

(No Model.)

H. J. HAIGHT.

FLAME REGULATOR FOR BURNERS OF HEATING LAMPS.

No. 249,343.

Patented Nov. 8, 1881.

Fig. 1.

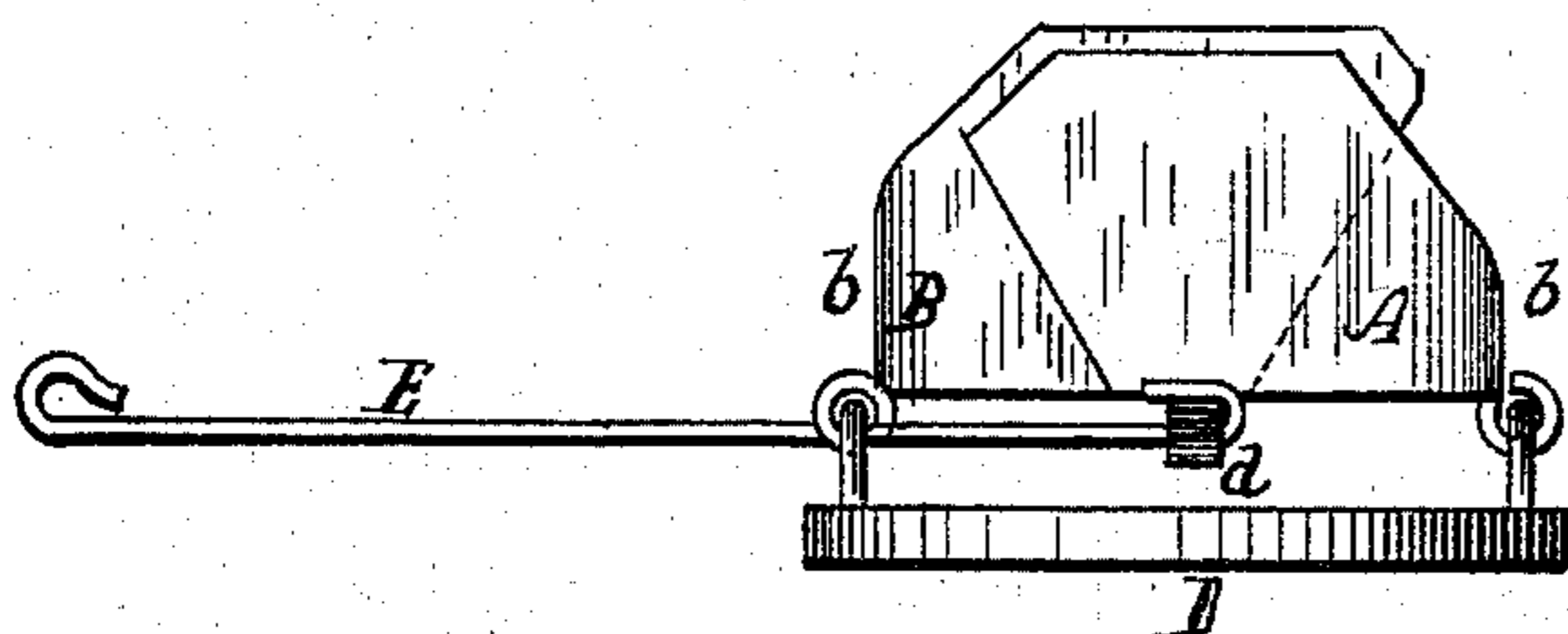


Fig. 2.

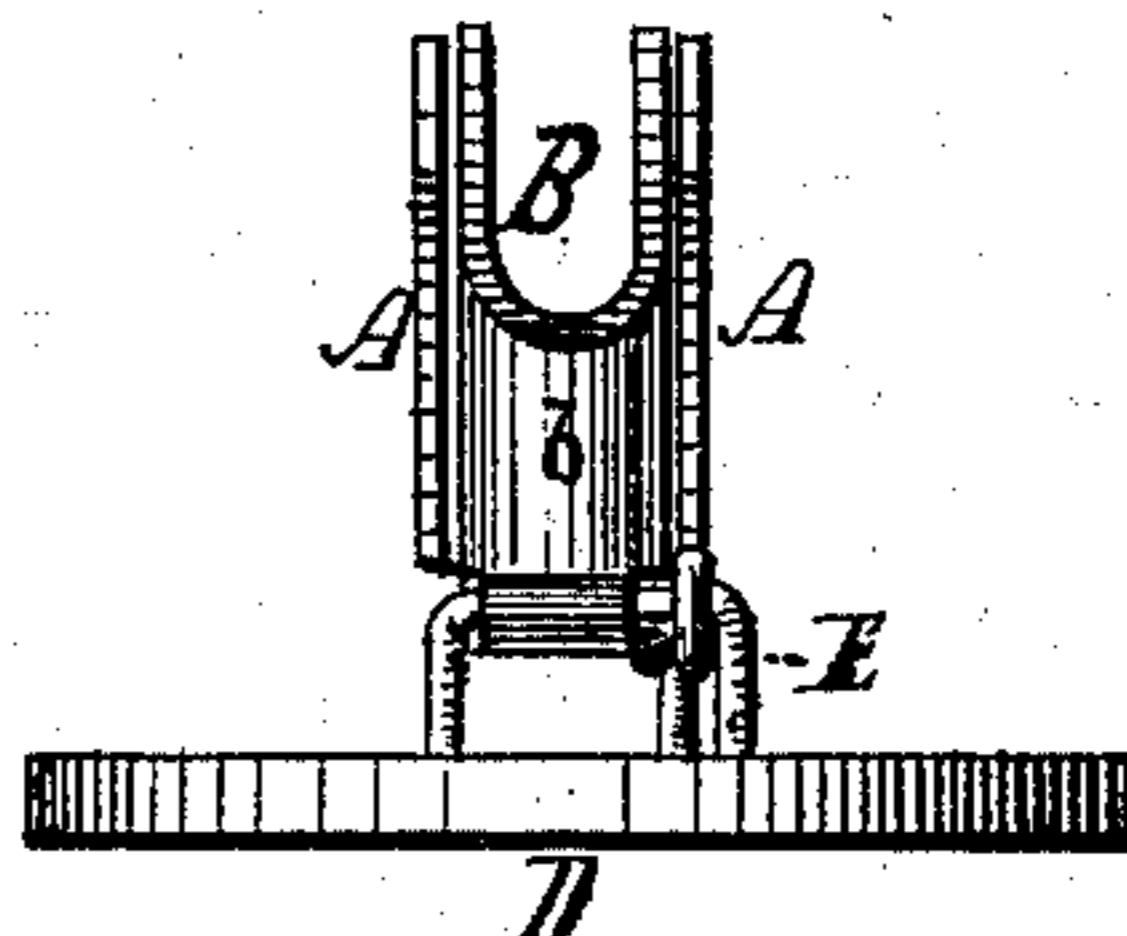


Fig. 3.

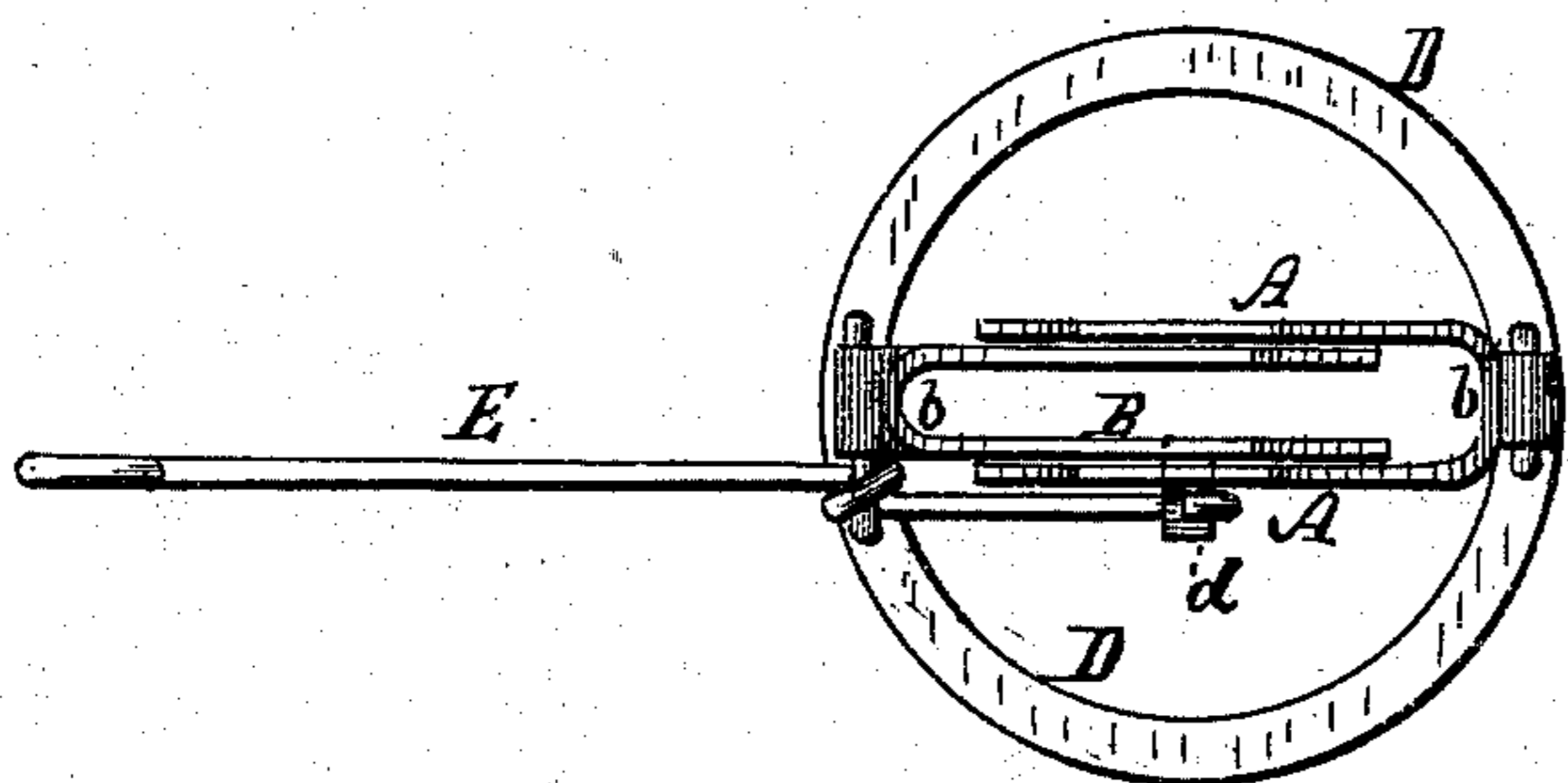
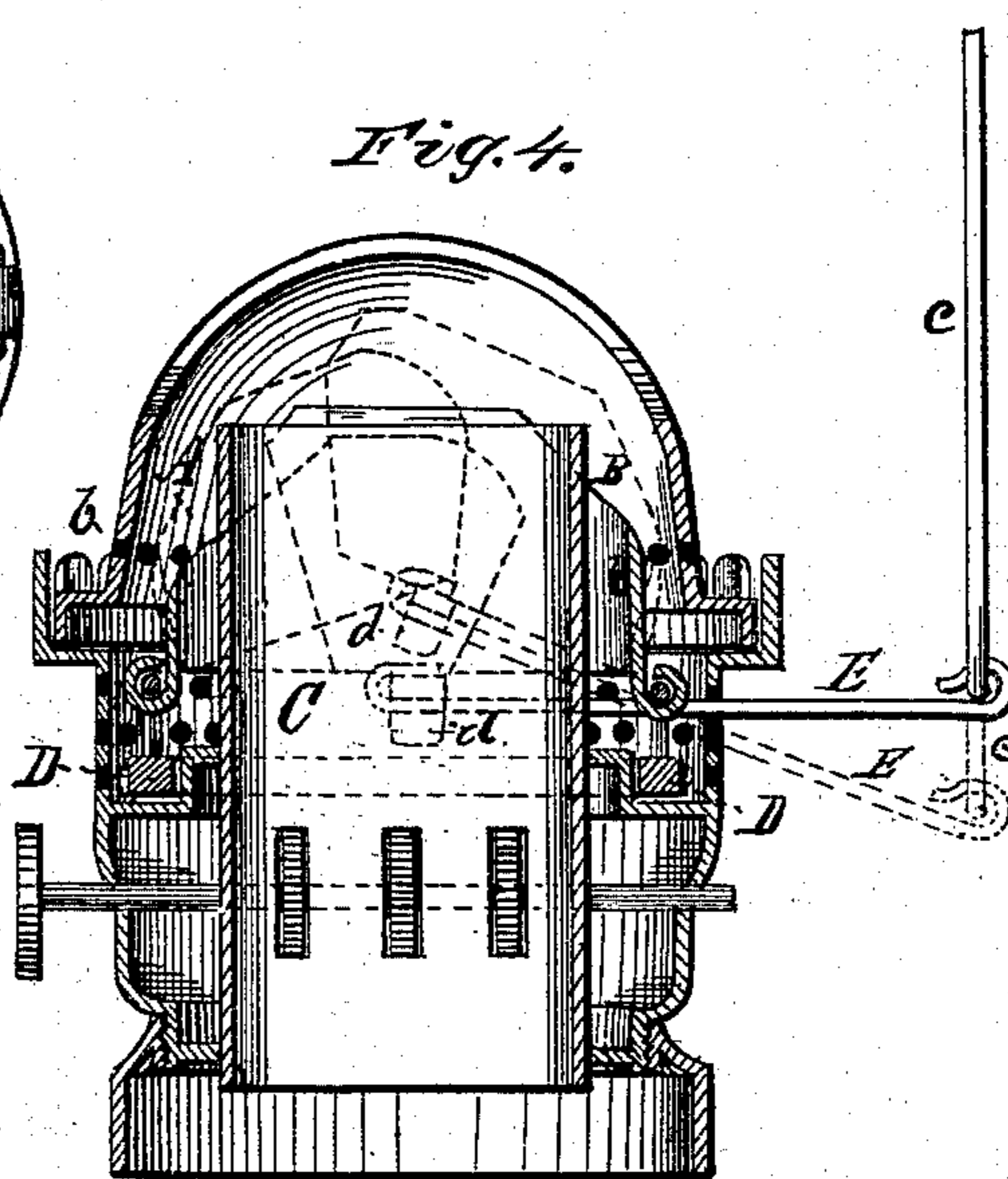


Fig. 4.



WITNESSES

Wm. L. Dietrich
P. C. Dietrich

INVENTOR

Henry J. Haight
By J. S. Brown
his Attorney.

UNITED STATES PATENT OFFICE.

HENRY J. HAIGHT, OF NEW YORK, N. Y.

FLAME-REGULATOR FOR BURNERS OF HEATING-LAMPS.

SPECIFICATION forming part of Letters Patent No. 249,343, dated November 8, 1881.

Application filed September 12, 1881. (No model.)

To all whom it may concern:

Be it known that I, HENRY J. HAIGHT, of the city, county, and State of New York, have invented an Improved Flame-Regulator for the
5 Burners of Heating-Lamps; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, making part of this specification—

10 Figure 1 being a separate side view of the flame-regulating device; Fig. 2, another view of the same at right angles to the view in Fig. 1; Fig. 3, a top view of the same; Fig. 4, a vertical section of a heating-lamp burner with the
15 improved flame-regulator attached thereto.

Like letters designate corresponding parts in all of the figures.

My invention is specially designed for use on heating lamps or burners for the purpose
20 of maintaining a constant and automatically-regulated heat in artificial incubators—such, for instance, as described in my Letters Patent No. 122,249, dated December 26, 1871; but I do not confine its application to special use,
25 and I may use it in any other connection where it may be applicable.

The present invention consists in an improved flame-regulator to be placed at the sides of the wick-tube of a kerosene or other fluid
30 burner, and to be automatically adjusted up and down for depressing the flame by covering or inclosing more of the wick, or increasing the flame by exposing more of the wick, the form and action of the regulator being such as
35 not only to control the exposure of the wick, but by a proper outline given to the upper edges of the regulator when moving on suitable pivots or centers of curved motion to keep the flame in proper shape in any position of
40 the regulator.

The regulator is constructed substantially as follows: Two plates, A and B, are each bent round or doubled, so as to form two sides or wings embracing the wick-tube C of the
45 burner, one on each side thereof, as shown. The doubling is such as to bring the side wings as close as convenient to the wick-tube without rubbing against the same or being impeded in its motions thereby. The bend of
50 each plate is outside, around the edge or nar-

row side of the preferably flat wick-tube, as shown, one plate being opposite to the other. The side wings of the two plates lap by each other, as represented, the wing of one plate ordinarily being outside at one side of the wick-
55 tube, and that of the other plate outside at the other side of the wick-tube, or both wings of one plate might be outside. These wings, though close together, are not so near as to cause friction and consequent impediment in
60 their motions. The upper edges of the several wings of these bent plates are clipped or rounded off, substantially as shown, so that as the plates are moved up and down they will present a proper and nearly uniform shape or out-
65 line to keep the burner-flame in proper form. These two plates A and B are mounted on a suitable holder, D, which is represented as a simple ring to fit into a groove or annular depression around the burner, which may be, or
70 be similar to, an ordinary lamp-burner, as represented in Fig. 4. Each plate is hinged to the holder at its bend b.

To one of the plates is attached a lever, E, which extends out through the side of the
75 burner, and is connected at its outer end by a connecting-rod, c, with a heat self-regulator, such as described in the aforesaid Letters Patent, or any equivalent regulator. This lever moves the plate with which it is connected
80 directly. It also moves the opposite plate indirectly, but simultaneously and equally, by having one of its wings simply rest on a projection, d, on the adjacent wing of the other plate.
85

The operation of this regulator in an incubator is such that as the heat increases in the incubator beyond the maximum at which it is adjusted the connecting-rod c is automatically
90 lowered, thereby lowering the outer end of the lever E, and raising the flame-regulating plates A and B and diminishing the flame of the burner. The diminution of heat in the incubator consequent thereon immediately lifts the rod c, again depresses the plates A B, and
95 thus again increases the flame and heat.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. In combination with the wick-tube C, the flame-regulating plates A and B, and means 100

for operating them, constructed and operating substantially as and for the purpose herein specified.

2. The combination of the bent hinged flame-
5 regulating plates A and B, wick-tube C, holder D, and lever E, substantially as and for the purpose herein specified.

The foregoing specification signed by me this 19th day of August, 1881.

HENRY J. HAIGHT.

Witnesses:

C. S. NEWELL,
JOHN CARLIN.