W. C. MACOMBER.

Spindle-Bearing for Spinning-Machines.

No. 209,489. Patented Oct. 29, 1878.

Fig. 1.

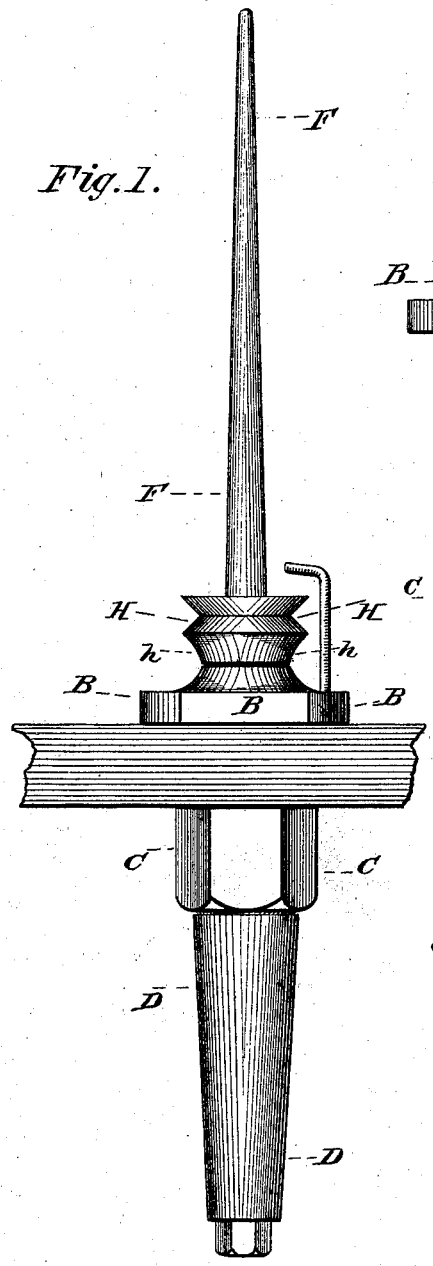


Fig. 3.

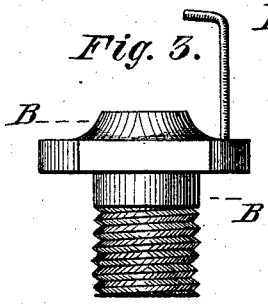


Fig. 4.

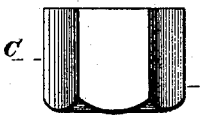


Fig. 5.

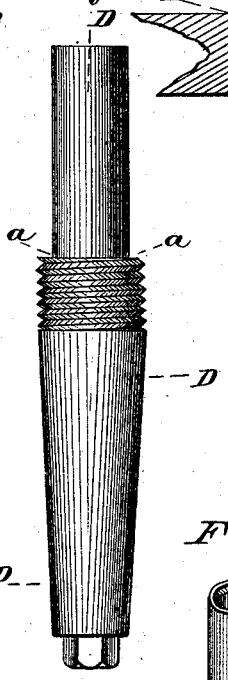


Fig. 2.

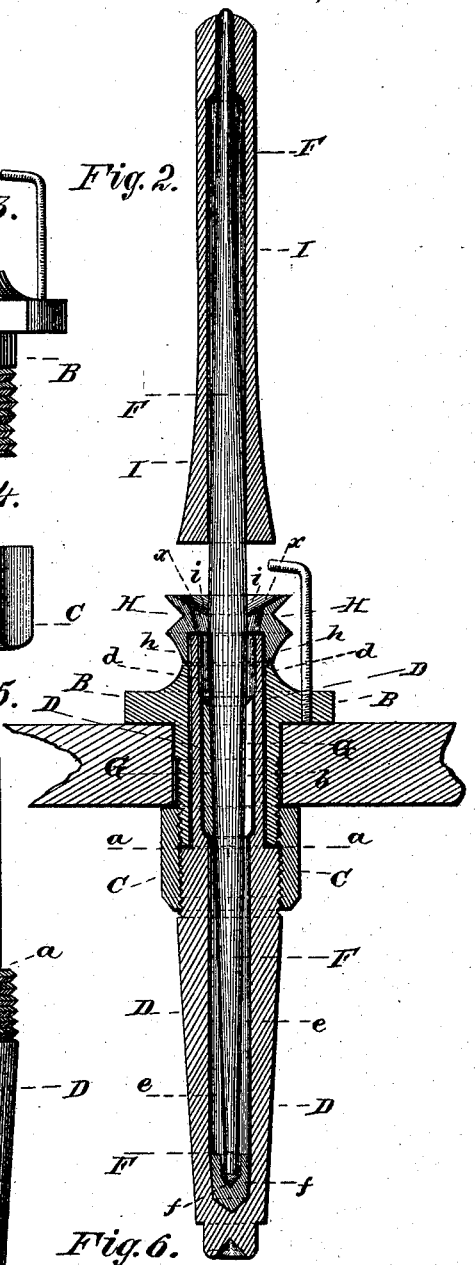
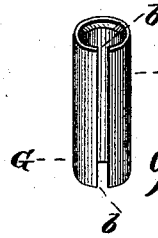


Fig. 6.



Witnesses:

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UNITED STATES PATENT OFFICE.

WILLIAM C. MACOMBER, OF BALTIC, CONNECTICUT.

IMPROVEMENT IN SPINDLE-BEARINGS FOR SPINNING-MACHINES.

Specification forming part of Letters Patent No. **209,489**, dated October 29, 1878; application filed August 30, 1878.

To all whom it may concern:

Be it known that I, WM. C. MACOMBER, of Baltic, in the county of New London and State of Connecticut, have invented certain new and useful Improvements in Spindle-Bearings for Spinning-Machines; and I do hereby declare that the following is a full, clear, and exact description of the invention, which 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 of reference marked thereon, which form a part of this specification.

The nature of my invention relates to spindle-bearings for spinning-machines; and it consists in the combination of a bushing connected to a holder by an elongated nut, and thereby held firmly in position, with a slitted bolster-bearing inside the holder, and a recessed, perforated, and flanged whirl overhanging the holder and preventing the ingress of foreign matter, as will be hereinafter more fully set forth.

In the annexed drawing, to which reference is made, Figure 1 is a side elevation of my invention. Fig. 2 is a longitudinal vertical part section of the same. Figs. 3, 4, 5, and 6 are detailed views of parts thereof.

B represents a bushing, made in tubular form and passed through the rail of the spinning-machine. C is an elongated nut, screwed on the end of the bushing B, and being about twice as long as is necessary to hold the guide firmly to the rail. The bushing B will never be moved after once set. D is the spindle-holder, passing up through the bushing B, and having exterior screw-threads to screw into the nut C until the end of the bushing B and a shoulder, *a*, on the holder come in contact with each other, so as to give the spindle always its proper height. Fitted in the holder D, near the upper end, is a tubular bolster, G, which has a longitudinal slot, *b*, and above said bolster the holder assists to form a cup, *d*, as shown. When the spindle is running, the oil rises on the spindle and is thrown from the spindle against the sides of the cup *d*, and returns to the tank or reservoir *e* through the slot *b* in the bolster. The tank or reservoir *e* is formed by the holder D below the bolster G. F is the spindle, passing through the bolster and resting in a step, *f*, fastened in the lower end of the holder.

It will readily be seen that by the rapid revolution of the spindle a free circulation is given to the oil at the point of the greatest friction—*i. e.*, in the bolster G.

The spindle F is provided with a whirl, H, firmly attached to it, for the purpose of driving the spindle. This whirl has a petticoat, *h*, at the bottom, fitting over the upper end of the holder D, which rises above the bushing B, preventing any dirt from getting into the oil. In the top of the whirl H is formed a cup, *i*, for oiling the spindle, and oil-holes *x* pass through the whirl for oiling the spindle and ventilating the same.

I represents the bobbin, made of wood, passing over the spindle and fitting the same at top and bottom, the spindle being of the proper taper to hold it in position.

Should it be necessary at any time to clean the oil-reservoir *e*, it can easily be done by unscrewing the holder from the nut C, leaving the bushing and spindle in the rail.

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

The combination of the bushing B, holder D, elongated nut C, spindle F, step *f*, bolster G, having longitudinal slit *b*, and the whirl H, provided with the petticoat *h*, and cup *i*, with holes *x*, all substantially as and for the purposes herein set forth.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in presence of two witnesses.

WM. C. MACOMBER.

Witnesses:

GEORGE BLIVEN,

THOMAS HOOLEY.