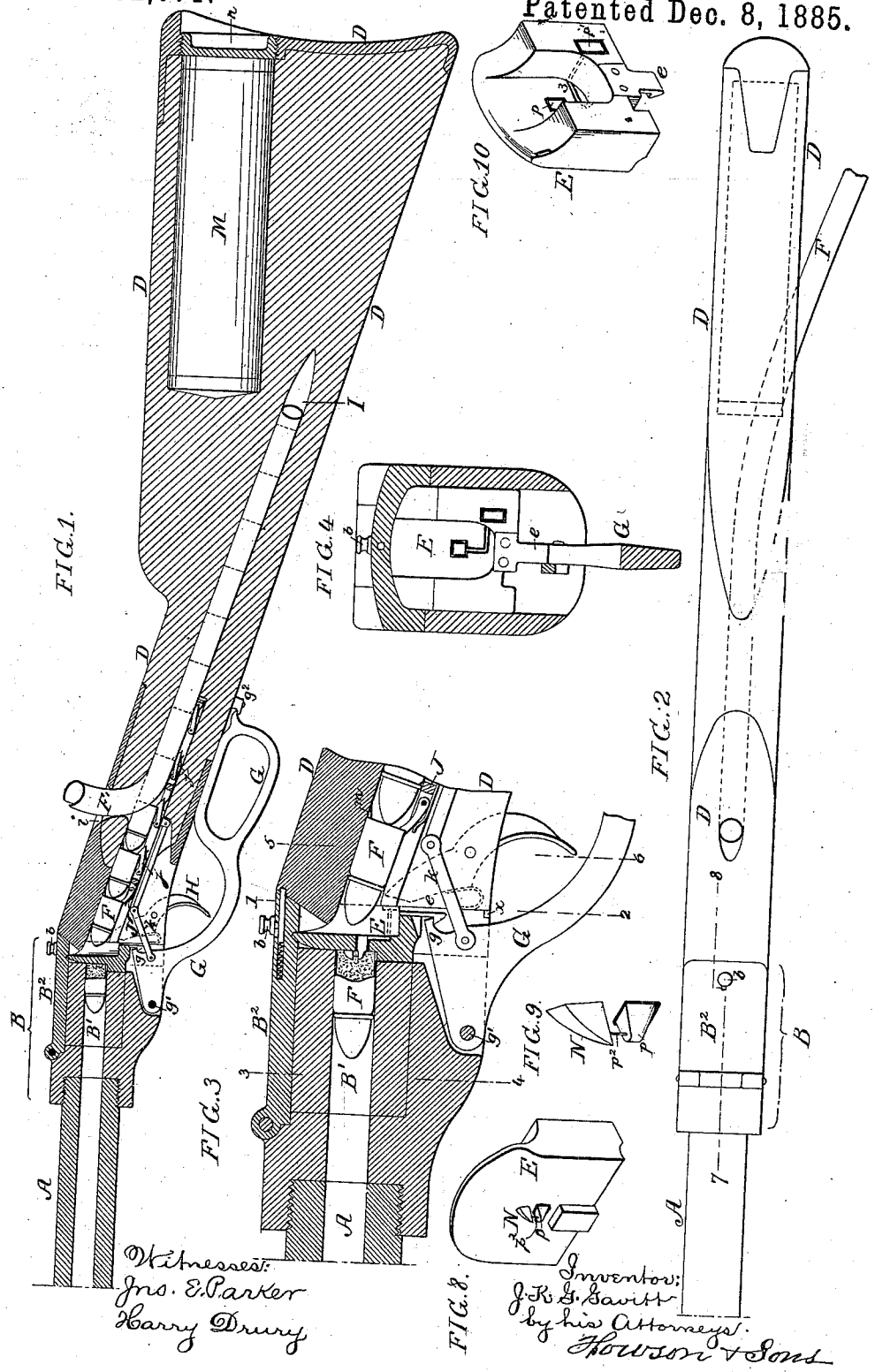
(No Model.)

2 Sheets—Sheet 1.

J. K. G. GAVITT.

ELECTRIC FIRE ARM.

No. 332,071. Patented Dec. 8, 1885.



Witnesses:
Jno. E. Parker
Harry Drury

Inventor:
J. K. G. Gavitt
by his Attorneys.
Howson & Sons

N. PETERS, Photo-Lithographer, Washington, D. C.

(No Model.)

J. K. G. GAVITT.

2 Sheets—Sheet 2.

ELECTRIC FIRE ARM.

No. 332,071.

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FIG. 7.

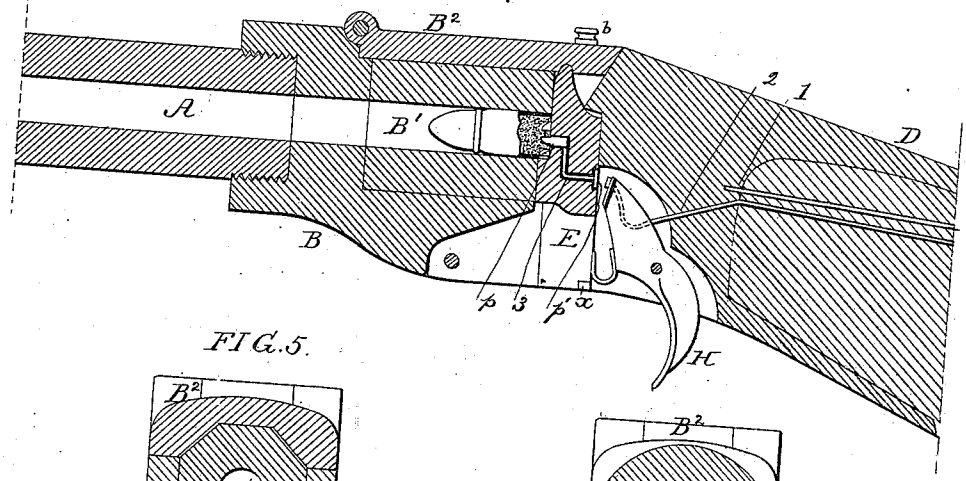
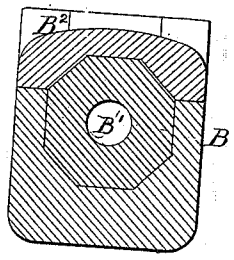


FIG. 5.



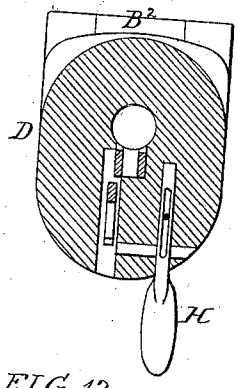


FIG. 6.

FIG. 11.

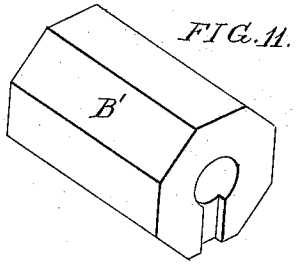
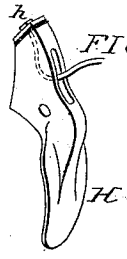


FIG. 12.



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UNITED STATES PATENT OFFICE.

JAMES K. G. GAVITT, OF PHILADELPHIA, PENNSYLVANIA.

ELECTRIC FIRE-ARM.

SPECIFICATION forming part of Letters Patent No. 332,071, dated December 8, 1885.

Application filed December 9, 1884. Serial No. 149,898. (No model.)

To all whom it may concern:

Be it known that I, JAMES K. G. GAVITT, a citizen of the United States, and a resident of Philadelphia, Pennsylvania, have invented certain Improvements in Fire-Arms, of which the following is a specification.

The main object of my invention is to construct a magazine fire-arm with improved electrical firing devices, as fully described and claimed hereinafter.

In the accompanying drawings I have shown my invention as applied to a magazine fire-arm in which the cartridges are fed in from the rear of the breech-block; but it will be understood that my improvements may be applied to other constructions of fire-arms without departing from my invention.

Figure 1 is a longitudinal section of my improved fire-arm. Fig. 2 is a plan view of the same. Fig. 3 is a longitudinal section at the breech, drawn to a larger scale. Fig. 4 is a transverse section on the line 1 2, Fig. 3. Fig. 5 is a transverse section on the line 3 4, Fig. 3. Fig. 6 is a transverse section on the line 5 6, Fig. 3. Fig. 7 is a longitudinal section on the line 7 8, Fig. 2. Fig. 8 is a perspective view of the sliding breech-plate detached. Fig. 9 is a perspective view, drawn to an enlarged scale, of the cartridge-cutting knife and firing-wire carried by the breech-plate. Fig. 10 is a perspective view of the rear of the breech-plate detached. Fig. 11 is a perspective view of the detachable breech. Fig. 12 is a perspective view of the circuit-closing trigger.

A is the barrel of the rifle; B, the frame of the breech, and D the stock. The frame of the breech is provided with a separable chamber, B′, Fig. 1, adapted to be inserted and withdrawn from above, and held to its seat, Fig. 5, by a hinged cover, B^2, having a spring-retaining latch, *b*, Fig. 3. Behind the breech is a vertically-sliding breech-plate, E, fitted in ways in the frame. When this block is depressed to its lowest position, as shown by dotted lines in Fig. 7, it allows of a cartridge, F, being inserted from behind into the breech-chamber B′ over the top of the block, and when the latter is raised to the position shown in Fig. 2 it closes the chamber B′ over the end of the inserted cartridge, Figs. 3 and 7. The breech-block is controlled by a lever, G, hinged at *g′* to the frame, and having a finger, *g*, adapted to engage with a hook, *e*, on the lower end of the breech-block E, Fig. 3, to draw the latter downward when the lever G is pulled outward upon its hinge until the plate E reaches the limit of its movement owing to the stops *x*. The finger *g* will then have become disengaged from the hook *e*, and the lever can continue its movement to complete the feeding operation, as hereinafter described. On returning the lever G to its closed position the breech-block will be pushed back to close the chamber, and the said lever, which also serves as a guard for the trigger H, may be provided with a suitable retainer, g^2, Fig. 1, to keep it closed.

In the drawings I have shown the cartridges F as contained in a continuous tube of paper or other suitable flexible material and passing into a conduit, I, formed in the stock of the gun. This conduit is of a size sufficient to allow of the free passage of the tube of cartridges, and having the entrance at one side of the stock near the butt, Fig. 2, while the termination of the conduit is immediately behind the breech-frame, in line with the bore of the fire-arm. A short distance behind the said frame is a branch outlet, *i*, for the escape of the covering-tube F′, which is severed longitudinally and sloughed off the cartridges, as indicated in the drawings. These devices, however, together with the feeding mechanism, form no part of my present invention. It will therefore suffice to say that the feeding mechanism may consist of a sliding plate, J, adapted to ways in the bottom of the front end of the cartridge-conduit, and carrying a series of spring disks or pawls, *j*, projecting upward and about the length of a cartridge apart, so that they will engage with the rear ends of the cartridges, as indicated in Fig. 1. This sliding plate is connected by links *k* to the lever G, so that when the latter is turned on its pivot to draw the breech-block downward the feed-plate will be drawn forward toward the breech to push or pull forward the line of cartridges and introduce the front cartridge into the breech, while on the backward movement of the feed-plate the pawls will slip past the cartridges, and as the upper end of the breech-block is beveled it will push the partly-introduced cartridge

into the breech-chamber. Retaining-pawls may be provided on the upper side of the cartridge-conduit *i* to prevent back movement of the cartridges when the feed-plate J is returned.

In order to sever the tubular envelope of cartridges, I prefer to provide a cutter on the end of the sliding plate J; but this, as with all the feeding devices, forms no part of my present invention, which relates more particularly to the means of firing the cartridges by electricity. For this purpose I mount the igniting points or wire on the sliding breech-block, while the battery is suitably mounted in the stock of the gun, as shown in Fig. 1, the chamber containing the battery being closed by a cap, *n*. When the battery is inserted in place, one of the poles is in electrical connection through a conductor, 1, with the metallic breech, and so with the body of the sliding breech-block, while the other pole of the battery is in connection through an insulated conductor, 2, with an insulated contact-point, *h*, on the trigger H.

On the rear of the sliding breech-block E, immediately opposite the contact on the trigger, (when the breech-block is closed,) is an insulated contact, *p'*, which is connected through an insulated conductor, 3, with an insulated plug, *p*, projecting beyond the front of the breech-block. To the latter, above the projecting portion of this plug *p*, is secured a nose, N, having its upper inclined edge a cutter, so that when a cartridge has been inserted in the breech-chamber, and the block E is pushed into place, the cutter N will cut into the end of the cartridge, as shown in Figs. 3 and 7, and the igniting-points or incandescing-wire p^2 between the nose N and plug *p*, Fig. 9, will occupy a position in the midst of the powder in the cartridge, and when the circuit is completed by pressing on the trigger N the powder will be ignited and the fire-arm discharged. It can then be instantly reloaded by simply pulling the lever G outward and closing it again, as will be readily understood from the foregoing description.

I claim as my invention—

1. The combination of the stock and breech-chamber of a magazine-gun and an electric battery carried thereby with a sliding breech-block carrying the igniting points or wire to come into contact with the explosive charge of each cartridge, and a circuit-closing trigger, substantially as set forth.

2. The combination of the stock and breech-chamber of a magazine fire-arm and battery carried thereby with a circuit-closing trigger, and a sliding breech-block carrying on its face a cutter to make an incision in the end of the cartridge, and having behind said cutter the igniting points or wire, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

JAMES K. G. GAVITT.

Witnesses:

JOHN M. CLAYTON,

HARRY SMITH.