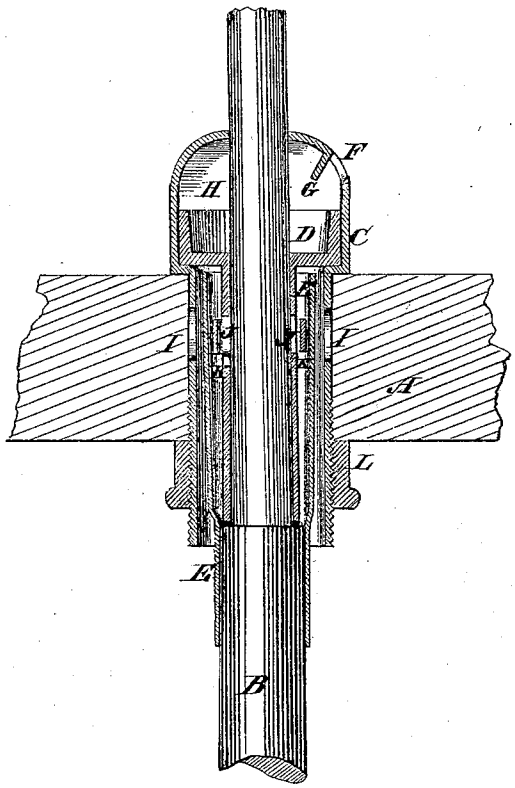
C. F. WILSON.

Spindle-Bolsters for Spinning-Machines.

No. 135,190. Patented Jan. 21, 1873.



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UNITED STATES PATENT OFFICE.

CHARLES F. WILSON, OF NORTHBRIDGE, MASSACHUSETTS, ASSIGNOR TO HIMSELF AND JESSE E. FOLK, OF BROOKLYN, NEW YORK.

IMPROVEMENT IN SPINDLE-BOLSTERS FOR SPINNING-MACHINES.

Specification forming part of Letters Patent No. **135,190**, dated January 21, 1873.

To all whom it may concern:

Be it known that I, CHARLES F. WILSON, of Northbridge, in the county of Worcester and State of Massachusetts, have invented a new and useful Improvement in Spindle-Bolsters, of which the following is a specification:

The spindle-bolsters of spinning-frames, in consequence of the exceedingly rapid revolving motion of the spindle, are very liable to wear and the spindle to be drawn out of place by the thread; and many attempts have been made and much ingenuity expended to insure such a lubrication of the spindle as will prevent it from wearing; but such attempts have hitherto been, in my opinion, but partially successful.

My invention relates to lubricating bolsters for spindles of spinning-frames; and consists in an arrangement of a sleeve or box bearing having a reservoir on its upper end for receiving the oil, and central perforations and tangential plates or lips for co-operating with an inverted conical or tapered tube secured to the spindle to cause the lubricant to maintain a constant circulation not only from the reservoir downward until the same is empty, but subsequently in contact with a portion of the spindle, as hereinafter described.

The accompanying drawing represents a vertical central section, showing my improved spindle-bearing attached to the rail.

Similar letters of reference indicate corresponding parts.

A is the spinning-frame rail. B is the spindle. C is the shell which surrounds the bearing-box. D is the box, and E is a cup attached to the spindle, which cup revolves in the annular space between the shell and the box, as seen in the drawing. The upper portion of the shell is an oil-reservoir. The top of the shell is formed to tightly inclose the spindle without causing friction. F is an orifice for introducing oil. This orifice is made with a punch, which leaves a lip, G, which is turned in, so as to form a guard to the spindle when the oiler is introduced. This feature, however, is described and claimed in a separate application for a patent for a spindle-step. The oil which is introduced into the chamber H runs down the spindle to the bottom of the box, from whence it works into the cup E. The centrifugal force now carries it up to the apertures J, (one or more.) These apertures have projecting lips K, which break the upward current and force the oil through the apertures, and in contact with the bearing or spindle. A constant circulation of the oil is thus kept up, so that the spindle constantly runs in oil. I I are apertures in the shell opposite the orifices J. L is a nut, which screws onto the shell beneath the rail, and securely fastens the bearing to the rail.

These bolsters are usually secured to the rail by means of set-screws bearing against the side. This mode is objectionable when an outer shell is used, as the end of the screw is liable to spring the shell and displace the box.

By means of the nut L the box-bearing is brought to its proper place with very little trouble and in the most perfect manner.

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

1. A spindle-bearing consisting of the shell C, box D, and cup E, constructed and arranged substantially as described.

2. In combination with the spindle B, the cup E and the sheet-metal bearing sleeve or box D having an oil-reservoir formed on its upper end, and provided with apertures J and ears or lips K projecting outward and over the same, all as shown and described, whereby the oil supplied to the reservoir of said sleeve will be fed gradually through it and returned through its central apertures, a circulation of the lubricant being thus maintained in contact with the spindle, as specified.

CHARLES F. WILSON.

Witnesses:
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