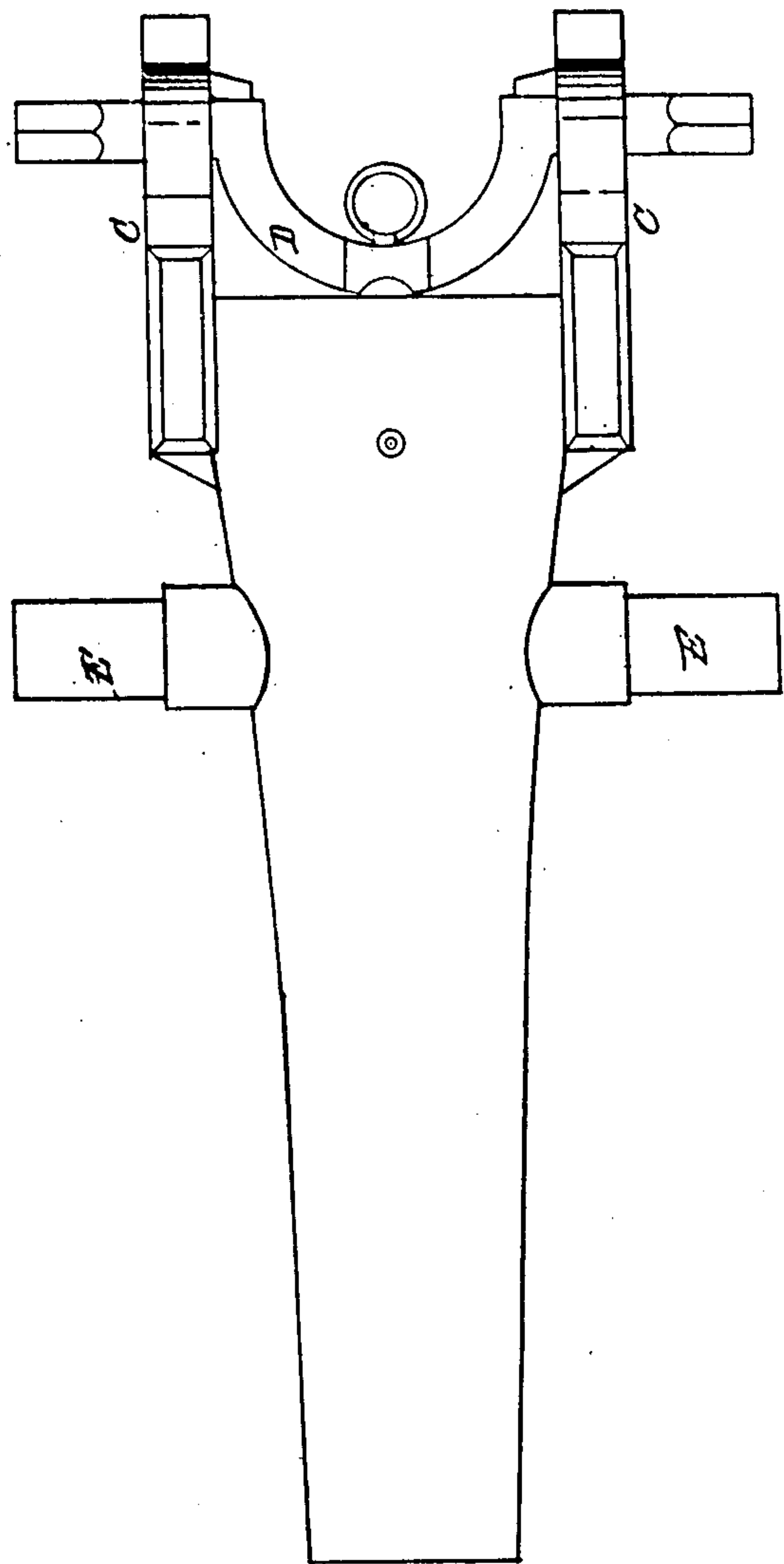
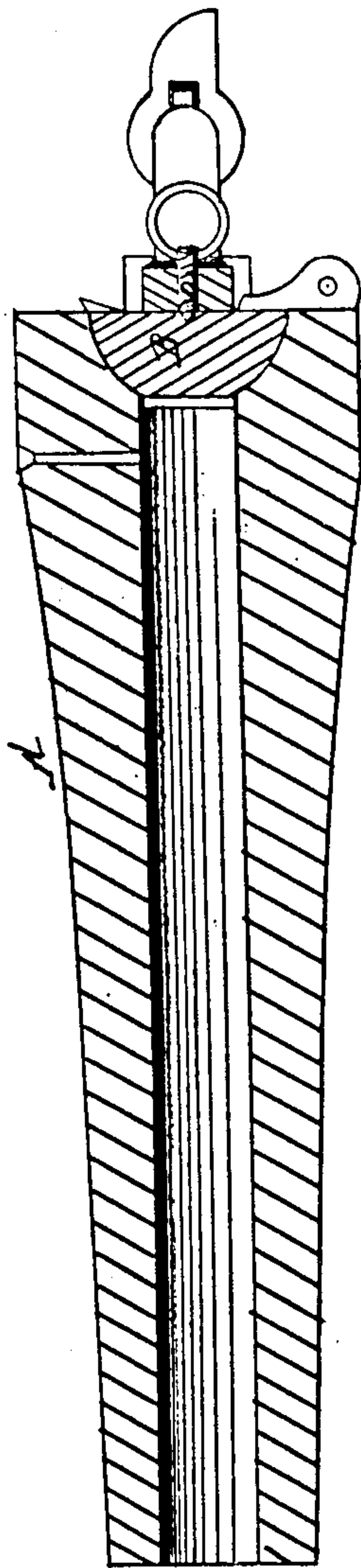


W. B. TREADWELL.
BREECH LOADING ORDNANCE.

No. 35,637.

Patented June 17, 1862.



*for C. M. Alexander
engraver
L. Stephens*

W. B. Treadwell

UNITED STATES PATENT OFFICE.

W. B. TREADWELL, OF ALBANY, NEW YORK.

IMPROVEMENT IN BREECH-LOADING ORDNANCE.

Specification forming part of Letters Patent No. 35,637, dated June 17, 1862.

To all whom it may concern:

Be it known that I, W. B. TREADWELL, of Albany, in the State of New York, have invented certain new and useful Improvements in Breech-Loading Cannon; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawing, and to the letters of reference marked thereon.

In the annexed drawing, making part of this specification, A represents the gun, which is bored through from end to end. The breech-pin B is made a semi-hemisphere, and may be provided with a projection from the center of its circle inward one or two inches, more or less, of the size to fit the regular bore of the gun. The breech-pin may be made of iron or of some composition metal. It may be hung by a hinge, so that when withdrawn it may drop down out of the way. It may be covered with a cap of wrought-iron a little larger than the breech-pin and attached to it, and the hinge may be formed in the lower part of this wrought-iron cap and adjoined to the gun here. On the sides of the gun, at the breech, projections running parallel are to be cast, and these may be enlarged and extended back of the breech pin or gun proper twenty or thirty inches, more or less. These projections are strapped and tied together with wrought-iron, and those parts which extend back may or may not be entirely of wrought-iron. To secure the breech-pin in its place I make a wrought-iron bail, D, forming an arch, with its outer circumference pressed tightly against the cap or breech-pin, with its abutments or the sides of the projections or stubs, and held there by journals or gudgeons passing through the sides, and upon these gudgeons the bail is moved forward and backward. A screw is put through the center of the arch of the bail, which is designed to hold it, the cap, and the breech-pin, in their places. The head of the screw may be formed into a ring sufficiently large to allow the swab to pass through it; or a smaller ring may be formed in the head of the screw and allowed to drop out of the way. The breech-pin may be covered with a cap formed on a spherical angle. This cap may be made of iron or brass and attached to the lower part of the gun by a hinge, so that when withdrawn it will drop out of the way; or the

breech-pin and cap may be formed in one piece, and covered with a cap of wrought-iron and attached to it, and these together hung by means of a short rod to a hook or some projection from the upper part of the gun. Thus attached, the breech-pin and caps united can be easily withdrawn and swung out of the way. On guns of large caliber, where the breech-pins are too heavy to be removed otherwise, leverage may be applied to assist in swinging them (the breech-pins) out of the way. The lever used can be so arranged that it can readily be unshipped when not required, leaving the top of the gun entirely free from all obstruction.

Ways or grooves may be formed upon the inside of the parallel projections, by means of which a separate breech made of steel, brass, or iron may be guided into the rear end of the gun and fastened there by a bail in the same manner as the breech-pin is fastened heretofore described. Caps can be formed on the top or bottom of these projections, into which movable boxes may be put, and into which movable boxes a cross-head may work.

The breech-pin may be attached to and revolve on the cross-head, which will be so constructed that the breech-pin can be thrown upward or downward out of the way.

A represents the body of the gun; EE, the trunnions; B, the breech-pin. D represents the bail. a represents the pin which is secured to the bail and which presses against the rear of the breech-pin. c c represent the projections on each side of the breech, to which the bail D is secured.

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

The employment of the gun with concave breech in connection with the convex breech-piece, the bail D, and the projecting pieces C C, the several parts being constructed and operating in the manner and for the purpose herein set forth.

In witness that I claim the foregoing I have hereunto set my hand in the presence of witnesses.

W. B. TREADWELL.

Witnesses:

JNO, G. TREADWELL,
ANDREW DICKEY.