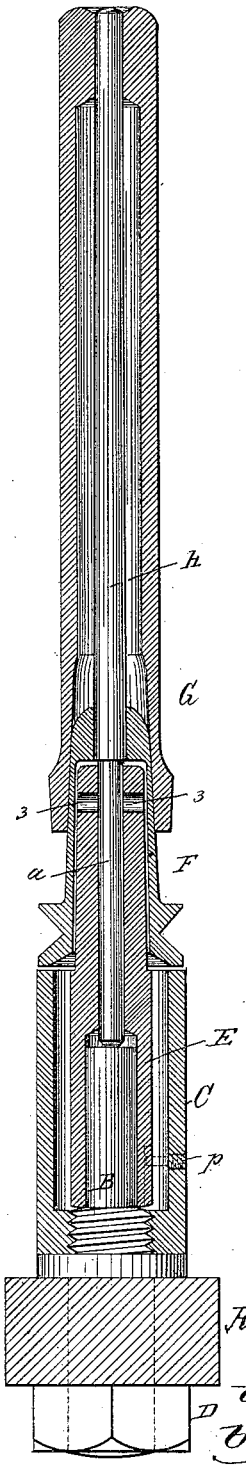
(No Model.)

W. T. CARROLL.

SPINDLE BOLSTER.

No. 344,305. Patented June 22, 1886.



Witnesses.
Arthur Lipperton.
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UNITED STATES PATENT OFFICE.

WILLIAM T. CARROLL, OF WORCESTER, ASSIGNOR TO GEORGE DRAPER & SONS, OF HOPEDALE, MASSACHUSETTS.

SPINDLE-BOLSTER.

SPECIFICATION forming part of Letters Patent No. 344,305, dated June 22, 1886.

Application filed September 15, 1884. Serial No. 143,127. (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 drawing, is a specification, like letters on the drawing representing like parts.

This invention has for its object to simplify the construction of the parts which hold and steady the spindle in its rotation.

In this my invention the case or oil-well attached to the rail has erected in it a post, which is surrounded in the oil-well by the bolster and receives against its upper end the lower end of and supports the weight of the spindle. The bolster is open centrally at both ends, thus admitting the entrance of oil within it, one end fitting over the post, while the other end receives the pintle of the spindle. The bolster, instead of being short and terminating at the top of the case, is shown as extended above the case, and in practice the upper part of the bolster is extended well into the sleeve of the whirl.

The drawing represents in elevation the spindle and the post and nut, and in section the bolster, sleeve-whirl, bolster-step, and rail.

The rail A, common to ring-spinning frames, receives the foot of the post B, the same being secured in the case C. The lower end of the post is herein shown as threaded, and after being passed through a hole in the rail is then secured in the usual manner by a nut, D.

The post B, located at the center of the case C, is of such diameter with relation to the interior diameter of the case and the thickness of the foot of the bolster E as to leave an ample oil-space within the case when the open lower end of the bolster is applied to and surrounds the post B. The post B is of sufficient diameter to afford the necessary strength to retain the bolster centrally with relation to the case C, and it and the bolster have what is called a "loose fit."

The upper end of the bolster, extended above the case C, when it is surrounded by the sleeve-whirl F, serves as a side bearing for the pintle *a* of the spindle H, and, as shown, is extended well up to the junction of the whirl and spindle, to support the pintle thereof at a point above the base of the bobbin G. The pintle of the spindle, extended into the top of the bolster, rests at its lower end upon the top of the post B, so that the latter, besides acting to support the weight of the spindle and bobbin, also acts to centralize and hold the bolster.

The bolster, just below its upper end, is provided with holes 3 3, for the passage of oil, and in practice the said holes prevent the flow of oil to and over the top of the bolster, and consequently oil cannot rise on the spindle to its junction with the whirl and thence descend to the inside of the whirl, to be thrown off. The fit between the post and bolster is such as to permit a thin film of oil to come between them.

The weight of the bolster, due to its thickness and length, is sufficient to exert such an amount of drag or friction as to enable the bolster to rest loosely in the case about the post, and in many cases the bolster need not be provided with means for restraining its rotation, as heretofore customary; but, if it is found necessary to restrain the rotation of the bolster with the spindle, a pin or projection, such as shown by the letter *p* in dotted line, may be employed, the said pin held in the case entering a slot in the bolster.

I claim—

1. The case C, to contain oil, the post located therein, and the bolster placed on the said post, with its upper end extended above the post and its lower end surrounding the post within the oil-well, to permit the entrance of oil between the post and bolster to act as a cushion, combined with the spindle having its pintle entered within a hole at the upper end of the bolster, in line with the post, substantially as described.

2. The case C, to contain oil, the post therein, and the bolster open at both ends and surrounding the post in the said supporting-case, to permit the entrance of oil between the bolster and the post, the upper end of the bolster being extended above the end of the case, combined with the spindle and its attached sleeve-whirl to surround the bolster, the pintle of

the spindle entering the upper end of the bolster, substantially as and for the purpose described.

3. The case to contain oil, the post, and the bolster bored from end to end and placed upon the post and extended above the case, combined with the sleeve whirl and the spindle, the pintle of which is inserted in the top of the bolster and rests upon the top of the post, the sleeve of the whirl surrounding the upper end of the bolster above the case, 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:
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