

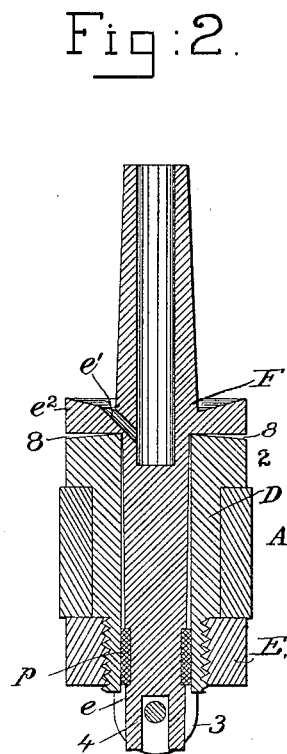
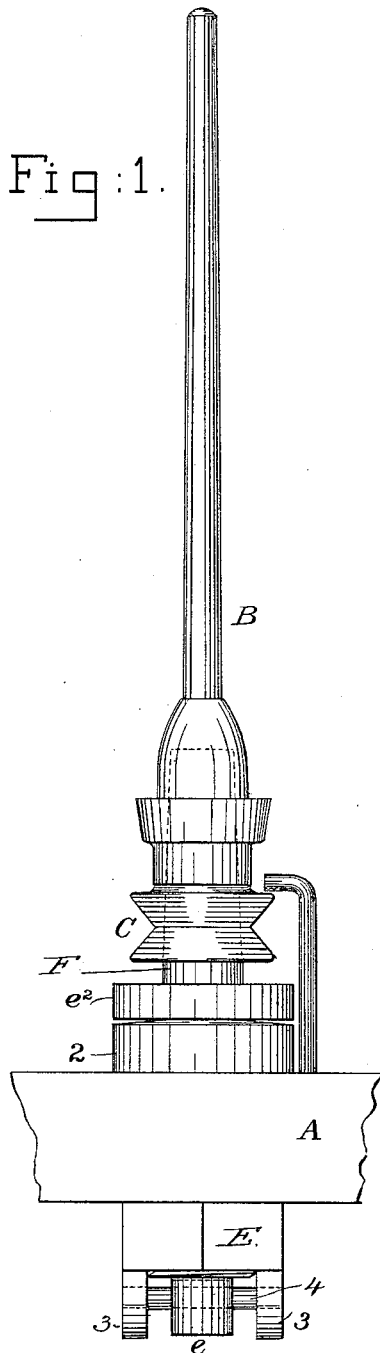
(No Model.)

W. T. CARROLL.

SPINDLE BOLSTER.

No. 344,303.

Patented June 22, 1886.



Witnesses.
John F. Nelson.
John F. C. Brinkley

Inventor.
William T. Carroll.
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UNITED STATES PATENT OFFICE.

WILLIAM T. CARROLL, OF WORCESTER, ASSIGNOR TO THE SAWYER
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SPINDLE-BOLSTER.

SPECIFICATION forming part of Letters Patent No. 344,303, dated June 22, 1886.

Application filed January 12, 1885. Serial No. 152,644. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM T. CARROLL, of Worcester, county of Worcester, State of Massachusetts, have invented an Improvement in Spindle-Bolsters, 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 construction of spindle-bolsters; and it consists, essentially, in a bolster-holder adapted to be placed in a hole in a rail, and the nut attached to the lower end of said holder and provided with a pin or projection, combined with a bolster provided with a foot, which is entered loosely within and extended through the bolster-holder, the foot of the bolster below the rail engaging the pin or projection of the nut, the portion of the bolster above its foot resting upon the holder being extended upward, and being made of small diameter to enter a sleeve-whirl, the upper end of the bolster being of smaller diameter than the diameter of the bolster-holder above the rail, whereby the sleeve-whirl may be made of small diameter, as will be described.

To enable me to employ a very small whirl, I have devised a bolster having a foot, which latter enters a bolster-holder in the step-rail, the top of the bolster entering the sleeve-whirl, the usual support or case extended into the sleeve-whirl being dispensed with.

The foot of the bolster is forked or adapted to engage a pin or projection sustained by the nut which retains the bolster-holder in place in the rail, the pin preventing rotation, yet not interfering with such lateral movement of the bolster as is necessary for the proper centering of the spindle to its load.

Figure 1 in side elevation represents a sleeve-whirl spindle, its support, and rail, to enable my invention to be understood, and Fig. 2 a sectional detail of the parts in Fig. 1 with the spindle removed.

The step-rail A and spindle B having sleeve-whirl C are all as common, except that the whirl is a little smaller than usual. The rail has applied to it the bolster-holder D, provided, as shown, with a collar, 2, to rest on the rail, and at its lower end with a screw-thread

to receive the nut E, which is screwed upon the lower end of the bolster-holder to retain the latter in place. This nut is provided with two ears, 3 3, which receive a cross pin or piece, 4, which latter is engaged by the foot *e* of the bolster F, the said foot being herein shown as forked to straddle the said pin. The part of the bolster above the flange or collar *e'* enters the sleeve-whirl C of the spindle, as shown in Fig. 1 by dotted lines. The pin 4 of the nut co-operates with the bolster to restrain its rotation with the spindle.

The foot of the bolster enters the bolster-holder with what is known as a "loose fit," to thus enable sufficient movement of the former to enable the spindle to run steadily, and, if desired, the foot of the bolster may be grooved annularly for the reception of elastic or yielding packing *p*, the fit between the bolster-foot and bolster-holder being less close when the packing is used.

The spindle may be oiled through the oil-hole *o'*.

The upper end of the bolster-holder on the lower side of the collar may be somewhat tapered to leave a tapering space, 8, between them.

By providing the bolster with a foot placed in a bolster-holder, as described, it is possible to do away with the usual supporting-case, such as shown in United States Patent No. 227,129, the upper end of the said case being extended into the sleeve-whirl to constitute the support for the bolster or part which comes directly against the pintle of the spindle and forms a lateral or side bearing therefor, and consequently I am enabled to make the part of the bolster which enters the sleeve-whirl of less diameter than the combined case, bolster, and packing of the patent referred to, which, without sacrifice of actual working strength of the parts, enables the sleeve-whirl to be made of smaller diameter, which, besides reducing the weight of the spindle, also enables its speed to be increased without increasing the speed of the usual driving-drum.

Prior to my invention I am not aware that the nut to hold the bolster-holder in place has ever been made to support a pin or projection to co-operate with the bolster and restrain it

from rotating with the spindle. Employing the nut, as described, to restrain the rotation of the bolster enables the latter to be easily removed without detaching the nut.

5 I claim—

1. The bolster-holder adapted to be applied to a rail, and the bolster provided with a collar and with a downwardly-extended notched foot placed in the said holder loosely, the portion of the bolster above the collar being stiff and rigid, combined with the sleeve-whirl spindle extended down outside of and next the bolster, the pintle of the spindle entering the hole in the bolster, which also serves as a step for the spindle, and with the nut having the pin 4, which is engaged by the slotted lower end of the bolster, all substantially as described.

2. The bolster-holder adapted to be placed in a hole in a rail, and the nut E, applied to the lower end of the bolster-holder, and provided with a pin or projection, 4, combined with the bolster provided with a foot to enter the said bolster-holder loosely, the foot of the bolster below the rail co-operating with the pin or projection of the said nut to restrain the rotation of the bolster in the bolster-holder, substantially as described.

3. The rail, the bolster-holder adapted to be placed in a hole in the said rail, and a nut to retain the said holder in place, combined with a bolster having a collar and a foot below the collar, the top surface of the bolster-holder and the under surface of the collar being shaped relatively to each other, as described, whereby a tapering space is left between the under side of the collar and the top of the bolster-holder, to operate all substantially as and for the purpose set forth.

4. The rail, the bolster-holder therein, and the bolster-holding nut E, having the pin or projection, combined with the rigid one-piece bolster having a collar, a foot below it to enter the bolster-holder loosely, the said foot being provided with an elastic packing, and being shaped to engage the pin or projection of the said nut, all substantially as described.

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

WILLIAM T. CARROLL.

Witnesses:

A. WHEELER,
GEO. A. DRAPER.