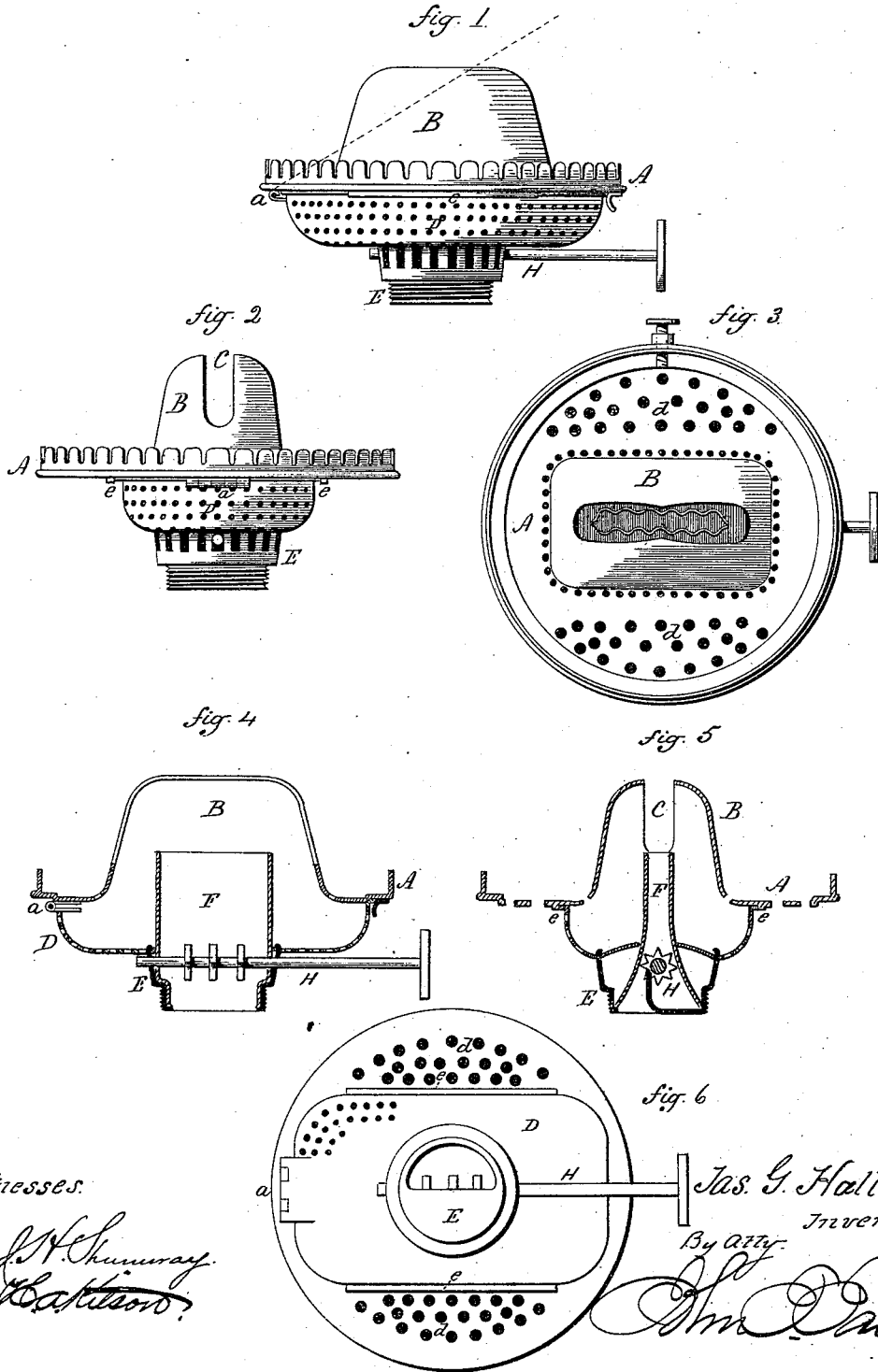


J. G. HALLAS.
Lamp-Burner.

No. 208,309.

Patented Sept. 24, 1878.



Witnesses:
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UNITED STATES PATENT OFFICE.

JAMES G. HALLAS, OF WATERBURY, CONN., ASSIGNOR TO BENEDICT
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IMPROVEMENT IN LAMP-BURNERS.

Specification forming part of Letters Patent No. 208,309, dated September 24, 1878; application filed
September 17, 1878.

To all whom it may concern:

Be it known that I, JAMES G. HALLAS, of Waterbury, in the county of New Haven and State of Connecticut, have invented a new Improvement in Lamp-Burners; and I do hereby declare the following, when taken in connection with the accompanying drawings and the letters of reference marked thereon, to be a full, clear, and exact description of the same, and which said drawings constitute part of this specification, and represent, in—

Figure 1, side view; Fig. 2, the same turned one-fourth around; Fig. 3, top view; Fig. 4, longitudinal section; Fig. 5, transverse section; Fig. 6, the under side, looking up.

This invention relates to an improvement in that class of lamp-burners designed to burn kerosene and similar oils.

In the usual construction of this class of burners the deflector is made circular in its horizontal plane, and other parts of the burner alike circular in form, and all the parts concentric one with the other.

It is now a well-known fact that a better result is produced by making the deflector oblong in the direction of the flame-slit—that is to say, narrower across the slit than longitudinally—because by such shape the air is better concentrated on the flame throughout its width. For successfully using such a deflector a correspondingly-shaped air-distributor is necessary; and to combine these two a chimney-rest has been made, also of such corresponding or oblong shape that the air might be equally distributed in the chimney, and prevent the forming of eddies in the air within the chimney and the consequent flickering of the flame. Such shaped chimneys are difficult to produce with that uniformity necessary to universally fit the chimney-rest, the round-base chimney being admittedly the best shape, because it can be perfectly made, uniform in its size, and consequently fitting any burner to which it is adapted.

The object of this invention is to adapt an oblong burner to successfully use a round-base chimney; and the invention consists in the combination and details of construction, as

hereinafter described, and more particularly recited in the claims.

A is the chimney-rest or gallery on which the chimney is supported, circular in form, and provided with the usual means for securing a circular-base chimney thereon. On the upper side of this chimney-rest is the deflector B, which is oblong in form, as seen in Fig. 3, and may be attached to or made a part of the disk which forms the chimney-rest. The deflector is constructed with the usual plain slit C. The chimney-rest is hinged to the perforated air-distributor D, as at *a*. The air-distributor is of an oblong shape, corresponding to that of the deflector, and the hinge *a* is arranged at one end of the air-distributor. The air-distributor is attached to the base E of the burner, in which the wick-tube F and the adjuster H are arranged in the usual manner. This oblong shape of the air-distributor and deflector leaves a space, *d*, in the circular chimney-rest at each side, as seen in Fig. 6. This space is perforated, so as to allow free admission of air directly to the chimney, into the space between the chimney and the sides of the deflector. This space is very much larger than that at the ends of the deflector, and little, if any, air is admitted directly at the ends. The larger space at the sides will be amply filled by the inflowing air and by proportionately stronger and direct currents, avoiding the eddies or irregular flow of air, which produces a flicker in burners as usually constructed. The flow of air thus produced is fully as equable and regular as when the chimney-base is made of an oblong shape to correspond to the deflector and produce an equal space between the chimney and deflector at all points; and thus my construction enables the use of a round-base chimney with an oblong deflector and air-distributor, whereby difficulties of the oblong-shaped chimney-base are avoided.

It will be understood that the burner is provided with the usual devices for locking the chimney-rest to the base when closed and allow of its being turned away on its hinge for the purpose of trimming the wick.

The hinge arranged at the end, as before de-

scribed, allows the chimney-rest with the chimney to be turned far enough away to make the trimming of the wick convenient, whereas, if hinged at one side, the circular chimney-rest would strike the air-distributor or portion of the burner below and prevent such full opening of the burner as necessary for properly trimming the wick.

As the chimney-rest will unavoidably be used as the instrument for screwing or unscrewing the burner from the lamp-socket, the strain upon the hinge would be too great. Therefore, to provide against such strain on the hinge, a rib or shoulder, *e*, is formed on the under side of the chimney-rest, parallel to the sides of the air-distributor and so as to take a bearing on the air-distributor, and couple the two together, so that the strain in attaching the burner to or removing it from the lamp is brought between the sides of the air-distributor and the shoulders *e*.

From the foregoing it will be understood that no claim is made to an elongated deflector or a correspondingly-elongated air-distributor; but

What is claimed, and desired to be secured by Letters Patent, is—

1. The combination, in a lamp-burner, of the circular chimney-rest, provided with means for attaching the chimney thereto, an oblong deflector, and a corresponding oblong air-distributor, substantially as described.

2. The combination, in a lamp-burner, of the circular chimney-rest, provided with means for attaching the chimney thereto, an oblong deflector, and a corresponding oblong air-distributor, the said chimney-rest perforated at the long sides of the deflector, so as to make increased air-inlet at the said sides, substantially as described.

3. The combination, in a lamp-burner, of the circular chimney-rest, provided with means for attaching the chimney thereto, an oblong deflector, and a corresponding oblong air-distributor, the said chimney-rest hinged to the said air-distributor at one end and provided with fastening device at the opposite end, substantially as described.

4. The combination, in a lamp-burner, of the circular chimney-rest, provided with means for attaching the chimney thereto, an oblong deflector, and a corresponding oblong air-distributor, the said chimney-rest hinged to the said air-distributor at one end and provided with fastening device and shoulder on the said chimney-rest to engage with the sides of the air-distributor, substantially as described.

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Witnesses:

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