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JACOB H. SAWYER.

Improvement in Spindle Bearings for Spinning Machines.

No. 119,283.

Patented Sep. 26, 1871.

Fig. 1.

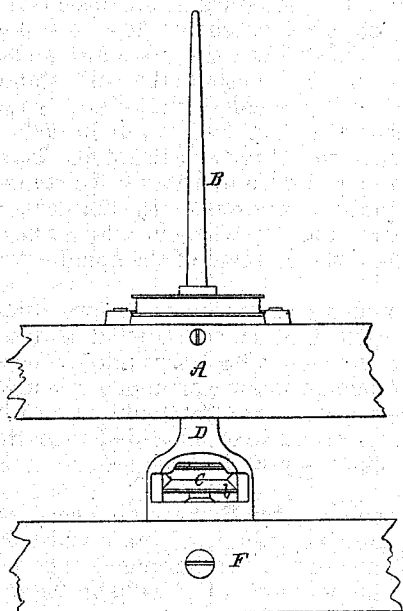
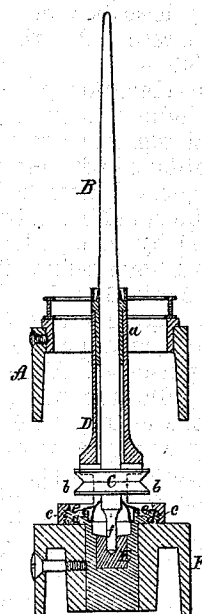


Fig. 2.



Witnesses.

S. N. Piper

L. N. Moller

Jacob H. Sawyer

by his attorney,

R. H. Eddy

UNITED STATES PATENT OFFICE.

JACOB H. SAWYER, OF LOWELL, MASSACHUSETTS.

IMPROVEMENT IN SPINDLE-BEARINGS FOR SPINNING-MACHINES.

Specification forming part of Letters Patent No. 119,283, dated September 26, 1871.

To all whom it may concern:

Be it known that I, JACOB H. SAWYER, of Lowell, of the county of Middlesex and State of Massachusetts, have made a new and useful invention, having reference to the spindles and the bearings thereof, of machinery for spinning or twisting; and I do hereby declare the said invention to be fully described in the following specification, and represented in the accompanying drawing, of which—

Figure 1 is a front elevation, and Fig. 2 a vertical section of a spindle with its supporting and ring-rails and sustaining-bearings arranged and constructed in accordance with my invention.

The principal objects I have had in view in the production of the spindle and its supporting devices, as improved by me and hereinafter described, are such as I have defined in my patent No. 113,575, dated April 11, 1871. For sustaining the spindle-foot bearing or step I am enabled to employ but one rail, arranged below the ring-rail, the whirl being disposed above the supporting-rail and the spindle-step being within such rail. Furthermore, the upper bearing of the spindle is at the upper part of a tubular standard, which encompasses the spindle. In my present improvement the said tubular standard is wholly above its supporting rail, and is screwed to and upon the spindle-step, which is socketed in the said rail and held in place therein by a clamp-screw. The standard is also open in its lower part so as to receive the whirl and expose it in a manner to enable its driving-band to be extended about it without interference from the standard.

In the drawing, A denotes the ring-rail of a ring spinning-frame. Such rail is to be supposed

to carry the ring and be movable in the usual manner. B is the spindle; C, the whirl; D, the spindle-supporting tubular standard; E, the spindle-step; and F, the supporting rail of the latter. The upper bearing of the spindle is shown at *a* as situated at the head of the hollow post or standard, the foot *f* of the spindle being within the step. The standard at its base is open on one or both sides, as shown at *b*, to expose the whirl, which is within the standard and above the step-rail. The base of the said standard is provided with a female screw, *c*, to engage with a corresponding male screw, *d*, formed on the periphery of the flange *e* of the step. This mode of combining the standard and the step admits of the ready separation of the former and the spindle from the step whenever it may be desirable to effect the removal of the spindle from the step.

I claim as my invention as follows, viz.:

1. The standard D, constructed as described, with the whirl-opening *b* through its base, and with the female screw *c* arranged in such base, in manner as set forth, in combination with the spindle-step as made or provided with the connecting male screw *d* arranged on it, as explained.

2. The spindle-step E, the upper bearing-standard D, the live spindle B, and whirl C, constructed, combined, and arranged together and with the supporting rail F, substantially as described.

JACOB H. SAWYER.

Witnesses:

R. H. EDDY,
J. R. SNOW.

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