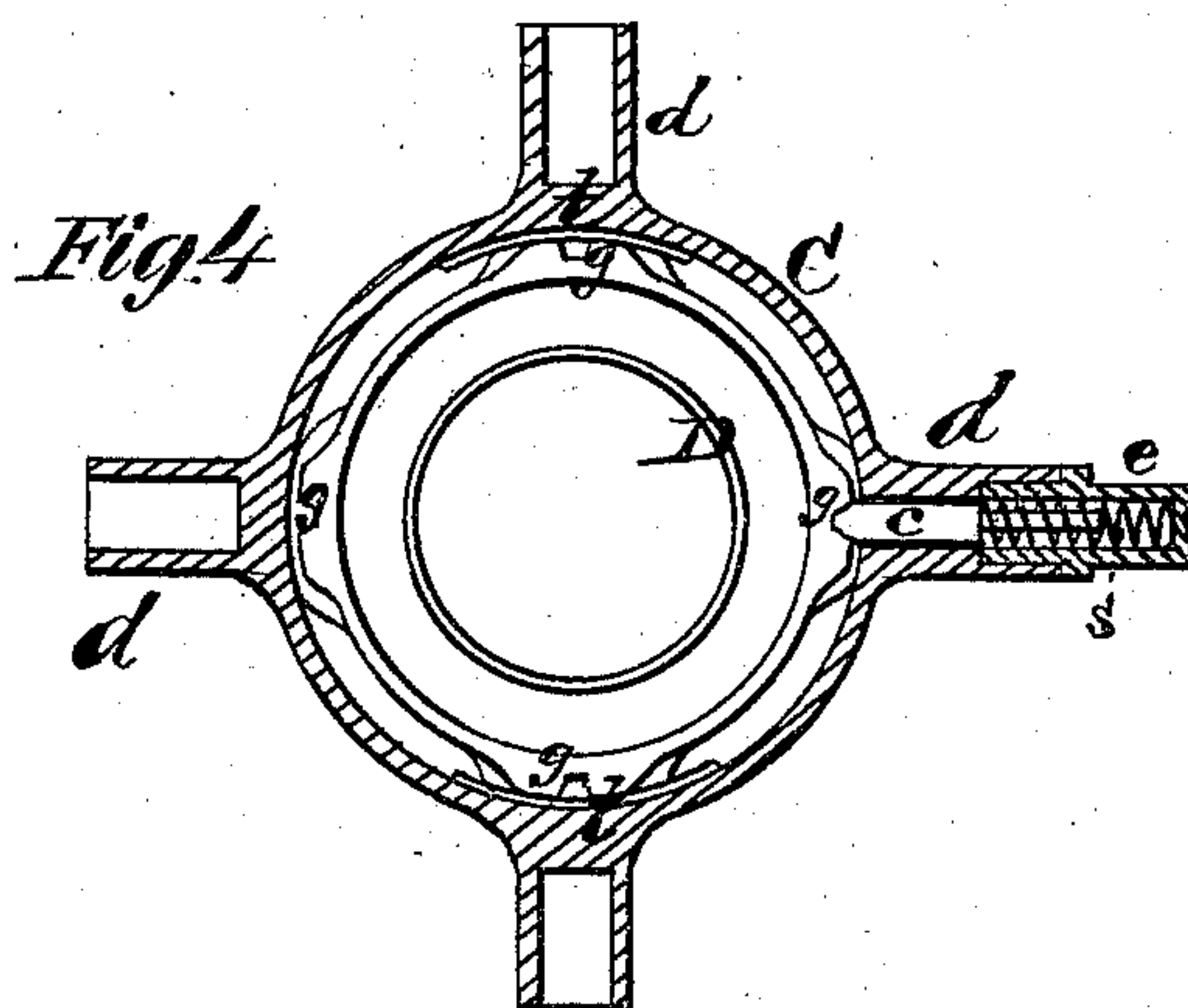
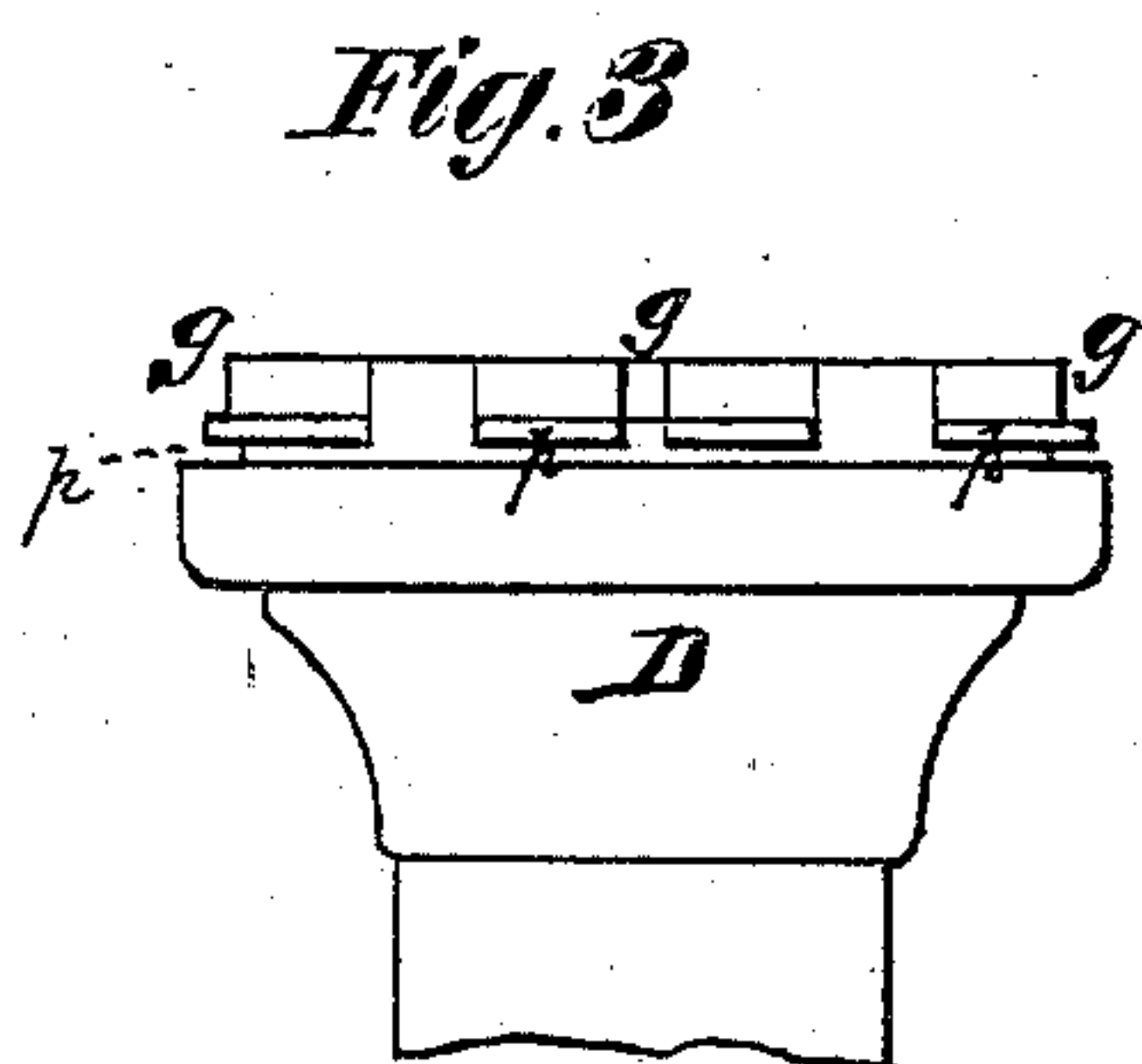
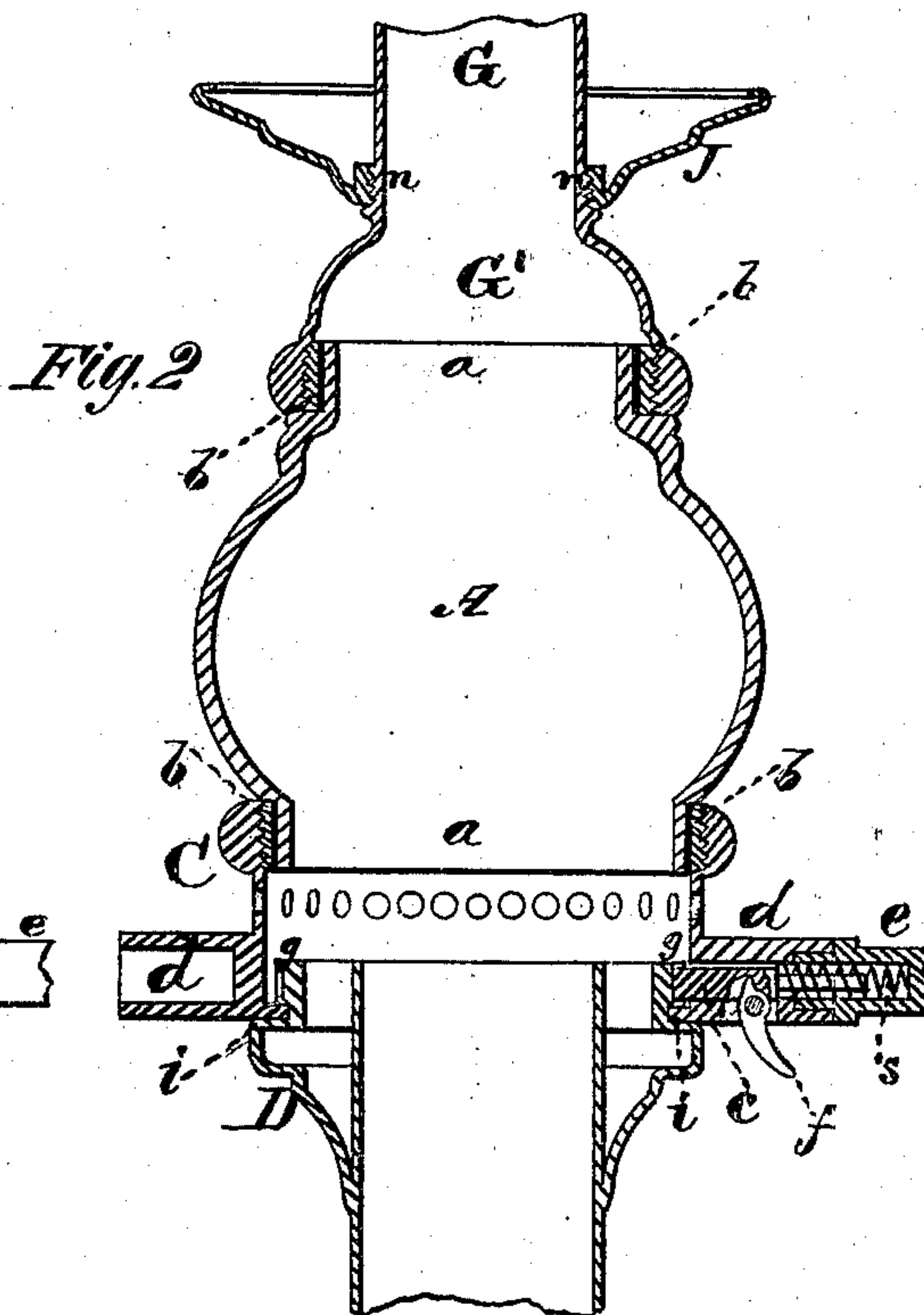
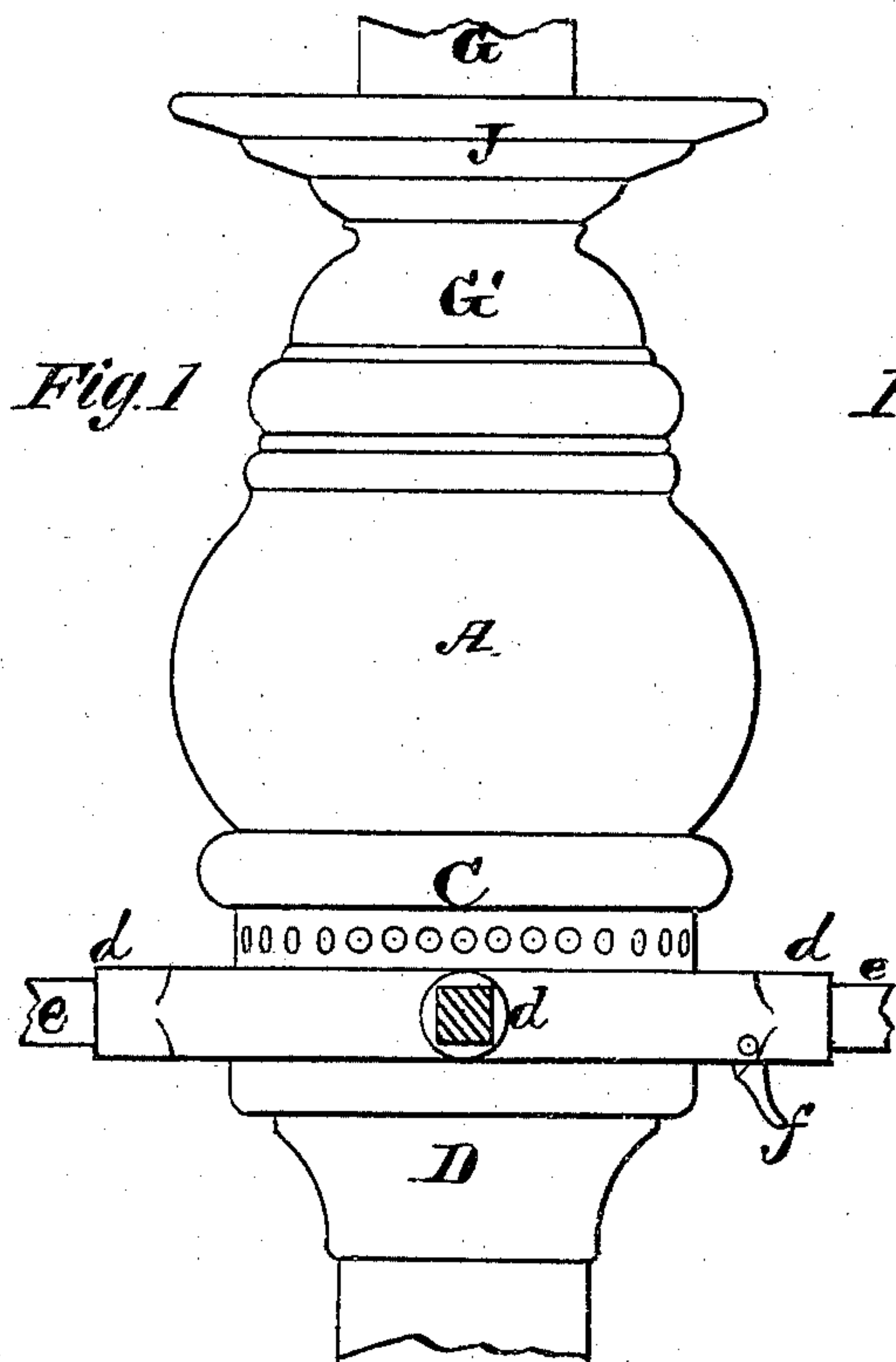


J. L. HOWARD.
Railroad Car-Lamps.

No. 143,411.

Patented Oct. 7, 1873.



Witnesses.
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UNITED STATES PATENT OFFICE.

JAMES L. HOWARD, OF HARTFORD, CONNECTICUT.

IMPROVEMENT IN RAILROAD-CAR LAMPS.

Specification forming part of Letters Patent No. **143,411**, dated October 7, 1873; application filed August 18, 1873.

To all whom it may concern:

Be it known that I, JAMES L. HOWARD, of Hartford, in the county of Hartford and State of Connecticut, have invented certain novel Improvements on Railroad-Car Lamps; 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, in which—

Figure 1 is a side view of my improved car-lamp with portions of it broken away. Fig. 2 is a diametrical section through the same. Fig. 3 is a side view of the base of the lamp. Fig. 4 is a section taken horizontally through that portion of the lamp to which the base is attached.

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

This invention relates to certain improvements on stationary lamps for railroad-cars, wherein it is necessary to so combine the globes with the metallic fixtures that they can be conveniently detached for cleaning, renewing, or other purposes. The improvements consist, first, in constructing the lower metallic base section and the globe of a stationary car-lamp fixture, in the manner hereinafter described, whereby the parts can be more readily attached to and detached from one another; second, in constructing the upper metallic section of the stationary car-lamp fixture, in the manner hereinafter specified, whereby the reflector and the said upper section and the globe can be more readily attached to and detached from one another. The means which I have shown have, in part and under different conditions, been used with hand-lanterns; but the manner in which I have constructed, and adapted, and applied the parts which are formed in lanterns enables me to furnish to the trade a new manufacture, which is not similar to nor adapted for the uses to which a lantern is put.

The following description of my improvements will enable others skilled in the art to understand them.

In the accompanying drawings, A represents the glass globe of the lamp, which is constructed with cylindrical collars *a a* on its upper and lower ends. Upon these collars I secure metallic bands *b b*, by means of cement, or in any other suitable manner which will af-

ford a permanent attachment of the bands. These bands have screw-threads cut on their peripheries, for the purpose of securing the chimney and base ring to the globe. The chimney G has an enlarged lower end, G', which is screw-threaded interiorly, for the purpose of screwing it on the upper globe-band *b*, as shown in Fig. 2. There is also a screw-thread, *n*, formed on the exterior of the chimney just above the enlargement G', which thread receives a circular concavo-convex reflector, J, the lower convex side of which presents annular stepped surfaces for diffusing the light. I thus make the chimney serve as a support for the reflector, and I also bring the reflector very near to the globe. C represents the base ring of the lamp, which is screwed upon the lower band *b*, as shown in Fig. 2. This base ring is perforated in the usual manner, and below the perforations are the radial sockets *d*, which are screw-threaded, to have attached to them the arms of the hanger, by which the lamp is suspended from the ceiling of a car. Inside of the ring C are two springs, *t t*, and four lips, *i*, which are diametrically opposite each other. One of the screw-threaded sockets *d* contains a latch, *c*, which is acted on by a spring, *s*. The end of the arm *e*, which is screwed into the socket last referred to, is recessed, to receive the spring *s* and a part of the latch *c*, as shown in Figs. 2 and 4. By means of a pivoted trigger, *f*, the latch can be pressed back and the base section D detached from the ring C. Surrounding the upper part of the base section D is a collar, which enters the lower end of the ring C, and on the outside of which are four laterally-beveled and vertically-notched bosses, *g*, which are at equal distances apart, and of such size as will pass freely between the lips *i* on the base ring C in the act of connecting the base section to this ring. Beneath the bosses *g* there are spaces *p*, for the reception of the lips *i*, as shown in Fig. 2.

The collar on the base section is first introduced into the base ring, and then turned about its axis until the latch *c* catches into a notch in one of the bosses *g*, when the base section will be safely secured in its place. To detach this base section, it is grasped in the hand, and, with a finger of the same hand on the trigger *f*, the latch *c* is disengaged from

its boss *g*, thus allowing the base section to be turned and freed from the lips *i*. By having the notched bosses beveled laterally, as shown in Fig. 4, the latch will be forced back by them, so that it is not necessary to work the trigger *c* while connecting the base section to its collar.

It will be seen, from the above description, that I have improved that class of lamps known as "center" or "side" lamps for railroad-cars, first, by applying screw-threaded bands upon the ends of the globes, for the purpose of allowing the globe to be conveniently detached from the chimney and base sections, and also for the purpose of forming substantial fastenings for the globes, which will safely hold them against injury from the shocks and concussions to which they are subjected; second, by a simple and easily-manipulated fastening for the base section, or lamp or candle holder D.

I claim—

1. The base-ring section C, constructed with

the lips *i*, and furnished with the springs *t*, in combination with the base-section collar D, which is constructed with the laterally-beveled and vertically-notched bosses *g*, spaces *p p*, and furnished with the spring-latch *c*, and the trigger *f*, all substantially in the manner shown and described.

2. As a new article of manufacture, the car-lamp fixture, consisting of the metallic chimney G G', reflector J, glass globe A, ring section C, base-ring section C, and collar section D, united and made divisible by the screw-threads on the globe A, chimney, and base-ring section, and by the lips *i*, beveled and slotted lugs *g g*, springs *t t*, spring-pin *c*, and trigger *f* of the base ring and collar sections, all constructed substantially as described.

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Witnesses:

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