A. C. Hobbs.

Cartridge Mach.

No. 94,744. Patented Sept. 14, 1869.

Fig. 1.

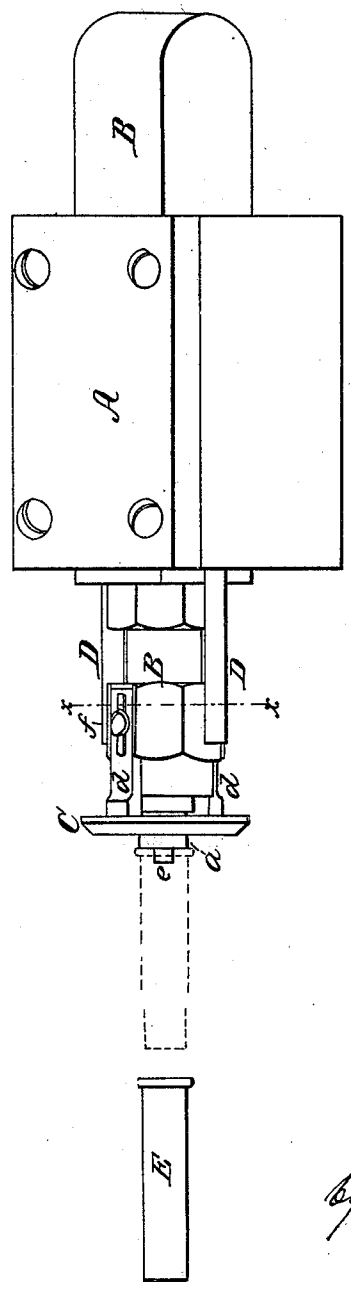


Fig. 2.

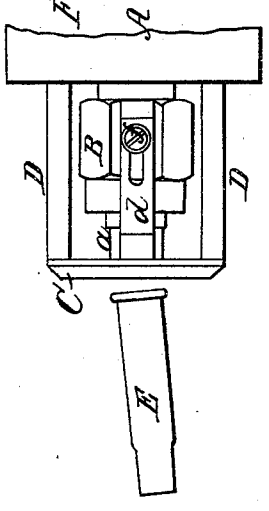
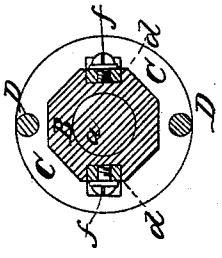


Fig. 3.



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A. C. HOBBS, OF BRIDGEPORT, CONNECTICUT.

Letters Patent No. 94,744, *dated September* 14, 1869.

IMPROVEMENT IN MACHINES FOR FORMING EXTERNAL RECESSES IN THE HEADS OF CARTRIDGE-SHELLS.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern :

Be it known that I, A. C. HOBBS, of Bridgeport, in the county of Fairfield, and State of Connecticut, have invented certain new and useful Improvements in Cartridge-Machines; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, making part of this specification, and to the letters of reference marked thereon, like letters indicating like parts wherever they occur.

To enable others skilled in the art to construct and use my invention, I will proceed to describe it.

My invention relates to machines for making metallic cartridge-shells; and

The invention consists in a device for detaching the shell from the machine after it has been operated upon, as hereinafter explained.

Figure 1 is a perspective view of my improved apparatus;

Figure 2 is a top plan view; and

Figure 3 is a transverse section on the line *x–x* of fig. 1.

In constructing metallic cartridge-shells of various kinds, it is necessary to form a cavity or depression centrally in the end of the head, which is done by means of a punch, while the shell is held in a suitable die, and when the punch which forms the cavity is withdrawn, the shell adheres thereto; and unless removed before the punch advances again, the shell will be crushed and spoiled. It is to effect this removal of the shell that my invention is specially intended.

In the drawings—

A represents a portion of the frame, in which a rod or block, B, is arranged to slide to and fro, this sliding part being technically termed a "bunter."

Upon the front end of the bunter a portion, *a*, is turned off round, of a diameter slightly less than the diameter of the head of the shell E, as represented in fig. 1.

From the front face of this part *a* there projects a small punch, *e*, of a size corresponding with that of the cavity to be formed in the head of the shell.

The cavity is formed by the bunter being pressed against the end of the shell, the punch *e* indenting the metal at the end, as represented in fig. 1, where the shell is shown in red, the shell being held in a die, which, being of the ordinary kind, is not shown in the drawing.

As the bunter is withdrawn with the shell from the die, the shell sticks fast on the punch *e*, as represented in red in fig. 1. To remove the shell, I secure a plate, C, loosely upon the rounded part *a* of the bunter, the plate C being held by two longitudinal arms, *d*, which slide in grooves formed for them in the sides of the bunter, these arms being slotted, and held in the grooves by screws *f*, as shown in figs. 1 and 2.

The slots in the arms *d* are of such a length as to permit the plate C to slide forward even with or a trifle beyond the end of the part *a*, as shown in fig. 2; and to the frame A, in rear of plate C, are secured rigidly two pins, D, of such a length that when the bunter B is drawn back, the plate C strikes against their front ends, thereby stopping the plate, while the bunter continues its backward movement, until its end *a* is drawn back within the plate. As the bunter thus draws back, carrying the adhering shell E with it, the head of the shell strikes against the front of the plate C, which thereby forces the shell off from the punch *e*, the released shell falling into a receptacle below, the shell being represented thus detached in fig. 2. As the bunter moves forward, the plate C is shoved back on the part *a*, as shown in fig. 1, where it remains until the bunter moves back, and causes the plate C to strike against the pins D, which hold it stationary while the bunter moves back to the position shown in fig. 2, the plate C stopping the shell while the bunter continues its backward movement, until the punch *e* is withdrawn entirely from the cavity formed by it in the head of the shell.

By this means, I insure the detaching of the shell at each withdrawal or backward movement of the bunter. The bunter is operated in the usual manner, by any suitable means.

Having thus described my invention and its operation,

What I claim, is—

The sliding plate C, arranged to move with the bunter, in combination with the stop-pins D, or their equivalents, substantially as described.

A. C. HOBBS.

Witnesses:

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