(No Model.)

C. I. MITCHELL.

LANTERN.

No. 480,734. Patented Aug. 16, 1892.

Fig. 1.

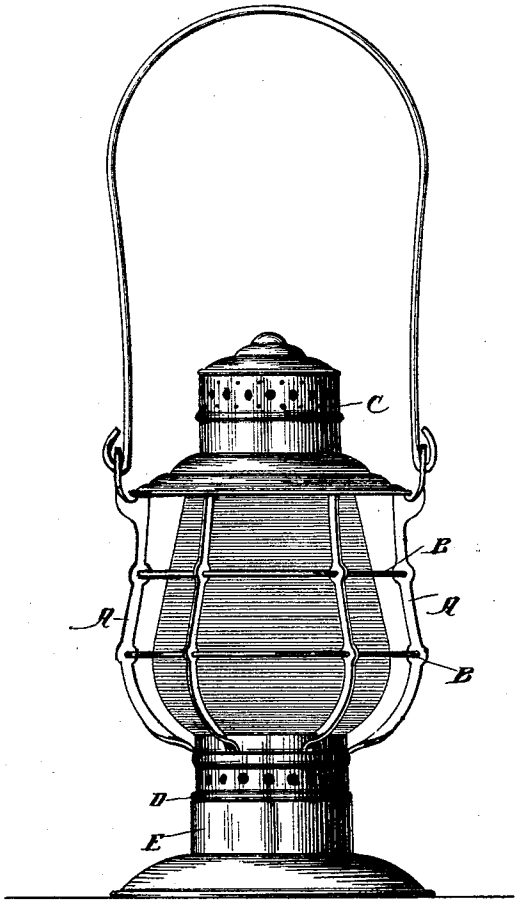


Fig. 2.

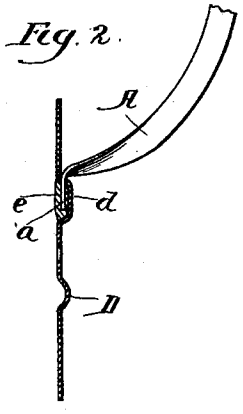
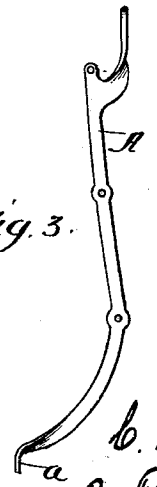


Fig. 3.



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LANTERN.

SPECIFICATION forming part of Letters Patent No. 480,734, dated August 16, 1892.

Application filed December 24, 1891. Serial No. 416,071. (No model.)

To all whom it may concern:

Be it known that I, CHARLIE I. MITCHELL, a citizen of the United States, and a resident of Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Lanterns, of which the following is a specification, reference being had to the accompanying drawings.

The present invention is an improvement upon the lantern-frame shown in United States Patent No. 411,676 to A. W. Paull, dated September 24, 1889; and the object of the present invention is to strengthen the attachment of the vertical ribs to the bottom ring of the frame, so that this portion shall be equal in strength with the remainder.

In the drawings, Figure 1 is an elevation of a lantern embodying my invention. Fig. 2 is a section, on a larger scale, of a portion of the bottom ring and the lower end of one of the vertical guards; and Fig. 3 shows one of the vertical guards detached.

The basket of the lantern-frame consists, essentially, of vertical ribs A, of flat metal, set edgewise toward the burner and having openings, through which pass the circular horizontal ribs B. To the uppermost circular rib is attached the top C in any well-known and convenient manner. A ring D, of sheet metal, forms the lower part of the lantern-frame, and in it the bottom E, containing the oil-pot, is fastened, as usual. The fastening of the vertical ribs A to the ring D is ordinarily effected by soldering, the ribs entering vertical slots in the side of the ring D, as shown in the Paull patent referred to, the solder being used to fill in the angles between the ring and ribs. Such a construction is found inadequate to resist the twisting and racking to which the lantern-frame is subjected in use so perfectly as is desirable, owing to the limited surfaces of the ribs and ring in contact, and in order to provide a sufficient surface for uniting the ring D and the ends of the ribs A, I give to the latter a quarter-twist at their lower ends, so that their flat surface is parallel to the surface of the ring D. In order to further secure the joint between the ribs A and the ring D, I form a bead *d* upon the ring D and make therein near its upper edge a series of slots corresponding to the ends of the ribs A. The latter are inserted therein and are then fixed in place by solder *e*, as seen in the section, Fig. 2. This construction of joint makes more rigid the connection between the ring D and the ribs A, and thus adds to the durability of the whole frame and enables it to better resist the twisting strains to which it is subjected in use.

I claim—

The combination, in a lantern-frame, of a bottom ring of sheet metal and flat vertical ribs disposed edgewise to the burner and having a quarter-twist at their lower ends, so that the latter project downward parallel with the bottom ring, said ring having a bead provided with a series of slots for the reception of the twisted ends of said vertical ribs, substantially as described.

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