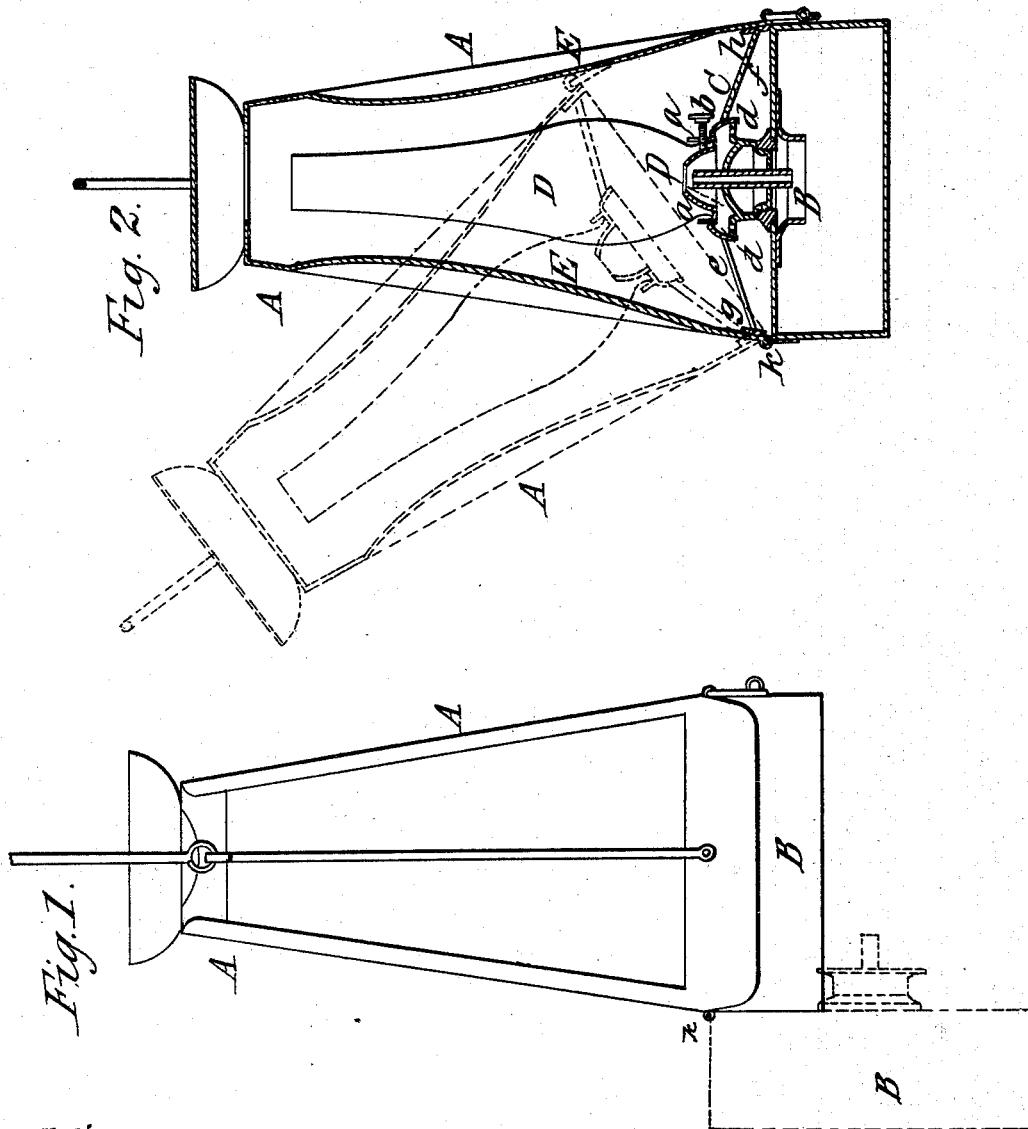


J. IVES.

Lantern.

No. 49,274.

Patented Aug. 8, 1865.



Witnesses:

R. T. Campbell
 J. G. Landon

Inventor:

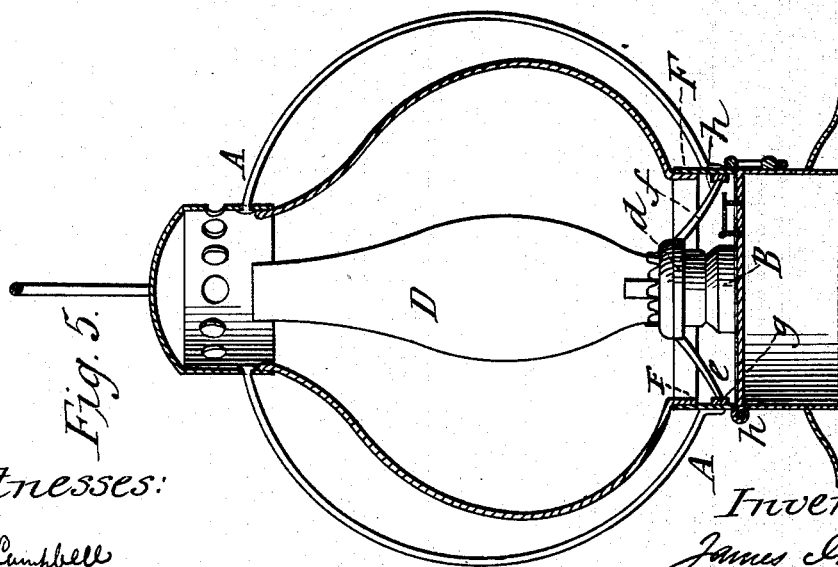
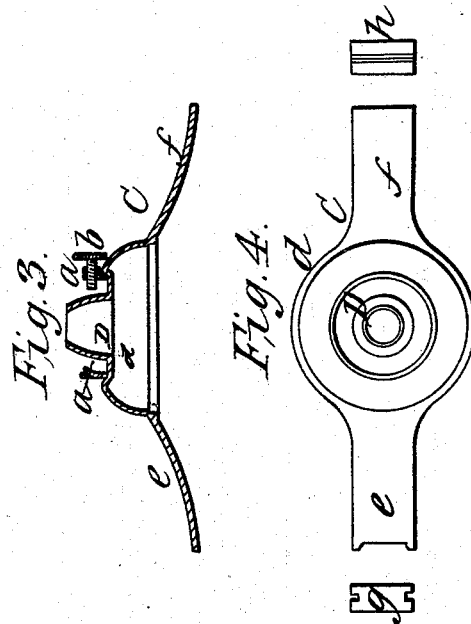
James Ives
 by his Atty
 Mason B. B. B. B. B.

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[Signature]

Inventor:

James Ives
by his Attys.
Mason, Burckhardt & Co.

UNITED STATES PATENT OFFICE.

JAMES IVES, OF MOUNT CARMEL, CONNECTICUT.

IMPROVEMENT IN LANTERNS.

Specification forming part of Letters Patent No. 49,274, dated August 8, 1865.

To all whom it may concern:

Be it known that I, JAMES IVES, of Mount Carmel, in the county of New Haven and State of Connecticut, have invented 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, forming part of this specification, in which—

Figure 1 is an external side view of a lantern with my improvement applied to it. Fig. 2 is a vertical cross-section of the same. Figs. 3 and 4 are details of the lantern. Fig. 5 is a vertical cross section, showing my invention applied to a globe-lantern.

Similar letters of reference in the several figures indicate similar parts.

In the use of coal-oil lanterns much inconvenience is experienced from the bad odors and smoke which arise therefrom. To overcome this inconvenience chimneys and cones have been employed over the wick-tube, but not attached to the lantern-globe or reflector-frame. In some cases the cone or chimney is attached to the lamp by means of confining set-screws or by springs, and in other cases the chimney or cone is hinged to one side of the lamp, so as to turn over from the wick-tube after the lamp and chimney have been withdrawn from the lantern frame or globe. With all these arrangements considerable inconvenience in the manipulation of the chimney and cone is experienced, and to obviate the same is the object of my improvement, the nature of which consists, first, in a lantern frame or globe with a chimney or cone base applied within it in such manner that when the frame or globe is lifted or swung from over the lamp-fountain, or the lamp moved or swung from under the lantern frame or globe, the cone or chimney will always occupy a place within the frame or globe, thus rendering a manipulation of the chimney or cone, after either of the above-named adjustments are made unnecessary.

My improvement consists, second, in providing a means whereby a chimney or cone which is used as above set forth is capable of being detached for the purpose of being cleaned or for any other useful purpose.

My invention enables me to make a very perfect lantern which may be manipulated very conveniently without applying the hand di-

rectly to the heated chimneys or cones. Much of the loss incurred from the frequent breakage of glass chimneys is also avoided.

To enable others skilled in the art to make and use my invention, I will proceed to describe the same with references to the drawings.

A is a lantern-reflector frame, and B a lamp to be used with the same.

The lantern may be of globe, pyramidal, square, or any other form, and the lamp, of course, must be adapted to the lantern. In some cases I shall hinge the lamp to the lantern-frame, and in others I shall have the lantern-frame fitted to the lamp by springs or catches in any of the known ways.

C is a narrow spring or arch support for the glass chimney D. It has its abutments formed on the reflector-frame A of the lantern. The central part of this support is formed into a ring, so as to receive a cone, D, within it or upon it, as may be desired, said cone having a gallery, *a*, with a set-screw, *b*, into which gallery the glass chimney sits, being confined by the set-screw. The arch C, in this instance, is formed of a central ring and two inclined arms, *d e f*, as shown. The terminus or abutting end of the arm *e* is forked, while the terminus or abutting end of the arm *f* is plain. The abutments for these arms are attached to the metal spring-plates E E of the lantern-frame or to the lower collar, F, of a lantern-globe, as may be desired. The abutment *g* is notched to match the forked end of the arm *e*, while the abutment *h* is grooved to match the plain end of the arm *f*, as represented.

By adopting the above-described means of attaching the chimney-support to the lantern-frame, facilities for readily springing it into its seat upon the abutments and springing it out again are afforded, for by simply setting the arm *e* in its notches and pressing up the arm *f* sufficiently to contract the width of the arch or to force out the spring-sides E E of the lantern-frame the end of the arm *f* can be introduced into the groove of the abutment *h*. The notches and groove, in connection with the abutting ends of the arms, prevent the cone or chimney support from rising or falling and from slipping laterally unless moved by hand after it has been sprung in place.

A cone or chimney support might be made so as not to be detachable from the lantern-

frame; but such a construction would not possess the convenience of the detachable support.

If the lamp is hinged to the lantern-frame, as represented, the chimney with the globe or reflector may be swung over on the hinge *k*, as illustrated in Fig. 2 by red lines, or the lantern-frame may be hung up and the lamp moved down, as represented in Fig. 1. In either case the chimney and cone will be independent of the lamp, and the wick or cap of the lamp will be exposed or made accessible without the necessity of handling the chimney or cone in order to trim the lamp or fill the reservoir, or for any other purpose.

I have contemplated applying a spring or springs to the hinged lamp, and to so connect the same with the lantern-frame that they will readjust the lamp from the position shown in red in Fig. 1 to the position shown in black in Fig. 2.

The springs may be attached to the top of the lamp by one of their ends and to the lantern-frame by their other ends, or a spring-hinge may be adopted, just as may be found most desirable.

My invention of a lantern globe or frame with chimney secured in it is not confined to the details of construction herein given, although the plan described is a very cheap and practical one.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. A chimney or cone base fitted to the reflector frame or globe-frame of the lantern so as to move with said frame or maintain its position with relation thereto when either the frame or lamp is adjusted so as to expose the wick tube or top of the lamp, substantially as described.

2. The devices herein described for connecting the chimney or cone base to the reflector or globe frame of a lantern in such manner that the base may at will be disconnected from the said frame, substantially as set forth.

JAMES IVES.

Witnesses:

L. W. IVES,

J. R. BUTLER.