(No Model.)

G. M. CLARK, J. B. WALLACE & J. H. KINDLEN.

LANTERN FRAME.

No. 363,364. Patented May 24, 1887.

Fig. 1.

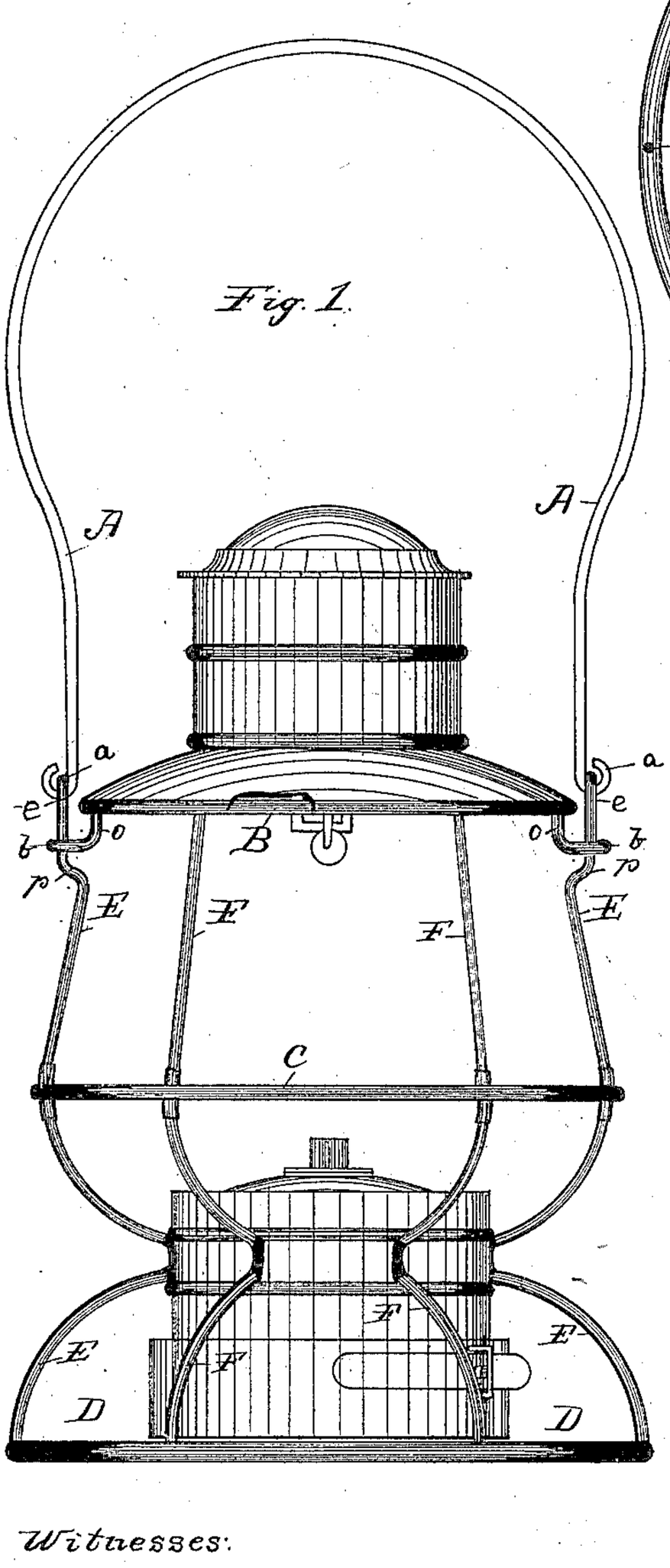


Fig. 2.

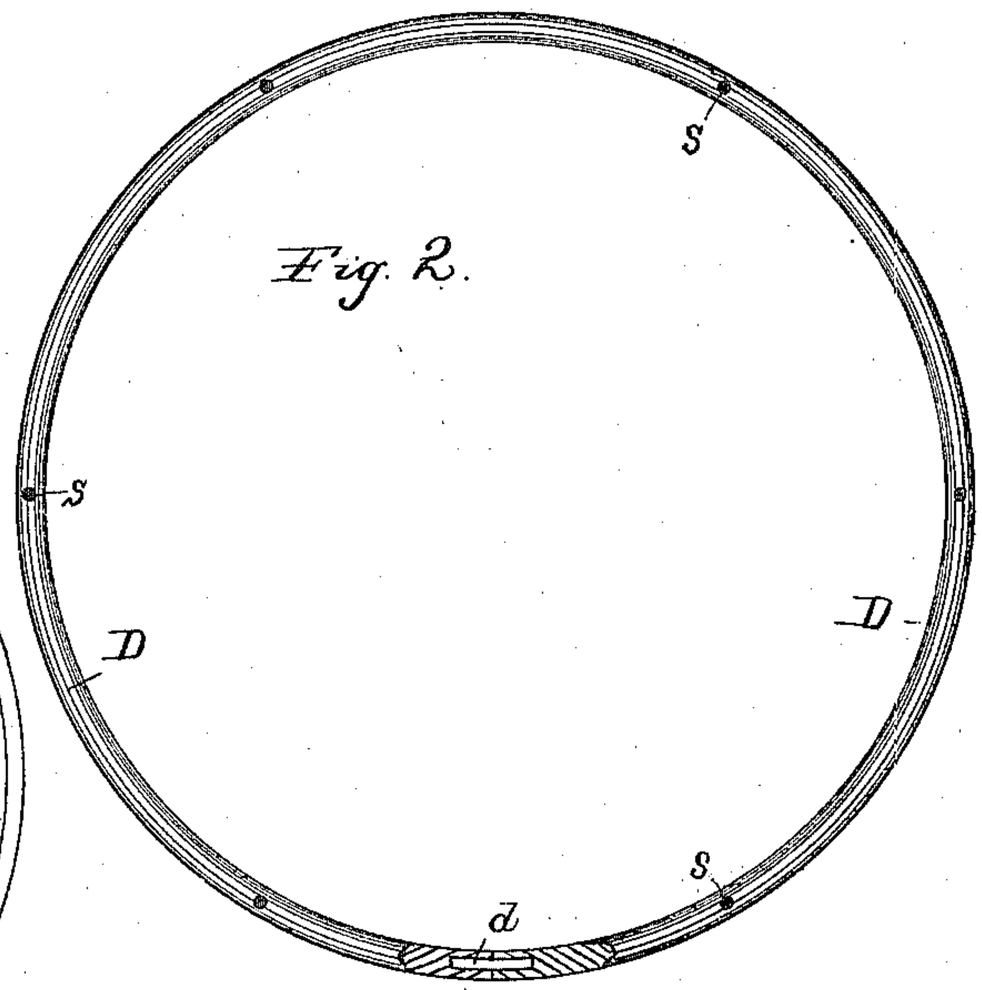


Fig. 3.

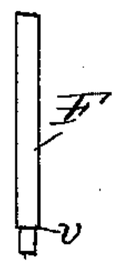


Fig. 4.

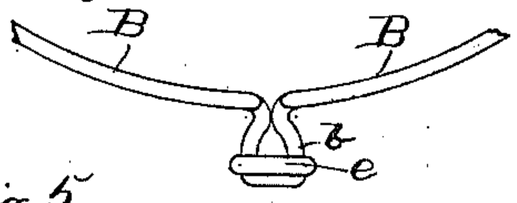
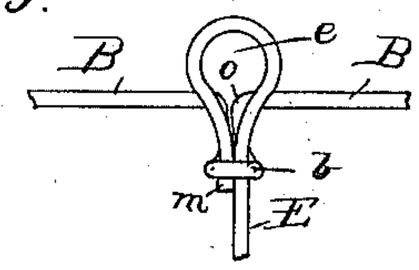


Fig. 5.



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UNITED STATES PATENT OFFICE.

GEORGE M. CLARK, J. BENNETT WALLACE, AND JOHN H. KINDLEN, OF CHICAGO, ILLINOIS, ASSIGNORS TO GEORGE M. CLARK & CO., OF SAME PLACE.

LANTERN-FRAME.

SPECIFICATION forming part of Letters Patent No. 363,364, dated May 24, 1887.

Application filed March 1, 1886. Serial No. 193,564. (No model.)

To all whom it may concern:

Be it known that we, GEORGE M. CLARK, J. BENNETT WALLACE, and JOHN H. KINDLEN, citizens of the United States, residing in Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Lantern-Frames, of which the following is a specification.

This invention relates to certain improvements in the wire guard-frames of lanterns designed to simplify, strengthen, and improve the appearance of the frames.

It consists in the novel features hereinafter described, and pointed out in the claims.

In the drawings which form a part of this specification, Figure 1 is an elevation of a lantern having our improved wire frame applied thereto. Fig. 2 is a detail, partly in section, of the bottom ring. Fig. 3 shows the end of one of the guard-wires as it is prepared for the joint with the bottom wire. Figs. 4 and 5 are respectively plan and front elevations of the joint between the bail-guards and top ring.

In the drawings, A represents the bail, while B, C, and D are ring-wires, and E E F F are vertical or guard wires, constituting the wire frame of a lantern. The bail is hinged to the vertical wires E E through the medium of eyes *e* on the latter and eyes *a* on the bail. Instead of attaching these bail-carrying wires to the upper ring-wire, B, in the usual manner, we make horizontal loops or eyes *b* in said ring-wire and pass the wires E through the loops, thereby firmly attaching the wires together. These loops *b* also afford a convenient means of locking the free end *m* of the vertical wires, as such end may be put within the embrace of the loop, (see Fig. 5,) and also dip soldered, if thought best. The loops *b* are preferably located below the plane of the ring B, and hence a vertical bend, *o*, may be given them, as shown in the edge view given in Fig. 1. It is also preferable to give the vertical wires E the bend shown at *p*, in order that they may be uniform, as far as possible, with the wires F.

The base-ring D is constructed differently from those heretofore made from wire. The ends are spliced by inserting longitudinally therein keys or splice-pins *d*, as shown in Fig. 2. By inserting these pins centrally in the wire they are wholly concealed, and a dip-solder bath renders the joint very firm without enlargement at the point where it is located.

Instead of securing the vertical wires to the bottom ring by tips and bending the ring to avoid the wearing away of the tips, we make the ring without bends, and unite the vertical wires by inserting them in holes drilled in the ring. These holes are shown at *s*, and the ends of the vertical wires so inserted are milled, as shown at Fig. 3, to form the supporting-shoulder *v* and to reduce the diameter of the holes, and so obviate undue weakening of the ring.

We are aware that the vertical bail-carrying wires have been secured to the upper ring-wire in various ways—as, for instance, in the manner shown by Osborne in Patent No. 167,269, of August 31, 1875; by Huntington in Patent No. 276,182, of April 24, 1883; by Wood in Patent No. 316,425, of April 21, 1885, and by Westlake in Patent No. 94,535, of September 7, 1869. In none of these, however, is there any loop formed in the ring-wire, and hence, while we do not claim, broadly, the attaching of the bail-wires to the ring,

What we do claim is—

1. In a lantern-frame, the ring-wire B, having outwardly-projecting loops *b b* formed by folds therein at diametrically-opposite points, vertical guard-wires E E, secured to the base of the lantern and extending through said loops *b b* in said ring B, provided with bail loops or eyes *e*, projecting above said loops *b*, and a bail, A, substantially as specified.

2. In a lantern-frame, the ring-wire B, having outwardly and downwardly projecting loops *b b* formed by folds therein at diametrically-opposite points, and vertical guard-wires E E, secured to the base of the lantern and extending through said loops *b b*, and provided with bail loops or eyes *e*, the ends *m* of which are embraced by said loops *b b*, substantially as specified.

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