(No Model.)

J. E. PREST.

SPINDLE STEP FOR SPINNING FRAMES.

No. 303,046. Patented Aug. 5, 1884.

Fig. 1.

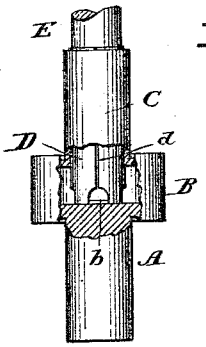


Fig. 2.

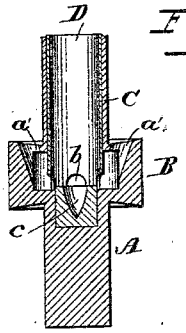
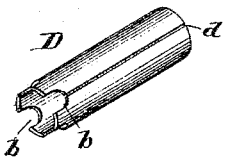


Fig. 3.



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UNITED STATES PATENT OFFICE.

JOHN E. PREST, OF FALL RIVER, MASSACHUSETTS.

SPINDLE-STEP FOR SPINNING-FRAMES.

SPECIFICATION forming part of Letters Patent No. 303,046, dated August 5, 1884.

Application filed December 18, 1883. (No model.)

To all whom it may concern:

Be it known that I, JOHN E. PREST, a citizen of the United States, residing at Fall River, in the county of Bristol and State of Massachusetts, have invented certain new and useful Improvements in Steps for Spindles; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

My invention relates to spindle-steps for spinning-frames; and it consists in the improved construction hereinafter fully described, whereby the effective lubrication of the spindle is obtained, and the liability of fibrous filaments and other extraneous matter to enter the oil-chamber and interfere with the proper rotation of the spindle is obviated.

In the drawings, Figure 1 is a front elevation of a spindle-step, a portion of the oil-chamber being cut away. Fig. 2 is a transverse vertical section of Fig. 1; and Fig. 3 is a perspective view of the tube or bushing detached.

A represents the step, having the oil-chamber B, from the top of which projects the tubular extension C. The said oil-chamber B is provided on its upper face with openings *a a'* for the introduction of oil. A tube or bushing, D, is located concentrically within the extension C, so that the lower end of said tube or bushing rests upon the bottom of the oil-chamber B. The tube or bushing D may consist of a continuous cylinder, but is preferably constructed of a single piece of spring metal having the vertical slit or opening *d*, as shown in Fig. 3, to insure its close contact with the inner sides of the tubular extension C. The said tube or bushing D is provided with a series of notches, *b*, on its lower end. The spindle E revolves in the tube or bushing D, with its lower end bearing on the seat *c* of the step. The oil passes to the end of the spindle E through the notches *b* in the lower end of the tube or bushing D, and is fed upward on said spindle by the rapid revolution thereof. As the spindle is not in direct contact with the oil in the chamber B, all tendency of said spindle to scatter the oil by its revolution is prevented. Moreover, any liability of the spindle by its revolution to draw fibrous filaments and other foreign matter into the oil-chamber and impair the proper working of the spindle is avoided.

From the foregoing description it will be apparent that the device is not only of simple and inexpensive construction, but is also durable and thoroughly effective in operation.

Having fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. The combination, with a step for spindles, having an enlarged oil-chamber, as shown, said chamber being provided with an oil opening or openings, of a tube or bushing constructed of spring metal, notched at its lower end, and having a vertical slit, substantially as and for the purpose set forth.

2. The combination, with a step for spindles, having an enlarged oil-chamber, and a tubular extension for the support of the spindle, of a tube or bushing constructed of spring metal and notched at its lower end, substantially as set forth.

3. The combination, with a step for spindles, having an enlarged oil-chamber provided with an oil opening or openings upon its upper face, and having a tubular extension, of a tube or bushing constructed of spring metal, notched at its lower end, and having a vertical slit, said bushing resting at its lower end upon the bottom of the oil-chamber, its upper end being held and supported against movement by the tubular extension of the oil-chamber, substantially as set forth.

In testimony whereof I affix my signature in presence of two witnesses.

JOHN E. PREST.

Witnesses:
GEORGE E. BAMFORD,
HENRY H. EARL.