

A D Laws

Lamp Wick Tube

No. 75281

Patented March 10/1868

Fig. 1.

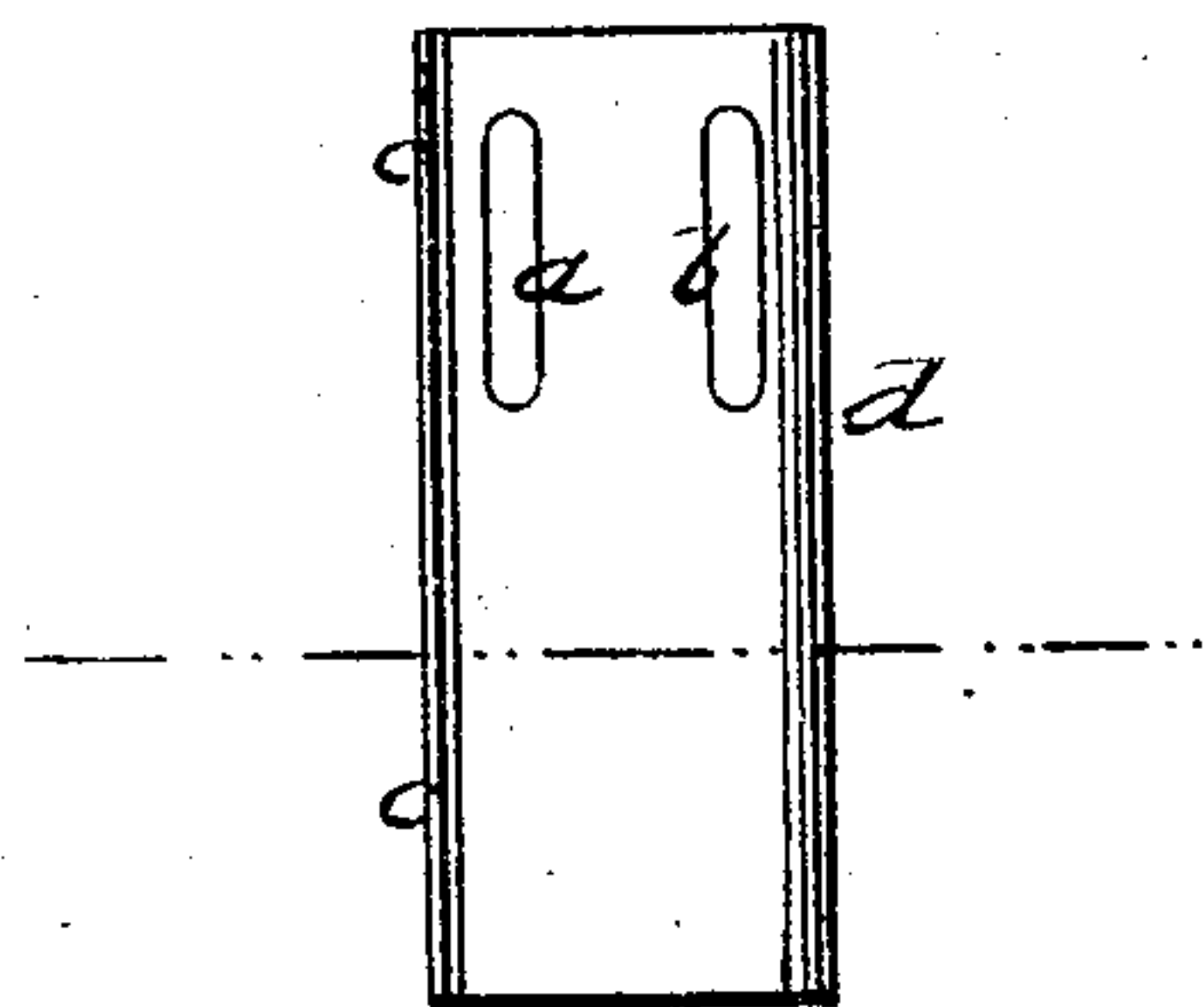


Fig. 2



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United States Patent Office.

A. D. LAWS, OF BRIDGEPORT, CONNECTICUT.

Letters Patent No. 75,281, dated March 10, 1868.

IMPROVEMENT IN LAMP-WICK TUBES.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that I, A. D. LAWS, of Bridgeport, of Fairfield county, in the State of Connecticut, have invented certain new and useful Improvements in Lamp-Burners; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, making part of this application.

My invention relates to that kind of lamp-burner tube which is adapted to receive and hold a "flat" wick, such as used generally in kerosene-lamps, and which are made usually of brass.

Previous to my invention, it was customary, in the manufacture of this kind of lamp-tube, to take a piece of sheet metal, and draw it through a die into a tubular form, something after the fashion of making cartridge-tubes, and afterwards flatten and finish it; and lately this kind of flat brass burner-tubes for lamps has been made by taking a piece of sheet brass, cutting out two of its opposite edges in scallops, or after the fashion of gear-teeth, and then bending it around a flat mandrel or bar, in such a manner as to have the scallops interlock along one edge of the finished tube.

The labor and expense of manufacturing burner-tubes for flat-wick lamps by drawing them down have been so great as to lead to many experiments for the purpose of finding some way of more economically making a tube which would answer equally well the purposes of the "drawn" tube; and the method just mentioned, of bending a piece of sheet brass round a mandrel, has been practised to considerable extent, and with advantage in point of economy, but it has been found in practice that the tubes thus made are not sufficiently strong and rigid where the interlocking edges come together, and that the zigzag joint made is apt to open more or less, and permit the leakage of oil from the wick, which is an objection in their use.

My invention has for its object to avoid the expensive process or mode of drawing the tubes, and, at the same time, in an economic manner, produce a tube which shall be sufficiently rigid at all points, and in which the joint shall be tight; and to these ends my invention consists in a lamp-burner tube adapted to receive a flat wick, formed of a plain piece of sheet metal bent round into the proper shape, with its edges overlapped along the curved edge of the burner, as will be presently more fully explained.

To enable those skilled in the art to make and use my invention, I will proceed to describe my new burner-tube, referring by letters to the accompanying drawings, in which—

Figure 1 is an elevation of a flat burner-tube made according to my invention, and

Figure 2 is a cross-section of the same.

The tube when completed (as seen) is of the usual shape, with the ordinary openings at *a b*, through which the device for feeding the contained wick is applied.

To form a tube such as shown, I shear off a plain piece of sheet brass, rectangular in contour, and bend it around a mandrel or former, of the proper shape, in such a manner that the opposite overlapped edges will overlap each other to an extent about equal to the thickness of the burner, (that is to say, during the entire width of the edge of the tube,) as clearly seen at *c*, and so as to make a close joint, comparatively.

It will be seen that, by bending each edge of the piece of brass over, as shown, and overlapping them, that edge of the flat tube where the edges of the piece come together, at *c*, is rendered about as strong as the other edge, *d*, of the tube; and it will be understood that, inasmuch as the joint between the overlapped portions extends the whole width of the tube the narrow way, the oil cannot readily escape through it from the contained wick.

It will be seen also that, inasmuch as the overlapping portions are curved and equal in width about to the thickness of the burner, the inner edge will bear against the internal surface of the burner while it is braced by the outer curved edge, and that thus the burner is rendered comparatively rigid and very strong.

My new tube is, of course, adapted to the same uses as and is similar in shape when finished to the flat burner-tubes now made. It does not involve in its manufacture so much labor and expense as either the drawn tube, or a tube made by bending round a mandrel a piece of sheet metal previously scalloped out on two of its edges, but is equally as durable and as well adapted for use as any flat lamp-tubes heretofore made.

It may be remarked that, in the manufacture of these flat tubes with the scalloped edges interlocked, considerable expense is incurred in the employment of the cutting-out tools, and their wear and tear, while, in the

manufacture of flat tubes according to my invention, it is only necessary to shear off the plain pieces of sheet brass, and bend them round into shape, no machinery or expensive tools, which require frequent renewal, being necessary.

I am aware that lamp-tubes have been made by bending round a piece of sheet metal, and I am aware that, in making a lamp-tube of a piece of bent sheet metal, the latter has had its edges overlapped and "seamed." I do not, therefore, claim broadly either making a lamp-burner tube of sheet metal bent round into shape, nor overlapping the detached edges; but, having so explained my invention that those skilled in the art can make and use it,

What I claim as new, and desire to secure by Letters Patent, is—

A flat lamp-burner tube, or lamp-burner tube adapted to the use of flat wicks, formed of a piece of sheet metal bent round and overlapped along the whole edge, substantially as herein shown and described.

In testimony whereof, I have hereunto set my hand and seal, this 24th day of January, 1868.

A. D. LAWS. [L. S.]

Witnesses:

D. H. HARD,
ANDREW BURK.