

(No Model.)

H. GOODMAN.

Implement for Capping and Uncapping Cartridge Shells.
No. 243,245.

Patented June 21, 1881.

Fig. 5.

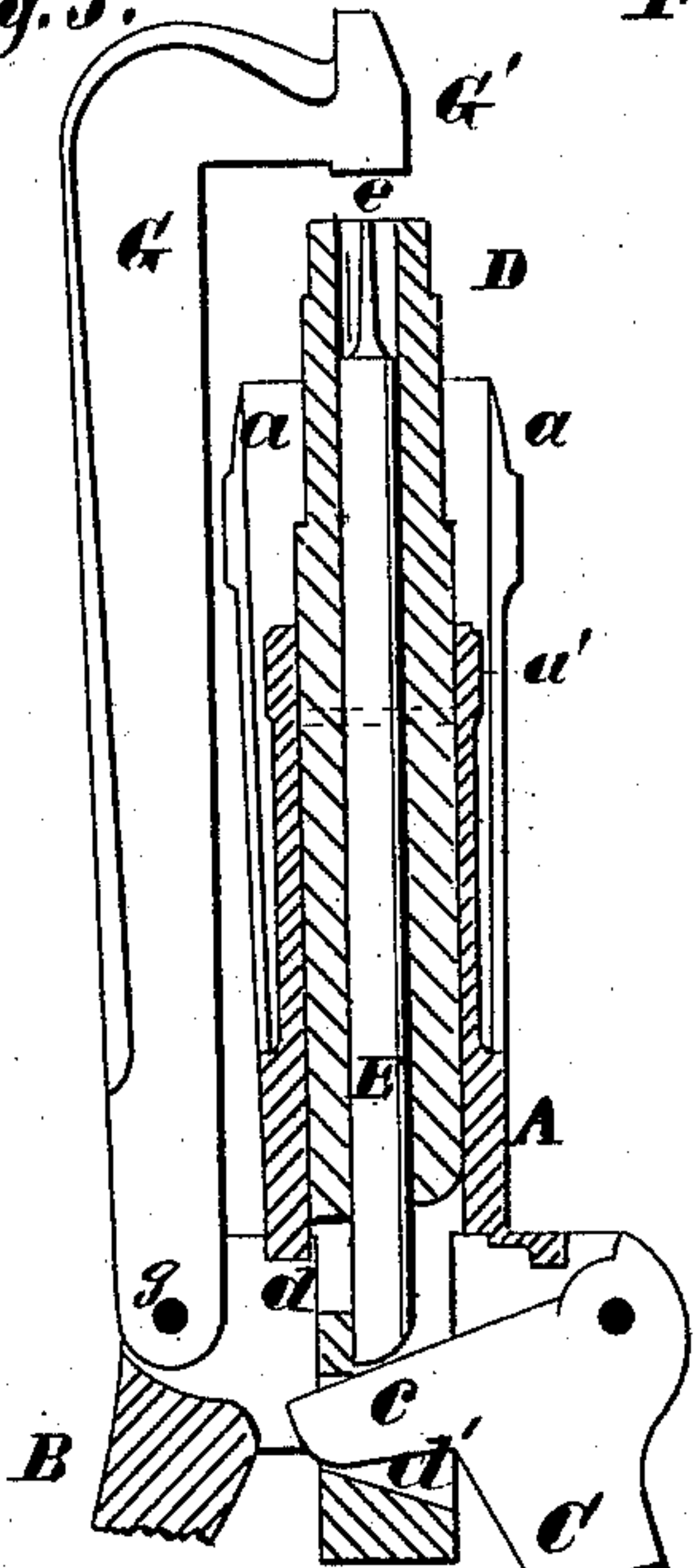


Fig. 1.

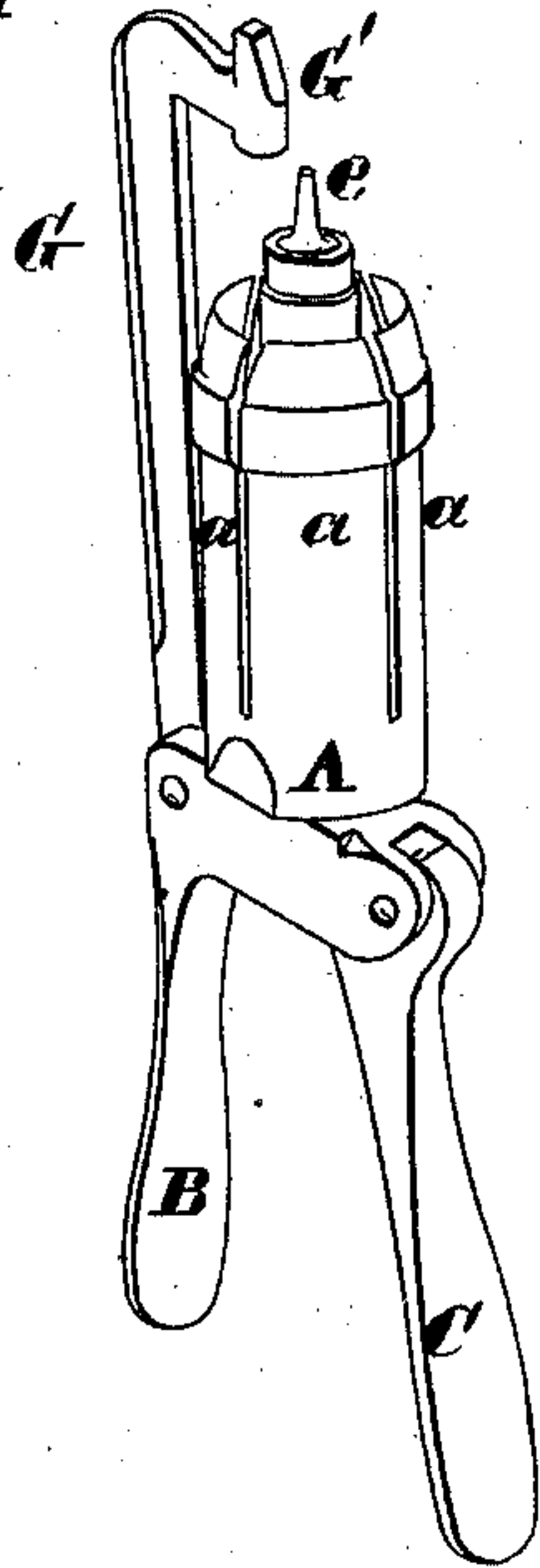


Fig. 6.

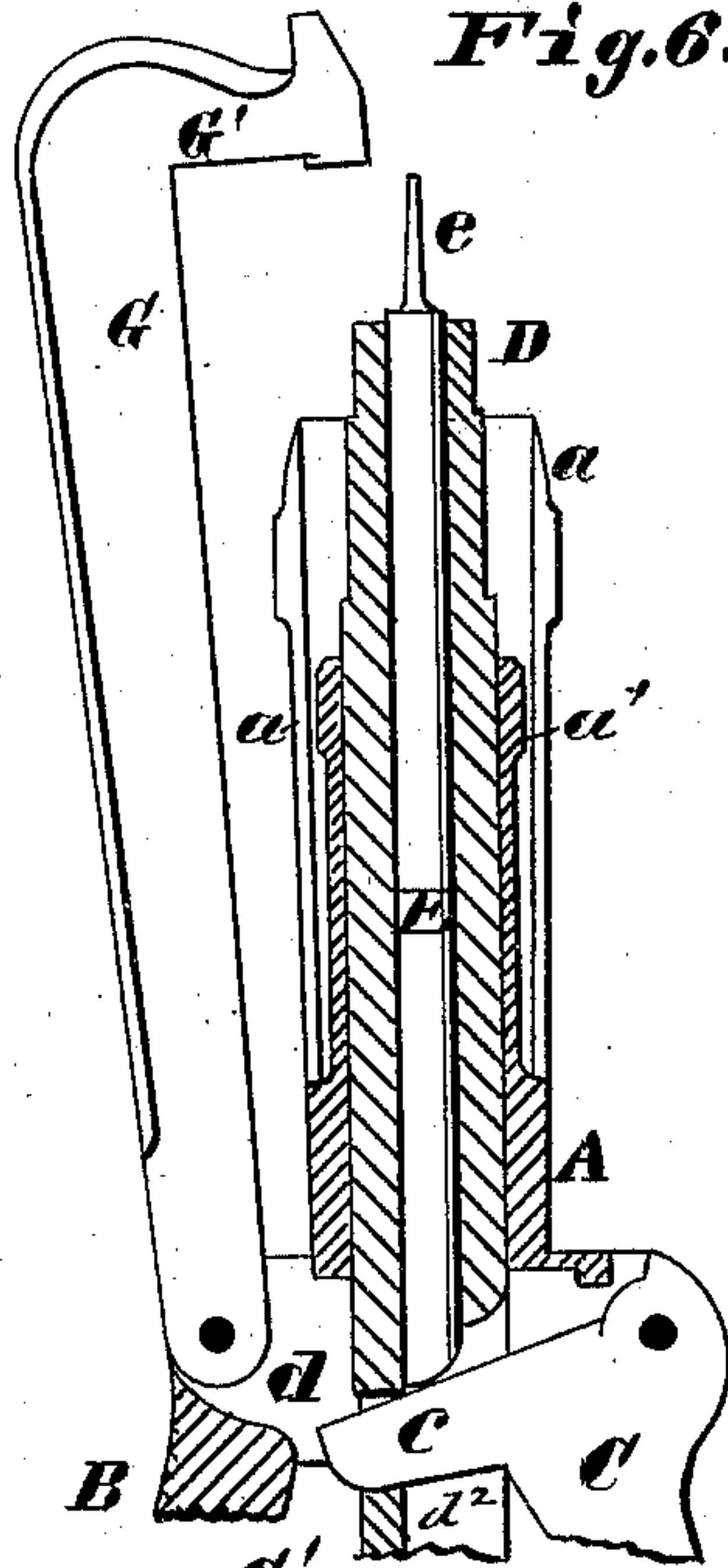


Fig. 2.

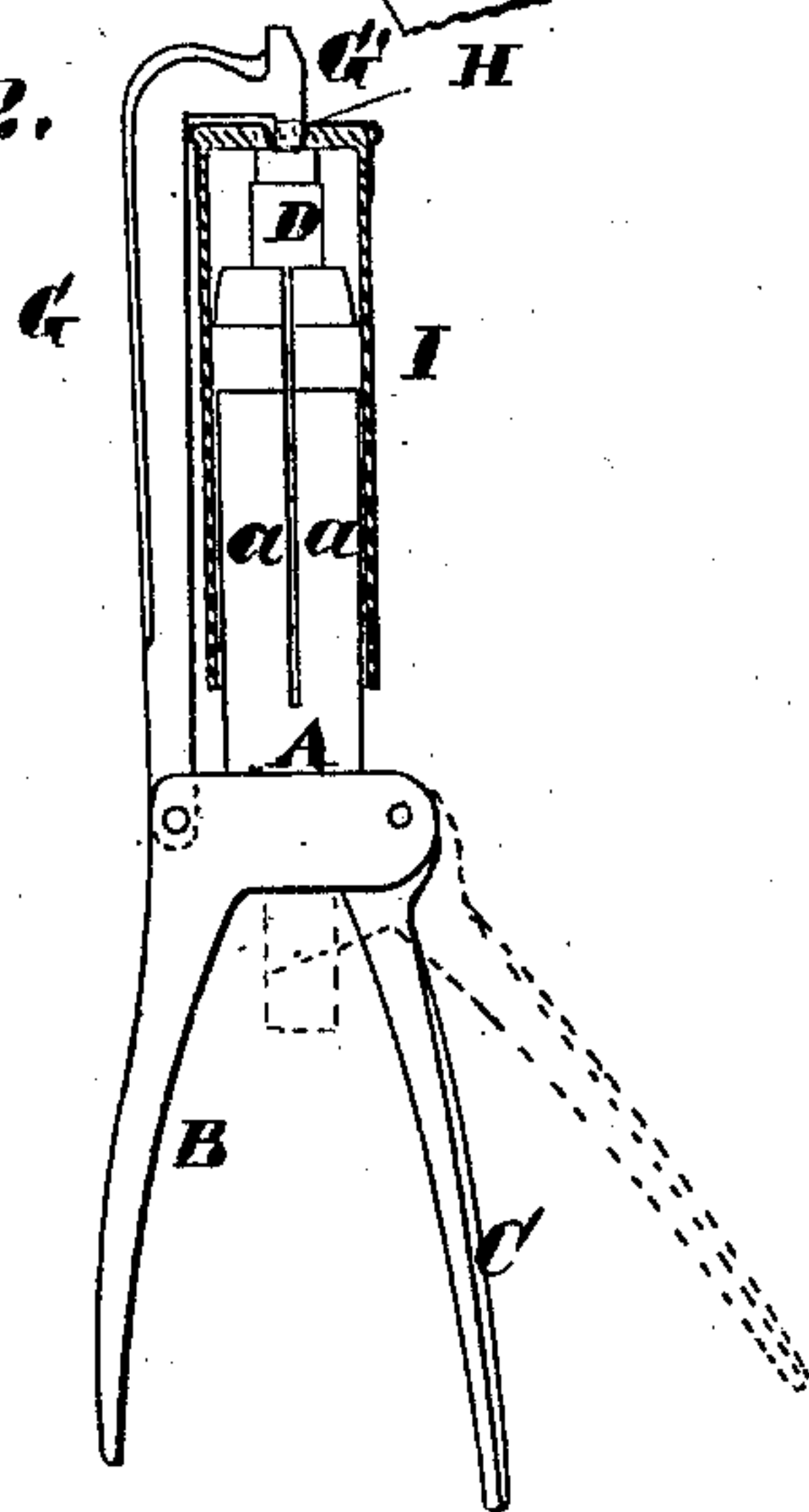


Fig. 4.

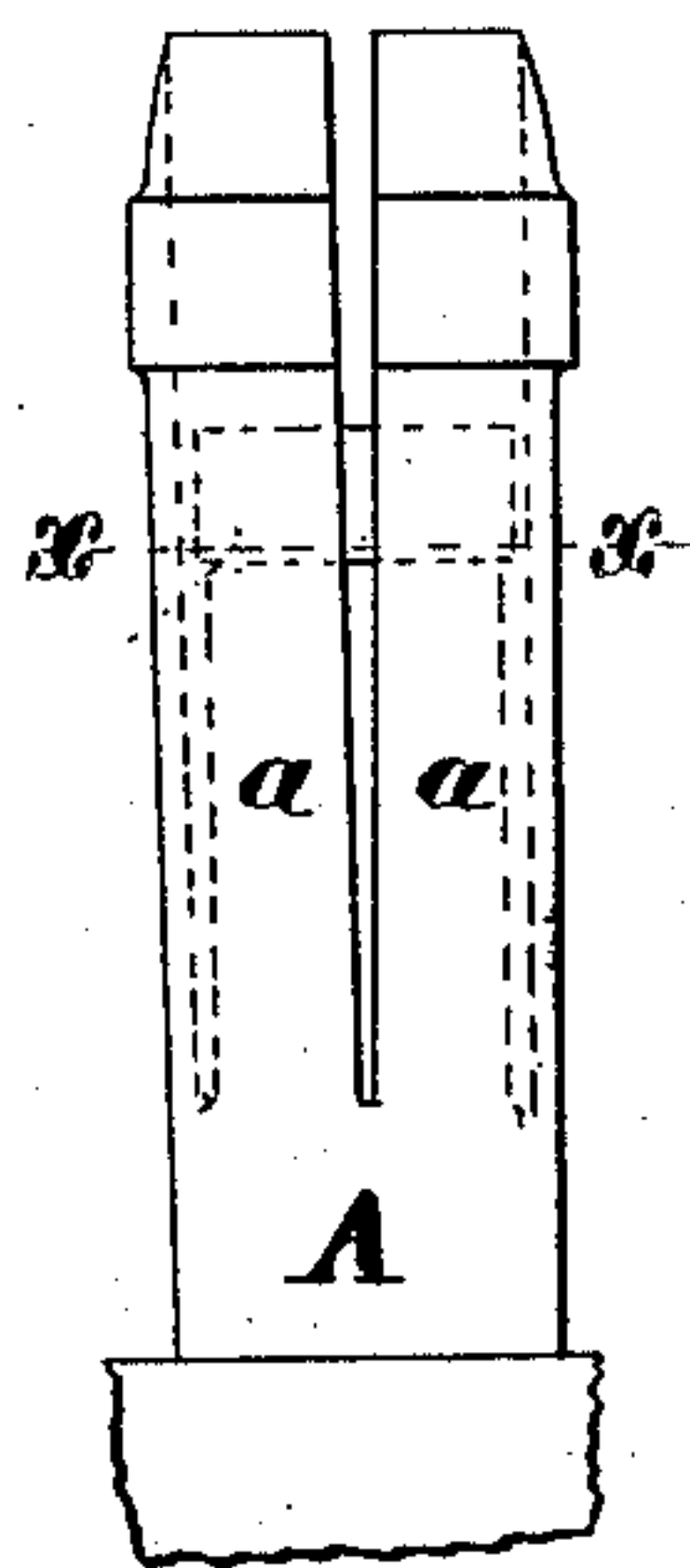


Fig. 3.

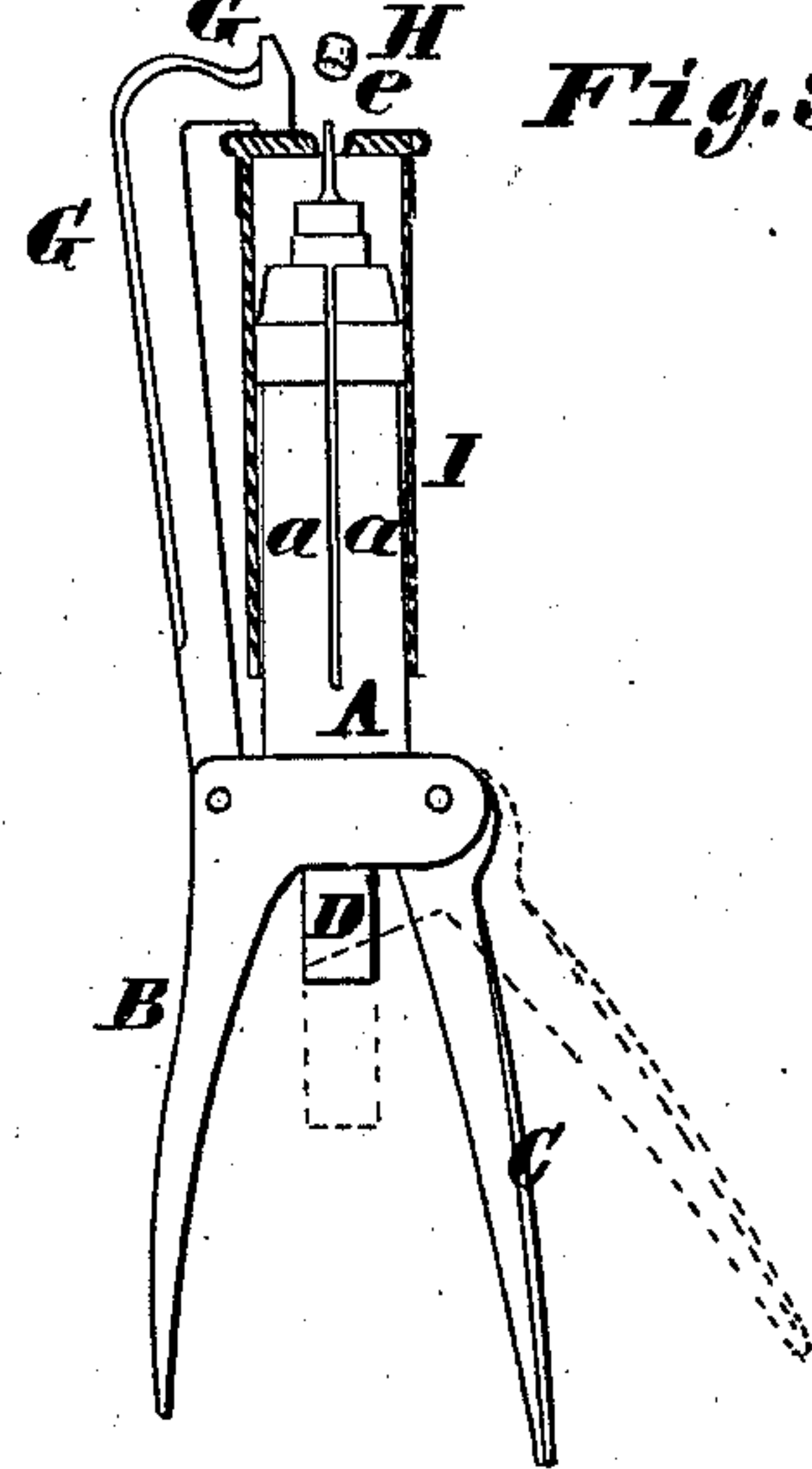
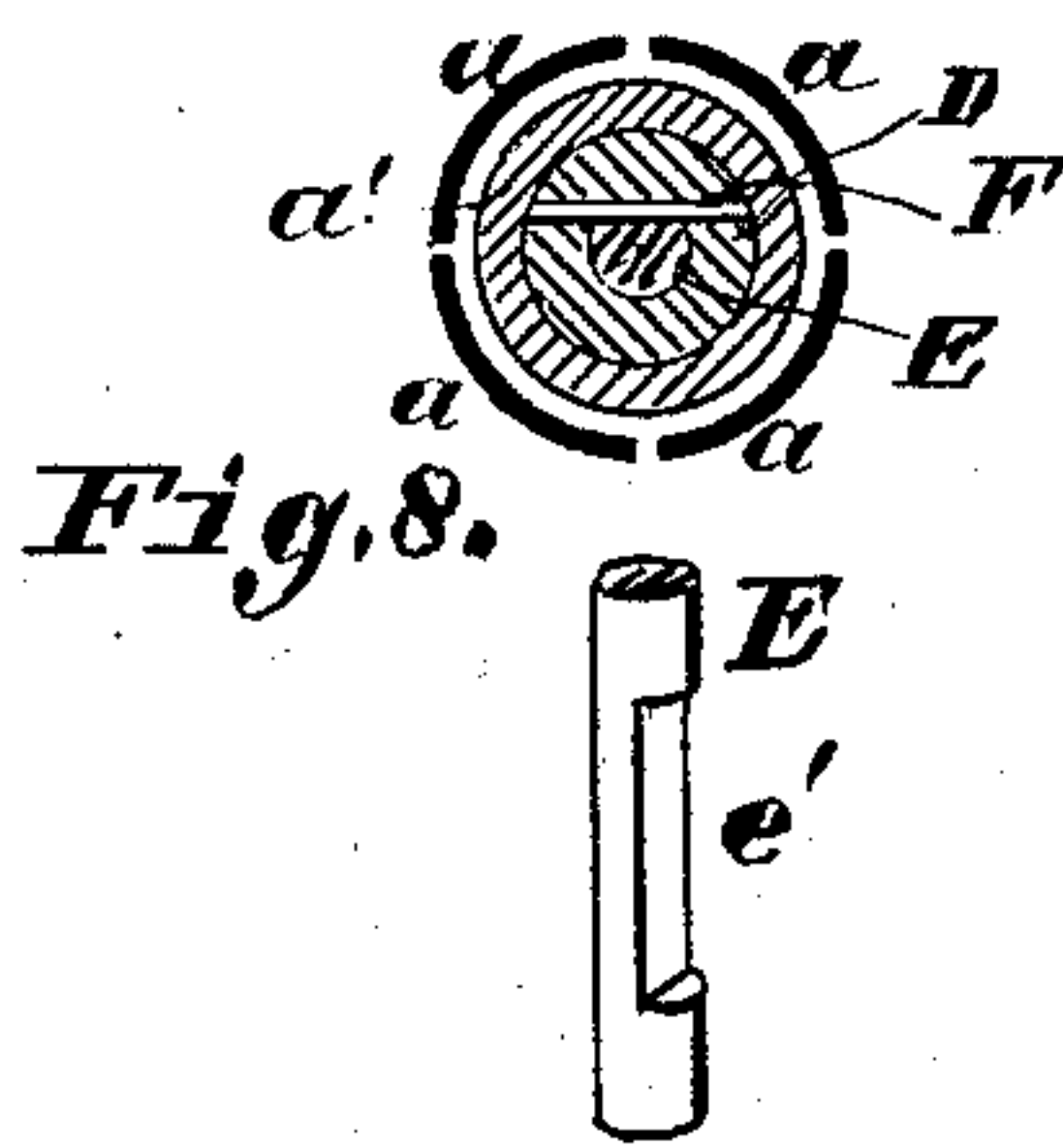


Fig. 7.



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HENRY GOODMAN, OF ST. LOUIS, MISSOURI, ASSIGNOR TO EDWARD E. MENGES, OF SAME PLACE.

IMPLEMENT FOR CAPPING AND UNCAPPING CARTRIDGE-SHELLS.

SPECIFICATION forming part of Letters Patent No. 243,245, dated June 21, 1881.

Application filed April 5, 1881. (No model.)

To all whom it may concern:

Be it known that I, HENRY GOODMAN, a subject of the Queen of Great Britain, and residing in the city of St. Louis, in the State of Missouri, have invented certain new and useful Improvements in Instruments for Capping and Uncapping Cartridge-Shells, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, making part of this specification.

This is a "hand" instrument for use in the insertion of caps into the shells, and the removal of the spent caps after the discharge of the contents.

The first part of my improvement consists in forming the cartridge-shell holder with a number of spring-tongues.

My improvement also consists in the general construction of the instrument, as hereinafter set forth.

Figure 1 is a perspective view of the instrument, with the parts in position for uncapping the shell. Fig. 2 shows the instrument in side view, with a capped shell in section. Fig. 3 is a similar view, showing the instrument with an uncapped shell upon it, the cap having just been forced out. Fig. 4 is a full-sized side view of the holder. Fig. 5 is a full-sized axial section, with parts in position for capping, and Fig. 6 is a similar view, with parts in position for uncapping. Fig. 7 is a transverse section of rod at $x x$, Fig. 4. Fig. 8 is a perspective view of part of the uncapping-rod.

The holder consists of spring fingers or tongues a , and a central tube or head, A , to which the inner ends of the tongues are attached. From the lower part of the holder projects a handle, B , and to the opposite side of the holder is hinged a lever, C . The lever C has a toe, c , which engages in one of two mortises, $d d'$, in the tubular plug D , that works endwise in the tubular holder, as impelled by the lever C .

E is a rod having endwise movement, to a limited extent, in the tubular plug D . The purpose of this movement is to cover or uncover the pin e at outer end of the rod, to fit the instrument for capping shells, as shown in Figs. 2 and 5, or for uncapping them, as shown in Figs. 1, 3, and 6. When the parts are in position shown in Figs. 1, 3, and 6 the rod is held

in the upper or advanced position by resting on the toe c of the lever while said toe is in the upper mortise, d . When the toe is in the lower mortise, d' , the rod is in its lower position and the pin e is masked by the end of the plug D , as shown in Figs. 2 and 5. The endwise movement of the rod E is limited by a cross-pin, F , extending through a cavity, e' , in the side of the rod, the ends of the cavity coming in contact with the pin F and arresting its movement when it reaches its extreme positions. The toe c of the lever bears against the upper side of the mortise in the plug D , and against the inner end of the rod E , so that the tubular plug and rod are lifted together by the inward movement of the lever C .

G is a dog, hinged at g to the holder A , and having an inturned end or claw, G' , which may be brought in line with the tubular plug D , (see Figs. 2 and 5,) so as to hold the cap H while the shell I is forced outward with the plug, causing the insertion of the cap into its cavity in the shell. To allow the removal of the capped shell from the holder the dog is swung back, and the shell may then be taken endwise from the holder.

To remove an exploded cap from a discharged shell the parts are put into the position shown in Fig. 3 and the lever moved toward the handle; then the pin e forces out the cap.

The fingers or tongues a are sprung outward at the ends, and their ends beveled, so that shells of different sizes can be slipped upon the holder, and the shells will be held concentrically with the tubular plug. Thus the holder is suited for No. 10 and No. 12 shells, or for shells of other sizes, within certain limits. While allowing diversity in size in the shells, the fingers have sufficient stiffness to hold the shells with the required firmness. This adjustable feature is important for the reasons above given. Where the holder is rigid it can only be made to fit one size of shell, and even with that there is liable to be some shakiness, or the fit so tight as to be an impediment to the application and removal of the shell. The tubular core a' of the holder gives interior support to the spring-fingers and prevents injury from outside pressure.

To change the toe c from one mortise to an-

other the lever is moved outward to draw the toe from the mortise and the plug moved, the toe sliding along the channel a^2 to the other mortise, the ends of the channel agreeing with the ends of the mortises, as shown in Fig. 5.

I claim as my invention—

1. The combination, in a capping-machine for cartridge-shells, of the movable plug D and its operating mechanism, with holder A, having spring tongues or fingers a concentrically surrounding the plug, substantially as set forth.

2. The combination of holder A with handle B and spring-fingers a , tubular plug D, lever C, and dog G, substantially as set forth.

3. The combination of holder A B, lever C, with toe c , tubular plug D, with mortises d d' , rod E, and dog G, substantially as set forth.

4. The combination, in the cartridge-shell holder, of the spring-fingers a and central tubular core, a' , constructed to give bearing to the tubular plug D, operated by suitable mechanism, substantially as and for the purpose set forth.

HENRY GOODMAN.

Witnesses:

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GEO. H. KNIGHT.