

S. G. BLACKMAN.

Lamp Burner.

No. 34,048.

Patented Jan. 7, 1862.

Fig. 1.

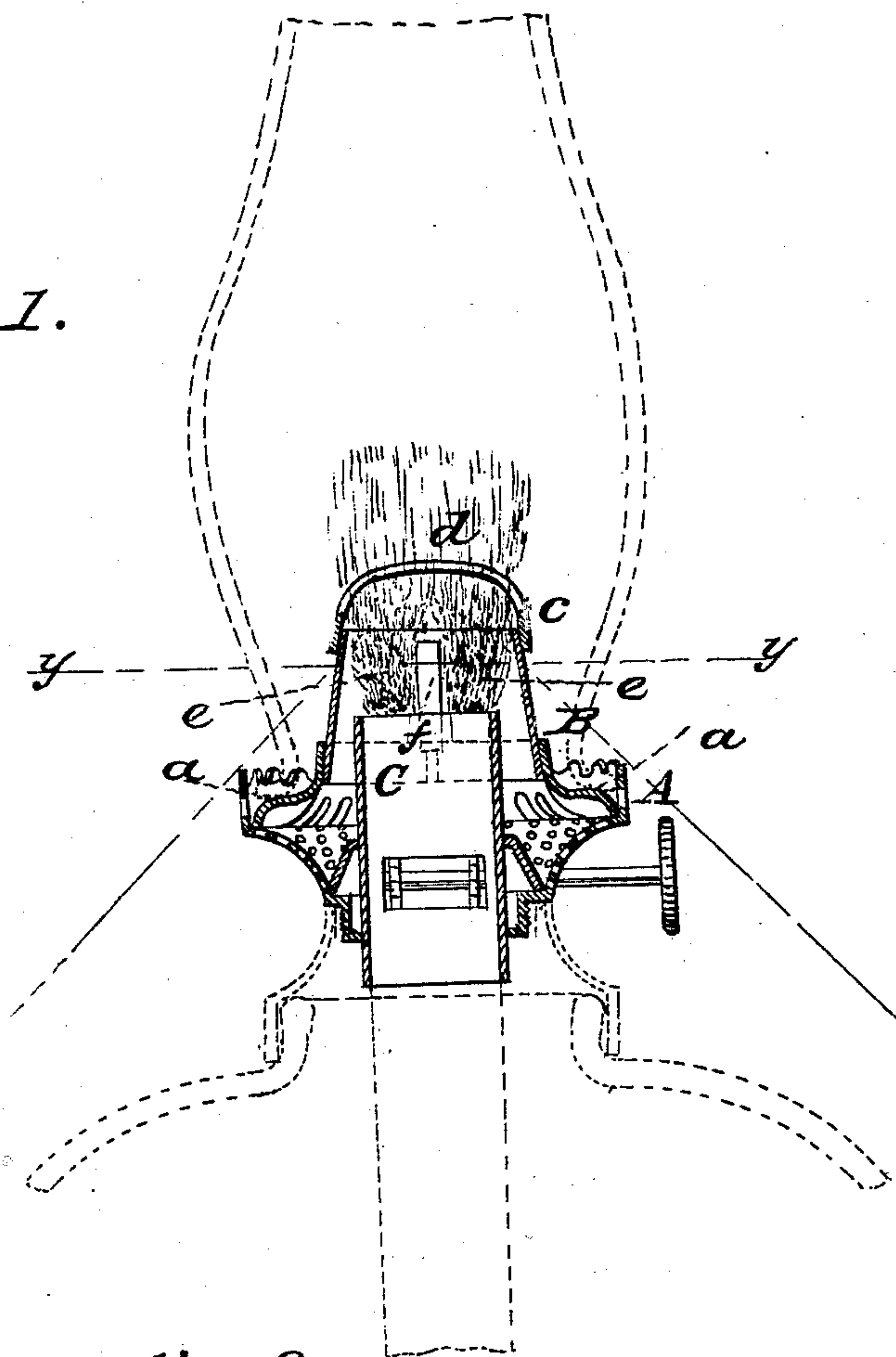
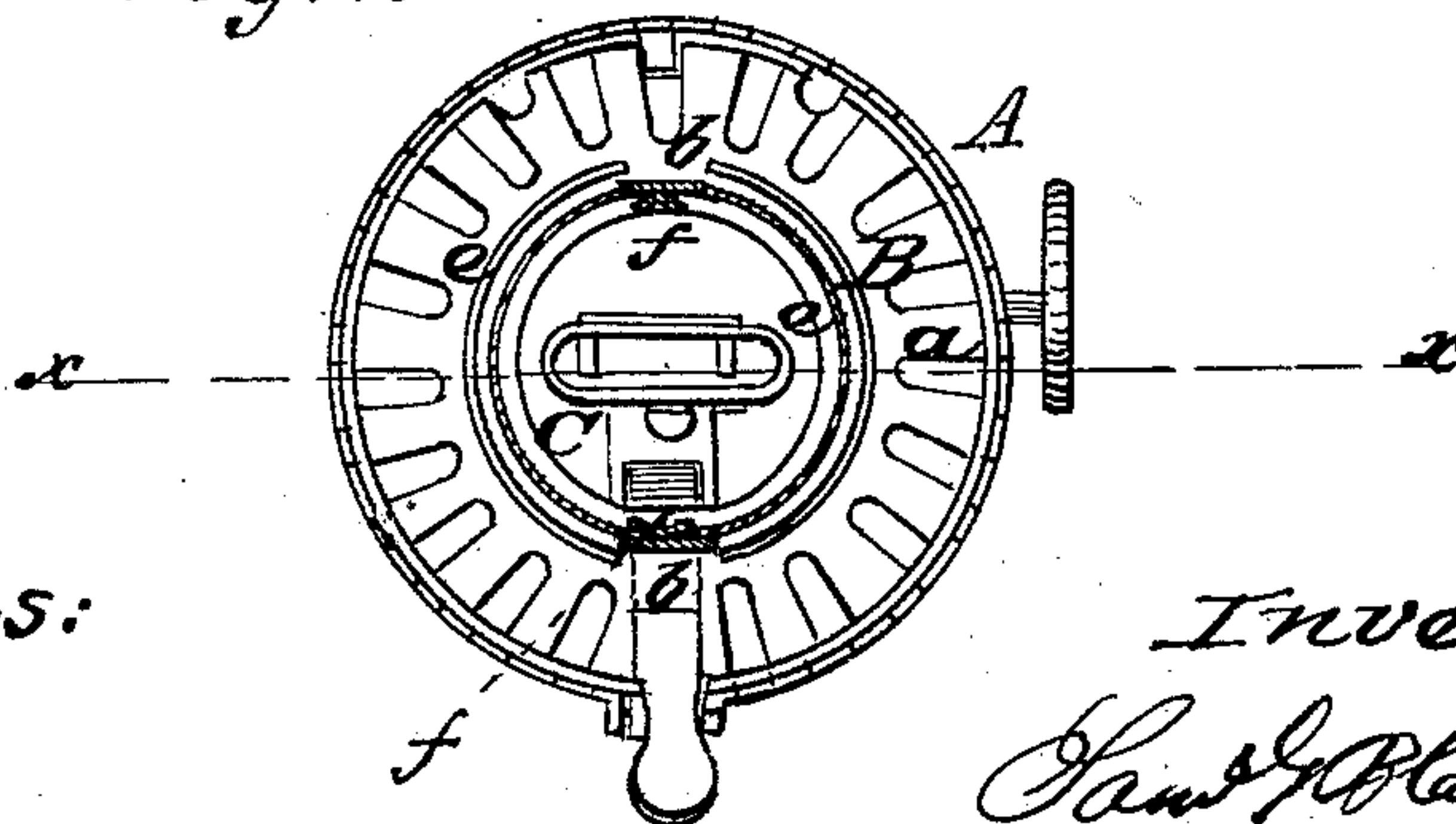


Fig. 2.



Witnesses:

James A. and
Richard G. Gentry.

Inventor:

S. G. Blackman.

UNITED STATES PATENT OFFICE.

SAMUEL G. BLACKMAN, OF WATERBURY, CONNECTICUT.

IMPROVEMENT IN LAMPS.

Specification forming part of Letters Patent No. 34,048, dated January 7, 1862.

To all whom it may concern:

Be it known that I, SAMUEL G. BLACKMAN, of Waterbury, in the county of New Haven and State of Connecticut, have invented a new and useful Improvement in Lamps; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 is a vertical central section of a lamp-top having my improvement applied to it, *x x*, Fig. 2, showing the plane of section; Fig. 2, a horizontal section of the same, taken in the line *y y*, Fig. 1.

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

This invention relates to an improvement in the cones or deflectors of lamp-tops such as are used for burning coal-oils and similar hydrocarbons, which require an excess of oxygen to support proper combustion for illuminating purposes.

The object of the invention is to obtain or render available for illumination all the light emitted by the flame below the apex of the cone or deflector by a means which will not add in an appreciable degree to the cost of construction, and one which will not be frail or liable to break, either by accidentally falling or by sudden expansion or contraction. To this end I construct the cone of metal, in skeleton form, making what may be termed a "frame," and fill the spaces with mica or other transparent substance, whereby the rays of light are allowed to pass through the cone or deflector and the latter enabled to perform its usual or legitimate function equally as well as heretofore.

To enable those skilled in the art to fully understand and construct my invention, I will proceed to describe it.

A represents the body or principal part of the lamp-top, which may be constructed in any of the known ways, and B is a cone or deflector which is fitted on the top A as usual, and may be of the ordinary shape. The construction of the cone B, however, although it may be of a similar form, is widely different from the ordinary metal cone or deflector.

The cone B of this invention is a skeleton

or frame, the lower part or base *a* being a rim which has two uprights *b b*, slightly inclined inward, or toward each other, from their lower to their upper ends, said uprights supporting the cap *c* of the cone, which is provided with the usual slot *d* in its apex. The spaces between the rim or base *a*, cap *c*, and uprights *b b* are covered by strips of mica *e*, and these strips of mica include the greater portion of the body of the cone, so as to fully expose the upper part of the wick-tube C, as will be understood by referring to Fig. 1. The strips *e* of mica may be secured in or to the cone B in any suitable way. In Fig. 2 they are shown secured to the cone by having their ends fitted behind metal cleats *f*, which are attached to the inner sides of the uprights *b b*. By this mode of constructing the cone or deflector B it will be seen that all the rays of light emitted by the flame below the apex of the cone will be allowed to pass through the mica *e* and are rendered available for illuminating purposes. Hence by this invention more light is obtained from the consumption of a given quantity of oil than is obtained by the use of the ordinary close or opaque metal cone.

Mica is probably the most desirable substance to use as a transparent medium, as it is not liable to break or fracture. Glass might be employed, as the skeleton frame will protect it, even if the cone is let fall from a quite high elevation, and the glass being in pieces it can expand and contract without being liable to fracture; but the use of glass would be attended with a greater expense in the construction of the cone, both as regards the stock and manipulation of fitting the parts together.

I am aware that transparent cones or deflectors for lamp-tops have been previously used constructed entirely of glass. These cones, so far as the transmission of light is concerned, are a decided success; but they are liable to break not only by accidentally falling from the hand in turning the lamp or adjusting it for trimming, but also from sudden expansion and contraction, for being in such close proximity to the flame they are exposed to sudden changes of temperature. My invention, it is believed, fully obviates this difficulty, while the same advantageous end is attained.

I do not claim, broadly and separately, a transparent cone or deflector for lamp-tops, for they have been previously invented; but

I do claim as new and desire to secure by Letters Patent, as an improved article of manufacture—

A cone or deflector for lamp-tops, com-

posed of metal and mica or other suitable transparent substance, substantially as herein described.

SAML. G. BLACKMAN.

Witnesses:

RICHARDSON GAWLEY,
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