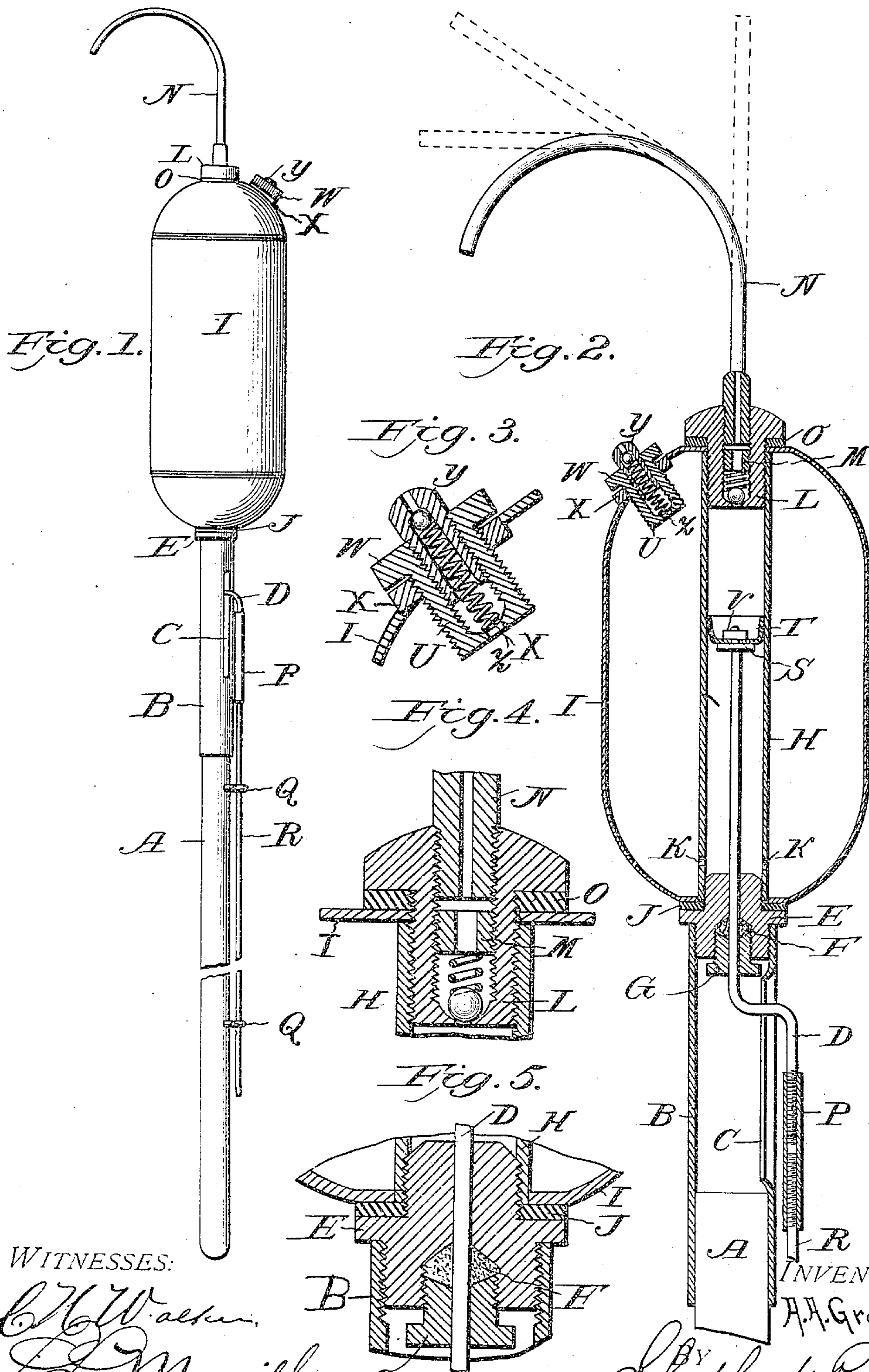


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PATENTED JUNE 13, 1905.

A. A. GRAY.  
OILER.

APPLICATION FILED SEPT. 23, 1904.



WITNESSES:

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# UNITED STATES PATENT OFFICE.

ALBERT A. GRAY, OF IOLA, KANSAS.

## OILER.

SPECIFICATION forming part of Letters Patent No. 792,412, dated June 13, 1905.

Application filed September 23, 1904. Serial No. 225,631.

*To all whom it may concern:*

Be it known that I, ALBERT A. GRAY, a citizen of the United States, residing at Iola, in the county of Allen and State of Kansas, have invented new and useful Improvements in Oilers, of which the following is a specification.

My invention relates to oilers, and especially to that class of oilers known as "over-head" oilers.

The object of my invention is to provide an oiler supplied with a force-pump and mounted upon a pole of any desired length and so arranged that the pump may be operated from any point along the pole to deliver through a discharge-tube a positive flow of oil.

A further object of my invention is to provide an oiler especially adapted for oiling line-shafting situated above or below the operative.

With these and other objects in view the present invention consists in the combination and arrangement of parts, as will be hereinafter more fully described, shown in the accompanying drawings, and particularly pointed out in the appended claims, it being understood that changes in the form, proportion, size, and minor details may be made within the scope of the claims without departing from the spirit or sacrificing any of the advantages of the invention.

In the drawings, Figure 1 is a view in side elevation of my improved oiler. Fig. 2 is a vertical sectional view of my oiler, showing in outline the various forms of discharge-tubes to be used in connection therewith. Fig. 3 is a detail sectional view of the cap adapted to close the supply-opening and showing the air-inlet valve disposed within said cap. Fig. 4 is a detail sectional view of the check-valve located at the lower end of the discharge-tube. Fig. 5 is a detail sectional view of the stuffing-box and gland through which the piston-rod enters the pump-cylinder.

Like characters of reference designate corresponding parts throughout the several views.

In its preferred form my improved oiler is mounted upon a pole A by means of a ferrule

B. The ferrule B is provided with a slot C, through which is passed an offset portion of the piston-rod D. The piston-rod D is passed through stuffing-box E, provided with packing F, upon which gland G is adapted to exert pressure. A pump-cylinder H is disposed axially within a hollow receptacle I and is provided near its lower end with openings K, forming communication between the cylinder H and the receptacle I. The stuffing-box E is secured within the lower end of pump-cylinder H and a gasket J disposed between said stuffing-box E and the surface of receptacle I. Within the upper end of pump-cylinder H is secured a cap L, provided with an opening longitudinally there-through and with a valve-seat formed in the lower end of said longitudinal opening. A valve is disposed within said longitudinal opening adapted to cooperate with the valve-seat and provided with a follower M, adapted to vary the pressure of the spring upon the valve. Within the upper and outer end of the cap L is secured a discharge-tube N, which may be straight or curved in any desired degree of curvature. A gasket O is disposed between the cap L and the exterior surface of receptacle I to produce a tight joint. A coupling P is secured to the lower end of piston-rod D, extending from without the slot C. Guide-rings Q are secured to the pole A, and through said guide-rings Q a rod R is slidably placed and secured to the coupling P, thus forming a continuation of the piston-rod D along and parallel with the pole A. Upon the end of the said piston-rod D, disposed within the pump-cylinder H, is secured a washer S, and upon said washer is placed a valve T, preferably of leather and held in contact with the washer S by means of lock-nut V. A cap U, provided with a shoulder W, is adapted to close the supply-opening in plate X, secured to receptacle I. The cap U is provided with an opening extending longitudinally therethrough, and within said opening is disposed a valve-seat member Y, with a valve therein operated by spring Z.

The operation of my improved oiler is as follows: With the various parts assembled as



shown in Fig. 2 the cap U may be removed and the receptacle I filled with oil. The cap U may then be replaced, preventing the spilling of oil from the receptacle. The oil within the receptacle I will pass through openings K into pump-cylinder H. A downward displacement of the rod R will draw the piston-rod D and the valve T downward within the cylinder H, the oil passing freely about the valve T during such descent. An upward movement of the rod R and valve T will force the oil through cap L and discharge-pipe N through the check-valve, and air will be admitted through the valve at Y to occupy the place of the oil drawn into the cylinder H by the upward movement of the valve, thus delivering oil in positive quantities to any position which may be reached by the tube N.

It is obvious that minor changes may be made in the form and construction of my improved oiler without departing from the spirit of my invention or the scope of the claims.

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

1. An oiler comprising a hollow receptacle, a pump-tube disposed within the receptacle, a discharge-tube communicating therewith, a check-valve mounted adjacent to the discharge-tube and within the pump-tube, a piston mounted to reciprocate within the pump-tube and all mounted upon a pole and provided with means for reciprocating the piston from any point along the pole.

2. An oiler comprising a hollow receptacle, a removable cap adapted to close an opening provided for the introduction of a fluid within the receptacle, a valve adapted to admit air into the receptacle as the fluid is removed therefrom, a pump-cylinder disposed within the receptacle, a discharge-tube communicating with the pump-cylinder, a check-valve disposed between the pump-cylinder and discharge-tube, a piston mounted to reciprocate within the cylinder, a piston-rod passing into the pump-cylinder through a

stuffing-box and secured to the piston, and all mounted upon a pole and provided with means for reciprocating the piston from a point near the lower end of the pole.

3. An oiler comprising a hollow receptacle, a removable cap adapted to close an opening provided for the introduction of a fluid within the receptacle, said cap being provided with an opening longitudinally therethrough, a tubular member removably secured within the opening through the cap, a valve-seat provided within the outer end of the tubular member, a spring-operated valve adapted to cooperate with the valve-seat and so mounted within the tubular member as to permit the passage of air therethrough as the fluid is removed, a pump-cylinder disposed within the receptacle and provided with openings at one end to admit fluid thereto from the receptacle, a cap removably secured within the one end of the cylinder and provided with an opening extending longitudinally therethrough, a valve-seat formed within one end of the opening, a spring-controlled valve disposed for cooperation with the valve-seat, a discharge-tube removably secured one end within the opening, a valved piston mounted to reciprocate within the cylinder, a stuffing-box removably secured within the end of the cylinder opposite the discharge-tube, a piston-rod passing through the stuffing-box and secured to the piston, a ferrule removably secured to the stuffing-box and provided with a longitudinally-disposed slot, a curve provided in the piston-rod adapted to pass outwardly through the slot, a pole removably secured within the ferrule and a rod disposed parallel with the pole and connected with the piston-rod and affording means for the reciprocation of the pump from any point along the pole.

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

ALBERT A. GRAY.

Witnesses:

D. R. WREN,  
GOLDA ELAM.