

B. L. BUDD.
Cartridge.

No. 34,806.

Patented March 25, 1862.

FIG. 3.

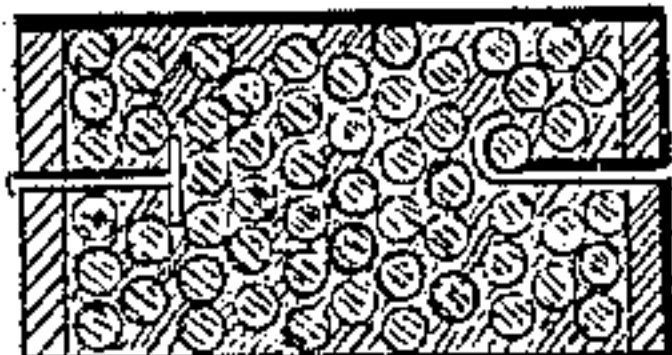


FIG. 2.

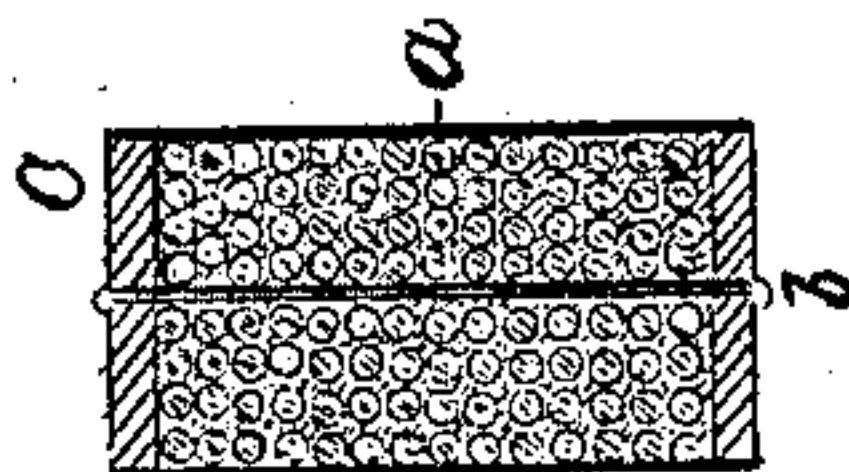


FIG. 1.



Witnesses

A. Rollak
Jm. H. Harrison

B. L. Budd
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UNITED STATES PATENT OFFICE.

BERN L. BUDD, OF NEW YORK, N. Y.

IMPROVEMENT IN SHOT-CARTRIDGES.

Specification forming part of Letters Patent No. 34,806, dated March 25, 1862.

To all whom it may concern:

Be it known that I, BERN L. BUDD, of the city, county, and State of New York, have invented a new and useful Improvement in Fixing Charges of Shot for Fire-Arms; and do hereby declare that the following is a full, clear, and exact description of the same, reference being made to the annexed drawing, making a part of this specification, in which—

Figure I is a longitudinal central section; Figs. II and III, similar sections, showing different manners of construction; and similar letters indicate similar parts throughout the figures.

My invention is an improved method of making fixed charges of shot, whereby the charge is held together with its appropriate wads without requiring any envelope of paper, canvas, or wires, as common with the fixed charges hitherto used; and it consists in arranging the proper quantity of shot for the desired charge between two wads, and then filling the interstices with some melted substance, which, on cooling, will be both sufficiently tenacious to hold the mass together, and at the same time shall be brittle enough to permit the shots to separate when discharged from the gun.

The manner in which fixed charges suitable for fowling-pieces may be prepared is as follows: A short tube of metal is made, having a bore corresponding with that of the gun to be fitted. Into one end of this I fit an ordinary "cut wad"—say of felt—then, holding upward the other end, I put in the proper quantity of shot; then pour in the melted substance, to just cover the shot after filling the interstices, and upon this place another cut wad. When cold the mass may be pushed out of the tube, and is ready for use, as the shot and the wads will adhere together in solid form, and as seen in section in Fig. I.

Many substances may be employed for the filling, as spermacetti, tallow, wax, as well as some of the metallic alloys which melt at low temperatures, and are sufficiently brittle for the purpose. These will necessarily vary according to the character for scattering which may be desired for the especial charge.

It will be obvious that for some uses and

with some compositions the wads need not be employed at all, as the mass may be sufficiently held together without them; but when used, if with a composition which does not adhere with due tenacity, a wire of lead may be placed centrally through the charge, as shown at *a* in Fig. II. This should be first affixed to the lower wad *b*, and be of such length that when the shot and composition are placed around it will project above them a little more than the thickness of the upper wad. That wad *c* is to have a hole through the center, and, being put on, the wire is riveted down.

It will not be absolutely necessary that the wire should extend entirely through the charge, as short pieces attached to each wad, and curved or enlarged at their interior ends, would effect the holding of the wads.

As it may not always be desirable to have the cylinder of shot fit the bore closely—as, for instance, in stands of grape, where cast-iron shots are used, and yet where it is desirable that the wads or the sabot should fit—the mold is to be so made that it can be opened longitudinally for the removal of the charge.

A cartridge of powder, of any suitable kind, may be affixed to the lower wad, or to the sabot, if desired.

I claim—

1. The method of forming fixed charges of shot, so as to be capable of being used without wrappers or cases of any kind, by pouring among the shot, while in a mold, some easily-fusible material, as grease, stearine, &c., which, on cooling, will fix the shot, and, when discharged from the mold, will retain said shot in the order and form they took in the mold, in the manner and for the purpose described herein.

2. In combination with the above, the method of connecting the cut wads to the two ends of the charge by a leaden wire, or rod of other equivalent material, passing into or through the mass of shot as described herein.

In testimony whereof I have hereunto subscribed my name.

BERN L. BUDD.

Witnesses:

S. H. MAYNARD,
I. P. PIRSSON.