

C. B. SCOTT.  
MACHINE GUN.

No. 299,686.

Patented June 3, 1884.

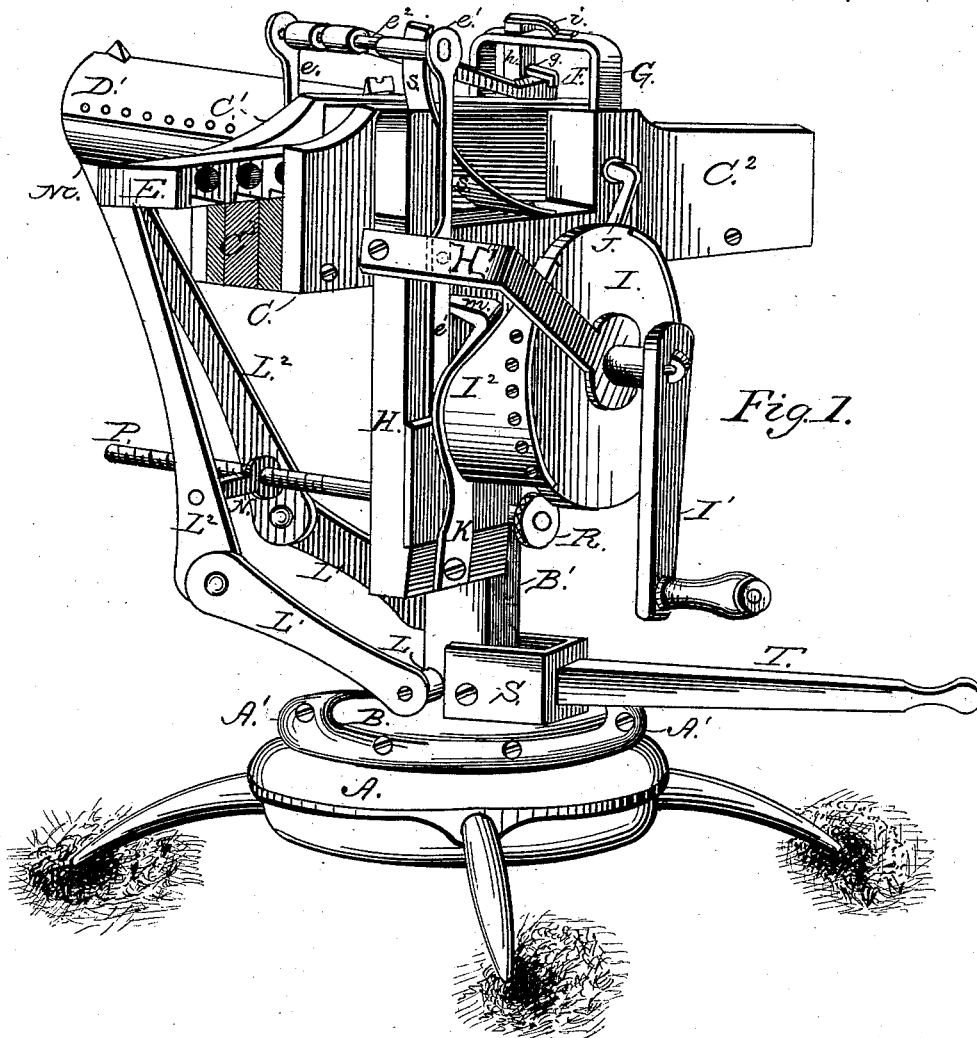


Fig. 1.

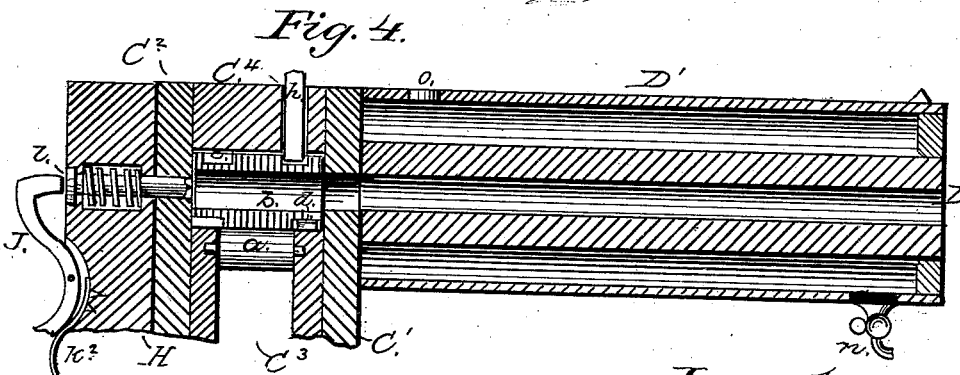


Fig. 4.

Witnesses:  
 L. Fred. Sellers.  
 W. D. Harrington.

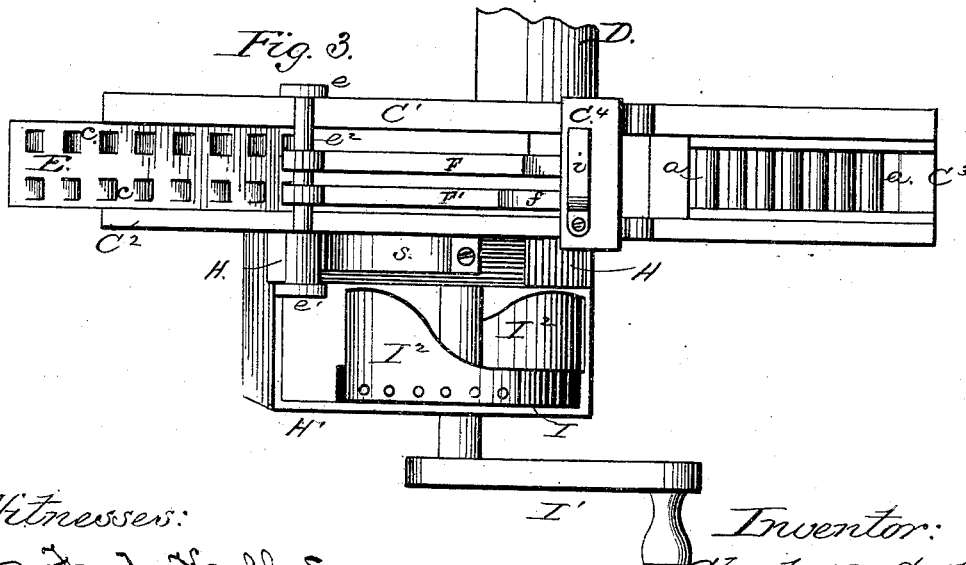
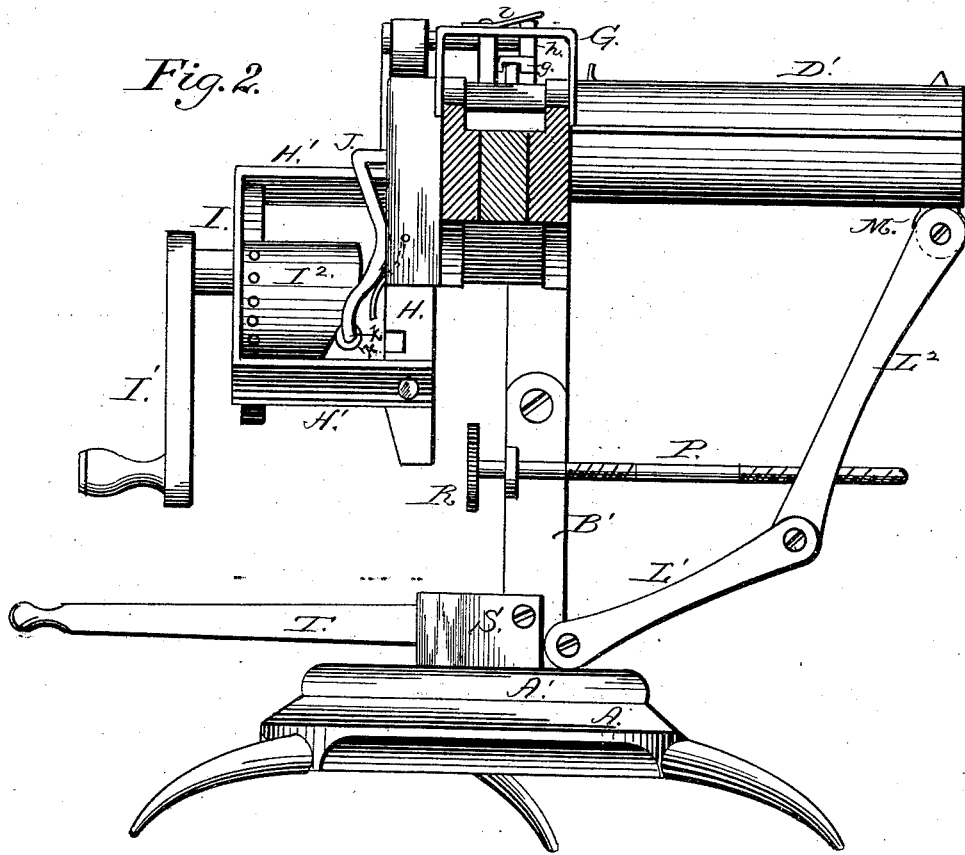
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# UNITED STATES PATENT OFFICE.

CHARLES B. SCOTT, OF LAS VEGAS, TERRITORY OF NEW MEXICO.

## MACHINE-GUN.

SPECIFICATION forming part of Letters Patent No. 299,686, dated June 3, 1884.

Application filed January 8, 1884. (No model.)

*To all whom it may concern:*

Be it known that I, CHARLES B. SCOTT, a citizen of the United States, residing at Las Vegas, in the county of San Miguel and Territory of New Mexico, have invented certain new and useful Improvements in Magazine or Machine Guns; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

My invention has for its object to provide a magazine or machine gun of a novel and simplified construction, whereby the same may be fired at any angle without changing the position of the base upon which it rests, and wherein the cartridges are horizontally conveyed to and exploded at the exact moment of passing the breech of the gun-barrel, and also by which the cartridges may be fed consecutively into position in unlimited numbers without cessation of firing, means being also provided for regulating the temperature of the gun-barrel during the operation of firing; and my improvements consist, essentially, of the details of construction and general arrangement of parts, all as will be hereinafter fully described, and specifically designated in the claims.

In the accompanying drawings, Figure 1 represents a perspective view of my complete invention; Fig. 2, a side elevation of the same; Fig. 3, a top plan view, and Fig. 4 a detail sectional view thereof.

Similar letters of reference occurring on the several figures indicate corresponding parts.

In carrying out my invention, the base or bed frame A is preferably of a tripod shape, being composed of a flat circular table supported by three spreading legs, as shown, the upper part of the circular table being recessed out to receive the circular base B of the hinged upright B', and the said base B being held upon the said table by an overlapping circular flange, A', as fully shown in Fig. 1.

In the upper end of the upright B' is pivoted the lower part of the frame C, which carries the gun-barrel, the sliding magazine breech-block, and the mechanism for operat-

ing said breech-block and for discharging the cartridges, said frame being composed of two elongated and solid sides, C' C', united by an elongated slotted bottom, C<sup>s</sup>, and an upper central block or cover, C<sup>t</sup>, the gun-barrel D being formed solid with the center of the side C', as shown. Within the slotted bottom of the frame C is arranged a series of rollers, a, upon which the elongated magazine breech-block E is adapted to freely slide in a horizontal position, and at right angles to the breech of the gun, the said elongated breech-block E being provided with a horizontal range of charge-chambers, b, which are arranged at such distances apart that at each movement of the breech-block a cartridge is brought into firing position in the rear of the gun-barrel D.

Upon each side of the upper and lower surfaces of the breech-block E is arranged a narrow ratchet, c, the angles of the ratchet upon one side projecting in a reverse direction to the angles of the ratchet upon the opposite side, the object of such an arrangement being that either end of the said breech-block may be readily inserted in position in the frame C with the same effect.

Upon the upper surface of the slotted bottom C<sup>s</sup>, and immediately in the rear of the gun-barrel D, is arranged a flat spring, d, the free end of which engages with the ratchet nearest the rear of the gun-barrel, upon the lower surface of the breech-block, the object of the same being to prevent the said breech-block from moving in a contrary direction to that intended, as also to hold the breech-block in place as each cartridge is brought forward in position for firing.

Near one end of the gun-frame C are provided two uprights, e e', which are pivoted near the bottom of said frame—one on each side—and connected together at the top by a cross-arm, e<sup>2</sup>, as shown.

Upon the center of the cross-arm e<sup>2</sup> are journaled the outer ends of two arms, F F', the inner end of the arm F' being adapted to work through a slot in the central block or cover, C<sup>t</sup>, and engage with the ratchet upon the upper surface of the breech-block E, opposite the rear of the gun-barrel, a spring, f, secured to the upper part of the central block or cover, C<sup>t</sup>, serving to keep the end of said

arm F' down in contact with the ratchet. The inner end of the arm F is of a wedge or cam shape, which works beneath a small arm or lug, *g*, on a vertical rod, *h*, which is supported in slots in a cross-frame, G, and in the central block or cover, C', through which it works, a spring, *i*, upon the cross-frame G serving to depress the rod *h* down in the slot through the central block or cover, C', and the lower end of the said rod *h* being sharp or pointed for engagement with the ratchet upon the upper surface of the breech-block E nearest the rear of the gun-barrel.

Upon the back part of the side C', and rigidly secured thereto, is provided a downwardly-projecting frame, H, having a cross-arm, H', projecting over the same, as shown, and within which is journaled the driving-wheel I, having a suitable crank-handle, I', for operating the same, said wheel being provided with two inwardly-projecting angular flanges, I<sup>2</sup>, as shown. To the right of the wheel I is arranged the trigger J, which is pivoted at its center within a projection upon the side of the frame H, the bottom of said trigger being bent outwardly at right angles to its length to provide a short arm, *k*, upon which is journaled a friction-roller, *k'*. The upper end of the trigger J projects into an opening in the said frame H, and abuts against the firing-pin *l*, which may be of any suitable construction, a spring, *l'*, in the lower part of the frame H engaging with the lower portion of the trigger J to throw it outwardly at each operation of firing. To the left of the wheel I is provided an elongated and vertical spring-arm, K, which is secured at its lower end to the bottom of the frame H, while its upper end is provided with a wedge-shaped bolt, *m*, which projects through a slot in the said frame H, with one side abutting against the lower end of the upright *e'*, below the point where said upright is pivoted to the frame.

The gun-barrel D is surrounded by an inclosing jacket, D', of copper, brass, or other suitable material, the space between the two parts being adapted to be filled with water, and is provided with an exhaust-cock, *n*, beneath the muzzle of the gun, and a valve, *o*, at the breech of the same, the object being to keep the barrel cool during the operation of firing.

To the base of the vertical upright B' is provided a rigid cross-arm, L, upon each end of which are pivoted the one ends of the arms L' L', the opposite ends of said arms being pivoted to the lower ends of the two rods L<sup>2</sup> L<sup>2</sup>, the upper ends of which in turn are pivoted to a circular projection, M, beneath the muzzle of the gun. A cross-bar, N, is pivoted between the two rods L<sup>2</sup> L<sup>2</sup>, near their lower ends, and said cross-bar is provided with a circular screw-opening for the reception of the outer end of the screw-rod P, the inner end of which has its bearings in a bracket upon the side of the vertical upright B', and is provided with a suitable wheel, R, for turning said

screw-rod in reverse directions for either elevating or depressing the muzzle of the gun.

To the lower end of the upright B' is secured a cross-frame, S, which is provided with a lever, T, by means of which the gun, with its mechanism, is turned in any suitable direction, as may be required.

The construction of my invention being as above described, it will be observed that in the operation of the same the sliding breech-block E, having its chambers filled with cartridges, is first adjusted in the frame C upon the rollers *a*, with the end of the arm F' engaging with the ratchet *c* upon the outer upper surface of said breech-block. The wheel I is then turned by the crank I', causing one of the angular flanges I<sup>2</sup> to press the wedge-shaped bolt *m* on the upper end of the spring-arm K into the recess in the frame, and to force back the lower end of the upright *e'*, causing its upper end and the cross-arm *e''* to move forward, thereby operating the arm E', which pushes the breech-block inwardly, until a cartridge is brought into position at the rear of the breech of the gun and in true line therewith. Simultaneous with the movement of the arm F' the arm F also moves forward, its wedge-shaped end moving outwardly from beneath the lug *g*, and allowing the vertical rod *h* to descend and engage with the ratchet upon the inner upper surface of the breech-block to hold the same in place, aided by the spring *d* upon the upper surface of the slotted bottom C', until the cartridge is exploded. At the moment of the cartridge arriving in position at the breech of the gun the opposite angular flange I<sup>2</sup> on the wheel I operates the trigger J to explode said cartridge, which is no sooner accomplished than the trigger J and spring-arm K, having cleared the said angular flanges I<sup>2</sup> on the wheel I, resume their former positions, the arm *e''* being thrown back by the spring *s* upon the frame H, and the arms F' F' raising the vertical rod *h* and dropping into the next depression of the ratchet in respective order. The above operation is repeated at pleasure, causing a continuous and regular discharge of the cartridges as they are brought forward to the breech of the gun in consecutive order. Before the breech-block E has passed entirely through the frame C, a duplicate breech-block filled with cartridges can be inserted in the said frame directly in the rear of the first breech-block, and this operation being repeated an unremitting discharge of the gun may be kept up.

Having thus described my invention, what I claim as new and useful is—

1. In a machine-gun, the combination, with the single barrel D, having a surrounding jacket, D', provided with inlet and outlet connections, said jacket bearing against the frame C, and serving to support the barrel, of the frame C, the breech-block E, sliding horizontally therein, and mechanism for operating said breech-block and for discharging the cartridges as they are fed into position at the

breech of the gun, all substantially as shown and described.

2. In a machine-gun, the combination, with the barrel D, of the slotted frame C, having its bottom provided with a continuous series of anti-friction rollers, *a*, the breech-block reversely ratcheted on opposite sides of top and bottom, and supported on such rollers, together with suitable pawl mechanism, whereby the breech-block is moved endwise and the chambers brought into alignment with the barrel of the gun in proper sequence for firing, all substantially as shown and described.

3. In a machine-gun, the combination, with the frame C, having the horizontal sliding breech-block E and slotted cover C<sup>1</sup>, the uprights *e e'*, pivoted to the frame, and provided with cross-arm *e<sup>2</sup>*, of the arms F F', journaled at their outer ends on the arm *e<sup>2</sup>*, the inner end of the arm F' passed into the slot of the cover to engage the ratchet of the block, and the spring *f*, holding the arm in contact with the ratchet, and the arm F, having its inner end engaging the lug on the rod *h*, said arm pass-

ing through an opening in the cross-arm G, and the spring *i*, for depressing said rod, as shown and described.

4. In a machine-gun, the combination, with the cross-arm L upon the hinged upright B', and the frame C, mounted on said upright, and carrying the gun D, of the arms L' L', pivoted to the cross-arm, and the rods L<sup>2</sup> L<sup>2</sup>, pivoted to the end of the gun and to the arms L' L', and provided with cross-bar N, having the screw-rod P, as and for the purpose set forth.

5. The combination of the upright B', carrying the frames C and H and gun D, and provided with the circular base B, cross-frame S, and bar or lever T, with the tripod-shaped base A and flange A', substantially as and for the purpose specified.

In testimony whereof I affix my signature in presence of two witnesses.

CHARLES B. SCOTT.

Witnesses:

JOHN W. BELLES,  
J. H. ONERHULS.