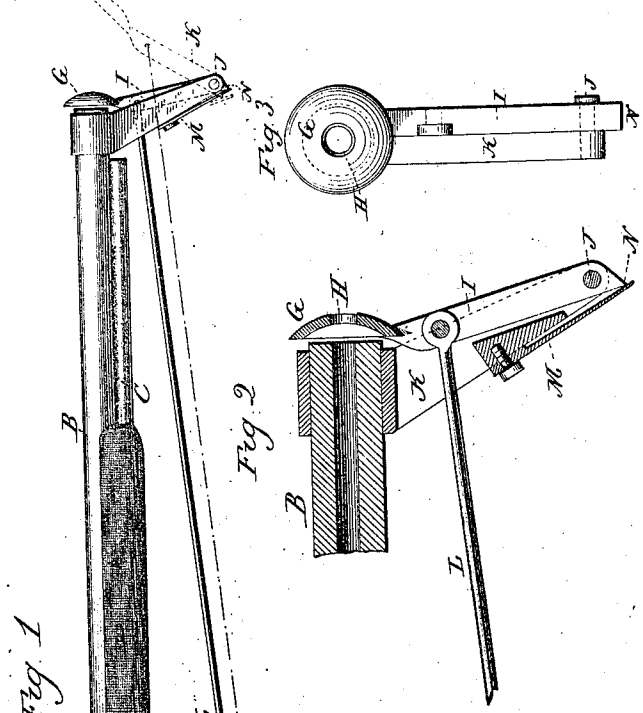
(No Model.)

J. M. & M. S. BROWNING.

AUTOMATIC MAGAZINE GUN.

No. 471,782. Patented Mar. 29, 1892.



Witnesses
J. N. Sweeney
Lillian D. Kelsey

John M. Browning.
and Matthew S. Browning.
Inventors.
By Atty.
Earle & Seymour

UNITED STATES PATENT OFFICE.

JOHN M. BROWNING AND MATTHEW S. BROWNING, OF OGDEN, UTAH TERRITORY.

AUTOMATIC MAGAZINE-GUN.

SPECIFICATION forming part of Letters Patent No. 471,782, dated March 29, 1892.

Application filed January 6, 1890. Serial No. 336,051. (No model.)

To all whom it may concern:

Be it known that we, JOHN M. BROWNING and MATTHEW S. BROWNING, of Ogden, in the county of Weber and Territory of Utah, have invented a new Improvement in Magazine-Guns; and we do hereby declare the following, when taken in connection with accompanying drawings and the letters of reference marked thereon, to be a full, clear, and exact description of the same, and which said drawings constitute part of this specification, and represent, in—

Figure 1, a side view of a fire-arm with the invention applied; Fig. 2, a longitudinal section of the muzzle-end portion of the barrel with the invention applied; Fig. 3, a front end view of the same; Fig. 4, a modification.

This invention relates to an improvement in the construction of guns whereby the firing of the gun after the first discharge may be made automatic so long as cartridges shall be supplied.

The invention is applicable to machine-guns and also to fire-arms.

The invention is designed to employ the gases generated in the discharge as a means for opening the breech, cocking the hammer, ejecting the cartridge-shell, introducing a new cartridge, and then reclosing the breech, and in such reclosing to release the hammer for the discharge of the cartridge so introduced, successive cartridges following each other in the discharge so long as the supply is maintained; and it consists in the construction and combination of mechanism, as hereinafter described, and particularly recited in the claim.

In illustrating the invention we show it as applied to a fire-arm.

A represents the stock; B, the barrel; C, the magazine; D, the receiver, within which is the breech mechanism of the arm. This mechanism may be any of the many known constructions whereby the breech-piece is opened, the hammer cocked, the cartridge transferred from the magazine to a position forward of the breech-piece, and so that the return of the breech-piece will force the cartridge into the barrel. This mechanism is not shown, it being too well known to require illustration.

E represents a lever, which is hung upon a pivot F in the receiver and by the backward and forward swinging movement of which the breech mechanism is operated in the usual manner. This lever may be understood as the usual trigger-guard lever, by the forward movement of which, as in broken lines, the breech-piece is thrown to the open position and on the return the breech-piece is closed.

G represents a cap arranged over the forward or muzzle end of the barrel. This cap has through its center and normally in line with the barrel an opening H, through which the bullet will freely pass. The cap is best concave upon the inside, and so as to present toward the barrel an area substantially as large as the area of the end of the barrel. The concave shape forms a chamber between the end of the barrel and the cap, so as to expose the large area of the cap to the bore of the barrel. In the preferred arrangement this cap is formed as a part of a lever I, hung upon a fulcrum J to an arm K, which extends down from the forward end of the barrel, and so that the cap may swing on the pivot J in a vertical plane, as from the position seen in Fig. 1 to that seen in broken lines, same figure.

L represents a connecting-rod, which is hung by one end to the lever E, and, extending forward, its other end is hung to the cap-lever I, so as to make connection between the said lever and the operating-lever. A spring, as M, is provided, the tendency of which is to force and yieldingly hold the cap in its closed position. This spring, as here represented, is a flat spring secured by one end to the arm K, and, extending downward, bears upon an extension or short arm N of the lever I below the pivot, and so that this arm N of the lever operates as a cam against the spring to compress the spring when the cap is thrown open, as seen in broken lines, Fig. 1, and then the reaction of the spring will return the cap.

O represents the trigger, which is adapted to be pulled by hand in the usual manner, but extends into a position in rear of or so as to stand in the path of movement of the lever E, and so that as the lever E approaches its extreme rear position, as seen in Fig. 1, it will bear upon the trigger O, so as to impart a pulling movement to the trigger. This completes the construction.

In using the gun the magazine is charged

in the usual manner and the operating-lever E moved by hand to introduce the first cartridge into the barrel. Then the trigger is pulled to discharge that first cartridge. Upon the discharge of that cartridge the bullet passes out through the opening H in the cap G. The gases immediately following operate upon the large inner surface of the cap G with a force sufficient to throw the cap away from the end of the barrel, as represented in broken lines, Fig. 1, and against the power of the spring M. This movement of the cap draws the operating-lever E forward, as also seen in broken lines, Fig. 1, and produces the opening movement of the breech-piece and cocks the hammer; but instantly the spring M reacts and forces the cap back to its closed position, returning the operating-lever E, whereby the second cartridge is inserted into the barrel, the breech-piece closed, and as the lever E completes its rear movement it strikes the trigger and discharges the hammer, whereupon that second cartridge is fired with the same result as the first. Thus after the firing of the first cartridge by hand subsequent cartridges will be fired automatically so long as a supply is maintained.

We claim—

In a gun the barrel of which is open at the breech and having mechanism for opening and closing the breech, cocking the hammer, and supplying cartridges thereto, the combination therewith of a cap G over the muzzle end of the barrel, the said cap constructed with an opening through it in line with the bore of the barrel and through which the bullet may pass, the cap presenting upon its inner surface an area larger than the bore of the barrel, the said cap forming substantially a part of a lever I, extending radially from said cap and hung upon a fulcrum J to an arm K, projecting from the barrel, and a connecting-rod hung by one end to the operating mechanism of the arm and extending forward, its other end hung to said lever I with a spring, the tendency of which is to yieldingly hold the said cap upon the end of the barrel, substantially as and for the purpose described.

JOHN M. BROWNING.
MATTHEW S. BROWNING.

Witnesses:
JOHN E. RAMSDEN,
M. S. JONES.