B. BURTON.

Magazine Fire Arm.

No. 232,880. Patented Oct. 5, 1880.

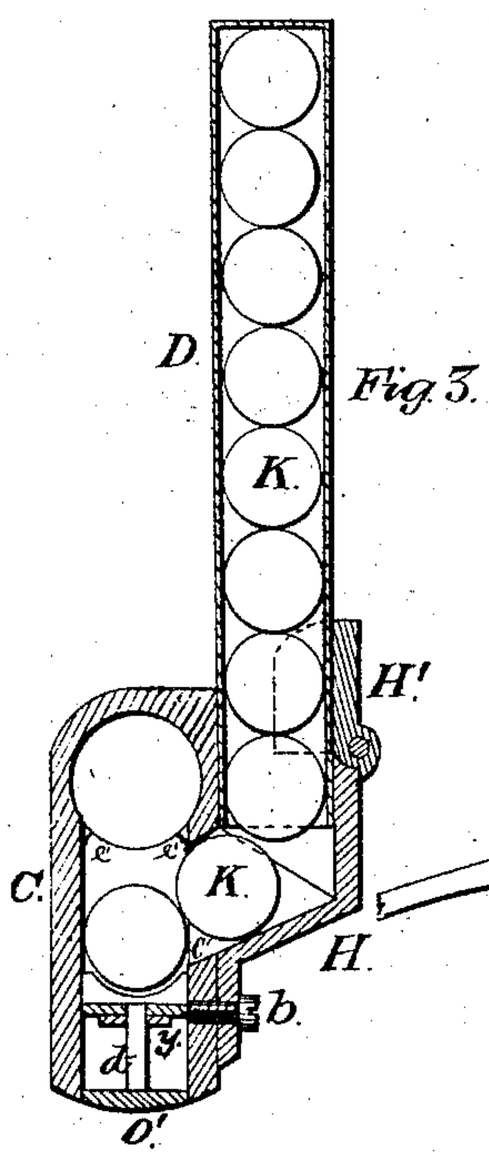


Fig. 3.

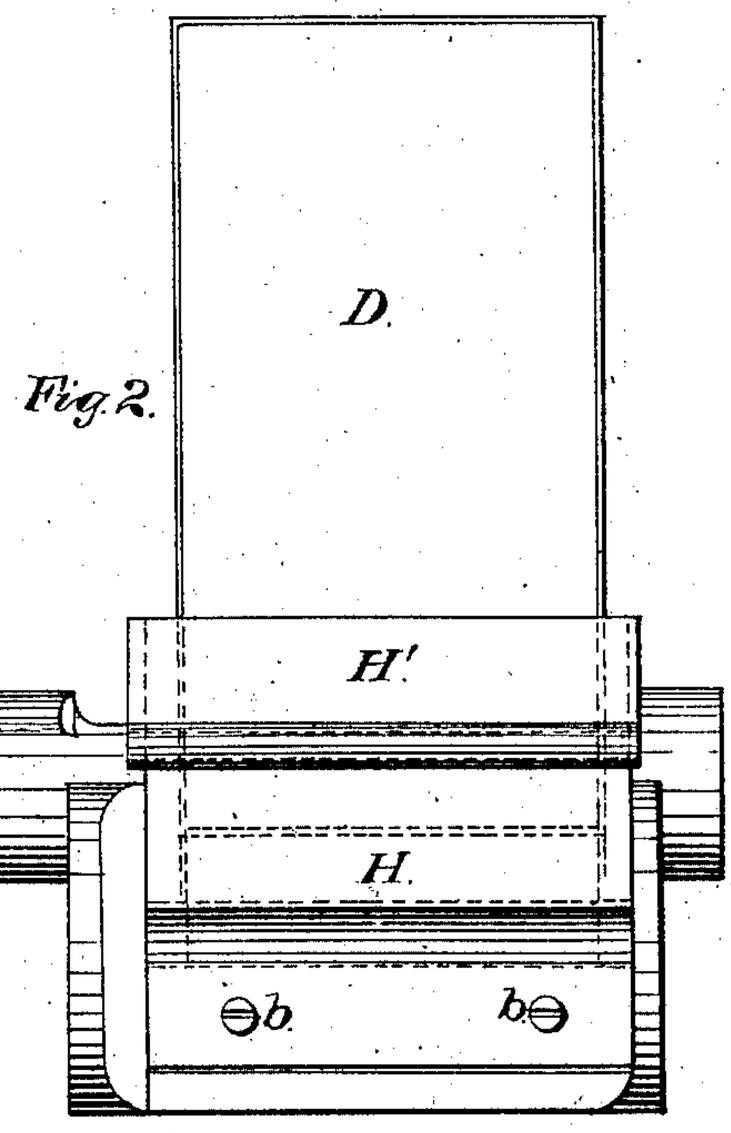


Fig. 2.

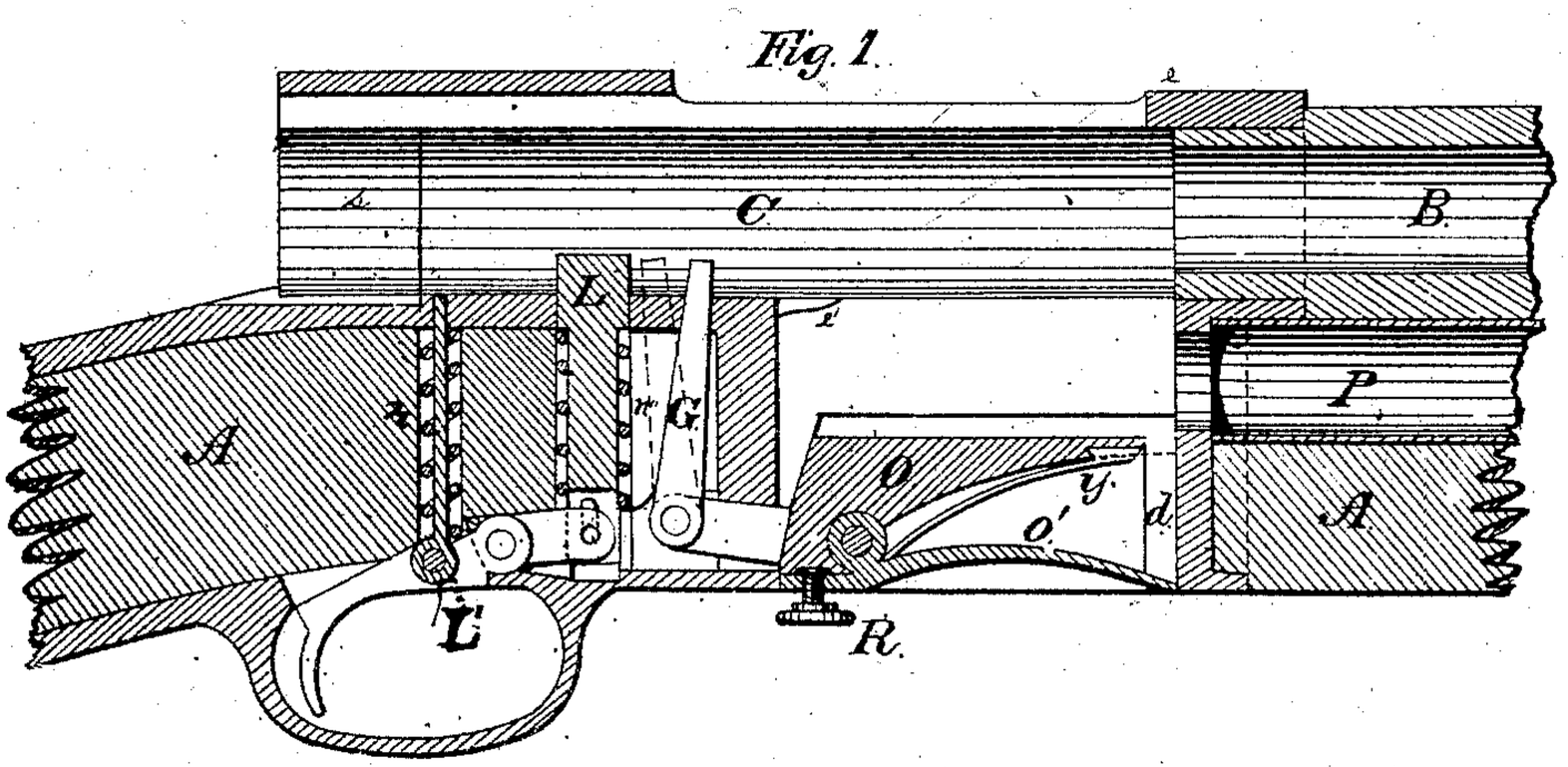


Fig. 1.

Attest:
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# UNITED STATES PATENT OFFICE.

BETHEL BURTON, OF BROOKLYN, NEW YORK.

## MAGAZINE FIRE-ARM.

SPECIFICATION forming part of Letters Patent No. 232,880, dated October 5, 1880.

Application filed April 9, 1878.

*To all whom it may concern:*

Be it known that I, BETHEL BURTON, of Brooklyn, in the county of Kings and State of New York, have invented a new and useful Improvement in Magazine-Guns, of which the following is a specification.

My invention consists in the application of a hopper-magazine attached to the side of the receiver of a gun, and a magazine under the barrel, and a carrier which serves to convey the cartridges automatically from both magazines to the barrel, and a cut-off which holds the cartridges in the magazine under the barrel in reserve while the hopper-magazine is being used, and in the use of a bolt working longitudinally in the receiver which operates the carrier, and a safety-pin on the trigger, in connection with the sear-bolt, and the use of spiral springs for keeping the sear-bolt up in place and the trigger pressed down, so as to be able to use the arm as a breech-loader.

The object of my invention is to provide an arm that is capable of containing the greatest possible number of charges that can be readily carried in the hands of man, and of the largest charges a man is capable of firing from the shoulder, and to provide for a reserve of the loaded magazine under the barrel for emergencies, while the other hopper-magazine may be in use, and to provide against the premature discharge of the arm, to load quickly, so as to keep up a constant and rapid fire.

I attain those objects by the mechanism illustrated in the accompanying drawings; and by reference to my former patents and to other magazine-guns, the bolts in use in my former patents, and other similar bolts used for closing and opening the breech of breech-loading and magazine-guns, this mechanism may be readily understood.

Figure 1 is a longitudinal vertical section of the arm at the breech. Fig. 2 is a side view of the same, showing the hopper and the feed-box in the hopper. Fig. 3 is a vertical cross-section cut through the receiver, and hopper and carrier, with the cartridges in the hopper.

The view of the bolt is omitted in order more clearly to show the other working parts of the arm.

Similar letters refer to similar parts throughout the several views.

The receiver C is made to contain the bolt, and the carrier O is made to work in a box, *e*, in the under side of the receiver. The barrel B is screwed in the end of the receiver in the usual way, and the magazine P is placed under the barrel in the usual way.

The carrier O is made and operated in a manner already described in my patent of 1873, and does not require describing here, except in so far as the cut-off is concerned. A set-screw, R, is placed in the rear end of the gate O′. On the front end of the gate O′ a tooth, *d*, extends up and past the upper end of the carrier O, in which an opening is made for the tooth to pass. The tooth is lowered or raised by the screw R. When the tooth is raised it projects up in the track of the cartridges as they pass from the magazine P, and stops them from feeding onto the carrier O, a turn of the screw R being sufficient to raise or lower the tooth *d*.

The hopper H may be made of any desired shape or dimensions and secured to the receiver C in any desirable manner by screws *b*, or dovetailed onto the receiver, and cartridges may be used by filling the hopper H and closing the lid H′, which is kept closed by a spring or catch and hinged to the hopper, as shown in Figs. 2 and 3. The cartridges K pass down an incline plane, C′, in the bottom of the hopper, and onto the carrier O, and when the bolt is drawn back it forces back the upper arm, G, of the carrier. The carrier O, rising, lifts up a cartridge in a direction for entering the chamber B of the barrel. The forward movement of the bolt shoves the cartridge into the barrel-chamber, and the bolt also forces forward the arm G of the carrier, lowering the carrier O down to receive a fresh cartridge from the hopper H. When the carrier rises it shoves the cartridge in the opening C′ back into the hopper H and prevents the cartridge in H from interfering with the cartridge on the carrier and obstructing the movements of the carrier. The carrier feeds from the magazine P, the same as from the hopper H, when the cartridges are released by lowering the cut-off finger *d*.

In order to provide for carrying the arm in safety when loaded I make use of the sear-bolt L, around which I put a spiral spring, *w*″. The

lower end of the sear-bolt is seated in a hole in the trigger-guard, and the upper end passes up through the receiver, at which a shoulder is formed on the sear-bolt, against which the upper end of the spring *n''* presses, and the other end of the spring *n''* rests against the trigger-guard, keeping the sear-bolt L pressed upward in front of the firing-pin. Through the lower end of the sear-bolt a slot or mortise is made for the forward end of the trigger to enter, the end of the trigger being made flat to work in the mortise, and pivoted to the sear-bolt. An oblong slot is also made in the sear-bolt, so as to allow the pivot to shift its position.

In rear of the pivot on which the trigger is hinged there is pivoted to the trigger a safety-pin, L′, around which a spiral spring, *n*, is placed, and rests on the trigger below and against the receiver above. When the bolt is withdrawn, and at any time before the bolt is secured in place, the upper end of the pin L′, in case the trigger is pulled, presses against the breech-bolt and prevents the trigger from acting on the sear-bolt; but as soon as the bolt is secured in place in the receiver a hole made purposely in the bolt is brought opposite the pin L′, which permits the end of the pin to enter the hole in the bolt and the trigger to be pulled, and at the same time the sear-bolt is lowered and the arm fired.

In order that the pin L′ may lower and admit of the bolt being withdrawn, the spring *n*, pressing the trigger down behind the slot in the lower end of the sear-bolt, permits the forward part of the trigger to rise. As soon as the bolt is drawn back the sear-bolt is free to rise, when the spiral spring *n''* forces it up in position in front of the firing-pin, and when the bolt is closed the firing-pin is held back until the trigger is again pulled and the firing-pin released and propelled forward by the mainspring to deliver the blow to ignite the charge.

What I claim is—

1. In a magazine-gun, the combination of a longitudinally-reciprocating breech-bolt, a vertically-reciprocating cartridge-carrier operated by the breech-bolt, and lever used for operating the bolt, and a hopper-magazine which retains the cartridges parallel with each other and permits them to feed singly upon the carrier, as set forth.

2. In a magazine-gun, the combination of a longitudinally-reciprocating breech-bolt, a vertically-reciprocating cartridge-carrier operated by the breech-bolt, and lever used for operating the bolt, a hopper-magazine which retains the cartridges parallel with each other and feeds them upon the carrier singly, a magazine in the front stock feeding backward, and a cut-off for said magazine in the front stock, substantially as set forth.

3. The combination, with the longitudinally-reciprocating bolt and firing-pin of a breech-loading gun, of the trigger, the spring-pin connected to the trigger forward of its pivot, and the safety-pin connected to the trigger, as described, and bearing against the bolt at all times save when the latter is locked, substantially as set forth.

BETHEL BURTON.

Witnesses:
F. B. BROCK,
GEO. F. GRAHAM.