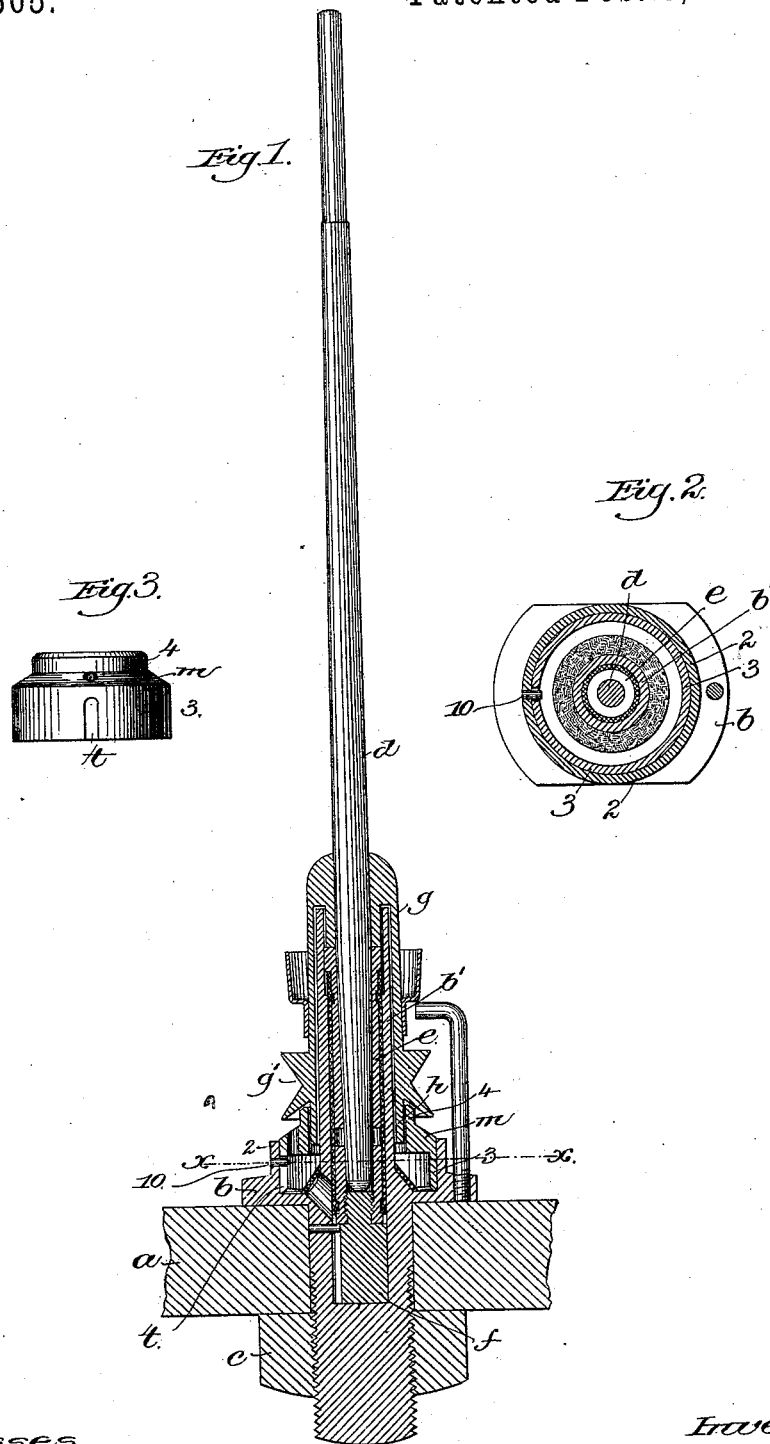


(No Model.)

C. D. ROBINSON.
SUPPORT FOR SPINNING SPINDLES.

No. 420,565.

Patented Feb. 4, 1890.



Witnesses.

Andrew L. Emery,
Fred. S. Greenleaf

Inventor.

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UNITED STATES PATENT OFFICE.

CHARLES D. ROBINSON, OF MANCHESTER, NEW HAMPSHIRE, ASSIGNOR TO
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SUPPORT FOR SPINNING-SPINDLES.

SPECIFICATION forming part of Letters Patent No. 420,565, dated February 4, 1890.

Application filed March 5, 1889. Serial No. 301,872. (No model.)

To all whom it may concern:

Be it known that I, CHARLES D. ROBINSON, of Manchester, county of Hillsborough, State of New Hampshire, have invented an
5 Improvement in Supports for Spinning-Spindles, of which the following description, in connection with the accompanying drawings, is a specification, like letters and figures on the drawings representing like parts.

10 This invention has for its object to provide an improved construction, whereby the oil drawn up by the spindle in its rotation is prevented from being thrown off outside the support and upon the rail.

15 In accordance with my invention the sleeve of the whirl is extended below the whirl into a cap the opposite ends of which have tubular extensions of different diameters, the lower end of the cap fitting within the bolster-support.

20 Figure 1 represents mostly in section a spindle and its support with my improvements added. Fig. 2 is a section on the line *a*, Fig. 1; and Fig. 3 shows the cap in elevation.

25 The rail *a*, the bolster-support *b b'*, nut *c*, spindle *d*, bolster *e*, and step *f* are and may be of usual construction. The sleeve-whirl *g* is provided below the whirl *g'* with a tubular extension *h*, which extends substantially to the upper end of the curb 2 of the support *b*. I have provided a cap *m*, having sleeve-like ends 3 4 of different diameters, the end 3 entering the recess or chamber within the said curb 2, while the end 4, surrounding the extension *h*, is extended up
30 into the recessed under side of the whirl, as shown in the drawings. The part *b'* of the support is extended upwardly into an annular space of the sleeve of the whirl above the
40 top of the bolster *e*.

Oil supplied to the support in any usual manner will by the rotation of the spindle be drawn up in the bolster, and oil in excess
45 is at times forced up over the top of the tubular portion *b'* and by centrifugal action is thrown against the inner side of the sleeve of the whirl, and from there, if it were not for the extension *h* and the cap *m*, the oil

would be thrown outwardly from the lower 50 end of the whirl at its inner side; but, as herein shown, any oil which arrives against the interior of the sleeve of the whirl is carried below the extension *h*, and when thrown off by centrifugal action is thrown off against 55 the interior of the cap *m*, from which it descends into the inner side of the rim 2 of the support *b*. The lower end 3 of the cap *m* is shown as slotted at *t* to receive a pin or projection 10, by which to prevent the rota- 60 tion of the cap.

It will be noticed that the lower end of the cap *m* fits within the curb 2 of the supporting-case, which actually prevents oil from passing outside the said case; and it 65 will also be noticed that the lip 4 of the cap *m*, by being extended above the lower end of the sleeve-whirl and up into a chamber below the bottom of the whirl, actually prevents any oil from getting upon the whirl. 70

I do not claim, broadly, a cap having a horizontal lip to enter an annular groove in the whirl, the said cap being applied to the outer surface of the curb of a supporting-case.

Prior to my invention, I am aware, a plate 75 or cap having a flanged lip and fitted on the outside of a curb has had at its upper end a sleeve-like extension to overlap a sleeve-like extension of a whirl; but in such construction oil escaping over the top of the cap is 80 not directed into the curb.

I am also aware that a washer resting on a shoulder within a curb near its upper end has been provided with an upwardly-extended sleeve to embrace an extension of the 85 whirl; but such sleeve does not extend above the bottom line of the whirl, nor has said washer a downwardly-extended sleeve, as in my invention. A washer supported within a curb near its upper end and not having a 90 downwardly-extended sleeve cannot be depended upon to prevent the escape of oil from between it and the curb and over the top of the latter.

I claim—

95 The spindle-support having the curb 2, the spindle having a sleeve-whirl provided with an extension *h*, combined with the cap

m, having sleeve-like ends 3 and 4, the end 4 being extended above the extension *h* of the whirl, while the end 3 of the cap is fitted within the said curb 2, whereby any oil caught
5 within the cap is positively directed within the supporting-case, substantially as described.

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

CHARLES D. ROBINSON.

Witnesses:

A. P. HORNE,

W. F. DANFORTH.