L. J. ATWOOD.

Lamp-Burner.

No. 163,439. Patented May 18, 1875,

Fig. 1.

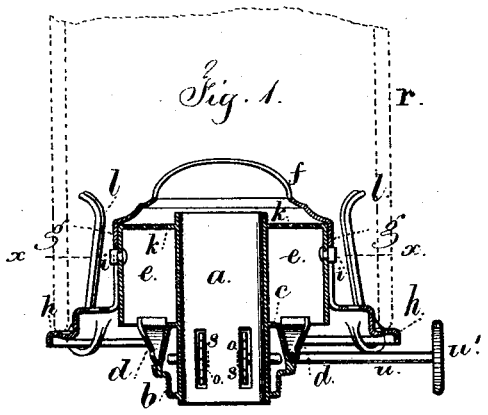


Fig. 2.

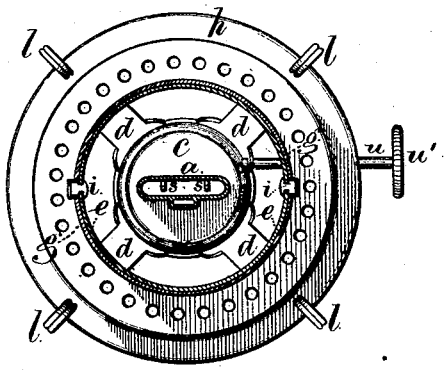
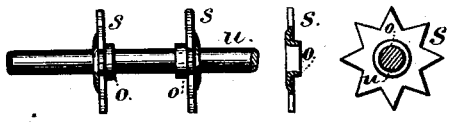


Fig. 5. Fig. 3. Fig. 4.



Witnesses

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UNITED STATES PATENT OFFICE.

LEWIS J. ATWOOD, OF WATERBURY, CONNECTICUT, ASSIGNOR TO PLUME & ATWOOD MANUFACTURING COMPANY, OF SAME PLACE.

IMPROVEMENT IN LAMP-BURNERS.

Specification forming part of Letters Patent No. **163,439**, dated May 18, 1875; application filed April 7, 1875.

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 an Improvement in Lamps, of which the following is a specification:

In the manufacture of lamps it is usual to employ wick-raising wheels made of sheet metal that is sufficiently thick to remain firm upon the wire that forms the shaft for such wick-raising wheels when they have been pressed upon such shaft. The thickness of the wheels renders it necessary, generally, to bore out the holes in order to get them true, and to make the edges of such wheels thinner by turning or stamping, in order that the points around the peripheries may be adapted to catching the wick and raising the same. My present invention is made for obviating the before-named difficulty, and also for facilitating the removal of the deflector and chimney for cleaning, lighting, and trimming the lamp.

In the drawing, Figure 1 is a vertical section of the lamp-burner. Fig. 2 is a sectional plan at the line *x x*, and Fig. 3 is a section in larger size, of the wick-raising wheels. Fig. 4 is an elevation, and Fig. 5 is an edge view, of said wheels.

The wick-tube *a*, screw *b* for the reservoir, and ratchet-cap *c* are of usual construction. From the body *b* the arms *d* extend to the cylinder *e*, that rises nearly as high as the top of the wick-tube, and within said cylinder there is a foraminous plate, forming the air-distributer *k*. The deflector *f*, cylinder *g*, and chimney-base *h* are all of one piece of metal, or made together, and the deflector *f* rests upon the upper end of the cylinder *e*, so that the cylinder *g*, chimney-base, and chimney are suspended below this deflector *f*, and hence the parts will remain firmly together, and the cylinder *g* can slip freely upon the cylinder *e*, and can be removed with facility, together with the chimney-base and chimney, whenever access is desired to the wick for lighting, trimming, or cleaning the burner. In order to insure the proper relative positions of the flame-slot in the deflector and the wick-tube when the parts are placed together, I slot the cylinder *g*, and form projecting guide ribs or pins *i* at opposite sides upon the cylinder *e*. The chimney-rest *h* is circular, and provided with clamping chimney-springs *l*, that retain the chimney *r* in place, and allow for the removal of the rest *h*, cylinder *g*, and deflector *f* with the chimney *r*. The chimney is shown by dotted lines in Fig. 1. The axis or shaft *u* of the wick-raising wheels *s* is a wire, at the end of which is a button, *u'*, as usual; but the wheels *s* are made of comparatively thin sheet metal, cut out by dies, and made with a cylindrical hub, *o*, at one side, of a size to fit upon the shaft *u*. These wheels are formed by punching a small central hole in each, and then pressing up the cylindrical hub into a die by a tapering punch. By this construction the cylindrical hub takes a sufficiently long bearing upon the shaft to firmly steady the wheel, the teeth around the edges are sufficiently narrow and sharp to catch in the wick and raise the same, and the wheels are less expensive to manufacture than those heretofore made. It is preferable to solder the wheels to the shaft.

I claim as my invention—

1. The removable portion of the burner, made with a circular chimney-rest and spring chimney-clamps, a cylindrical body, *g*, and a deflector at the top of the cylinder, all rigidly united together, in combination with the stationary portion of the burner, containing the wick-tube *a*, the air-distributer *k*, and the cylindrical body *e*, over which the removable cylinder *g* is placed when the parts of the burner are put together, and which cylinders are of nearly equal length, so as to firmly sustain the removable portion of the burner, as set forth.

2. The wick-raising wheels, made of sheet metal, with a cylindrical hub on one side, surrounding the shaft, as and for the purposes specified.

Signed by me this 1st day of April, 1875.

L. J. ATWOOD.

Witnesses:

H. M. STOCKING,

C. H. BRONSON.