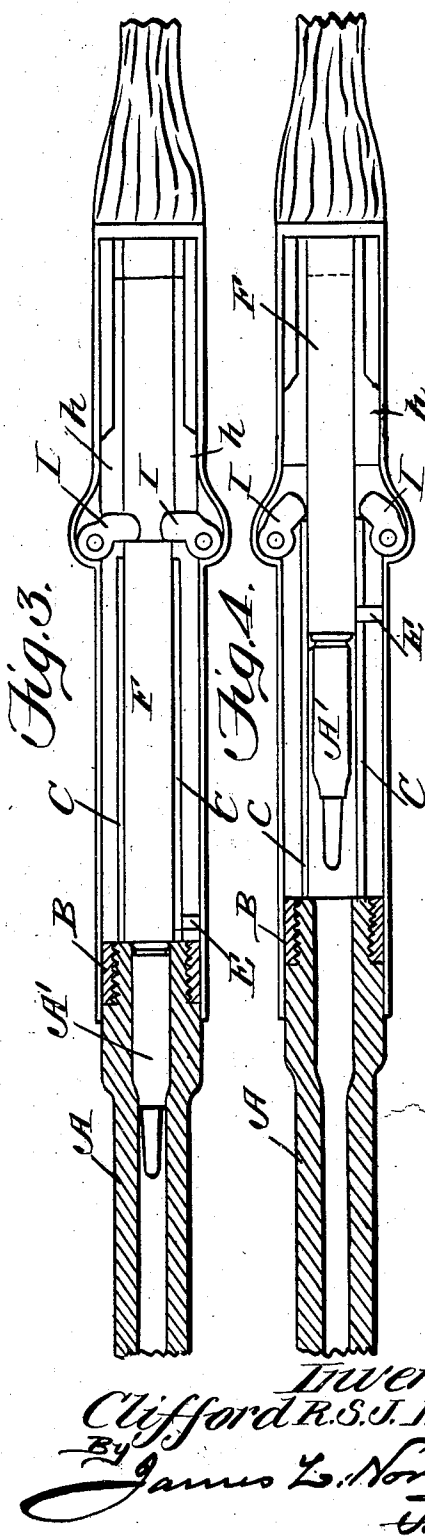
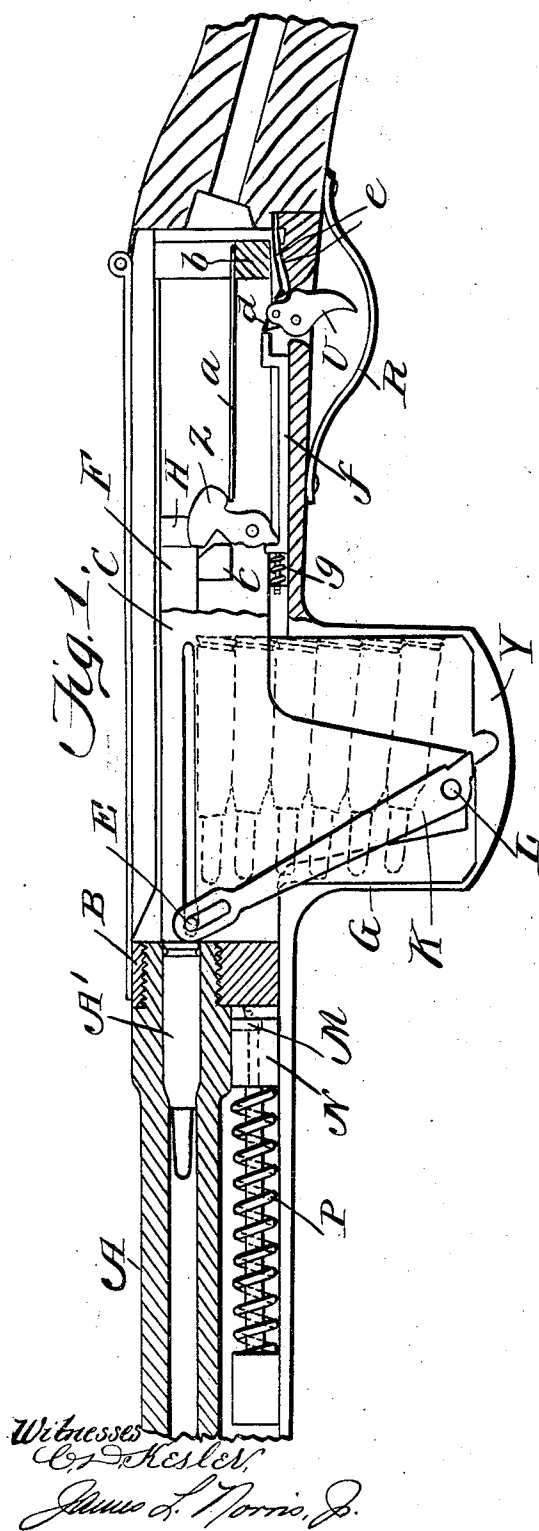


C. R. S. J. HALLÉ.
AUTOMATIC FIREARM.
APPLICATION FILED JAN. 21, 1902.

NO MODEL.

3 SHEETS—SHEET 1.



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3 SHEETS—SHEET 2.

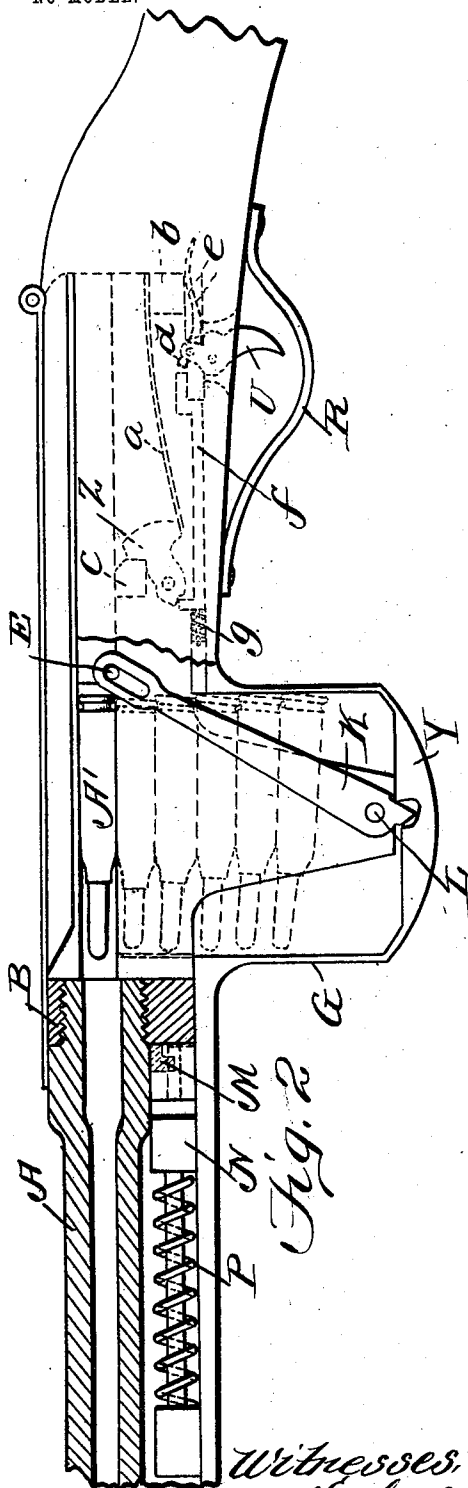
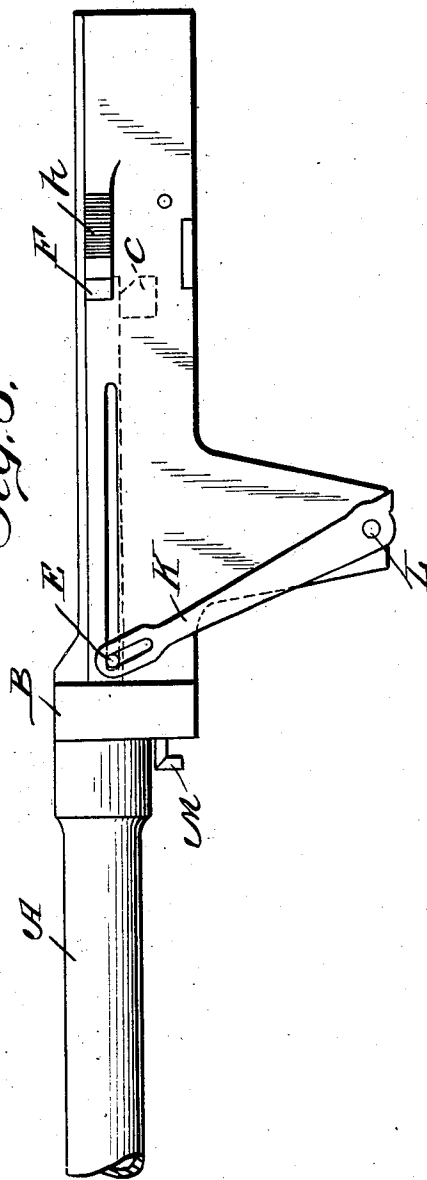


Fig. 2

Witnesses:
C. S. Hester
James L. Norris Jr.

Fig. 5.



Inventor
Clifford R. S. J. Hallé
By James L. Norris
Att'y

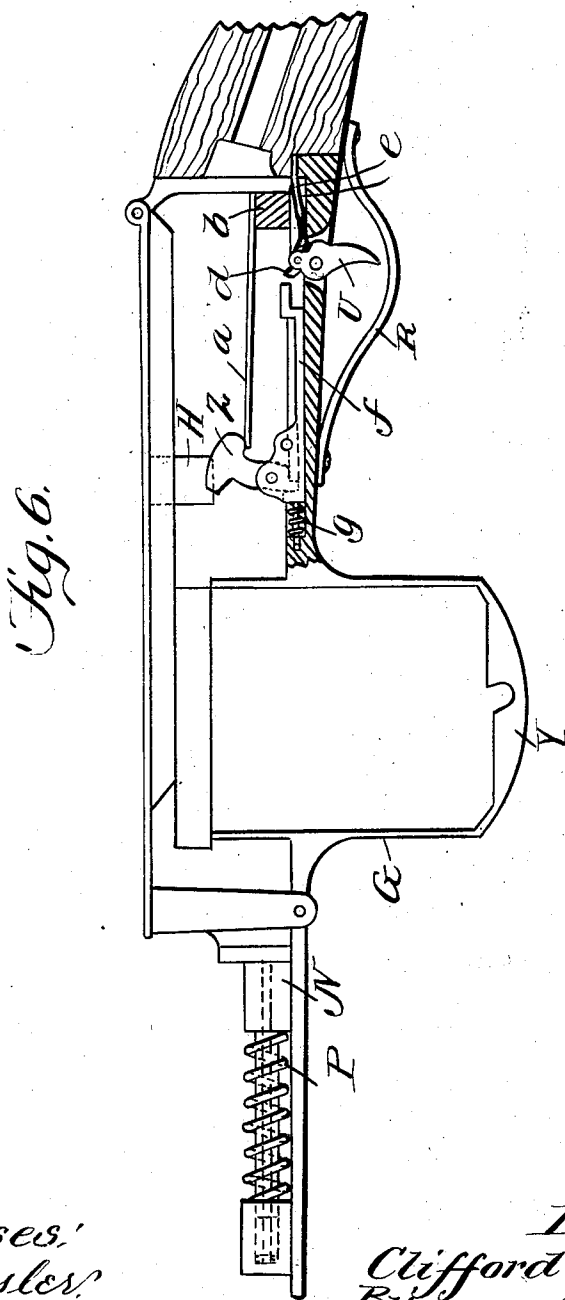
No. 753,700.

PATENTED MAR. 1, 1904.

C. R. S. J. HALLÉ.
AUTOMATIC FIREARM.
APPLICATION FILED JAN. 21, 1902.

NO MODEL.

3 SHEETS—SHEET 3.



Witnesses:
C. S. Kessler
James L. Norris, Jr.

Inventor
Clifford R. S. J. Hallé
By
James L. Norris
Atty.

UNITED STATES PATENT OFFICE.

CLIFFORD ROBERT STEPHEN JOHN HALLÉ, OF LONDON, ENGLAND,
 ASSIGNOR TO THE HALLÉ AUTOMATIC FIRE ARMS SYNDICATE,
 LIMITED, OF LONDON, ENGLAND, A CORPORATION.

AUTOMATIC FIREARM.

SPECIFICATION forming part of Letters Patent No. 753,700, dated March 1, 1904.

Application filed January 21, 1902. Serial No. 90,721. (No model.)

To all whom it may concern:

Be it known that I, CLIFFORD ROBERT STEPHEN JOHN HALLÉ, a subject of the King of Great Britain, residing at 19 Campden House road, Kensington, London, England, have invented certain new and useful Improvements in Automatic Firearms, of which the following is a specification.

This invention relates to certain new and useful improvements in automatic firearms; and the object thereof is to utilize the recoil of a firearm for the purpose of recocking the gun, extracting and drawing out the empty shell, and placing a new cartridge in position, thereby causing the gun to be in readiness for firing.

To this end the invention consists of the novel combination and arrangement of parts hereinafter more fully specifically described, illustrated in the accompanying drawings, and particularly pointed out in the claims hereunto appended.

In the accompanying drawings, forming a part of this specification, the same reference characters denote corresponding parts throughout the several views, and in which—

Figure 1 shows an elevation, partly in section, of a firearm with the regulating-lever in its forward position. Fig. 2 is a view similar to Fig. 1 with the lever thrown in the opposite direction. Figs. 3 and 4 are longitudinal horizontal sections corresponding to Figs. 1 and 2, respectively. Fig. 5 is a side elevation of a barrel and barrel extension. Fig. 6 is a side elevation of a magazine, the stock, and the firing mechanism.

Referring to the drawings by reference characters, A denotes the barrel of the firearm, within which is adapted to be placed a cartridge A' in position for firing, and B denotes the barrel-block, into which the barrel A is secured. The reference character C indicates the barrel extension, which consists of two sides and a lid. The barrel extension C is suitably cut away on one side of the breech-bolt F sufficient to allow a cartridge to be thrown out, and the barrel extension is further cut away to permit of the passage of the pin E, carried by the breech-bolt F. The lat-

ter otherwise passes between the two sides of the barrel extension C and slides therein on 50 blocks or ribs in the rear thereof. When the breech-bolt is in its forward position, it slides on the top of the magazine of the firearm. The barrel extension C is further provided with two openings H, formed in the sides 55 thereof, and through which extend the supports I I for the breech-bolt. (See Figs. 3 and 4.) The barrel extension C is also provided at one side with a depending projection, to which is pivoted, as at L, the regulating-lever 60 K. At the forward end of the barrel extension C a hook M is provided, and said hook is connected to a plunger N, serving to compress the recoil-spring P, carried by the frame of the firearm. The barrel extension is placed in 65 position by elevating the lid T of the fixed portion of the firearm. The lid is then closed and fastened, and the firearm is then ready for use. The sides of the barrel extension C pass over the magazine G, the trigger U, and also 70 the hammer mechanism.

The reference character R denotes the trigger-guard.

The depending projection of the barrel extension when in position lies alongside the 75 magazine-wall. (See Fig. 9.)

The frame of the firearm is provided with an actuating-block Y for the lever K.

Within the frame of the firearm is arranged the hammer Z, actuated by a spring *a*, which 80 is suitably connected to a block *b*. The hammer Z is cocked by means of a block *c* in the barrel extension C and is pivoted on two lugs which rise from the bottom of the frame sufficiently close together to allow the sides of 85 the barrel extension to pass over.

The trigger U has a short lever *d* pivoted to it. The trigger and lever are actuated by the double spring *e*. The lever of the trigger engages with the end of a sliding bar *f*, the 90 upturned end of which forms the sear for the hammer. The bar *f* is pressed backward by a small spiral spring *g*, which presses against a block into which the pin that the spring is on passes. When the trigger is pulled, the 95 bar *f* is pushed forward until the hammer is

released, and then the lever *d* trips from the bar *f*, so that the firearm cannot be fired again until the finger is taken off the trigger, when the lever *d* trips back again behind the sliding bar *f*.

The breech-bolt supports I are held firmly in place by the thickening *h* of the walls of the barrel extension C, and the supports I are pivoted to blocks which project from the sides of the firearm, and when held before the thick walls of the barrel extension C hold the bolt so firmly that the barrel extension must break before the bolt can be moved back therein. When the firearm is fired, the recoil pushes the bolt F back, the bolt presses against the breech-bolt supports I, and these force the barrel extension back, dragging the barrel therewith. The breech-bolt supports I swing open, and when the barrel extension and barrel have recoiled the required distance—about .200 or one-fourth inch—the breech-bolt supports I are sufficiently open to allow the bolt F to pass. On the return of the barrel and barrel extension the sides *h* of the latter close up the breech-bolt supports I when they reach them, which they do directly the bolt is home again. The operation of the firearm is so timed that directly when the breech-bolt supports I open the bottom end of the regulating-lever K comes into contact with the actuating-block Y, the flat end of the lever having glided along the lower portion of the block until it is over the recess. The regulating-lever now turns. If the movement of the bolt F is faster than necessary, it is checked by the front of the lever touching the front of the slot. If it does not travel quickly enough, the rear end of the slot or cup comes in contact with the rear of the lever and accelerates its motion. By strengthening the recoil-spring the bolt can be arrested at any part of its travel. When the barrel extension is drawn back again by the recoil-spring, the lever closes the bolt in exactly the same manner as it was opened. The lever K must be free to operate almost immediately when the breech-bolt supports I are open, or there is a chance of a jam in the case of a loose cartridge, for in that case the momentum of the bolt tends to force the lever round. The breech-bolt supports close at the same point of the travel of the barrel at which they open, and so it is essential that the bolt should also do so.

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

1. A firearm comprising a frame provided with a block having a recess, with one wall of said recess of greater height than the other, a lever having an angular projection adapted to engage and have its movement effected by the walls of said recess, a movable barrel extension having a depending projection pivoted to the lower end of said lever, a breech-bolt arranged in the extension and suitably con-

nected to the upper end of said lever, said lever adapted to effect the movement of said bolt, and means for returning the barrel extension to its normal position.

2. A firearm comprising a frame provided with a block having a recess, with one wall of said recess of greater height than the other, a lever having an angular projection adapted to engage and have its movement effected by the walls of said recess, a movable barrel extension having a depending projection pivoted to the lower end of said lever, a breech-bolt arranged in the extension and suitably connected to the upper end of said lever, said lever adapted to effect the movement of said bolt, means for returning the barrel extension to its normal position, and means for retaining said bolt in its normal position.

3. A firearm comprising a movable barrel, a barrel extension connected thereto and movable therewith, means for returning said barrel and extension to their normal positions, a breech-bolt adapted to be moved by the recoil of the barrel, a lever pivoted at its lower end to the barrel extension and at its upper end connected with the bolt for effecting the backward or recoil movement of the bolt, means engaging the lower end of said lever for suitably actuating it, and a pair of locking-blocks pivoted to the frame of the firearm and adapted to retain the bolt in its normal position.

4. A firearm comprising a movable barrel extension, means for returning said extension to its normal position and adapted to be moved by the recoil thereof, means arranged at one side of the extension, connected thereto and to said bolt and adapted to effect the backward or recoil movement of the bolt, and a pair of locking-blocks pivoted to the frame of the firearm for retaining the bolt in its normal position.

5. A firearm comprising a frame provided with a block having a recess, with one wall of said recess of greater height than the other, a movable barrel extension having a depending projection, a lever having an angular projection adapted to engage and have its movement effected by the walls of said recess, said lever pivoted at its lower end to the said depending projection of the barrel extension, a breech-bolt arranged in the extension and suitably connected to the upper end of said lever, said lever adapted to effect the movement of said bolt, and a spring for returning the barrel extension to its normal position.

6. A firearm comprising a frame provided with a block having a recess, with one wall of said recess of greater height than the other, a movable barrel extension having a depending projection, a lever having an angular projection adapted to engage and have its movement effected by the walls of said recess, said lever pivoted at its lower end to the said depending projection of the barrel extension, a breech-bolt arranged in the extension and suitably

connected to the upper end of said lever, said lever adapted to effect the movement of said bolt, a spring for returning the barrel extension to its normal position, and a pair of locking-blocks pivoted to the frame of the firearm and adapted to lock the bolt in its normal position.

7. A firearm comprising a movable barrel extension, a breech-bolt arranged in the extension and adapted to be moved by the recoil thereof, a lever provided with an angular projection and pivoted to the barrel extension and having its upper end provided with a slot, a pin carried by the bolt and extending through the slot of the lever for connecting the bolt to the lever, said lever adapted to effect the movement of said bolt, means carried by the frame of the firearm and adapted to be engaged by the angular projection of the lever for actuating the latter, and a pair of locking-blocks pivoted to the frame of the firearm and adapted to lock the bolt in its normal position.

8. A firearm comprising a movable barrel extension provided with a depending projection, a movable lever having an angular projection and pivoted near its lower end to the lower end of said depending projection, means carried by the frame of the firearm and adapted to be engaged by the angular projection of the lever for effecting the movement thereof, a bolt mounted in said extension and connected with said lever, said lever adapted to effect the backward or recoil movement of said bolt, and a pair of locking-blocks pivoted to the frame of the firearm and adapted to retain said bolt in its normal position.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

CLIFFORD ROBERT STEPHEN JOHN HALLÉ

Witnesses:

PERCY E. MATTOCKS,
WM. O. BROWN.