J. H. IRWIN.

Lantern.

No. 47,551. Patented May 2, 1865.

Fig. 1

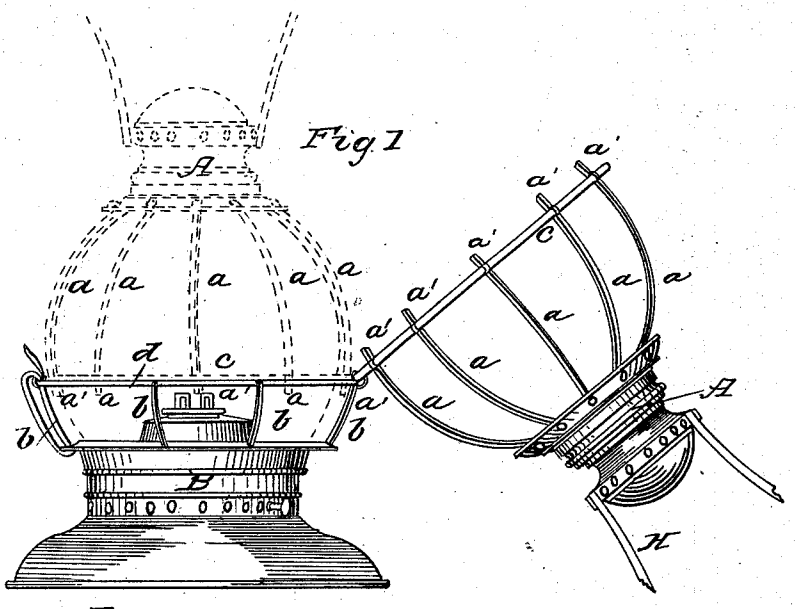


Fig. 3

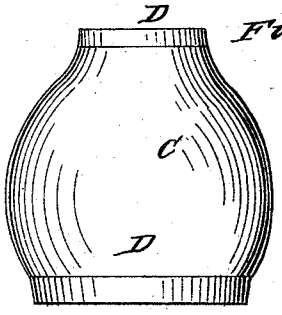
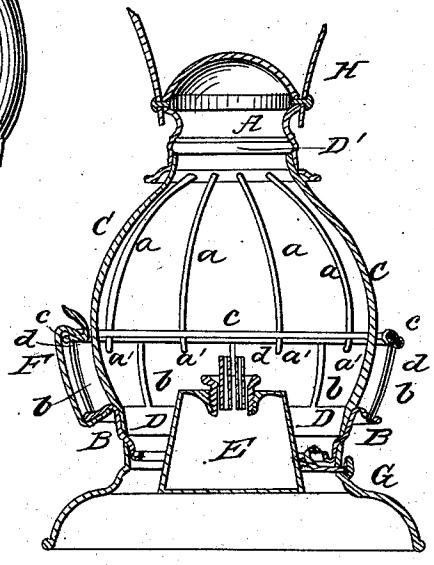


Fig. 2



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UNITED STATES PATENT OFFICE.

JOHN H. IRWIN, OF CHICAGO, ILLINOIS.

IMPROVEMENT IN LANTERNS.

Specification forming part of Letters Patent No. **47,551**, dated May 2, 1865.

To all whom it may concern:

Be it known that I, JOHN H. IRWIN, of Chicago, in the county of Cook and State of Illinois, have invented and discovered a new and useful Improvement in Lanterns; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings and the letters and figures marked thereon, which form part of this specification.

The nature of my said invention consists in a novel mode of opening or detaching the wire guards which inclose the glass globe or protector of the lantern, so that the said glass globe may be readily removed for the purpose of cleaning the same and replaced, or may be replaced by a new globe in case the old one should by any accident be broken. My improved mode of accomplishing this object consists in constructing said guards in two parts, the section being horizontal at or near the swell or bulge in the glass globe, so that by removing the upper part of the guards the globe can at once be removed from the lantern and replaced when the object of the removal is accomplished, when the said upper section of said guards is restored and confined in place by some suitable fastening, as hereinafter more fully described.

To enable those skilled in the art to understand how to construct and use my invention, I will proceed to describe the same with particularity, making reference to the aforesaid drawings, in which—

Figure 1 represents a side view of my invention. Fig. 2 represents a vertical central section of the same, and Fig. 3 is a detached view of the glass globe of the lantern.

Similar letters of reference in the several figures denote corresponding parts of my invention.

A represents the metallic top of the lantern, to which the upper ends of the wire guards *a a* are attached, and B is the metallic base of the lantern, connected with the flange and oil-cup E by the spring G, to which the lower ends of the wire guards *b b* are fastened, as shown, C representing the detachable glass globe inclosed within the said guards, and D D′ being bands around the top and bottom of said globe for the purpose of fitting the said top and bottom of the globe firmly in appropriate beds in the top and base of the lantern, (marked "A" and "B,") as shown.

F represents a spring or catch for holding the two parts of the guards together, and H is the handle of the lantern, by which the same may be carried or suspended.

c represents a wire ring passing around the globe C at a suitable distance thereform, to which the said semi-guards *a a* are fastened near the lower ends thereof, the ends of said guards projecting below said ring *c*, and curved inward slightly, as clearly shown at *a′ a′*, for the purposes hereinafter mentioned. *d* represents a similar wire ring surrounding the globe C, as aforesaid, to which ring the upper ends of the said semi-guards *b b* are attached; or the ends of the said guards *b b* may, if desired, extend up above the said ring *d*, in the same manner in which the guards *a a* extend below the ring *c*. It will be observed that when the upper guards are closed down, as seen in the dotted lines in Fig. 1, and also in Fig. 2, the ring *c* lies directly upon the ring *d*, and is held firmly in said position by the hinge connecting said rings upon the one side and by the spring F upon the other side. Instead of having the two portions of the guard connected at one side by a hinge, as shown, the upper part may be made removable entirely, and may be attached to the lower part by any suitable attachment, either springs, clasps, catches, or any other device; and when hinged at one side, as shown, any device may be employed to hold the opposite side down instead of the spring shown. When the two rings lie together, as above, the ends of the guards *a′ a′*, being curved inward, as shown, pass down within the ring *d* and press against the same, so as to hold the two wires firmly together and strengthen the same, as though both were united in a single wire. The upper ends of *b b* may project up in like manner, and by pressing against the ring *c* still further strengthen them. By arranging the two sets of guards *a b* in such a manner that the same alternate with each other, as shown, each wire of the lower guard being placed midway between the two adjoining wires of the upper guard, the whole guard is greatly strengthened and braced, and is very much stronger than that sort of guards where a single wire extends from the top to the base of the lantern, my arrangement be-

ing equivalent to doubling the number of wires constituting the guard, while the resistance to any blow or other cause tending to bend the guard is much greater on account of the guard-wires being of only one-half the length of the old form. Furthermore, by this arrangement the globe is much more securely guarded than it is by the same quantity of wire arranged in the ordinary form.

Having described the construction and operation of my improvement, I will now specify what I claim and desire to secure by Letters Patent.

1. Dividing the guard of a lantern in two or more parts by a horizontal section, substantially as and for the purposes herein specified and shown.

2. Connecting the parts of the guard by a hinge upon one side and the catch F or its equivalent upon the other, substantially as shown and described.

3. Providing the parts of said guard with the curved projections a', substantially as and for the purposes specified and shown.

4. The combination and arrangement of the guards a and b and the rings c d, substantially as shown and set forth.

JOHN H. IRWIN.

Witnesses:
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