

S. HOBSON.
Gas-Burners.

No. 156,925.

Patented Nov. 17, 1874.

Fig: 1

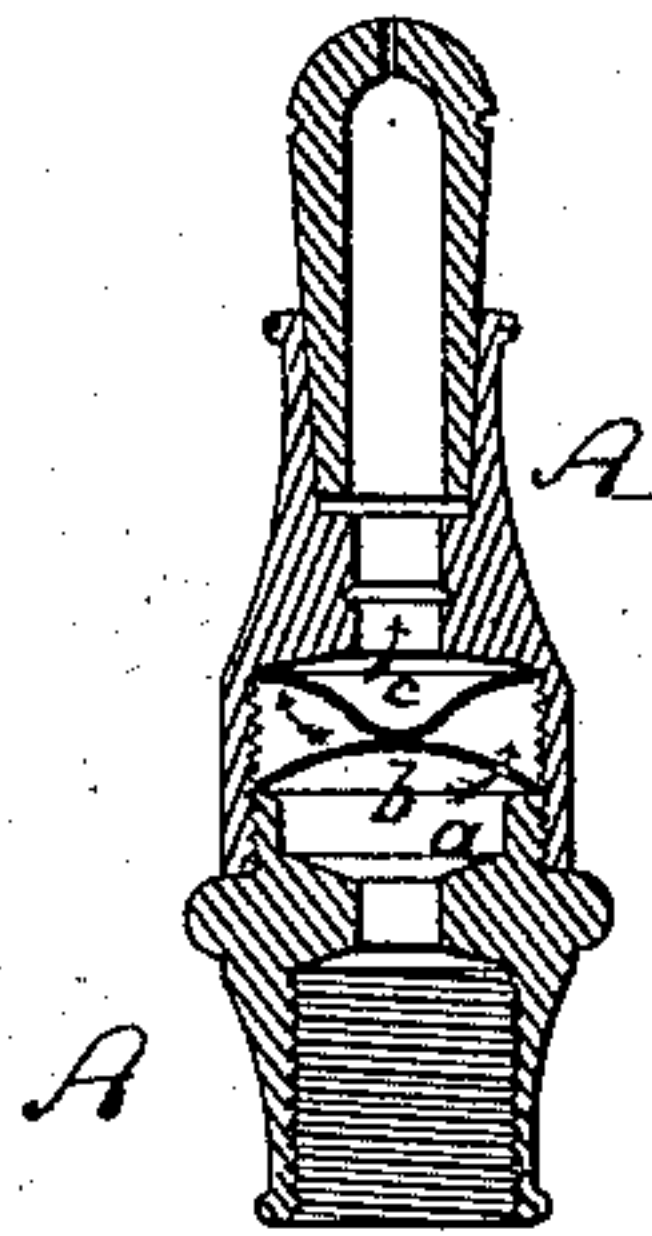
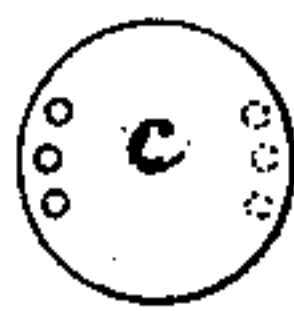


Fig: 2.



Witnesses:

Chas. Raettig.

E. C. Webb

Inventor:

Samuel Hobson
by his attorney

Ans Briesen

UNITED STATES PATENT OFFICE.

SAMUEL HOBSON, OF NEW YORK, N. Y.

IMPROVEMENT IN GAS-BURNERS.

Specification forming part of Letters Patent No. **156,925**, dated November 17, 1874; application filed August 15, 1874.

To all whom it may concern:

Be it known that I, SAMUEL HOBSON, of New York, in the county of New York and State of New York, have invented a new and Improved Gas-Burner, of which the following is a specification:

Figure 1 is a central longitudinal section of my improved gas-burner, and Fig. 2 is a top view of its upper diaphragm.

Similar letters of reference indicate corresponding parts in both the figures.

This invention has for its object to so construct a gas-burner that it will neutralize an excessive degree of gas-pressure, and produce a steady flame and perfect combustion, even under excessive pressure.

My invention consists in arranging within the shank of the burner two or more diaphragms, which have eccentric perforations at opposite sides, and serve to detain and deflect the gas during its passage to the flame.

In the drawing, the letter A represents a gas-burner of suitable size and shape. Within its shank or lower part is formed an enlargement or chamber *a*, within which there is placed a diaphragm, *b*, of sheet metal or other material. This diaphragm extends entirely across the chamber *a*, as shown. The gas, ascending toward the escape-opening of the burner, will strike the solid center of the diaphragm, and will thereby be detained and deflected toward one or more openings formed near the edge of the diaphragm. Thus, by this diaphragm *b*, the gas will be detained and an excessive supply to or pressure within the

flame will be prevented; but one such eccentrically-perforated diaphragm will not suffice in many cases, and I therefore use a second diaphragm, *c*, above *b*. This second diaphragm is also perforated, near the edge, and has its center bent down into contact with *b*, and its holes diametrically opposite to the holes in *b*, as indicated in Fig. 2. The gas ascending through the apertures in *b* will then be further detained by the diaphragm *c*, and will have to pass round the depressed center of *c* to the apertures on the opposite side before it can escape to the top of the burner. Thus, by the two diaphragms, the object of the invention, of causing an unnecessary loss of gas to consumers, will be fully attained.

It is evident that instead of depressing the center of the diaphragm *c* the same result will be obtained by raising the center of *b*.

I do not claim, broadly, the arrangement of perforated diaphragms connected at their centers and pierced at opposite sides of their centers, as that is shown in the Patent No. 109,404; but

I do claim—

The gas-burner A, combined with and containing in its chamber *a* the two diaphragms *b* and *c*, perforated at opposite sides of their contiguous centers, substantially as herein shown and described.

SAMUEL HOBSON.

Witnesses:

F. V. BRIESEN,
E. C. WEBB.