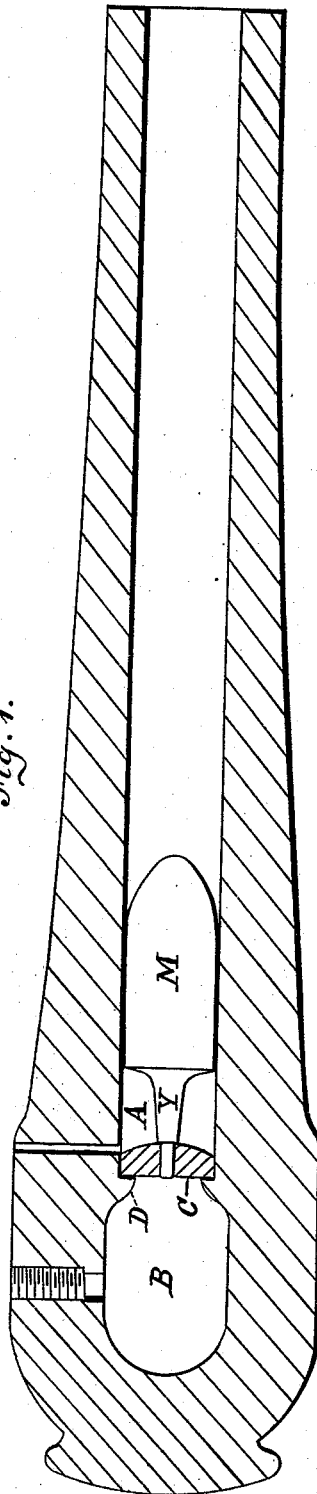


L. A. MERRIAM.  
Ordinance.

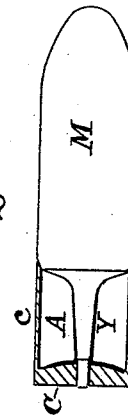
No. 214,260.

Patented April 15, 1879.

*Fig. 1.*



*Fig. 2.*



Witnesses :  
Theo. Mungen  
B. Morris

Inventor :  
Lincoln A. Merriam

# UNITED STATES PATENT OFFICE.

LINCOLN A. MERRIAM, OF NEW YORK, N. Y.

## IMPROVEMENT IN ORDNANCE.

Specification forming part of Letters Patent No. **214,260**, dated April 15, 1879; application filed October 14, 1878.

### *To all whom it may concern:*

Be it known that I, LINCOLN A. MERRIAM, of the city, county, and State of New York, have invented new and useful Improvements in Guns, of which the following is a specification.

The object of my invention is to reduce the strain on guns, particularly heavy ordnance, by delaying and timing the explosion of the powder, thus bringing the gases to act with increasing energy upon and imparting greater velocity to the shot.

Figure 1 is a sectional view of a cannon with powder-chambers separated from each other by a diaphragm, with shot in position; and Fig. 2 is a view of a cartridge that may be used as a modification of the shot and diaphragm shown in Fig. 1.

I construct a gun with an auxiliary powder-chamber, B, in the rear of and separated by the diaphragm C, Fig. 1, or C c, Fig. 2, from the initial chamber A, which, corresponding to the ordinary chamber, is first exploded through the ordinary vent or in any other suitable manner. The fire from this explosion passes around this diaphragm C or through some opening left in it for that purpose, forced open by the percussion or opened by the withdrawal of the stem Y of the shot M as it moves forward in the bore of the gun.

There may be more than one auxiliary chamber in the rear of A, exploded, one after the

other, in a similar or suitable manner, by fuse or through openings properly arranged.

To support the diaphragm C, annular shoulders D project inward from the bore of the gun.

The initial chamber A, when the diaphragm C is in place, corresponds to the ordinary charge-chamber, well known in guns, and may be loaded from the muzzle with cartridge or loose ammunition.

The auxiliary chamber B may be first loaded from the muzzle; or, after placing the diaphragm C, it may be charged through some opening, afterward closed by a screw or other suitable device.

What I claim is—

1. A gun or cannon having an auxiliary powder-chamber, B, in the rear of and separated by the diaphragm C from the initial chamber A, constructed and arranged in the manner and for the uses specified.

2. The annular shoulders D, projecting inward from the bore of the gun to support the diaphragm C, in the manner and for the uses described.

3. The shot M, with the stem Y, in combination with the diaphragm C, constructed and operating in the manner set forth.

LINCOLN A. MERRIAM.

Witnesses:

JAMES S. LEEDS,  
OCTAVE WHITTAKER.