

W. WILLIAMS.  
Breech-Loading Ordnance

No. 44,905.

Patented Nov. 1, 1864.

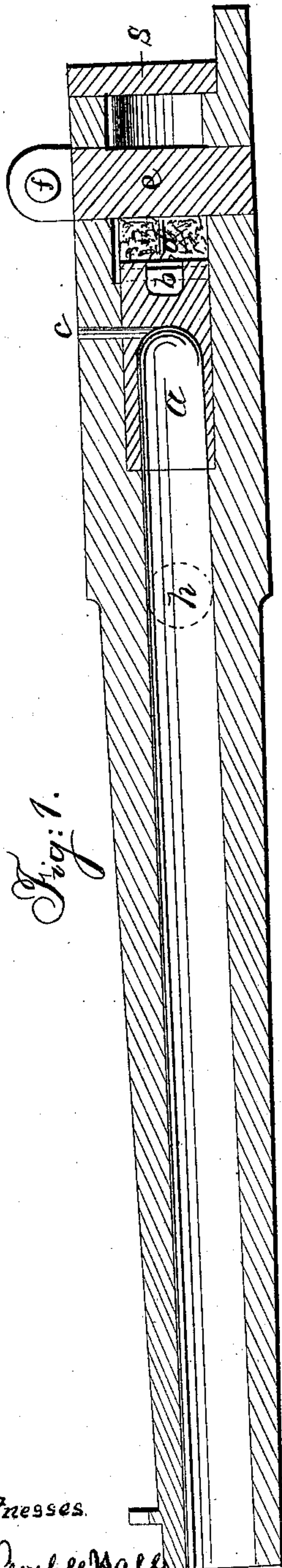


Fig. 1.

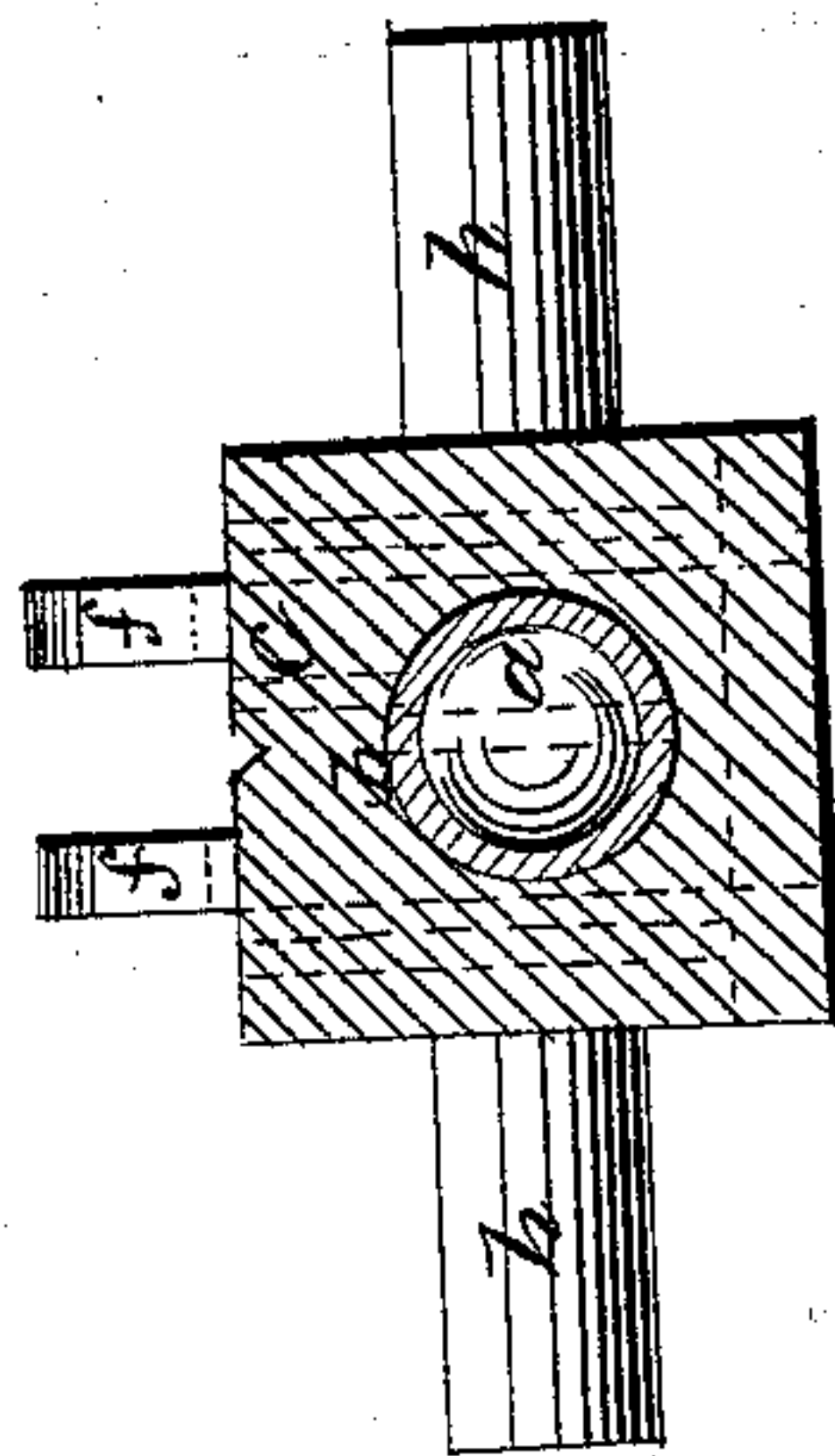


Fig. 2.

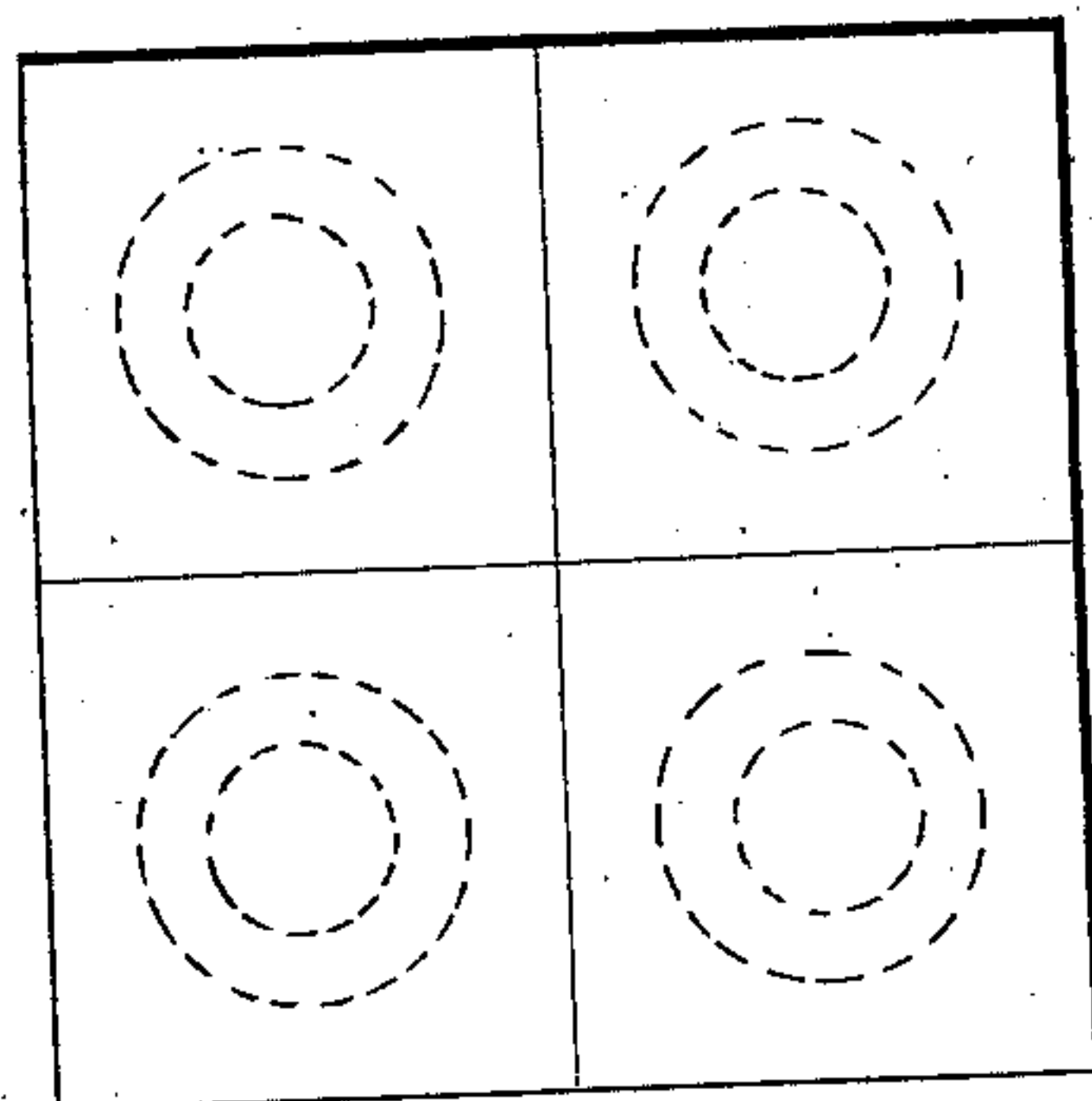


Fig. 3.

Inventor

Wm Williams - by his attorney -  
Amos Braamap.

Witnesses.

Wm Hembel Hall  
J. M. Mc Intire

# UNITED STATES PATENT OFFICE.

WILLIAM WILLIAMS, OF ST. LOUIS, MISSOURI.

## IMPROVEMENT IN BREECH-LOADING ORDNANCE.

Specification forming part of Letters Patent No. **44,905**, dated November 1, 1864; antedated August 7, 1862.

*To all whom it may concern:*

Be it known that I, WILLIAM WILLIAMS, of St. Louis, in the county of St. Louis and State of Missouri, have invented a new and useful Improvement 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 annexed drawings, making a part of this specification, and to the letters of reference marked thereon.

To enable others skilled in the art to make and use my invention, I will proceed to describe its construction and operation.

Figure 1 is a longitudinal section of my improved breech-loading cannon. Fig. 2 is a transverse section of the same; and Fig. 3 represents four of them united together.

The bore of the gun, which may be rifled in the ordinary manner, is enlarged at the rear end for the reception of the movable chamber *a*, which is provided with a rod, *b*, over which may be caught a hook that is introduced through the breech, when it is opened, for the purpose of removing the chamber from the gun through the breech. The upper end of the pin *b* projects from the external surface of the chamber and fits a suitable groove or slot cut in the bore of the breech of the gun, so that when the chamber is inserted in the breech it can reach its position entirely within the breech only when the pin slides in the groove, thus insuring the coincidence of the vent *c* of the gun with that of the chamber. A block of india-rubber, *d*, is interposed between the rear of the chamber *a* and the breech-pin *e*, which is slightly tapered toward the bottom. The india-rubber has a ring in its outer surface, by which it may be caught with a hook when it is desired to remove it from the gun.

The upper end of the breech-pin *e* has projecting lugs *f*, with holes, through which may be inserted a bar when it is necessary to remove the breech-pin. The bottom of the breech is closed by the sliding cap *g*. The trunnions *h* may be cast with the body of the gun, or may be separately made with a ring or band, that may be shrunk on the gun or otherwise secured, as has been frequently practiced.

In using this cannon, the chamber *a* is placed on the ground, with the opening upward. The cartridge and ball are then placed in the chamber, and it is inserted through the breech of the gun into its proper position, the sliding of the pin *b* in its groove insuring the coincidence of the vents. The block of india-rubber is next inserted, and the breech-pin is then dropped into its place. When the gun is fired, the block of elastic india-rubber transfers the force of the recoil to the breech-pin. While the chamber is being reloaded it can have its vent-hole plugged, and be placed in water to get cool. Several chambers may be attached to each gun, so that when one chamber becomes heated it may be replaced by another and the gun kept constantly in use.

I claim as my invention and desire to secure by Letters Patent—

The chamber *a*, breech-pin *e*, and india-rubber block *d*, arranged in the breech of the gun, and in respect to each other in the manner described, the whole to be constructed as set forth.

W. WILLIAMS.

Witnesses:

ROLLIN B. GRAY,  
JAMES JOHNSTONE.