

LOCKE & WEEDEN.

Lamp Shade.

No. 81,915.

Patented Sept. 8, 1868.

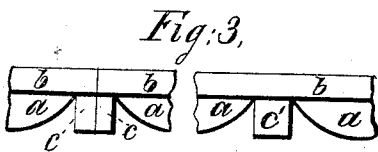
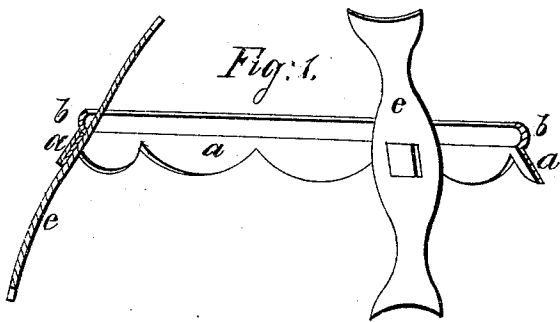


Fig. 2.

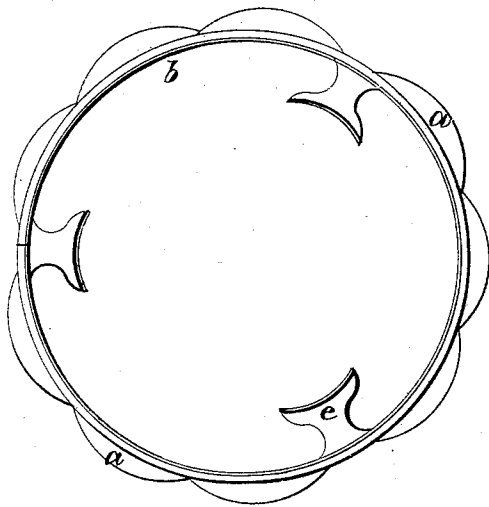
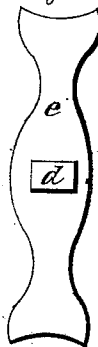


Fig. 4.



Witnesses.

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E. A. LOCKE AND W. N. WEEDEN, OF BOSTON, MASSACHUSETTS.

Letters Patent No. 81,915, dated September 8, 1868.

## 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 we, E. A. LOCKE and W. N. WEEDEN, both of Boston, in the county of Suffolk, and State of Massachusetts, have invented certain new and useful Improvements in Lamp-Shades; and we do hereby declare that the following, taken in connection with the drawings which accompany and form part of this specification, is a description of our invention sufficient to enable those skilled in the art to practise it.

Our improvements relate to the construction of the metallic ring which is employed to sustain the paper or other shade to be secured thereto, and their object is to render them simple in construction, and adapted to the almost instantaneous removal of an old shade or introduction of a new paper blank, whilst also serving to hold firmly in position the shade after it has been applied to the ring.

Paper shades are ordinarily formed as conic frusta of plain or plated surfaces, and sometimes made to fold into cylindrical form.

When heretofore these frusta have been confined at their smaller ends to rings, such rings have been made in two parts, and between these parts the frustum has been clamped, or else the frustum has been held to the ring by being transfixured by metal points which formed a part thereof, so that when the paper part of a shade became scorched, torn, or soiled, these metal parts had to be dismembered, bent or otherwise manipulated, and generally injured or rendered useless, in the effort to attach thereto a fresh and clean paper.

Now, in our improvement, no change need be made in the position of the material of the supporting-ring, in order to secure or remove the paper part of the shade, because the ring has the main part of its outer surface in the form of a conic frustum coinciding with and corresponding to the conic frustum made by the paper which the ring is to support.

The paper part, (for which we shall make application for a separate patent,) being left ununited at its edges until the moment when it is to be applied to the ring, the advantage of this form of ring is at once evident, as it admits of putting on a new paper shade without taking the ring apart. Ordinarily, as rings and the paper shades are constructed, the shade in the form of a frustum can not be applied to the ring by passing the ring down upon the top of the paper shade, because the circle described by the top of the shade is smaller than the circle described by the bottom of the ring, and hence the shade could not be so laid outside of a ring, as it needs to be, in order to fall away from it, nor can. Nor, if the ring be single and not double, (that is, not having an outer ring to clamp the paper shade to the inner ring,) can the paper shade, if applied by passing the ring up through it, be sustained in its position on the ring without pins, rivets, or some other adventitious aid, for the plain reason, that the opening at the top of the paper shade being in such case necessarily larger than the top of the ring, they are liable to slip away from each other at any moment.

To avoid these difficulties, as well as to make the ring more simply and cheaply, and out of a single piece of metal, (excepting its spring-supports,) is the object of the present invention.

Figure 1 shows a sectional elevation of our improved supporting-ring.

Figure 2 shows said ring in plan.

Figure 3 shows sections of the ring and its downward projections, which serve to hold the spring-supports, the diagram at the left showing the constructions of these projections where the two ends of the ring meet.

Figure 4 shows one of the spring-supports detached.

The conic portion of the ring is marked *a*, and the bead above it is marked *b*. The upper edge of the paper cone, when applied to this ring, lies snugly against the bead, and it will readily be seen that if the paper is wound tightly upon the conical surface *a*, and its adjacent edges be then cemented together, the paper part of the shade will be firmly united to the supporting-ring upon its exterior, and can neither move up or down thereupon, the bead preventing its rising, and the conical form of the ring preventing its falling, and no pins, clamps, nor supplemental piece, nor outer ring is required to hold the paper in place permanently.

The ring itself is formed from a single strip of metal, shaped to give the conical flaring part *a*, and the bead *b*. The ends of the strip are so cut as to abut fairly when the strip is bent into a ring of the required size, and the abutting ends are held together without soldering, riveting, or otherwise, permanently connecting

them by inserting the two downward projections marked *c*, in fig. 3, into a loop, *d*, which is made in one of the spring-holders *e*, of which three are placed equally distant about the ring. At the proper spaces apart on the ring, other projections *c'*, are formed, which are inserted into and fill the loops made in the remaining spring-holders required, and which latter, when secured in place on the ring, are bent as may be required to cause the upper ends to embrace the chimney of the lamp to be shaded.

By this mode of causing a spring-holder and the two abutting ends of the ring mutually to hold each other in place, they are always sufficiently firm, and without liability of displacement when the entire shade is in use, and yet they admit of being taken apart for any purpose at a moment's notice, without detriment to either. It will be observed that the pull of the spring, (owing to its natural tendency to separate at its ends,) being in the direction of its length, whilst the parts *c c* project in a transverse direction, this very peculiarity in the construction serves to tighten and hold the parts together. It is preferable that the ends of tongues *c c*, as well as *c' c'*, should, after being passed into one of the slits in spring *e*, be passed out of the other slit, and so positively prevent their being knocked out of place, although admitting of their removal when desired, in case a spring should become broken or for any other cause.

We claim a lamp-shade ring made from a strip, when the abutting ends of the strip are held together by projections thereon, which are inserted into a loop formed on one of the spring-supports *f*, as specified.

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Witnesses:

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