

(No Model.)

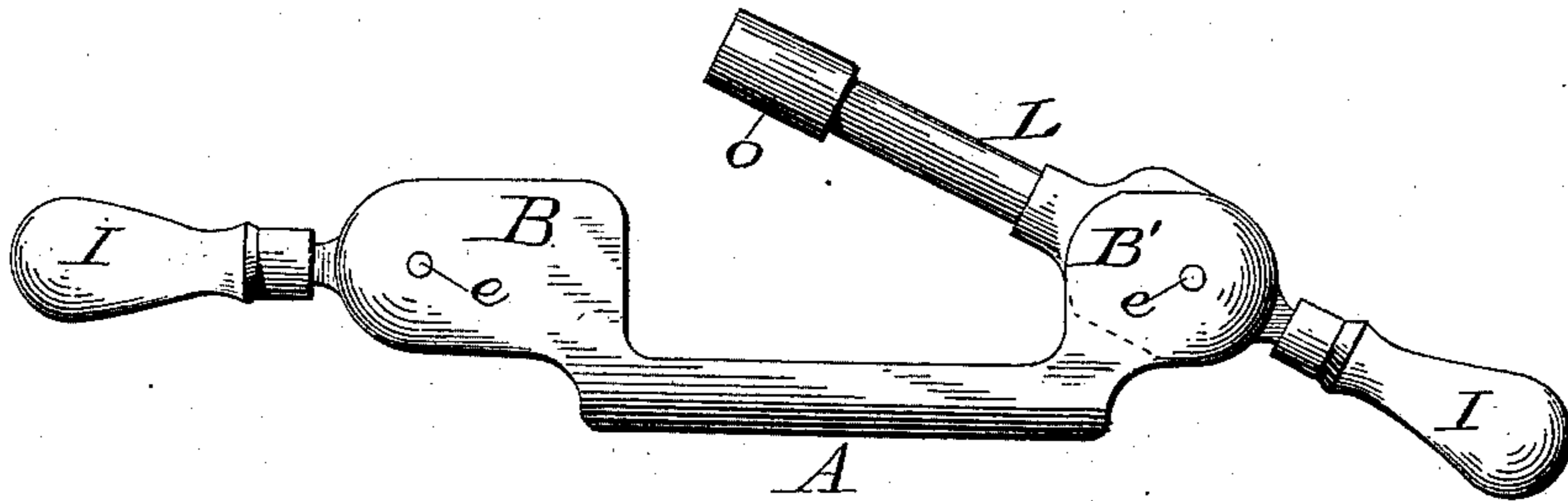
G. W. HADLEY.

IMPLEMENT FOR CAPPING AND UNCAPPING CARTRIDGE SHELLS.

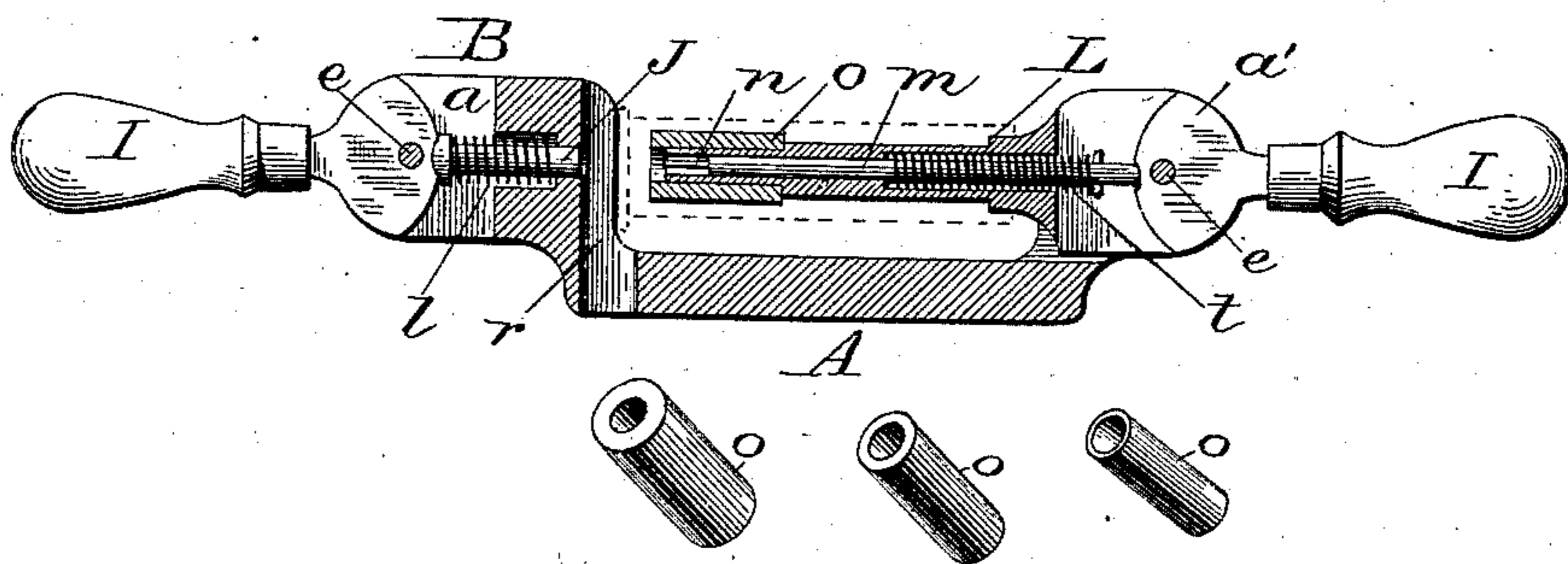
No. 310,583.

Patented Jan. 13, 1885.

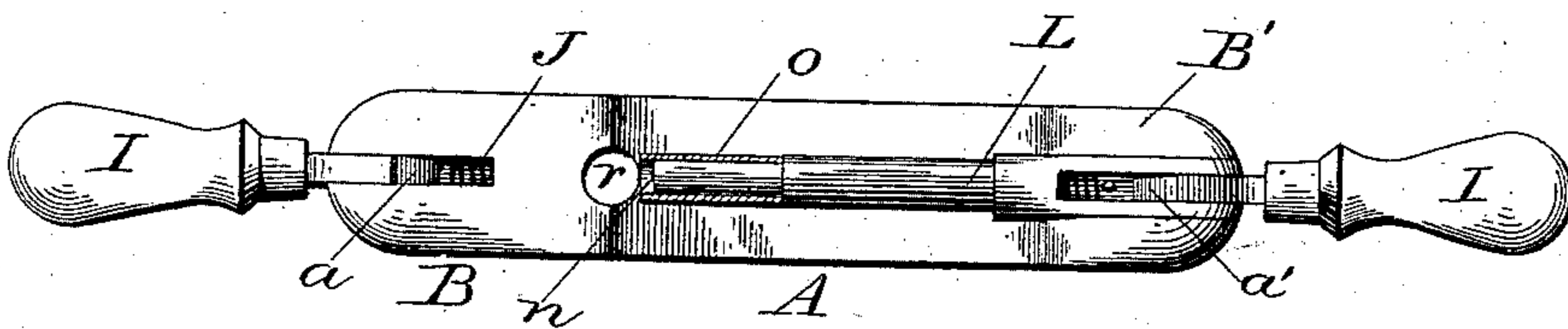
*Fig. 1.*



*Fig. 2.*



*Fig. 3.*



Witnesses:

Jas. F. Duffnell.  
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Inventor:

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by Dodgeson  
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# UNITED STATES PATENT OFFICE.

GEORGE WASHINGTON HADLEY, OF CHICOPEE FALLS, MASSACHUSETTS.

IMPLEMENT FOR CAPPING AND UNCAPPING CARTRIDGE-SHELLS.

SPECIFICATION forming part of Letters Patent No. 310,583, dated January 13, 1885.

Application filed October 10, 1884. (No model.)

*To all whom it may concern:*

Be it known that I, GEORGE W. HADLEY, of Chicopee Falls, in the county of Hampden and State of Massachusetts, have invented certain new and useful Improvements in Implements for Capping and Uncapping Cartridge-Shells, of which the following is a specification.

This invention relates to that class of implements used for capping and uncapping cartridge-shells; and the invention consists in the novel construction and arrangement or combination of parts, whereby a compact and efficient implement is produced, and which is adapted to be used with various sizes of shells, as hereinafter more fully set forth.

Figure 1 is a side elevation; Fig. 2, a vertical longitudinal section; and Fig. 3 is a top plan view of the implement complete.

In constructing my improved device I form the body or frame of a single solid piece of metal, consisting of the bar A, at each end of which there is a raised portion or projecting shoulder, B B', as shown in Figs. 1 and 2, the shoulder B being made a little longer than the one at the opposite end, to give room for a sliding punch or plunger, J, and its spring *l*, located therein, as shown in Fig. 2. Both of these shoulders B and B' are provided with a central vertical slot, as shown in Fig. 3, in which is pivoted at each end, respectively, a double-faced cam-plate, *a* and *a'*, each being provided with a handle, I, for operating them. As shown in Fig. 2, these cams are each provided with a small notch at the center of their faces, in which the ends of the spring-punches rest, and thus hold the cams normally in the position represented in Fig. 2. The faces of these cams are made of the same curvature or degree of eccentricity on each side of these central notches, so they will move the punches the same whichever way their handles I are moved, up or down. The punch J, mounted in the shoulder B, is made of the proper diameter to bear upon the closed end of the cap or primer and force it into the pocket or central cavity made for it in the head of the cartridge-shell. A central groove or recess, *r*, is made in the vertical face of the shoulder B,

as shown in Figs. 1 and 2, for the purpose of providing a space into which the exploded cap or primer may be shoved as it is removed from the shell, as hereinafter explained.

As shown in Fig. 3, the slot in the shoulder B' is made wider than that in the shoulder B, for the purpose of enabling a tubular stud or spindle, L, to be pivoted therein for supporting the cartridge-shell, which is slipped thereon as indicated by dotted lines in Fig. 1 and 2. The rear or pivoted end of this stud L is slotted, so as to permit the cam *a'* at that end to be inserted within the slot, and thus enable both the cam *a'* and the stud L to be journaled on the same pivot or pin *e*, each being free to turn thereon independently of the other. Within this spindle L there is located a sliding punch, *m*, the front end of which is reduced in diameter, as shown at *n*, Fig. 2, so as to enable it to enter the vent-hole in the head of the shell when it is desired to remove an exploded cap or primer. A spiral spring, *t*, is arranged to force the punch *m* backward when released from the pressure of the cam *a'*. The front end of the stud L is also reduced in diameter, and provided with an annular shoulder for the purpose of enabling any one of a series of short tubes, *o*, of varying diameters externally, to be slipped thereon, these tubes *o* being made of different sizes to fit the different-sized cartridge-shells, any required number of such tubes *o* being provided with each implement, there being three different sizes shown in connection with Fig. 2.

The implement is used as follows: In case it be desired to decap a shell that has been fired, the stud L is swung up, as represented in Fig. 1, and the shell slipped thereon, as indicated in dotted lines, when it is swung down to the position shown in Fig. 2, when by tipping the handle I either up or down the cam *a'* will push the punch *m* forward, causing the reduced end *n* to enter the vent-hole in the head of the shell, and, bearing against the inside of the cap or primer, will push it out of the pocket into the recess or central space, *r*, the head of the shell being firmly supported by the face of the shoulder B on each side of the space *r*. When this has

been done, the stud L is swung up and the shell removed.

When it is desired to recap the shell, it has the cap or primer set into the pocket in the head of the shell by hand, either before or after the shell is placed on the stud L, when it is turned down to the position shown in Fig. 2, and the other handle, I, operated, thus projecting the punch J, which, bearing against the outside of the cap or primer, forces it to its seat in the pocket.

Whenever it is necessary to operate on a different size of cartridge, it is only necessary to put on the corresponding-sized tube *o*, so as to hold the shell central on the stud L, in order that the point *n* of the punch *m* shall be exactly opposite the central vent-hole in the head of the shell.

It will be observed that the tubes *o* are made to project slightly beyond the end of the stud L, thereby forming a recess at its outer end, to permit the internal projection formed by the pocket in the head of the shell to fit therein, while the flat end of the sleeve *o* forms a solid support for the head of the shell.

By this construction I am enabled to produce a very simple, compact, and efficient implement for the purpose of decapping and re-

capping cartridge-shells, and one that is equally well adapted to shells of all sizes.

Having thus described my invention, what I claim is—

1. The herein-described implement for capping and uncapping cartridge-shells, consisting of the body A, having the shoulders or projections B and B', formed integral therewith, the shoulder B having a recess, *r*, in its face, with the spring-punch J, and operating-cam *a*, mounted in said shoulder, and the pivoted stud L, carrying the spring-punch *m*, and its operating-cam *a'*, being pivoted to the shoulder B', said parts being arranged to operate substantially as shown and described.

2. In combination with the pivoted stud L, provided with a shoulder near its free end, the detachable tube *o*, arranged to have its outer end project beyond the end of the stud L, to form a recess to receive the inwardly-projecting pocket of the shell and form a firm support for the head of the shell while the cap is being pressed into the pocket thereof, substantially as described.

GEORGE WASHINGTON HADLEY.

Witnesses:

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