L. L. HEPBURN.

Cartridge-Loading Implement.

No. 161,682. Patented April 6, 1875.

Fig. 1.

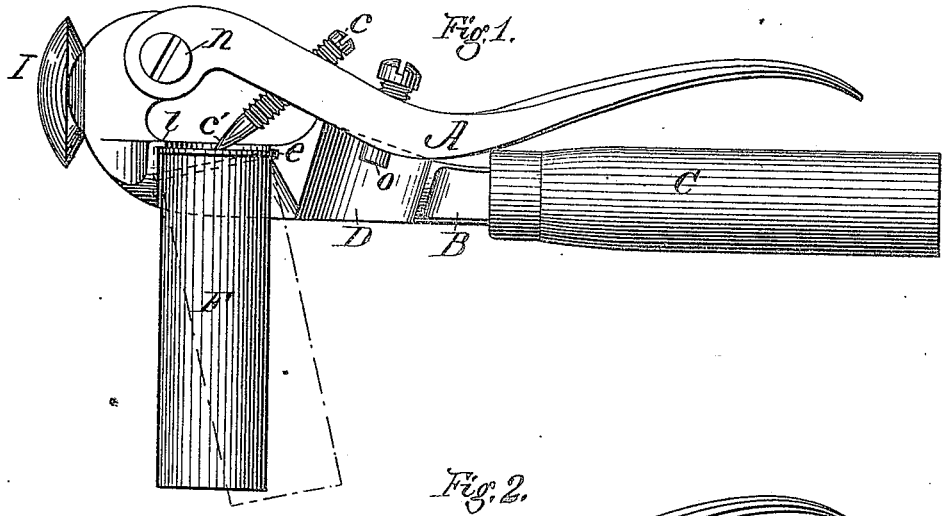


Fig. 2.

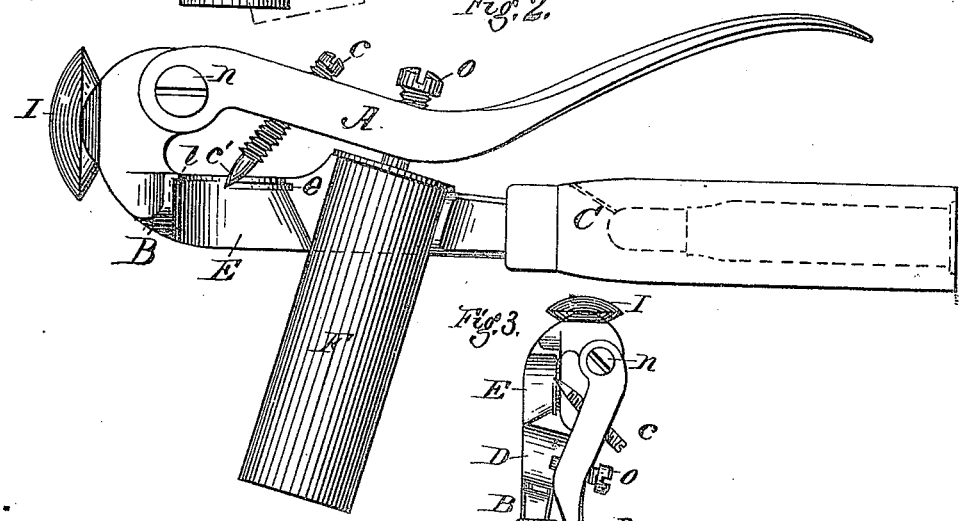
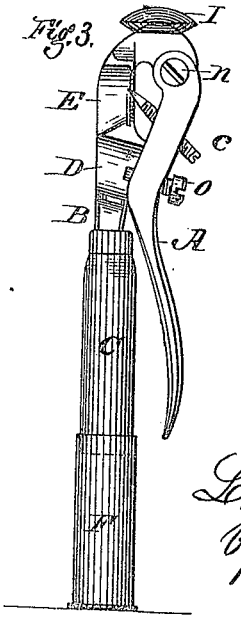


Fig. 3.



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UNITED STATES PATENT OFFICE.

LEWIS L. HEPBURN, OF ILION, NEW YORK.

IMPROVEMENT IN CARTRIDGE-LOADING IMPLEMENTS.

Specification forming part of Letters Patent No. 161,682, dated April 6, 1875; application filed January 18, 1875.

To all whom it may concern:

Be it known that I, LEWIS L. HEPBURN, of Ilion, in the county of Herkimer and State of New York, have invented certain Improvements in Tools for Loading and Recapping Cartridges, of which the following is a specification:

My invention consists of a tool of peculiar construction for loading, capping, and removing caps or primers from cartridge-shells, as hereinafter more fully described.

Figure 1 is a side elevation of the tool as used to remove a cap or primer. Fig. 2 is a similar view, showing it used to cap a shell; and Fig. 3, a similar view, showing it used to load a shell.

The object of this invention is to produce a simple, cheap, and efficient tool that can be used to load a shell, to cap or prime it, and also to remove the exploded cap or primer therefrom.

To construct this improved tool, I make two metallic arms, A and B, of the form shown in the drawings, the two being pivoted together, as shown at *n*. The arm B is curved at its end where the joint is, so that the joint, instead of being central between the two arms, is thrown to one side, or is eccentric to the horizontal plane of the arms, the object of which will be hereinafter described. The arm B has formed in one side two semicircular recesses, D and E, of the proper size to permit a cartridge-shell to fit therein, as represented in Figs. 1 and 2. The recess E has a narrow groove, *e*, cut in its rear wall, of such a size as to permit the flange of the shell to fit therein, as shown in Fig. 1, this recess or groove *e* extending only a short distance, as shown in Fig. 2, there being an inwardly-projecting flange, *l*, on the opposite side of the recess E, against which the head of the shell F rests when inserted in the recess E, as represented in Fig. 1. The rear wall of the recess E is inclined backward, to permit the shell to be tipped or moved therein, as shown by the dotted lines in Fig. 1. The arm B, at the point where the recess D is formed, is inclined on its upper surface, so that, when the shell F is inserted in said recess, its head will stand at a right angle to the plunger or screw *o*, as represented in Fig. 2. The arm A has its rear end curved slightly, to form a convenient handle, and it has inserted through a hole in it, over the recess E, a steel-pointed screw, *c*, this latter being inclined at an angle of about forty-five degrees, and so located that its point will be exactly opposite the center of the recess, as shown in the several figures. In like manner a screw, *o*, is inserted through the handle A, directly over the center of the recess D, as shown in Fig. 1. This screw *o* has its lower end made slightly concave, and is of a diameter equal to that of the cap or primer used on the cartridge-shell, its function being to press or force the cap or primer into place in the cavity formed for it in the head of the shell. The arm B is provided with a round handle, C, the end of which is flat, as shown in the drawings, this handle being made of a size to correspond with the internal diameter of the shell, so that it can be used as a rammer to force the wads into the shell when loading the latter, as represented in Fig. 3. To facilitate the use of the tool for this purpose, a rounded knob, I, is formed on the opposite end of the arm B, as shown in the several figures, this knob fitting the palm of the hand for that purpose.

It will be observed that the position of the pivot or joint *n* is in such relation to the point of the screw *c* that, as the arms are brought together, the point *c'* will be thrust forward as well as downward, and thereby will be made to penetrate the cap or primer in an oblique direction, thus obtaining a firm hold upon it.

The manner of using the tool is as follows: To remove a cap or primer, the shell is inserted in the recess E, with its flange resting in the groove *e* on the rear side, with the head or flange pressed firmly up against the flange *l* on the opposite side. While held in this position, the two arms are pressed together, thereby forcing the point *c'* into the primer, which it penetrates in an oblique direction, thus obtaining a good firm hold of it, when the shell is shoved over to the position indicated by the dotted lines, thereby prying the primer out of its cavity. When a primer is to be put on, the shell is placed in the recess D, as shown in Fig. 2, the primer laid on, and the plunger *o* then brought down upon it, thereby forcing it into its place in the head of the

shell. By means of the screw-thread formed on the parts *c* and *o* they can be adjusted to the exact point desired. The manner of using the handle C as a rammer for loading shells will be readily understood from an inspection of Fig. 3.

While this tool is more especially intended for use with breech-loading shot-guns, it can also be used for capping and uncapping cartridge-shells used in rifles, and is of especial use when shells are used that are to be reloaded and fired repeatedly. With a slight modification, the handle C may also be adapted to placing the bullets in the shells. When made to be used for this purpose the handle C will be hollowed out longitudinally from its outer end inward, as indicated by the dotted lines in Fig. 2, the inner end of the cavity being made of the size and shape corresponding to the bullet to be used, while below that it will be made of a size and shape to correspond with the open end of the shell, so that, as it is shoved down over the shell, it will slide thereon in a straight line, thereby centering the bullet accurately in the mouth of the shell. When thus used the bullet will be first entered in the mouth of the shell, and then forced home, by forcing it with the shell into the cavity; or the bullet may first be placed in the cavity, and the shell then forced in. A small hole should be drilled from the apex of the cavity in which the bullet fits out through the handle C, as also indicated by dotted lines, to permit the escape and entrance of the air as the bullet is entered and removed. When it is designed to use the tool for this purpose, the part C would be made of metal to insure greater accuracy and durability.

The tool thus constructed is exceedingly simple, efficient, and cheap of construction.

Having thus described my invention, what I claim is—

1. The implement consisting of the arm B, having a recess, E, in its side for receiving and holding the shell, in combination with the arm A, provided with the pointed screw *c*, said arms being pivoted together at their extremity, in the manner shown, whereby the implement is made to operate substantially as described.

2. The arm B, provided with the recess E, having the groove *e* and flange or lip *l*, constructed and arranged to operate substantially as shown and described.

3. The arm B, having the recess D in its side, in combination with the pivoted arm A, provided with the adjustable plunger *o*, all constructed and arranged to operate as set forth.

4. The herein-described implement, having one of its arms provided with the circular head I and the handle C, whereby it is adapted for use as a cartridge-loader, as set forth.

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Witnesses:

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