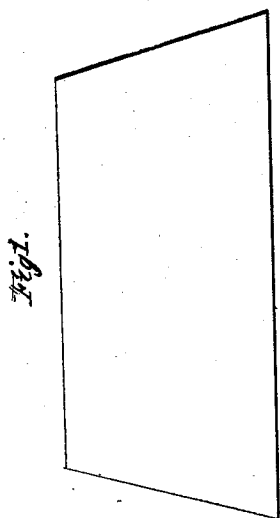
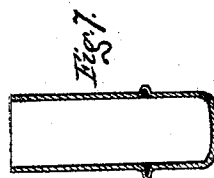
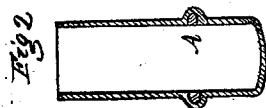
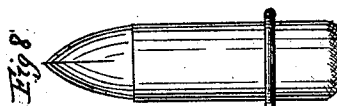
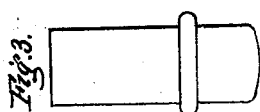


S. CRISPIN.
Cartridge.

No. 49,237.

Patented Aug. 8, 1865.



Witnesses.

Ans. J. M. Cowan
Dewitt Hall

Inventor.

S. Crispin

UNITED STATES PATENT OFFICE.

SILAS CRISPIN, OF NEW YORK, N. Y.

IMPROVEMENT IN PRIMING METALLIC CARTRIDGES.

Specification forming part of Letters Patent No. **49,237**, dated August 8, 1865.

To all whom it may concern:

Be it known that I, SILAS CRISPIN, of the city, county, and State of New York, have invented a new and useful Improvement in cartridges for Breech-Loading Fire-Arms; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, in which—

Figure 1 is a piece of sheet metal to be formed into a cartridge-case by wrapping; Fig. 2, a longitudinal section of such a case in one stage of its manufacture; Fig. 3, an elevation of the case finished; Figs. 4, 5, 6, cups or disks for insertion in the cases before filling, the first being of paper, the second of metal, and the last of an elastic material; Fig. 7, a longitudinal section of a seamless case; Fig. 8, an elevation of the finished cartridge.

The object of my invention is to provide a primed metallic cartridge, extremely simple and cheap in its construction and to be used in that class of breech-loading fire-arms in which the joint or plane of packing divides the cartridge-chamber, so that the case of the cartridge, while effecting a perfect gas-check, can after the discharge of the arm be removed by the fingers with great ease and without the use of any special means.

My invention consists in shaping a seamless metallic cartridge-case, made in the ordinary manner, or a case made of thin wrapped sheet metal, in the manner described hereinafter, so that there shall be formed to receive the priming or percussion-powder a rim or annular recess in the case anywhere intermediate between the bottom of the case and that end of it into which the bullet is inserted.

To make the cases by wrapping, I cut from sheet-copper or other suitable thin sheet metal of about fifteen thousandths of an inch in thickness rectangular or trapezoidal pieces, in length about five or more diameters of the bore of the gun in which the cartridge is to be used, and two thirds or more diameters of the said bore more in width than the cartridge is intended to be in length. One of such trapezoidal pieces is shown in Fig. 1. A cylindrical former, of either wood or iron, (I prefer the latter,) is now placed on one of the pieces and pressed and rolled until the piece is

wrapped closely and compactly around it, the lower or open end of the wrapped metal projecting about two thirds of a diameter of the former beyond the end of the former. This end of the former in shape is made to match the base of the chamber of the arm for which the cartridge is intended, while the gage of the former must be such that the cartridges when finished shall fit the chamber of the gun neatly. The wrapped metal is now crimped over the end of the former with the fingers or with a crimping-tool. After thus compressing the metal tightly around the end of the former, the metal cylinder, still on the former, is placed in an iron, steel, or wooden die, and the former is struck a smart blow or pressed on its uncovered end, and the base of the cylinder receives the form of the die. The cylinder thus formed is placed in a suitable die in a lathe, and a proper tool being applied to the inner surface of the cylinder at the desired point, the cylinder is rotated until the thin metal is spun out to the required diameter, forming the rim or annular recess A, Fig. 2, which is to contain the percussion-powder. The cylinder so prepared is now placed in a swage, properly fitting it, and is by pressure or by a smart blow pressed into the finished state shown in Fig. 3. Fulminating or percussion powder is now inserted in the rim by the ordinary means.

A paper cup like that shown in Fig. 4, or a metal cup like that shown in Fig. 5, or a cup of elastic substance, like that shown in Fig. 6, any of which may be made in the manner described in Letters Patent granted to Rodman & Crispin on the 15th day of December, 1863, for improvements in metallic cartridges, may be inserted in the above-described cartridge-cases before the cases are filled. The case is then charged with powder and ball as is done in making ordinary primed metallic cartridges.

If it is desired to use seamless cases, they are prepared in the ordinary manner and then placed in the lathe, and the annular recess or rim is formed in them in the manner above described.

When the cartridge, made as above described, is fired, the case will form a perfect gas-check, and the breech being opened, the empty case can be removed by the fingers, without the

employment of any auxiliary mechanical device.

It is manifest that cartridges so made can be placed in the arm in which they are to be used as rapidly as any other primed cartridges, also that the case of no metallic cartridge can be so simply, rapidly, and certainly removed from the breech-loader. It is also manifest that these cartridges can be used in breech-loading shot-guns.

Having thus described my invention, what

I claim, and desire to secure by Letters Patent, is—

The cartridge constructed as described, that is to say, with the fulminate placed within a projecting annular recess or rim, which is formed at a point between the ends of the cartridge-case, substantially as described.

SILAS CRISPIN.

Witnesses :

CHAS. J. MCGOWAN,
DEWITT C. HALL.