

E. N. Steere,

Spindle,

No. 44,988,

Patented Nov. 8, 1864.

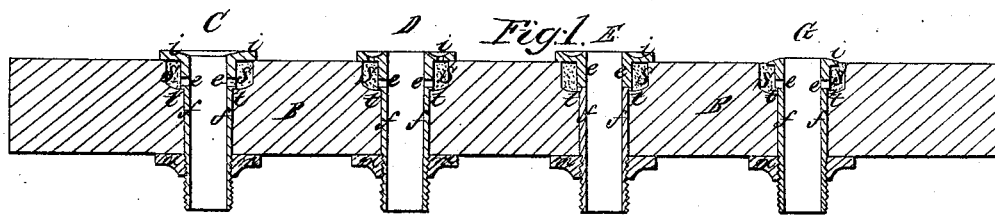


Fig. 2.

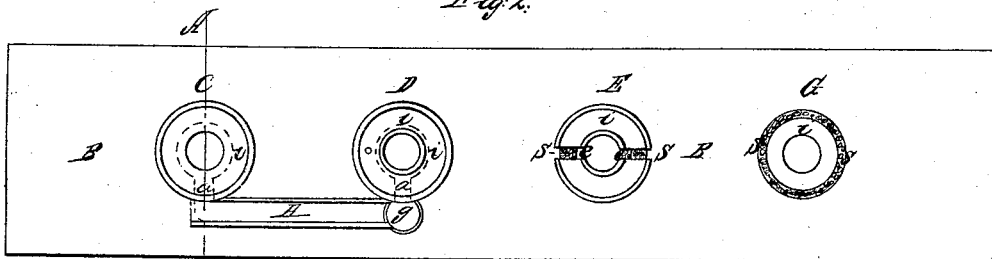


Fig. 3.

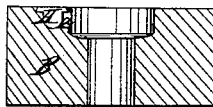
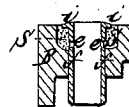


Fig. 4.



Witnesses:
Lease A. Bonnell
James D. Livingston

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UNITED STATES PATENT OFFICE.

ERASTUS N. STEERE, OF PROVIDENCE, RHODE ISLAND.

IMPROVEMENT IN SELF-OILING SPINDLE-BOLSTER FOR SPINNING-FRAMES.

Specification forming part of Letters Patent No. 44,988, dated November 8, 1864.

To all whom it may concern :

Be it known that I, ERASTUS N. STEERE, of Providence, in the county of Providence and State of Rhode Island, have invented a new and useful Improvement in Oiling Spindles of Spinning-Machines; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, making part of this specification, in which—

Figure 1 is a transverse section of a number of spindle-bolsters in the rail of a spinning-machine. Fig. 2 is a plan of the same. Fig. 3 is a transverse section by the line A A of Fig. 2. Fig. 4 is a transverse section of a bolster and rail as employed in "mules."

Similar letters of reference indicate corresponding parts in all the figures.

In Letters Patent No. 34,221, granted to me, the said ERASTUS N. STEERE, under date of January 21, 1862, a description is given of an improved spindle-bolster, in which the improvement claimed consists in a combination of an isolated absorbent and suitable passages or conductors, in connection with the ordinary bearing of a spindle-bolster, by means of which a supply of the lubricating-liquid was held in reserve by the said absorbent in a surrounding chamber, from which it was drawn as it was required by the revolving of the spindle.

The invention in this instance consists in an improved construction and arrangement of such bolster, and in connection therewith a distributing channel and reservoir, by means of which a number of spindles may be supplied with oil at the same time without the necessity of oiling each spindle separately.

To enable others skilled in the art to make and use my invention, I will proceed to describe the same.

In Figs. 1 and 2 of the drawings, C D E G represent substantially my improved bolster, above referred to as patented January 21, 1862. Instead, however, of shell *h*, I cup out the rail B, as shown in Figs. 1, 3, and 4, to form the annular chamber for the reception of the isolated absorbent S, and I form the inner shell, *f f*, with a flange or cap, *i*, to cover the annular chamber either wholly, as shown in C D E, or partially, as in G, for the purpose of excluding dust and other foreign matter, and to keep the absorbent in its place, the former being preferred as most ef-

fectual; and I provide this inner shell, *f*, with a nut, *m*, screwing upon the lower end, as shown, to draw it down into the rail B, and a washer, *t*, of soft metal, as a packing to form a joint with the shoulder on the inner shell at the bottom of the annular chamber. *ee* are the passages through which the lubricating-fluid is drawn from the annular chamber to the spindle-bearing, the same being formed in E by cutting a slot, *e'*, in top of the shell, as shown.

In the bolster of mule-spindles, Fig. 4, the nut *m* and washer *t* may be dispensed with and the inner shell made to fit so snugly in the rail B as to form a tight joint in the bottom of the annular chamber, the nut and washer being only necessary in the bolster of spinning-frames to provide for the setting of the spindles after the said frame is otherwise complete.

It will be seen that by simply "cupping out" the rail, as shown and above described, the separate exterior shell heretofore employed is entirely dispensed with, thereby saving both the material and labor required in its construction, besides greatly simplifying my improved bolster. Moreover, by cupping out the rail in this manner I am enabled to employ an additional improvement—viz., The distributing channel or reservoir H, Figs. 2 and 3, extending the entire length of the rail in front of the bolster, and connecting with the annular chambers thereof by passages *aa*. This channel may be covered, as it should be, to exclude dirt, by forming it somewhat wider at the top and with a dovetailed lip upon each side, as shown in Fig. 3, for the reception of a strip of sheet-lead or other soft metal, which is secured therein by hammering, and is afterward trimmed or smoothed down evenly with the surface of the rail by a buff-wheel, or otherwise. The lubricating-liquid is supplied to this channel by means of two or more cups or openings formed therein like *g*, Fig. 2. Generally in an ordinary-sized spinning-frame one such cup may be formed in each end of the rail B and one other midway between the ends, and when this channel is once filled it will distribute a constant supply of oil equally to each spindle. It will keep the oil clear and limpid, and will prevent the waste which occurs from frequent and careless oiling at each spindle. It is obvious

that this channel is equally applicable to the step or lower bearing of a spindle, or to the bolster or upper bearing, and it is my intention to use the same in both connections.

I do not claim a screw upon the lower part of a bolster and a nut for drawing it down so as to close the joint between the bolster and the bottom of the oil cup; neither do I claim the use of a washer to close the joint more perfectly; but,

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

1. The annular chamber formed by cupping

out the rail, in combination with the bearing of a spindle-bolster, substantially as described.

2. In combination with an annular chamber surrounding the bearing of a spindle-bolster, as described, a suitable flange or cap, *i*, as a cover for the same, substantially as described, for the purpose set forth.

3. The channel or reservoir H, in combination with a spindle-bearing, substantially as described, for the purpose specified.

ERASTUS N. STEERE.

Witnesses:

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