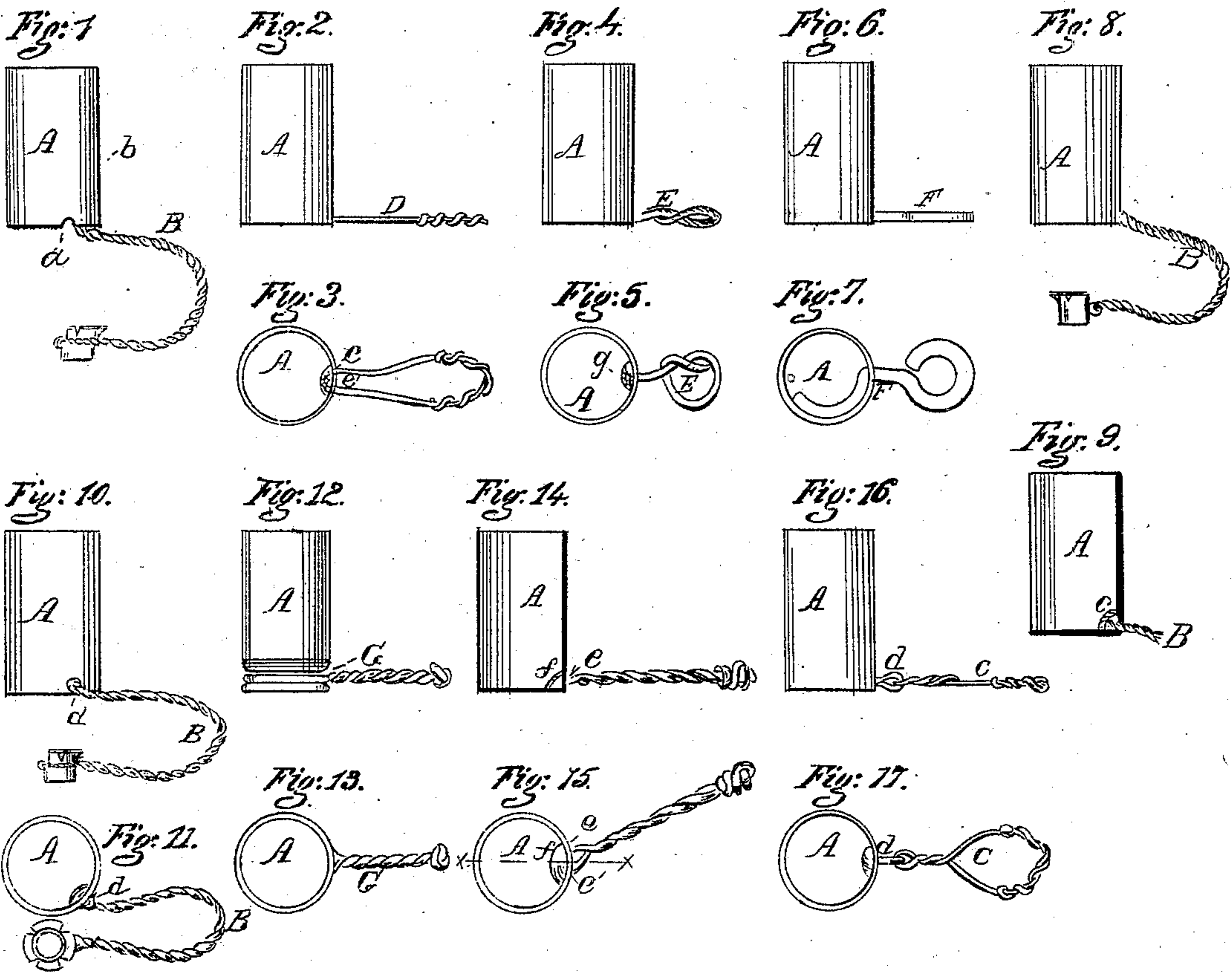


E. MAYNARD.

Cartridge.

No. 40,112.

Patented Sept. 29, 1863.



Edmund Maynard
inventor

Witnesses.

Ramsey Phelps
Spencer Atour

UNITED STATES PATENT OFFICE.

EDWARD MAYNARD, OF WASHINGTON, DISTRICT OF COLUMBIA.

IMPROVEMENT IN METALLIC CARTRIDGES.

Specification forming part of Letters Patent No. 40,112, dated September 29, 1863.

To all whom it may concern:

Be it known that I, EDWARD MAYNARD, of the city of Washington and District of Columbia, have invented certain new and useful Improvements in Metallic or Semi-Metallic Cartridges for Breech-Loading Fire-Arms; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, which form a part of this specification, and of which—

Figures 1, 8, 9, 10, and 11 illustrate different modes of applying a cord or thong to a metallic cartridge to subserve the purpose of a retracting-arm thereto, Fig. 9 being a vertical section of the cartridge represented by Fig. 8, and Fig. 11 a top or interior view of Fig. 10. Figs. 2, 3, 4, 5, 6, 7, 12, and 13 are different views of my improved cartridges, having rigid retracting-arms, Figs. 3, 5, 7, and 13 being, respectively, top or interior views of the cartridges represented in Figs. 2, 4, 6, and 12. Figs. 14, 15, 16, and 17 show my improved cartridges as combined with inflexible vibrating arms, Fig. 15 being a top view of one of said cartridges, Fig. 14 a vertical section of the same in the line *yy*, of Fig. 15, and Fig. 17 a top or exterior view of the cartridge shown in Fig. 16.

The object of my invention is to lessen the cost and weight of that form of metallic or similarly durable and impermeable cartridges which, from the nature of the fire-arm in which they are used, require a retracting-arm.

Heretofore it has been customary to make the bottom or base of these cartridges of a thickness greatly exceeding that of their cylindrical sides, involving the necessity of making the two separately, to be afterward united by soldering. The retracting-arm of such a cartridge is usually made in one piece with the heavy bottom thereof, and the whole is far more expensive and costly than a cartridge which requires no arm.

I lessen this expense and render the cost of retracting-arm cartridges but little greater than of those which are made without retracting-arms, by certain novel and peculiar modes of combining (either rigidly or with a certain play or vibrating movement, as may be found most convenient) a suitable flexible or in-

flexible retracting-arm, with a simple thin metallic (or otherwise durable) cartridge.

Figs. 1, 8, and 10 of the accompanying drawings represent my new and useful combinations of a flexible arm, cord, chain, or thong with a simple metallic cartridge. In Fig. 1 the wire or cord B is attached to an eye or loop of wire *a*, the ends of which are soldered down within a recess, *b*, formed for the purpose upon the exterior surface of the cartridge-case A, near its base.

In Fig. 8 the retracting cord or thong B is merely passed through a simple aperture pierced in the side of the cartridge near its base, and knotted within the same to prevent its slipping back. The knot is then to be embedded in such wax, gum, or cement, *c*, as may be found sufficiently cheap, incombustible, and durable, as shown in the vertical section represented at Fig. 9. Fig. 10 represents the retracting wire or cord B secured to an eye of wire, *d*, the ends of which pass through and are soldered upon the inner surface of the side of the cartridge-case, as seen in the interior view, Fig. 11. Instead of the cord or chain B, (shown in Fig. 11,) an inflexible arm, C, Fig. 16, of wire may be attached to the cartridge by passing it through an eye, *d*, secured as just described. (See Fig. 17.)

I also propose to form a rigid retracting-arm for cartridges in a cheap and effective manner, by simply passing or looping a suitable wire, D, through two small apertures pierced near the base of the cartridge, and then uniting the two ends outwardly to form the arm D, Fig. 2, by which it is to be removed and handled. The small apertures *e e'*, through which the wire passes, are closed completely, and the wire fixed by soldering upon the inside of the cartridge. And where it is advisable that the arm should have moderate play or vibration, any cheap, incombustible, and durable wax or cement may be substituted for the solder in closing the apertures *e e'*, as is represented in Figs. 14 and 15.

Again, a single wire of sufficient strength, E, Fig. 4, or a piece of curved metal, F, Figs. 6 and 7, may subserve the purpose of a retractor, by passing one end thereof into the cartridge through a suitable aperture pierced for the purpose near its base, to be then bent

up and soldered against the side thereof, as seen in Fig. 4, or so shaped as to fit and be secured in the angle formed by the inner periphery of the cartridge with its bottom, as is clearly illustrated in the top or interior view, Fig. 7.

Figs. 12 and 13 represent my mode of uniting and combining a rigid arm of wire with the cartridge by means of a groove or recess formed about its circumference near its base. The wire G is placed in this groove and drawn and fastened tightly by twisting its ends together, the twist forming a rigid arm by means of which the cartridge is withdrawn from the gun.

I contemplate, in the application of my invention, cartridges made either wholly or in part of metal, or of papier-maché, or other material which can be produced and fashioned

so cheaply, and be made so durable and impermeable, as to become a fit substitute for metal in this connection.

Having thus fully described my invention, what I claim therein as new, and desire to secure by Letters Patent, is—

Combining, with a metallic or otherwise durable cartridge, a suitable retracting arm, chain, thong, or cord, in such a manner as to avoid the necessity of a distinct or unusually thick bottom thereto, substantially in the manner hereinbefore described.

This specification of my new and useful improvement in metallic cartridges signed by me this 28th day of May, A. D. 1863.

EDWARD MAYNARD.

Witnesses:

RANDOLPH COYLE, Jr.,

DAVID A. BURR.