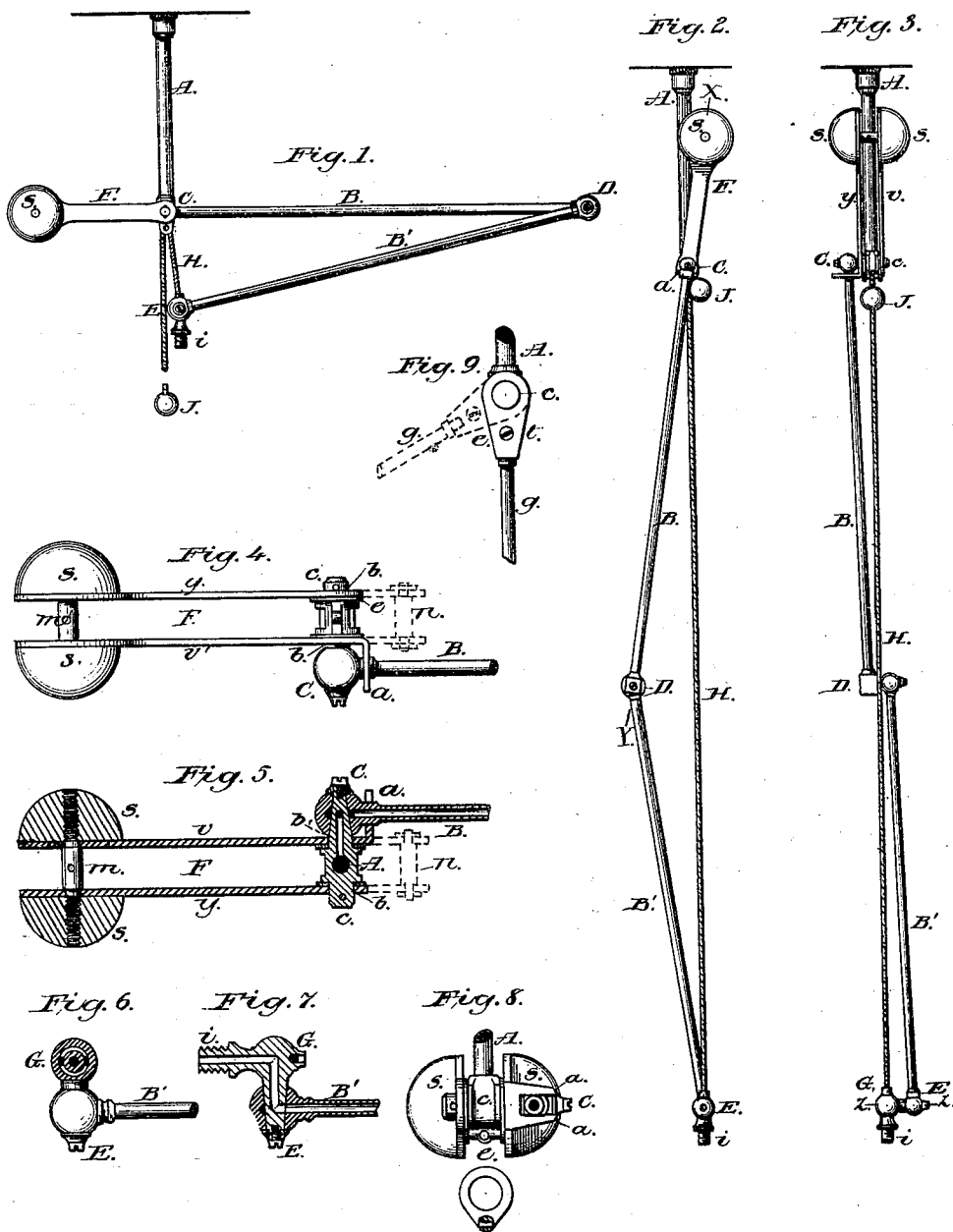


EXTENSIBLE GAS-FIXTURES.

No. 179,437.

Patented July 4, 1876.



Attest:

Calvin P. Holmes
Darius F. Hallender

Inventor:

George Warner,

UNITED STATES PATENT OFFICE.

GEORGE WARNER, OF DES MOINES, IOWA.

IMPROVEMENT IN EXTENSIBLE GAS-FIXTURES.

Specification forming part of Letters Patent No. **179,437**, dated July 4, 1876; application filed November 2, 1875.

To all whom it may concern :

Be it known that I, GEORGE WARNER, of the city of Des Moines, in the county of Polk and State of Iowa, have invented a new and useful Improvement in Extensible Gas-Fixtures, which improvement is fully set forth in the following specification, reference being had to the accompanying drawings :

The object of my invention is to balance and support the weight of the extensible or folding gas-tube connection B B' between the fixed part A and movable part E of an extensible gas-fixture by the application and combination of a weighted lever, F, in such a manner that it will be in equilibrium when the center of the lower pivot-joint E is in a vertical line with the center of its upper pivot-joint C. When so arranged, the part of the fixture containing the burner or burners desired to be lowered or raised being attached to the joint E by the screw *i*, and suspended, (as by the cord H attached to G, and passing through *e* to the weight J,) will fall to a vertical position by its own gravity, thereby doing away with the necessity of a fixed vertical guide for the support of the weight of the tube B B' and guidance of the joint E of the same, as previously constructed, and where a vertical guide may be necessary for the guidance and greater steadiness of the burners, the guide may be of lighter construction, and may be constructed as shown in Fig. 9, *g* being a fixed guide, when, by withdrawing the screw *t* of the hinged piece *e*, it becomes a swinging guide, (shown by the dotted lines,) thereby adding to the utility of the fixture when provided with the balanced folding-tube. The top of the inlet-tube A is to be attached to the supply-pipe, the lower end being attached to the center-piece C', which supports the pivot-joint C

of the folding tube B B', which tube is also provided with a middle pivot-joint, D, and a lower pivot-joint, E, folding together as in Fig. 1, or extended as in Figs. 2 and 3, through the whole of which an internal gas passage is constructed.

The weighted lever F, together with parts connected with it, is illustrated more in detail in the under-side view, Fig. 4, and in the horizontal section, Fig. 5, taken in the line X Y, Fig. 2; also in the end view, Fig. 8; and is composed of the plates *v* and *y*, with weights *s s* attached thereto, placed one on each side of the center-piece C', to equalize the weight, its fulcrum *b b* being concentric with the pivot C, and supported by the center-piece C'. The end of the lever near its fulcrum has a forked projection, *a a*, which straddles the tube B. The plates are united together at either end by the bar *m* or by the bar *n*, shown by the dotted lines, as may be required for passing by the tube A.

Fig. 6 is a top view of the pivot-joint E; Fig. 7, a vertical section of the same taken in the line X X, Fig. 3.

I claim as my invention—

1. The combination, with the folding gas-tube connection, substantially as described, of a weighted lever to support and balance the weight of said folding tube, as and for the purpose set forth.

2. In combination with the weighted lever F, the center-piece C', the inlet-tube A, and the folding tube B B', substantially as and for the purpose specified.

GEORGE WARNER.

Witnesses:

C. P. HOLMES,

GEORGE A. WARD.