J. & B. BRIODY.

IMPLEMENTS FOR LOADING CARTRIDGE SHELLS.

No. 175,919. Patented April 11, 1876.

Fig 2.

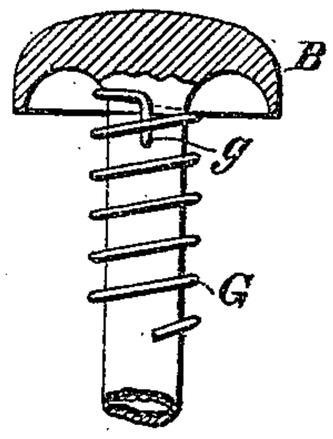


Fig 1.

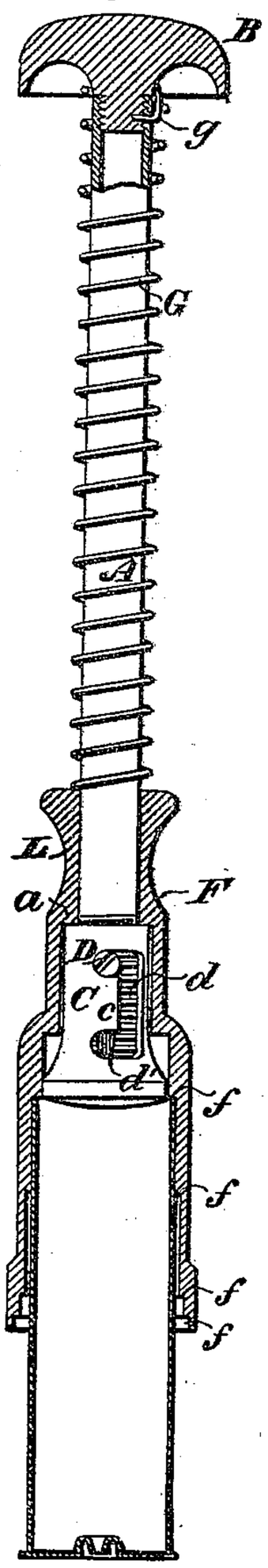
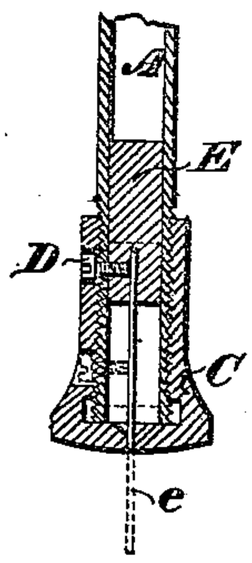
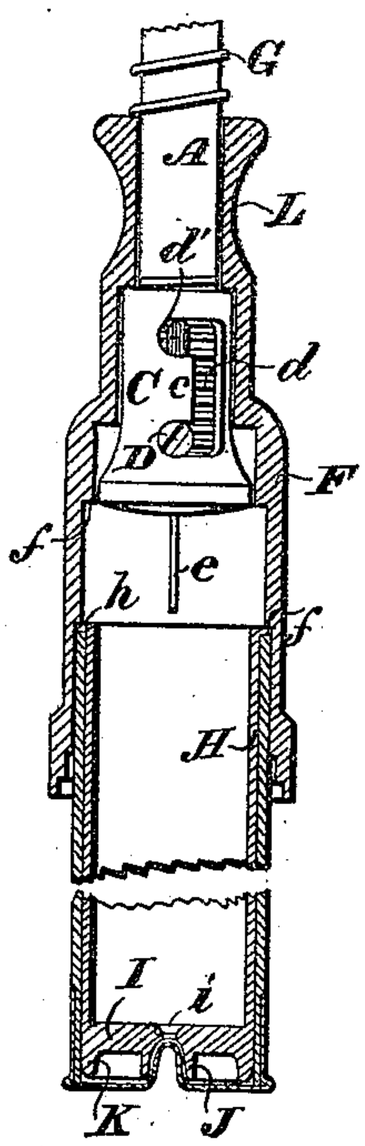


Fig 3.





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JAMES BRIODY AND BRYAN BRIODY, OF DETROIT, MICHIGAN.

IMPROVEMENT IN IMPLEMENTS FOR LOADING CARTRIDGE-SHELLS.

Specification forming part of Letters Patent No. **175,919**, dated April 11, 1876; application filed February 17, 1876.

To all whom it may concern:

Be it known that we, JAMES BRIODY and BRYAN BRIODY, both of Detroit, in the county of Wayne and State of Michigan, have invented certain new and useful Improvements in Implements for Loading Cartridge-Shells, of which the following is a specification:

Our invention relates to a hand cartridge-loader of the class adapted to remove exploded caps from cartridge cases or shells which have been used; and our main objects are so to construct such a cartridge-loader as to adapt it for use in connection with cartridge-shells of various sizes and different construction, and to render it readily adjustable for use either to load or uncap. The subject-matter claimed will hereinafter specifically be designated.

In the accompanying drawings, Figure 1 is a central longitudinal section through our improved implement adapted for loading, showing a shell in place therein; the adjusting-cap or head for adapting the implement to removing caps not being in section; Fig. 2, a longitudinal central section through the adjusting head or cap, showing portions of the plunger-rod and its spring; and Fig. 3 a similar section, showing a paper shell and a supporting tube or holder therefor, to adapt our improvements for use in connection with paper shells.

A plunger, A, preferably made hollow or tubular throughout its entire length, as shown, has a hand-rest or knob, B, secured to its outer end by a screw-thread, and an adjustable wad-ramming head or cap, C, for loading, fitting over and secured to its opposite end—in this instance by means of screw-threads. The head is thus rendered capable of turning, for a purpose to be explained. A regulating stud or pin, shown as composed of a set-screw, D, passes through a longitudinal slot, *d*, in the loading-head C, and through a corresponding slot, *d'*, in the plunger C, into a loose plug or shot-rod, E, in the end of the hollow plunger-rod A. A cavity or socket in the end of this plug receives a pin or wire, *e*, against which the end of the set-screw bears to hold it in place. The slot *d* terminates at its ends in short lateral slots, as shown, and, together with the shoulder *c* between them, forms a stop for the set-screw at either end of the slot. It will thus be seen that when the set screw occupies the position shown in Fig. 1, and in full lines in Fig. 2, the wire *e* is retracted so that its outer end does not project beyond the adjusting-head, while, when the set-screw occupies the position shown in Fig. 3, and in dotted lines in Fig. 2, the wire projects out beyond the head through a central opening therein, as shown. This adjustment is accomplished by giving the head a partial turn to move the set-screw out of the stop it may occupy at one end of the slot *d*, and then moving the set-screw, plug, and pin, by sliding the set-screw in the longitudinal slot to the opposite end thereof, when a partial turn of the head upon the plunger causes the set-screw to occupy the outer stop. When the head occupies the position shown in Fig. 1, and in full lines in Fig. 2, the implement is ready for use as a loader, and the end of the plunger abuts against the inner side of the end of the head, as shown, thus relieving the screw of strain. The plunger passes, as shown, through an opening or bearing in the the cartridge-holder F, which admits of the holder sliding endwise on the plunger. A spring, G, coiled around the plunger, bears at one end against the end of the holder or receiver F, and at the opposite end is secured to the plunger beneath the knob B, the end *g* of the spring being inserted in a hole through the plunger and into the shank of the knob, by which means accidental loosening of the knob is prevented. The tendency of the spring being always to spread or expand, keeps the holder in the position shown in Figs. 2 and 3 when not in use, with the inner end of the adjusting-head C against a stop formed by the shoulder *a* on the inside of the holder. By removing the head C from the plunger, the holder and plunger may be separated.

The cartridge-case, or shell-holder is formed upon its interior with a number of shoulders, *f*, which successively reduce the diameter of the chamber or socket in the holder, as shown. These shoulders form rests or seats for the ends of the shells to bear against, and thus suit the implement to shells of varying sizes. The smaller the diameter of the shell the farther it enters the receiving-chamber of the

holder to rest against the bearings formed by the shoulders.

To stiffen paper tubes or shells to admit of their being readily uncapped by our implement, we provide a metal supporting-tube, H, of an outer diameter corresponding with the inner diameter of the paper tube, and having an external flange, *h*, around its open end, projecting out from the sides of the tube a distance about corresponding to the thickness of the paper tube. This supporting-tube H has a centrally-perforated bottom, I, the opening *i* through the bottom being made flaring, as shown, to guide the wire *e* when in use, and prevent accidental bending of the wire by its failure to enter directly in the center of the opening. The supporting-tube is placed in the paper shell, and is of such a length that the end of the shell abuts against the flange *h* at the same time that the bottom of the supporting-tube comes in contact with the bottom or inside of the head of the cartridge-shell. For that class of paper cartridge-tubes having an inwardly-projecting conical or pointed teat in their heads to receive the fulminate or cap, as shown in Fig. 3, the supporting-tube is formed with a centrally-projecting portion, J, recessed to correspond with and fit over the teat, as shown. The flanged edges or projecting outer part K, of the bottom of the supporting-tube rests against the bottom of the shell. The rigid tube H, it will thus be seen, supports the shell both against end thrust and lateral yielding or crushing in. After the cap or other clogging substance has been removed the tube is withdrawn, and the case is ready for loading and capping.

From the foregoing description the operation of our improved implement will be readily understood, all that is necessary in using it being to set the adjustable turning-head to uncap or load as desired; hold the implement in one hand, with the knob resting against the palm at or near the root of the thumb, with the fingers in the recess L formed upon the end of the holder; with the other hand insert the cartridge-shell in the holder, and then draw the holder toward the knob. The hollow plunger may be used as a receptacle for extra wires.

We claim as of our own invention—

1. The combination of the plunger, the cap-removing wire, the adjustable turning ramming-head, perforated for the passage of the wire, and the shell-holder in which the head moves, these members being constructed and operating substantially as set forth, to adapt the implement for either loading or uncapping shells.

2. The combination of the tubular slotted plnuger, the loose plug moving endwise therein, the wire carried by the plug, the slotted removable ramming-head, and the set-screw passing through the slots in the head and plunger, substantially as and for the purpose specified.

3. The shell-holder constructed, as set forth, with internal shoulders to adapt it for use with shells of different sizes.

4. The combination of the plunger, the knob, the holder, and the coil-spring bearing at one end against the holder, and at its opposite end passing through an opening in the plunger into the shank of the knob, as set forth.

5. The paper-shell supporting tube, open at one end to receive the plunger-head, and having a recessed central projection in its bottom, substantially as and for the purpose specified.

In testimony whereof we have hereunto subscribed our names.

JAMES BRIODY.
BRYAN BRIODY.

Witnesses:
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