the bolster. Fig. 3 is a top view of the same.

Similar letters of reference indicate corresponding parts in the several figures.

This invention consists in an improvement in the construction of the bolster and mode of fitting the same to the rail, whereby the cost of the bolster is much reduced, and it is held more truly in its place, and a great saving of oil is effected.

To enable others skilled in the art to make and use our invention, we will proceed to describe its construction and operation.

A is the rail, having holes *a a* bored through it at suitable distances apart for the reception of the bolsters. These holes are counterbored from the top of the rail to form the oil-chambers *b b*, which are thus formed within the rail instead of within the bolsters.

B is the bolster, consisting of a tube or socket of brass, bronze, or other suitable bearing metal, of a depth sufficiently greater than that of the rail to leave a portion protruding through the bottom for the reception of a nut, C, by which it is secured in place. This tube or socket has a collar or flange, *d*, formed upon it to fit snugly within the lower part of the oil-chamber, and a second collar or flange, *e*, to form a cover to the said chamber. The said tube or socket is bored out of a size to fit the spindle. The part below the flange *d* is turned to fit the hole *a*, and the lowest part has a screw-thread cut upon it for the reception of the nut C. In the upper part of the said tube or socket there are one or more upright slits, *f f*, cut across the flange *e*, and down through the tube or socket nearly to the flange *d*.

D is a washer or gasket, of vulcanized india-rubber, leather, or other soft or elastic material, fitting to the bolster below the flange *d*, and fitting to the interior of the oil-chamber. A portion of the spindle is shown in red outline in Fig. 1.

Before putting the bolster in its place the nut C is taken off, the washer D is slipped over its lower end up to the flange *d*, and cotton yarn or other fibrous material, *g*, Fig. 1, is bound loosely around the spool-like portion between the flanges *d e*, to a sufficient thickness to fill up the oil-chamber *b*, when the bolster is put into the rail. The bolster is inserted from above the rail, and secured by putting on the nut C below and screwing it up till the washer D is compressed tightly enough to prevent leakage at the bottom of the oil-chamber.

Oil is introduced to the chamber *b* by pouring it in through the slits *f f* or through a hole specially provided in the flange *e*, and is absorbed by the fibrous material *g*, from which it supplies itself to the spindle as fast as but no faster than required, and hence all waste is prevented. The oil-chamber will not require to be refilled for several days, whereas other bolsters require to be replenished with oil two or three times a day.

One advantage of this bolster over others consists in its being secured in place by a nut at the bottom instead of by a set-screw through the side of the rail, and that in case of the bolster fitting loosely to the hole in the rail it is always brought by the nut to a true and vertical position, whereas in such case the set-screw might bring it out of plumb. Another and very important advantage is that when the oil-chamber becomes clogged with oil and cotton, as all oil-chambers will in time, by taking out the bolster everything is removed from the oil-chamber, and can be quickly removed by unwinding the fibrous material *g* from it; and a further advantage is that when the bolster is worn out it can be cheaply replaced by a new one, as the same nut C can be used again, and the oil-chamber, instead of being in the bolster, is in the rail, and always remains in perfect condition.

The flange *e* may, if desired, be sunk within the oil-chamber *b*, and even with the upper surface of the rail, so that better facility is afforded for wiping and cleaning the rail.

We disclaim the oil-cup formed in the rail around the bolster, of the bolster with a shoulder to fit on the bottom of the oil-cup of a bolster with perforations in the sides for admitting the oil or their equivalents, and of the covering-flange upon the lobster.

What we claim as our invention, and desire to secure by Letters Patent, is—

1. The oil-chamber composed of a socket or tube, with collars or flanges *d e*, applied in combination with an oil-chamber, *b*, formed within the rail, substantially as herein specified.

2. The washer or gasket D, arranged within the oil-chamber, and the nut C, applied to a screw-thread on the bolster below the rail, the whole combined substantially as and for the purpose herein specified.

WM. F. RIPPON.

Witnesses: THOS. R. ROBINSON.

JOHN SLATCHER,

JOHN E. CHASE.