

W. PALMER.
BREECH LOADING FIREARM.

No. 32,887.

Patented July 23, 1861.

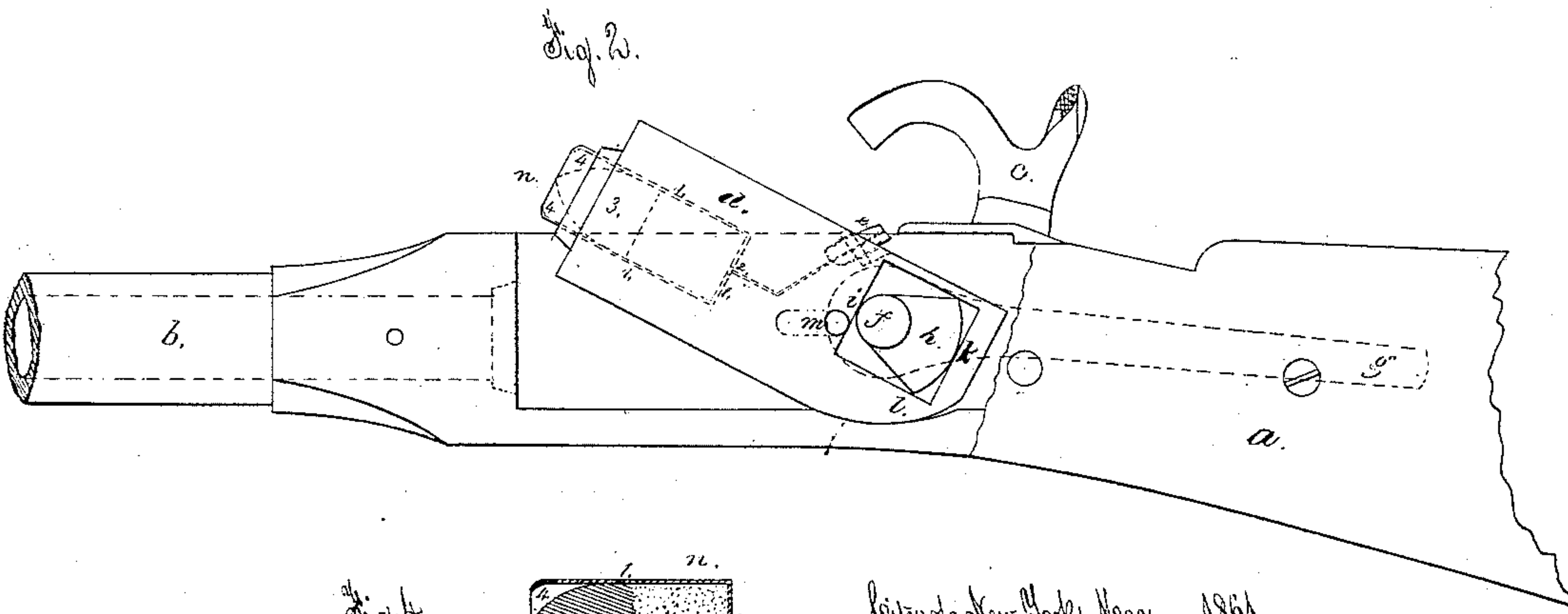
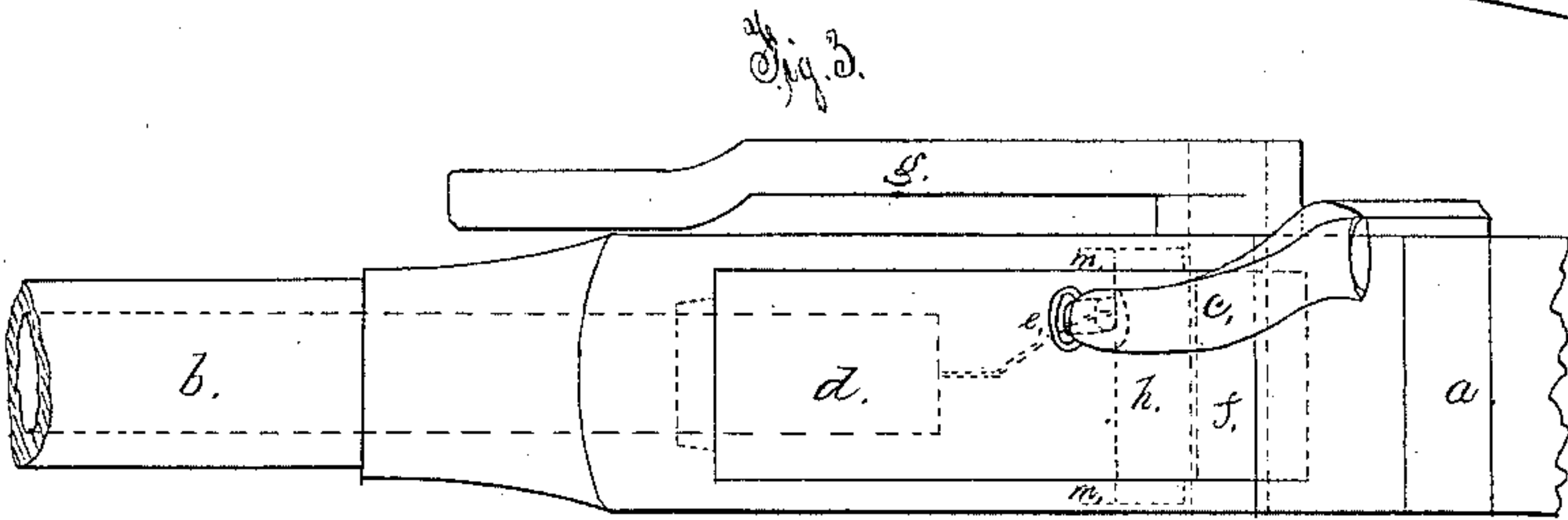
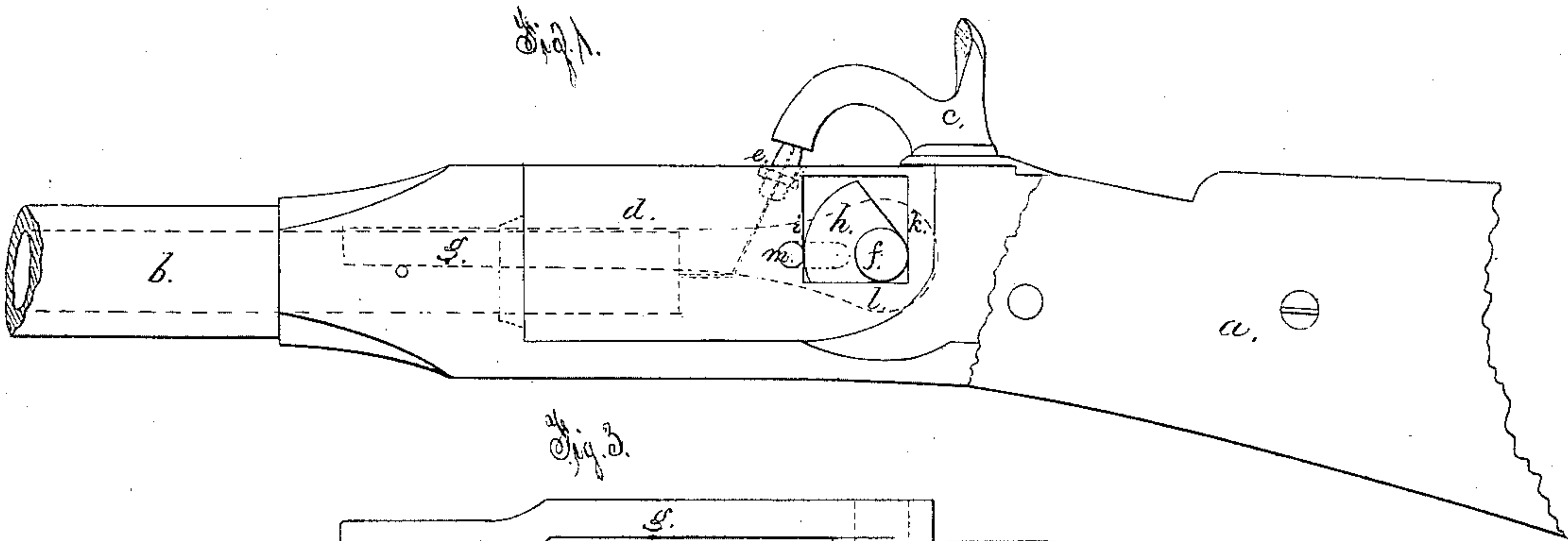
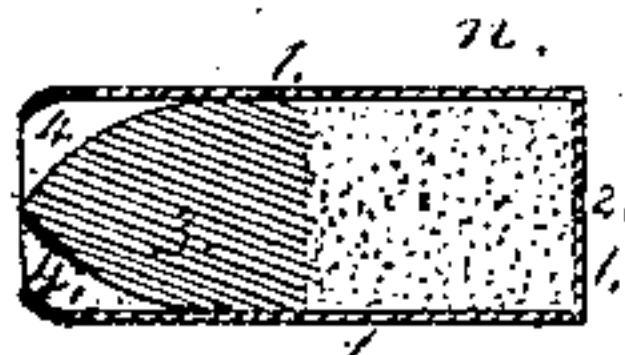


Fig. 4.



Printed by New York Navy 1861.

W. Palmer

Witnesses.

Lemuel W. Serrell

Geo. W. Harvard

UNITED STATES PATENT OFFICE.

WM. PALMER, OF NEW YORK, N. Y.

IMPROVEMENT IN BREECH-LOADING FIRE-ARMS.

Specification forming part of Letters Patent No. 32,887, dated July 23, 1861.

To all whom it may concern:

Be it known that I, WILLIAM PALMER, of the city and State of New York, have invented and made a certain new and useful Improvement in Breech-Loading Fire-Arms; and I do hereby declare that the following is a full, clear, and exact description of the said invention, reference being had to the annexed drawings, making part of this specification, wherein—

Figure 1 is a side elevation with the breech closed, the side plate being removed to show the breech. Fig. 2 is a similar elevation with the breech open. Fig. 3 is a plan of the breech, and Fig. 4 is a section of my cartridge.

Similar marks of reference denote the same parts.

Sliding and elevating breeches in fire-arms have heretofore been employed. My invention applies to this character of fire-arm; and it consists in a four-faced mortise at the rear of the chamber, combined with an inclosed cam, whereby the said cam, taking the forward face of the mortise, forces the breech to the barrel and sustains the same. The rear face of the mortise acts to cause the cam to draw back the breech, while the lower face elevates the breech, and the upper again depresses the breech by the movements of said cam. Thereby the motions are all performed by one device, and in a positive manner, so that sticking, in consequence of dirt or otherwise, becomes impossible.

In the drawings, *a* is the stock, and *b* is the barrel, of any usual size or character of fire-arm. *c* is the hammer or cock, actuated by any suitable mechanism. *d* is the chambered breech, with the nipple or cone *e* taking the hammer *c*. In the rear end of the breech *d* is a cross-mortise nearly square, and through this the cross-shaft *f* passes and is provided with a lever, *g*, on the outer end of the shaft, and with a cam, *h*, in the said mortise. The breech *d* is provided with side pins or trunnions, *m*, in notches or slots in the side plates.

The parts being in the position of Fig. 1, the lever *g* is thrown over to the rear, and the parts take the position of Fig. 2, and on the reverse movement the breech is returned to the position in Fig. 1. The cam, in turning, first takes against the back part, *k*, of the mor-

tise, drawing the breech back, and on the further movement takes against the bottom surface, *l*, of the said mortise, throwing up the forward end of the breech as the same turns on the trunnions *m*, thus giving access to the chamber of the breech for introducing or withdrawing a charge. On the reverse movement the cam turns until it takes the upper part, *p*, of the said mortise, which brings the breech down into place, and then the said breech is forced forward and the cam *f* becomes a blocking-piece to take the recoil from the explosion; and for this purpose the side *i* of the mortise may correspond in shape for a greater or less distance with the curved surface of the cam *h*.

By reference to Fig. 2 it will be seen that the breech is drawn back sufficiently to allow the cartridge *n* to project slightly from the chamber of the breech. This is done with a twofold object—first, to allow of removing the projecting cartridge-case, and, second, to cause that projecting case, when in the barrel *b*, to cover the joint between said barrel and breech. The form of this cartridge *n* will be more clearly seen in Fig. 4, wherein 1 is the case of paper or other material, 2 is the hole in the base to pass the detonation from the cap, and 3 is the ball contained within the said case, and the space at 4 is to be filled with tallow or other suitable material. By this device the grease is carried out on the ball and thoroughly cleanses and frees the barrel, and the paper case of the cartridge keeps the joint tight between the barrel and the breech.

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

1. The four-faced mortise *i k l p* in the rear of the sliding and turning breech *d*, in combination with the cam *h*, the parts acting in the manner and for the purposes specified.

2. The cartridge *n*, provided with the grease 4 in front of and surrounding the ball, in combination with the said turning and sliding breech, for the purposes and as specified.

In witness whereof I have hereunto set my signature this 30th day of May, 1861.

WM. PALMER.

Witnesses:

LEMUEL W. SERRELL,
THOS. GEO. HAROLD.