

No. 679,622.

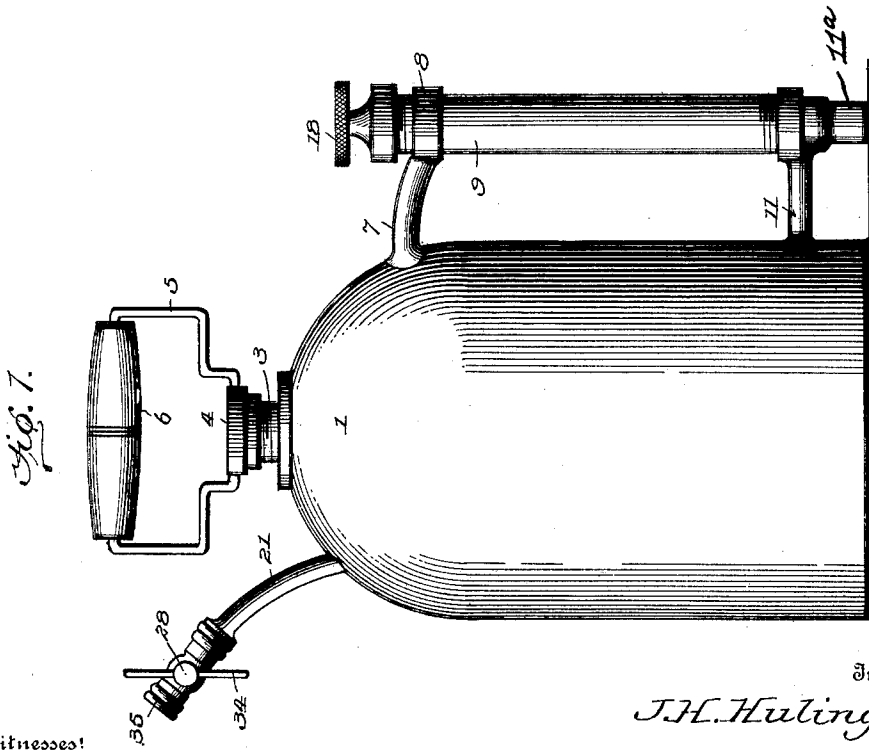
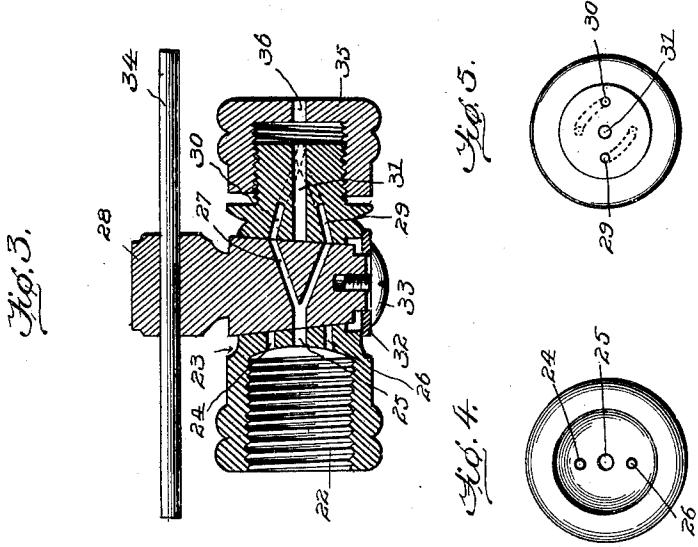
Patented July 30, 1901.

J. H. HULINGS.  
HAND OILER.

(Application filed Oct. 13, 1900.)

(No Model.)

2 Sheets—Sheet 1.



Witnesses!

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*Herbert Lawson*

Inventor.  
*J. H. Hulings.*

By *Victor J. Evans* Attorney

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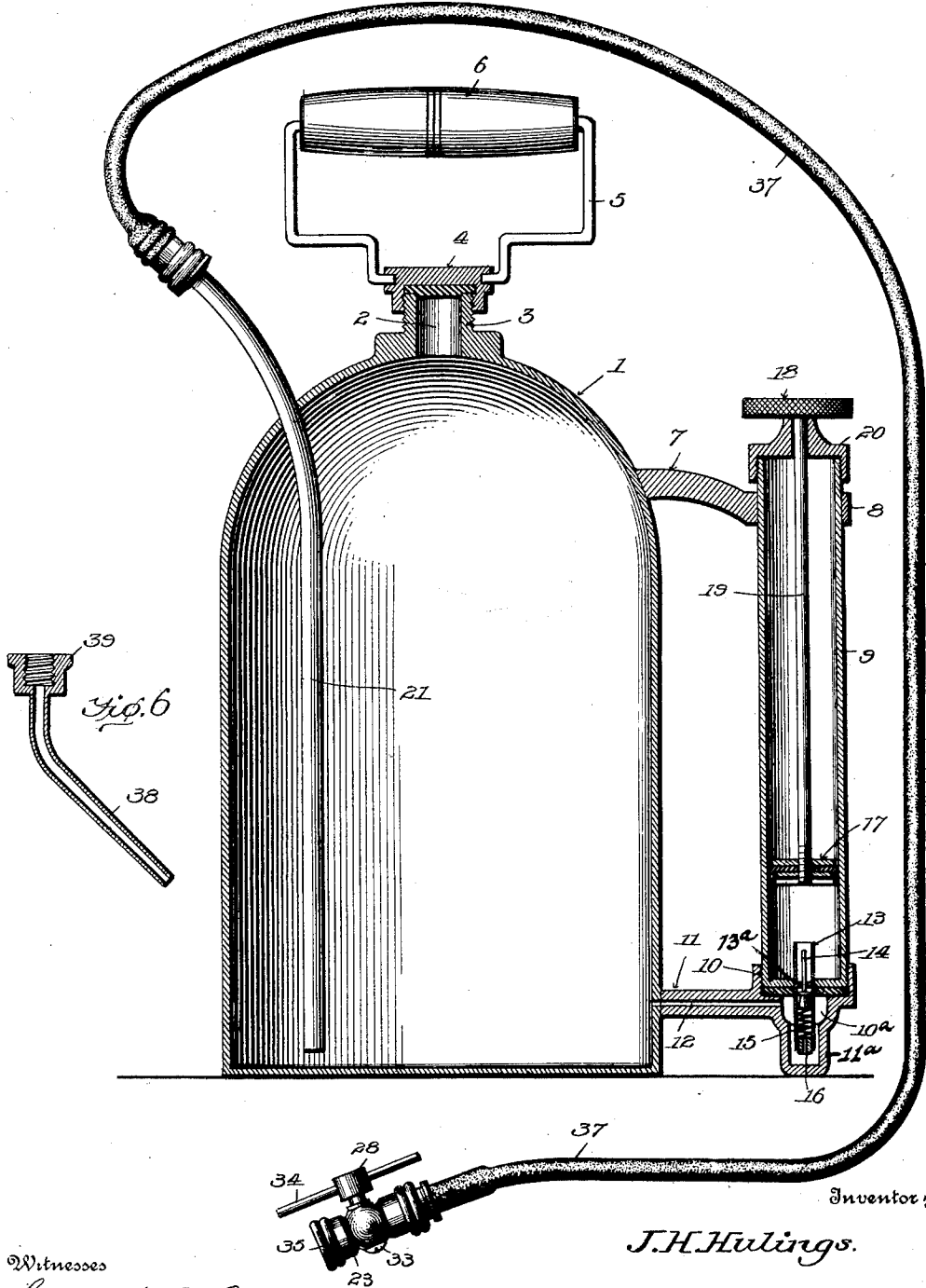
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2 Sheets—Sheet 2.

Fig. 2.



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# UNITED STATES PATENT OFFICE.

JAMES H. HULINGS, OF PARSONS, WEST VIRGINIA.

## HAND-OILER.

SPECIFICATION forming part of Letters Patent No. 679,622, dated July 30, 1901.

Application filed October 13, 1900. Serial No. 32,980. (No model.)

*To all whom it may concern:*

Be it known that I, JAMES H. HULINGS, a citizen of the United States, residing at Parsons, in the county of Tucker and State of West Virginia, have invented new and useful Improvements in Hand-Oilers, of which the following is a specification.

This invention relates to new and useful improvements in hand-oilers; and its primary object is to provide a device of this character having means whereby the oil may be forced therefrom by air compressed within the receptacle by means of a pump the cylinder of which serves as a handle for the device.

A further object of the invention is to provide a nozzle which may be employed for spraying the oil or for discharging the same in a steady stream.

With these and other objects in view the invention consists in providing a receptacle having arms extending laterally therefrom, to which is detachably secured a pump-cylinder having a valve at the lower end thereof. A piston is slidably mounted within the cylinder and is adapted to force air therefrom and through the valve before referred to into the oil-receptacle. An oil-inlet is provided at the top of the receptacle and is inclosed by a flange, to which a cap is adjustably secured, said cap being provided with a bail or handle, whereby the device may be readily carried in an upright position. A tube extends upward through the receptacle from a point adjacent to the bottom thereof and is provided at the end thereof with a nozzle of peculiar construction, having a valve therein which is adapted when turned to one position to discharge the oil in form of spray and when turned to a second position will permit the same to be discharged in a single unbroken stream.

The invention also consists in the further novel construction and combination of parts hereinafter more fully described and claimed, and illustrated in the accompanying drawings, showing the preferred form of my invention, and in which—

Figure 1 is an elevation of the can. Fig. 2 is a vertical longitudinal section therethrough, showing the nozzle secured to a tube attached to the can. Fig. 3 is an enlarged section through the nozzle. Fig. 4 is an inner end

view thereof. Fig. 5 is a view of the opposite end with the cap removed, and Fig. 6 is a section through a modified form of nozzle. 55

Referring to the figures of the drawings by numerals of reference, 1 is a receptacle of any desired material, having an inlet 2 at the top thereof, which is inclosed by a flange 3. This flange is threaded upon its outer surface and is adapted to be engaged by a cap 4, to which is pivotally secured a bail 5, having a handle 6 thereon. An arm 7 extends laterally from the receptacle 1 at a point adjacent to the top thereof, and this arm is provided at its outer end with a loop 8, adapted to receive loosely the cylinder 9 of a pump. The lower end of this cylinder is screw-threaded and is adapted to extend into, seat within, and engage the screw-threaded walls of a recess 10, formed within the top of an arm 11, extending laterally from the receptacle at a point near to the bottom thereof and having a pendent valve-chamber 11<sup>a</sup>, whose lower end is flush with the bottom of the receptacle. This arm has a longitudinally-extending passage 12 therein, which communicates at opposite ends with the interior of the receptacle 1 and the recess 10<sup>a</sup> at the juncture of the bottom arm 11 and the pendent valve-chamber 11<sup>a</sup>. A tube 13 is fitted in and extends across the bottom of cylinder 9 and projects therefrom through the recess 10<sup>a</sup> and into the pendent valve-chamber 11<sup>a</sup>, and mounted within this tube is a valve-seat 13<sup>a</sup> and a valve 14, adapted to be held normally seated by a coil-spring 15, the opposite end of which bears upon a plug 16, screwed into the lower end of the cap and having a passage extending therethrough. A piston 17 is slidably mounted within the cylinder 9 and is connected to a knob or handle 18 by means of a rod 19, as shown. If desired, a removable cap 20 may be provided at the upper end of the cylinder 9. 60 65 70 75 80 85 90

A tube 21 extends upward through the top of the receptacle 1 from a point adjacent to the bottom thereof and is threaded at its upper end. This threaded end is adapted to project into a threaded recess 22, formed within one end of a valve-casing 23. The inner end of this recess is provided with three longitudinal apertures 24, 25, and 26, preferably arranged in alinement, as shown in Fig. 4, and the central one of which is adapted to 95 100

register with one end of a Y-shaped passage 27, extending through the valve 28, providing a single radial duct and two diverging or diagonal ducts. The opposite ends of this passage 27 will at the same time register with inclined outwardly-converging passages 29 and 30, which extend through the forward end of the valve-casing and are provided with outlets at opposite sides of a straight passage 31, extending through said forward portion of the casing. This straight passage is in alinement with the aperture 25, before referred to, and it is obvious that when the position of the valve 28 is reversed the larger end of the Y-shaped passage 27 will register with passage 31, while the remaining ends will be brought into alinement with the apertures 24 and 26. The valve 28 is held in position in the casing in any suitable manner, as by means of a washer 32 and a screw 33, and a bar 34 is arranged within said valve, whereby the same may be grasped and readily turned. The forward end of the valve-casing 23 is threaded externally and adapted to be inclosed and engaged by a cap 35, having an aperture 36 therein in alinement with the passage 31, before referred to.

In lieu of securing the nozzle, such as shown in Fig. 3, direct to the tube 21, the same may be attached to the end of a flexible tube 37, which is connected to the tube 21.

After oil has been placed into the receptacle through the inlet 2 the cap 4 is screwed thereon. Air is then forced into the receptacle by working pump-piston 17 up and down within its cylinder 9, thereby forcing the air down through the tube 13, around the valve 14, and through the passage 12. The air will rise to the top of the receptacle and force the oil downward and thence upward into the tube 21. When the valve 28 is in the position shown in Fig. 3, the oil will pass into the aperture 26 and then through the Y-shaped passage 27 into the inclined passages 30 in the valve-casing. The oil will be discharged from these passages under pressure against the inner surface of the end of the cap 35 and will issue through the aperture 36 in the form of spray. The field covered by this spray may be readily regulated by adjusting the cap 35 back and forth upon the casing.

When it is desired to discharge the oil through the nozzle in a continuous stream, the valve is reversed until the small ends of the passage 27 register with the apertures 24 and 26. The oil will then obviously be discharged into the passage 31 and out through the aperture 36, which is in alinement therewith. It will be seen that by giving the valve 28 a one-quarter turn the flow of oil there-through will be prevented.

If it is desired, a nozzle such as shown in

Fig. 6 may be employed in lieu of that here-before described, said nozzle comprising a spout or discharge-tube 38, arranged at one end of a screw-cap 39.

By the term "Y shape" I do not desire to restrict myself to the particular form of passage shown in Fig. 3, as, if desired, said passage may be V-shaped or, in fact, may be of any construction having a single inlet and two outlets.

While I have described the device as especially adapted for use as an oiler, it is to be understood that I do not restrict myself to such use, for, if desired, the same may be employed for watering or spraying plants, &c., and for various other purposes.

In the foregoing description I have shown the preferred form of my invention; but I do not limit myself thereto, as I am aware that modifications may be made therein without departing from the spirit or sacrificing the advantages thereof, and I therefore reserve the right to make such changes and alterations as fairly fall within the scope of my invention.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. A hand-oiler comprising a receptacle, an upper arm having a loop and secured to the receptacle, a lower arm having a passage, a walled recess, a pendent valve-chamber, and a recess at the juncture of the arm and the pendent valve-chamber, a pump-cylinder extending through the loop of the upper arm and seating in the walled recess, a piston having a piston-rod and working in the pump-cylinder, a tube having a valve-seat and extending across the bottom of the pump-cylinder and into the pendent valve-chamber, a plug having a passage therethrough and secured in the bottom of the tube, a valve within the tube and a spring between the plug and the valve for seating the latter.

2. A sprayer for hand-oilers comprising a valve-casing having three longitudinal apertures on the inner side of the valve-chamber, straight passages and two outwardly-converging passages on the outer side of the valve-chamber, a valve having a Y-shaped passage therethrough adapted to register with the central longitudinal aperture and the converging passages or with the outer longitudinal apertures and the straight passage, and a cap having an aperture in alinement with the straight passage of the casing.

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

JAMES H. HULINGS.

Witnesses:

S. N. SWISHER,  
W. K. PRITT.