

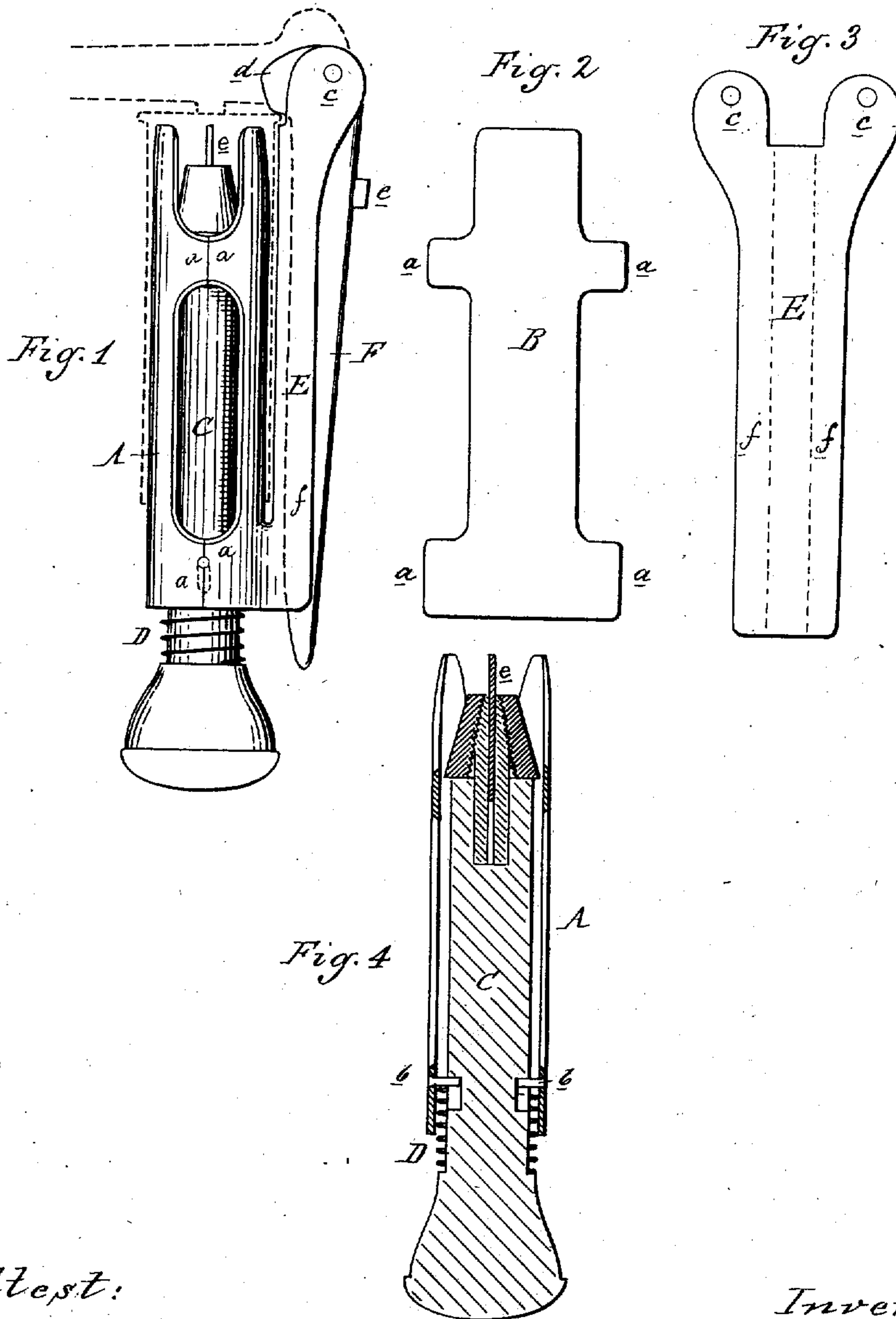
(No Model.)

A. WORDEN.

CARTRIDGE CAPPING AND UNCAPPING IMPLEMENT.

No. 254,757.

Patented Mar. 7, 1882.



Attest:  
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# UNITED STATES PATENT OFFICE.

ALVA WORDEN, OF YPSILANTI, MICHIGAN.

## CARTRIDGE CAPPING AND UNCAPPING IMPLEMENT.

SPECIFICATION forming part of Letters Patent No. 254,757, dated March 7, 1882.

Application filed October 12, 1881. (No model.)

*To all whom it may concern:*

Be it known that I, ALVA WORDEN, of Ypsilanti, in the county of Washtenaw and State of Michigan, have invented an Improvement in Cartridge Capping and Uncapping Imple-

ments, of which the following is a specification. The nature of invention relates to certain new and useful improvements in the construction of devices employed in uncapping exploded metallic shells and in recapping the same before such shells are recharged, and is especially designed as an improvement upon the device for a similar purpose patented August 17, 1880, and numbered 231,250.

The invention consists in the peculiar details of construction and in the combination of parts, as more fully hereinafter set forth.

Figure 1 is a perspective elevation of my improved device with the cap-lever shown in dotted lines in the position required to force the cap into the head of the cartridge-shell. Fig. 2 is a detail showing the blank for making frame. Fig. 3 is a detail showing the blank for constructing the standard. Fig. 4 is a vertical central section through the frame and post with the standard and capping-lever removed.

In the accompanying drawings, which form a part of this specification, A represents a cylindrical-shaped frame a trifle smaller in diameter than the bore of the shell to be operated upon. This frame is made of two parts, said parts being alike, as shown in Fig. 2, wherein B represents one of the parts cut from sheet metal, substantially in the form shown, and bent to form one-half of a cylinder, the other half of which is a counterpart of B, and are joined together by means of the ears *a* and any suitable fastening.

C is a post a trifle smaller in diameter than the bore of the frame A, in which it is inclosed, and it projects below the bottom of said frame and terminates in a handle, and between such handle and the bottom of the shell is a coil-spring, D, adapted to retract the post after it has been driven upward against the pressure of such spring. In the top of this post is centrally secured a pin, *e*, which, when the handle is retracted, reaches upward to the plane of the top of the frame.

To prevent the post from turning within the

frame, and to prevent its removal therefrom accidentally, studs or pins *b* project into the bore of the frame and on opposite sides, and engage with slots in the corresponding sides of the post.

E is a standard, the lower end of which is riveted to the lower end of the frame. This standard is made of sheet metal pressed so as to form three sides of a four-sided prism, with overhanging ears *c* at the top. Sufficient space is left between the vertical inner face of said standard and the side of the frame A to allow the cartridge-shell to be inserted, so that the head of said shell will rest upon the upper ends of the frame.

To the ears *c* is pivoted the lever F, provided with the cam-shaped projection *d*. When the standard is within the cartridge this lever is closed down into the sides *f* of the standard, which allows such cam-like projection to engage with the top of the shell and hold it upon the standard, when the operator smartly strikes the handle of the post upon the table, thereby projecting the pin above the upper end of the standard. The pin thus projected forces out the discharged cap, and the pressure upon the handle being removed, the spring retracts the post with its pin. A fresh cap is then inserted in the orifice and the handle brought over to a horizontal position over the frame. A pressure being applied to such handle, the nipple *e* forces the cap to place. This nipple is preferably round and of the same diameter as the cap, and is secured by a rivet or screw to the outer face of the handle, as shown. The handle is made preferably of sheet metal, stamped to shape, and within it, to stiffen it and prevent its springing, may be secured a backing of wood.

A device thus constructed can be made at a moiety of the cost of such devices as are now in the market, and will be strong, durable, and very easily manipulated.

I am aware that it is not broadly new with me to use pins in connection with slots to limit the stroke and a spring to give a constant force in one direction, as such construction is shown in Patent No. 138,180; but in that case the pins serve only as guides, and the location of the spring necessitates a partially-closed end.

I am also aware of Patents Nos. 126,962, of



1872, and 232,028, of 1880, and none of these constructions are sought to be covered in this application.

What I claim as my invention is—

5 The cartridge implement herein described, consisting of the cylindrical open-ended frame A, having internally-projecting pins *b*, combined with the post C, sliding within the cylinder A and provided with pin *e*, moving  
10 through the upper open end of said cylinder, and recess which receives and limits the stroke

of the pins *b*, the spring D, surrounding the post and abutting against a shoulder on the post and against the pins *b*, the standard E, secured to the lower end of the cylinder A, and the lever F, all constructed, arranged, and combined  
15 to operate as and for the purpose set forth.

ALVA WORDEN.

Witnesses:

FRANK JOSLIN,  
W. W. SWIFT.