

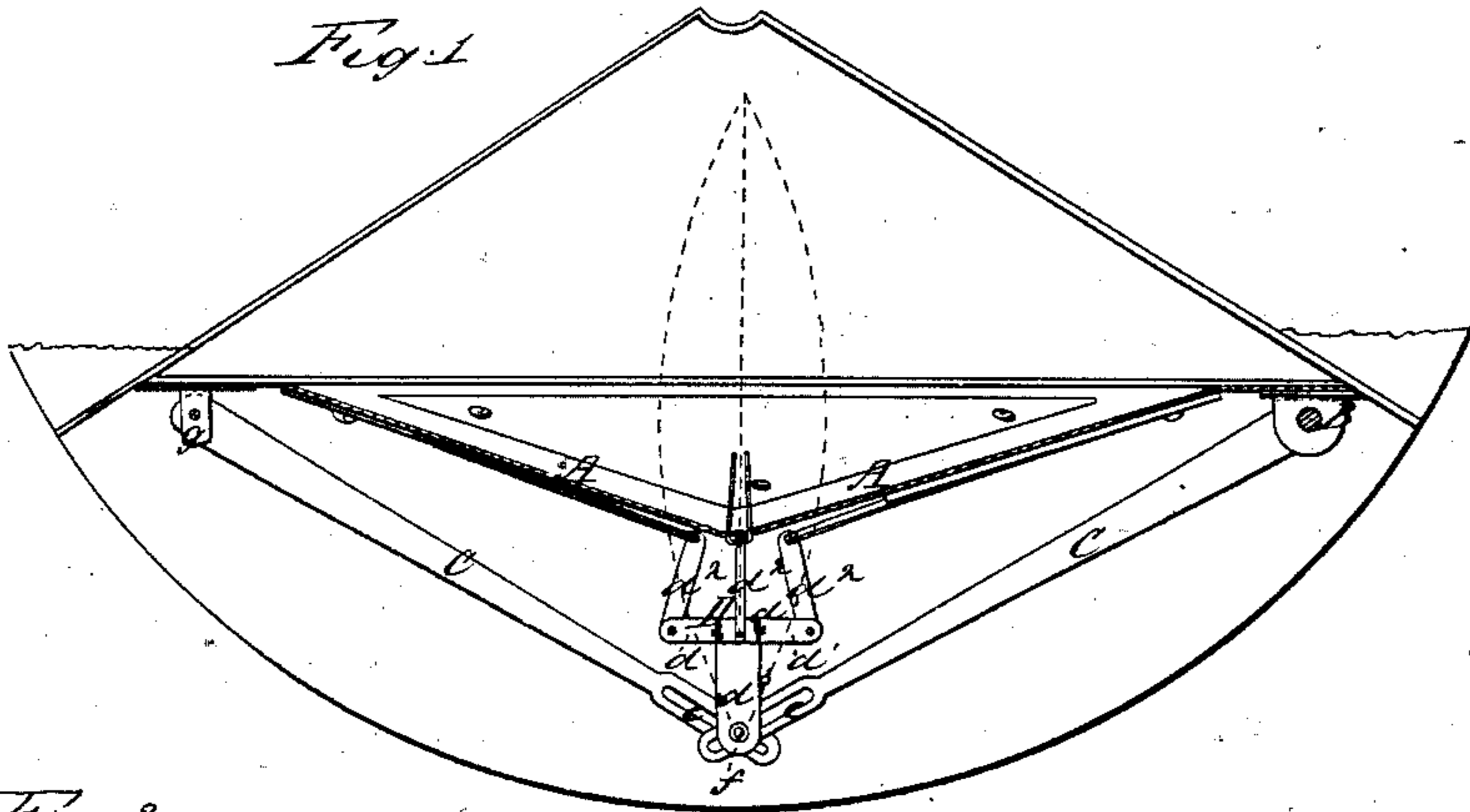
*J. Schatt,*

*Gas Meter,*

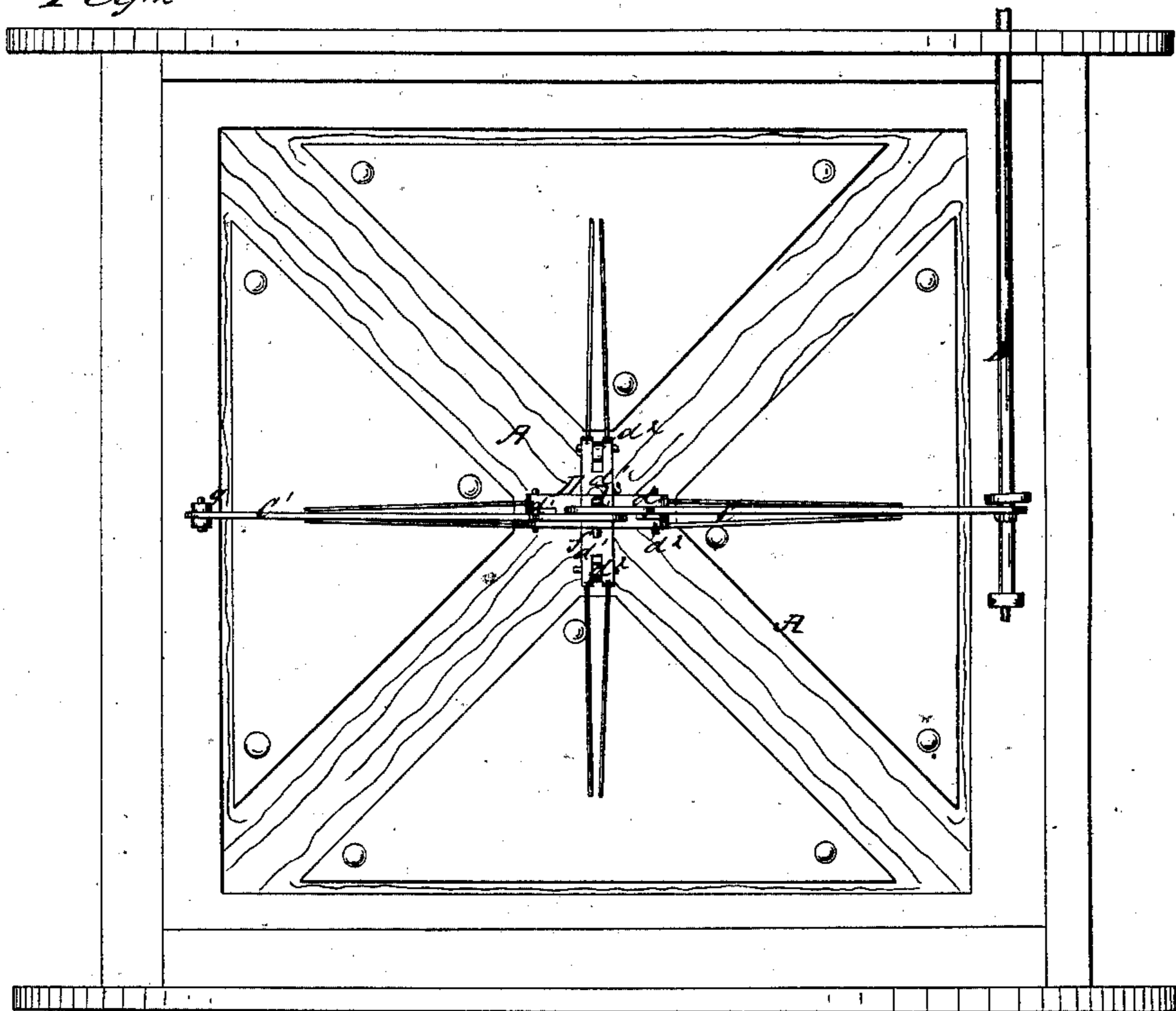
*N<sup>o</sup> 35,065,*

*Patented Apr. 22, 1862.*

*Fig 1*



*Fig 2*



*Witnesses*

*Wm Morrison*  
*James O. Day*

*Inventor*  
*John Schatt*

# UNITED STATES PATENT OFFICE.

JOHN SCHATT, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR TO HIMSELF  
AND SAMUEL P. MERVINE, OF SAME PLACE.

## IMPROVEMENT IN DRY GAS-METERS.

Specification forming part of Letters Patent No. 35,065, dated April 22, 1862.

*To all whom it may concern:*

Be it known that I, JOHN SCHATT, of the city of Philadelphia, in the State of Pennsylvania, have invented a new and useful Improvement in Dry Gas-Meters; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 is a sectional plan view, and Fig. 2 a sectional side elevation, of a dry gas-meter having the said improvement applied thereto, like letters indicating the same parts when in both figures.

This invention has for its chief object a reduction of the cost in constructing dry gas-meters; and it consists, substantially, in the mode hereinafter described and specified of connecting the diaphragms with the valve-rods.

In the drawings, A represents one of the usual diaphragms of a dry gas-meter, and B its valve-rod. These are connected together by means of a pair of slotted levers, C C', and a single-armed knuckle, D. The levers C C' are cut out of thin metal plates substantially in the form shown in the drawings, each having a like slot, *e*, near its inner end. The knuckle D is provided, as heretofore, with four fingers, *d'*, which are jointed to the diaphragm A in the usual manner by means of the four articulated continuations, *d''*; but instead of the two distinct arms and a semicircular bridle heretofore used for connecting the said knuckle to the usual operating-levers, I make the knuckle to have a single central arm, *d'''*, which is slotted at its outer end so as to freely receive within the said slot the lapping slotted ends of the levers C C', and also to receive a traversing pin, *f*, so that the latter shall pass through the slots *e* of the levers and allow the latter to slide against it. The opposite ends of the said levers C C' are attached in the usual manner, C

being fixed to the valve-rod B, and C' pivoted to the stationary holder *g*, as shown in the drawings.

In the operation of this invention it will be seen that as the diaphragm A is moved inward and outward alternately by the passage of the gas through the meter, the pin *f* in the arm of the knuckle D will be moved in a straight line between the equal curves, followed by the slotted ends of the levers C C', as indicated by the dotted lines in Fig. 1, and that, therefore, the valve-rod B will be operated quite as effectively and accurately as by the old devices, while the cost of constructing and applying the said herein-described mode of connecting the diaphragms with the valve rods will be much less.

It has been found by experiment and accurate calculations that the cost of the present mode of connecting is only about one-fifth of that of the old mode. It is therefore of great pecuniary importance to the public as well as to manufacturers of dry gas-meters.

Having thus fully described my improvement in gas-meters, and pointed out its utility, what I claim as new therein of my invention, and desire to secure by Letters Patent, is—

1. The employment, in dry gas-meters, of levers C C', provided each with a slot, *e*, in its one end for the reception of a traversing pin, *f*, the same operating together substantially in the manner set forth, and for the purpose specified.

2. Making the knuckle D to have only a single central arm, *d'''*, as set forth, and connecting it with the valve-rod levers provided with suitable slots in their connecting ends, substantially in the manner described and set forth, for the purpose specified.

JOHN SCHATT.

Witnesses:

BENJ. MORISON,  
JAS. P. DIX.