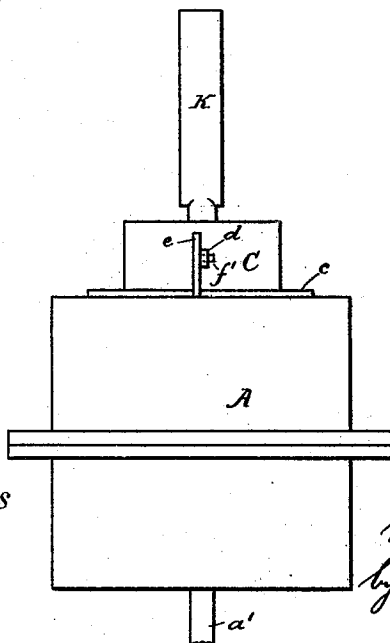
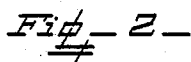


W. H. PHILLIPS.
OIL METER.

Patented Dec. 22, 1891.



WITNESS
O. O. Souter
J. W. Winter

Wm. H. Phillips.
by Herbert W. T. Jenner.
Attorney

UNITED STATES PATENT OFFICE.

WILLIAM H. PHILLIPS, OF TERRE HAUTE, INDIANA, ASSIGNOR OF ONE-THIRD TO JOHN S. BEACH, OF SAME PLACE.

OIL-METER.

SPECIFICATION forming part of Letters Patent No. 465,495, dated December 22, 1891.

Application filed February 28, 1891. Serial No. 383,251. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM H. PHILLIPS, a citizen of the United States, residing at Terre Haute, in the county of Vigo and State of Indiana, have invented certain new and useful Improvements in Oil-Meters; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to meters for measuring oil; and it consists in the novel construction and combination of the parts hereinafter fully described and claimed.

In the drawings, Figure 1 is a longitudinal section through the meter, and Fig. 2 is an end view of the same.

The meter consists of two measuring-chambers A A, separated from each other by the chamber B. Each chamber A has an inlet-hole *a* at the top and an outlet-pipe *a'* at the bottom, and the central chamber B is open at the top.

C is a hollow chest provided with the flange *c* for securing it to the top of the meter, so as to cover the two inlet-holes *a* and the open top of the central chamber.

D are valves adapted to slide back and forth over the inlet-holes *a*, and *d* is a longitudinal bar which is operatively connected to the two valves D by the pins *d'* and which passes out through holes in the ends of the chest C.

E are floats inside the chambers A, and *e* are bell-crank levers pivoted by the pins *e'* to the lugs *c'* in the upper parts of the said chambers A. One end of each bell-crank lever is secured to a float and the other end passes through a slot *f* in the top of the chamber and is pivoted to the end of the bar *d* by the pin *f''*.

G are valves adapted to slide back and forth over the inlet-pipes at the bottom of the chambers A, and *g* is a longitudinal bar connected to the valves G by the pins *g'*, and passing through holes *h* in the sides of the central chamber B.

H is a vertical bar pivoted at its lower end

to the lug *h'* on the bottom of the chamber B by the pin *i*. The pin *i* is free to slide for a short distance vertically in the holes in the lugs *h'*, so that there will be no tendency to lift the valves D and G from their seats. The upper end of the bar H is pivoted to the bar *d* by the pin *j*, and the lower part of the said bar is operatively connected to the bar H.

J is the inlet-pipe for the oil at the top of the chest C.

K is the register, which may be of any approved construction, and *k* is a tappet for operating the register.

Each chamber A is made to discharge a certain quantity of oil—for instance, half a gallon. The valves are set so that the upper and lower valves are opened and closed alternately in pairs. The oil passes out of one chamber while the other chamber is filling. The floats rise and fall with the oil in the chambers. When a float comes to the top part of a chamber it closes the valve at the top and opens the valve at the bottom of that chamber, at the same time opening the valve at the top and closing the valve at the bottom of the other chamber. Each time the valves are reversed the upper end of the bar H lifts the tappet of the register and registers the quantity of oil which has passed through the meter.

What I claim is—

1. In a meter, the combination, with the two measuring-chambers, of the inlet-valves and the outlet-valves, the longitudinal bar connecting the two outlet-valves, the longitudinal bar connecting the two inlet-valves, the pivoted vertical bar connected to the two said longitudinal bars, and the pivoted bell-crank levers provided with floats at one end and having their other ends pivoted to the ends of the said bar for operating the inlet-valves, substantially as and for the purpose set forth.

2. In a meter, the combination, with the two measuring-chambers and the open-topped central chamber, of the casing secured to the tops of the said chambers, the inlet-valves and the outlet-valves, the longitudinal bar connecting the two inlet-valves and passing through holes in the ends of the said casing, the lon-

5 longitudinal bar connecting the two outlet-valves and passing through holes in the sides of the central chamber, the vertical bar pivoted at the bottom of the central chamber and connected to the two said longitudinal bars, and the pivoted bell-crank levers provided with floats at one end and having their other ends pivoted to the ends of the said bar for oper-

ating the inlet-valves, substantially as and for the purpose set forth. 10

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

WILLIAM H. PHILLIPS.

Witnesses:

P. B. O'REILLY,
WM. K. HAMILTON.