This invention relates to portable devices for throwing or discharging liquids in the form of a stream, and is intended for use in defense against the attacks of savage dogs or other animals or of vicious persons by expelling a liquid which will blind the eyes for a time without danger of producing death or of doing any permanent injury. The preferred liquid will be dilute aqua ammonia, or a mixture of capsiicum and croton-oil, of about six drams of oil to a quart of tincture of capsiicum, or any other liquid which will be immediately blinding without causing any permanent injury to the eyes.

The object of the invention is to provide such a device in pistol form adapted for concealment carrying in the pocket, and to provide a simple, inexpensive, and effective device of the above character which will be capable of discharging a number of charges of liquid before the contained supply is exhausted.

I do not desire to confine myself to any particular form of weapon for ejecting a liquid, but have here illustrated and will proceed to describe the device which I have invented for the above purpose.

Referring to the accompanying drawings, Figure 1 is a longitudinal vertical sectional view of my invention with the holding-chamber or magazine full of liquid preliminary to a first discharge, and Figure 2 is a like sectional view with the plunger or piston drawn back ready for a discharge.

3 is a cylinder having a reduced outer end or nozzle 4, and 5 is a plunger or plunger having a reciprocating travel in said cylinder.

6 is a head on the inner end of the piston 5, of slightly larger diameter, and it has a socket 7 forming a seat for one end of a spirally wound spring 8. The opposite end of the spring 8 has its bearing against the inner end 9 of the cylinder 3. The head 6 has a sleeve 10 fastened to it and extending forward and making a loose fit around the piston 5. The bore of the cylinder 3 is increased between the points 12 and 14 somewhat to receive the head 7 and sleeve 10 with a close sliding fit which is calculated to prevent the passage of liquid between the cylinder 3 and sleeve 10.

Attached to the under side of sleeve 10 and head 7 is a hollow trigger 14 which extends outside of the enlarged portion of the cylinder 3 through a slot 15 provided for that purpose. The length of slot 15 determines the longitudinal movement of the piston 5. The spring 8 holds the trigger normally against the outer end of slot 15, in which position the piston 5 is in contact with the inner wall of the nozzle 4 as shown in Figure 1. The hollow interior of the trigger 14 is in communication through the hole 16 with the space between the sleeve 10 and piston 5 whereby any liquid working back through the space between the piston and sleeve will drain into the hollow trigger instead of leaking into the pocket of the person carrying the pistol.

17 is a cap screw in the lower end of the trigger by the removal of which the interior of the trigger will be drained and emptied.

20 is a liquid-holding chamber or reservoir extending longitudinally of the cylinder 3 above the latter. Its front end is closed by means of a screw plug 21 which is removed for the purpose of filling the reservoir with liquid.

22 is a porthole through the top wall of the cylinder 3 through which the liquid in the reservoir 20 is introduced into the cylinder 22 when the piston 5 is retracted to the position shown in Figure 2. It will be noted that the port 22 is adjacent the end of piston 5 when the latter is retracted and the quantity of liquid which can be thrown by the piston at a single discharge is measured by the distance of the port 22 from the inner wall of nozzle 4.

The operation of my invention is readily apparent. After the reservoir 20 is filled the cylinder or barrel of the pistol 3 is automatically loaded by retracting the piston 5 until it is stopped by contact of trigger 14 against the rear end of slot 15. The charge in the cylinder or barrel 3 is forcibly discharged by the expansion of spring 8 simply by the release of trigger 14. Any back-seepage of the liquid around the piston 5 between the latter end walls of cylinder 3 will escape between sleeve 10 and the piston 5 into the hollow trigger 14.

The trigger-guard 26 and handle 27 are of any usual and convenient form for the usual purpose of such parts.
Having thus fully described my invention what I claim as new and wish to secure by Letters Patent of the United States, is—

1. In combination with a liquid throwing pistol, a cylinder, a piston moving in said cylinder, a reservoir above the cylinder having a port which communicates with the cylinder when the piston is retracted and at other times is closed by the piston.

2. In combination with a liquid throwing piston, a cylinder, a piston moving in said cylinder, a spring pressing the piston in normal outward closed position, a reservoir extending longitudinally of and above the cylinder, having a port which communicates with the cylinder when the piston is retracted and at other times is closed by the piston.

3. In combination with a liquid throwing arm, a cylinder, a piston having reciprocating movement in said cylinder, a reservoir above the cylinder having a port which communicates with the cylinder when the piston is retracted and at other times is closed by the piston, a spring pressing the piston in longitudinal outward direction and a trigger to retract the spring and piston.

4. In combination in a liquid throwing arm, a cylinder having an expanded middle portion, a piston moving in said cylinder said piston having an enlarged head, a sleeve loosely enveloping the piston and attached to said head and making a close sliding fit in said enlarged portion of the cylinder, a reservoir above the cylinder having a port which communicates with the cylinder when the piston is retracted and at other times is closed by the piston, a spring pressing the piston longitudinally in an outward direction, and a hollow trigger to retract the piston and spring said trigger being attached to said sleeve enveloping the piston and said sleeve having a hole for drainage into said hollow trigger.

5. In combination in a liquid throwing arm, a cylinder having an expanded middle portion, a piston moving in said cylinder said piston having an enlarged head, a sleeve loosely enveloping the piston and attached to said head and making a close sliding fit in said enlarged portion of the cylinder, a reservoir above the cylinder having a port which communicates with the cylinder when the piston is retracted and at other times is closed by the piston, a spring pressing the piston longitudinally in an outward direction, and a hollow trigger to retract the piston and spring said trigger being attached to said sleeve enveloping the piston and said sleeve having a hole for drainage into said hollow trigger.

6. In combination in a liquid throwing arm, a cylinder having an expanded middle portion, a piston moving in said cylinder said piston having an enlarged head, a sleeve loosely enveloping the piston and attached to said head and making a close sliding fit in said enlarged portion of the cylinder, a reservoir above the cylinder having a port which communicates with the cylinder when the piston is retracted and at other times is closed by the piston, a spring pressing the piston longitudinally in an outward direction, and a hollow trigger to retract the piston and spring said trigger being attached to said sleeve enveloping the piston and said sleeve having a hole for drainage into said hollow trigger.

In witness whereof, I have hereunto set my hand and seal at Indianapolis, Indiana, this 27th day of March, A. D. one thousand nine hundred and nine.

THOMAS G. HAMILTON.

Witnesses:
F. W. WORNER,
L. B. WORNER.