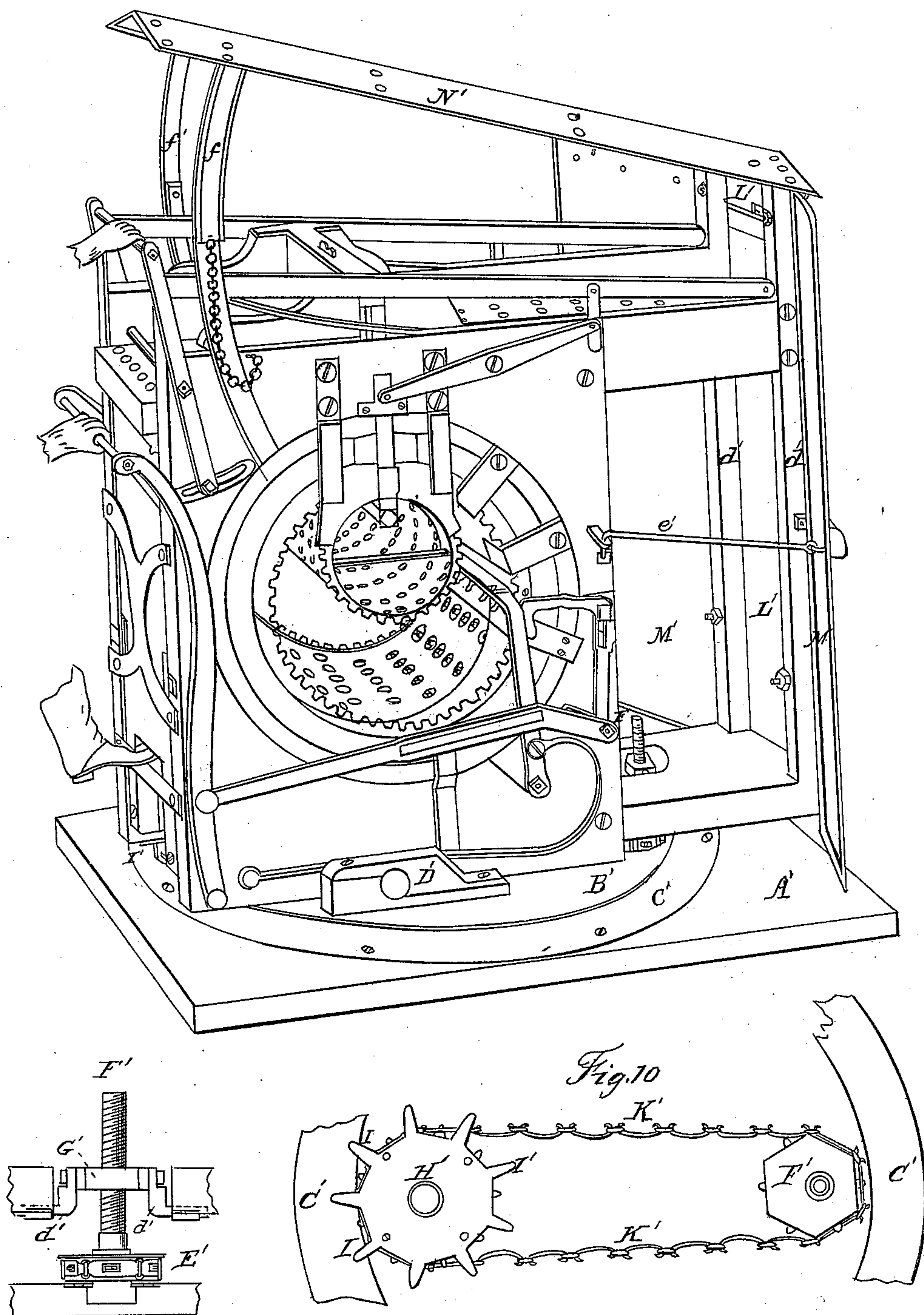


J. A. REYNOLDS.

Machine Gun.

No. 13,293.

Patented July 17, 1855.



UNITED STATES PATENT OFFICE.

JOHN A. REYNOLDS, OF ELMIRA, NEW YORK.

IMPROVEMENT IN FIRE-ARMS.

Specification forming part of Letters Patent No. 13,293, dated July 17, 1855.

To all whom it may concern:

Be it known that I, JOHN A. REYNOLDS, of Elmira, in the county of Chemung and State of New York, have invented certain new and useful Improvements in Protecting and in Operating Manifold Fire-Arms; and I hereby declare that the following is a clear, full, and exact description of the same, reference being had to the accompanying drawings, forming a part of this specification, of which the following is a description.

This improvement is to render more efficient an invention upon which I have an application for Letters Patent now pending.

It consists, in the first place, of a shield attached to the front of the iron frame-work, which in the application referred to I have termed a "battery." This shield is furnished with adjustable wings and roof, by which shot striking it may be deflected and injury to the machine and operator avoided. It furthermore serves as a most effectual protection against the weather when the wings are closed.

In the second place, it consists of a turn-table by which direction may be given the discharge; and, thirdly, in the mode of elevating or depressing by which the range is accomplished.

It consists of a turn-table constructed as follows:

A' represents a flat base, of wood or plank, suitably joined and confined together. If intended for transportation, it may be furnished with four suitable wheels and appropriate axles or bearings. This base is recessed, so as partially to embed the revolving table B', which is formed with a flange on its periphery at the lower side of the table.

C' is a circle, (for convenience of drawing only partially shown.) It is made of metal and secured by bolts to A', and by overlying the flange on B' the table is prevented from rising, yet at the same time is at liberty to be revolved.

D' D' represent the trunnion-blocks intended to receive the principal bearing and recoil.

E' is a cogged pulley turning and secured in a recess like the table. From the upper face of E' rises a screw, F', which, passing through E', is firmly united therewith, and on the turning of the pulley motion is given the screw in its operation in and upon the nut or female screw G', said nut being connected to the base of the fire-arm adverted to, or any similar one, by

depending arms a' a'. It is upon this screw and nut that a portion of the weight is maintained, while, as before observed, the recoil and principal weight are upon the trunnion blocks. From the necessity of keeping the nut from binding and preserving its plane an accommodation for change of position of the body of the machine in its elevation is requisite. This it is that renders the swiveling of the right-angled arms or supports to the nut, instead of the ordinary bail so necessary.

H' is a larger-sized turn-pulley, armed with projections or cogs on its periphery similar to E'.

K' is an endless chain, having links to drop over the cogs on the pulleys.

I' I' are spokes radiating from the pulley H', and by which it is turned by the foot of the operator.

The shield is shown in perspective, L' representing the front portion secured to the uprights d' d' of the machine. Instead of the front being made flat, it is slightly ridged, so as to give deflection to balls striking it.

M' M' are wings connected by hinges with the front portion, L'. They may be, when opened as shown, retained in position by suitable rods, e', or when closed made to protect and secure the sides of the machine.

N' is a ridged roof, hinged to the front and supported by suitable braces, f' f', and bolts entering the sides of the machine. The front and wings, as well as the roof, of this protecting-shield are formed of two thicknesses or sheets of wrought metal, having an elastic substance—such as india-rubber, rawhide, cloth, &c.—interposed between the sheets, the whole strongly bolted or riveted together.

As represented in the drawings, the wings are thrown open and the roof elevated at one end, and it is to be considered that it is now in position to secure protection to the operator.

It now remains to explain the operation of elevating and giving direction to the machine previous to the discharge thereof. This is effected, as before observed, by the foot of the attendant applied to the spokes I' I', (see Fig. 10,) which, by a side movement, the pulleys and chain and screw are turned and a proper elevation of the ordnance effected, the eye of the operator being kept upon the sights, while his hands are at liberty for turning the machine in the desired direction.

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

1. The elevating of the manifold fire-arm by the screw F', nut G' on swiveled arms *a' a'*, as described, in connection with pulleys H' and E', chain K', or their equivalent, substantially as set forth.

2. The adaptation of the shield to the mani-

fold fire-arm or similar machine, substantially in the manner and for the purposes set forth in the foregoing specification.

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

JOHN A. REYNOLDS.

Witnesses:

W. S. CLARK,

JOHN F. CLARK.