J. W. LYON.

Lamp-Shade Holder.

No. 102,691. Patented May 3, 1870.

Fig. 1.

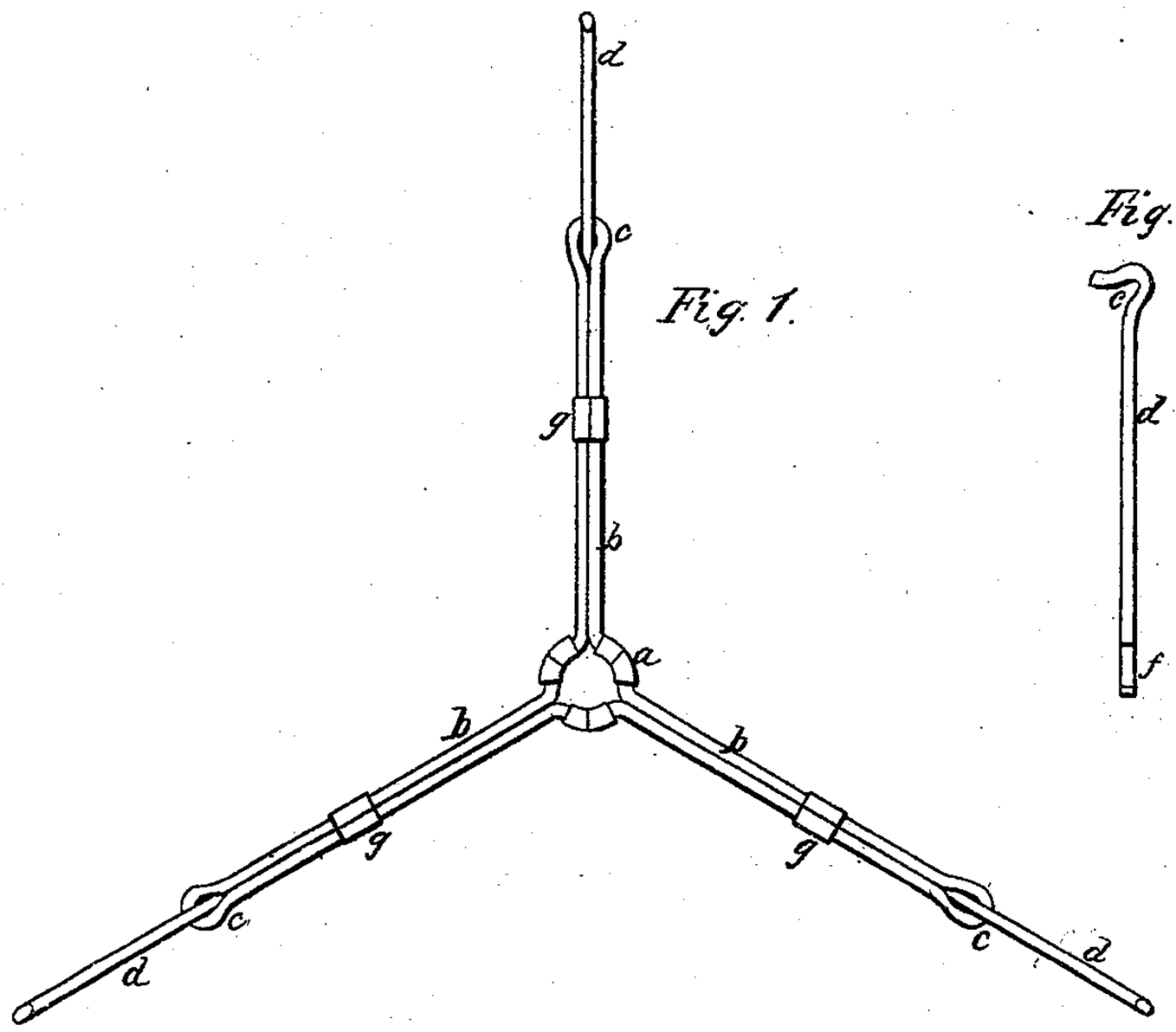


Fig. 4.

Fig. 2.

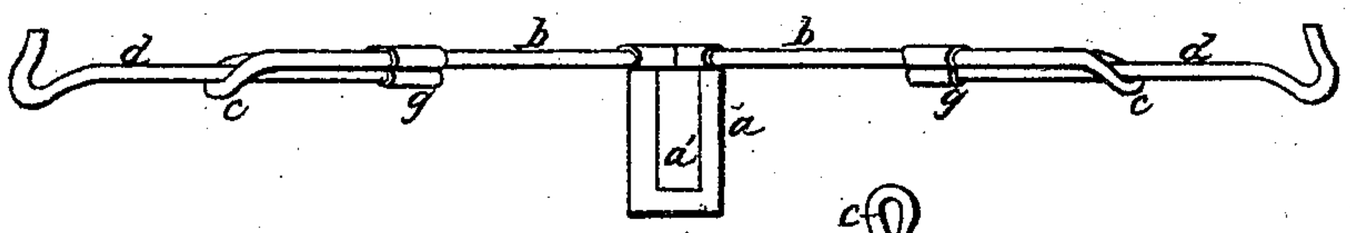


Fig. 5

Fig. 8.

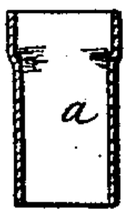


Fig. 6.

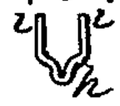


Fig. 3.

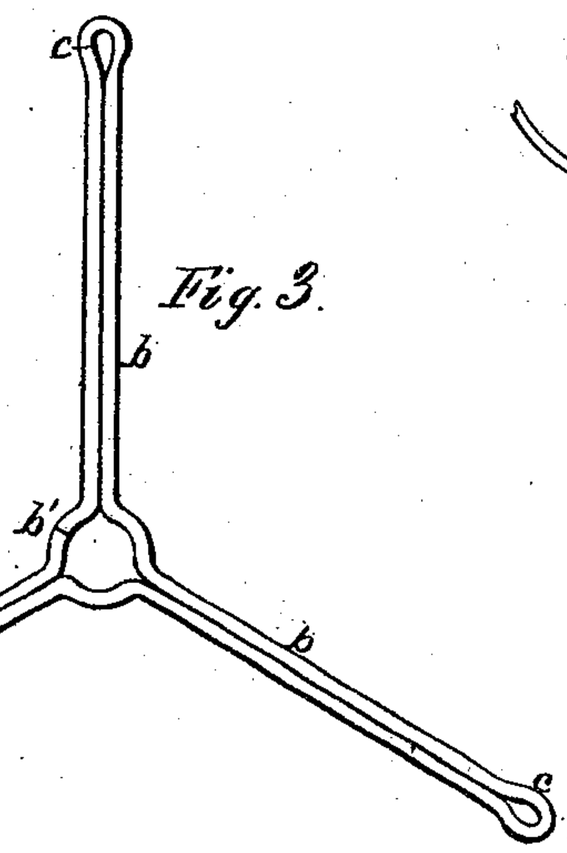
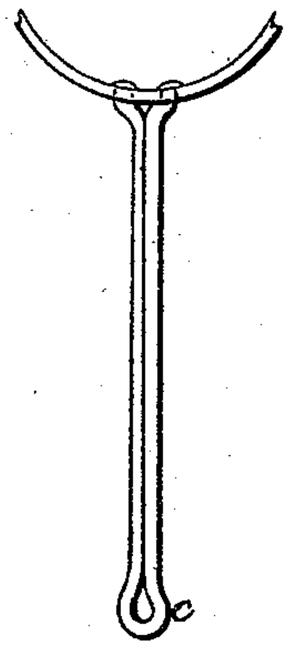


Fig. 7.



Witnesses.

F. C. Teadwell Jun'r

Joseph Campbell

Inventor.

James W. Lyon

United States Patent Office.

JAMES W. LYON, OF BROOKLYN, NEW YORK, ASSIGNOR TO HIMSELF AND JOHN FELLOWS, OF SAME PLACE.

Letters Patent No. 102,691, *dated May* 3, 1870.

IMPROVEMENT IN SHADE-HOLDERS FOR LAMPS.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, JAMES W. LYON, of the city of Brooklyn, in the county of Kings and State of New York, have invented certain new and useful Improvements in Shade-Holders for Lamps; and I do hereby declare that the following is a full and correct description thereof, reference being had to the accompanying drawings and to the letters of reference thereon.

My improvements relate to extensible shade-holders which have radial arms attached to a central support, which radial arms support extensible or sliding arms, which slide on the fixed arms, to adjust the shade-holder to various sizes of shades. A shade-holder having these general features was patented by Hezekiah Knowles, July 9, 1867.

My invention consists in the employment of hard brass or iron wire, or other suitable hard wire, in the construction of the radial fixed arms and the sliding arms, and in attaching them to their central support, substantially as hereinafter shown and described;

Also, in forming the central support with a spring or springs to seize the gas-burner by cutting a tongue or tongues in the sheet-metal central support.

Figure 1, of the drawings, represents a plan view of my improved shade-holder, and

Figure 2, a side elevation thereof.

The other figures represent details of construction which will be hereinafter referred to.

Letter *a* represents the central support, which should be of thin sheet metal, and have a tongue, *a'*, or more than one tongue, cut in it, and bent inward, so as to form a spring, to seize the burner and hold the shade firmly.

The arms *b* of the shade-holder I construct of wire, bent in the form shown in Figure 3, the ends of the iron coming together and abutting, as at *b*, fig. 3.

This mode of constructing the fixed radial arms gives a loop, *c*, at the end of each arm, to embrace the sliding or extensible part of the arms *d*, which I also make of wire, in the form shown in Figure 4, with a hook, *e*, to receive the shade, and a recess or shoulder, *f*, near the opposite end, to receive the slide clasp *g*, made of thin sheet metal, of the form shown in Figures 5 and 6.

The sliding arms *d* are put through the loop at the end of the fixed arms, and the slide clasps *g* then applied, the part *h* of the clasps fitting the sliding arms, and the part *i* of the clasps being bent over, so as to embrace the fixed arms, as shown in figs. 1 and 2.

When the shade-holder is designed for an ordinary bat-wing or fish-tail gas-burner, I make the fixed arms in one piece, bent as before state, in the form shown in fig. 3, and attach the arms by the central wire ring thus formed to the central support *a* of thin sheet metal originally formed, as shown in Figure 8, and afterwards cut out so as to admit of closing around the wire ring, as shown in figs. 1 and 2.

It will be seen that the mode of construction above described makes a very strong, and at the same time, a cheap shade-holder. It can be made much lighter and cheaper in proportion to strength than the construction of the Knowles patent.

I prefer to use hard wire, but of course any wire that has stiffness enough to hold up the shade may be used, hard wire being preferable because stiffer in proportion to its weight.

For making shade-holders for Argand burners or lamp-burners, the same mode of construction may be followed, enlarging the central support, and making the sheet metal stiffer, if necessary, by a bead or corrugation around it, or the arms may be made in loops separately, and riveted to a cast-metal central support, crooking the wire of the arms to form a rivet shoulder, as shown in Figure 7.

I claim as my invention and improvement in extensible shade-holders for gas-burners, lamps, &c.—

1. The fixed looped radial arms, formed of one piece of wire, in combination with the sliding arms, also of wire, substantially as described.

2. The sheet-metal central support, in combination with the looped radial arms, formed of wire, and the sliding arms, also of wire, the whole put together substantially as described.

3. The combination with the sliding arms, the looped radial arms, riveted to a central support, substantially as described.

JAMES W. LYON.

Witnesses:

F. C. TREADWELL, Jr.,

JOSEPH CAMPBELL.