

(No Model.)

L. B. SANFORD & T. GRISENTHWAITE.
LUBRICATOR FOR SPINNING MACHINERY.

No. 407,122.

Patented July 16, 1889.

Fig: 1.

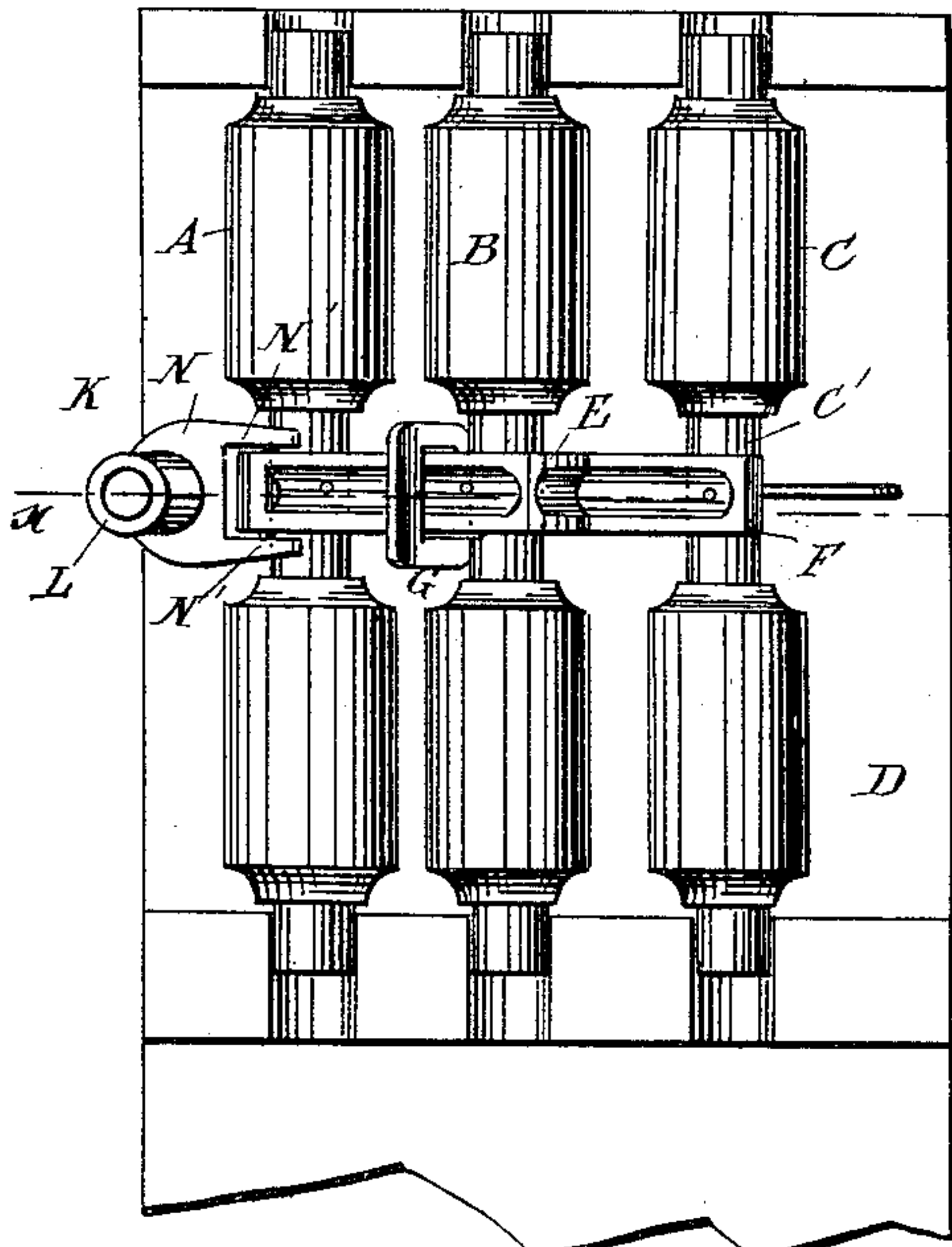


Fig: 3.

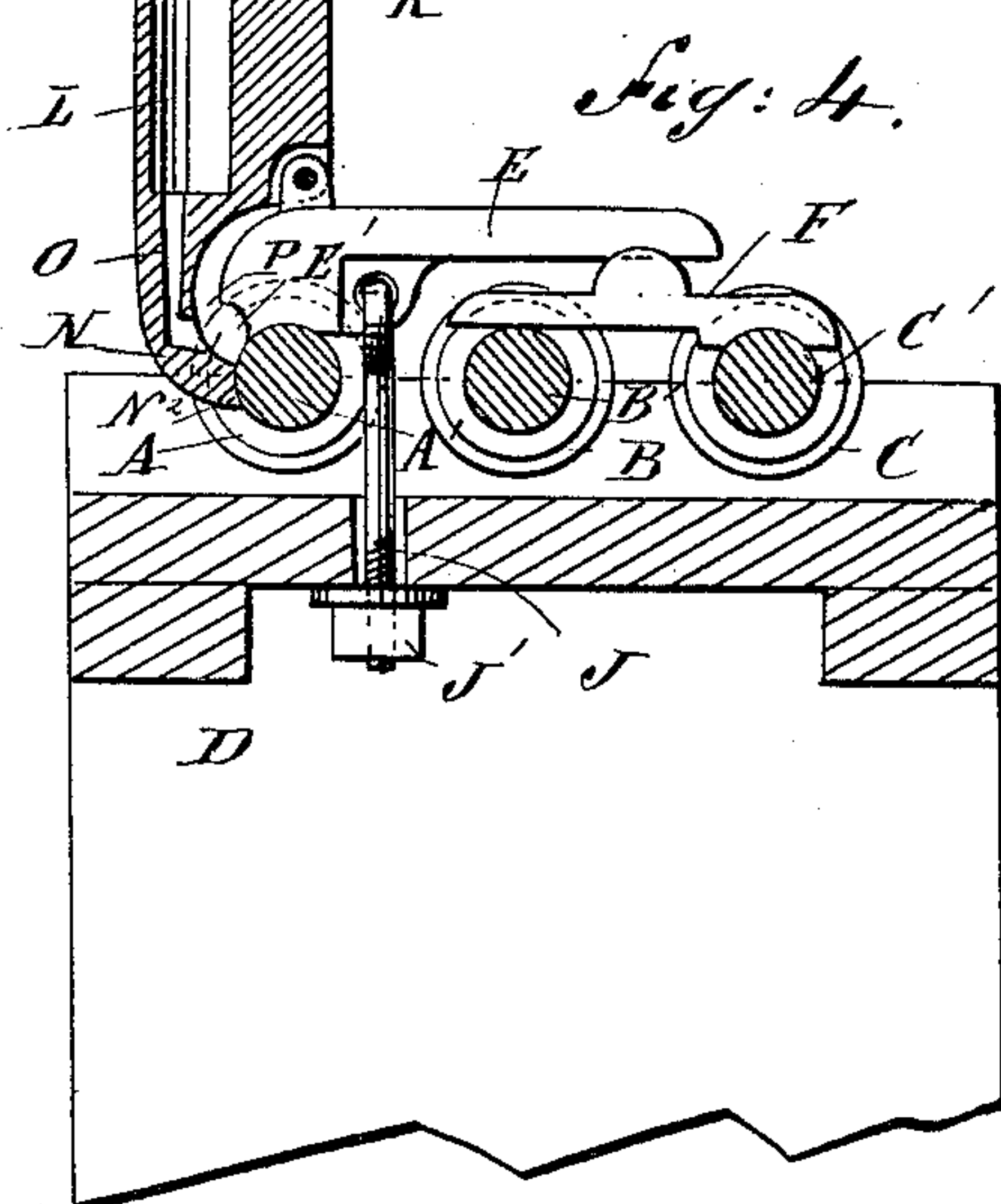
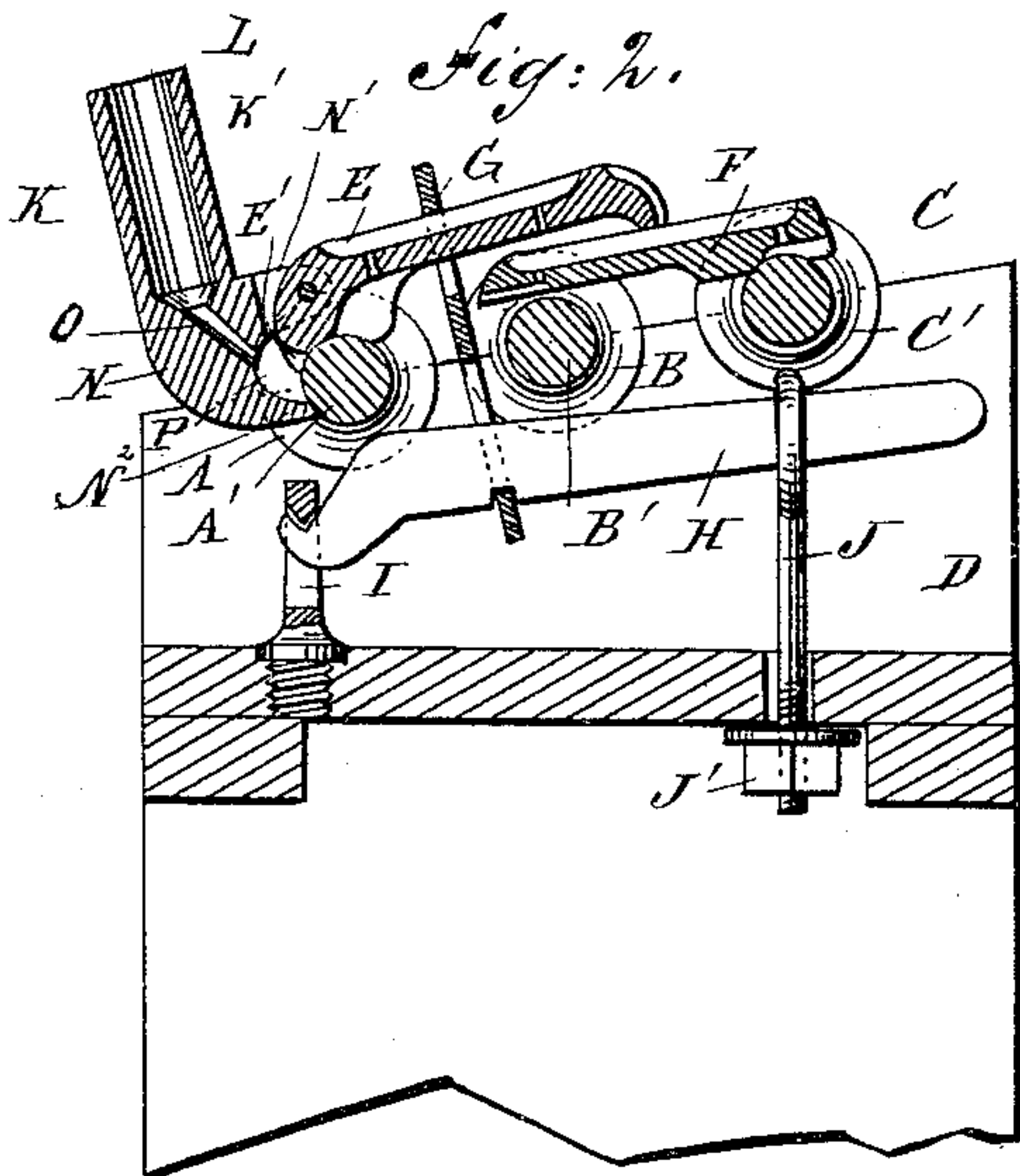
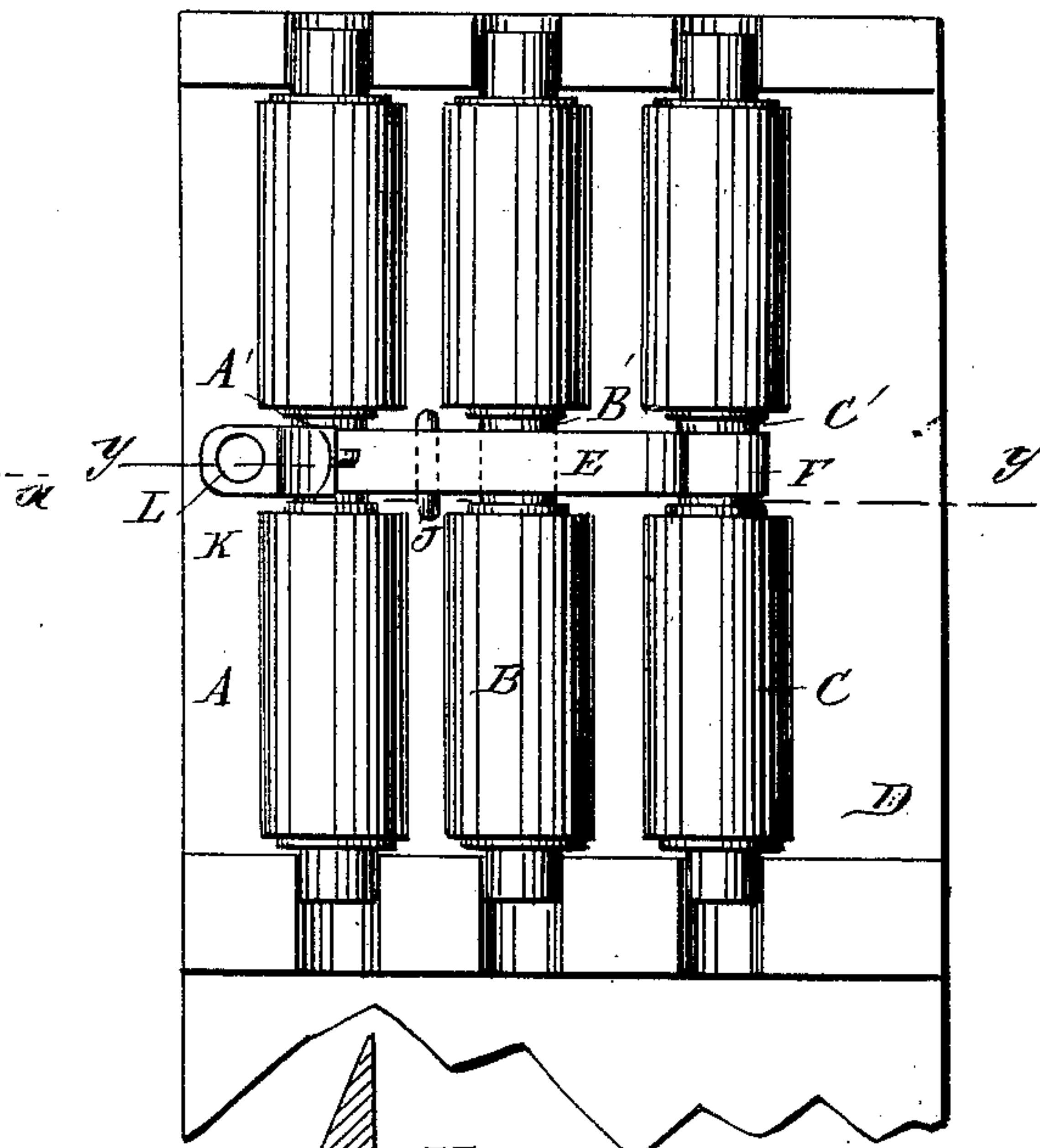
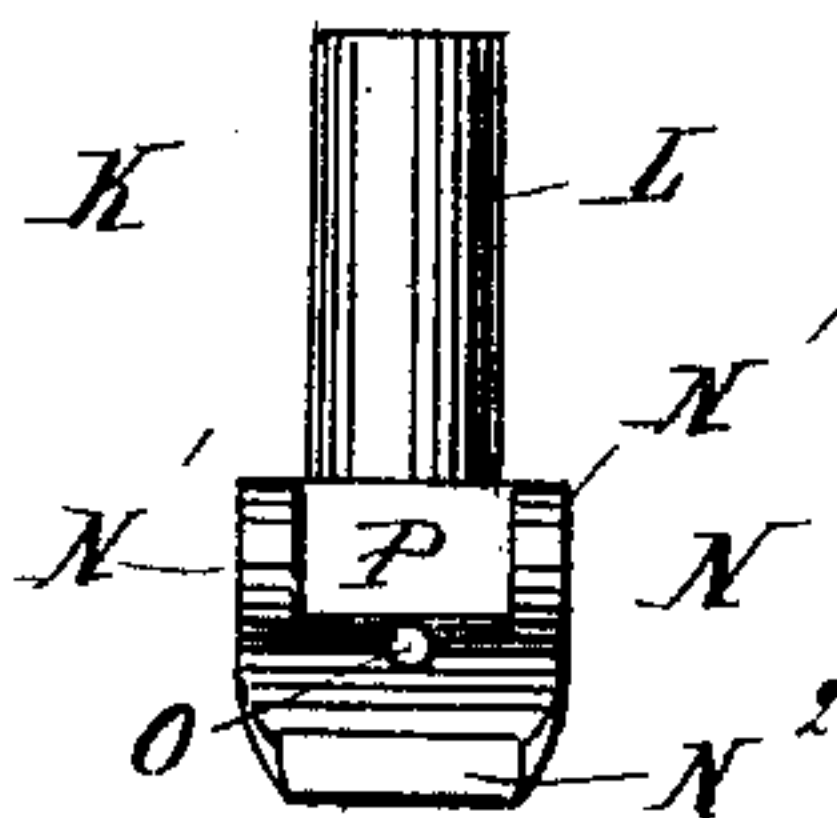


Fig: 5.

WITNESSES:

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UNITED STATES PATENT OFFICE.

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LUBRICATOR FOR SPINNING MACHINERY.

SPECIFICATION forming part of Letters Patent No. 407,122, dated July 16, 1889.

Application filed November 23, 1888. Serial No. 291,674. (No model.)

To all whom it may concern:

Be it known that we, LAZARUS BORDEN SANFORD and THOMAS GRISENTHWAITE, both of Fall River, in the county of Bristol and State of Massachusetts, have invented new and useful Improvements in Lubricators for Spinning Machinery, of which the following is a full, clear, and exact description.

The object of the invention is to provide a new and improved lubricator specially adapted for spinning machinery, and serving for supplying the necessary lubricant to the top rolls of the spinning-mules or spinning ring-frames, at the same time cleaning and clearing the rolls, also forming a smooth round lap on top clearer for mules.

The invention consists of a lubricator hinged on one of the links of the tension device and provided with an aperture discharging into a concave recess formed on the inside of the foot resting on the neck of the roll.

The invention also consists of certain parts and details and combinations of the same, as will be hereinafter described and then pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a plan view of the improvement as applied to ring-frames. Fig. 2 is a sectional side elevation of the same on the line *x x* of Fig. 1. Fig. 3 is a plan view of the improvement as applied to spinning-mules. Fig. 4 is a sectional side elevation of the same on the line *y y* of Fig. 3, and Fig. 5 is a front elevation of the lubricator.

The spinning-mule or ring-frame spinning-machine is provided with the usual rolls A, B, and C, mounted to rotate in suitable bearings in the frame D, and each provided in its middle with a neck A', B', or C', respectively. On the neck A' of the roll A rests one end of the link E, resting at its other end on the top of a link F, held with its end over the necks B' and C' of the rolls B and C.

An arm G engages the link E and extends downward between the rolls A and B, and is

pressed downward by a lever H, fulcrumed at one end on a stud I, secured in the frame D, and engaged at its other free end by a bolt J, on the lower threaded end of which screws the nut J' against the base of the frame D, so as to give any desired tension to the links E and F, pressing on the necks of the rolls A, B, and C. As illustrated in Figs. 3 and 4, the arm G and the stud I are dispensed with and the bolt J is directly connected to the link E. The links E and F, lever H, and connections form the usual saddle or tension device to regulate the speed of the rolls A, B, and C.

On the outer end of the link E, directly above the roll A, is pivoted the lubricator K, comprising a tube L and a foot N, which latter is provided with the lugs N', which form the hinge for the lubricator K on the link E. The lower end N² of the foot N rests against the neck A' of the roll A and extends across the width of the neck, thus acting as a cleaner for the said neck.

The lower end of the tube L connects with an aperture O, formed in the foot N, and the lower end of the aperture O discharges into a concave recess P, formed on the inside of the foot. This recess P opens onto the neck A' of the roll A above the lower end N² of the foot N. On the part of the link E resting on top of the neck A' of the roll A is formed a small recess E' for permitting the lubricant to pass from the concave recess P onto the neck A' of the roll A.

The operation is as follows: The usual tension is given to the rolls A, B, and C by means of the tension device above described by adjusting the nut J' so as to increase or diminish the downward pressure on the links E and F. The tube L of the lubricator K is filled with tallow or other suitable lubricant, so that the tallow passes from the tube L through the aperture O into the recess P and directly onto the neck A' of the roll A. The quantity of lubricant in the tube L is usually sufficient to last about a month, so that the top roll A requires little or no attention in regard to lubrication.

It will be understood that the lower end N' of the foot N resting against the neck A'

of the top roll A keeps the neck clean. It is also understood that the lubricant passing into the concave recess P is held in place by the lower end N² of the foot N resting against the neck A' and by the end of the link E resting on the top of the said neck, as is plainly shown in Fig. 2.

Having thus fully described our invention, we claim as new and desire to secure by Letters Patent—

1. A lubricator for spinning machinery, consisting of a tube provided with a foot having a recess on its inside, an aperture leading from the recess to the tube, and lugs for pivoting it to the tension device of the rolls, as set forth.

2. The lubricator K, consisting of the tube L, provided with the foot N, having the recess P, the aperture O, leading from the recess to the tube, and with the lugs N', by which it is pivoted to the tension device, the lower end N² of the foot resting against the neck of one of the rolls and serving as a cleaner for the same, substantially as described and shown.

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Witnesses:

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