No. 844,671. PATENTED FEB. 19, 1907.

J. L. GARNER.

REVOLVER.

APPLICATION FILED MAY 2, 1904.

Fig. 1.

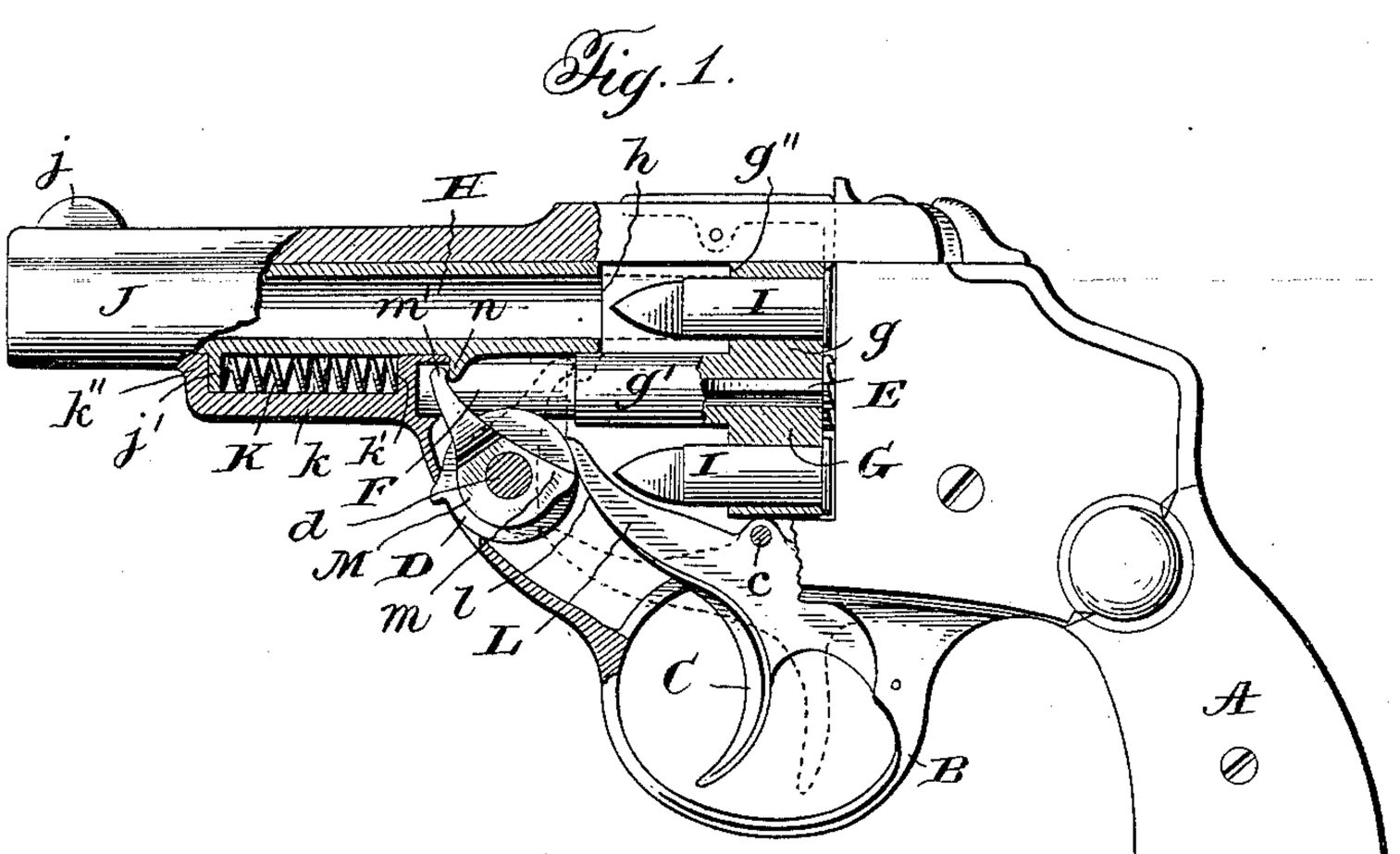


Fig. 2.

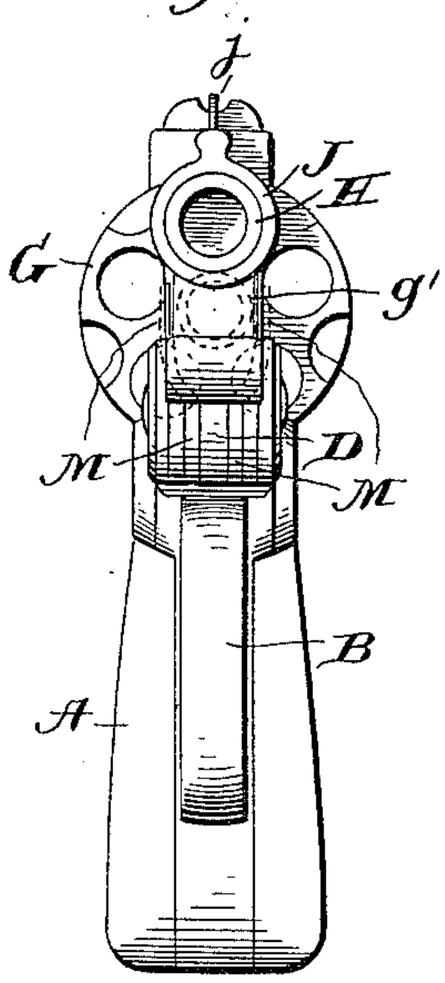


Fig. 3.

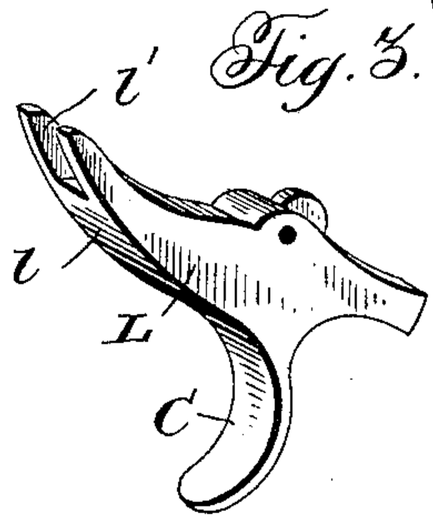


Fig. 4.

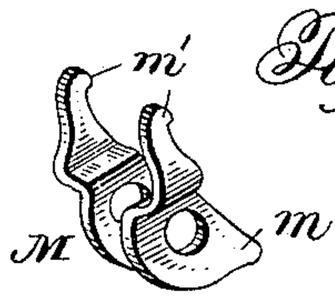
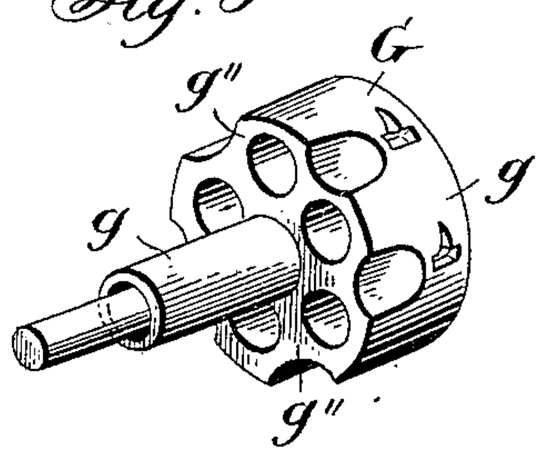


Fig. 5



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UNITED STATES PATENT OFFICE.

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REVOLVER.

No. 844,671. Specification of Letters Patent. Patented Feb. 19, 1907.

Application filed May 2, 1904. Serial No. 205,976.

To all whom it may concern:

Be it known that I, JOHN L. GARNER, a citizen of the United States, residing at Washington, District of Columbia, have invented certain new and useful Improvements in Revolvers, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to improvements in revolvers, and has for its primary object the provision of improved means for effecting a closing of the gap or space between the cylinder and the inner end of the barrel, whereby to conserve the whole of the impelling energy of the gases emanating from the cartridge, overcoming the objections existing in those arms wherein a vent is afforded the gas at a point adjacent to the inner end of the barrel.

A convenient embodiment of the invention comprises, broadly, a cylinder and a barrel, the one movable longitudinally relative to the other, in combination with means for causing said barrel to abut or snugly engage the cylinder to close any space or gap therebetween, by and upon the backward movement of the trigger.

The invention further comprehends and the above-mentioned embodiment embraces more specifically the aforesaid cylinder and movable barrel, so arranged that when they are brought into contact the inner end of the barrel will receive and fit around the discharge end of the cartridge, so that the gases issuing from the shell will have no escape during the firing operation save through the barrel, and the cartridge will be properly centered previous to its firing.

The novel details in the construction and arrangement of the several parts of the revolver will be apparent from the detailed description hereinafter when read in connection with the accompanying drawings, forming part hereof, and wherein the embodiment before referred to is illustrated.

In the drawings, Figure 1 is an elevation of the revolver, the central portion of which is broken away and the interior working parts shown in section. Fig. 2 is a front end elevation. Fig. 3 is a detail perspective view of the trigger. Fig. 4 is a similar view of the barrel-shifting lever, and Fig. 5 is also a detail perspective view showing the cylinder removed.

Referring more specifically to the drawings, wherein like reference characters refer to corresponding parts in the several views, A designates the stock, B the guard, C the trigger, D the hook, E the extractor, and F the extractor-stem, all of which are of the more ordinary or any other formation found expedient.

G represents the cylinder, which is similar to those now in use excepting that the same has a relatively thin cartridge-receiving portion *g* and an elongated hub *g'*, and H is the true barrel, which is shiftable longitudinally, whereby the inner end *h* thereof may be forced into close contact with the front face *g''* of the cylinder to close the space therebetween, and into registration with the openings in the cylinder, whereby the protruding end of the cartridge I, Fig. 1, will be received within the bore of said true barrel. To support this true barrel in proper operative position and to preserve the same against accidental reciprocation, I utilize a false barrel or casing J, which carries the ordinary sight *j*. As will be seen in Fig. 1, this false barrel is of a length extending at least to the extreme outer end of the true barrel in its position of greatest outward projection, which insures protection of the true barrel against engagement with extraneous objects which might either knock or deflect the same out of true alinement or accidentally force the true barrel inwardly toward the firing mechanism and destroy the normal arrangement of the operating parts, thus increasing the danger and susceptibility of the parts to be prematurely or unexpectedly discharged. The true barrel is maintained in its normal or forward position through the medium of a coil-spring K, housed within a pocket *k*, formed conveniently in the lower portion of the casing J, said spring abutting at one end against a lug *j'*, rigid with the true barrel H, and at its opposite end against a wall or shoulder *k'* of the casing J, the lug *j'* being in turn limited in its forward movement by a corresponding wall or shoulder *k''* of said casing.

The instrumentalities by means of which the true barrel is thrown rearwardly prior to the firing of the cartridge may now be pointed out. As before stated, C indicates the trigger, the same having a forward extension L, having a curved lower bearing-surface *l*, arranged to engage and ride over the point and upper surface of the adjacent ends *m* of a pair of barrel-shifting levers M, having for their fulcrum the shaft *d* of the hook D. The levers are disposed one at

each side of the hook D, while the extension L is cut away, as at *l'*, whereby no obstruction lies in the path of movement of either the hook or said extension. The opposite ends of the levers are curved outwardly in a divergent manner to accommodate the stem F, and they are also rounded somewhat at their points to engage depending lugs N on the true barrel, said lugs being properly spaced apart and located on opposite sides of the stem.

The arrangement and proportioning of the parts immediately above defined is such that the pressing of the trigger will initially bring its extension into engagement with the ends *m* of the levers M, forcing the same downwardly and correspondingly imparting a rearward movement to the opposite ends *m'* of said levers, which movement imparts through the medium of the lugs *n* a backward shifting or retractile movement of the true barrel H until the rear end *h* thereof is pressed firmly against the face *g''* of the cylinder and with the end of the cartridge extending into said barrel. A subsequent movement of the trigger effects the firing of the cartridge; but inasmuch as the firing mechanism constitutes no portion of the present invention it is unnecessary to refer to the same in detail. Any of the well-known or other firing mechanism may be adopted as occasion may require.

The relative positions of the parts during the firing operation is indicated by dotted lines in Fig. 1, and in this connection it is to be observed that the point of bearing between the extension L and levers M is in a dead-center position relative to the trigger pin or pivot *c* or a little beyond a dead-center position, which in either event insures a concentration of the force of the explosion of the cartridge and discharge of the same upon the bearings of the parts, perhaps more particularly the trigger-pin *c* and hook-shaft *d* rather than on the finger of the user. When the trigger is released, the spring K restores the parts to normal position.

It is to be understood that in any future interpretation as to the scope of the present invention the same is in no sense to be limited to any special features of construction herein disclosed, excepting such as may be specifically included in the hereto-appended claims, since it is obvious that slight changes and alterations may be made therein without departing from the spirit of the invention.

Having thus described the invention, what is claimed as new, and desired to be secured by Letters Patent, is—

1. In a revolver, a cylinder, a longitudinally-shiftable barrel, and the trigger, in combination with means for effecting the closing of a vent space or gap between said cylinder and barrel, said means including a lever operatively associated with the barrel, and means carried by the trigger operatively related to said lever.

2. In a revolver, a cylinder, a longitudinally-shiftable barrel, and the firing-trigger, in combination with means controlled by the trigger for effecting the closing of a vent-space between said cylinder and barrel, said means including a lever operatively associated with the barrel, and an extension on the trigger arranged to actuate said lever.

3. In a revolver, a cylinder, a longitudinally-shiftable barrel, and the firing-trigger, in combination with means for effecting the closing of a vent space or gap between said cylinder and barrel, said means including a lever operatively associated with the barrel, and an extension on the trigger arranged to actuate said lever and constructed and positioned to assume a dead-center position when the barrel is retracted.

4. In a revolver, a cylinder, a longitudinally-shiftable barrel, and the trigger, in combination with means for effecting the closing of a vent space or gap between said cylinder and barrel, said means including a lever operatively associated with the barrel, an extension on the trigger arranged to actuate said lever and positioned and constructed so as to assume a dead-center position when the barrel is retracted, and a spring for causing the parts to assume their normal position when the trigger is released.

5. In a revolver, a cylinder, a true barrel mounted for longitudinal movement, firing mechanism, and means operatively associated therewith for effecting such longitudinal movement of the true barrel to cause the same to abut the cylinder to close a vent space or gap therebetween, and a false barrel within which said true barrel is mounted and guided in its movement, said false barrel being of a length extending at least to the extreme outer end of the true barrel in its position of greatest outward projection.

6. In a revolver, a cylinder and barrel, one of which is shiftable toward and from the other, and the trigger, in combination with means for effecting the closing of a vent space or gap between the cylinder and barrel including a lever operatively associated with the shiftable member, and means governed by the trigger operatively related to said lever, said means for effecting the closure of the vent-space being formed and arranged to assume a dead-center position when said vent-space is closed during the firing operation.

7. In a revolver, a cylinder and barrel, one of which is shiftable toward and from the other, and the trigger, in combination with means for effecting the closing of a vent space or gap between the cylinder and barrel including a lever operatively associated with the shiftable member, and means governed by the trigger operatively related to

said lever, said means for effecting the closure of the vent-space being formed and arranged to assume a dead-center position when said vent-space is closed during the firing operation, and means for automatically restoring the parts to their initial positions upon release of the trigger.

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

JOHN L. GARNER.

Witnesses:
Jos. H. MILANS,
CALVIN T. MILANS.