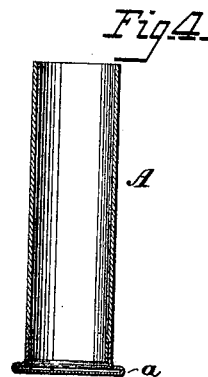
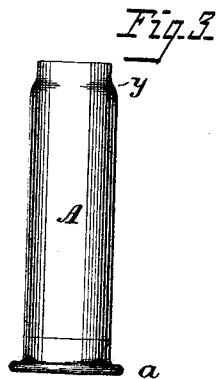
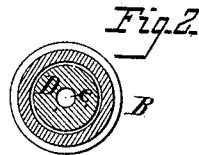
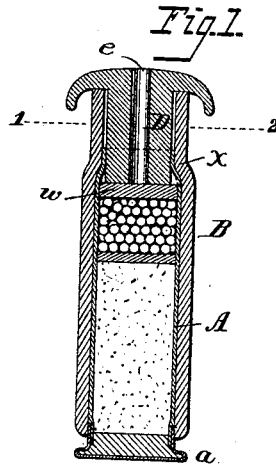


(No Model.)

A. D. LAWS.  
CARTRIDGE LOADING IMPLEMENT.

No. 262,061.

Patented Aug. 1, 1882.



*Attest:*  
*Courtney & Co. Copiers.*  
*A. G. Panemann.*

*INVENTOR*  
*A. D. Laws*  
*By his attorney*  
*Charles V. Foster*

# UNITED STATES PATENT OFFICE.

ALBERT D. LAWS, OF BRIDGEPORT, CONNECTICUT.

## CARTRIDGE-LOADING IMPLEMENT.

SPECIFICATION forming part of Letters Patent No. 262,061, dated August 1, 1882.

Application filed April 13, 1882. (No model.)

*To all whom it may concern:*

Be it known that I, ALBERT D. LAWS, a citizen of the United States and a resident of the city of Bridgeport and State of Connecticut, have invented certain Improvements in the Manufacture of Cartridges, of which the following is a specification.

My invention is a device whereby a wad may be placed and held in proper position within a paper cartridge while the end of the latter is compressed or molded to form a shoulder, retaining the wad in place.

In the drawings, Figure 1 is a sectional elevation of the device used for closing the cartridge upon the wad. Fig. 2 is a section on the line 1 2, Fig. 1. Fig. 3 is an external view of the completed cartridge. Fig. 4 is a section of the cartridge-case before the wad is in and after the wad has been discharged.

The cartridge-case A is of paper or paper board, cylindrical in shape, with the usual metallic head, *a*.

The sealing device consists of a metal tube, B, contracted near one end to form a shoulder, *x*, and within this contracted end is fitted or secured a nipple, D, the end of which extends slightly below the shoulder *x*, the nipple being smaller in diameter than the narrowest portion of the chamber in the tube, so as to leave a surrounding annular space about equal in width to the thickness of the cartridge-case.

The case is nearly filled with powder and shot, and the wad *w* placed therein, and the closing device is then brought above and moved down upon the cartridge to the position shown in Fig. 1. In doing this the wad is forced down tight upon the shot to its proper position, while the end of the case is contracted as it enters the narrowest part of the tube, and is compressed above the wad by the shoulder *x*, forming a corresponding shoulder, *y*, on the case, which securely retains the wad in its place. This operation is quickly effected with the exertion of but little pressure, and the de-

vice used is simple, cheap, and of such a character that it cannot become inoperative from displacement of parts.

To facilitate the discharge of the finished cartridge, which is apt to adhere tightly in the tube, a hole, *e*, may be bored in the nipple D, so that a rod may be introduced to force out the cartridge.

By merely compressing the end of the case, instead of crimping, bending, or flanging it as heretofore, the discharge of the load has no effect to split or tear the case, but merely expands the end to the position shown in Fig. 4, so that the case can be loaded and fired a number of times. It may be necessary, especially after the case has been used several times, to moisten the end slightly with water or sizing before compressing the same.

I do not here claim the cartridge contracted beyond the wad, as described, as this may form the subject of a separate application for Letters Patent; but

I claim—

1. A device for compressing filled cartridge-cases, consisting of a tube, A, contracted near one end, forming a shoulder, *x*, and an inwardly-projecting cylindrical nipple of uniform smaller diameter than the contracted end, and adjusted to extend to the pivot where the bore begins to enlarge to form the shoulder, substantially as set forth.

2. The combination of the tube A, contracted to form the shoulder *x*, and the rigid cylindrical nipple D, extending to the point where the bore begins to enlarge, and having a central opening, as set forth.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

ALBERT D. LAWS.

Witnesses:

ALFRED B. BEERS,  
ADAMS A. WHITMAN.