

J. M. A. DEW.

Car Lamp.

No. 93,602.

Patented Aug. 10, 1869.

Fig. 1.

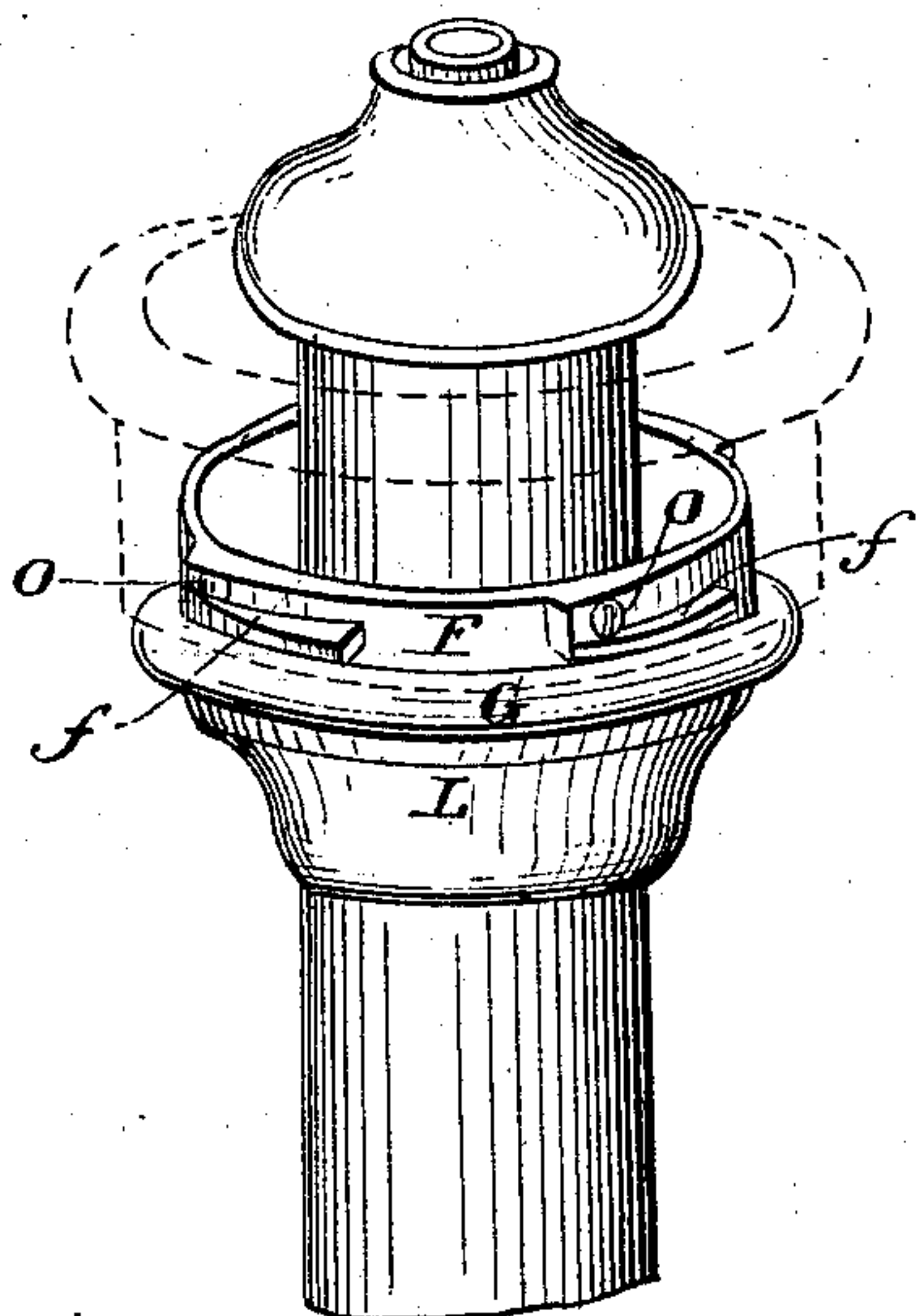


Fig. 3.

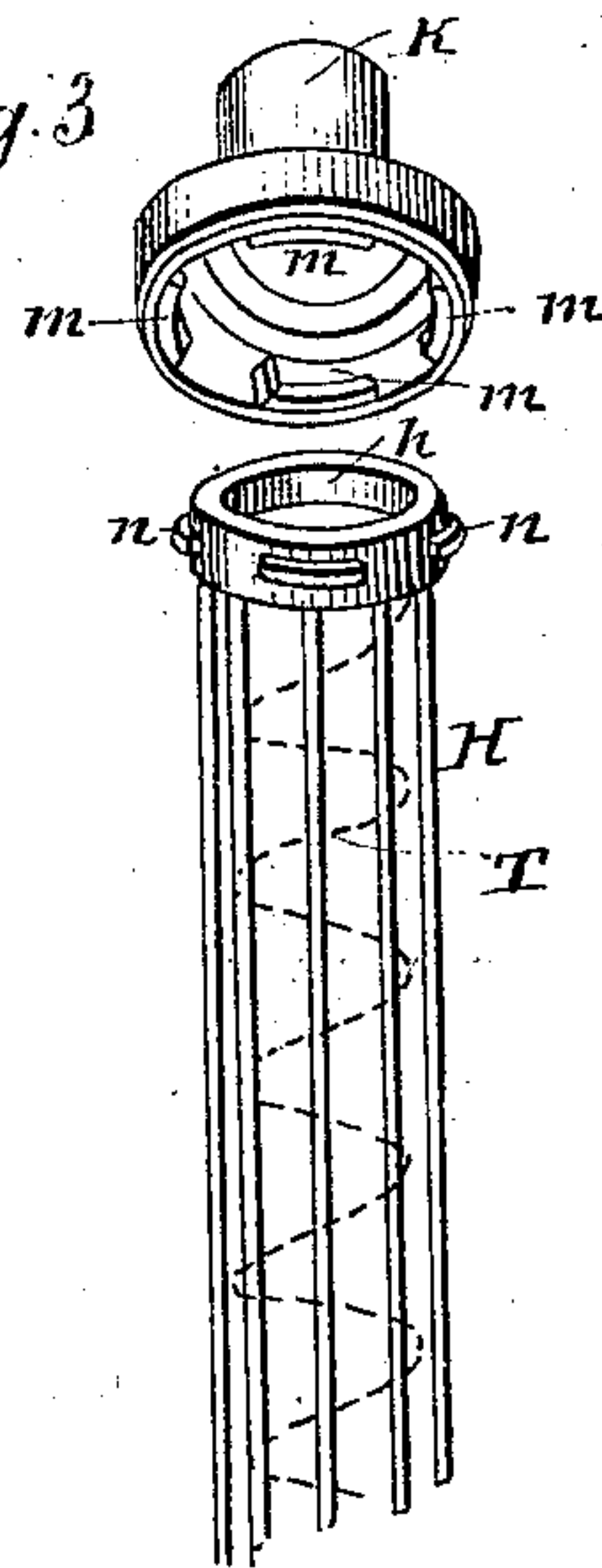


Fig. 2.

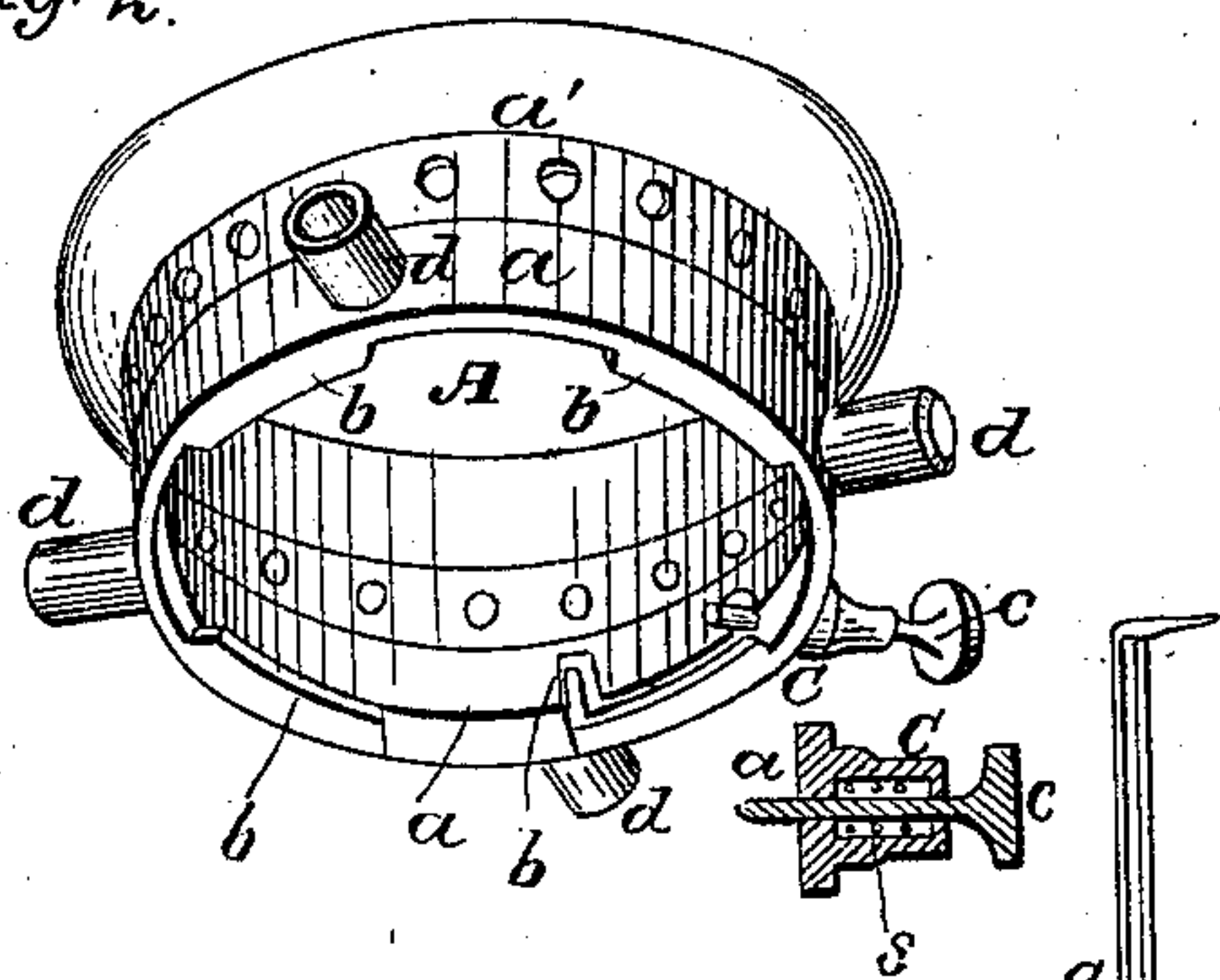
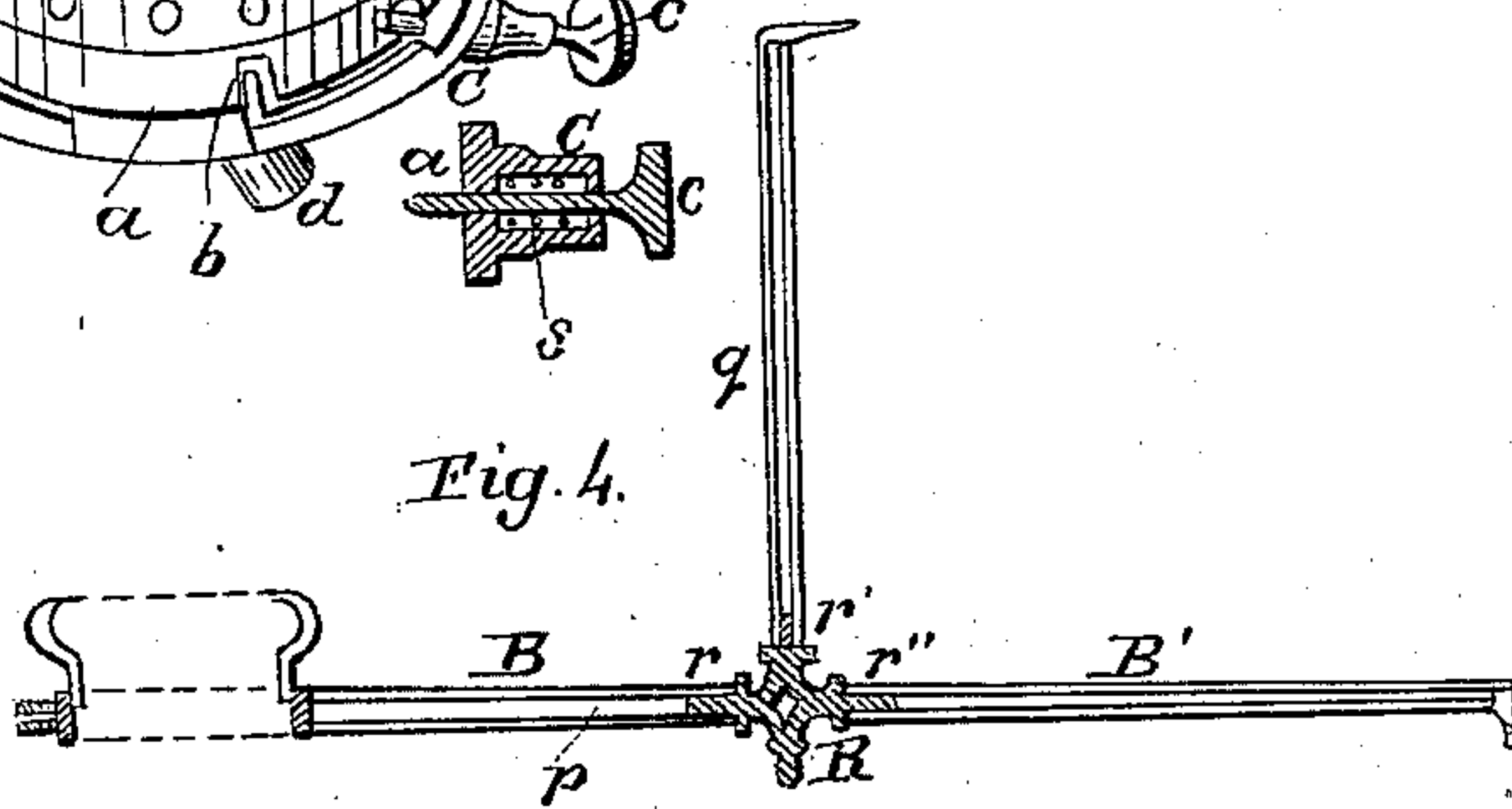


Fig. 4.



Witnesses:

J. B. Furber
O. W. Bogen

Inventor:

James M. A. Dew

UNITED STATES PATENT OFFICE.

JAMES M. A. DEW, OF CHICAGO, ILLINOIS, ASSIGNOR TO HIMSELF AND
OSWELL A. BOGUE, OF SAME PLACE.

IMPROVEMENT IN RAILROAD-LAMPS.

Specification forming part of Letters Patent No. 93,602, dated August 10, 1869; antedated April 6, 1869.

To all whom it may concern:

Be it known that I, JAMES M. A. DEW, of the city of Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Candle and Oil Lamps for Railroads and other Purposes; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, making part of this specification, and to the letters of reference marked thereon, like letters indicating like parts wherever they occur.

To enable others skilled in the art to construct and use my invention, I will proceed to describe it.

Figure 1 is a perspective view of the lamp. Fig. 2 is a perspective view of the lamp-supporting ring. Fig. 3 is a perspective view of the top of the candle-holder, and Fig. 4 is a side elevation of the lamp-supporting bracket.

The present candle and oil lamps used on the railroad-cars being made of a very light sheet-brass, and the coupling of the ring supporting the lamp, with the lamp itself, consisting simply of a groove formed by the lower edge of said ring being spun over, and the pins secured to the body of the lamp and entering the said groove, the result is, that from constant shaking and jerking of the car in which such a lamp is affixed, the pins wear fast through the lower edge of the said groove, and the lamp or lamps fall down, thereby producing accidents. Besides the above, as the solid metallic spurs affixed to the said ring supporting the lamp are rigidly connected with the arms of the bracket attached to the ceiling and the sides of the car, every sudden lateral jerk of the car, on account of the said rigidity of connection of the ring with the sides of the car, compresses the ring and breaks the lamp glass or chimney. There are several other inconveniences connected with and caused by the lightness of metal of which said lamps are made.

The object of my invention being to remedy the above-stated deficiencies in candle and oil lamps for railroad-cars and other purposes, its nature consists in making said lamps of solid material, in coupling the sup-

porting-ring with the body of the lamp by means of solid rings or lugs and lips made on them, and of holding together the coupled parts by a spring, set-screw, or both, as, also, in coupling the cap of the candle-holder with the top ring of the same in a similar manner.

It consists, also, in a new mode of connecting the vertical with horizontal arms of the lamp-bracket used to hold the lamp-supporting ring in its place.

A is the lamp-supporting ring, made of two parts soldered together, the lower part *a* being a solid ring, and the upper part *a'* a light sheet-brass fixture. On the inside, and at its lower edge, the solid ring *a* is provided with projecting lips *b b*, at one of which is affixed a stop, *b'*, and on the outside it is provided with four spurs, *d d*, for the purpose of receiving in and securing the said ring *a* to the arms *B B'* of the lamp-bracket. The ring *a* is also provided with a spur, *C*, in which sets and moves pin *c*, kept in place by a coil-spring, *s*, said pin *c* having the purpose of entering openings *o o*, made in the lugs *f f* of the body of the lamp *L*, when the supporting-ring *A* and the lamp *L* are coupled, and of holding the same in a fixed position. *L* is the lamp proper, provided with a solid ring, *F*, and a base or heavy molding, *G*. The ring *F* is provided with sections of rings or lugs *f f*, plain in their lower part and cam-shaped in their upper part, or plain altogether, the cam-shaped part of the said lugs *f f* having the purpose of allowing pin *c* of the ring *a*, at the time of coupling, to gradually slide into one of the openings *o o*, made in the lugs *f f*, the distance between the lugs *f f* corresponding to the size of the lips *b b*, and there being a space or groove formed below the lugs *f f*, and between them and the base or molding *G* of the lamp. The coupling of the two parts is effected by putting the lamp into the ring *A* from below, and giving it a turn, so that the lugs *f f* would come over the lips *b b* of the ring *A*, and the last would enter into the said groove of the lamp between the lugs *f f* and the molding *G*, while pin *c* would catch into one of the openings *o o* of the lugs.

To secure the coupled parts of the lamp in a fixed position, a set-screw can also be used

in place of pin *c* and spring *s*, in which case spur *C* is tapped with a screw-thread on the inside, and the holes *o o* only partially drilled.

In the candle-holder *H* the cap *k* is provided with lips *m m*, and the top ring *h* is provided with plain lugs *n n*. The parts, when coupled, are held in a fixed position by the coil-spring *T* of the candle-holder.

In order to suspend the lamp, and to prevent its lateral motion, I secure the brackets to the spurs *d d* of the ring *a* rigidly; and as this ring is made of solid metal, and not of light spun brass, it can withstand the lateral strain produced by the brackets, and caused by the sudden jerks and irregular motion of the car, without being jammed, and without causing the breaking of the lamp glass or globe, as it often happens with ordinary car-lamps in use. Besides this, in order to diminish the number of the brackets by which the lamp is secured to the ceiling and the sides of the car, I make the said brackets of two separate arms, *B* and *q*, connecting the same by link *R*, made of the shape as represented in Fig. 5, or of some other suitable shape, and provided with spurs *r r'*, which spurs are rigidly secured to the ends of said arms by means of screw-threads tapped on said spurs, and in the ends of the arms, or by soldering, or in any other suitable manner. Thus I obtain four brackets to secure the ring *A* to the ceiling; but, in order to secure the said ring, also, to the sides of the car, I provide the links *R* in two brackets of the said four brackets with an additional spur, *r''*, onto which is screwed, or is soldered to it, the lateral arm *B'*, the other end of which arm is secured to the side of the car. Thus, instead of using, in addition to the four

vertical brackets, two separate horizontal brackets, as is the case with car-lamps and brackets used at present for railroad-cars, I simply use four angular brackets, arranged as above described, to two of which brackets I add arms *B'*, for the purpose of securing the said lamp-supporting ring to the sides of the car also, the whole being accomplished by the link *R*.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. The solid metallic part or ring *a* of the lamp-supporting ring *A*, provided on the inside with several projections or lips, *b b*, for the purpose of effecting a coupling with lugs *f f* of the lamp, in the manner substantially as herein set forth and described.

2. The solid metallic part or ring *F*, made on the lamp *L*, and provided with the sections of rings or lugs *f f*, arranged and operating in connection with the lips *b b* of the ring *a*, in the manner substantially as set forth and described.

3. The combination of the ring *a*, provided with the projections *b*, stop *b'*, and catch or screw *c*, with the ring *F*, provided with the projections *f* and holes *o*, all constructed and arranged to operate substantially as described.

4. The link *R*, of any desirable shape, provided with two or three spurs, *r r' r''*, and used to connect arms of the railroad-lamp brackets, in the manner substantially as set forth.

JAMES M. A. DEW.

Witnesses:

J. B. TURCHIN,
G. A. MARINER.