J. G. HALLAS & W. N. WEEDEN.

LAMP-BURNER.

No. 189,542. Patented April 10, 1877.

fig. 1

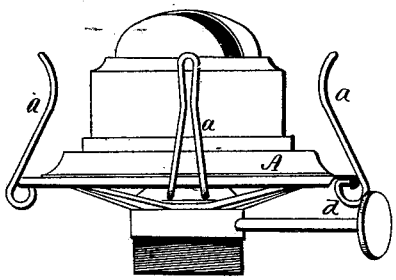

fig. 3

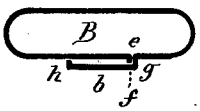

fig. 2

Witnesses.

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UNITED STATES PATENT OFFICE.

JAMES G. HALLAS AND WILLIAM N. WEEDEN, OF WATERBURY, CONN., ASSIGNORS TO THE BENEDICT & BURNHAM MANUFACTURING COMPANY, OF SAME PLACE.

IMPROVEMENT IN LAMP-BURNERS.

Specification forming part of Letters Patent No. **189,542**, dated April 10, 1877; application filed March 9, 1877.

To all whom it may concern:

Be it known that we, JAMES G. HALLAS and WILLIAM N. WEEDEN, both of Waterbury, in the county of New Haven and State of Connecticut, have invented a new Improvement in Lamp-Burners; and we 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 a sectional side view of the burner; Fig. 2, the chimney-holder spring detached; Fig. 3, a transverse section through the wick-tube.

This invention relates to an improvement in that class of lamp-burners commonly called "kerosene-burners," the object being to produce a burner from very thin metal, whereby the weight of the burner will be materially diminished.

The invention consists, first, in forming the chimney-holding springs from wire, with the ends turned to the right and left into substantially the curve of the edge of the deck, and secured by turning the edge of the deck inward and over the said projecting ends; also, in the method of forming the wick and gas tube from a single piece of metal, whereby a passage for the gas is made outside of and separated from the wick-tube, as more fully hereinafter described.

The general form of the burner does not differ materially from that of burners heretofore constructed.

The deck or chimney-rest plate A is made from thin metal, and the edge rolled over and inward to stiffen the edge of the plate. The chimney-springs *a* are made from wire, as seen in Fig. 2, doubled downward, the two ends *c* extending one to the right and the other to the left, and curved to correspond substantially to the curve of the deck, and in length preferably so that the end of one spring will meet the end of the next spring, so that the combined extent of these ends will be substantially the circumference of the deck. Before the deck is turned over the springs are laid in place, and then the edge of the deck turned over so as to inclose the ends *c* of the spring, and firmly hold them in their position. The curve, to a great extent, prevents the springs from turning; but the coil *d* at the bottom of the springs extends beneath the deck-plate A, as seen at the right of Fig. 1, so that a further bearing is made to resist the force outward against the spring. These inclosed ends *c* greatly strengthen the edge of the deck or chimney-rest, and thereby enable it to be made from very thin metal. The springs, however, may be otherwise applied, and a wire inclosed within the edge of the chimney-rest to produce the same strength.

The wick-tube B (shown enlarged in Fig. 3) has combined with it the gas-tube *b*, making what is known as the Ambrose patent, or gas-tube burner. The usual method of making this tube *b* has been to form an independent tube, and set it in place beside the wick-tube. A division between the wick-tube and the passage for the gas is essential. To make these two parts from one and the same piece, a strip of metal of sufficient width is bent into the form, starting from one edge, *e*, that edge turned outward, forming a rib, *f*, of the interior depth of the tube; thence around until the metal comes against the rib *e*; then turned outward, as at *g*; thence parallel with the surface of the wick-tube the distance required for the width of the gas-tube, when the other edge of the metal is turned inward, as at *h*, against the wick tube, thus completing in one piece the wick-tube and the gas-tube, with the passage to the gas-tube entirely separated from the wick-tube.

We claim—

1. In a lamp-burner, substantially such as described, the deck or chimney-rest, constructed with its edge turned inward, and inclosing a wire to form the edge of the chimney-rest, substantially as described.

2. In a lamp-burner, substantially such as

described, the chimney-holding springs formed from wire, the ends of the said springs turned into a horizontal plane with the chimney-rest, and secured thereto by turning the edge of the chimney-rest over the said ends, substantially as described.

3. In a lamp-burner, the combined wick and gas tube, formed complete in a single piece of metal, with a division between the wick and gas tube, substantially as described.

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Witnesses:
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