

B. B. HOLMES.
REVOLVER.

APPLICATION FILED FEB. 9, 1912.

Patented Dec. 10, 1912.

3 SHEETS—SHEET 1.

1,047,054.

FIG. 1.

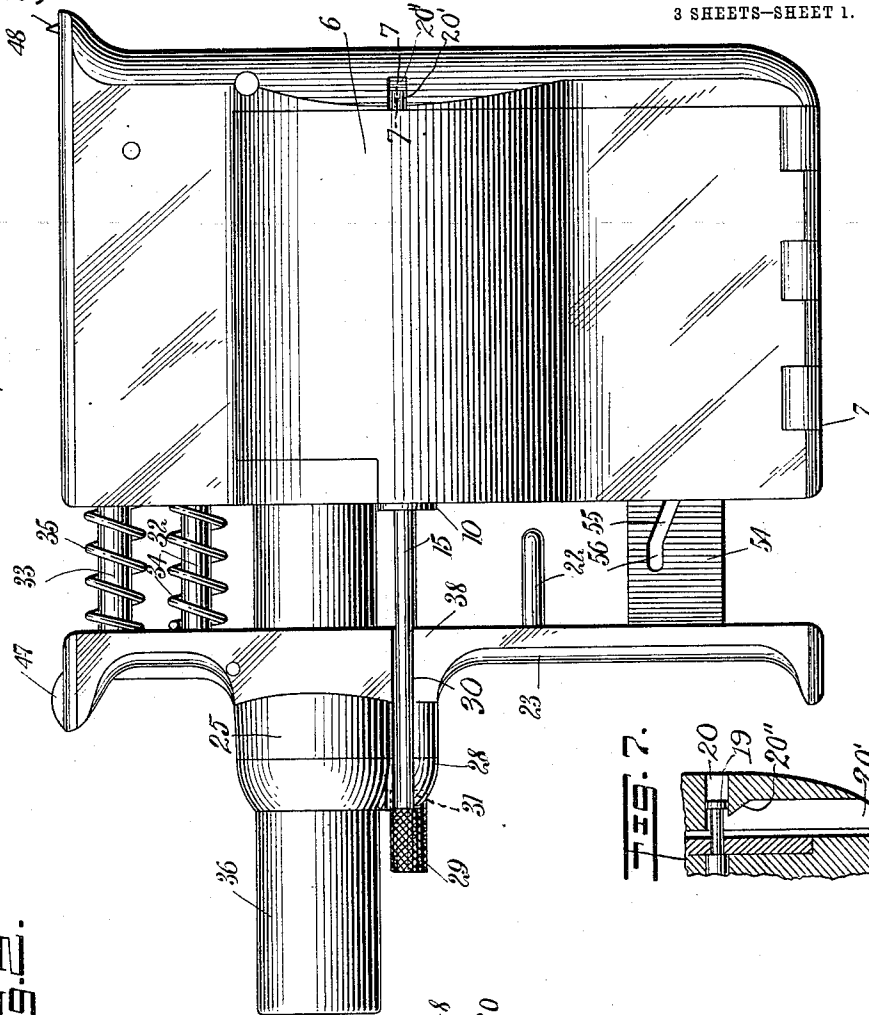


FIG. 7.

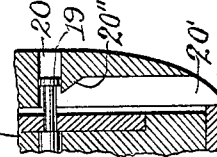
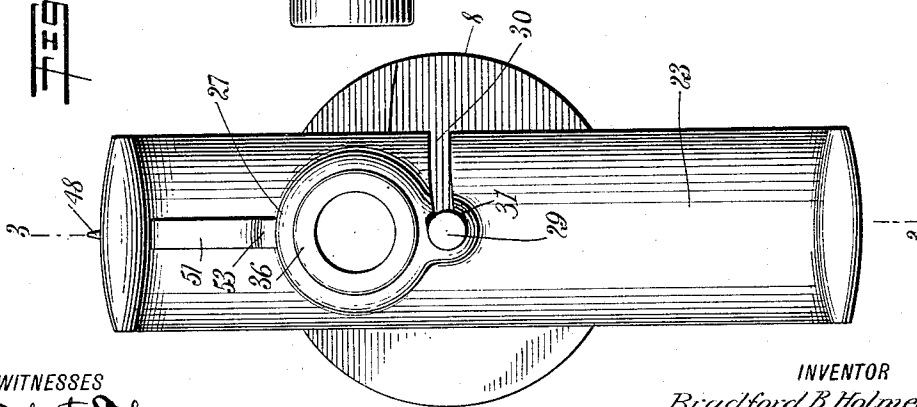


FIG. 2.



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3 SHEETS-SHEET 2.

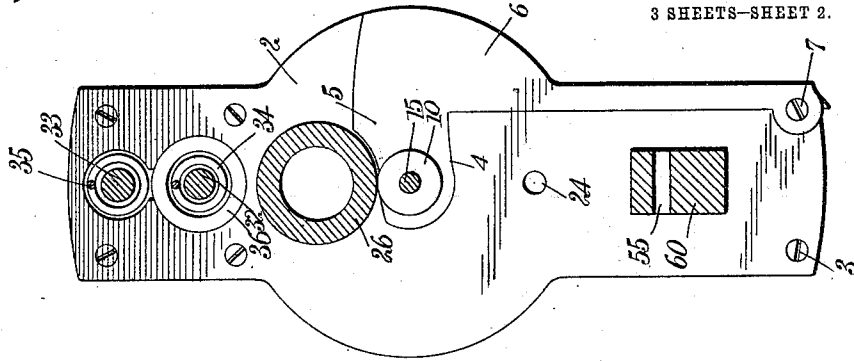


FIG. 3.

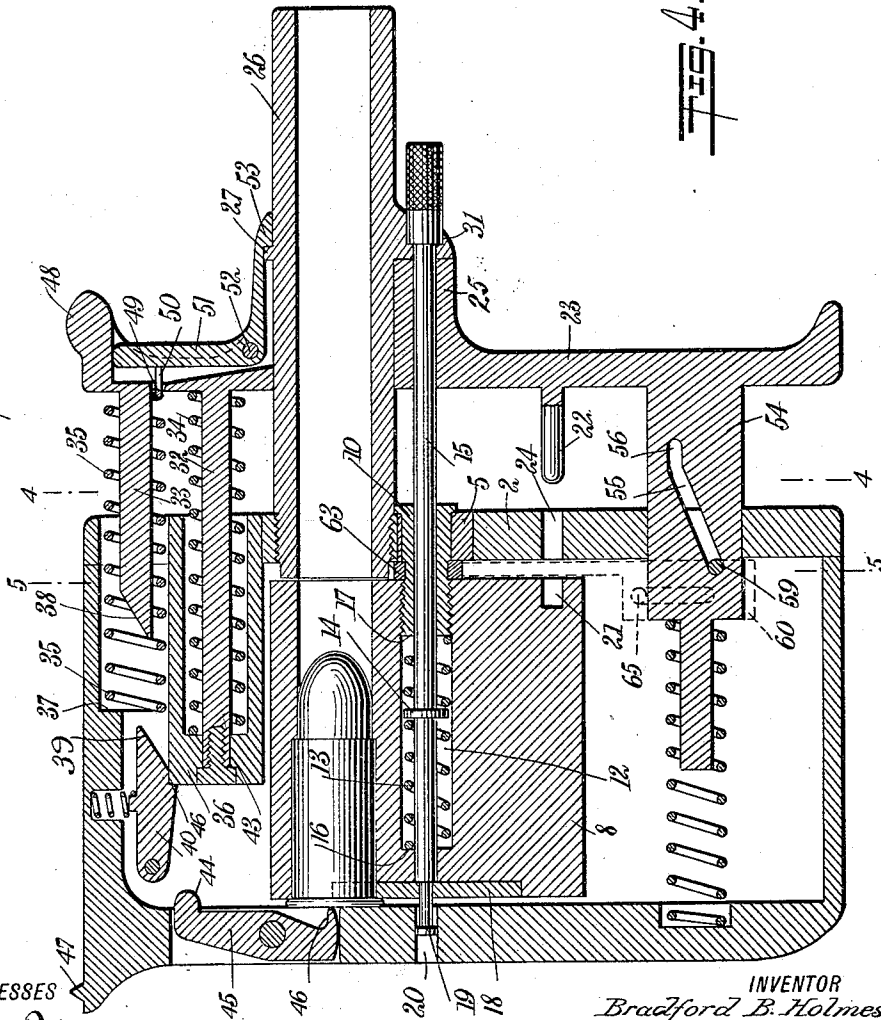


FIG. 4.

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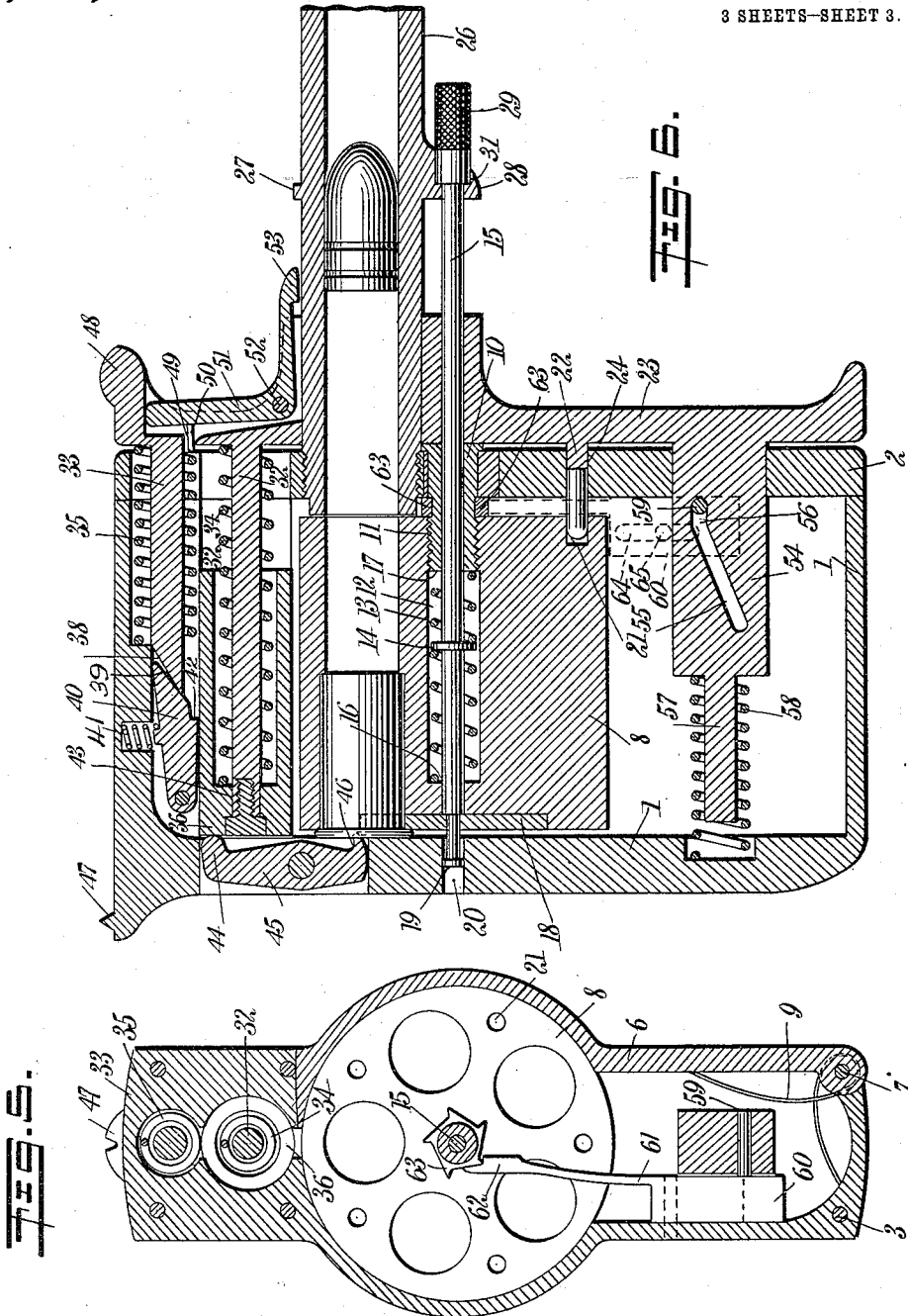
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3 SHEETS-SHEET 3.



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REVOLVER.

1,047,054.

Specification of Letters Patent.

Patented Dec. 10, 1912.

Application filed February 9, 1912. Serial No. 676,489.

To all whom it may concern:

Be it known that I, BRADFORD B. HOLMES, a citizen of the United States, and a resident of South Bellingham, in the county of Whatcom and State of Washington, have invented a new and Improved Revolver, of which the following is a full, clear, and exact description.

The object of my invention is to provide a new and improved revolver adapted to be held within the palm of the hand in such a manner as to be substantially hid from casual observation.

A further object of the invention is the arrangement of an improved structure having a high power confined to a minimum space.

A still further object in view is the arrangement of an improved revolver formed so as to be held in the palm of the hand and adapted to be quickly discharged upon the successive closing and opening of the hand.

In carrying out the objects of the invention, a housing is provided which is connected to a barrel and in which is normally mounted a rotating cylinder. The rotating cylinder is carried by a pivotally mounted support designed to move the cylinder to a position exterior of the housing, and then to a position interior of the housing for permitting the ready insertion and removal of the cartridges and also for adapting the loaded cartridges to properly discharge in the barrel. A plurality of operating parts are associated with the cylinder and barrel, set in motion by the fingers when the revolver is in use, the fingers moving to a closed position toward the palm in the usual manner.

A practical embodiment of the invention is represented in the accompanying drawings forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the views.

Figure 1 is a side view of an embodiment of the invention, the same being shown somewhat larger than the ordinary full sized device; Fig. 2 is a front view of the structure shown in Fig. 1; Fig. 3 is a section through Fig. 1 on the line 3—3; Fig. 4 is a section through Fig. 3 on the line 4—4; Fig. 5 is a section through Fig. 3 on the line 5—5; Fig. 6 is a sectional view similar to Fig. 3, excepting that the moving parts are shown in the positions assumed at the time of firing; and Fig. 7 is a fragmentary

sectional view through Fig. 1 on the line 7—7.

Referring to the accompanying drawings by numerals, 1 indicates a housing formed in any desired manner and provided with a front wall 2 secured in place by suitable securing means, as screws 3. The front wall 2 is formed with a slot 4 for accommodating a projection 5 extending from the hinged side 6. The hinged side 6 is hinged or pivoted at 7 and is designed to close the opening through which a cylinder 8 extends. A suitable spring 9 may be provided, if desired, for quickly opening the side 6 whenever the same is released so that the cylinder 8 may be quickly replenished with filled cartridges and again placed in operative position.

Mounted in the projection or extension 5 is a rotatable sleeve 10, acting as a journal or bearing for the cylinder 8. The sleeve 10 is formed with a head so as to limit its inward movement, and with threads 11 for engaging the threaded aperture of cylinder 8. The threaded aperture in which the threaded portion 11 fits, merges into a spring receiving bore 12 designed to accommodate a spring 13 which bears against a stop 14, this stop 14 being rigidly secured to an ejecting rod 15. The spring 13 also bears against shoulders 16 and 17 so as to normally hold the ejecting rod 15 in the position shown in Fig. 3. The ejecting rod 15 acts as means for fastening the cylinder 8 and hinged side 6 into the housing at the points 20 and 31. In order to properly hold the cylinder 8 in position and the side 6 from moving outwardly, the rod 15 has an end 19 extending into an aperture 20 formed in the housing. A slot 20' having a beveled wall 20'' is formed in the housing, and merges into the aperture 20 so that the cylinder and side 6 may be snapped back in place.

The cylinder 8 is formed for receiving cartridges in the usual manner and is provided with a plurality of apertures 21 for receiving a locking member or pin 22 secured to a grip 23. The locking member 22 will not engage the apertures 21 until just previous to the time that the revolver is to be discharged, an aperture 24 in the end 2 being provided for causing the proper operation of the locking member 22. The grip 23 is designed to extend from the top to the

bottom of the housing 1 for being grasped by all of the fingers when the device is in operation. The grip is formed with an enlargement 25 which is provided with a bore designed to accommodate a barrel 26 secured into the end 2. The barrel 26 is provided with an annular bead or stop 27 merging into an enlargement 28 which is provided with an aperture to accommodate the ejecting pin 15 and the operating head 29 therein. In this connection it will be noted that the grip 23 is formed with an aperture for accommodating the pin 15 and with a slot 30 registering with a socket 31 in the enlargement 28 for permitting the pin 15 to move pivotally on the hinge or pivot member 7, whereby the cylinder 8 may be freely moved into and out of the housing 1. Before this pivotal movement can take place, the pin 15 must be moved longitudinally until the end 19 has become disengaged from the housing 1 and the head 29 from the socket 31. The grip 23 has secured thereto or formed integral therewith, near the upper end a pair of rods 32 and 33, the rod 32 accommodating a spring 34, and the rod 33 accommodating a spring 35. These springs bear against a hammer 36 and shoulder 37 respectively, and against the grip 23 so as to normally resist an inward movement of the rods 32 and 33. The rod 33 is provided with a beveled end 38 designed to engage the beveled end 39 of a catch 40, normally held depressed by a spring 41. The catch 40 is provided with a notch 42 adapted to engage a corner or edge of the hammer 36 for preventing an inward movement of the hammer 36 until after the rod 33 has raised the catch. By the time that the rod 33 moves inward sufficiently far to raise the catch 40, the spring 34 will be under considerable tension, the rod 32 sliding through an aperture 43 in the end of the hammer 36 for allowing the spring to come under tension without moving the hammer. The moment that the catch 40 is released the hammer 36 will move quickly to the rear and strike a projection 44 on the pivotally mounted firing pin 45. The firing pin 45 has a projection 46 which is adapted to strike the end of the cartridge for causing the usual explosion. By the time that the rod 33 has moved inward sufficiently far to raise the catch 40, the locking member 22 will have engaged or entered the notch or socket 21 whereby the cylinder 8 is positively locked in a correct position for causing the bullet to pass from the cylinder into the barrel 26. In using the revolver, the sights 47 and 48 may be used if desired, for more accurately firing. The grip 23 is formed with an aperture 49, which accommodates a projection 50 of spring 35 extending from a finger-operated catch 51 pivoted at 52. The catch 51 is formed with a hooked

portion 53 designed to normally engage the bead or stop 27 for preventing an inward movement of the grip, 23. When the upper end of the catch 51 is moved inward, the hook-shaped end 53 will be raised and the continued pressure of the grip 23 will cause the same to slide inwardly longitudinally on the barrel 26.

Arranged near the lower end of the grip 23 is a lug or projection 54 formed with an inclined slot 55 having a horizontal portion 56. The lug 54 extends through a suitable aperture in the wall 2 and is formed with a guiding extension 57 for accommodating a spring 58 which rests at one end against the housing 1 and at the other end against the lug 54 for yieldingly resisting the inward movement of the lug and for assisting the lug and the grip 23 to move to their outer positions. The slot 55 is designed to accommodate a pin 59 rigidly secured to a reciprocating block 60 having an arm 61 formed somewhat resilient and provided with a notched end 62 acting as a pawl. The notched end 62 is adapted to engage the ratchet wheel 63 and upon each inward movement of the lug 54 will cause the wheel 63 to move a predetermined distance, namely, the distance between the centers of two adjacent cartridge receiving apertures. Of course it will be understood that there are the same number of teeth on the wheel 63 as there are cartridge receiving apertures in the cylinder 8 so that upon each movement of the wheel 63, a new cartridge will be moved in front of the barrel 26. In order to cause the proper reciprocatory movement of the lug the same is provided with an aperture 64 which accommodates a pin 65 secured to the housing 1. Upon each inward movement of the grip 23 the cylinder 8 will be turned for feeding the next succeeding cartridge, each turning movement continuing until the pin 59 engages the horizontal stop 56. At the moment that the pin 59 engages the slot 56 the locking member 22 will engage the socket 21 and lock the cylinder against further rotation. The grip 23, however, may be moved a short distance farther and in this additional movement will cause catch 40 to be raised and the hammer 36 to be released so that the cartridge may be fired, the firing taking place after the cylinder 8 has been locked. If for any reason any of the parts should fail to operate properly and the cylinder 8 should not rotate the proper distance, the locking member 22 will engage the end of the cylinder 8 instead of the socket 21 and consequently prevent a sufficient inward movement of the grip 23 and the rod 33 to cause the catch 40 to become disengaged.

Having thus described my invention, I claim as new and desire to secure by Letters Patent:

1. In a revolver, a housing, a barrel rigidly connected with said housing, a rotating cylinder arranged in said housing, means for rotating said cylinder step by step, a firing pin, a hammer, a catch for normally holding said hammer against movement, a finger operated grip slidably positioned on said barrel formed with means for releasing said catch and with means for operating the means adapted to give said cylinder a step by step motion, and a spring acting on said hammer compressed by said finger operated grip when the same is moved to an inner position, whereby said hammer is caused to strike said firing pin when the catch normally holding the hammer has been released.

2. In a revolver, a housing, a barrel secured thereto, a cylinder rotating in said housing and adapted to have the bores thereof register with the bore of said barrel, a pivotally mounted firing pin, a reciprocating hammer, a catch for normally holding said hammer out of contact with said firing pin, a spring adapted to act on said hammer, a reciprocating grip arranged to compress said spring immediately before firing, means operated by said grip for releasing said catch, and means operated by said grip for rotating said cylinder previous to the release of said catch.

3. In a revolver, a housing, a barrel secured to said housing, a rotating cylinder positioned in said housing, a firing pin, a reciprocating hammer designed to operate said firing pin, a spring loosely engaging said hammer, a catch for holding said hammer normally out of contact with said firing pin, a movable gripping member adapted to compress said spring immediately before firing, means projecting from said gripping member adapted to engage said catch after said spring has been brought under tension by said gripping member for disengaging the catch from said hammer, and means associated with said gripping member for rotating said cylinder step by step.

4. In a revolver, a housing, a barrel connected with said housing, a rotating cylinder mounted in said housing, a firing pin, a hammer for operating said firing pin, a catch for normally holding said hammer out of engagement with said firing pin, a spring adapted to act against said hammer, a grip

movable longitudinally of said barrel for bringing said spring under tension, a catch for normally locking the said grip against operation, means projecting from said grip for engaging said first-mentioned catch when said spring has been brought under tension for releasing said first-mentioned catch, and means associated with said cylinder and said grip for causing said grip to partially rotate said cylinder upon each operation of the grip.

5. In a revolver, a housing, a rotating cylinder, a barrel, a ratchet wheel connected with said rotating cylinder, a resilient pawl associated with said ratchet wheel and adapted to move the same step by step, a locking pin connected rigidly with said resilient pawl, a slot, a pin connected with said housing and passing through said slot for driving said locking pin, a gripping member formed with a projection having a beveled slot therein for accommodating said last mentioned pin whereby when said gripping member is moved longitudinally of said barrel said last mentioned pin will move up said last mentioned slot and shift longitudinally said resilient pawl, a firing pin, and means associated with said gripping member and operated thereby for causing said firing pin to strike.

6. In a revolver, a housing, a barrel connected with said housing, a rotating cylinder arranged in said housing, a firing pin, means for rotating said housing step by step, a gripping member arranged to move longitudinally of said barrel, means for connecting said gripping member and the means for rotating said cylinder for causing a partial rotation of said cylinder upon each operation of said gripping member, means associated with said gripping member and operated thereby for causing said firing pin to strike, and a catch pivotally mounted on said gripping member and formed with a hooked-shaped end engaging said barrel for normally locking said gripping member against movement.

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

BRADFORD B. HOLMES.

Witnesses:

ROLAND G. GAMWELL,
CHARLOTTE WALLS.