No. 825,270. PATENTED JULY 3, 1906.

G. L. GULLIFORD.

LIQUID PISTOL.

APPLICATION FILED SEPT. 12, 1905.

Fig. 1.

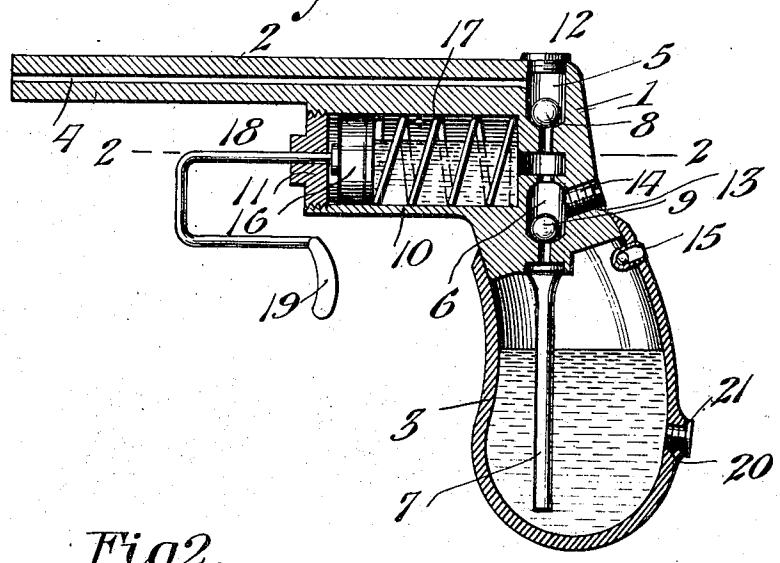
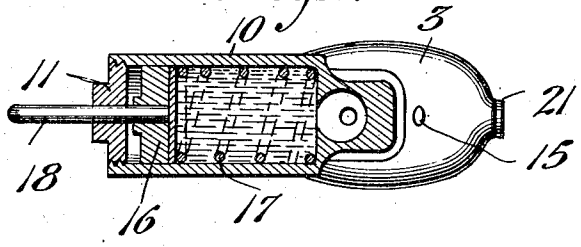


Fig. 2.



Witnesses

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UNITED STATES PATENT OFFICE.

GEORGE L. GULLIFORD, OF BLOOMINGTON, ILLINOIS.

LIQUID-PISTOL.

No. 825,270. Specification of Letters Patent. Patented July 3, 1906.

Application filed September 12, 1905. Serial No. 278,175.

To all whom it may concern:

Be it known that I, GEORGE L. GULLIFORD, a citizen of the United States of America, residing at Bloomington, in the county of McLean and State of Illinois, have invented new and useful Improvements in Liquid-Pistols, of which the following is a specification.

This invention relates to a liquid-pistol or liquid-ejecting device having the general form of a pistol, the object of the invention being to provide a simple and effective device of this character which is operable to discharge a number of charges of liquid before the contained supply becomes exhausted.

In the accompanying drawings, Figure 1 is a vertical longitudinal section of the device, and Fig. 2 is a section on the line 2 2 of Fig. 1.

The device has the general form of a pistol and comprises a frame composed of a stock 1, a barrel 2, and a butt 3, the latter being hollow to form a reservoir for the liquid to be ejected. The barrel is provided with a discharge bore or passage 4, communicating at its inner end with a vertical outlet-passage 5, formed in the stock and disposed in alinement with a feed-passage 6 in communication at its lower end with an eduction-tube 7, depending from the stock and submerged at its lower end in the liquid contained in the reservoir. The passages 5 and 6 are controlled by upwardly-movable gravity or spring closing check-valves 8 and 9 and are connected intermediate their meeting ends with a charge-chamber 10, formed upon the barrel and stock and closed at its front end with a screw-cap or head 11. The passages 5 and 6 have enlarged portions for the reception and free movement of the valves 8 and 9, the enlarged portion of the passage 5 opening through the top of the stock and being closed by a screw-plug 12, while the passage 6 is intersected by an opening 13, opening through the rear of the stock and closed by a screw-plug 14. This construction also provides for the ready insertion and removal of the valves and the clearance of the passages from foreign substances when occasion requires. The butt or reservior 3 is formed with a check-valved vent-opening 15 to prevent the escape of liquid, while permitting air to enter to take the place of the discharged liquid.

Arranged in the charge-chamber 10 is a reciprocating piston or expelling device 16, between which and the inner wall of said chamber is a spiral spring 17, acting to normally retract or force said piston forward. The piston is provided with a rod or stem 18, movable in and projecting through an opening in the head 11 and bent downwardly and rearwardly toward the butt and terminating in a finger-piece 19. An opening 20, formed in the reservoir 3 and normally closed by a plug or other suitable stop 21, is provided to enable the same to be conveniently replenished with liquid.

In operation when the piston is forced inwardly against the resistance of the spring 17 the charge of liquid previously drawn into the chamber 10 is expelled through the passage 5 and bore 4, the valve 8 opening under the pressure thereof to permit its escape. When the finger-piece 19 is released, the piston 16 will be forced outward by the spring 17, thereby creating a vacuum in the chamber 10, which causes the valve 9 to open and a supply of liquid for discharge to be drawn through the tube 7 and passage 6 from the reservoir into the chamber 10. By thus successively operating and releasing the finger-piece 19 charges of liquid may be drawn into the chamber 10 and discharged through the barrel until the supply of liquid in the reservoir 3 is exhausted. A liquid-magazine pistol or ejecting device is thus provided which is simple of construction and may be operated any desired number of times according to the capacity of the reservior and discharge-chamber.

Having thus described the invention, what is claimed as new is—

1. A liquid-ejecting device provided with a discharge-passage, a reservoir, a charge-chamber, check-valves controlling the flow of liquid from the reservoir to the charge-chamber and from said chamber to the discharge-passage, and an expelling device mounted in the charge-chamber and adapted upon one of its movements to draw liquid from the reservoir into said chamber.

2. A liquid-ejecting device provided with a discharge-passage, a reservoir, a charge-chamber in communication with the discharge-passage and reservoir, check-valves for respectively controlling the flow of liquid from the reservoir to the charge-chamber and from said charge-chamber to the discharge-passage, a piston operating in the charge-chamber, and a spring for retracting said piston.

3. A liquid-ejecting device provided with a discharge-passage, a reservoir forming a han-

dle, a charge-chamber in communication with the reservoir and discharge-passage, check-valves controlling the flow of liquid from the reservoir to the charge-chamber and from said charge-chamber to the discharge-passage, a piston operating in the charge-chamber, a spring for retracting the same, and a stem connected with the piston and provided with an exterior finger-piece.

4. A liquid-ejecting device comprising a frame having the general form of a pistol, the butt thereof forming a reservoir and the barrel having a discharge-passage and a stock, a feed-passage communicating with the reservoir and an outlet-passage communicating with said discharge-passage, a charge-chamber formed upon the barrel and stock and in communication with said feed and outlet passages, check-valves controlling the feed and outlet passages, a spring-retracted piston disposed in the charge-chamber, and a stem connected with the piston and having a finger-piece adapted to be operated by a finger of the hand gripping the butt.

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

GEORGE L. GULLIFORD.

Witnesses:
GEO. F. JORDAN,
EDWARD O. CONNOR.