

(No Model.)

W. W. CHRISTMAS & F. B. JONAS.

CARTRIDGE IMPLEMENT.

No. 290,973.

Patented Dec. 25, 1883.

Fig-1-

Fig-2-

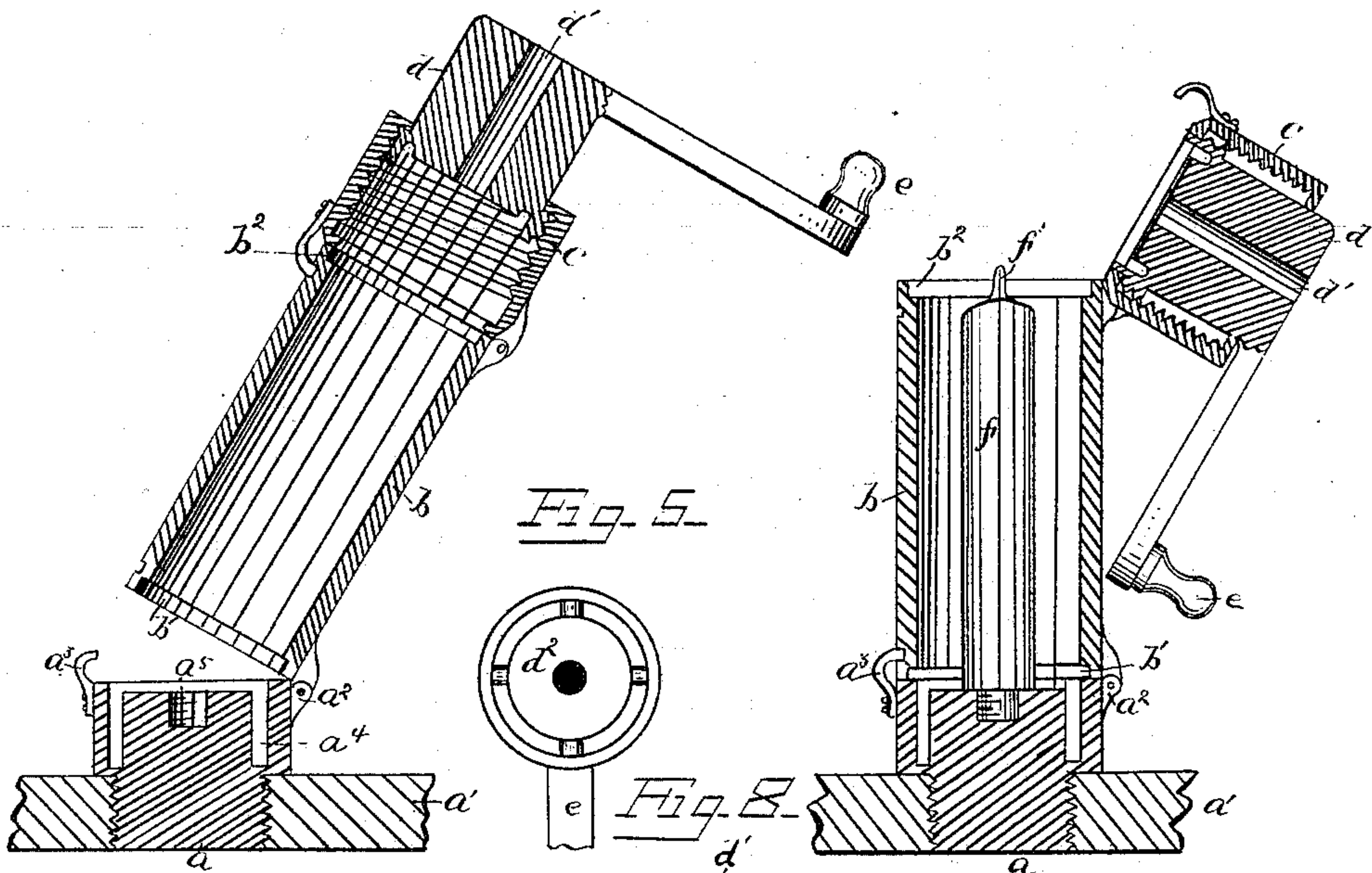
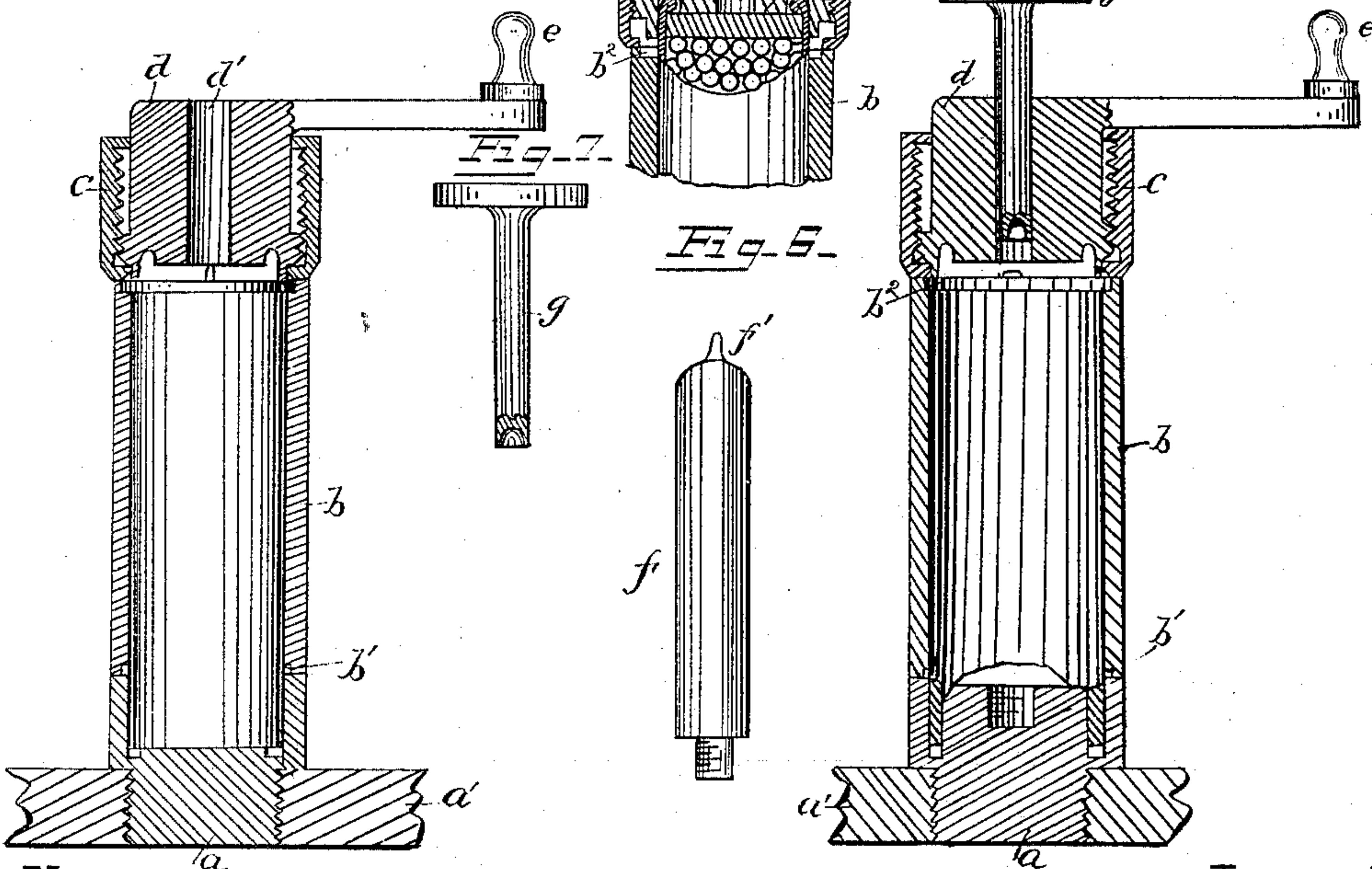


Fig-3-

Fig-4-



Witnesses

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CARTRIDGE IMPLEMENT.

SPECIFICATION forming part of Letters Patent No. 290,973, dated December 25, 1883.

Application filed November 10, 1883. (No model.)

To all whom it may concern:

Be it known that we, WILLIAM W. CHRISTMAS, of Washington, District of Columbia, and FRANK B. JONAS, of New Orleans, Louisiana, citizens of the United States, have invented certain new and useful Improvements in Cartridge Implements, of which the following is a specification, reference being had therein to the accompanying drawings.

Our invention relates to implements for crimping, capping, and uncapping cartridges; and it consists in certain details of construction, as hereinafter pointed out and claimed.

The object of the invention is to produce a simple implement which may be used for the purposes stated.

In the drawings, Figure 1 is a longitudinal section of our implement partly turned back to admit a cartridge for crimping. Fig. 2 is a similar view, the top thrown back and central pin in position to receive the cartridge for uncapping. Fig. 3 is a view similar to Fig. 2, with a shell in position and uncapped. Fig. 4 is a view similar to Fig. 3, with shell in position for capping. Fig. 5 is a face or end view of crimping-cup. Fig. 6 shows the uncapping-spindle removed, and Fig. 7 the capping-punch; Fig. 8, a section of the top of the crimper in the operation of crimping a cartridge.

Reference-letter *a* indicates the base-piece, which is cylindrical, and screws into the base-plate *a'*, which plate may be a table, or may be set upon or attached to a table in any convenient manner. The piece *a* has a hinge projection, *a''*, and clasp *a'''*; or these projections may be merely a hook and clasp or two spring-clasps. The piece *a* has an annular groove, *a''''*, in its upper end, and a central screw-threaded aperture, *a''''''*. If, however, it is desired to make the tool for a crimper only, the groove and hole may be omitted. The hollow cylindrical body portion *b* is hinged to base *a*, as shown in Figs. 1 and 2, or may be merely held down by spring-clasps, as *a'''*, or by a hook-connection or a bayonet-catch. This body portion must be capable of a movement with reference to base *a*, so that a cartridge may enter from below, the cartridge-flange resting in offset or cut-away portion *b'*. The upper end of body

b bears a cup, *c*, screw-threaded internally. If the implement is to be used for crimping only, this cup may be a part of *b*, or be soldered or screwed thereto. For a capper and uncapper, however, it should be hinged to body *b*, as shown in Figs. 1 and 2. The interior of cup *c* is screw-threaded, except it may be a little way at the end nearest the body *b*, where the screw-thread runs out. In this screw-threaded cup runs a cylinder or plunger, *d*, screw-threaded externally for a little way, as shown. The cylinder *d* has a handle, *e*, and for use as a capper has a longitudinal perforation, *d'*. The end inside of the cup *c* has a crimping-cup and burrs, as shown at *d''*, Fig. 5. The spindle *f* has a screw-threaded end, which screws into the hole in base *a* when the implement is to be used as an uncapper, the projection or pin *f''* serving to remove the cap from the shell. The punch *g* should fit the perforation *d'* with tolerable accuracy, and should be of about the diameter of the primer or cap.

The operation of our device is as follows: To crimp a cartridge, the shell is entered into the body *b* when said body is thrown back to a horizontal position, or nearly so. When the body is raised to an upright position, the head of the cartridge rests on base *a*, the flange in groove *b'*, and the end which is to be crimped or turned over on the wad is directly under crimper *d''*, the cylinder *d* being screwed back. The handle *e* is now turned, which drives down the cylinder *d* upon the end of the paper shell or tube, the rotary motion of the cylinder causing it to advance by means of the screw-thread, at the same time it crimps or turns in the shell by means of the burr *d''*. (See Fig. 8.) The groove *b'* may be just large enough to receive the cartridge-flange, so that the flange is held between the body and base to prevent rotation; or suitable points may project from the top of base *a* for the same purpose. It is obvious that for use as a crimper alone the annular groove and central hole in the base *a* are not necessary. The crimping-burr can be run down far enough to turn in the shell by a very few turns of the handle. The screw-thread may run out, so as to admit of further rotation, without advancing the cylinder *d* when said cylinder gets to the bottom

of the cup *c*. The cartridge is removed by tipping down the body on hinge *a*².

To use the device as an uncapper, the body *b* is brought to an upright position, being held to base *a* by its hinges or clasps. The spindle *f* is screwed into the base *a* after cup *c* is turned back on its hinge, as in Fig. 2. The mouth of the cartridge is entered into the body *b* and projects into the annular recess in base *a*. The cylinder *d* is screwed to its lowermost position in cup *c*, and when said cup is turned over from the position in Fig. 2 to that in Fig. 3 the end of the cylinder will press down on the head of the cartridge to crowd off the cap or primer. The cup may be thrown back and the operation repeated.

To use the implement as a capper, spindle *f* being removed, the shell is entered as in uncapping. The flange then finds a seating groove *b*², the mouth of the cartridge entering the annular recess in base *a*, as in uncapping. The primer is placed in its seat in the shell and cup *c* closed, as in Fig. 4. The punch or rod *g* is then passed down through hole *d*¹ in cylinder *d* and the cap crowded home.

We claim—

1. A base-piece, a hollow cylindrical body hinged thereto, and provided with a screw-threaded portion at the end opposite the hinge, and a crimper arranged in said screw-threaded portion, substantially as described, all combined in a cartridge implement, substantially as stated.

2. The combination, with a base-plate, as *a*¹, of a cylindrical base-piece, *a*, a hollow cylindrical body portion, *b*, having cut-away portion *b*¹, hinged to said base-piece, and having a screw-threaded cup at its other end, and a screw-threaded crimping-burr working in said socket, all substantially as described.

3. The combination, in a cartridge implement, of a hollow body portion having a central pin, a cup hinged to said body, and a screw-threaded plunger in said cup, adapted, substantially as described, to bear on a cartridge and force it down on the pin to uncap the shell.

4. The combination, with a base-piece having an annular groove, of a hollow body, a central pin, and a hinged cup having a plunger therein, as stated, all combined in a cartridge implement, substantially as set forth.

5. The combination, in a cartridge implement, of a hollow body portion, a cup and hollow plunger therein, said cup being pivoted to the body portion, and a separate and readily-removable punch adapted to press the cap upon the shell when passed through the hollow plunger, substantially as set forth.

In testimony whereof we affix our signatures in presence of two witnesses.

WM. W. CHRISTMAS.
FRANK B. JONAS.

Witnesses:

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