

MARSTON & GOODELL Cartridges.

Cartridge Patented May 18, 1852.

A 14 /4 fl UNITED STATES- PATENT OFFIG IMPROVEMENTS IN CARTRIDGES 'PoR
BREEOI-I-LOADING- GUNS.

Specification forming part of Letters Patent No. 8,956, dated Mag] 18, 1852.

'To all whom it may concern Be it known that we, WILLIAM W. MARSTON, gunsmith, and
FREDERICK ,GO'DEELL, manufacturer, both of the city of New York, have invented and made,
and applied to use, a new and useful Improvement in Cartridges, for

use with fire-arms that load.;at the breech,, and are used with detonating-caps, igniting the charge
in the axis of the barrel; that the said improvements, though described and shown herein as applied
to hand-arms, such as pistols, fowling-pieces, muskets, or rifles, are

equally available, when made of a proper size,

for use with artillery, or larger arms of an, kind that are fitted to load at the "breech and in which
explosion is originated in the line of the axis of the gun; for which improve- 'ments we seek Letters,
Patent of the United States; and that the said improvements are fully and substantially set forth and
shown in the following descriptive specification thereof, referring to the drawing annexed hereto, in
which-- Y Figure 1 is a sectional elevation of a shot" cartridge for fowling-pieces, or may represent
a cartridge for a larger piece, when prepared to act with either canister or grapeshot. Fig. 2 is a like
sectional elevation of a cartridge with a bullet for a .pistolmusket, or: rifle, or may, in like manner,
represent a cartridge for larger arms.

' In these figures, a is a breech-piece, made of leather, of a proper thickness to effect the objects
hereafter set forth, of a size that will drive freely, but not tightly, in the end of the chamber in which
it acts, having a hole, made by burning with a red-hot wire, or otherwise, through the center, to pass
the flash from the detonating-cap. This breech-piece is shown in plan, in Fig. 3, and is made with a
small rabbet round one edge, which takes this end of the shell b, which is shown as made of paper,
for hand-arms, but may be of leather, flannel, metal, or any fit substance, for larger arms.

In Fig. 1, '0 represents the powder, and d the small shot, with a thin leaf of paper, or other material,
between the two, and a cover or wad, e, of cork, or other fit material, shown in plan in Fig. 4. This
holds in the loose-shot, f and closes and finishes the cartridge shown in Fig. 1- i I In Fig. 2, a is the
breech-piece, b the shell, and c the powder, as before; but, instead of the wad c, Fig. 1-, a semi-
spheroidal bullet or shot, f, is placed, having a diameter to fit the bore of the gun, and rabbeted, as at
1, to, .form a short cylinder, parallel with the line of the axis, and of a reduced diameter, to fit
accurately into the top of the shell I), when filled with powder, which completes this cartridge.

In each cartridge a disk of tissue-paper is put in before the powder is put in. This prevents the escape
of powder by the touch-hole.

s The leather breech-piece is to be of a proper y thickness and stiffness, so that it will not fold over the point of the ball as it is forced out, but cleans the barrel and then drops away from the ball shortly after it leaves the muzzle, thereby not interfering with the ball in its movement.

The new effects produced in cartridges thus made and fitted are, that, as each cartridge is exploded, the breech-piece, in front, literally swabs the barrel of the piece, by taking out, before it, the soilage caused by the previous explosion of the cartridge it had been attached to; so that after almost any number of explosions the barrel of the gun is nearly as clean as when it has been fired only once, with the additional and important advantage that the breech piece a of the cartridge is not destroyed by the burning powder, and serves as a shield to the breech-pin of the gun and prevents any product of the explosion from causing any soilage on the end of the pin or in the chamber that receives the pin, so that no interference to the action of the pin is caused; by the dirt of the soilage.- All these are results which we believe. have not been separately "or collectively attained by any other cartridge hitherto made.

We do not claim to have invented any of the separate parts described herein but \We do claim as new and of our own invention- The application of the leather breech-piece a to cartridges used with breech-loading guns, such leather breech-piece serving the purposes of a foundation for its own cartridge, a protection to the breech-pin, a wad for the next cartridge in succession, and of a swab, to clean out the soilage caused in the barrel by the antecedent explosion, producing a safe cartridge. In witness whereof we have hereunto set for pieces that load at the back of the breech, our signatures this 19th day of April, 1819. and in which explosion is also caused in the line of the axis of the barrel, substantially as WM. W. MARRISTON. described and shown, but Without regard to FREDERICK GOODELL. the sizes of arms used with these cartridges,

and irrespective of the machinery or mechanism- Witnesses:

ical means by which the cartridge itself is W. SERRELL,
made. LEMUEL W. SERRELL