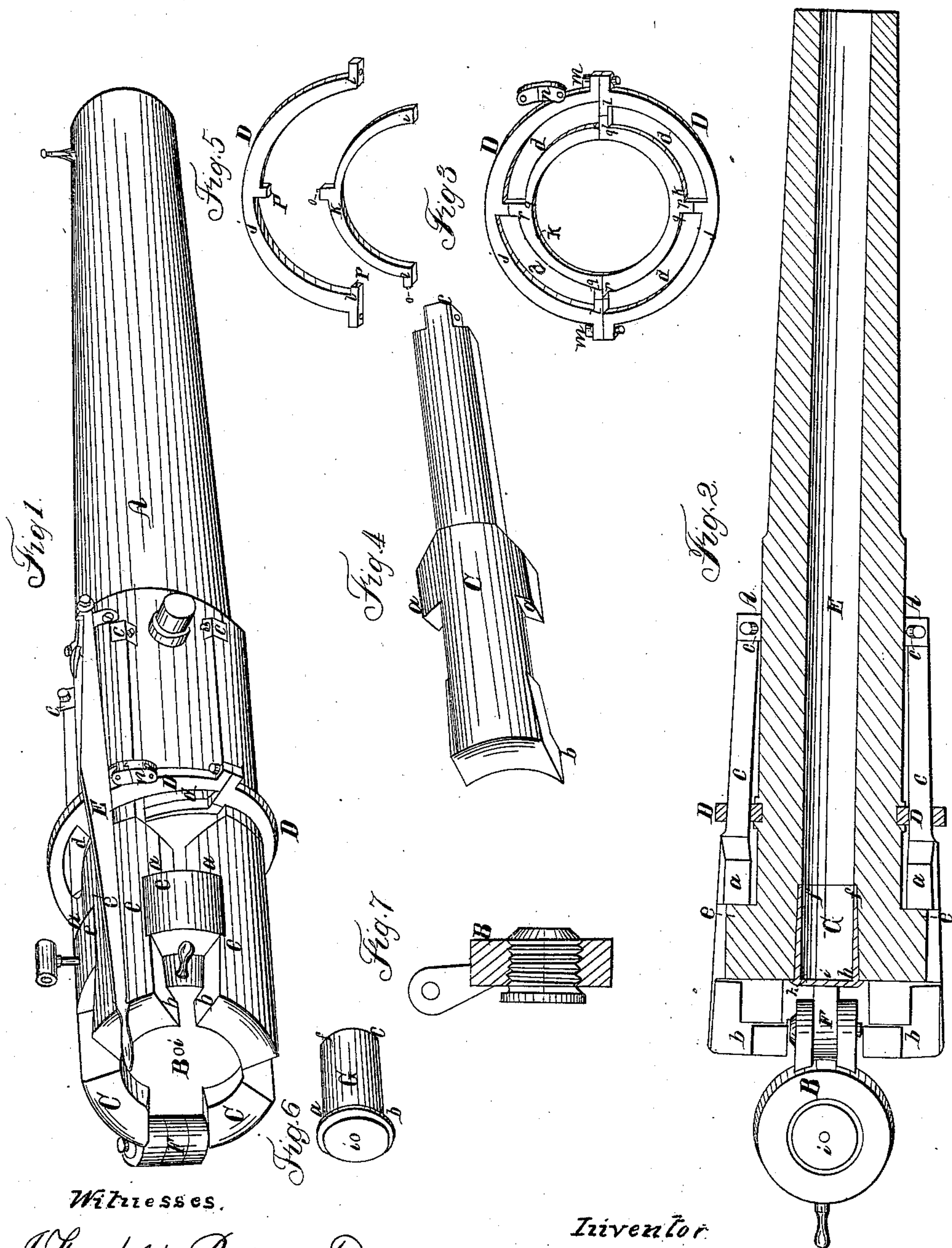


T. TULLY.

Breech-Loading Ordnance.

No. 43,351.

Patented June 28, 1864.



Witnesses.

Franklin Reigart  
L. Luchs

Inventor

Thomas Tully

# UNITED STATES PATENT OFFICE.

THOMAS TULLY, OF WAUKEGAN, ILLINOIS.

## IMPROVEMENT IN BREECH-LOADING ORDNANCE.

Specification forming part of Letters Patent No. 43,351, dated June 28, 1864.

*To all whom it may concern.*

Be it known that I, THOMAS TULLY, of Waukegan, Lake county, State of Illinois, have invented new and useful Improvements in Breech-Loading Cannons; and I do hereby declare the following to be a full and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, making a part of this specification.

The nature of my invention consists in four adjustable arms, with an eccentric ring operated by a lever, for the purpose of fastening a swinging breech of a breech-loading gun.

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

Figure 1 is a perspective view of the cannon; Fig. 2, a sectional view of the cannon; Fig. 3, a view of the eccentric ring; Fig. 4, a view of one of the hinged locking-arms; Fig. 5, a view of the sections of the eccentric ring; Fig. 6, the tapered gas-check; Fig. 7, the adjustable screw in the center of the swinging breech.

A represents the body of the gun; B, the swinging breech operating on a hinge, F, attached to the breech of the gun. This swinging breech has a cavity in the center to fit over the head of the gas-check G; and in case I do not use the gas-check G, I have an adjustable screw in the center of the breech B, as seen at Fig. 7, which I screw into a bevel at the breech of the gun to make it air-tight.

C are the arms attached to the gun by means

of hinges *c*. The arms are constructed with shoulders *a*, that fit against corresponding shoulders, *e*, of the gun for the purpose of checking the strain which comes upon the arms. These shoulders *e* are cast solid with the gun. *b* are shoulders at the end of the arms, which fit over the breech B and bind and clamp it firmly to the gun.

D is the ring, with eccentric-shaped slots *d*, that are for the purpose of adjusting and securing the arms tightly to the breech B by the operation of a lever, E, that revolves the ring D so as to raise or close the arms C upon the breech B. This lever D is formed in four sections, so as to be easily arranged and attached to the arms C around the gun, and fastened together by screw-bolts on each side.

G is the gas-check, that is made tapering and fits into the tapered chamber of the breech, as shown at Fig. 2, so as to be easily removed from the gun. It prevents the escape of the gas at the breech. It also holds the cartridge, and has a small aperture or vent, I, connecting with the vent I in the center of the breech B.

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

The construction and combination of the arms C and eccentric ring D, arranged and combined with the swinging breech B, as herein described, for the purpose of expediting the loading of a cannon and preventing the escape of gas.

THOMAS TULLY.

Witnesses:

J. FRANKLIN REIGART,  
L. LUCHS.