

No. 742,113.

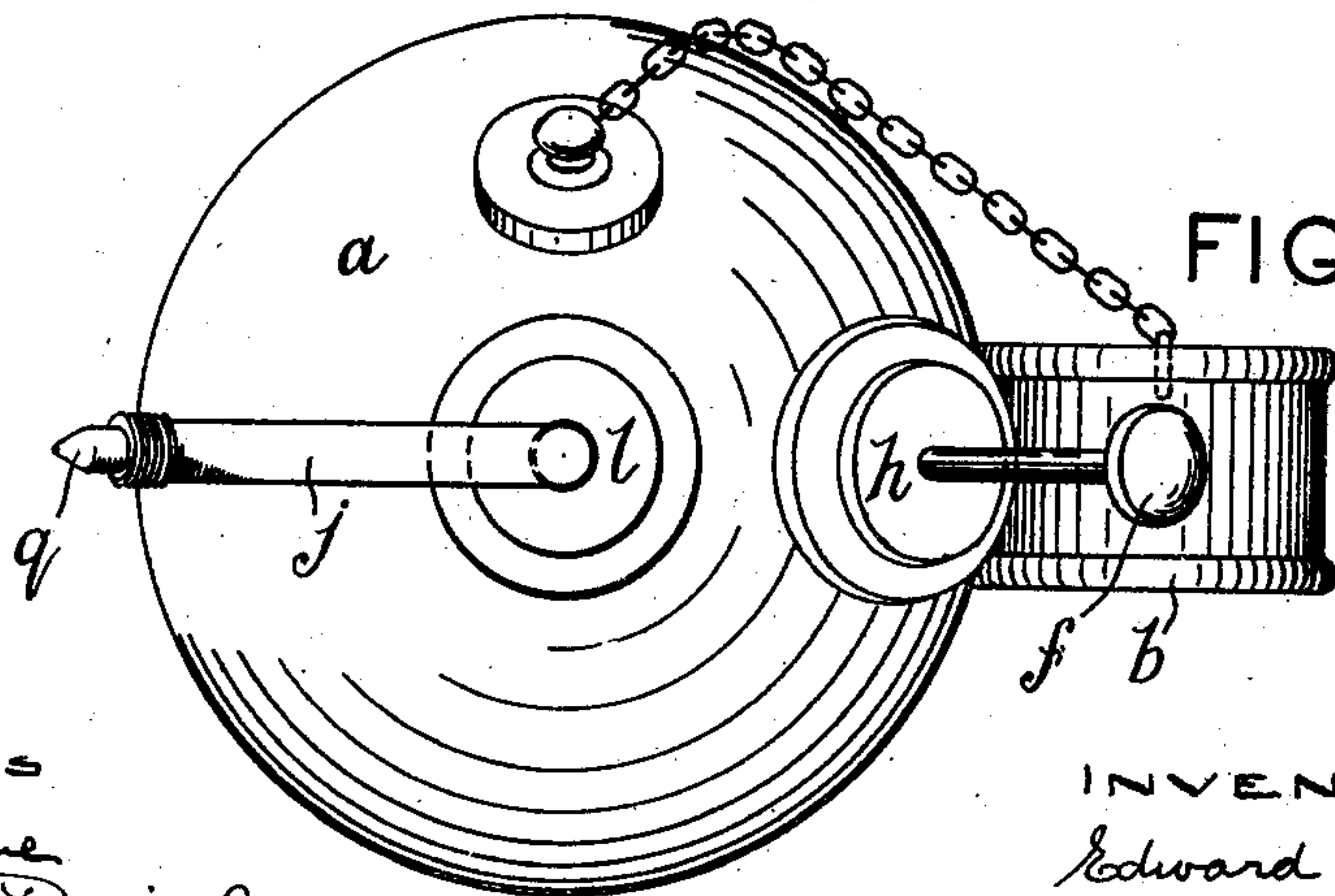
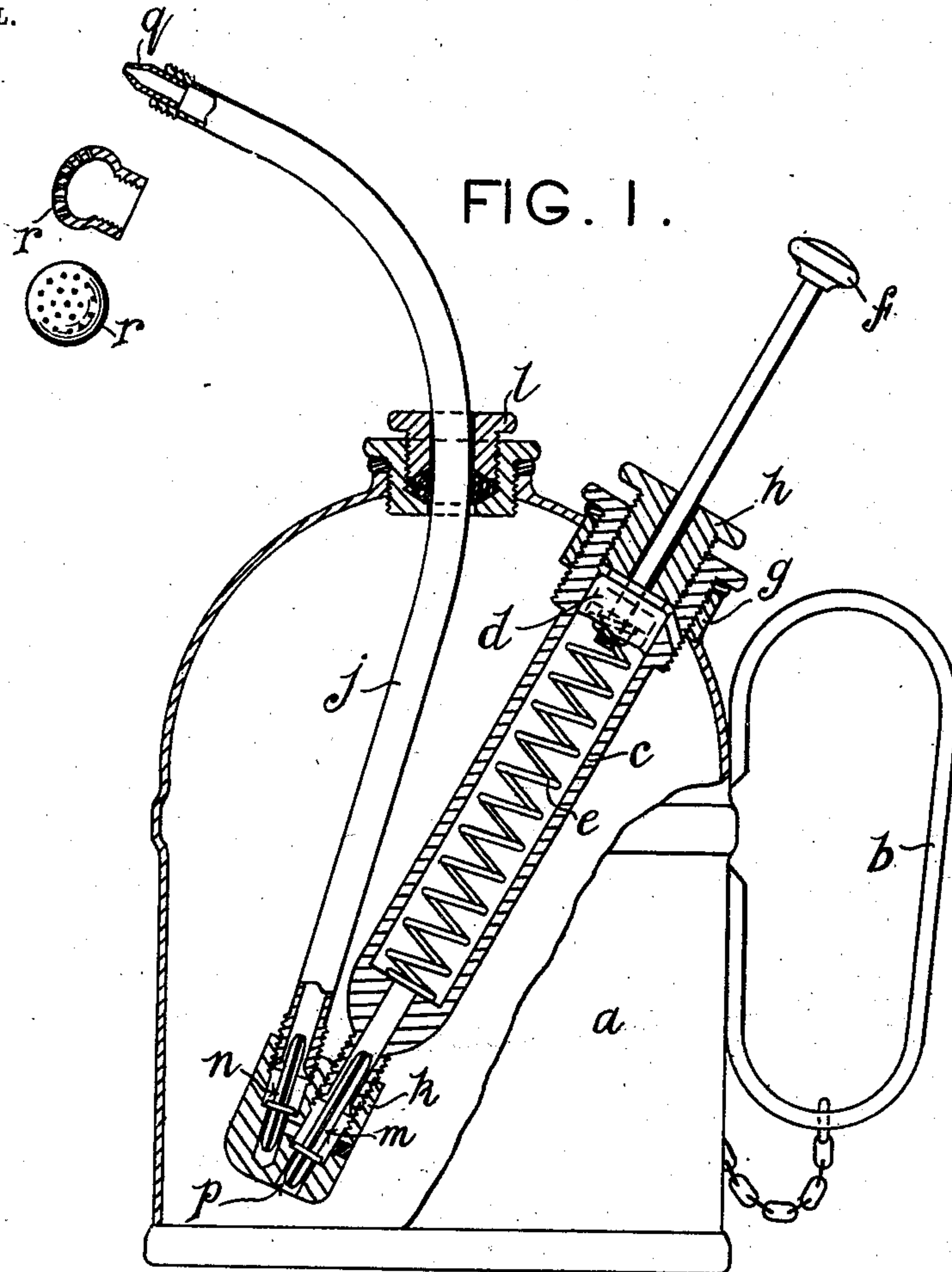
PATENTED OCT. 20, 1903.

E. CASTLE.

OIL OR LIQUID SPRAYING OR EJECTING APPARATUS.

APPLICATION FILED MAR. 3, 1903.

NO MODEL.



WITNESSES

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EDWARD CASTLE, OF SHEERNESS, ENGLAND, ASSIGNOR TO HENRY CECIL WILLIAM GIBSON AND WILLIAM CASTLE, OF LONDON, ENGLAND.

OIL OR LIQUID SPRAYING OR EJECTING APPARATUS.

SPECIFICATION forming part of Letters Patent No. 742,113, dated October 20, 1903.

Application filed March 3, 1903. Serial No. 145,983. (No model.)

To all whom it may concern:

Be it known that I, EDWARD CASTLE, a subject of the King of Great Britain and Ireland, residing at Sheerness, in the county of Kent, England, have invented a new and useful Improvement in Oil or Liquid Spraying or Ejecting Apparatus, of which the following is a specification.

This invention relates to hand portable apparatus for ejecting or spraying oil or liquid in either a solid stream or in a diffused spray, and is applicable for the oiling of machinery at a distance or inaccessible positions or for the spraying of water or other liquids for the early extinguishing of small fires or for horticultural purposes.

The improvement consists in the combination and arrangement of the ejecting apparatus relatively to the casing and to the handle thereof, so that all operative parts may be inserted easily into and removed from the oil or liquid container of ordinary shape and that the ejecting-plunger is conveniently presented to the thumb of the person holding the apparatus for the easy ejection of the liquid contents.

Figure 1 is a vertical section, broken, through my apparatus; and Fig. 2 is a plan of the same.

a is the container or can, of ordinary domed tubular form, fitted with a handle *b* at the side to be grasped by the hand of the user.

c is a spring-recoil pump having a plunger *d* with an under spiral spring *e*, which serves automatically to return the plunger outward after its downstroke by the pressure of the thumb of the person holding the can upon the thumb-knob *f*. This pump *c* is screwed into a suitable socket *g* in the top of the can at such an angle as to present the knob *f* direct to the pressure of the thumb of the holder. The plunger *d* has a suitable cup-leather and passes through a gland *h*.

The pump *c* is screwed at its bottom end into a valve-box *k* of such size that it can be inserted and withdrawn with the pump *c* through the socket *g* when the delivery-tube *j*, which is also screwed at its bottom end in the said valve-box *k* and passes through an-

other screwed socket and gland, *l*, in the top of the receiver, has been removed. In the valve-box *k* are fitted the suction and delivery valves *m n*, the former, *m*, controlling the suction-port *p* and the latter, *n*, controlling the delivery-pipe *j*, thus adapting the pump as a single-acting ejector-pump. The length of the upward stroke of the plunger may be adapted to circumstances by the control of the thumb. One steady downward stroke of the full length will discharge a required amount of oil or liquid in a steady stream to a desired spot at a distance of ten to twelve feet, or if a continuous stream is required the thumb may produce a constant succession of shorter and repeated strokes until the quantity desired has been discharged.

To the end of the delivery-pipe *j* are fitted alternatively nozzles of any required form, such as *q*, a plain nozzle for a full steady stream, or, as *r*, a perforated rose for a spraying-stream.

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

1. In a can or liquid-container, the combination with a socket in the head of the can, a spring-recoil plunger-pump secured in said socket and a valve-box secured to the lower end of said pump, of a second socket and a detachable delivery-pipe secured in said valve-box.

2. In a can or liquid-container, the combination with a handle and a pump inserted through the top of said can obliquely to said handle, of a valve-box at the lower end of said pump, suction and delivery valves in said valve-box, a screwed socket in the top of said can adapted to admit said pump and valve-box, a second gland-socket and a detachable delivery-pipe passing through said socket and secured to said valve-box, substantially as described.

In witness whereof I have hereunto set my hand in presence of two witnesses.

EDWARD CASTLE.

Witnesses:

RICHARD A. HOFFMANN,
CHARLES CARTER.