

(No Model.)

W. T. CARROLL.

BOLSTER FOR SPINNING SPINDLES.

No. 357,977.

Patented Feb. 15, 1887.

Fig: 1.

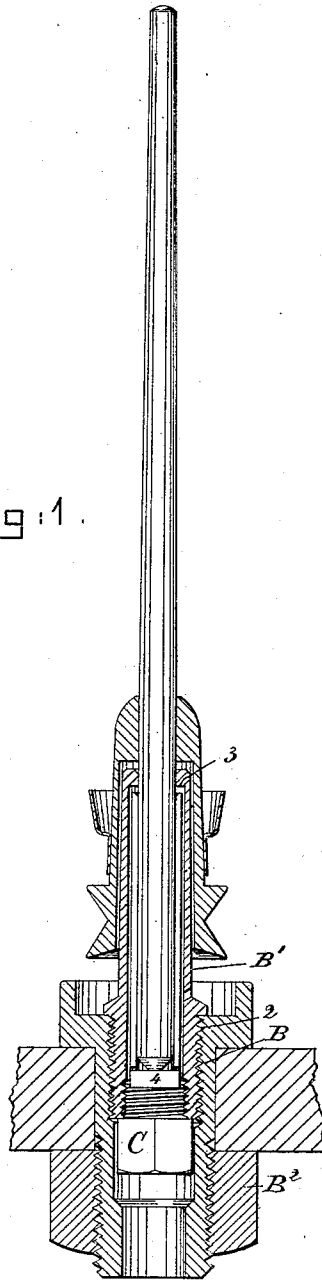
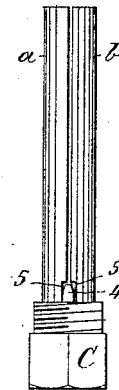


Fig: 3.



Fig: 2.



Witnesses.  
*Fred L. Emery*  
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Inventor.  
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*by Lemby Gregory attys.*

# UNITED STATES PATENT OFFICE.

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## BOLSTER FOR SPINNING-SPINDLES.

SPECIFICATION forming part of Letters Patent No. 357,977, dated February 15, 1887.

Application filed November 5, 1886. Serial No. 218,078. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM T. CARROLL, of Worcester, county of Worcester, and State of Massachusetts, have invented an Improvement in Bolsters 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.

This invention has for its object to improve the support of that class of spindles known as "top" spindles, or a spindle which has but a single bearing and that at its lower end below the whirl, the pintle of the spindle running in the bolster which is held loosely in the bolster-case, but is prevented from rotation in the said bolster-case with the spindle.

Prior to my invention the bolsters employed in bolster-cases have been composed of a metal tube formed by casting and boring a piece of iron.

In accordance with my invention the bolster is composed of two, but it may be two or more, concavo-convex shells, which are inserted loosely into a sleeve-like portion of the bolster-case, the said sleeve-like portion being herein shown as screwed into a shank portion, which in turn is attached to the bolster-rail, the lower end of the sleeve-like portion of the bolster-case being provided with a nut which is fitted into its lower end, the said nut serving to support the bolster, and having, as herein shown, a projection to enter a slot at the lower end of the bolster, the projection and slot restraining the bolster from rotation with the spindle.

My invention consists, essentially, in the combination, with a spindle and a bolster-case, of a bolster composed of two or more concavo-convex shells extended longitudinally in the bolster-case between it and the pintle. With the foregoing I combine means to prevent the rotation of the bolster with the spindle.

Figure 1 in vertical section shows a sleeve-whirl and bolster and bolster-rail embodying my invention, the spindle and nut referred to as having a projection to restrain the bolster from rotation with the spindle being in elevation. Fig. 2 is a detail showing in side elevation the said spindle and nut, and Fig. 3 is a plan view of Fig. 2.

The bolster-rail A, having a hole in the usual manner, receives within it the shank portion B of the bolster-case, the same being held in place by the usual nut, B<sup>2</sup>. The shank portion B is screw-threaded, as at 2, to receive the screw-threaded lower end of the sleeve-like portion B', the said sleeve-like portion and shank portion B constituting the bolster-case.

My improved bolster is herein shown as composed of two concavo-convex shells, *a b*, formed of either cast or wrought metal, they being of sufficient length to extend from near the upper end of the bolster-case down to the foot of the spindle, and constitute the lateral bearing for the spindle.

The sleeve-like portion B' of the bolster-case is so chambered, as herein shown, as to leave a shoulder, 3, against which may act the upper end of the bolster to thereby prevent the lifting of the bolster from the upper end of the said sleeve-like portion, the bolster when inserted in working position being passed into the lower end of the said sleeve-like portion, and thereafter the nut C is screwed into the lower end of the sleeve-like portion B', the said nut having a projection, 4, which enters a notch, 5, formed at the lower end of the bolster by cutting away a portion of each edge of the concavo-convex shells at their lower ends. Fig. 2 shows this projection as entering the notch referred to, the two co-operating to prevent the bolster rotating with the spindle in the bolster-case.

The projection 4, referred to as attached to the nut, comprises the foot-rest for the spindle, or a washer might be dropped into the tube to serve that purpose.

A bolster composed of concavo-convex shells such as shown may be made more cheaply than a bolster which is tubular throughout, and a two-part bolster may be readily changed should one part become worn more than the other.

By making the bolster in two parts, divided longitudinally with relation to the length of the spindle, the said bolster entering the bolster-case loosely, the bolster acts the more thoroughly as a cushion to take up and neutralize the vibrations given to the foot of the spindle when rotating rapidly under an unbalanced load.

I claim—

1. The combination, with a bolster-case and spindle, of a bolster composed of two or more concavo-convex shells interposed between the  
5 pintle of the spindle and bolster-case, substantially as described.

2. A bolster-case and spindle combined with a bolster composed of two concavo-convex shells, and with a projection to engage the said  
10 shells and restrain them from rotation with the spindle, substantially as described.

3. The bolster-case composed of the shank B and a sleeve-like portion, B', fitted therein and provided with a shoulder, 3, and a sleeve-

whirl spindle combined with a bolster com- 15  
posed of independent separable concavo-convex shells inserted within the said sleeve-like portion from its lower end, and with a nut to support the bolster and constitute a foot-step for the spindle, substantially as described. 20

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

WILLIAM T. CARROLL.

Witnesses:

T. G. KENT,

F. H. CHAMBERLAIN.