No. 791,411. PATENTED MAY 30, 1905.

C. FREEMAN.

MAGAZINE FIREARM.

APPLICATION FILED MAY 23, 1904.

3 SHEETS—SHEET 1.

Fig. 1.

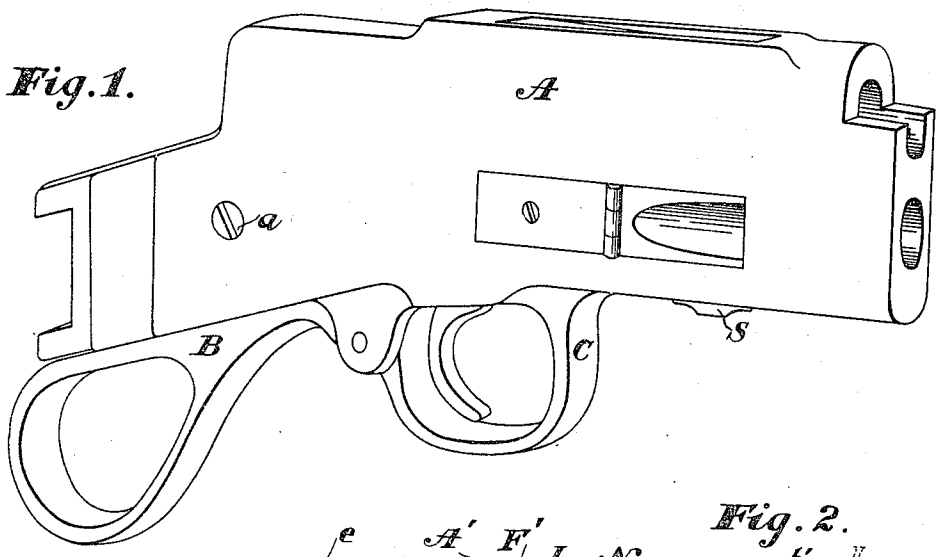


Fig. 2.

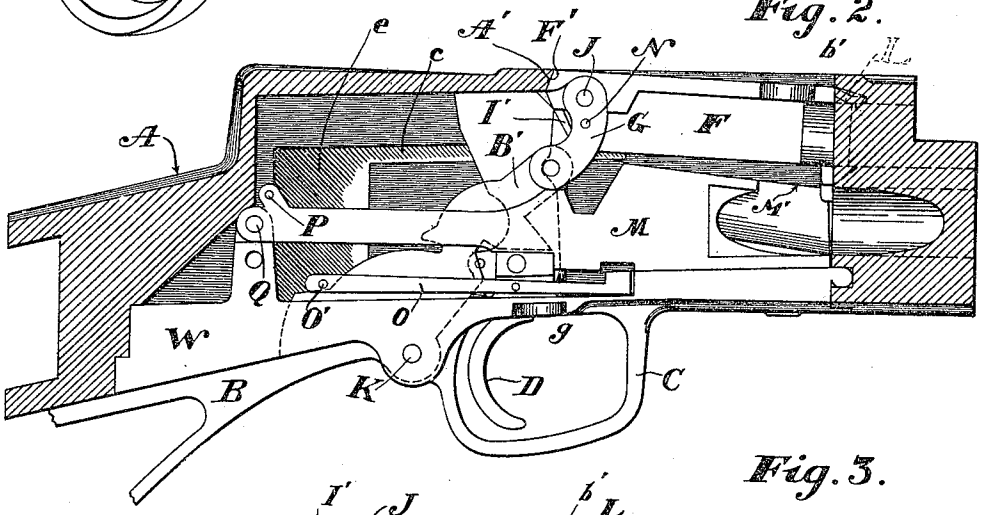
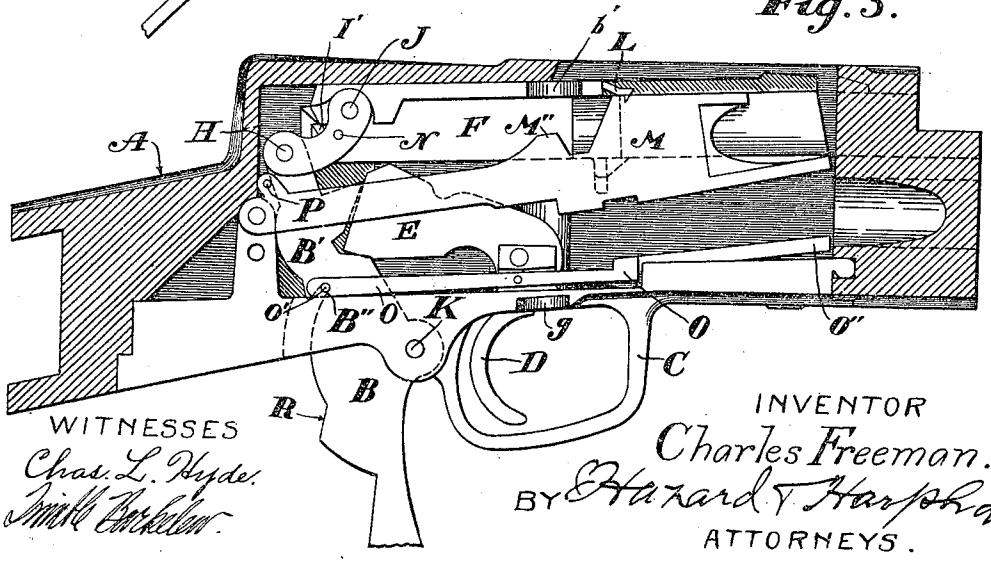


Fig. 3.



WITNESSES

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3 SHEETS—SHEET 2.

Fig. 4.

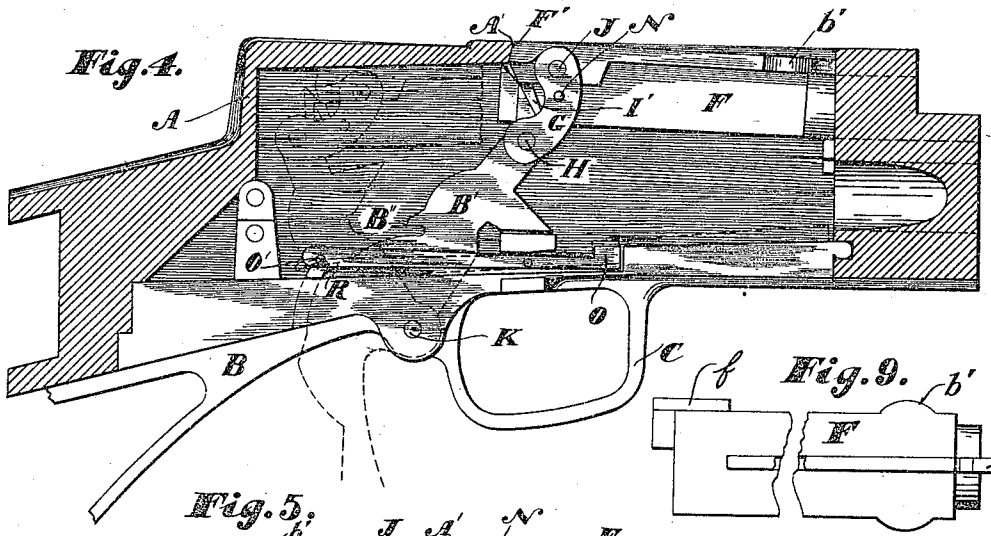


Fig. 9.

Fig. 5.

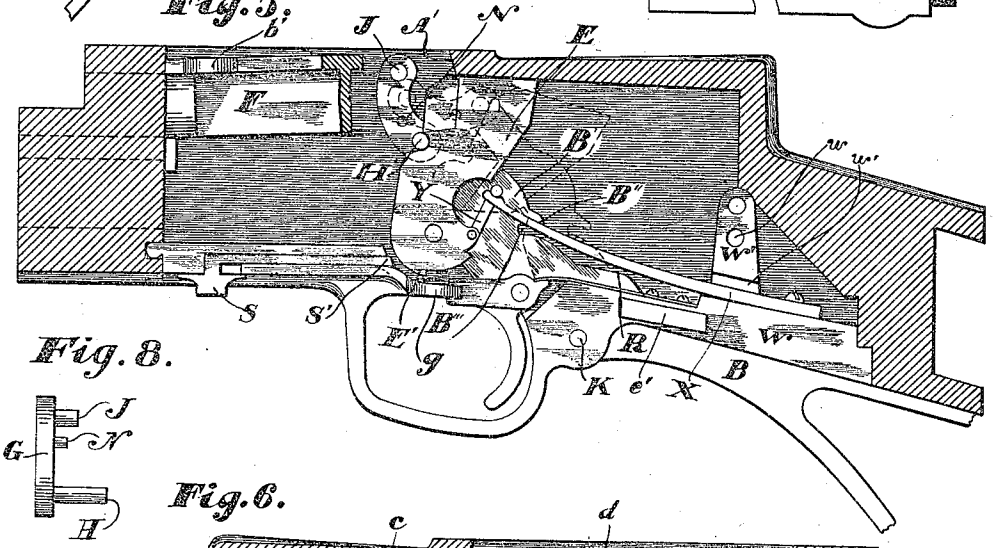


Fig. 8.

Fig. 6.

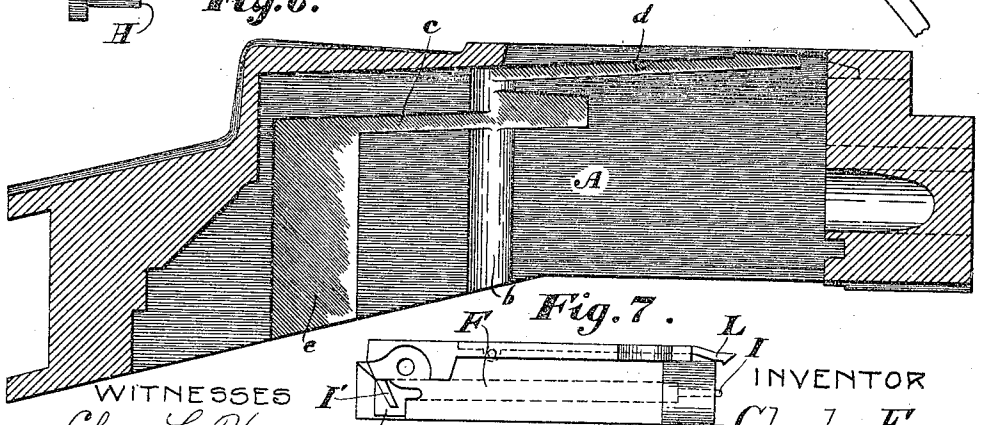


Fig. 7.

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3 SHEETS—SHEET 3.

Fig. 10.

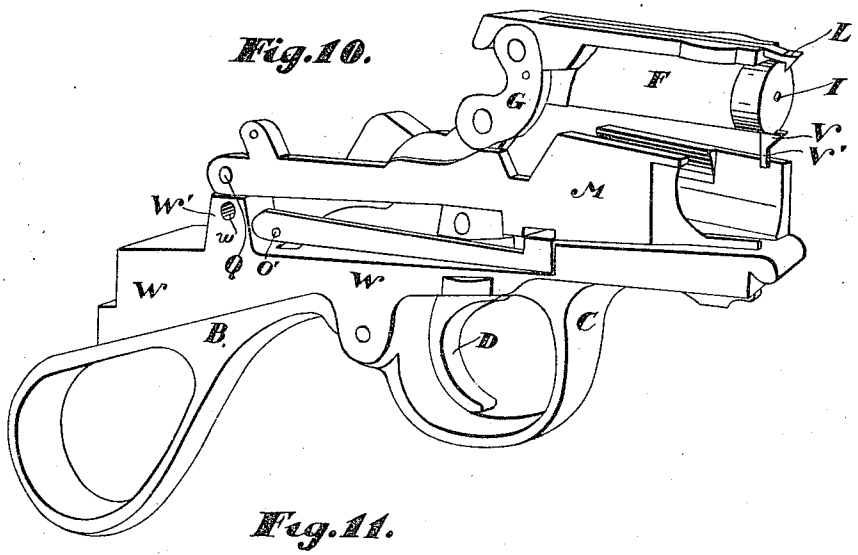


Fig. 11.

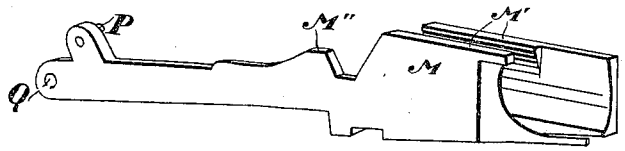


Fig. 12.

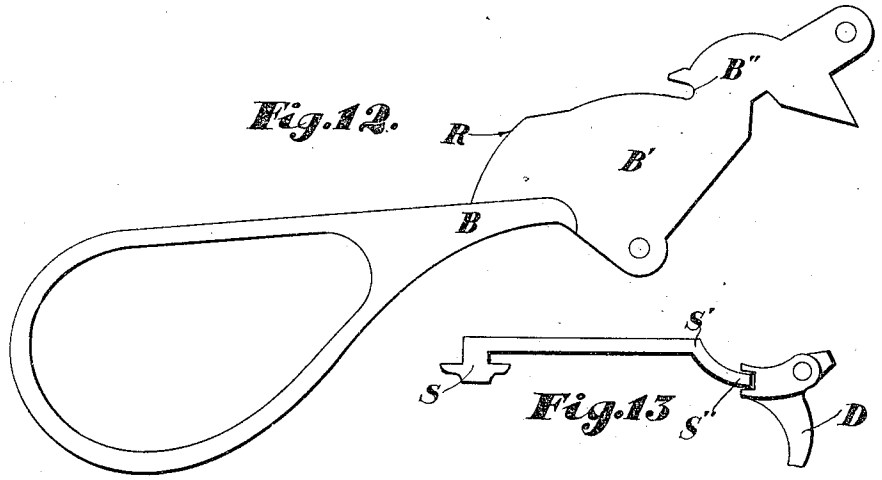


Fig. 13

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No. 791,411. Patented May 30, 1905.

UNITED STATES PATENT OFFICE.

CHARLES FREEMAN, OF SAN DIEGO, CALIFORNIA.

MAGAZINE-FIREARM.

SPECIFICATION forming part of Letters Patent No. 791,411, dated May 30, 1905.

Application filed May 23, 1904. Serial No. 209,353.

To all whom it may concern:

Be it known that I, CHARLES FREEMAN, a citizen of the United States, residing at San Diego, in the county of San Diego and State of California, have invented new and useful Improvements in Magazine-Firearms, of which the following is a specification.

It is of the objects of my invention to simplify the mechanism of a magazine-firearm, to do away with an unnecessary number of parts, and to impart great strength thereto, and to so construct these parts that they will act with certainty and smoothness and will prevent unnecessary accidents due to the hammer coming in contact with the firing-pin before the parts are entirely closed and locked. I accomplish these objects by means of the device described herein and shown in the accompanying drawings, in which—

Figure 1 is an elevation in perspective of the casing of the operative parts of my improved repeating firearm. Fig. 2 is a longitudinal section of the part shown in Fig. 1, showing the internal mechanism of the arm in its closed or locked position. Fig. 3 is a longitudinal section showing the internal mechanism, taken on the same side of that shown in Fig. 2, the parts being in the open or unlocked position. Fig. 4 is a longitudinal section showing the connection between the lever and the breech-block, the block being shown closed in full lines and shown in its open position in dotted lines. Fig. 5 is a longitudinal section showing the connecting-link G in full lines when the breech is closed and showing its position in dotted lines immediately after it commences to open the breech-block. Fig. 6 is a longitudinal section of the frame constructed of suitable metal and shows the internal grooves therein adapted to receive and lock the internal mechanism of the firearm in place therein. Fig. 7 is a side elevation of the breech-block, the firing-pin being shown in dotted lines therein. Fig. 8 is an edgewise view of the connecting-link G between the trigger-guard and the breech-block. Fig. 9 is a plan, partly broken away, of the breech-block. Fig. 10 is a perspective view of the working parts mounted on the trigger-plate. Fig. 11 is a perspective view of the cartridge-carrier. Fig. 12 is an elevation of the operating-lever. Fig. 13 is a detailed view of the safety-block and trigger, showing the manner in which the trigger-engaging finger on the safety-block engages and holds the trigger in the locked position, while the block will hold the hammer in the cocked position.

In the drawings, A represents the frame of my repeating firearm; B, the lever thereof, the oscillation of which operates the working parts; C, the trigger-guard; D, the trigger; E, the hammer; F, the movable breech-block; G, the connecting-link between the extension B′ on the lever B and the breech-block F. The different positions assumed by this connecting-link are shown in Figs. 3, 4, and 5, and it is so connected pivotally between these parts that the initial downward movement of the lever B will throw the connecting-link into the position shown in dotted lines in Fig. 5. This will operate to throw the abutment F′ on the breech-block down and out of line with the corresponding abutment A′ of the frame.

In the operation of my firearm after a cartridge has been discharged in the barrel the parts are in the position shown in Figs. 1 and 2. To reload the barrel for another shot, the lever B is then grasped and thrown forward into the position shown in Fig. 3. This will throw the lower end of the link G, connecting the lever and breech-block F, backwardly, bringing the pivot H, which connects the link with the lever B, (the projecting end of which forms a lug or shoulder for engagement with the hammer,) in contact with the hammer E, and withdraws the hammer from contact with the firing-pin I. (See Fig. 5.) At the same time the pivot H will move backward of a line between the pivot J on the breech-block and the pivot K on the frame, which will unlock the breech-block, permitting a downward movement thereof. Further movement of the lever will lower the breech-block from contact with the locking-shoulder A′ of the frame and draw it backwardly, bringing with it the empty cartridge-shell from the barrel in the grasp of the extractor L and the shell-engaging lug V on the forward end of the

breech-block, allowing a loaded cartridge to follow it from the tubular magazine (not shown) into a cartridge-carrier M, slightly retracting the firing-pin I through the medium of a stud N on the link G, which engages a lug I′ on the firing-pin. (See Figs. 2 and 3.) Projecting downwardly from the shell-engaging lug V is the detent V′, which prevents the entrance of a cartridge into the carrier when the breech-block is in the closed position, as shown in Figs. 2, 4, and 5, but will permit a cartridge to follow the rearward movement of the breech-block and pass into the carrier when the breech-block is in its retracted position. This detent will contact with the frame when the breech-block is in its forward position and limit the movement forward of the block, causing it to turn on this point as a pivot. A recessed shoulder B″ on the lever will contact with a stud O′ on the cartridge-stop O and throw the front end of the stop into its elevated position, as shown in Fig. 3. Before the lever in its backward movement moves to a final stop it will contact with a stud or shoulder P on the rear end of the cartridge-carrier above the pivot Q of the carrier, which will cause the front end of the carrier, containing a cartridge, to be thrown suddenly upward into line with the barrel and breech-block, as shown in Fig. 3, the top of the carrier striking the extracted shell a quick sharp blow, which will eject it from the arm. Reversing the movement of the lever will cause the breech-block to move forward through the cartridge-retaining lips M′ of the carrier, pushing the loaded cartridge before it into the barrel. The link will come in contact with a shoulder M″ on the carrier and force it down into the position shown in Fig. 2, the breech-block continuing its forward movement till stopped by the front end of the block striking the frame. Further movement of the lever forces forward the lower end of the link G, which raises the rear end of the breech-block to its seat against the locking-shoulder A′ in the frame. A shoulder R on the lever coming in contact with a stud O′ on the rear end of the cartridge-stop lowers the front end O″ thereof, and finally the pivot connecting the lever and link passes beyond the straight line from the pivot in the breech-block to the lever-pivot in the frame, and the forward movement of the lever being stopped by contact with the frame the breech-block is locked against downward movement and held firmly in place, the shoulder F′ of the block resting against the locking-shoulder A′ of the frame, and the arm is ready to fire.

The cartridge-stop is simple and is positively operated and allows the use of cartridges of varying lengths and prevents any jump whatever in cartridges when entering the carrier from the magazine.

The detachable trigger-plate when the arm is assembled is immovably fixed in the frame of which it then forms a part.

The breech-block is locked in its raised or closed position against downward movement by a very simple and effective arrangement of the operating parts. The use of the link as a double lever to raise and lower the rear end of the breech-block and also to move it back and forth permits of very smooth action and also the use of sharp corners on both the locking-shoulders of the frame and breech-block.

The parts are very few and strong and mounted on the detachable trigger-plate and can be disassembled and reassembled in a few seconds.

The cartridge-carrier is so formed as to admit the entrance and escape of the cartridge only in the direction of its length, which when the carrier is in its raised position lies directly in the path of the breech-block and in line with the barrel. Thus the cartridge can never jam or get out of line during the operation of loading, no matter in what position the arm is held. The breech-block is so formed as to enter the carrier behind the cartridge and passing through the carrier forces the cartridge into the cartridge-chamber in the barrel, at the same time retaining great strength and entirely closing the opening in top of frame. I have provided a manually-operated safety-lock S, the thumb-piece of which projects below the frame. (See Fig. 5.) The hammer-engaging extension S′ is adapted when pushed rearwardly (the hammer being in the cocked position) to engage the shoulder E′ on the hammer and prevent the hammer from striking. There is on this extension a trigger-engaging finger S″, Fig. 13, which projects down and into a recess on the trigger when pushed rearwardly and locks the trigger against movement while the finger is in place in the recess therein. The safety-lock can only be pushed backwardly into the locked position when the hammer is in the cocked position. The safety-lock also acts as an indicator to tell whether the hammer is in its fired or cocked position, the safety being immovable if the hammer is down and in the fired position and having a lateral movement if the hammer is up and in the cocked position.

The upwardly-projecting member W′ on the trigger-plate W, Fig. 5, has a transverse opening *w* for the reception of the trigger-plate-securing screw *a*, which detachably holds the trigger-plate in position in the frame A. This upwardly-projecting member W′ is provided with a spring-engaging shoulder *w*″, adapted to engage and hold the mainspring X after the hammer (to which it is secured through the stirrup Y) moves forwardly beyond its normal fired position. This shoulder will limit the movement and hold the spring in place when the trigger-plate is removed from the frame in the act of disassembling and in assembling the parts.

In Fig. 6 I have shown a longitudinal section of the frame for the purpose of showing the vertical or dismounting grooves *e* and *b* in the side thereof and the longitudinal grooves *c* and *d*. The longitudinal grooves form guideways in which the lugs *b'* and *f*, Fig. 9, are supported in the backward-and-forward movement of the block, and the vertical grooves give clearance for the downward passage of the lugs when the bolt has been pushed back beyond its normal position in the act of dismounting the parts.

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

1. In a repeating firearm, a frame having an opening on top for a part of its length, the frame at the rear end of said opening forming a shoulder; a breech-block having a vertical swinging and also a reciprocating movement mounted in said frame and arranged to swing into and out of engagement with the shoulder on said frame and to reciprocate therein; an operating-lever pivoted in said frame; a pivoted link connecting the rear end of said breech-block and the inner end of said lever.

2. In a repeating firearm, a frame, a breech-block workably mounted therein, a firing-pin in said breech-block having a longitudinal movement therein; a spring-actuated hammer pivotally mounted in said frame and adapted to engage the firing-pin when released, a breech-operating lever pivotally mounted in the frame, a connecting-link workably uniting the lever and breech-block and having a pin or shoulder extending in front of the hammer and adapted to retract the hammer when in its released position on the movement of the parts and arranged to prevent the contact of the hammer with the firing-pin except when the parts are in their entirely-closed position.

3. In a repeating firearm, a frame having a shoulder a breech-block having a swinging and reciprocating movement therein, the rear end thereof adapted to engage said shoulder when the breech-block is in its closed position; a lever pivotedly mounted in said frame and having a limited forward movement; a link pivoted to the rear end of the breech-block and to the inner end of said lever, said link and lever locking the breech-block in its raised position in engagement with the frame.

4. In a repeating firearm, a frame, a breech-block having a swinging and reciprocating movement therein, a firing-pin in said breech-block, a spring-controlled hammer pivoted in said frame and adapted to engage the firing-pin when released, a lever pivoted in said frame, a connecting-link uniting the breech-block and lever and having pins or shoulders thereon, one of said pins adapted to contact with and retract the hammer on the first opening movements of the parts and the other pin adapted to contact with and retract the firing-pin, said pins retracting both firing-pin and hammer on the forward stroke of the lever and preventing their engagement until the parts are fully closed.

In witness that I claim the foregoing I have hereunto subscribed my name this 14th day of May, 1904.

CHARLES FREEMAN.

Witnesses:
GEORGE N. HITCHCOCK,
S. W. SWITZER.