

No. 652,985.

Patented July 3, 1900.

J. H. WALKER.  
SYRINGE, INJECTOR, &c.

(Application filed Jan. 2, 1900.)

(No Model.)

Fig. 1

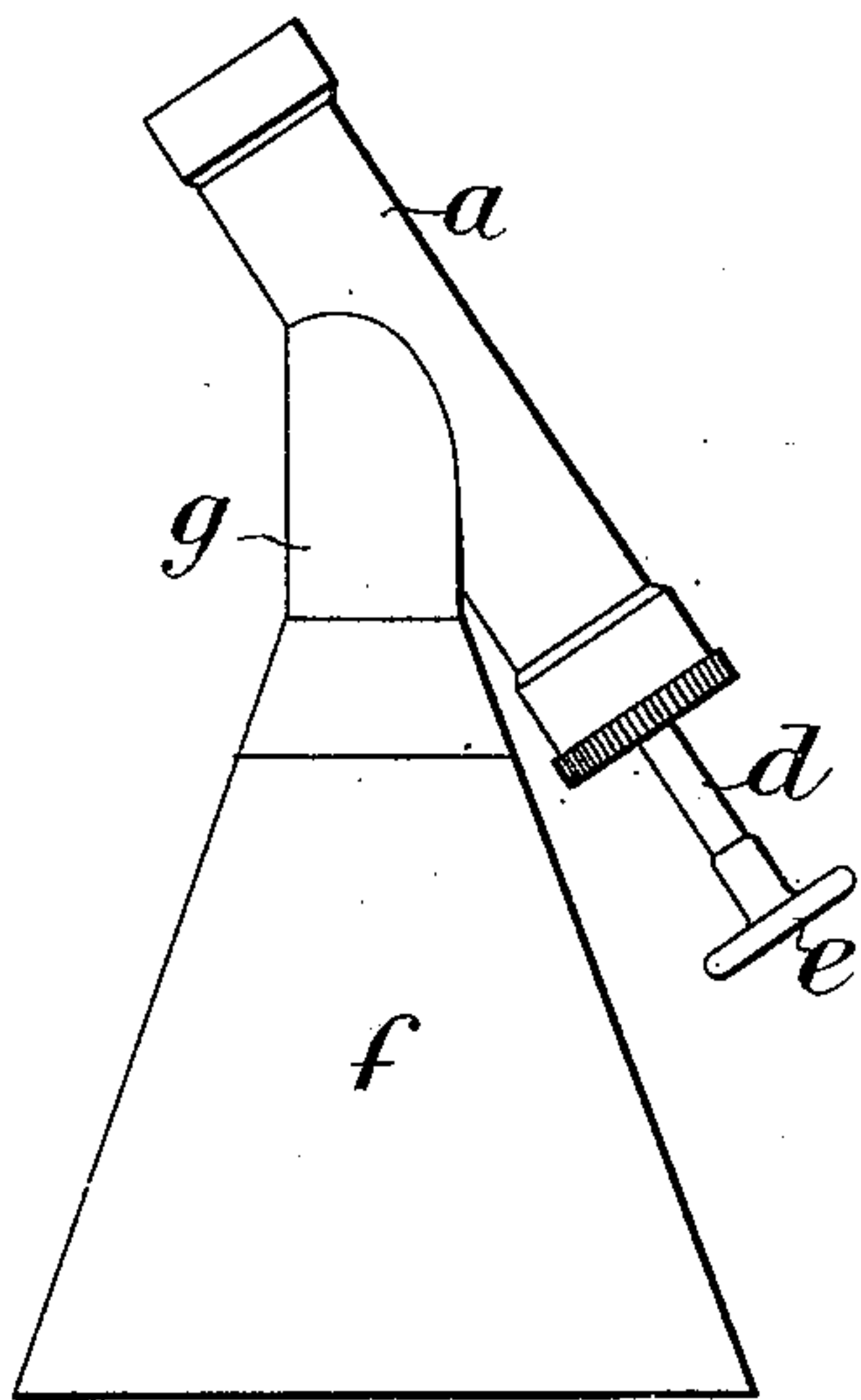


Fig. 2

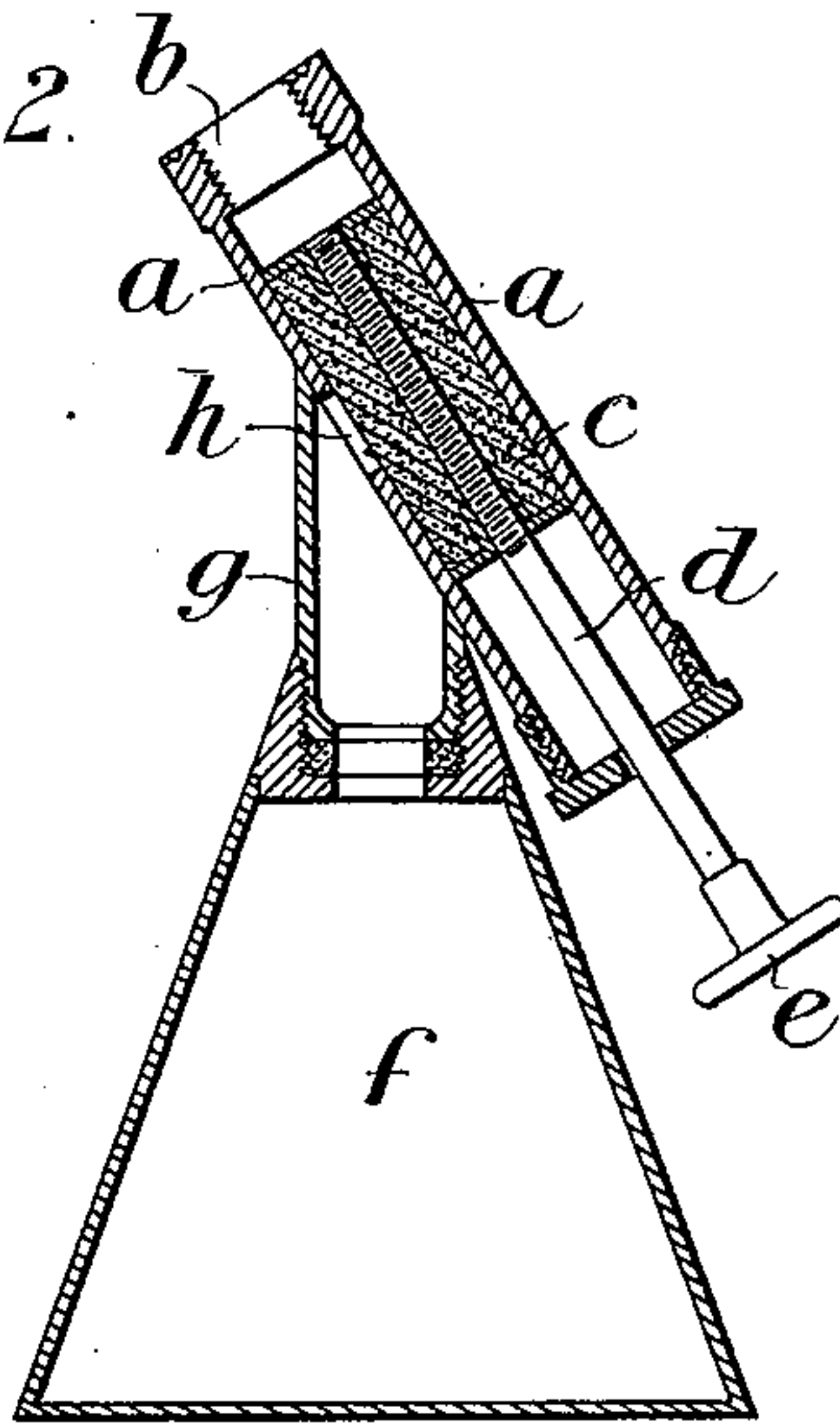


Fig. 4

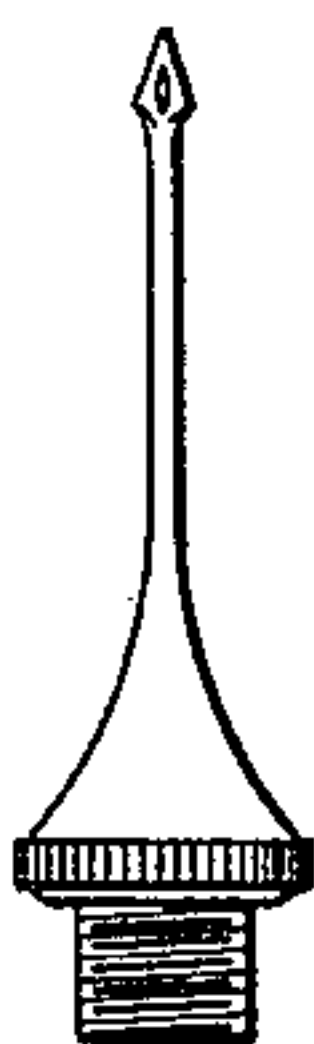


Fig. 3

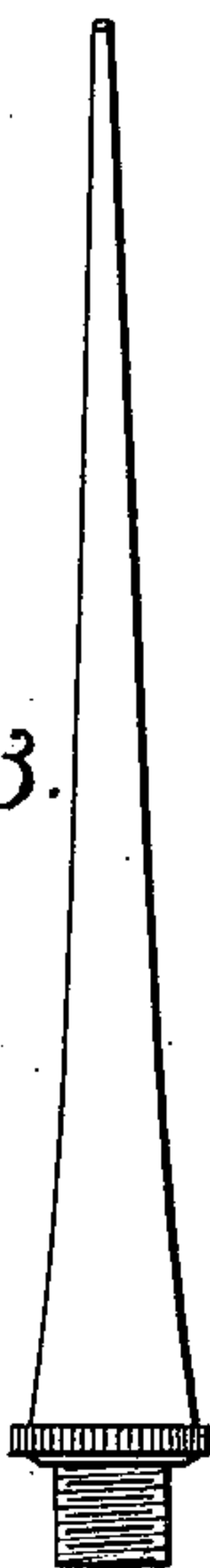


Fig. 5



Witnesses.

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# UNITED STATES PATENT OFFICE.

JOHN HERBERT WALKER, OF CHARTERS TOWERS, QUEENSLAND.

## SYRINGE, INJECTOR, &c.

SPECIFICATION forming part of Letters Patent No. 652,985, dated July 3, 1900.

Application filed January 2, 1900. Serial No. 143. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN HERBERT WALKER, a subject of the Queen of Great Britain, residing at Mary street west, Charters Towers, Queensland, have invented new and useful Improvements in Syringes, Injectors, or the Like, of which the following is a specification.

This invention relates to an improved device for use as a hypodermic or other syringe or injector or as an oil-can, lubricator, or the like.

According to the invention I construct my syringe, injector, lubricator, or the like of a cylinder to one end of which a suitable tube or nozzle is to be fitted and which is provided with a piston or plunger having a rod which extends through the other end of the said cylinder, which is secured at an inclination to a reservoir, preferably of a conical shape, in which case the said cylinder is secured to the apex thereof. An orifice is made in the cylinder-wall for placing its interior into communication with the reservoir. With this arrangement when the piston or plunger is pulled by means of the rod into its outer position the orifice giving communication between the cylinder and the reservoir is opened, so that by inverting the device the liquid to be injected or forced through the nozzle flows into the said cylinder in front of the piston or plunger. On then pushing forward the piston or plunger the liquid contents contained in the cylinder in front thereof are forced forward through the outlet-tube and the orifice is closed. When not employed, the device can stand upon the base of the conical reservoir.

To enable the invention to be fully understood, I will describe it by reference to the accompanying drawings, in which—

Figure 1 is a front elevation of a syringe or injector without the tube, made according to the invention. Fig. 2 is a vertical section thereof. Figs. 3, 4, and 5 illustrate types of tubes which can be fitted to the device.

$a$  is the cylinder, the said cylinder being formed at its upper end with an internal screw-thread  $b$ , by means of which a suitable tube can be fitted thereto—such, for example, as the oil-can tube shown in Fig. 3, a hypodermic injector, as shown in Fig. 4, or an ear-tube, such as is shown in Fig. 5.

$c$  is the piston or plunger, the said piston or plunger being of any suitable construction and advantageously somewhat longer than half the internal length of the cylinder  $a$ .  $d$  is the plunger-rod, which passes through the lower cap of the cylinder and is provided at its outer end with a knob or button  $e$ .

$f$  is the reservoir, which is here shown of a conical shape, such that the device when not in use can be stood upon the base thereof. The cylinder  $a$  is secured to the apex of the said conical reservoir  $f$  by any suitable means—for instance, through the medium of a connecting-tube  $g$ , as illustrated in Figs. 1 and 2.

The device is employed as follows—that is to say: Assuming the reservoir  $f$  to be filled by the liquid which is to be injected or pumped from the cylinder, the piston or plunger  $c$  is drawn down to the lower cap of the cylinder and the device inverted, so that liquid flows from the reservoir  $f$  into the front of the said piston or plunger. The instrument is then placed in position and the plunger  $c$  forced forward by means of the external button  $e$ , so that the liquid contents of the cylinder are forced through the tube screwed into the end thereof. The device is then returned to its normal position and the plunger withdrawn. Where it is desired to protect the contents of the reservoir against evaporation or against the action of the atmosphere, the plunger is then again pushed into its uppermost position, so as to close the orifice  $h$ .

Among the many uses to which my improved syringe, injector, lubricator, or the like can be put I may mention the following: for the use of mechanics, engine-drivers, &c., as an oil-can, the advantage being that there is practically no waste of oil and the construction enabling oil to be forced up or into remote portions of machinery without depending upon the action of gravity; for the use of station-owners and cattlemen generally for the inoculation of stock against tick-fever, redwater, pleurisy, and pneumonia; for the subcutaneous injection of morphia into the body to relieve pain and the subcutaneous injection of strychnine or other antidotes in treating for the bites of venomous reptiles; for the treatment of affections of the ear, nose, throat, eyes, &c.



The foregoing, however, are only instances of the uses to which the device can be put, as it is applicable generally to all purposes for which small syringes are usually employed.

5 Having now particularly described and ascertained the nature of my said invention and in what manner the same is to be performed, I declare that what I claim is—

10 In an injector, the combination with a reservoir, provided with a threaded delivery-orifice, of an injector-cylinder, exterior to said reservoir disposed at an angle to the longitudinal axis of said reservoir, and provided

with a reciprocating plunger, an inlet-aperture in its side and a discharge-aperture directly in line with the line of movement of said plunger, and a connecting-tube, communicating with the aperture in the side of the cylinder and provided with a portion adapted to fit into the threaded delivery-orifice of said 20 reservoir, substantially as described.

JOHN HERBERT WALKER.

Witnesses:

CHARLES JOHN MARTIN,  
PHILIP PERRON.