

(No Model.)

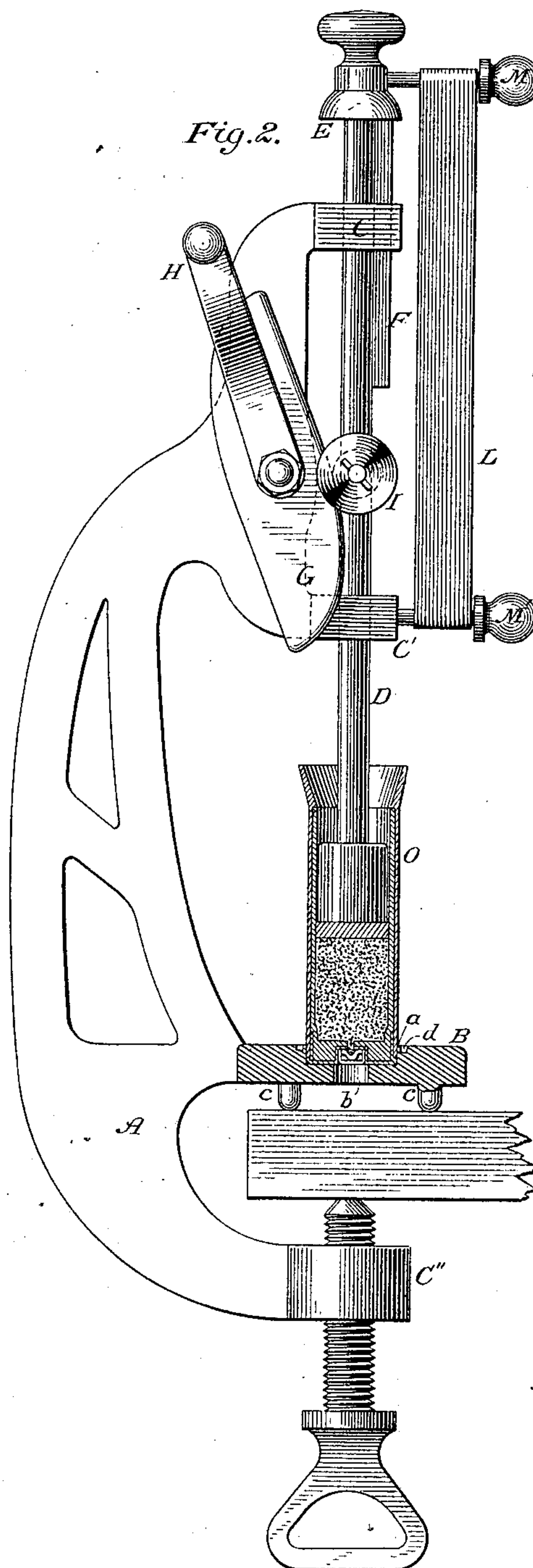
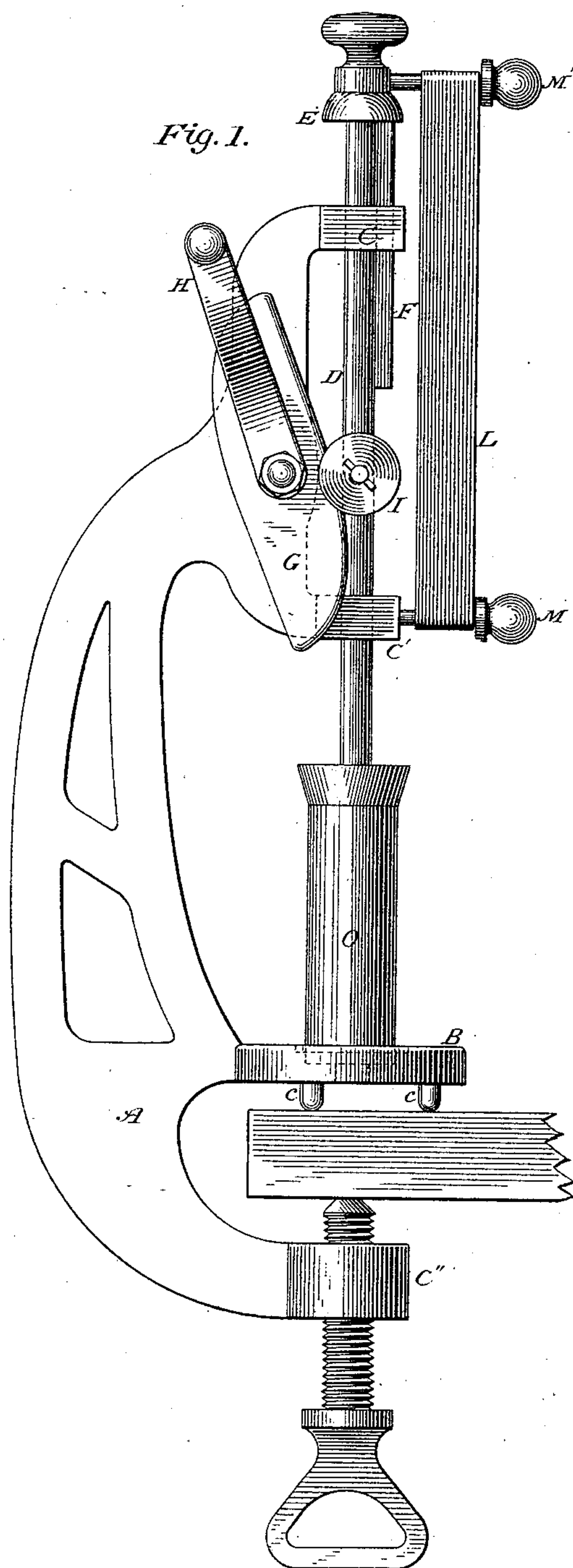
3 Sheets—Sheet 1.

J. L. MOTT, Jr.

CARTRIDGE LOADING MACHINE.

No. 283,804.

Patented Aug. 28, 1883.



*Attest:*

*Raymond H. Barnes.*  
*Harry Orrington*

*Inventor:*

*Jordan H. Mott, Jr.*

(No Model.)

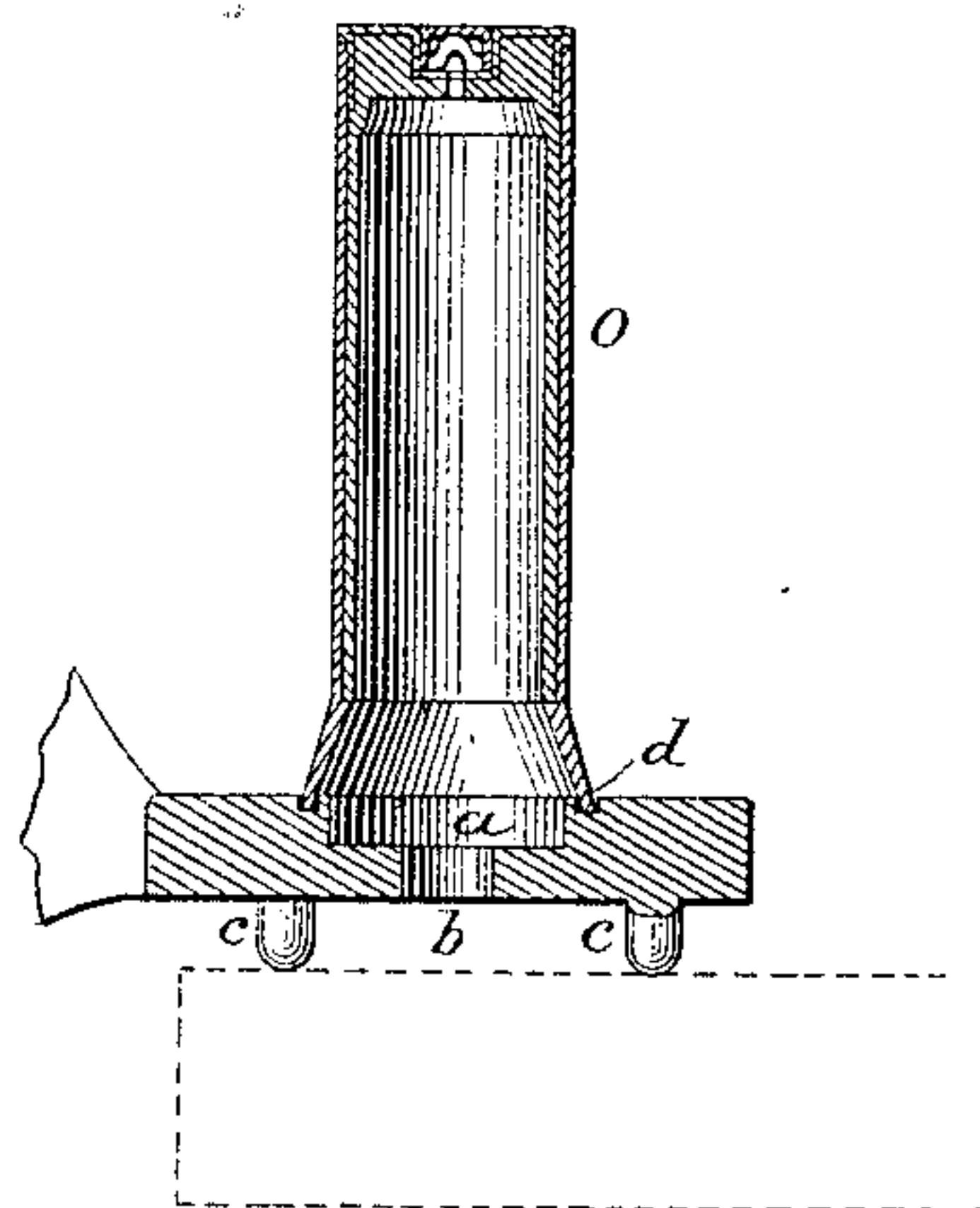
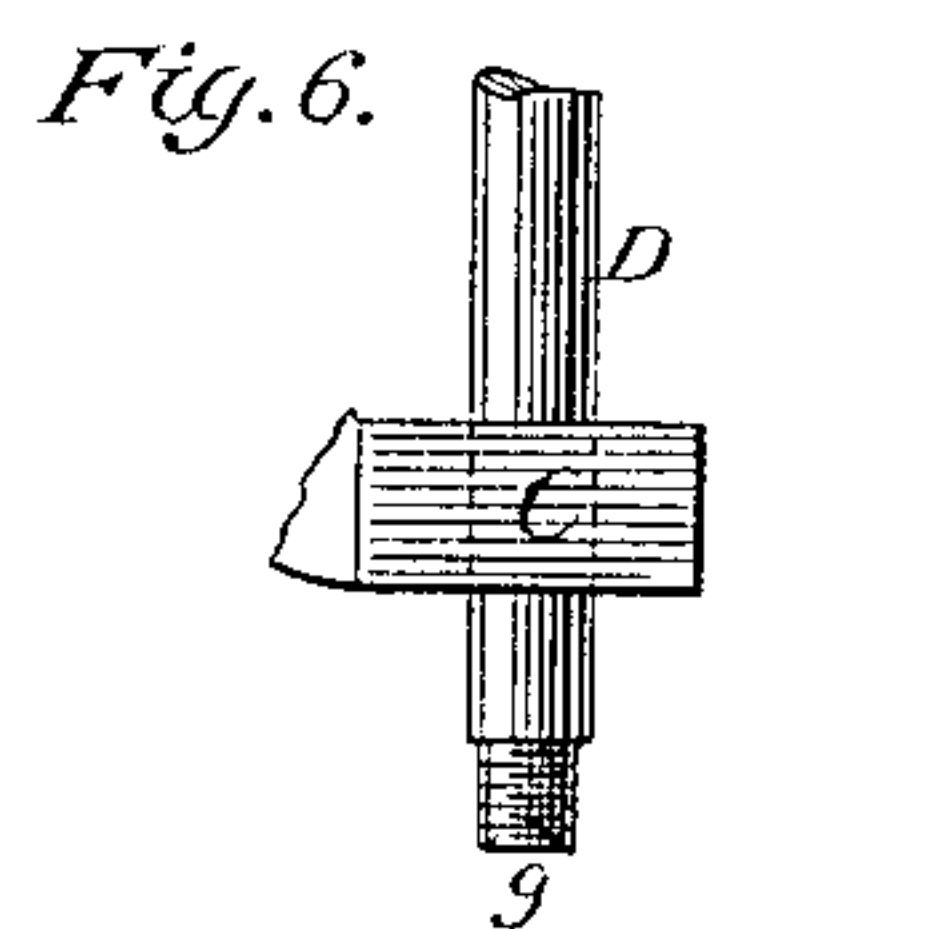
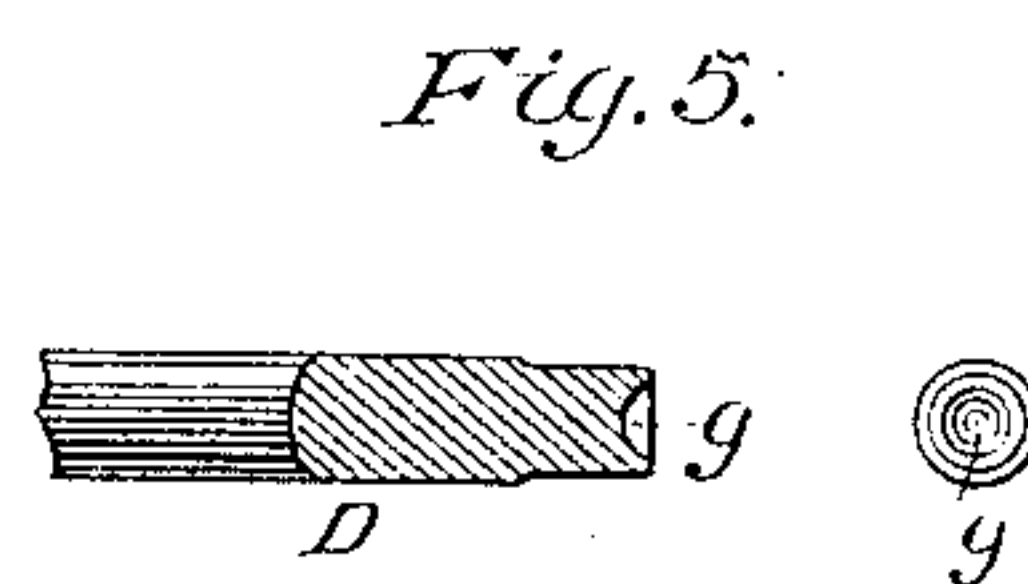
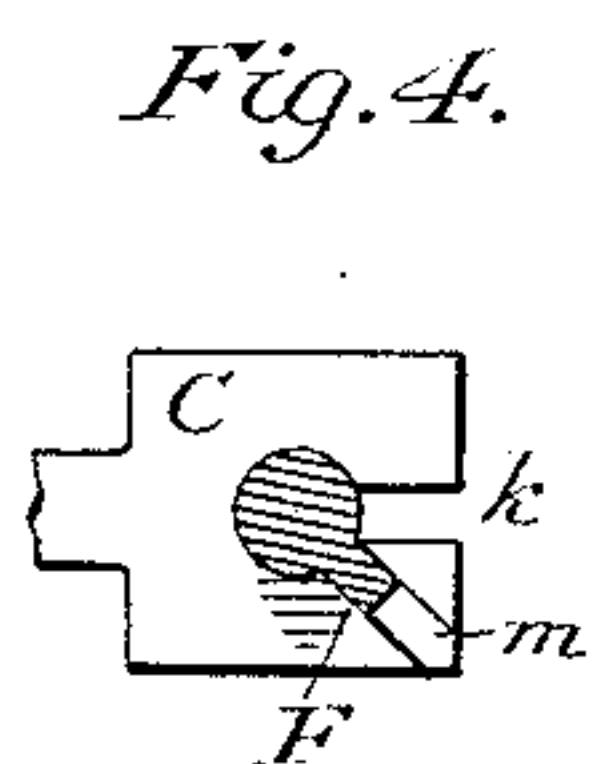
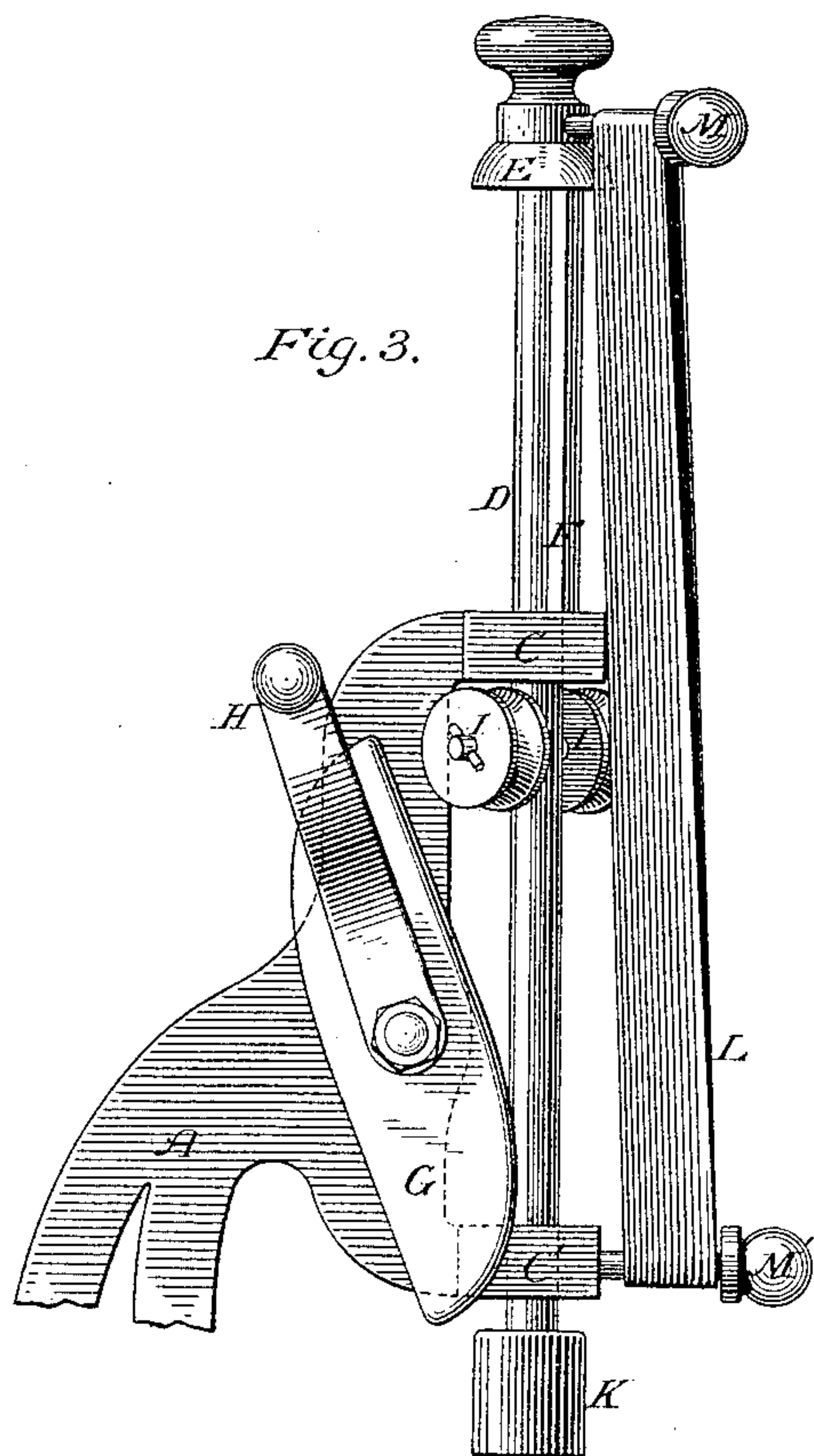
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3 Sheets—Sheet 3.

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Fig. 7.

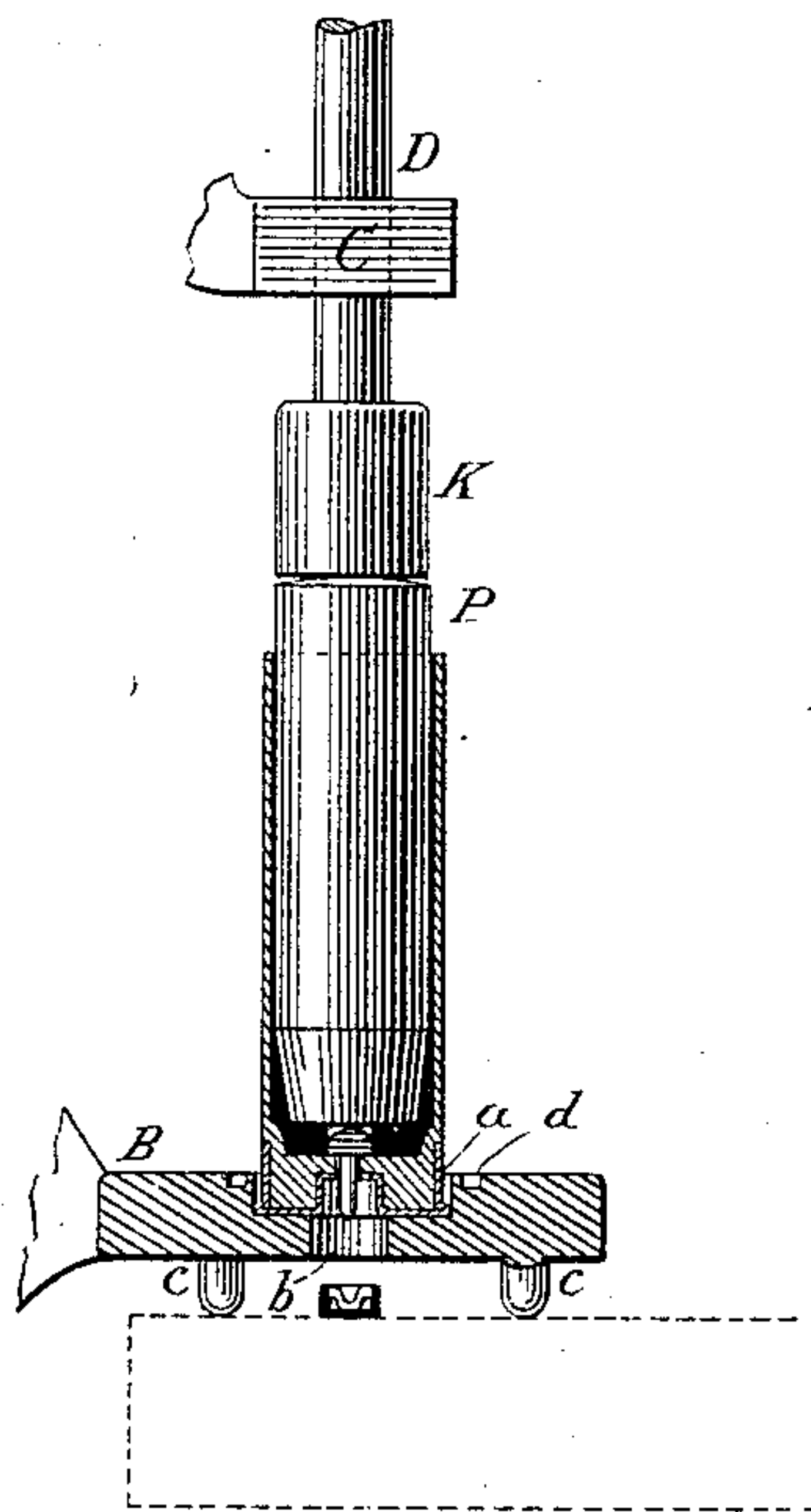


Fig. 9.

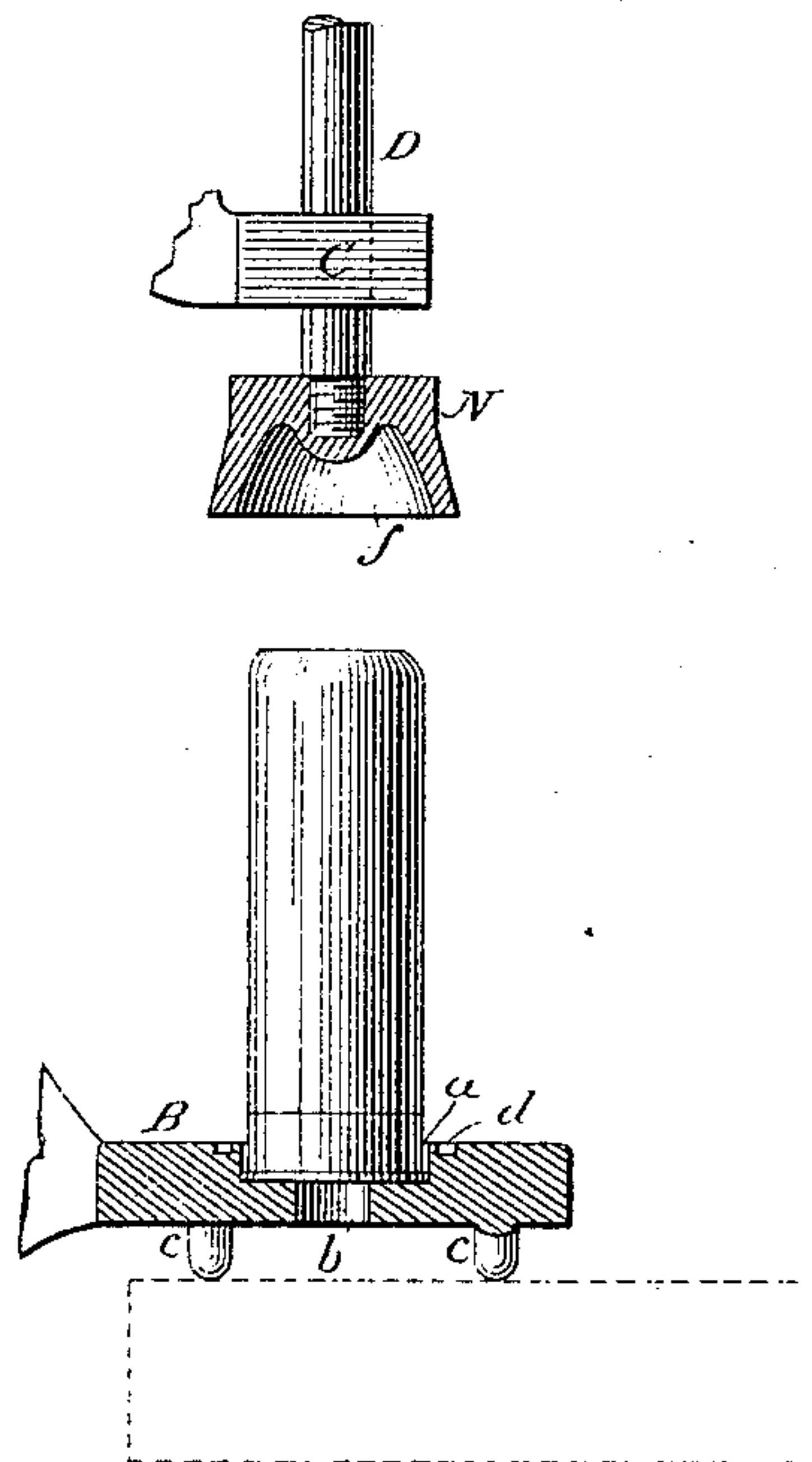


Fig. 8.

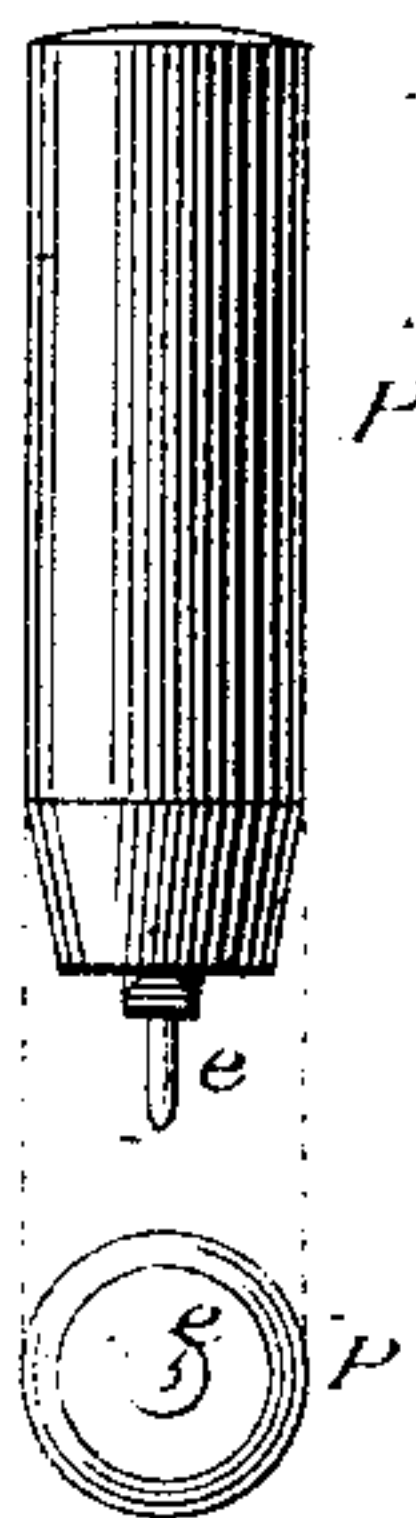
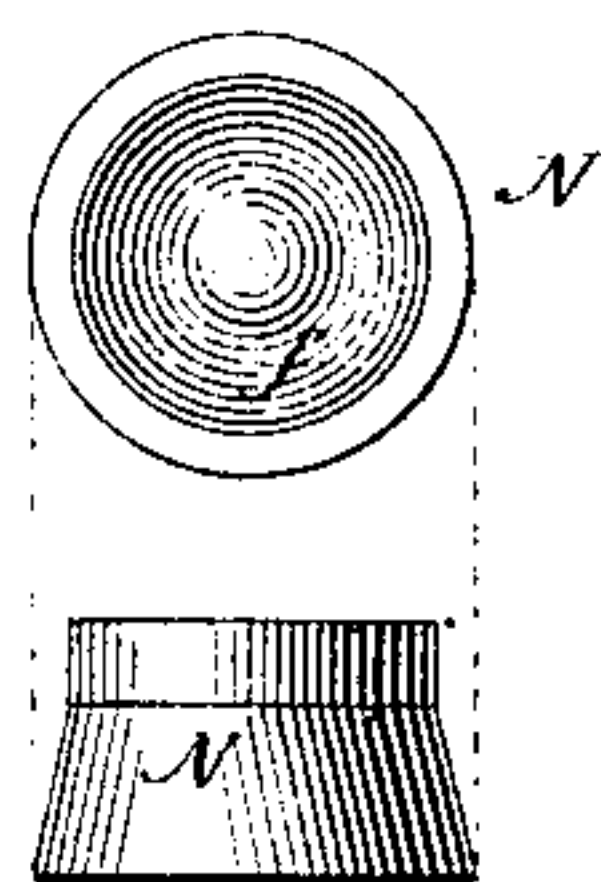


Fig. 10.



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# UNITED STATES PATENT OFFICE.

JORDAN L. MOTT, JR., OF NEW YORK, N. Y.

## CARTRIDGE-LOADING MACHINE.

SPECIFICATION forming part of Letters Patent No. 283,804, dated August 28, 1883.

Application filed March 6, 1883. (No model.)

*To all whom it may concern:*

Be it known that I, JORDAN L. MOTT, Jr., a citizen of the United States, residing in the city of New York, in the county and State of New York, have invented a new and Improved Cartridge-Loading Implement, of which the following is a specification.

My invention relates to improvements in implements designed for uncapping, capping, loading, and reloading cartridges used in sporting fire-arms; and the objects of my improvements are to provide an arrangement for working the rammer with greater speed and ease than heretofore, and securing uniformity in the force of the blows given in driving in the charge, and to provide, in connection therewith, suitable devices, for capping, uncapping, and crimping the cartridge. I attain these objects by means of the mechanism shown in the accompanying drawings, in which—

Figure 1 is a side elevation of the implement. Fig. 2 is the same with the cartridge and the tube O, in which it is contained, shown in section. Fig. 3 shows the plunger lifted and turned so that its flange rests in the groove on the upper lug of the bracket. Fig. 4 is a cross-section of the plunger and flange turned so that the flange rests in the groove on the upper surface of the lug, and showing also the slot in which the flange works. Fig. 5 is a longitudinal section and end view of the lower end of the plunger, showing its concavity. Fig. 6 is a longitudinal section of the cartridge and the tube in which it is contained in position for recapping. Fig. 7 is a longitudinal section of the cartridge in position for uncapping, with the cap-extractor inside. Fig. 8 is a side elevation and cross-section of the cap-extractor. Fig. 9 is a longitudinal section of the crimper attached to the plunger with a cartridge in position for crimping; and Fig. 10 is a side elevation and end view of the crimper.

Similar letters refer to similar parts throughout the several views.

The bracket A, provided with the lugs C C', the plate B, having legs c c c, and the lug C'', with the set-screw for attaching the bracket to the edge of a table or other convenient object, forms the frame-work of the implement. Through holes in the lugs C C', made concentric with the hole b in the plate B, passes the

plunger D, having at its upper end the shoulder E, and provided with the flange or guide F, working in the slot k in the lug C.

The cam G, operated by the handle H, is fastened to a bolt passing through the bracket A, and works against the grooved friction-roller I, which works on a pin passing through the plunger D, and so placed that when the rammer-head K rests upon the smallest charge of powder usually used in the cartridge the center of the friction-roller I shall be a short distance—say one thirty-second of an inch—above the center of motion of the cam G. I prefer to make the cam G and the friction-roller I double, having corresponding parts on each side of the bracket A and plunger D. The flange F acts as a guide to keep the face of the friction-roller I parallel with the cam G, and works in a slot in the lug C, shown at k in Fig. 4. When it is desired to hold the plunger D in an elevated position, it is lifted so as to bring the lower end of the flange F above the lug C, and then turned so that the lower end of the flange F rests in a shallow groove, m, to hold it in place in the upper surface of the lug C, as shown in Figs. 3 and 4.

The rubber band L passes over the pins M M', fixed, respectively, in the lug C' and the upper part of the plunger D. When the cam G is revolved, by means of the handle H the plunger D is lifted till the cam G passes off the friction-roller I, when the plunger D is forcibly brought down by the action of the rubber band L.

In place of the rubber band, I may use a spiral spring attached to the pins M and M', or a weight applied at the upper part of the plunger D. The lower end of the plunger D is made slightly concave, as shown at g in Fig. 5, for the purpose hereinafter shown. The lower end of the plunger D is cut with a screw-thread to admit of the attachment and removal of the rammer-head K and the crimper N, as may be desired. The plate B is elevated above the surface of the table or other object to which the bracket is attached by the legs c c c to admit of the falling of the caps when driven out by the cap-extractor. It has a hole, b, concentric with the plunger D, through which the extracted cap falls, a recess, a, in which the cartridge and the tube O, in which it is placed, rest when the cartridge



is in position for loading, and a groove, *d*, in which the flanged end of the tube O rests when the cartridge is in position for recapping.

The cap-extractor P (shown in Figs. 7 and 8) is a solid cylinder of wood or metal fitted closely to the bore of the cartridge, beveled at one end, and provided with the steel point *e*.

The crimper N (shown in Figs. 9 and 10) is a cylindrical piece of metal provided with a recess, *f*, of such size at its opening as to fit closely over the mouth of the cartridge and sloped inward, so as to be smaller in its deeper parts. It is also provided in its upper surface with a threaded hole to admit of its attachment to the lower end of the plunger D, as shown in Fig. 9.

In using the instrument in reloading a discharged cartridge the cap-extractor P is placed in the cartridge with its point *e* downward, as shown in Fig. 7. The cartridge is placed with its base in the recess *a*, and the plunger and rammer-head, being driven down on the extractor, the cap is driven out by the point *e* through the hole *b*. At the same time the edge of the cartridge is straightened by the close-fitting cylinder P, which is beveled at its lower end, in order to enter the cartridge easily. The cartridge is then inserted in the tube O, which is placed with its flanged end in the groove *d*, as shown in Fig. 6. The new cap is placed in position and driven in with the concave end of the plunger. On account of the concavity in the end of the plunger the blow is given on the outer edge of the cap, and the danger of exploding the cap, which would result from striking the center of it, where the priming is located, is avoided. The tube O is then placed with its smaller end resting in the recess *a*, the cap being directly over the hole *b*, and thus avoiding the danger of exploding the cap by concussion in charging the cartridge. The charge of powder is poured into the cartridge from an ordinary charger, the wad is placed at the mouth of the tube O, and the rammer-head being screwed on the end of the plunger, the charge is rammed down by revolving the cam G. As the height to which the plunger is lifted by the cam, and the force of the rubber band or spring remain constant, the amount

of compression of the charge can be regulated by the number of blows given. In the same way the charge of shot is inserted and rammed down. The cartridge is then removed from the tube O and placed with its mouth uppermost, and its base resting in the recess *a*. The rammer-head is removed and the crimper N screwed on the end of the plunger and driven down over the mouth of the cartridge, bending in its edge, as shown in Fig. 9, so as to prevent the loosening of the charge in transportation. As by means of this device the edge of the cartridge is crimped or bent in without being cut or made ragged, it is in better condition for subsequent use after the edge has been straightened by the discharge and by the use of the cap-extractor P than where the edge is cut or made ragged in crimping.

The tube O has been heretofore used in cartridge-loaders to support the walls of the cartridge while loading, and I do not claim it as part of my invention.

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

1. In a cartridge-loader, the combination of a plunger, D, with friction-rollers I placed thereon, and a cam, G, placed on an axle supported by the frame-work of the cartridge-loader and operating against the friction-rollers to lift the plunger, substantially as set forth.

2. In a cartridge-loader, the combination of a plunger, D, cam G, and rubber band L, or its equivalent, having one end thereof attached to the upper part of the plunger and the other to the frame-work of the machine, or a suitable projection therefrom, and adapted to drive down the plunger, substantially as set forth.

3. In a cartridge-loader, the combination of a plunger, D, provided with a flange, F, with a lug, C, attached to the bracket of the cartridge-loader, and provided with a hole and slot in which the plunger and flange work, and having on its upper surface a groove adapted to receive the lower end of the flange when the plunger is lifted, substantially as set forth.

JORDAN L. MOTT, JR.

Witnesses:

HARRY OVERINGTON,  
JOHN S. DERBY.