T. Marsh,

Spindle Lubricator.

No. 63,543. Patented Apr. 2, 1867.

Fig. 2.

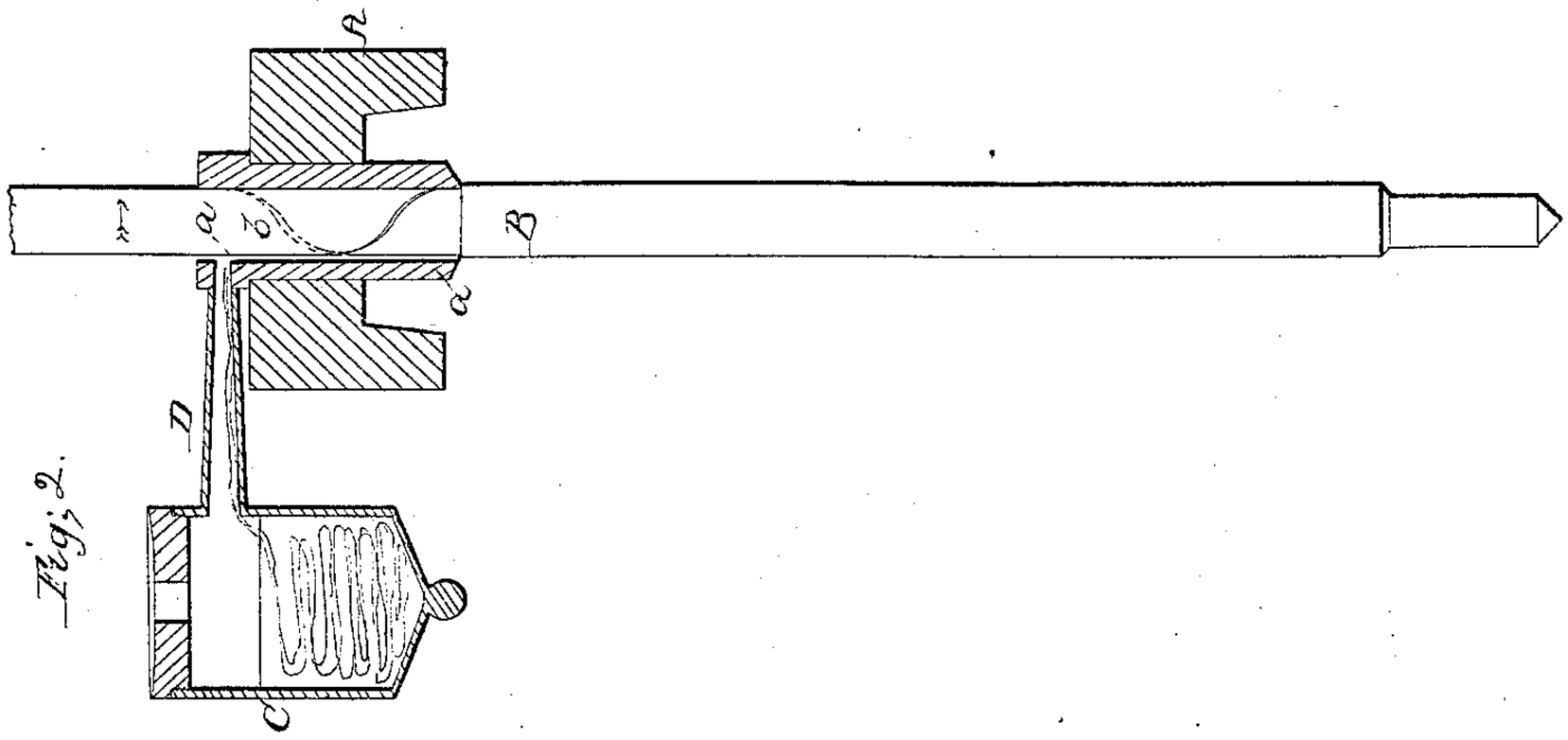
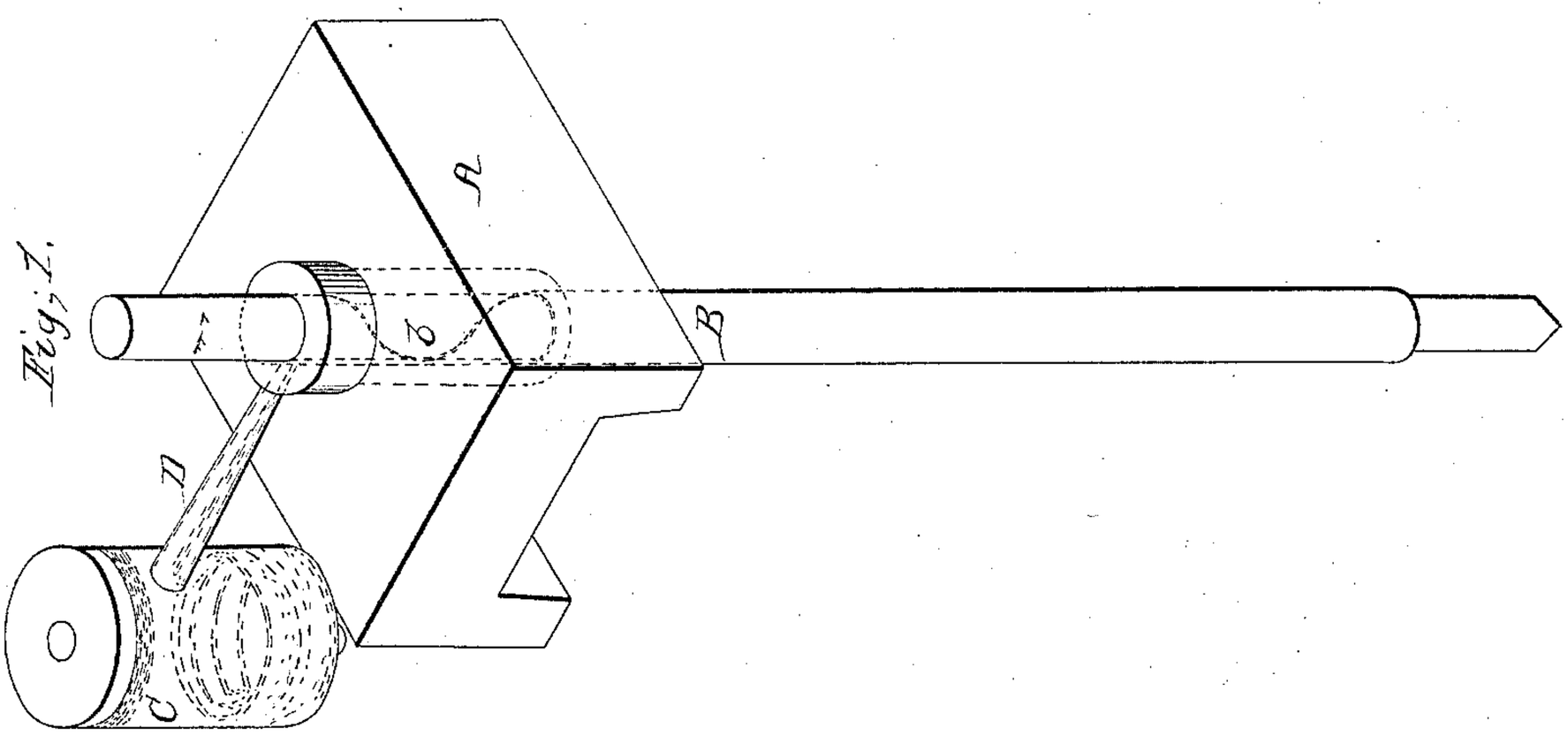


Fig. 1.



Witnesses;
John D. Thurston
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Inventor;
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THOMAS MARSH, OF CENTRAL FALLS, SMITHFIELD, RHODE ISLAND, ASSIGNOR TO HIMSELF AND D. L. FALES, OF SAME PLACE.

Letters Patent No. 63,543, *dated April* 2, 1867.

IMPROVEMENT IN DEVICE FOR LUBRICATING SPINDLES.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that I, THOMAS MARSH, of Central Falls, Smithfield, in the county of Providence, and State of Rhode Island, have invented certain new and useful improvements in means for Lubricating the Spindles of Spinning-Frames; and I do hereby declare that the following specification, taken in connection with the drawings making part of the same, is a full, clear, and exact description thereof.

Figure 1 is a view in perspective of a spindle fitted to the rail of a spinning-frame and provided with my improvement.

Figure 2 is a sectional elevation of the same.

Various forms of bolsters have been employed with the design of economizing the consumption of oil by providing for the delivery of the oil to the spindle through a fibrous absorbent connecting an oil reservoir with the spindle.

The principal device employed for this purpose consists of a bolster similar to the plain cylindrical bolster previously known, with the exception that it is sufficiently enlarged near the head to give space for the introduction of an annular chamber for holding some fibrous material and a small quantity of oil, the oil being supplied to the spindle through suitable ducts connecting the chamber with the spindle bearing.

This and other devices of a similar character are objectionable in this, that while on the one hand the oil reservoir is not sufficiently large to prevent the necessity of being frequently refilled, the contents of the chamber will on the other hand escape and trickle down the spindle if the latter is at rest or is unable to consume all the oil that is supplied through the ducts. To remedy these objections is the object of my invention.

In the accompanying drawings, A represents a section of the rail of a spinning-frame. B is the spindle fitted to the bearing or bolster shown in section in fig. 2. C is a reservoir, which may be of any preferred and convenient size, for holding oil, and connected with the bearing of the spindle by means of a tube, D, the outlet through the tube from the reservoir being near the top of the latter and above the intended level of the oil therein. A single reservoir may be appropriated to each bolster, or several bolsters may by as many different tubes be connected with one reservoir. Within the reservoir C is placed a wick of fibrous material, the end of which is conducted through the tube D to the bolster, and is continued throughout its length in a channel, *a*, cut in the side of the bearing. Inasmuch as in the operation of the spindle the tendency of the oil will be to settle toward the lower end of the bolster and trickle down the spindle, I have for the purpose of redistributing it throughout the bearing cut upon the bearing of the spindle a spiral channel, *b*, or thread of very sharp pitch, winding in the opposite direction from that in which the spindle turns, the result of which is that the oil which collects near the bottom is carried up the inclined plane, the oil being the equivalent of a nut similarly situated.

From the foregoing it is obvious that the following advantages are secured by my invention; a large body of oil can be kept in readiness for use, which by the power of capillary attraction in the fibrous material is delivered to the bearing as fast as it is required, and without waste, while the circulatlon of oil so delivered is by means of the spiral channel constantly maintained.

What I claim as my invention, and desire to secure by Letters Patent, is—

The oil reservoir C, and conducting tube D, distinct from the bolster, in combination with a channel *a*, cut in the side of the spindle bearing, and a suitable absorbent for conducting the lubricant, arranged substantially as described for the purposes specified.

THOMAS MARSH.

Witnesses:

BENJ. F. THURSTON,

EDWIN T. CASE.