

(No Model.)

W. T. CHAMBERLAIN.

AIR GUN.

No. 279,538.

Patented June 19, 1883.

Fig. 1.

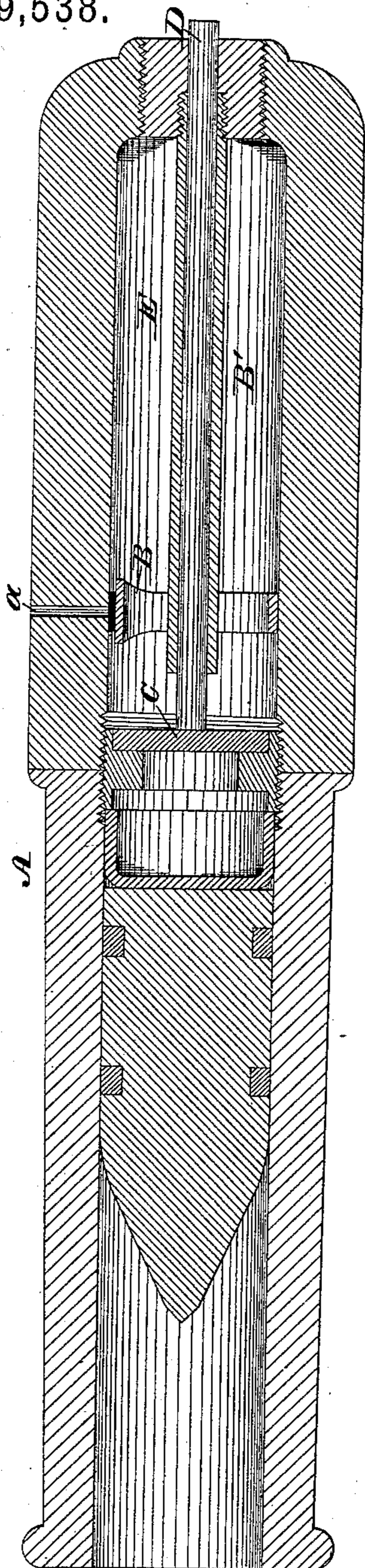
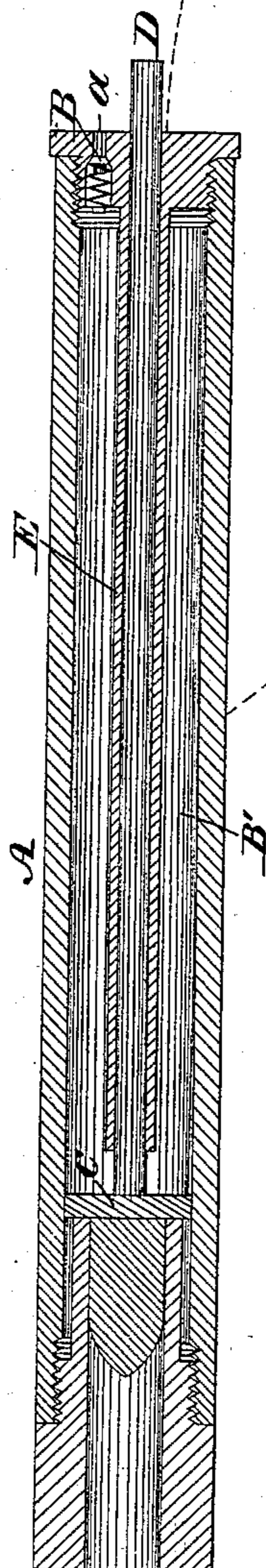


Fig. 2.



WITNESSES:

R. P. Grant,
W. F. Kircher

INVENTOR:

Wm T. Chamberlain,
BY *John A. Diederichsen,* ATTORNEY.

UNITED STATES PATENT OFFICE.

WILLIAM T. CHAMBERLAIN, OF NORWICH, CONNECTICUT, ASSIGNOR OF
ONE-HALF TO BENJAMIN M. PRINCE, OF SAME PLACE.

AIR-GUN.

SPECIFICATION forming part of Letters Patent No. 279,538, dated June 19, 1883.

Application filed March 29, 1883. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM T. CHAMBERLAIN, a citizen of the United States, residing at Norwich, in the county of New London, State of Connecticut, have invented a new and useful Improvement in Air-Guns, which improvement is fully set forth in the following specification and accompanying drawings, in which both figures are longitudinal sections of air-guns embodying my invention.

Similar letters of reference indicate corresponding parts in the two figures.

My invention consists of a gun having a chamber for compressed air, and a diaphragm which closes the front of said chamber and is adapted to be broken or removed, whereby the air is directed against the projectile or missile.

Referring to the drawings, A represents a cannon or gun, which will hereinafter be denominated a "fire-arm," and in the wall of the same is an opening or air-inlet, *a*, which is covered on the inner end by an inwardly-opening valve, B, which is properly secured within the arm.

C represents a diaphragm, of slate or other brittle or friable material, which is tightly fitted within the bore of the arm at a proper distance from the front end of the bore, so as to divide the bore, leaving a chamber, B', between said diaphragm and the rear of the bore, the air-inlet *a* leading thereinto. Through the rear wall of the arm is passed a firing-pin, D, which is sufficiently long to reach the diaphragm C, and projects sufficiently outward to be struck, the effect whereof is to break or fracture said diaphragm, the portion of said pin within the bore being fitted in a guide, E, which is properly secured within the bore.

The operation is as follows: Air is forced into the chamber B' through the inlet *a*, which may be accomplished by any suitable air-compressing apparatus connected with said inlet, and when the chamber is properly charged the valve B closes the inlet, and, in connection with the diaphragm C, confines the air within the bore of the arm. A projectile or missile is now introduced into the arm, and when it is desired to discharge the same the pin D is struck, whereby the diaphragm C is broken or removed, the compressed air immediately exerts itself against the projectile and forcibly discharges the same, the result being accomplished without the smell, smoke, heat, and fouling tendency of explosives and the danger of transporting and handling the same.

In Figure 2 the air-inlet *a* is formed in the plug at the base of the bore, and the valve B is fitted to said plug, without, however, producing different results from those stated.

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

1. A fire-arm having a chamber for compressed air, a diaphragm in front thereof, and a firing-pin adapted to strike said diaphragm so as to break or remove the same, substantially as and for the purpose set forth.

2. In an air-gun, a diaphragm dividing the bore, formed of brittle or friable material, and occupying a position between the compressed-air chamber and the portion to receive the projectile, substantially as and for the purpose set forth.

WM. T. CHAMBERLAIN.

Witnesses:

JOHN A. WIEDERSHEIM,
A. P. GRANT.