(No Model.)

A. M. DUBURN.

LANTERN GUARD.

No. 263,029. Patented Aug. 22, 1882.

Fig. 1.

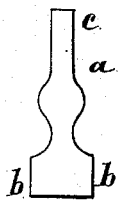


Fig. 2.

Fig. 3

Fig. 4

Fig. 5.

Fig. 6.

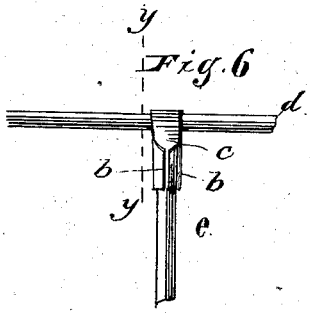


Fig. 6a.

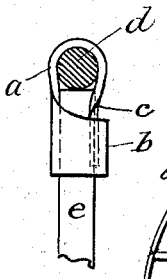


Fig. 10.

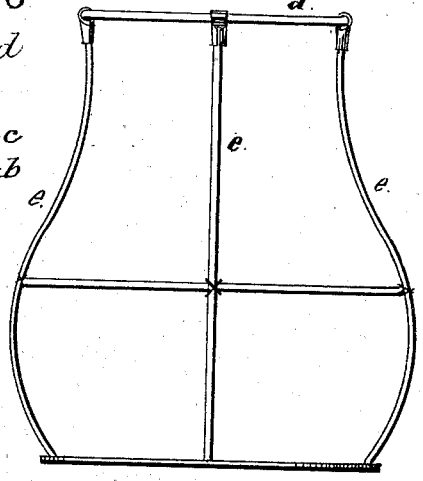


Fig. 7.

Fig. 8.

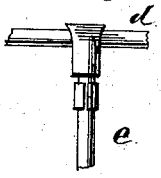
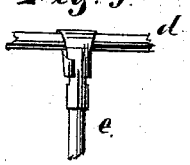


Fig. 9.



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LANTERN-GUARD.

SPECIFICATION forming part of Letters Patent No. 263,029, dated August 22, 1882.

Application filed June 5, 1882. (No model.)

To all whom it may concern:

Be it known that I, ANTHONY M. DUBURN, residing at Chicago, in the county of Cook and State of Illinois, and a citizen of the United States, have invented a new and useful Improvement in Lantern-Guards, of which the following is a full description, reference being had to the accompanying drawings, in which—

Figure 1 represents a blank from which the tip which I use is formed. Fig. 2 shows the same blank stamped in proper form, ready to be applied to the guard-wires. Fig. 3 represents a tip removed from the guard-wires. Fig. 4 is an enlarged end view of Fig. 3. Fig. 5 is a top view of a portion of an upper horizontal ring of a lantern-guard with a tip thereon. Fig. 6 is an elevation, showing a tip applied to the upper horizontal guard-ring and to one of the vertical guard-wires, ready to be soldered; Fig. 6ª, an enlarged view on the line *y y* of Fig. 6, to more clearly show the manner of securing the ends of the tip in position. Figs. 7, 8, and 9 show a modification. Fig. 10 is an elevation, showing a lantern-guard containing my improvement applied to the upper end thereof.

It has been common, in manufacturing lantern-guards, to secure the upper ends of the vertical guard-wires to the upper horizontal guard-ring by means of short strips of sheet metal only wide enough at each end to encircle about one-half of the vertical guard-wire. Such strips are applied by bending the same over the upper guard-ring and soldering the ends of each strip over the ends of the wire, which soldering must be done by hand, because the parts are not held together so as to render it possible to do the soldering by dipping. It is common to use from four to six vertical wires in each lantern-guard, and the soldering of the tips by hand requires considerable labor.

The object of my invention is to save a portion of the labor in soldering the tips to the guards, and at the same time provide a stronger connection than has heretofore been used, which I accomplish by means of sheet-metal tips which have flanges adapted to be bent around the vertical guard-wires, forming a socket which receives and clasps such wire, whereby the tips will hold the guard-ring and the vertical guard-wires together temporarily, so that the tips can more readily be soldered to the wires.

In the drawings, *a* represents the form of blanks from which the tips which I use can be made, though this exact form need not be used. At one end of this tip are two lips or flanges, *b b*, one on each side, the width of one end of this blank being preferably a little less than the circumference of the vertical wire with which the tip is to be used. By means of suitable dies the blanks are brought to the form shown in Fig. 2, the two ends being bent to correspond with the vertical wire, the end where the flanges *b* are being U-shaped, the central portion being bent to partly correspond with the guard-wire over which it is placed. When in this form the device is ready to be used, which can be done by bending the central portion over the guard-ring *d*, as shown in Fig. 5, and bending the two ends down against a vertical wire, the end *c* passing between the lips *b*, which, by means of pliers or otherwise, can be bent down, as shown in Fig. 6, being clasped around the vertical wire *e* and over the end *c* of the tip.

It will be seen that one end, *c*, of the blank shown in Fig. 1 is quite narrow, while the other end is quite broad. When the tip has been applied to the ring *d* and wire *e*, as shown in Fig. 6, the broad end of the tip will be tightly clasped around the wire *e* and over the narrow end *c* of the tip, and the guard-ring and vertical wires of the guard will be held together by the tips, so that the tips can be soldered together in place by dipping, saving much labor and making a stronger connection than when the ordinary tip is used.

The tips might be made complete, as shown in Figs. 3 and 4, and then slipped upon the wires *d e;* but I now think that the other mode of applying them is the best.

In Fig. 4 I have shown how the lips *b* overlap the narrow end *c* of the tip.

In Figs. 7, 8, and 9 I have shown a modification in which both ends of the tip, instead of one end only, are provided with lips which can be clasped around the vertical guard-wire, forming two sockets, one above the other, when

in place, accomplishing the same result as before. Fig. 7 represents a blank from which this modified tip may be made, having lips at each end. The blank may be stamped up, as before described, forming a partial socket at each end. This tip can be applied to the guard-ring *d*, so that one end of the tip will be longer than the other, and then clasping the lips around the wire *e*, forming two sockets, one above the other, as shown in Figs. 8 and 9.

My improvement renders it easy to solder the tips to the guards by dipping; but even if this should be done by hand there would still be considerable saving, because in the old way each tip has to be held in place by hand while being soldered, which is not the case when my tip is used.

In open-bottom lanterns a wire ring forms the base, which is secured to the ends of wires by tips. My tips can be used for this purpose, or at the lower end of a guard, in case such lower end consists of a wire ring to be secured to the ends of vertical wires.

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

1. The combination, with the top horizontal guard-ring, *d*, and the vertical guard-wire *e* of a lantern, of a sheet-metal tip having one end bent around and encircling the guard-ring, and such end connected to the vertical wire beneath the ring, and the other end clasped around the end portion of the wire, substantially as described.

2. The combination, with the guard-ring *d* and vertical guard-wire *e* of a lantern, of the sheet-metal tip having one end bent around the ring and a broad end clasped around the wire, and also around the narrow end which is bent around the ring, substantially as described.

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