(No Model.)

H. F. WOODMANCY.

SUPPORT FOR SPINNING SPINDLES.

No. 476,587. Patented June 7, 1892.

Fig. 1.

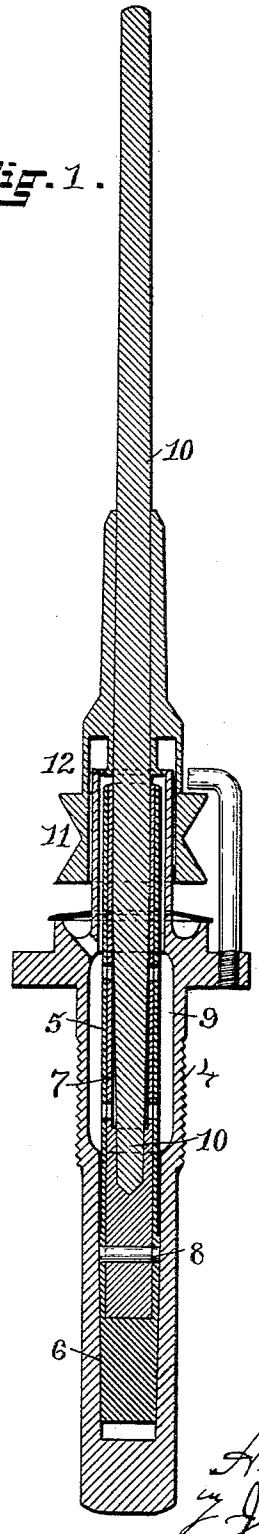


Fig. 2.

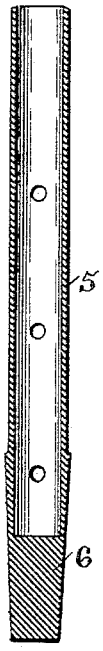
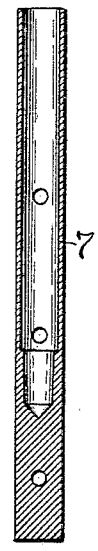


Fig. 3.



WITNESSES:

Henry J. Miller

Chas. B. Luther Jr.

INVENTOR:

Henry F. Woodmancy

by Joseph A. Miller & Co.

Attys.

UNITED STATES PATENT OFFICE.

HENRY F. WOODMANCY, OF WHITINSVILLE, MASSACHUSETTS.

SUPPORT FOR SPINNING-SPINDLES.

SPECIFICATION forming part of Letters Patent No. 476,587, dated June 7, 1892.

Application filed September 18, 1891. Serial No. 406,116. (No model.)

To all whom it may concern:

Be it known that I, HENRY F. WOODMANCY, of Whitinsville, in the county of Worcester and State of Massachusetts, have invented a new and useful Improvement in Supports for Spinning-Spindles; and I hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming part of this specification.

This invention has reference to an improvement in the construction of the bolster and step-bearing of spinning and twisting machine spindles; and it consists in the peculiar and novel construction more fully set forth hereinafter.

Figure 1 is a vertical sectional view of my improved spindle. Fig. 2 is a vertical sectional view of the supporting-tube. Fig. 3 is a vertical sectional view of the combined bolster and step-bearing.

Similar numbers of reference designate corresponding parts in all the figures.

In the drawings, the numeral 4 indicates the tubular case, provided with a projecting flange adapted to rest on the rail, a screw-threaded portion below the flange adapted to receive a nut, by which the case 4 is secured to the rail of the spinning-machine, an oil-cup above the flange communicating with the interior of the case, and a tubular sleeve extending above the oil-cup.

The supporting-tube 5 is a rigid tube and is provided at its lower end with a long tapering pin 6, which is firmly secured by being driven into the long tapering socket in the lower part of the case 4.

The combined bolster and step tube 7 is made to fit the interior of the supporting-tube 5 with a loose sliding fit, so that the same may be drawn out or placed into the supporting-tube without exerting any force. The combined bolster and step tube 7 is held against rotating with the spindle by the pin 8, extending through the lower part of the combined bolster and step tube 7 and the supporting-tube 5. Openings in the supporting-tube and in the combined bolster and step tube connect the spindle with the interior of the case 4, forming the oil-reservoir 9, and supply oil to the spindle. The spindle 10 is supported in the combined bolster and step tube, the blade of the spindle extending above the support and being provided with the sleeve-whirl 11, which surrounds the upward-extending tube of the case 4.

The oil-deflector disk 12 surrounds the spindle 10 above the upper end of the supporting-tube 5 and below the upper end of the tube, extending upward from the case 4 above the oil-cup.

All the wear of the spindle on its bearings is confined to the combined bolster and step tube 7, which can be easily removed and renewed. The lubrication of the spindle is thorough. The oil raised by the spindle can freely flow down between the supporting-tube and the interior of the case. The slight looseness of the combined bolster and step tube 7, restrained by the pin 8, and the rigidity of the supporting-tube 5 prevent the transmission of the blows and jars caused by the rapid revolution of the spindle, and the spindle may therefore be run at very high speed without the wabbling and uneasy motion incidental to spindles running at high speed.

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

1. In a spinning-spindle, the combination, with the spindle provided with a sleeve-whirl and a case adapted to be secured to a rail and having a tubular extension above the rail adapted to enter the sleeve-whirl, of a supporting-tube firmly secured in the bottom of the case and extending upward in the case above the center of the whirl and not in contact with the interior of the case and a combined bolster and step tube loosely fitting in the supporting-tube and held against rotation by a pin extending through the lower part of the combined bolster and step tube and the wall of the supporting-tube, as described.

2. In a support for a spinning-machine spindle, the combination, with the case 4, provided with the upward-extending tube, of the supporting-tube 5, firmly secured in the bottom of the case 4, and the combined bolster and step tube 7, supported loosely in the tube 5 and held against rotation by the pin 8, as described.

HENRY F. WOODMANCY.

Witnesses:
HENRY J. MILLER,
JOSEPH A. MILLER.