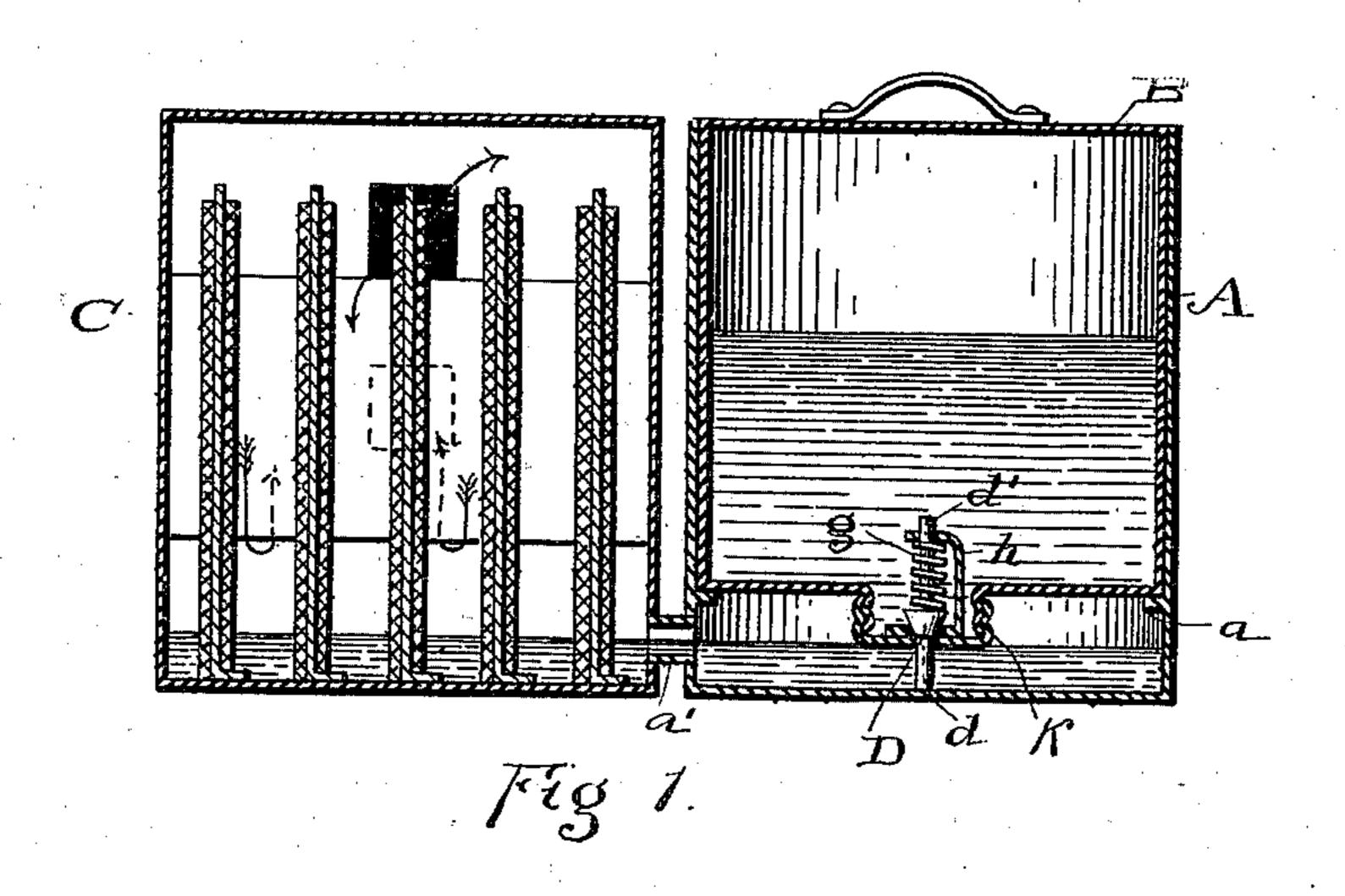
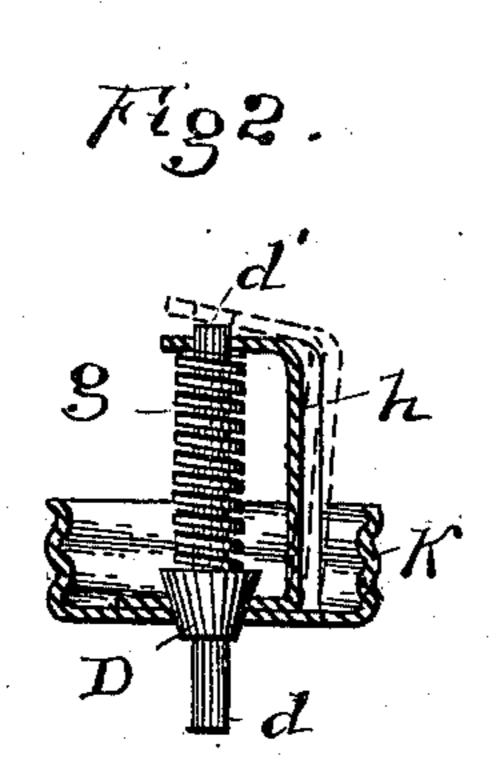
(No Model.)

## J. A. LANNERT & W. R. JEAVONS. VALVE FOR HYDROCARBON RESERVOIRS.

No. 561,326.

Patented June 2, 1896.





ATTEST P. B. Hoser. G. Schneffer

INVENTURS.
John A Lannert
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BY H. J. Fisher.

ATTOMNEY

## UNITED STATES PATENT OFFICE.

JOHN A. LANNERT AND WILLIAM R. JEAVONS, OF CLEVELAND, OHIO.

## VALVE FOR HYDROCARBON-RESERVOIRS.

SPECIFICATION forming part of Letters Patent No. 561,326, dated June 2, 1896.

Original application filed September 16, 1891, Serial No. 405,832. Divided and this application filed December 8, 1893. Serial No. 493,101. (No model.)

To all whom it may concern:

Be it known that we, John A. Lanner and William R. Jeavons, citizens of the United States, residing at Cleveland, in the county of Cuyahoga and State of Ohio, have invented certain new and useful Improvements in Valves for Hydrocarbon-Burners; and we do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same.

Our invention has reference to valves and reservoirs for liquid hydrocarbons; and our invention consists in a novel arrangement and construction of the several parts whereby the guide for the valve-stem is brought into positive and perfect alinement with the valve-seat, thus insuring a perfect seating of the valve and preventing leakage, all in a simple, inexpensive, and positive manner, substantially as shown, and particularly pointed out in the claims.

This invention is a division of our application, Serial No. 405,832, filed September 16, 1891, in which the carbureter is the subjectmatter of invention and which forms no part of the present application and patent.

In the accompanying drawings, Figure 1 is a sectional elevation of a reservoir and of our improved device in operating position therein. Fig. 2 is a central sectional elevation of the said device, showing the valve-bracket soldered to an ordinary screw-cap of commerce and detached from said reservoir.

It has been found in practice that if the valve-stem is not held at a right angle with the valve-seat the valve will be leaking and ineffectual.

In ordinary valves of this nature the valveseat and supporting-bracket are made of separate pieces, and the proper adjustment of the parts requires a high degree of mechanical skill.

By our method the valve-seat, upright sup-45 port, and lug for supporting the valve-stem are all formed from one piece of sheet metal by press and die work, which, while being wholly inexpensive, brings the parts into absolute and proper relation to each other to 50 produce the condition of a perfect valve in each instance.

The bracket H is made of sheet metal. Its lower portion is bent at right angles, and in this portion is formed a seat for valve D. The

upper portion of the bracket h is also bent at 55 right angles, the hole therein for supporting the valve-stem d being brought into exact alinement with the valve-seat in the lower bent portion.

In making this valve a strip of sheet metal 60 is first blanked out to proper shape. still a flat piece it is put into a proper gage and both the hole for stem d punched and the seat for valve D formed by a single operation, which locates these points absolutely 65 alike in every blank. Next the blank is laid. as a bridge over a channeled die, the hole at one end and the valve-seat at the other end of the blank engaging with suitable guides to positively and absolutely fix the position of 70 the blank over the channel. A punch which nearly fills the channel now forces the central part of the blank into the channel, the two ends of the blank being forced up by the edges of the channel to parallel each other at 75 right angles to the body of the blank bring the hole on the one and the valve-seat on the other in perfect alinement. The valve and stem can then be inserted into proper position in the bracket by slightly springing the 80 upper end of the bracket, as shown by dotted lines.

The valve is compact and light and may be soldered in an ordinary screw-cap of commerce, as shown.

What we claim is—

1. In a valve for liquid-reservoirs a bracket forming the valve-seat and support for the valve-stem formed out of a single piece of sheet metal, substantially as described.

2. In a valve for liquid-reservoirs, a single piece of sheet metal bent at one end to form a valve-seat and bent at the opposite end to form a support for the valve-stem, substantially as described.

3. In a valve for liquid-reservoirs, a single piece of sheet metal having a valve-seat at one end and a support for the valve-stem at the other end and bent to bring said seat and said support into alinement, substantially as 100 described.

Witness our hands to the foregoing specification this 2d day of December, 1893.

JOHN A. LANNERT. WILLIAM R. JEAVONS.

H. T. FISHER,
GEORGIA SCHAEFFER.

Witnesses: