(Model.)

A. W. HAZELRIGG, F. A. JACOB, & H. P. HOOD.

SIGNAL LANTERN.

No. 326,293. Patented Sept. 15, 1885.

Fig. 2.

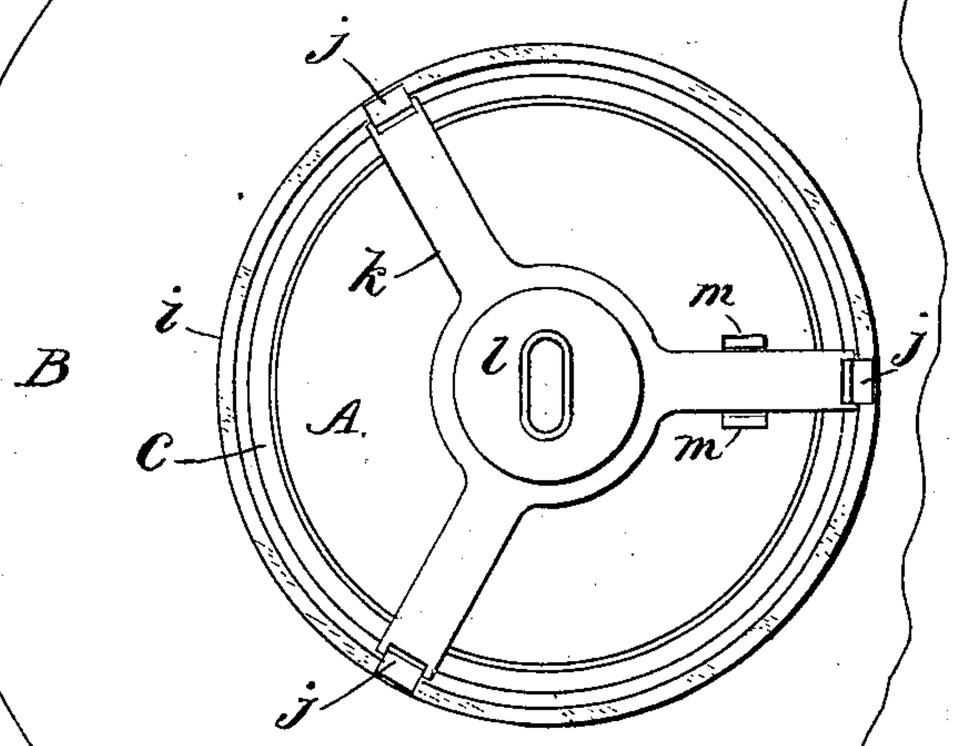


Fig. 3.

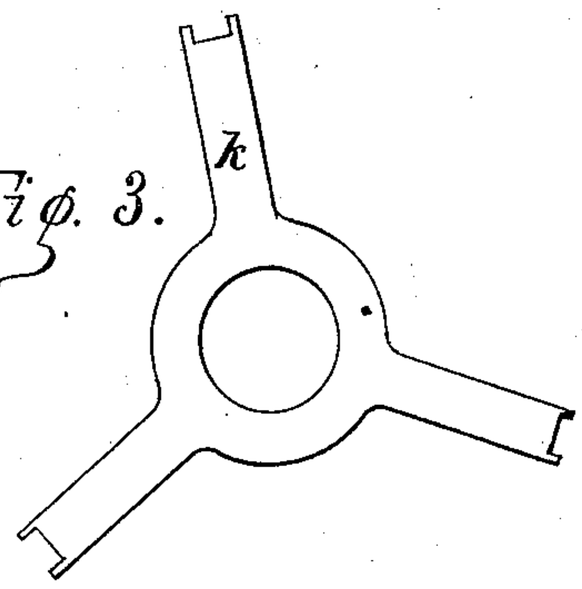


Fig. 4.

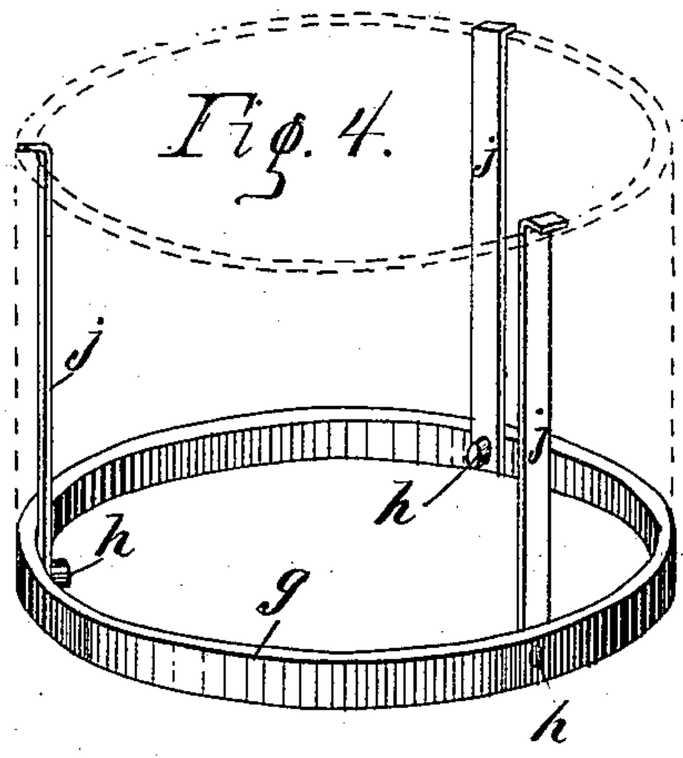


Fig. 1.

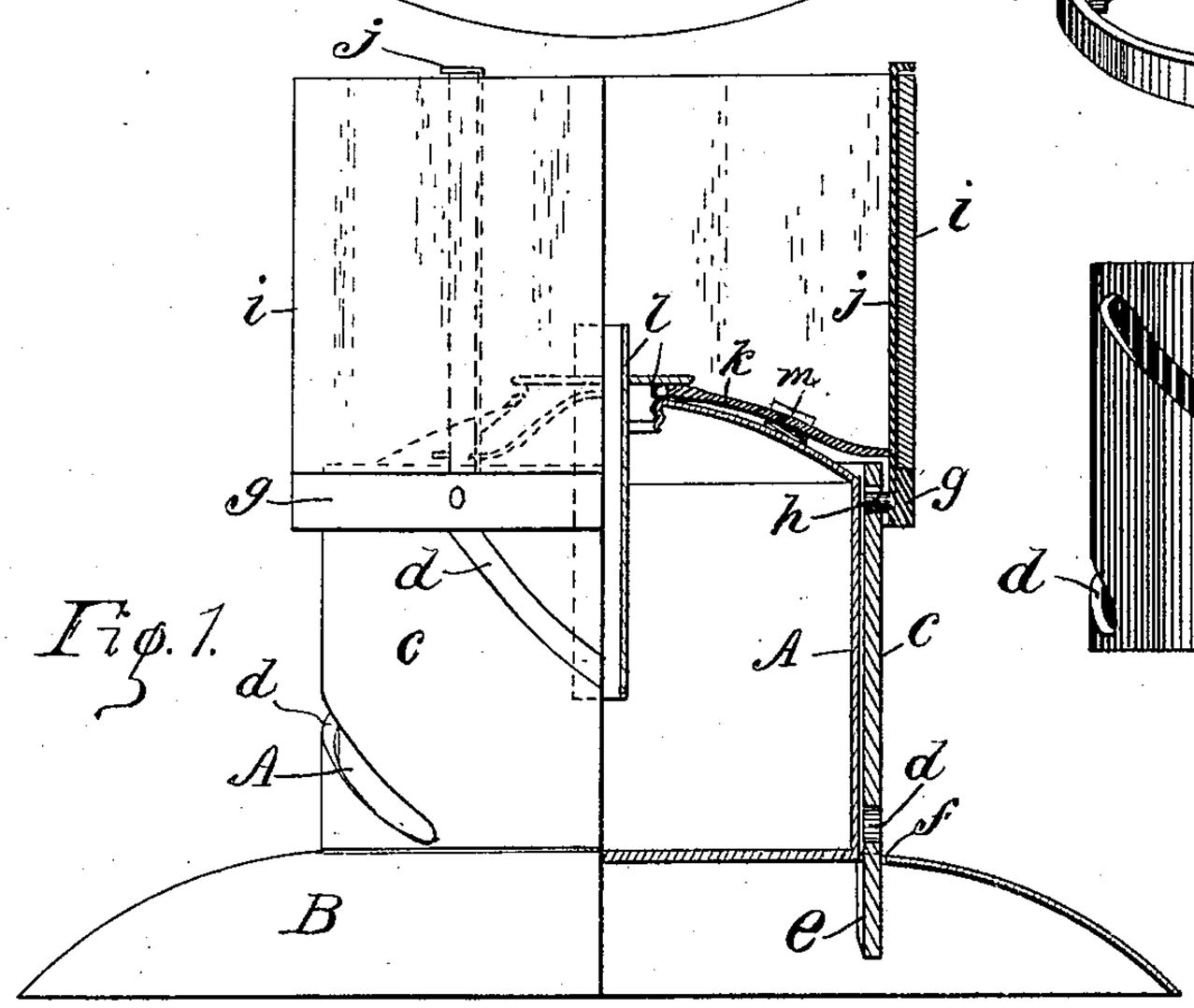
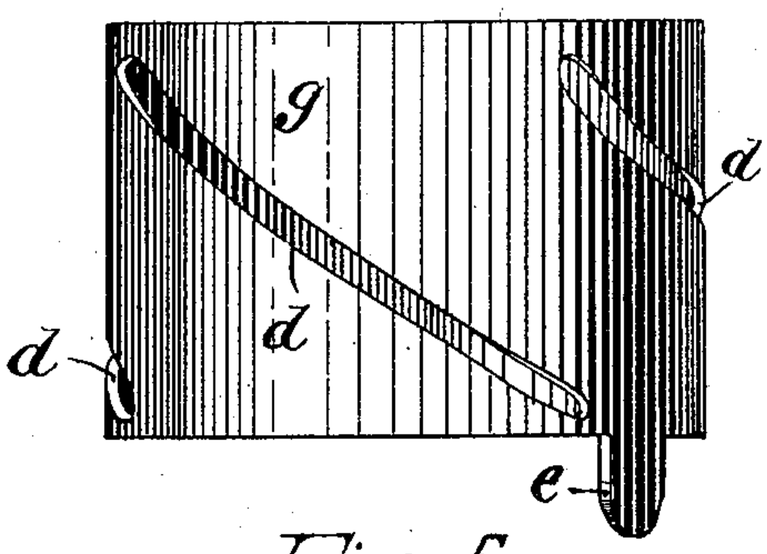


Fig. 5.



Witnesses:

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UNITED STATES PATENT OFFICE.

ALBERT W. HAZELRIGG, FRANK A. JACOB, AND HARRISON P. HOOD, OF INDIANAPOLIS, INDIANA, ASSIGNORS, BY DIRECT AND MESNE ASSIGNMENTS, TO SAID HAZELRIGG, HORACE SCOTT, OF JEFFERSON COUNTY, KENTUCKY, AND MARSHALL C. WOODS, OF INDIANAPOLIS, INDIANA.

SIGNAL-LANTERN.

SPECIFICATION forming part of Letters Patent No. 326,293, dated September 15, 1885.

Application filed June 4, 1885. (Model.)

To all whom it may concern:

Be it known that we, ALBERT W. HAZELRIGG, FRANK A. JACOB, and HARRISON P. HOOD, citizens of the United States, residing at Indianapolis, in the county of Marion and State of Indiana, have invented a new and useful Improved Signal Attachment for Lanterns, of which the following is a specification.

Our invention relates to an improved signal attachment for lanterns of that class in which a cylindrical colored shade mounted on a suitable support surrounds the lamp, and is raised and lowered by means of a metallic cylinder having inclined grooves or slots, which engage the shade-support and operate to raise and lower the said support and shade by the rotation of the cylinder.

The object of our improvement is to so arrange the slotted cylinder, the shade-support, and the shade that they may be easily applied to the lamp of an ordinary railroad-lantern without material change in its construction; and our object is, further, to provide means for removably securing said shade and cylinder in place on the lamp.

The accompanying drawings illustrate our invention.

Figure 1 is a side elevation of a lantern-lamp having our improved attachment, one-half being shown in section. Fig. 2 is a plan of the same. Figs. 3, 4, and 5 are detail drawings showing the several pieces forming our improvement.

A is the oil-reservoir of the lamp, which is mounted on the base B in the usual well-known manner. A metallic cylinder, *c*, having one or more spiral grooves, *d*, in its periphery, is arranged to fit over and turn freely upon the outside of the oil-reservoir A of the lamp. We find the best results to be produced by the use of three of the spiral grooves *d*, arranged at regular intervals in the periphery of the cylinder. A lug, *e*, is attached to the cylinder and projects downward through a slot, *f*, in the base, for the purpose of enabling the operator to revolve the cylinder when the lantern is closed. A metallic ring, *g*, is arranged to slide easily over cylinder *c*, and is provided with studs *h*, which project inward and engage the spiral grooves *d* in the cylinder. Said ring supports a red or other colored tubular glass shade, *i*, which is held securely in place by vertical bars *j*, which are fastened to ring *g*, and pass upward inside of the glass tube and turn outward over its top edge.

For the purpose of preventing ring *g* from turning relatively to the lamp, one or more of the bars *j* are embraced by a guide-plate, *k*, which occupies a fixed position upon the lamp, the bars being free to slide vertically in said guide. Said guide also projects over and rests upon the upper edge of cylinder A, and prevents said cylinder from sliding upward.

For the necessary purposes of the operation of our device, guide-plate *k* may be soldered or otherwise permanently secured to the top of the oil-reservoir; but for convenience in placing the device upon lanterns already in use, and to allow its ready removal for cleaning or other purposes, we make the said plate separable from the reservoir and pass the burner *l* through the center of the plate, thus clamping the plate between the reservoir and the burner when the latter is screwed down. A pair of lugs, *m*, project upward from the reservoir and engage the plate *k*, so as to determine its position and prevent it from turning on the reservoir.

In operation, the lamp being lighted and ring *g* being at its lowest position on the cylinder *c*, the top edge of the red-glass tube *i* is below the light and the lantern gives an ordinary yellow light. To change this instantly to a red light, the operator turns the cylinder *c*, by means of the lug *e*, about a half-revolution, and ring *g*, being prevented from turning by the plate *k* engaging the bars *j*, is forced upward, thereby raising the red-glass tube, so as to inclose the light, where it will remain until cylinder *c* is turned in the opposite direction. It will be observed that the device may be applied to an ordinary lantern without other change than cutting the semicircular slot *f* in the base.

Heretofore in this class of lanterns the slotted cylinder and the shade-support and the

means for operating them have either formed a part of or have been so intimately connected with the frame of the lantern that they have not been applicable to lanterns in present use not constructed with a special view to their use.

We claim as our invention—

1. In a signal attachment for lanterns, the lamp-reservoir, the cylinder having inclined slots and fitting loosely over said reservoir, so as to turn thereon, the shade-support having inwardly-projecting pins engaging the slots in the cylinder, vertical guides for said support, and the shade, all combined and arranged to co-operate in the manner and for the purpose specified.

2. In a signal attachment for lanterns, the combination, with the lamp, the cylinder *c*, and ring *g*, having bars *j* secured thereto, of plate *k*, arranged to embrace one or more of said bars and removably secured to the lamp, substantially as and for the purpose specified.

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