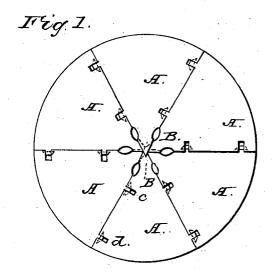
## A. D. LAWS.

Lamp Shade

No. 86,987.

Patented Feb. 16, 1869.



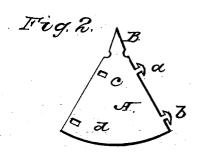


Fig. 3
BBBB

Witnesses

a J. Telfits Il Thumuay Inventor

any Shu EEarle

N. PETERS, PHOTO-LITHOGRAPHER, WASHINGTON, D. C.



## A. D. LAWS, OF BRIDGEPORT, CONNECTICUT.

Letters Patent No. 86,987, dated February 16, 1869.

## IMPROVEMENT IN LAMP-SHADES.

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, in the county of Fairfield, and State of Connecticut, have invented a new Improvement in Lamp-Shades; and I 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 top view of the shade;

Figure 2, one of the sections detached; and in Figure 3, a side view.

The object of this invention is to produce a shade from the smallest quantity of material, and so that a number of the shades may be packed in the least pos-

sible space; and

The invention consists in constructing the shade from several segments cut from sheet-metal, or other suitable material, one side of each part constructed with hooks or tongues, the opposite side with slots, which correspond in position to the said hooks or tongues, so that a certain number of the parts united together, by placing the hooks or tongues of the one into the slots of the next; will form a ring when lying flat, but when the centre is raised, the upper hooks or tongues are drawn in the slots, so as to expand, to the fullest extent, the inner edge of the segments or parts, and the outer hooks or tongues slide in their slots, so as to contract the outer edge, and thus form a conicalshaped shade, which may be applied to a lamp or burner in the usual manner.

In order to the clear understanding of my invention, I will fully describe the same as illustrated in the ac-

companying drawings.

From sheet-metal, or other suitable material, I cut segments, as seen in fig. 2, here represented in such form that six segments will form a full circle, as seen

Upon one edge of each part, I form tongues or hooks, a and b, and upon the opposite edge, in corresponding positions, I form slots, c and d, so that the tongues on the edge of one may be set into and locked in the slots of the next, but yet so as to allow the free movement laterally of the tongues in the said slots. Thus secured together, all the parts, when not supported at the centre, will fall into a perfectly flat position, as denoted in fig. 1, but when the centre is raised, the hooks slide in the inner slots, expanding the shade at the centre, while the outer hooks, by the weight of the shade itself, are forced inward in their slots, so as to contract its outer edge, which causes the shade to assume a conical form, as seen in fig. 3.

The several parts may each be formed with a spring, B, by which to be supported against the chimney, or the shade may be supported in any other manner.

This shade, constructed with the slightest waste of material, occupies, when not in use, no more than the thickness of the material—a great and desirable object in packing shades for market.

Another great advantage of this shade is, that one or more parts may be removed, and the edges of the remaining parts in like manner joined, and thus form

an adjustable shade.

Having fully described my invention,

What I claim as new and useful, and desire to se-

cure by Letters Patent, is-

A lamp-shade, formed from several segments A, united by means of tongues or hooks a and b, and corresponding slots c and d, so as to operate substantially in the manner set forth.

A. D. LAWS.

## Witnesses:

A. J. TIBBITS,

J. H. SHUMWAY.