

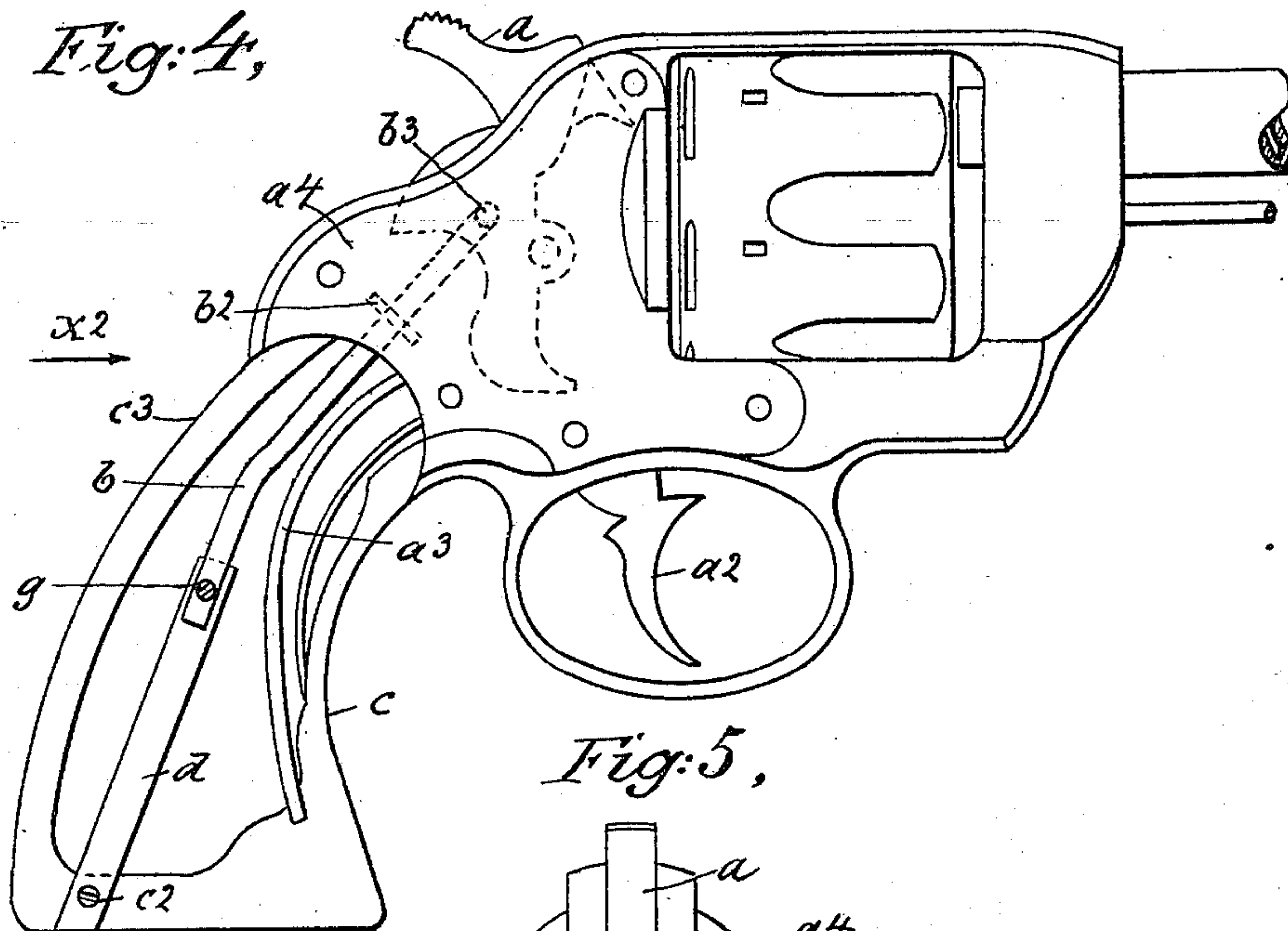
No. 849,825.

PATENTED APR. 9, 1907.

M. VAN B. ALLEN.
HAMMER LOCK FOR FIREARMS.

APPLICATION FILED JAN. 30, 1906. RENEWED JAN. 14, 1907.

3 SHEETS—SHEET 2.



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Fig. 6,

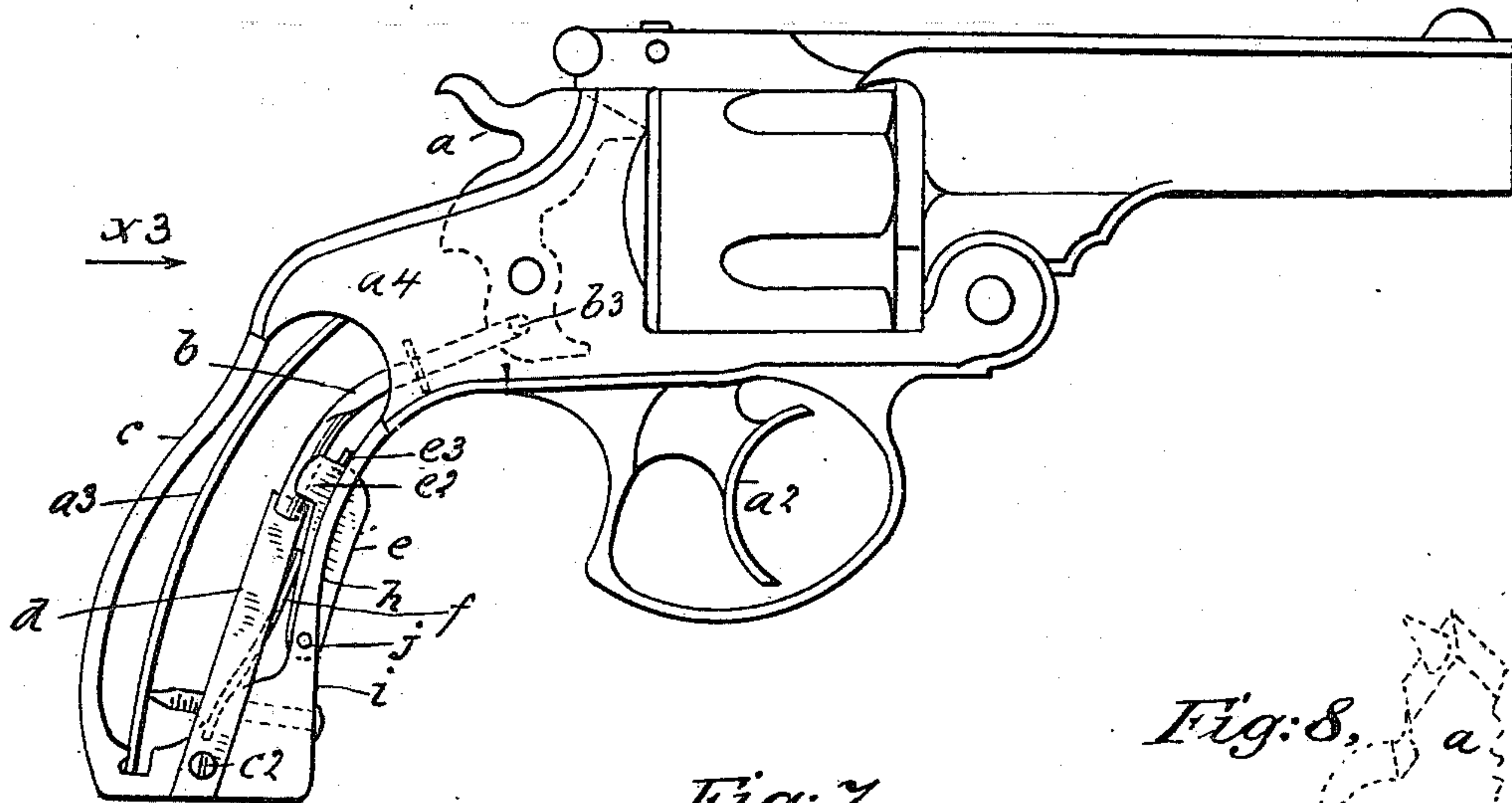


Fig. 9.

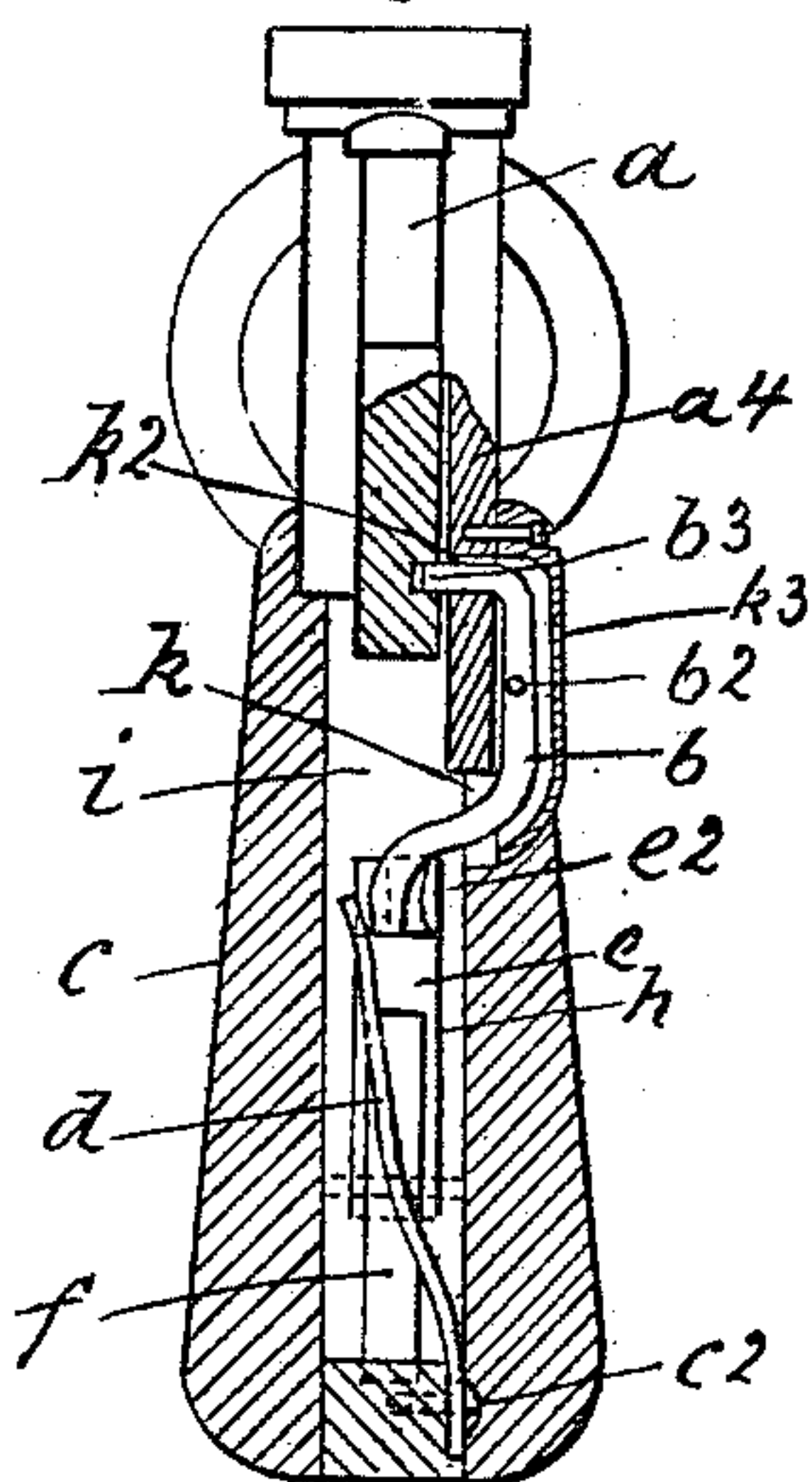


Fig. 7.

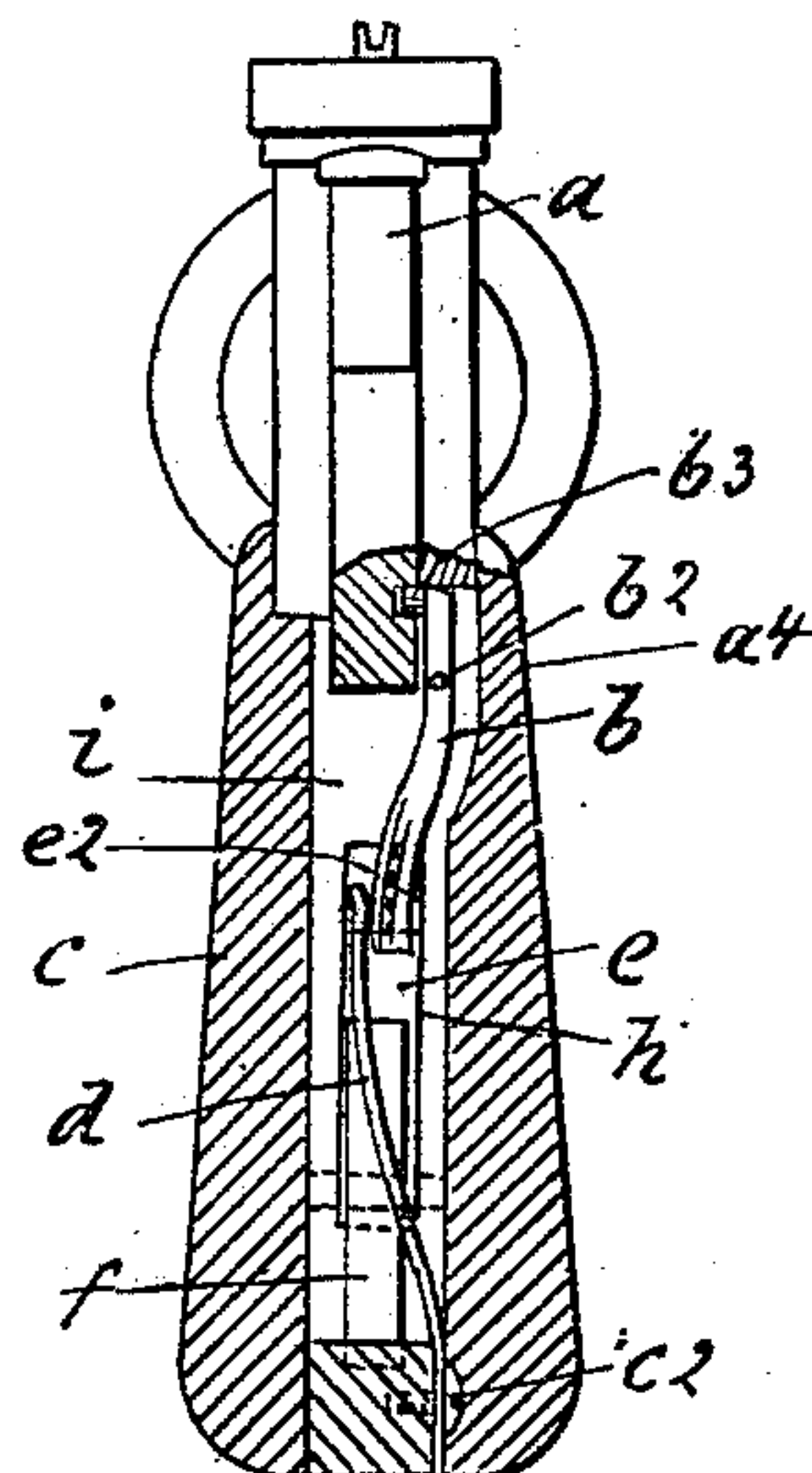
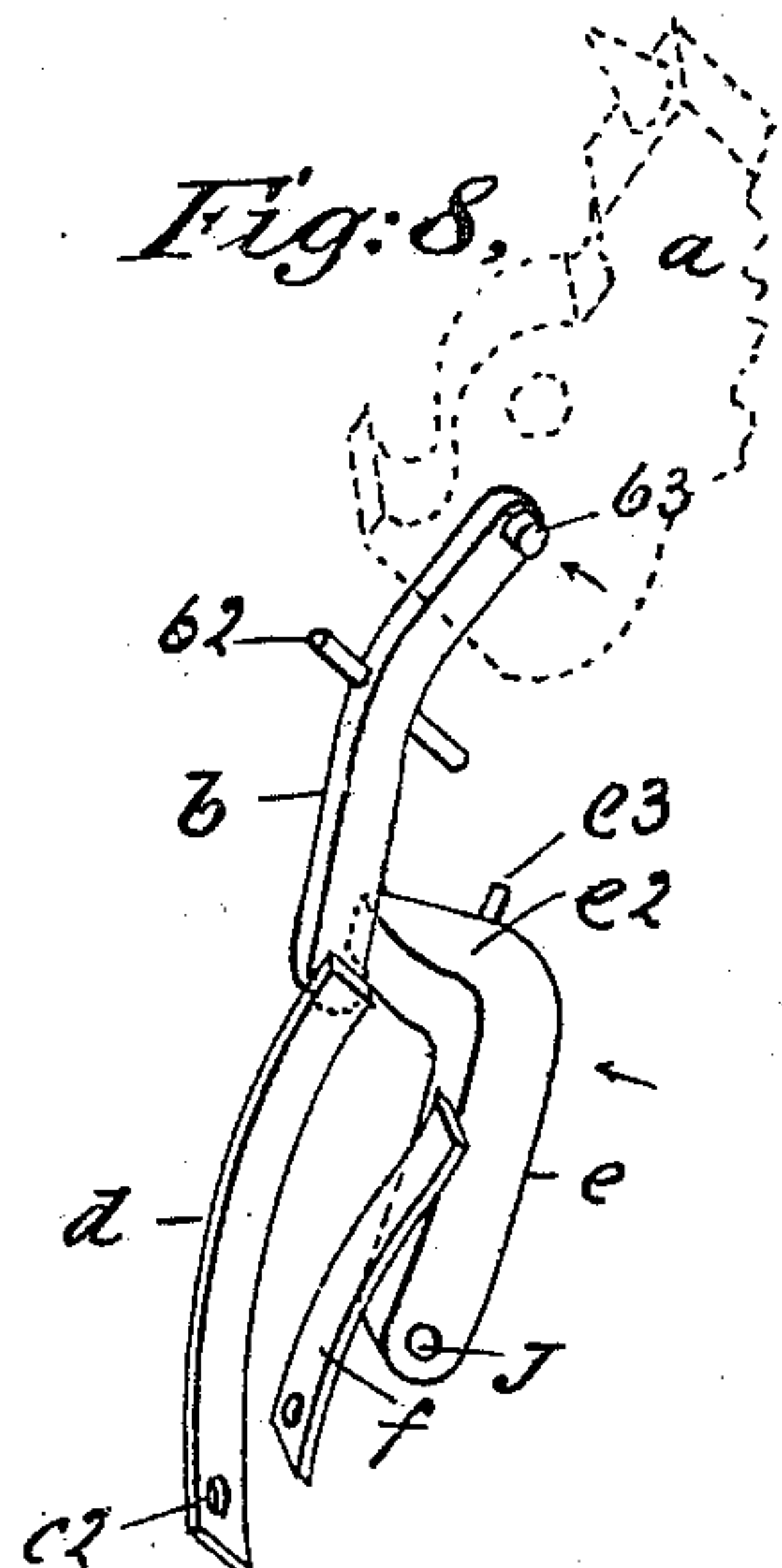


Fig. 8.



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UNITED STATES PATENT OFFICE.

MARTIN VAN BUREN ALLEN, OF NEW YORK, N. Y.

HAMMER-LOCK FOR FIREARMS.

No. 849,825.

Specification of Letters Patent.

Patented April 9, 1907.

Application filed January 30, 1906. Renewed January 14, 1907. Serial No. 352,292.

To all whom it may concern:

Be it known that I, MARTIN VAN BUREN ALLEN, a citizen of the United States, and residing at New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Hammer-Locks for Firearms, of which the following is a specification, such as will enable those skilled in the art to which it appertains to make and use the same.

This invention relates to hammer-locks for firearms; and the object thereof is to provide an improved device of this class which is particularly designed for use in connection with revolvers or other small firearms, but which may be used in connection with any kind or class of firearms, a further object being to provide a hammer-lock for revolvers and similar small firearms by means of which the hammer is normally locked against operation and released in the operation of pulling the trigger so as to operate the hammer, the releasing devices being located in the handle and being operated by gripping the handle.

The invention is fully disclosed in the following specification, of which the accompanying drawings form a part, in which the separate parts of my improvement are designated by suitable reference characters in each of the views, and in which—

Figure 1 is a side view of an ordinary revolver of the Colt type provided with my improvement, one side of the handle being detached and the hammer being partially shown in full lines and partially in dotted lines, a part of the lock mechanism being shown in full lines and part in dotted lines; Fig. 2, a view looking in the direction of the arrow x^3 of Fig. 1 with part of the construction broken away; Fig. 3, a top plan view of the locking devices or mechanism and showing a part of the hammer and a part of the frame in full lines and in section; Fig. 4, a view similar to Fig. 1, but showing a modification; Fig. 5, a view looking in the direction of the arrow x^2 of Fig. 4 and showing part of the construction in section; Fig. 6, a view similar to Fig. 1, but showing another modification; Fig. 7, a view looking in the direction of the arrow x^3 of Fig. 6 with part of the construction in section; Fig. 8, a perspective view of the hammer-lock mechanism, the hammer itself or a part thereof being indicated in dotted lines; and Fig. 9, a view similar to Figs. 2, 5, and 7, but showing another modification.

In the drawings forming part of this specification, reference being made to Figs. 1 to 3, I have shown my improvement applied to a revolver of the Colt type, and in practice my improvement is applied without changing or altering in any way the operative parts of the revolver. The said revolver is provided with the usual hammer a , trigger a^2 , and hammer-operating spring a^3 , and it will be understood that the said revolver is what is known as an "automatic" revolver or firearm, the operation of the hammer being effected simply by pulling on the trigger a^2 .

In the practice of my invention I form in one of the side plates a^4 of the framework and rearwardly of the hammer a a longitudinal recess a^5 , which is clearly shown in Figs. 2 and 3 and which ranges forwardly and upwardly and downwardly and backwardly rearwardly of said hammer, and in this recess is pivoted a lever b , the pivot or fulcrum of which is shown at b^2 . The lever b is curved, as shown in Figs. 1 and 3, and ranges upwardly and forwardly in the direction of the hammer and downwardly and backwardly into the handle c , and said lever is provided at its front end with a nose, lug, or projection b^3 , adapted to enter a corresponding recess in the hammer a , as clearly shown in Figs. 2 and 3.

Secured in the bottom of the handle c , as shown at c^2 or in any desired manner, is a spring-arm d , which ranges upwardly and forwardly and which normally overlaps the rear end portion of the lever b and presses on the inner side thereof, as shown at d^2 , and normally forces the rear end of the lever b outwardly and laterally and the front end thereof inwardly, so as to cause the nose, lug, or projection b^3 to enter the corresponding recess in the hammer a , as shown in said figures. I also form in the central longitudinal back piece c^3 of the handle c , which also forms a part of the framework of the revolver, a longitudinal recess c^4 , in the lower end of which is pivoted, as shown at c^5 , an arm e , which ranges upwardly and forwardly in the direction of the hammer a and the front end of which is provided with an inwardly-directed cam-shaped device or nose-piece e^2 , which is adapted to bear on the outer side of the lower end portion of the lever b , and secured in the bottom of the handle c is a spring f , which ranges forwardly and upwardly and normally bears on the inner side of the arm e to force the forward end of said arm outwardly, as shown in Fig. 1,

and the outward movement of the arm e is limited by a stop e^3 , secured to the nose-piece e^2 of said arm.

All the parts are shown in their normal positions in Figs. 1 and 2 and also in full lines in their normal positions in Fig. 3, and in this position of said parts the forward end portion of the arm e projects outwardly slightly from the outer or back surface of the handle c and the hammer a is securely locked against operation. Whenever it is desired to discharge the revolver or to operate the hammer a , the handle c is gripped in the hand and one of the fingers is passed around the trigger a^2 in the usual manner. The operation of gripping the handle c forces the arm e inwardly, and the nose-piece e^2 thereof forces the lower end of the lever b inwardly and the forward end thereof outwardly, so that the hammer a is disengaged or released, and a pull on the trigger a^2 will operate said hammer in the usual manner.

In Figs. 4 and 5 I have shown a modification of the construction shown in Figs. 1 to 3, inclusive, the modification being only in the means for forcing the lower end of the lever b inwardly. In this form of construction I mount in one side of the handle c a laterally-movable pin g , provided with a button-shaped head g^2 , movable in a corresponding recess c^6 , formed in the handle c . The pin g passes into the central chamber of the handle c , and the inner end thereof is adapted to bear on the outer side of the lower end of the lever b , as shown in Fig. 5 at g^3 , and the outward movement of said pin is limited by a stop g^4 , which operates in connection with the inner surface of the side of the handle c , in which the pin g is mounted. The pin g and head or button g^2 operate in the manner of an ordinary push-button; but said push-button is not provided with a spring, for the reason that the spring-arm d normally bears on the inner side of the lower end of the lever b and forces said end of said lever b outwardly and at the same time forces the pin g outwardly, as shown in Fig. 5, and the forward end of the lever b inwardly, as hereinbefore described, so as to cause the nose-piece, lug, or projection b^3 to engage the hammer a . The operation of this form of construction will be exactly the same as that shown in Figs. 1 to 3, inclusive, the pin g being forced inwardly by gripping the handle c in the operation of discharging the revolver or operating the hammer a .

In Figs. 6 to 8, inclusive, I have shown my improvement applied to a revolver of a construction slightly different from that shown in Figs. 1 to 5, inclusive, the revolver shown in Figs. 6 to 8, inclusive, being what is known as a "Smith & Wesson." In this form of construction the usual operative parts in the handle c are arranged in a manner different from the arrangement of the Colt and other

revolvers of this class, and in the application of my improvement to this style of firearm the lever b and spring-arm d are the same as shown and described in Figs. 1 to 5, inclusive, and are attached in the same manner and operate in the same way, and in this form of construction the arm e is also employed; but said arm is pivoted in a longitudinal slot or opening h , formed in the central longitudinal under or front piece i of the frame, the said arm being pivoted in the bottom of said slot or opening, as shown at j , and the free end thereof being directed forwardly and upwardly and the nose e^2 thereof passing inwardly and bearing on the outer side of the lower end portion of the lever b . The spring f normally forces the arm e outwardly or forwardly, as indicated in Fig. 6, and this movement is limited by the stop e^3 , as in Fig. 1, and the front end portion of the arm e projects in such manner that when the handle is gripped the said arm is forced inwardly, the lower end of the lever b is forced inwardly and the front end thereof outwardly, and the hammer a is disengaged and may be operated by a pull on the trigger a^2 .

From the foregoing description it will be observed that the construction in all of the forms shown is exactly the same except as to the means for forcing the lower end of the lever b inwardly, and for this the same construction is shown in Figs. 1 to 3, inclusive, and Figs. 6 to 8, inclusive, the only difference being in the relocation of the arm e , while in Figs. 4 and 5 the said end of the lever b is forced inwardly by the laterally-movable pin g , mounted in the side of the handle.

It will be apparent that my improvement may be applied to any kind or class of revolvers and similar firearms, and various changes therein and modifications thereof in order to accomplish this result may be made without departing from the spirit of my invention or sacrificing its advantages.

One of the chief objects of this invention is to provide a lock for the hammer of firearms which will when in operation prevent the movement of said hammer either forwardly or backwardly. It is a well-known fact that the hammer of an ordinary revolver if struck a hard blow will discharge the revolver, and this sometimes happens when the revolver is dropped and strikes on the hammer, and the same result may be accomplished by striking the hammer a blow from the rear thereof; but my improved lock is so constructed that it holds the hammer against movement either forwardly or backwardly, and no sudden blow or shock caused by dropping the revolver or by striking the hammer will effect the discharge or the firing of a revolver.

In Fig. 9 I have shown a modification of my invention, as shown in the other figures of the drawings, in which the lever b is curved outwardly around the rear end portion of the

frame-plate a^4 , and through the front end portion of the corresponding side of the handle c , as shown at k , and the front end portion of said lever is extended forwardly, and the nose or projection b^3 thereof passes inwardly through the frame-plate a^4 at k^2 and enters the corresponding recess in the hammer a , as in the other forms of construction. In this form of construction the front end portion of the lever b is covered by a supplemental plate k^3 , secured to the side of the frame and handle and within which the lever b is pivoted. This construction makes the lever b much stronger and obviates the danger of breaking said lever. It sometimes happens that a hard blow on the hammer occasioned either by dropping the revolver or striking the hammer will break the lever b rearwardly of the nose thereof, but with the construction shown in Fig. 9, where the nose of said lever passes inwardly through the plate a^4 of the frame, the lever cannot be broken and the nose thereof can only be broken by a blow hard enough to shear it off, and there is no probability of this being done.

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

1. A hammer-lock for firearms, comprising a lever pivoted in one side of the frame rearwardly of the hammer and ranging forwardly and upwardly and downwardly and backwardly into the handle and the front end of which is adapted to engage the hammer and lock it against both forward and backward movement, means within the handle for normally forcing the lower end of said lever outwardly, and a movable device mounted in the handle and operating when the handle is gripped in the operation of firing to force said end of said lever inwardly and disengage the hammer, substantially as shown and described.

2. A hammer-lock for firearms, comprising a lever pivoted in one side of the frame rearwardly of the hammer and the front end of which projects forwardly and is adapted to engage the hammer and lock it against both forward and backward movement, and the rear end of which extends downwardly and backwardly into the handle, a spring secured in the handle and operating to force the lower end of said lever outwardly, and a movable device mounted in and movable through a part of the handle and normally projecting therefrom and adapted to bear on the outer side of the inner end of said lever and force it inwardly so as to disengage the hammer when the handle is gripped in the operation of firing, substantially as shown and described.

3. A hammer-lock for firearms, comprising a lever pivoted in the framework rearwardly

of the hammer and the front end portion of which projects forwardly and is adapted to engage the hammer and lock it against both forward and backward movement, and the rear end of which projects downwardly and rearwardly into the handle, a spring within the handle and normally serving to force the rear end of said lever outwardly and the front end thereof to engage the hammer, and an arm pivoted in a longitudinal slot formed in the rear portion of the handle and normally projecting therefrom and provided with a nose-piece adapted to bear on the outer side of the rear end of said lever and to force said lever inwardly when the handle is gripped in the operation of firing, substantially as shown and described.

4. A firing-preventing device for guns, comprising a lever pivoted in one side of the frame and ranging forwardly and upwardly and downwardly and backwardly into the handle and the front end of which operates in connection with the hammer to prevent both the forward and backward movement of the hammer, means for forcing the rear end of the lever outwardly so that the front end thereof will operate in connection with the hammer, and a movable device mounted in the handle and operating when the handle is gripped in the operation of firing to force said end of said lever inwardly so that the front end thereof will not operate in connection with the hammer, substantially as shown and described.

5. A hammer-lock for firearms, comprising a lever pivoted in one side of the frame rearwardly of the hammer and ranging forwardly of and adjacent to one side of the hammer and downwardly and backwardly into the handle, said hammer being provided in the side thereof with a recess and the front end of said lever with a member adapted to enter said recess so as to lock the hammer against both forward and backward movement, a spring secured in the handle and normally forcing the rear end of said lever outwardly and the front end thereof into engagement with the hammer, and a movable device mounted in the handle and operating when the handle is gripped in the operation of firing to force said end of said lever inwardly and to cause the front end thereof to disengage the hammer, substantially as shown and described.

In testimony that I claim the foregoing as my invention I have signed my name, in presence of the subscribing witnesses, this 26th day of January, 1906.

MARTIN V. B. ALLEN.

Witnesses:

F. A. STEWART,
C. E. MULREANY.