

I. R. FISHER.

Gas Burner.

No. 93,189.

Patented Aug. 3, 1869.

Fig. 1.

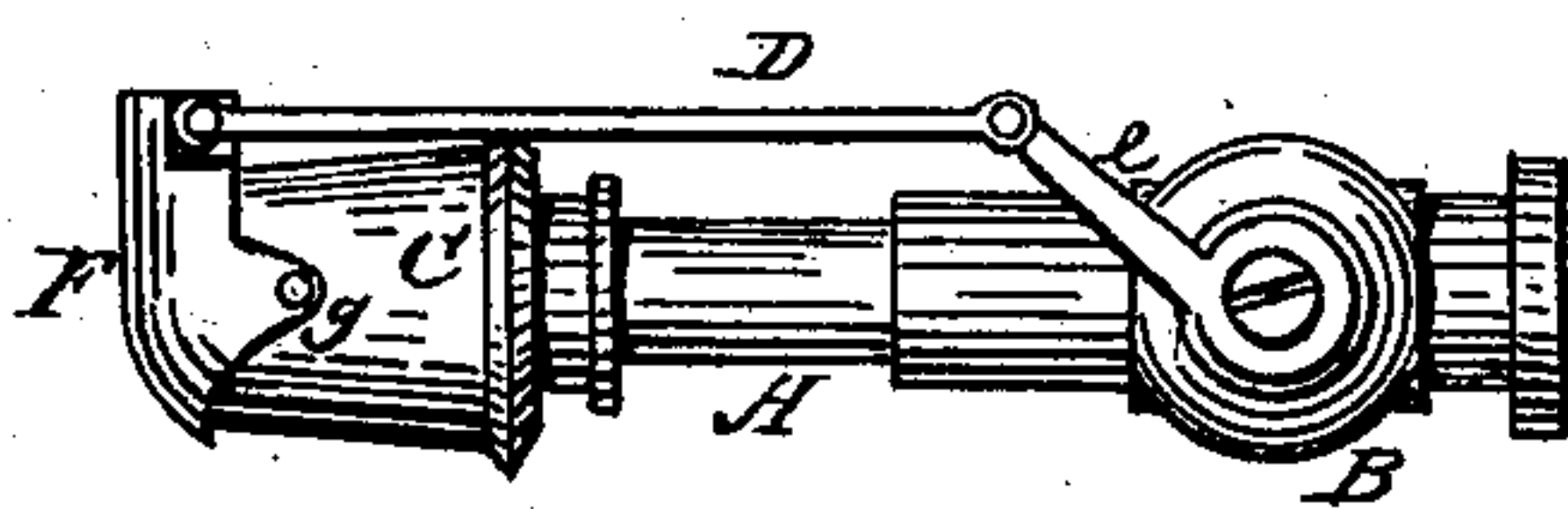
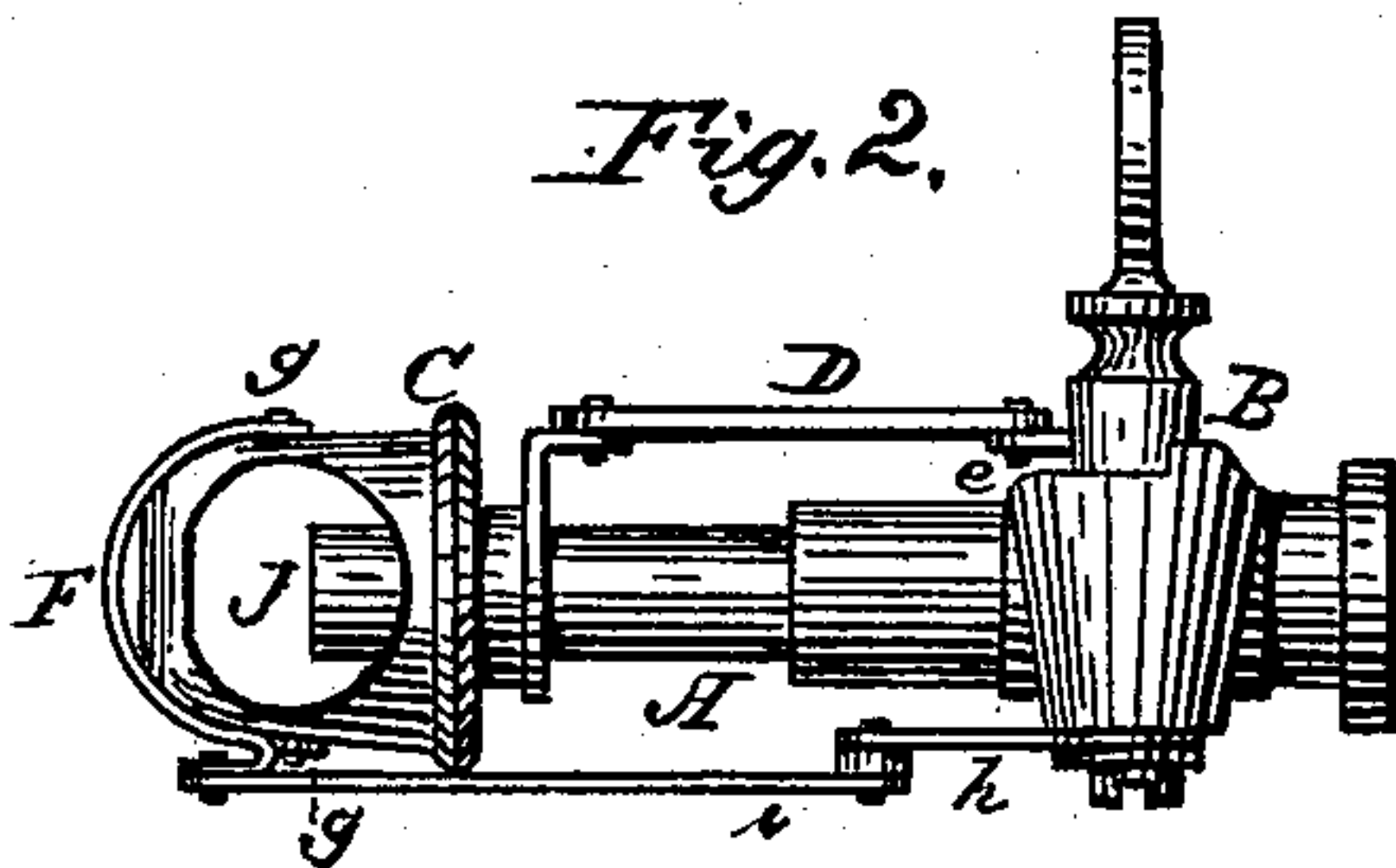


Fig. 2.



Witnesses,
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ISAAC R. FISHER, OF READING, PENNSYLVANIA.

Letters Patent No. 93,189, dated August 3, 1869.

IMPROVEMENT IN GAS-BURNERS.

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

To all whom it may concern:

Be it known that I, ISAAC R. FISHER, of Reading, in the county of Berks, and State of Pennsylvania, have invented a new and useful Improvement in Gas-Burners; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification.

This invention relates to a new and useful improvement in gas-burners, having especial reference to horizontal burners; and consists in a device for protecting the flame of the lighted gas from lateral currents of air when the flame has been turned down to its lowest point, so as to retain sufficient fire to save the trouble of relighting the gas when a full light is required.

In the accompanying sheet of drawings—

Figure 1 represents a longitudinal side view of the burner with my improvement attached.

Figure 2 is a top or plan view of the same.

Similar letters of reference indicate corresponding parts.

A is the burner, which is screwed on to the gas-fixture.

B is the stop-cock.

C is a sliding cone on the burner, which has been arranged with the view of protecting the reduced flame of an upright burner.

This slide is operated by turning the cock B, which is connected therewith by the rod D and the arm e, as seen in the drawing.

This arrangement I do not claim.

My invention is used under entirely different circumstances, the slide C being for the upright burner only.

In many situations, especially for billiard-rooms, it is necessary to have horizontal instead of upright burners, in order to avoid the shadows cast upon the table by the burners or by the gas-fixtures.

The flame of the horizontal burner is not objectionable on that account, and is usually employed.

When the tables are not in use, the lights are

turned down to the lowest point of flame, so that when the gas is turned on again, the illumination will be complete, without the necessity of relighting the gas.

To render the slide C available for the horizontal light, I apply the adjustable cap F.

This cap is semicircular in form, and pivoted to the slide C, as seen at g g.

The circle of the cap corresponds with the outside of the slide, as nearly as may be, and is made somewhat conical, so as to fit in some measure the conical top of the slide. It is connected with the cock B by the arm h and the rod i, and is operated by the same movement of the cock which actuates the slide C, and lets on or cuts off the gas.

For the upright burner, the slide is open at the top.

To adapt to the horizontal burner, another aperture is made on the side, as represented by J, fig. 2.

When the gas is turned down on the horizontal burner, the cap is turned by the movement or quarter revolution made by the cock, so as to cover the aperture in the top of the conical slide, and leave the side aperture J open, as seen in the drawing.

When the gas is turned on again, the opening J is closed by the cap, and the aperture in the slide opened, both slide and cap being thrown forward, as seen in the drawing, for the reduced flame, and drawn back entirely from the top of the burner for the full flame.

By this arrangement, the reduced flame of the horizontal burner is screened or protected from lateral currents of air, which would otherwise extinguish it.

Having thus described my invention,

I claim as new, and desire to secure by Letters Patent—

In combination with a gas-burner, the cap F, arranged and operating substantially as and for the purposes herein shown and described.

The above specification of my invention signed by me, this 10th day of June, 1869.

ISAAC R. FISHER.

Witnesses:

FRANK BLOCKLEY,
ALEX. F. ROBERTS.