(No Model.)

B. M. BADGER.

CARTRIDGE LOADER AND CRIMPER.

No. 356,975. Patented Feb. 1, 1887.

Fig. 1.

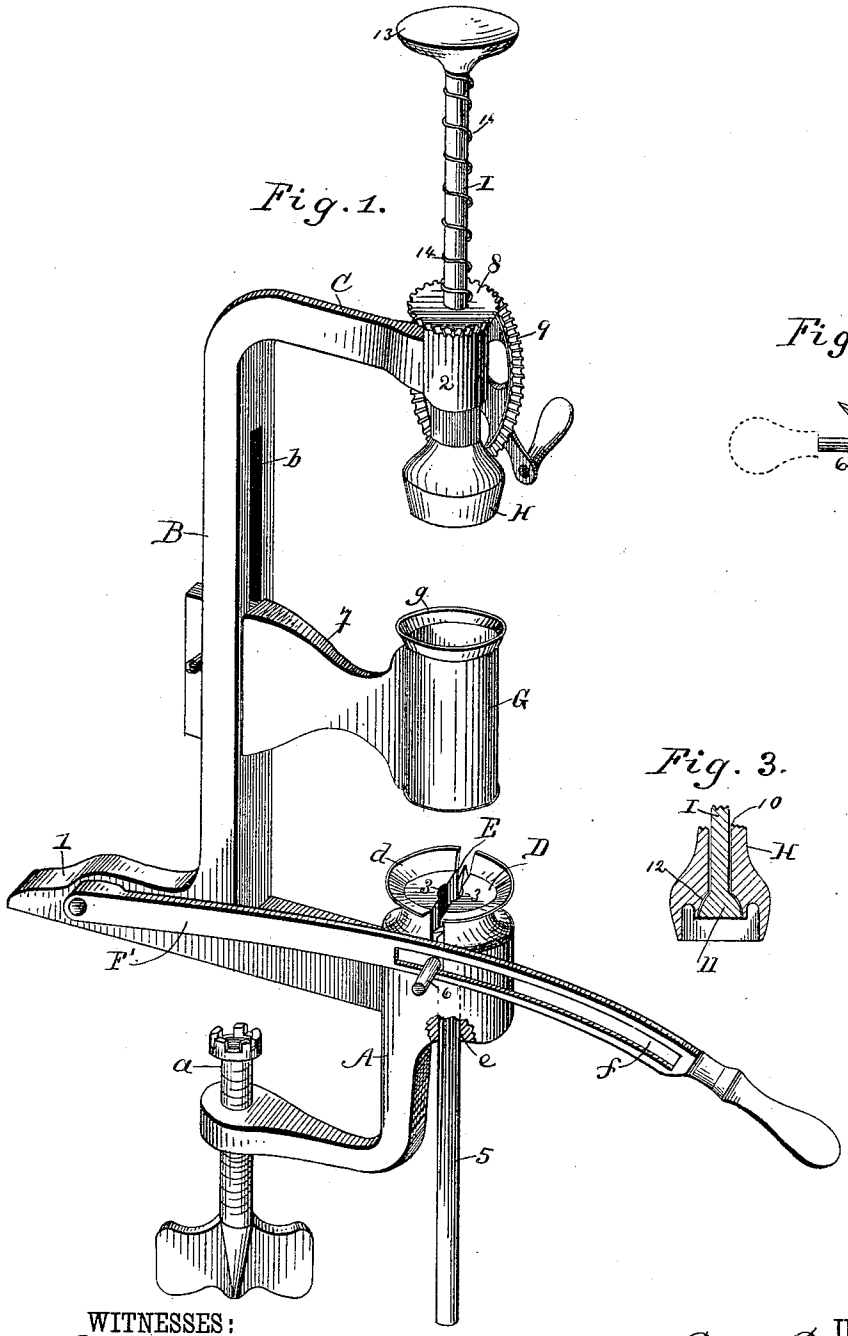


Fig. 2.

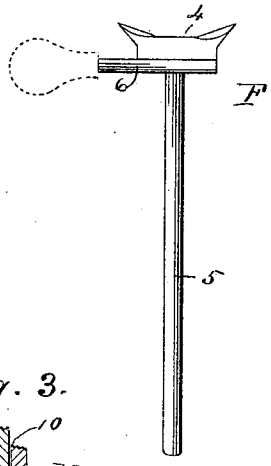


Fig. 3.

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UNITED STATES PATENT OFFICE.

BENJAMIN M. BADGER, OF SUMMERTON, SOUTH CAROLINA.

CARTRIDGE LOADER AND CRIMPER.

SPECIFICATION forming part of Letters Patent No. 356,975, dated February 1, 1887.

Application filed June 12, 1886. Serial No. 205,014. (No model.)

To all whom it may concern:

Be it known that I, BENJAMIN MOSS BADGER, of Summerton, Clarendon county, South Carolina, have invented a new and useful Improvement in Cartridge Loaders and Crimpers, of which the following is a description.

This invention is an improved cartridge or shell loader and crimper, and has for an object to provide a simple machine by which the shell may be loaded and crimped without removing it therefrom.

The invention consists in certain features of construction and novel combinations of parts, as will be hereinafter described.

In the drawings, Figure 1 is a perspective view of my machine. Fig. 2 is a detail side view of the shell-lifter, a handle therefor being shown in dotted lines; and Fig. 3 is a detached sectional view, showing portions of the crimper and rammer.

The main frame is formed of the yoke-clamp A, having a screw, *a*, the standard or upright B, and the horizontal arm C, bent or extended from the upper end of the standard. Such arm has a bearing, 2, as shown. In the standard B, I form a vertically-elongated slot, *b*. It will be noticed that an arm, 1, forming an extension of the clamp, is projected horizontally in rear of the juncture of the standard with said clamp. The purpose of this extension is to provide a bearing for the lever presently described.

On the main frame is formed a base, D, arranged in line with the bearing 2. This base is provided with a rim-flange, *d*, to prevent lateral displacement of a shell, and a recess, E, is formed vertically in the frame leading down from the surface of said base, and said recess merges into a bore, *e*, which leads through the frame, and opens out thereof vertically below the base. The recess E is also enlarged at 3 in line with the bore *e*. This enlargement performs a double office. In the first place it permits the stem of the shell-elevator to move through the recess E, while in the second place it provides an opening at the center of the base over which the cap of the shell rests, so there will be no danger of exploding the shell during the charging or crimping of same.

The elevator F has a head, 4, fitted to enter the recess E, and a stem, 5, which may be inserted through the recess E and down through bore *e*. At its top or bearing-face the head is cut out centrally to avoid any contact with the cap, and such head is filed to a sharp edge to impinge on base of the shell to prevent its revolving while being crimped, and is also formed of sufficient size to, in operation, engage the charging-cylinder and elevate the same in the use of the machine.

From the head I extend a stud, 6, which may be prolonged into a handle, as indicated in dotted lines, Fig. 2, to be grasped by hand to raise the elevator. It is preferred, however, to operate this elevator by means of the lever F′, pivoted at one end to the extension 1, and having near its opposite end a slot, *f*, into which projects the stud 6 of the elevator. By preference the slot *f* is curved in the arc of a circle to reduce the friction of the stud and prevent any binding of said stud therein.

The cylinder G has a funnel-shaped or flaring mouth, *g*, and is provided with a bracket, 7, which is held and movable vertically in the slot *b* of the standard.

At its lower end the crimper H is suitably formed to crimp the shell. This crimper extends through and is journaled in bearing 2, and on its upper end, resting on said bearing, I provide a gear-pinion, 8, which is meshed by a drive gear, 9, as shown in Fig. 1, so that the crimper may be rapidly revolved. An opening, 10, is formed longitudinally through the crimper, and the rammer I is placed and movable longitudinally in said opening. The head 11 of this rammer fits up in a socket, 12, in the crimper, and between the crimper and the knob 13 of the rammer I place a coil-spring, 14, which serves to hold said rammer up, except when such part is forcibly depressed.

In operation the cylinder G is raised to its highest point, a shell is seated on the platform, and the cylinder is lowered over said shell. The shell is now charged and wadded, the rammer being forced down when it is desired to ram, as will be understood. When the shell has been properly charged, the lever F′ is operated to raise the shell, the cylinder being also lifted until the shell comes in contact with the crimper, when by turning the same by the devices described the crimping will be accomplished. Then the elevator may

be lowered, the shell removed, an empty one substituted, and the operation repeated as before.

It will be noticed that by my machine a shell may be charged complete and crimped before removing it, and this result is accomplished by simple devices, all complications being avoided, as will be understood from the drawings and foregoing description.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. A machine, substantially as described, having a base, a charge-guiding and cartridge-loading cylinder, and a crimper arranged operatively in line with each other, substantially as set forth.

2. The combination, in a machine substantially as described, of a supporting-frame, a charge-guiding cylinder connected with the frame, and the base and crimper arranged one below and the other above the cylinder, said base, crimper, and cylinder being arranged operatively in line with each other, and the cylinder being movable in such line between said base and crimper, substantially as set forth.

3. The combination of the frame having a base and provided with a standard, B, having slot *b*, and an arm, C, having bearing 2, the filling-cylinder having arm 7, held and movable vertically in slot *b*, the crimper journaled in bearing 2, and the rammer, substantially as set forth.

4. The combination, with the framing, of the feeding-cylinder, the platform, and the crimper arranged in opposition above and below the cylinder, the said cylinder being connected with the framing and movable in the direction of its length, substantially as set forth.

5. The combination, with the base having recess E and bore *e*, of the elevator having head 4, fitted to recess E, and a stem, 5, fitted to bore *e*, substantially as set forth.

6. The combination, with the fixed base having a recess and the elevator movable therethrough, of the lever pivotally supported and connected with said elevator, substantially as set forth.

7. The combination, substantially as described, of the framing having a fixed base and provided with a standard having a slot, *b*, the feeding-cylinder arranged above the base and having a bracket extended into and movable vertically within the slot *b*, the crimper journaled above the feeding-cylinder, and the rammer movable through said crimper, the crimper-cylinder and base being arranged in line with each other, substantially as set forth.

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Witnesses:
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