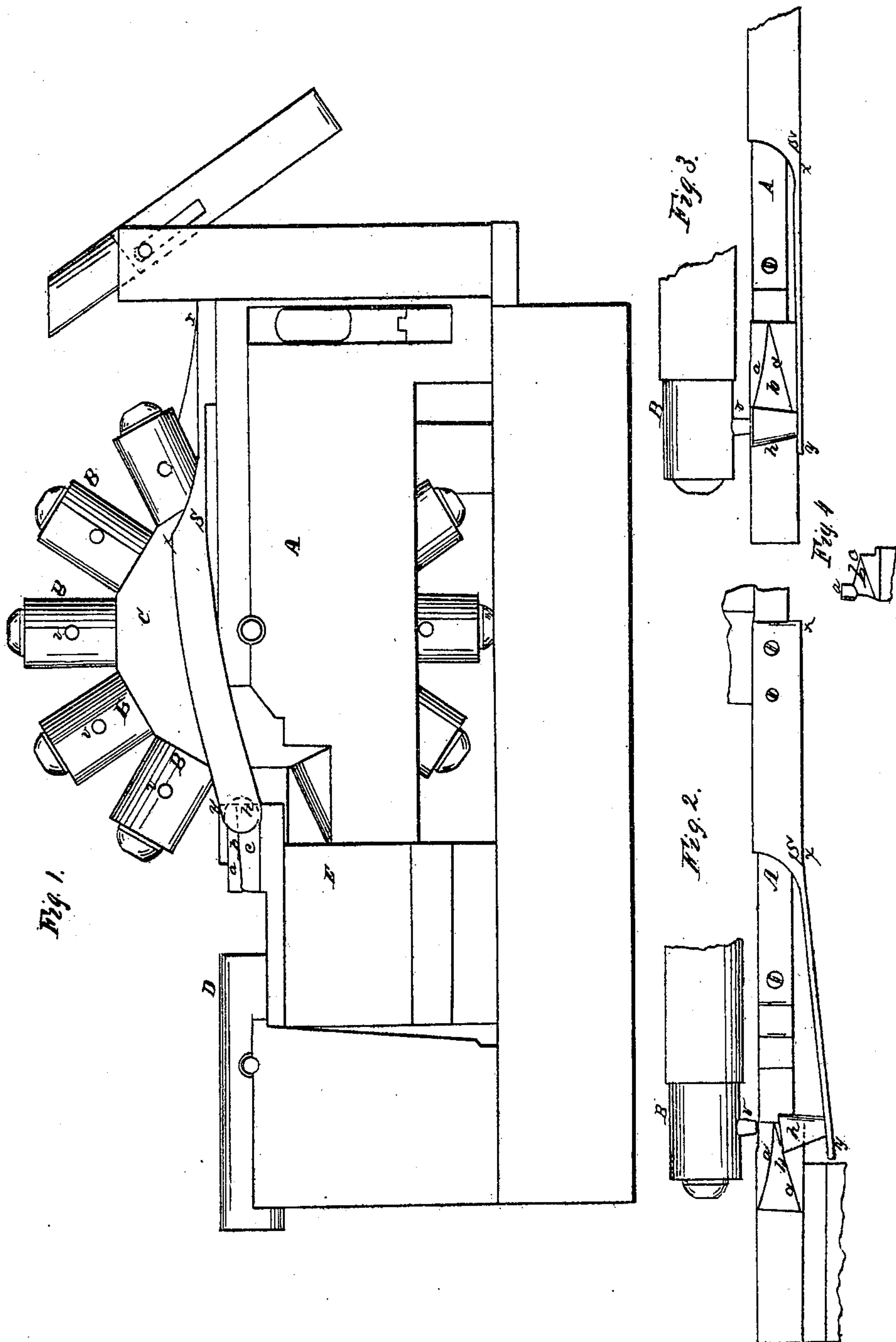


J. DODGE. Machine Gun.

No. 17,920.

Patented Aug. 4, 1857.



UNITED STATES PATENT OFFICE.

JOSIAH DODGE, OF DUMMERSTON, VERMONT.

IMPROVED MODE OF DISCHARGING CANNON.

Specification forming part of Letters Patent No. 17,920, dated August 4, 1857.

To all whom it may concern:

Be it known that I, JOSIAH DODGE, of Dummerston, in the county of Windham and State of Vermont, have invented a new and Improved Mode of Discharging 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, forming part of this specification, in which—

Figure 1 is a side view of the cannon with the breech drawn back for charging. Fig. 2 is a top view of the discharging mechanism with the breech in position of Fig. 1. Fig. 3 is a similar view of the said parts at the time of discharge. Fig. 4 is a view of the discharging inclined planes, looking from the front.

Similar characters of reference denote the same part.

This invention is designed for use with the cannon to which the mode of charging patented by me July 15, 1856, is applicable.

Its nature consists in the combination, as hereinafter to be set forth, of a double-spring hammer with a peculiar system of inclined planes, the details of which will be understood from the following description and reference to the drawings.

C is the wheel, B B the breech-pieces, and D the barrel. Each of the breech-pieces has a vent, *v*, of ordinary construction, for the reception of a percussion-cap.

Secured to the frame A, in which the trunnions of the wheel C are hung, is a double spring, S, the portion *x x* having a downward tendency, and the portions *y x* a tendency toward the wheel C. Near the extremity of this portion of the spring is a hammer, *h*.

Upon the upper edge of the stationary piece E, which constitutes one of the guides of the breech-carriage A, is a system of inclined planes, *a b c*. The first and third have their inclined faces vertical, and the second has its inclined surface running obliquely upward from front to rear. This latter is somewhat cut away to conform to the shape of the hammer, and is not strictly an inclined plane, but rather an inclined curved surface. The action of these surfaces is as follows: With the breech-wheel in the position of Fig. 1, the discharging face of hammer *h* rests against the inclined surface *c*. As the carriage is moved forward the face of the hammer becomes more distant from the breech-piece. When the breech-piece joins the barrel the hammer slips from the inclined surface C, and by the force of spring *y x* strikes the cap upon the vent and discharges the piece. As the carriage is drawn back the hammer rises upon the inclined surface *b*, and is at the same time forced outward by surface *a* until at the termination of the rear movement the hammer slips from surface *b*, and by the action of spring *x x* assumes the position of Figs. 1 and 2, from which it started.

I claim—

The double-spring hammer S *h*, as described, in combination with the inclined surfaces *a b c*, arranged and operating substantially as and for the purposes set forth.

In testimony whereof I have hereunto signed my name before two subscribing witnesses.

JOSIAH DODGE.

Witnesses:

GEO. PATTEN,

JOHN S. HOLLINGSHEAD.