

(No Model.)

A. W. HAZELRIGG.

SIGNAL LANTERN.

No. 362,509.

Patented May 10, 1887.

Fig. 1.

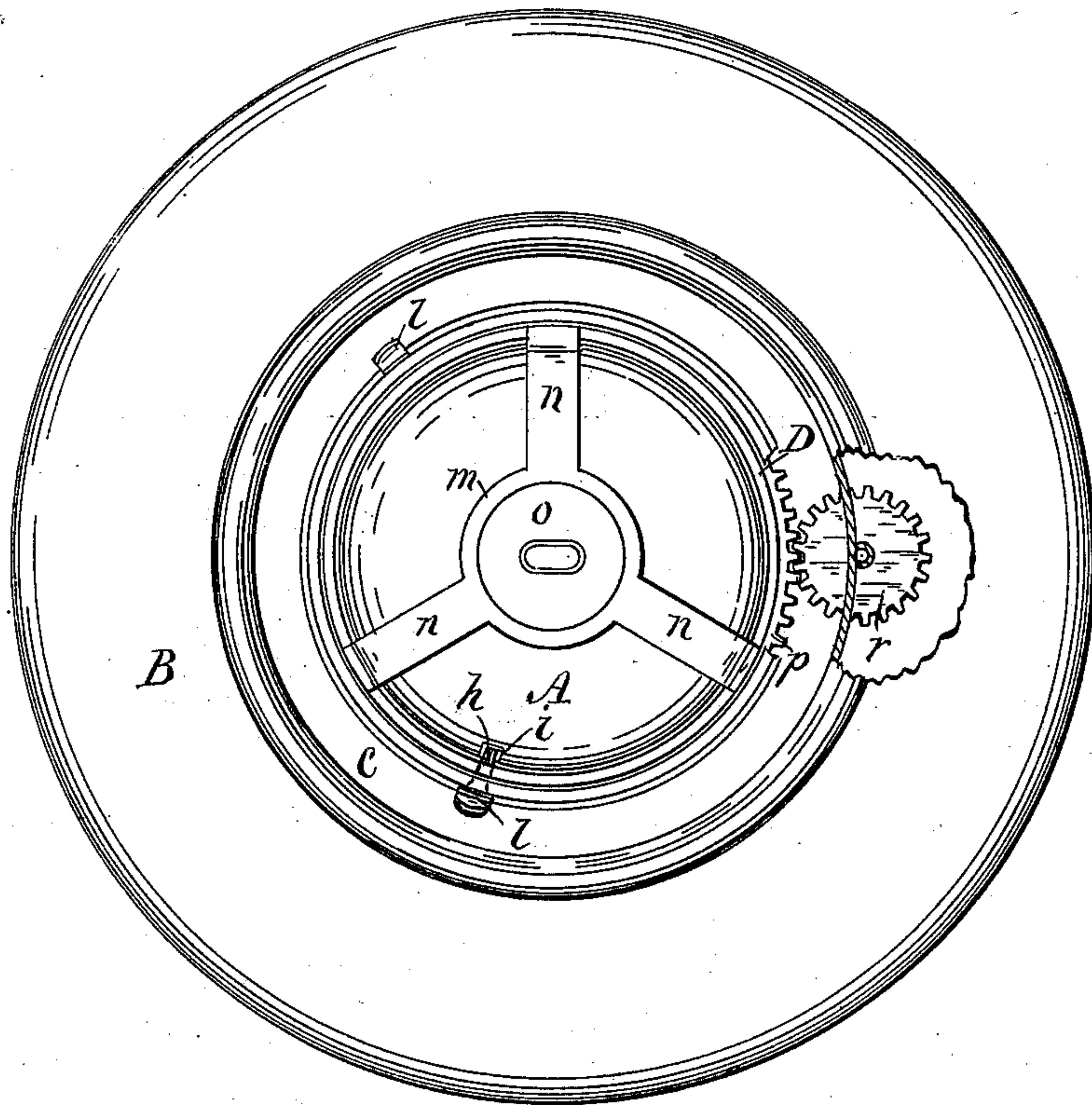
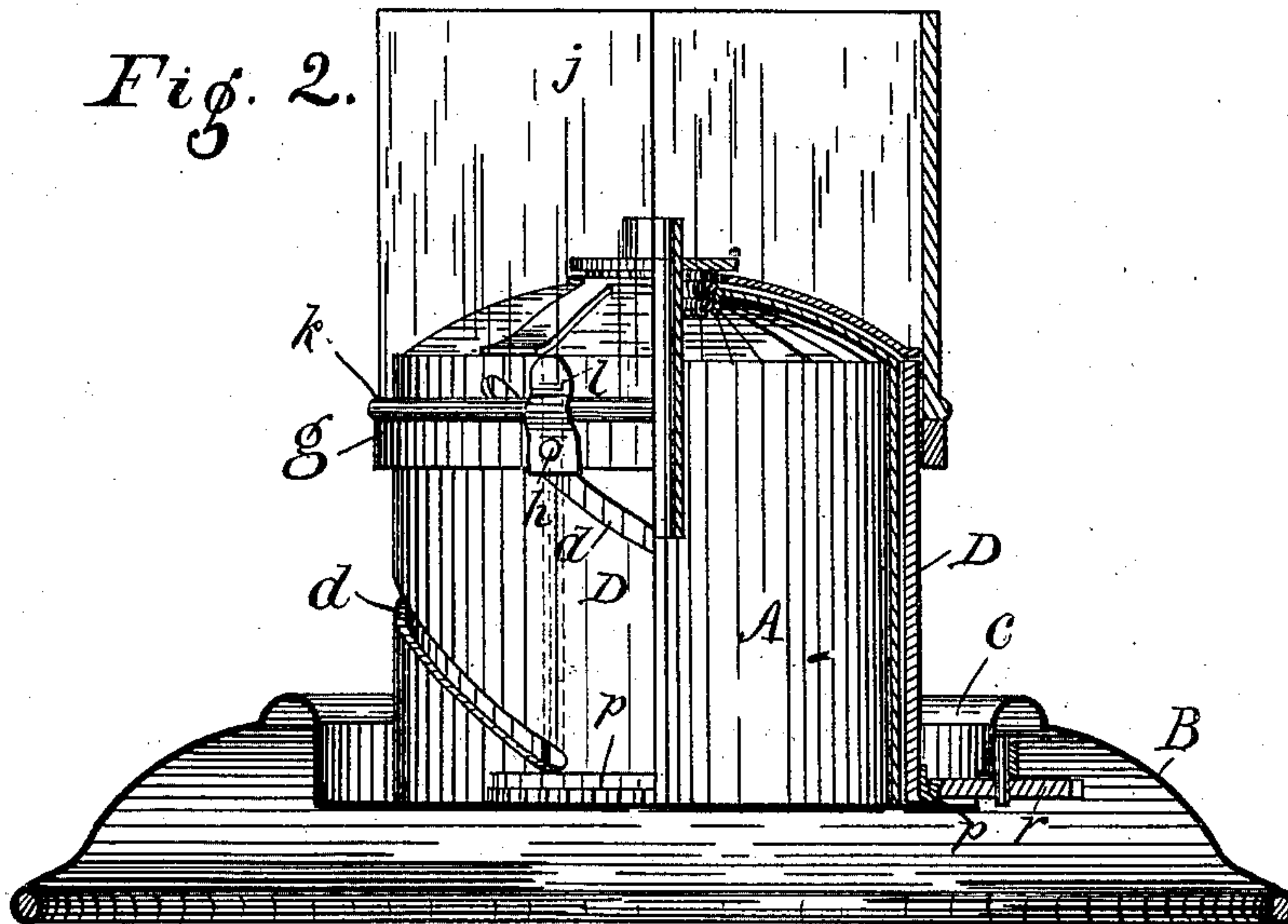


Fig. 2.



Witnesses
H. P. Hood.
V. M. Hood.

Inventor
Albert W. Hazelrigg

UNITED STATES PATENT OFFICE.

ALBERT W. HAZELRIGG, OF INDIANAPOLIS, INDIANA.

SIGNAL-LANTERN.

SPECIFICATION forming part of Letters Patent No. 362,509, dated May 10, 1887.

Application filed October 25, 1886. Serial No. 217,102. (No model.)

To all whom it may concern:

Be it known that I, ALBERT W. HAZELRIGG, a citizen of the United States, residing at Indianapolis, in the county of Marion and State of Indiana, have invented a new and useful Improvement in Signal-Lanterns, of which the following is a specification.

My invention relates to improvements in a signal-lantern for which Letters Patent No. 326,293 were granted September 15, 1885, to myself and others.

The objects of my improvements are to provide improved means for operating the screw-slotted cylinder by means of which the colored glass shade is raised and lowered, and improved means for preventing the shade-support from revolving, all as hereinafter fully described.

The accompanying drawings illustrate my invention.

Figure 1 is a plan view of the device, partly broken away. Fig. 2 is a side elevation of a lantern-lamp having my improvements, one-half being shown in section.

A is the oil-reservoir.

B is the base-plate, having a central depression, *c*, in which the oil-reservoir A is mounted. A metallic cylinder, D, having spiral grooves *d* in its periphery, is arranged to fit over and turn freely upon the outside of the oil-reservoir. A metallic ring, *g*, is arranged to slide easily over cylinder D, and is provided with studs *h*, which project inward and engage the spiral grooves in the cylinder.

For the purpose of preventing the ring *g* from revolving about the oil-reservoir while being moved vertically by the rotation of the cylinder D, one or more of the studs *h* projects inward beyond the cylinder D and engages a vertical grooved guide, *i*, formed in the oil-reservoir or secured thereto.

Ring *g* supports a red or other colored tubu-

lar glass shade, *j*, which has a flange, *k*, on its lower edge, and is held in place on the ring by spring-clips *l*, which are secured to the ring and engage said flange.

For the purpose of preventing the cylinder D from sliding upward, a washer, *m*, having radial arms *n*, which engage and rest upon the upper edge of the cylinder, is secured to the top of the oil-reservoir by the burner *o*. The red shade is raised or lowered by the revolution of the cylinder D, ring *g* being prevented from turning with the cylinder by the stud *h* engaging the grooved vertical guide *i*.

In my former invention the revolution of the cylinder was effected by the operator taking hold of the lug which projected from the lower edge of the cylinder downward through a semicircular slot in the base. Said slot greatly weakened the base, and to avoid this difficulty I secure upon the outer surface of cylinder D, near its lower edge, a toothed rack, *p*, which is engaged by a small gear-wheel, *r*, journaled in suitable bearings in the side of the central depression, *c*, of the base. The cylinder is revolved by the operator turning the wheel *r*.

I claim as my invention—

The combination, with the base and the reservoir of a signal-lantern, the former formed with a depressed portion, *c*, of the spirally-grooved cylinder fitting loosely over said reservoir, so as to turn thereon, and provided with toothed rack *p*, the shade-support having inwardly-projecting studs which engage the grooves in the cylinder, a vertical guide for said support, the shade, and gear-wheel *r*, all combined and arranged to co-operate in the manner and for the purpose specified.

ALBERT W. HAZELRIGG.

Witnesses:

H. P. HOOD,

V. M. HOOD.