

(No Model.)

L. W. LOMBARD.
CARTRIDGE SHELL.

No. 373,529.

Patented Nov. 22, 1887.

Fig. 1.

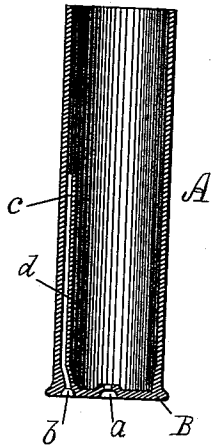


Fig. 4.

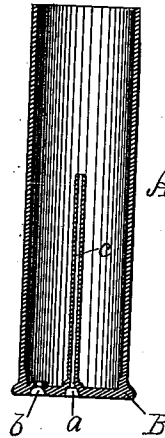


Fig. 2.

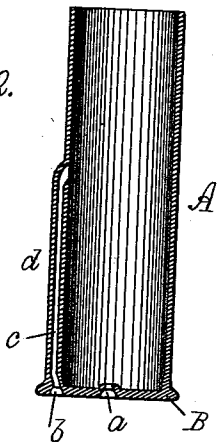
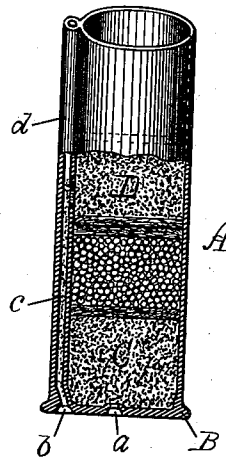


Fig. 3.



Witnesses.
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CARTRIDGE-SHELL.

SPECIFICATION forming part of Letters Patent No. 373,529, dated November 22, 1887.

Application filed March 21, 1887. Serial No. 231,697. (No model.)

To all whom it may concern:

Be it known that I, LEVI W. LOMBARD, a citizen of the United States, residing at Boston, in the county of Suffolk and State of Massachusetts, have invented certain new and useful Improvements in Cartridge-Shells; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters or figures of reference marked thereon, which form a part of this specification.

This invention relates to "cartridge-shells," so called, more particularly those adapted for sporting purposes and to be used in shotguns.

My invention consists in the arrangement and construction of a cartridge-shell by which two charges may be inserted in said shell, one being superimposed above the other, and then be successively discharged by means of two primers located in the head of said shell, one of said primers communicating with the forward charge through a duct, and the other primer communicating with the end of the rear charge directly.

The said invention also consists in a cartridge having two charges, one on top of the other, and two primers, one of which communicates with the upper or forward charge through a duct formed in the wall of the cartridge-shell.

The said invention also consists in a cartridge having two charges, one on top of the other, and two primers communicating with the rear ends of said charges, all as hereinafter set forth.

The drawings represent, in Figure 1, a central vertical section of a cartridge-shell which embodies my invention. Figs. 2, 3, and 4 represent modifications in construction of the same.

In said drawings, A represents a cartridge-shell as an entirety struck up from some thin sheet metal or other suitable material, and exteriorly of the same general contour as cartridge-shells now in use, but somewhat longer to enable it to contain two charges in lieu of one, as before premised.

To carry out my improvements, and to enable two charges contained in a single shell to

be successively discharged, I have provided in the closed end or flanged head B of said shell two holes, *a b*, adapted to receive primers which shall contain some compound to be discharged percussively.

In Fig. 1, *a* represents a hole centrally located, and to contain a primer which communicates with the lower charge, C, while laterally thereof I have disposed a similar hole, *b*, from which extends a small duct, *c*, formed in the present case by a tube, *d*. This duct leads to and communicates with that portion of the shell which is occupied by the powder of the second or upper charge, D. Thus by means of this second primer and the duct leading therefrom the upper charge can be discharged, to be quickly followed by the lower one, should circumstances require.

By this improved construction of a cartridge-shell it is evident that every fire-arm having a single barrel may be as effective as one with two barrels, while the weight of material and cost of manufacture are lessened, being much in favor of the single-barreled weapon. Furthermore, it is practicable to introduce and employ such cartridge-shells in double-barreled shotguns, in which event four charges could be rapidly, easily, and effectively discharged.

There are many obvious and simple modifications of the above-described cartridge-shell which I consider embody my invention, two of which are shown in Figs. 2 and 3. In the former I have represented the shell as provided with a semicircular rib, *d*, in which the duct *c* is to be formed, said rib to be placed exteriorly, and thereby leave the bore of the shell unobstructed, and so facilitate loading, while in Fig. 3 this rib is to extend the entire length of the shell, and thus enable a rod to be inserted and extract the primer in the event of reloading the shell. The central primer in this construction may be removed, as usual.

A third modification, as shown in Fig. 4, represents the duct *c* as extending from the central primer to the upper charge; but this method is somewhat objectionable, since it divides the charge, while, furthermore, in loading it requires wads of a special construction—that is, provided with a central perforation.

In the event of shells being employed in which the exterior rib, *d*, is employed, a corresponding slot must be provided in the chamber of the barrel (not shown) in order to receive it.

After the shell is primed I load as usual, but insert two wads between the shot of the lower and the powder of the upper charge. If preferred, two wads may be employed above each charge of powder, as it has been fully established that better results are obtained by such manner of loading.

The point where the duct *c* opens into the bore of the shell may be so arranged as to communicate about centrally with the powder of the upper charge. Thus both charges can be varied, and the discharge of both cartridges is assured.

I find by experiment that the construction shown in Fig. 3 is the most efficient and practical form.

I claim—

1. A cartridge-shell having two primers, *a* *b*, a duct, *d*, extending from one of said primers to the forward part of said shell, and an orifice through which the other primer communicates directly with the interior of said shell, substantially as set forth.

2. A cartridge-shell containing two charges, one on top of the other, and having a duct which extends forward within said shell to the forward charge, and an aperture which communicates directly with the lower or rear charge, substantially as set forth.

In testimony whereof I affix my signature in presence of two witnesses.

LEVI W. LOMBARD.

Witnesses:

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