

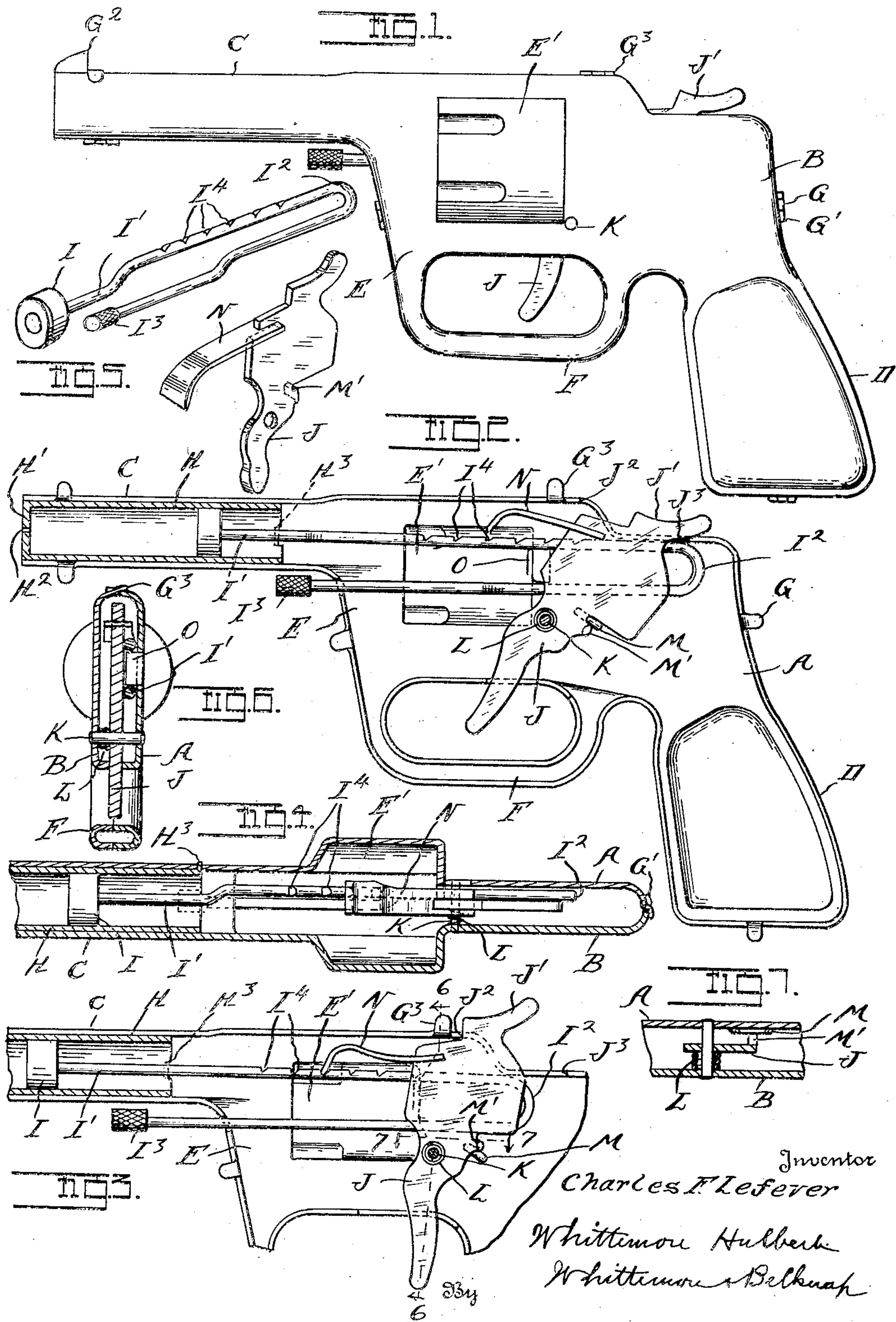
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LIQUID DISCHARGE GUN

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# UNITED STATES PATENT OFFICE

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## LIQUID DISCHARGE GUN

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The invention relates to guns of that type in which liquid such for instance as water is stored in a barrel and discharged through a fine aperture by the movement of a piston in said barrel. It is the object of the invention to attain an exceedingly simple construction which can be manufactured at low cost and by which a plurality of shots may be successively discharged. It is also an object to obtain a gun which when unloaded, will produce a snapping noise upon the pulling of the trigger. With these objects in view the invention consists in the construction as hereinafter set forth.

In the drawing:

Figure 1 is a side elevation of the gun;

Figure 2 is a longitudinal section thereof;

Figure 3 is a similar view showing the parts in a different position of adjustment;

Figure 4 is a horizontal section through the barrel and frame;

Figure 5 is a perspective view showing the plunger and trigger detached;

Figure 6 is a cross section on line 6—6 of Figure 3;

Figure 7 is a horizontal section on line 7—7 of Figure 3.

The frame or casing of my improved gun is formed of two substantially like halves A and B, each pressed from a sheet metal blank to form the barrel portion C, the handle portion D, the frame portion E, revolver barrel E' and trigger guard portion F. Each of these portions is formed with cooperating lugs G G' on marginal portions thereof which when clinched together will hold the frame sections in assembled relation. Within the barrel portion C is placed the liquid reservoir barrel H having a head H' at its forward end perforated by a small aperture H<sup>2</sup>. At the rear end the barrel H has a tongue H<sup>3</sup> projecting outwardly and engaging the slot in the frame A to hold the barrel H from displacement.

I is a plunger engaging the barrel H and provided with a shank I' which extends rearward and is then return bent at I<sup>2</sup> to extend forward, being provided at its end with a knurled collar I<sup>3</sup> forming a handle. The

shank I' is provided on its upper side with a series of notches I<sup>4</sup> for successive engagement of the trigger pawl when the gun is fired. J is a trigger member struck out from sheet metal having a hammer portion J' for projecting out through a slot between the upper edge portions of the frame sections A and B. At the opposite ends of this slot are shoulders J<sup>2</sup> and J<sup>3</sup> against which the hammer will strike when moved forward or rearward. K is a pivot pin for the hammer which is welded or otherwise secured to one of the frame sections such as A and engages a registering aperture in the other frame section B. The trigger member is apertured to be sleeved on the pin K and a coil spring L is also sleeved on the pin to yieldably press the trigger member against the frame section A. M is an inwardly struck out portion on the frame section A which is in the path of the finger M' on the trigger when the latter is moved from its cocked to its firing position. The member M acts as a cam which in conjunction with the finger M' presses the trigger J laterally against the tension of the spring L so that after riding over the high point in this cam the finger M' will effect a snap movement of the trigger. This will strike the hammer J' alternately against the shoulders J<sup>2</sup> and J<sup>3</sup>, making a snapping noise. The trigger J is also provided with a pawl N which in the cocked position of the hammer is withdrawn from contact with the plunger I', but which during movement of the trigger to engage one of the notches I<sup>4</sup> will feed the plunger I' forward. The return bent portion of the plunger I' extends out through an aperture in the frame E, leaving the handle I<sup>3</sup> in a position where it may be manually moved to correspondingly move the plunger. Thus to load the gun with liquid, it is only necessary to first move the plunger toward the forward end of the barrel H (if it is not already in this position) and then to insert the end of the barrel into the liquid and to move the plunger rearward by means of the handle I<sup>3</sup>. The amount of liquid thus stored in the barrel is enough for a plurality of shots which may be succes-



sively fired by alternately pulling on the trigger and drawing the hammer back.

As has been stated, the primary object is to obtain a construction which can be manufactured at low cost. This is accomplished, first, by a comparatively few parts that compose the structure; second, by forming the principal parts such as the frame sections and trigger of stampings and the remaining elements of simple construction. The structure has the appearance of a pistol with a revolver barrel and the fact that a succession of shots can be fired without reloading carries out the illusion. One of the securing lugs  $G^2$  may be used as a forward sight and a rear lug  $G^3$  cooperates therewith.

To guide the plunger shank in its forward and rearward movement, a lug O is stuck inward from one of the frame sections such as A, as shown in Figures 2 and 6.

What I claim as my invention is:

1. A gun comprising two complementary frame sections formed of pressed sheet metal and including a barrel portion, a frame portion, a trigger guard portion and a handle portion, a reservoir barrel clamped between the barrel portions of said frame, a piston or plunger in said reservoir barrel, a plunger shank extending rearwardly in said frame and return bent to extend forward and out through an aperture in the frame beneath the barrel portion thereof, said plunger shank being provided with notches in its upper portion, and a handle on its return bent portion for manual manipulation, a trigger pivotally supported within said frame sections having the trigger proper projecting within said trigger guard, and a hammer portion projecting above the frame and a spring pawl on said trigger member moved out of engagement with said plunger shank when said hammer is in cocked position and successively engaging the notches in said shank to feed said plunger when said trigger is successively pulled.

2. A gun comprising two complementary frame sections formed of pressed sheet metal and including a barrel portion, a frame portion, a trigger guard portion, a handle portion and a revolver portion, a liquid reservoir barrel clamped in the barrel portions of said frame, a plunger in said liquid barrel, a plunger shank extending rearward of said plunger and return bent to extend forward out from said frame and below said barrel, a trigger pivot extending across said frame, a trigger member pivoted thereon and having a portion extending into the trigger guard of said frame, and a hammer portion extending upward through a slot in said frame having shoulders at opposite ends thereof, a pawl extending forward from said trigger for successively engaging notches in said plunger shank to feed the plunger forward and means cooperating with said

trigger for effecting a snap movement thereof towards or from its cocked position whereby contact of said hammer with the shoulders at the ends of said slot will produce a clicking noise.

3. A gun comprising two complementary frame sections formed of pressed sheet metal and each including a barrel portion, a frame portion, a revolver portion, a trigger guard portion and a handle portion, the edges of said sections abutting and being provided with cooperating locking lugs, a liquid reservoir barrel clamped between said barrel sections and provided with a projecting lug engaging a slot in one of said section to retain the same from displacement, a piston in said reservoir, a piston shank extending rearward therefrom being provided with notches on its upper edge and return bent to extend forward out from the frame into a position beneath the barrel, a handle on the projecting end of said plunger, a guide on one of said frame sections for holding said piston shank in alignment with said barrel, a trigger pivotally secured between said frame sections and formed of a sheet metal stamping with a portion projecting downward into the space within said trigger guard, a hammer portion projecting upward, a pawl secured to said trigger member projecting forward into operative engagement with the notches in said piston shank, a finger projecting laterally from said trigger, a cam struck in from one of the said frame sections in the path of said finger and a spring for yieldably pressing said trigger with its finger in contact with said cam whereby the movement of said trigger and hammer towards and from the cocked position will cause said trigger to traverse said cam and produce a snap movement.

In testimony whereof I affix my signature.  
CHARLES F. LEFEVER.

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