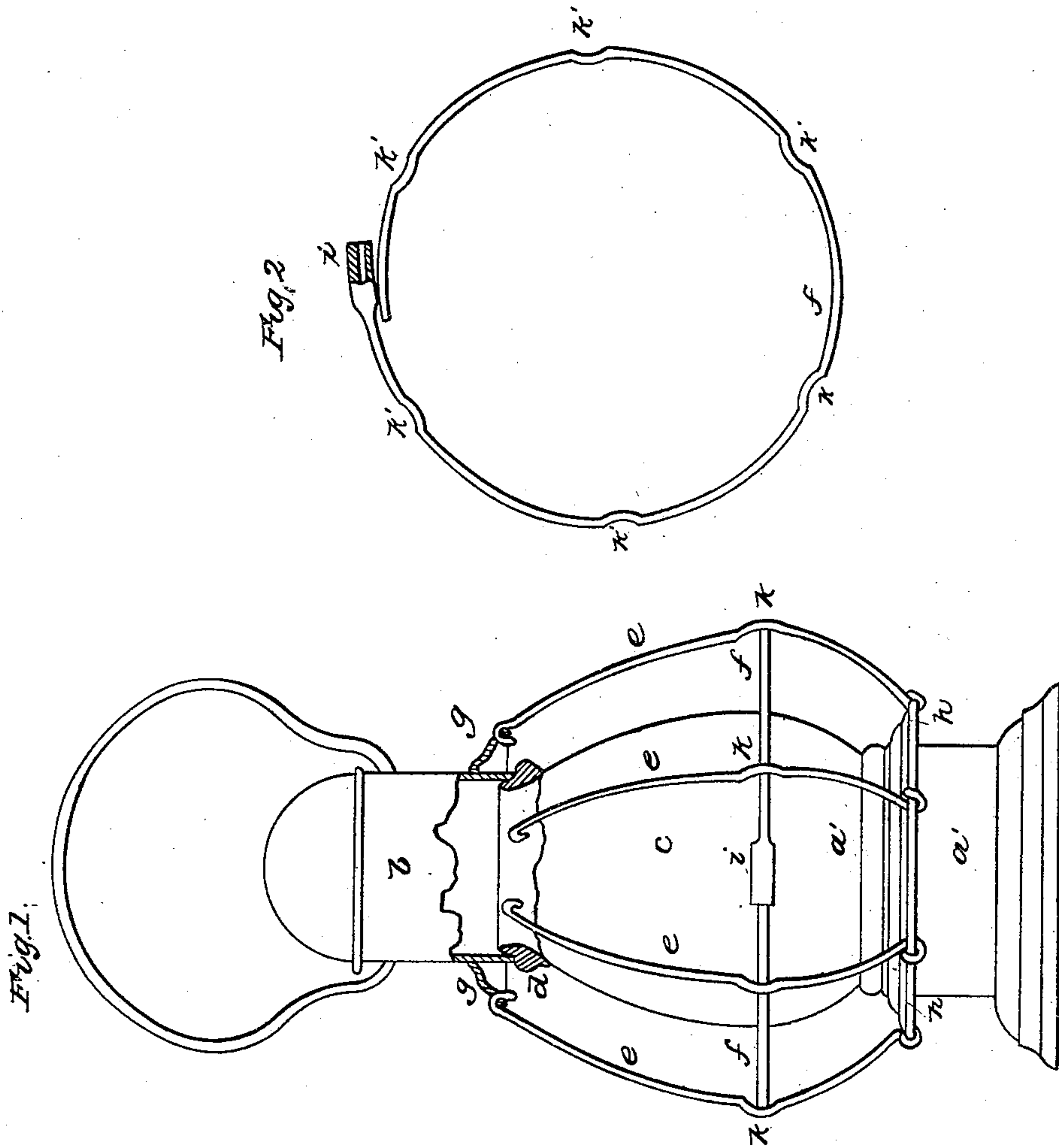


BROWN, Jr., & LOWRY.

Lantern Guard.

No. 50,653.

Patented Oct. 24, 1865.



Witnesses
Allan C. Bakerwell
Henry S. Lansdell

Inventor
Thomas Brown Jr.
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UNITED STATES PATENT OFFICE.

THOMAS BROWN, JR., AND JOSEPH L. LOWRY, OF PITTSBURG, PA., ASSIGNORS
TO SAID BROWN AND JAMES McLAIN, OF SAME PLACE.

IMPROVEMENT IN LANTERN-GUARDS.

Specification forming part of Letters Patent No. 50,653, dated October 24, 1865.

To all whom it may concern:

Be it known that we, THOMAS BROWN, Jr., and JOSEPH L. LOWRY, both of Pittsburg, in the county of Allegheny and State of Pennsylvania, have invented a new and useful Improvement in Lantern-Guards; and we do hereby declare the following to be a full, clear, and exact description thereof, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a side view of a lantern with our improved guard attached. Fig. 2 is a representation of the guard-ring detached.

In both figures like letters of reference are used to denote similar parts.

Our invention is an improvement on the lantern-guards for which Letters Patent of the United States were granted to Thomas Brown, Jr., and James McLain on the 24th day of May, 1864. As in the lantern described in the patent referred to the glass or globe is not cemented to the lower part or lamp-piece, or to the upper part or cap of the lantern, but the cap, globe, and lamp-piece are united and held together by the guard, which may be easily unfastened so as to remove the glass globe or replace it when cracked or broken.

Our improvement in the lantern-guard of Thomas Brown, Jr., just referred to consists in the mode of attaching the guard-ribs to the top and bottom parts of the lantern and holding those parts in place on the glass globe, which we do by dispensing with the slide and pins which enter the loops at the lower extremity of the guard-ribs, and fastening the ribs to the upper and lower parts of the lantern by means of a loop at one end and a hook at the other end of each rib, in combination with a detached guard-ring, which is placed around the glass globe of the lantern within the ribs, so as to press them outward, and thus by drawing them tight prevent the ribs from coming unhooked, and at the same time hold the cap piece and bottom piece of the lantern firmly in place on the glass globe.

To enable others skilled in the art to use our improved lantern-guard, we will proceed to describe its construction and operation.

In the drawings, *a* is the metallic bottom part or lamp-piece of the lantern, into which

is inserted, from below, the lamp or candle holder. *b* is the metallic cap or top piece, and *c* is the glass globe, which has an annular bead, *d*, projecting from its outer surface within a quarter of an inch or thereabout from the top of the globe, and a similar bead, *d'*, projecting from its outer surface near the lower end. These beads *d* and *d'* serve as ledges, against which rest the upper edge of the lamp-piece *a* and the lower edge of the cap-piece *b*, so that when the cap and bottom piece are drawn toward each other by the ribs *e* of the guard-frame the glass globe is held securely in place between them. In Fig. 1 the upper part of the glass globe *c* and lower part of the cap-piece *b*, are represented in section to show the manner in which the cap-piece rests on the upper bead, *d*.

A flange or apron, *g*, surrounds and projects from the cap-piece *b*, and a similar flange or apron, *h*, surrounds and projects from the bottom piece, *a*, to which the ribs *e* of the guard are looped or hooked, each rib *e* extending from the lower to the upper apron. If preferred, however, the place of the aprons *g* and *h* may be supplied by loops or staples projecting from and attached to the cap-piece *b* and bottom piece, *a*, at proper intervals.

The ribs *e e*, &c., are made of wire curved outward, are looped at their lower end to the apron *h* of the bottom piece, and are hooked to the apron *g* of the cap-piece *b*, or may be hooked to the apron of the bottom piece and looped to the apron of the cap, if preferred, suitable holes being made near the edge of the aprons *g* and *h* for that purpose. Each of the ribs *e e* has a kink, *k*, to receive the guard-ring *f*, which surrounds the glass globe *c* at its widest part and at a suitable distance from its circumference. The guard-ring *f* has corresponding kinks, *k'*, (see Fig. 2,) to receive the ribs *e* at equal distances apart, and the guard-ring is held in place by the tension of the ribs *e e*, &c., which are not fastened in any way to it, the kinks in the ribs and ring serving to keep both in their proper relative position. The guard-ring *f* is not an unbroken annulus, but is a piece of wire having a sleeve, *i*, soldered onto one end, into which the other extremity is inserted when the ring is in place.

In Fig. 2 the guard-ring is represented with the small end removed from the sleeve *i*, and the sleeve is shown partly in section.

The lantern and guard-ring being constructed as described, the parts are connected together as follows:

The ribs *e e*, &c., being all looped to the apron *h* of the lower piece of the lantern-frame, the glass *c* is inserted in the lamp-piece *a*, and the cap-piece *b* is placed on top of the glass, resting on the bead *d*. The guard-ring is then placed over the glass *c*, within the ribs *e e*, &c., with its ends separated, as in Fig. 2. The upper end of each of the ribs, which are hooked for that purpose, is successively hooked onto the apron *g* of the cap-piece *b*, while the ring *f* is held in place by the kinks in it and in the ribs. When all the ribs but the last one are hooked onto the apron *g* the small end of the guard-ring *f* is inserted into its sleeve *i*, which presses it outward against the ribs *e e*, drawing toward each other the cap-piece and bottom piece of the lantern, which, being between them, are thus firmly held between the top and bottom pieces, *a* and *b*, of the frame. The last of the ribs is then hooked onto the apron *g*, which may easily be done by a little pressure, and the lantern, with its guard complete, is ready for use.

To remove the lantern-guard it is only necessary to unhook one of the ribs, and then to separate the ends of the guard-ring, when the

ribs may be all successively unhooked, and the lantern comes apart.

We are aware that lantern-guards have been made with a separate guard-ring placed around and outside of the guard-ribs, so as to bind them together and hold them in place, the extremities of the ribs being attached to a separate band at top and bottom; but this device we do not use, as in our guard it is necessary that the ribs should be pressed outward from the center of the lantern, so as to draw the cap and bottom piece toward each other and prevent the ribs becoming unlooped.

What we claim as our invention, and desire to secure by Letters Patent, is—

The combination of the ribs *e*, hooked or looped at their upper end to the cap-piece and at their lower end to the bottom piece of the lantern, with the detached cut guard-ring *f* when so arranged inside of the ribs as to force them outward, and thus tighten the ribs and draw the cap and bottom pieces of the lantern toward each other, with the glass between them, substantially as hereinbefore described.

In testimony whereof we, the said THOMAS BROWN, Jr., and JOSEPH L. LOWRY, have hereunto set our hands.

THOS. BROWN, JR.
JOSEPH L. LOWRY.

Witnesses:

W. BAKEWELL,
W. D. LEWIS.