

L. J. ATWOOD.

Lamp.

No. 40,227.

Patented Oct. 13, 1863.

Fig: 1.

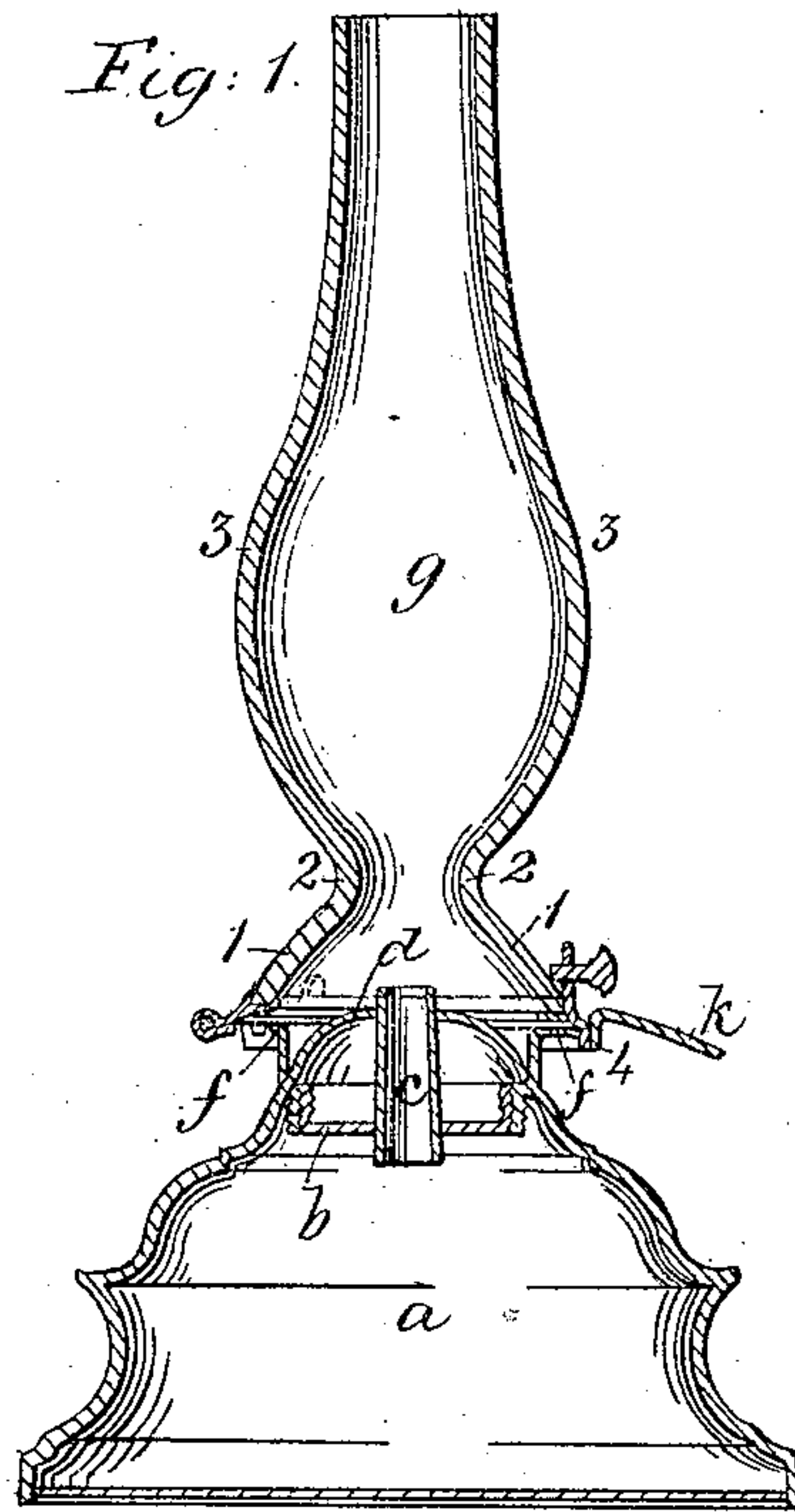


Fig: 3.

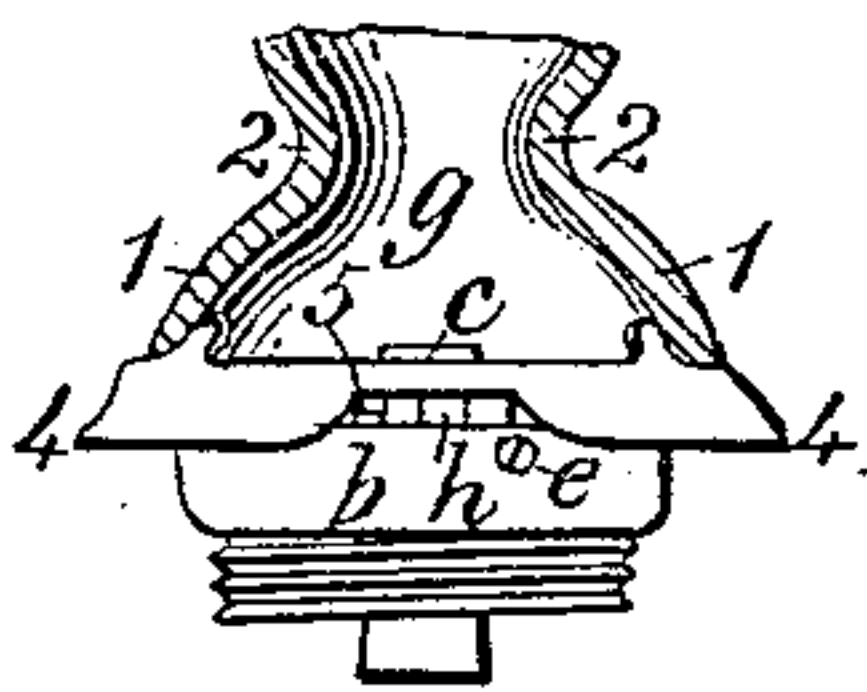
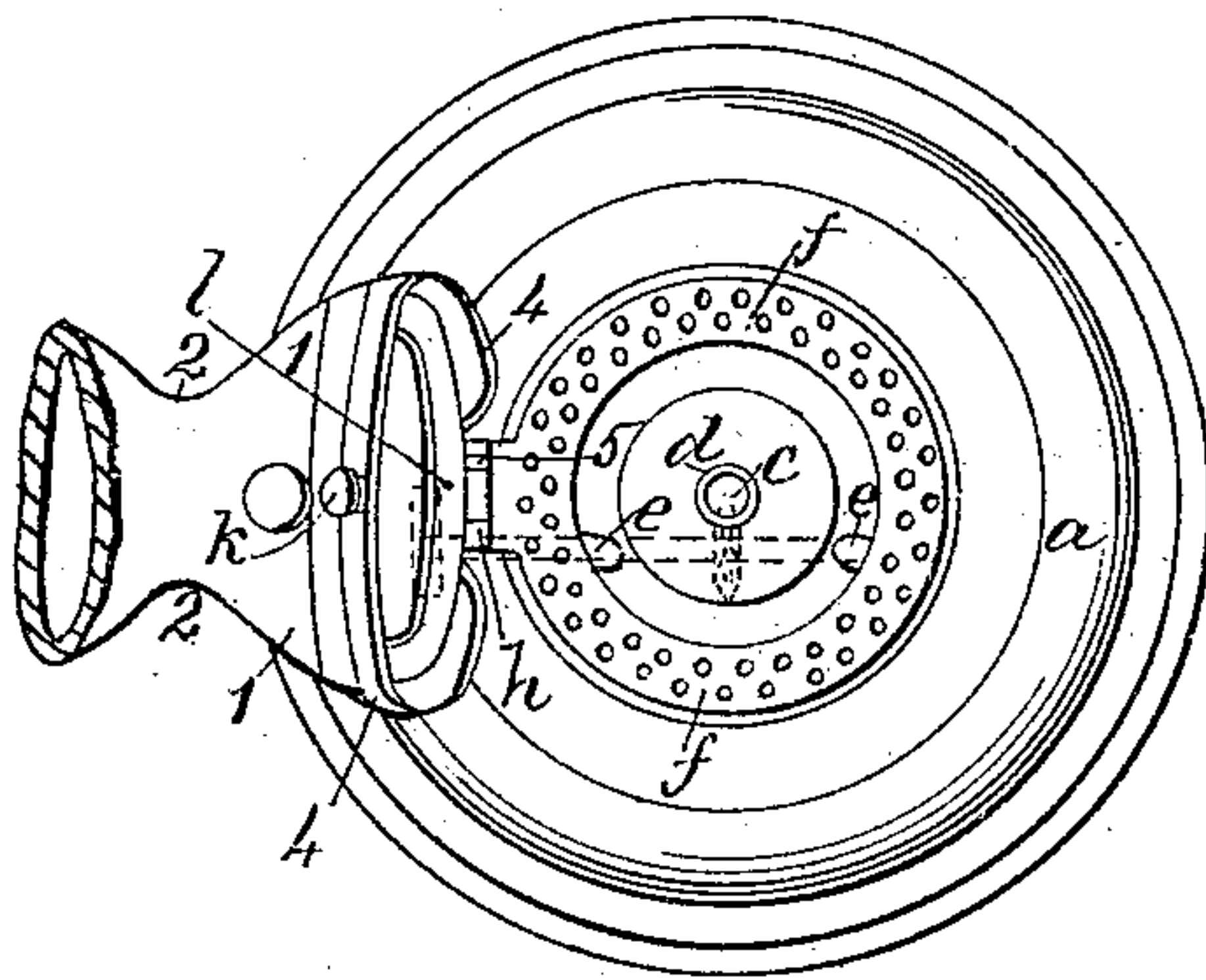


Fig: 2.



Witnesses.  
Henry C. Griggs  
Chas. Stearns

Inventor.  
Lewis J. Atwood

# UNITED STATES PATENT OFFICE.

LEWIS J. ATWOOD, OF WATERBURY, CONNECTICUT.

## IMPROVEMENT IN LAMPS.

Specification forming part of Letters Patent No. 40,227, dated October 13, 1863.

*To all whom it may concern:*

Be it known that I, LEWIS J. ATWOOD, of Waterbury, in the county of New Haven and State of Connecticut, have invented, made, and applied to use a certain new and useful Improvement in Lamps; and I do hereby declare the following to be a full, clear, and exact description of my said invention, reference being had to the annexed drawings, making part of this specification, wherein—

Figure 1 is a vertical section of my improved lamp. Fig. 2 is a plan of the same as with the glass chimney turned back, and Fig. 3 is an elevation of the burner at right angles to Fig. 1.

Similar marks of reference denote the same parts.

Conical glass chimneys have heretofore been used, and the ring of the ordinary chimney has also been attached by a hinge.

The nature of my said invention consists in a draft-distributor applied at the bottom of a chimney having a conical base, whereby said chimney performs the office of a cone or deflector to the draft, as well as that of a chimney, at the same time that said draft is regulated in its action upon the flame by the said distributor.

My invention is adapted to a light and portable or hand lamp, and will burn coal or similar oils without smoke or smell, thus meeting a want heretofore unsupplied.

In the drawings, *a* is the reservoir, of any desired size or shape. *b* is the burner; *c*, the wick-tube; *d*, the ratchet-cap, and *e* the ratchet or wick-raiser, all of which may be of any usual character. Around the burner *b* is a flat or nearly flat flange, *f*, perforated with holes, and forming an air-distributor.

*g* is the glass chimney, made with a conical base, 1, forming the contraction or neck 2 between the said conical part 1 and the bulb part 3 of said chimney. The top of the wick tube *c* is above the base of the chimney, so that there will be little or no loss of light, as the burner will cast but little shadow around the lamp, and the transparent base of the chimney, that forms the cone or deflector for

the draft, allows the light to pass freely from the base of the flame, and the body of said flame is in the bulb 3. The draft passing through the distributor *f* is equalized so as to rise within the conical part 1 of the chimney and be deflected upon the flame. At one side of the burner I provide a hinge, *h*, uniting to said burner the ring *i*, that receives the glass, and *k* is a thumb-piece by which the ring and chimney are raised so as to swing back on the hinge when required. The base of the shade is to be held into the ring by a screw or other suitable means. Around the edge of the ring *i* is a depending flange or skirt at 4, which passes sufficiently below the air-distributor *f* to prevent any current of air acting directly on said air-distributor and causing the flame to smoke or flicker, particularly when the lamp is being moved from place to place. The hinge *h* is formed with a stop, as seen in Fig. 3. One of the joints of the hinge is notched and a projection formed on the next joint of the hinge, so that a small recess is left, as at 5, in the hinge-joint down to the pin thereof, when the ring is shut down on the burner; but these two parts coming together when the ring is turned back, prevent the hinge opening farther, so that the glass chimney cannot descend sufficiently for the top thereof to come in contact with the table or other article on which the lamp may be placed, thus avoiding breakage of the chimney. The chimney above the neck 2 may be shaped as desired.

I do not claim either of the devices embraced in this lamp alone, as they have all been heretofore used; but

What I do claim is—

The combination of the several parts into a convenient, cheap, and portable hand-lamp, constructed as represented, and for the purposes specified.

In witness whereof I have hereunto set my signature this 31st day of December, 1862.

LEWIS J. ATWOOD.

Witnesses:

HENRY C. GRIGGS,  
O. H. STEVENS.