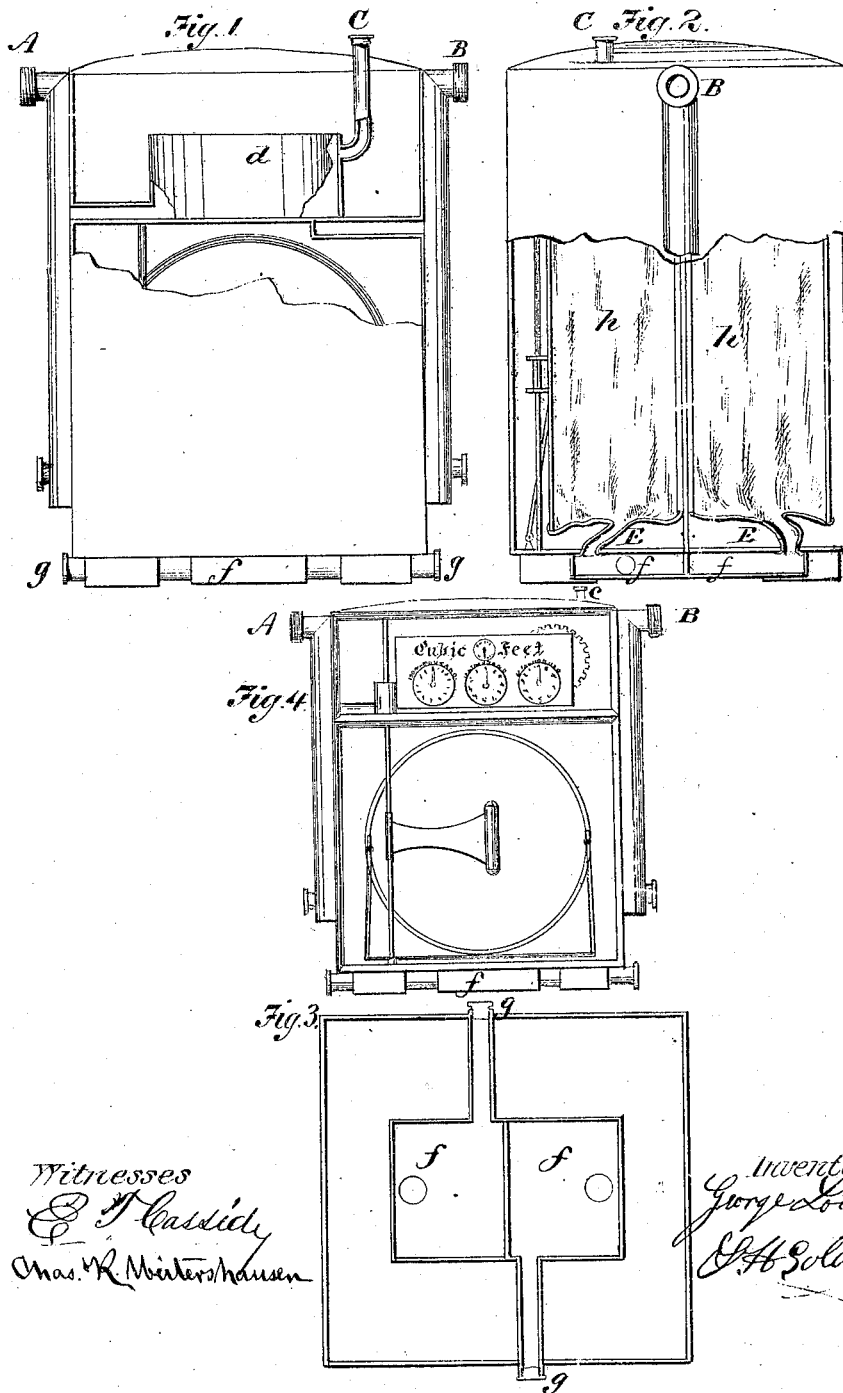


No. 109,230.

PATENTED NOV. 15, 1870.

G. LOWEN & S. H. GOLDTHORP.

DRY GAS METER.



Witnesses  
E. J. Cassidy  
Chas. R. Mintershausen

Inventors  
George Lowen  
S. H. Goldthorp

# United States Patent Office.

GEORGE LOWEN AND SAMUEL H. GOLDTHORP, OF PITTSBURG, PENNSYLVANIA.

Letters Patent No. 109,230, dated November 15, 1870.

## IMPROVEMENT IN DRY GAS-METERS.

The Schedule referred to in these Letters Patent and making part of the same.

We, GEORGE LOWEN and SAMUEL H. GOLDTHORP, both of Pittsburg, Allegheny county, State of Pennsylvania, have invented certain Improvements in Dry Gas-Meters, of which the following is a specification.

The invention relates to providing the diaphragms with flexible tubes at the lowermost part, which communicate with chambers or receivers outside of the meter-case, these flexible tubes to be provided, inside or outside, with fine spiral wire, to prevent collapsing, the receivers being supplied with thumb-screws, whereby all condensed matter may be readily drawn off.

With these improvements the valves can be readily lubricated, and the diaphragms can also be supplied with oil or other material to make them flexible and more durable; and all condensed or foreign matter can be readily drawn off without the inconvenience of disconnecting and reversing the meter.

Figure 1 is a vertical section of a meter with inlet and outlet-pipes A B, valve-chamber *d*, and the lubricating-tube C.

Figure 2 is a side view of the meter, with the lower section of the case, diaphragms *h h*, flexible tubes *e e*, and condensing-chambers *f f*, exposed.

Figure 3 represents the bottom of the meter, showing the situation of the condensing-chambers *f f* and thumb-screws *g g*.

Figure 4 is a front view of a dry gas-meter, with all the parts *in situ*.

### Claim.

We claim as our invention—

The flexible tubes *e e*, communicating between the interior of the diaphragms *h h* and condensing-chamber or receivers *f f*, substantially as and for the purposes described.

GEORGE LOWEN.  
S. H. GOLDTHORP.

Witnesses:

E. T. CASSIDY,  
CHAS. R. WEITERSHANSEN.