W. S. HAMM.

LANTERN.

APPLICATION FILED DEC. 29, 1906.

947,036.

Patented Jan. 18, 1910.

2 SHEETS—SHEET 1.

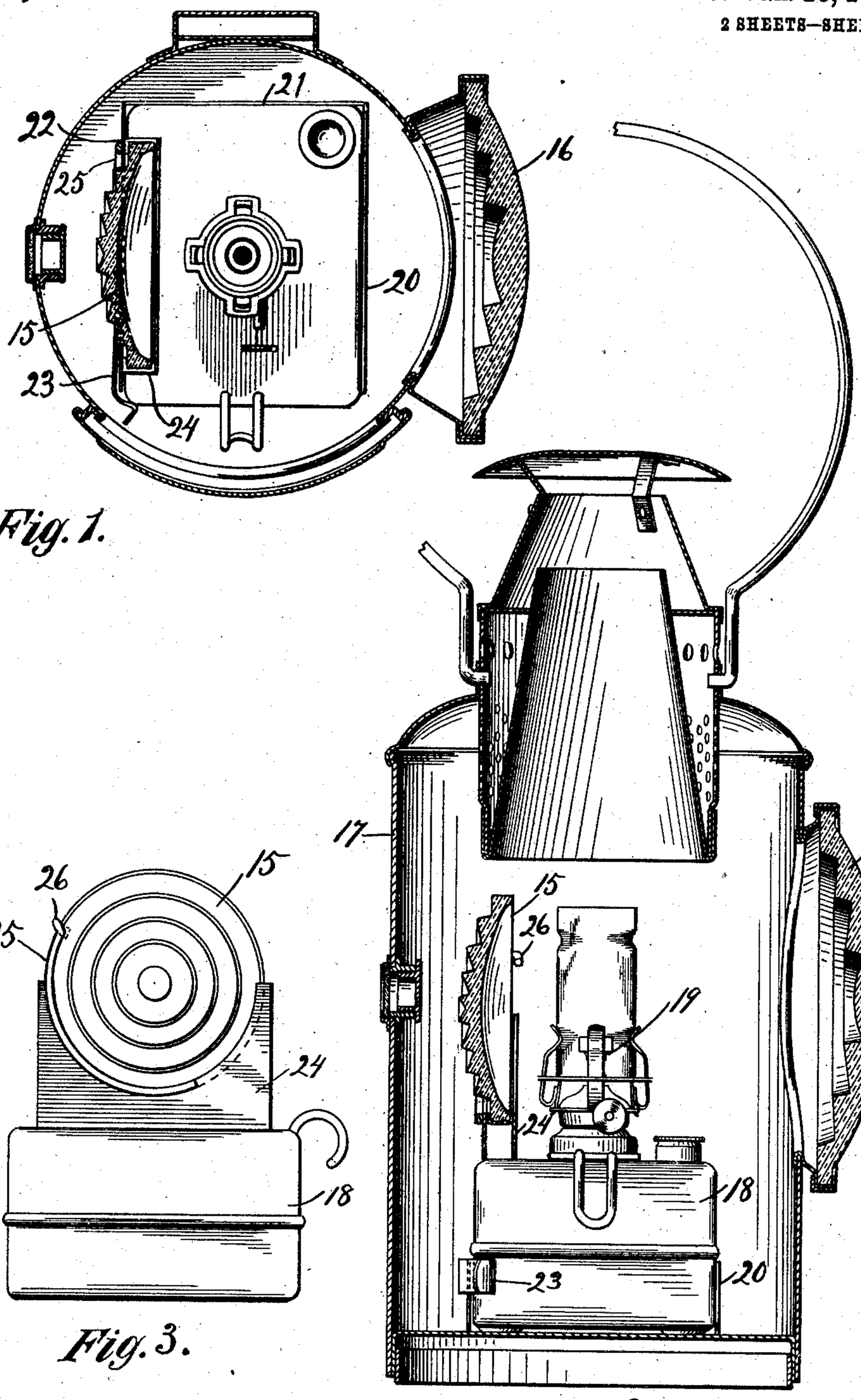

Fig. 1.

Fig. 3.

Fig. 2.

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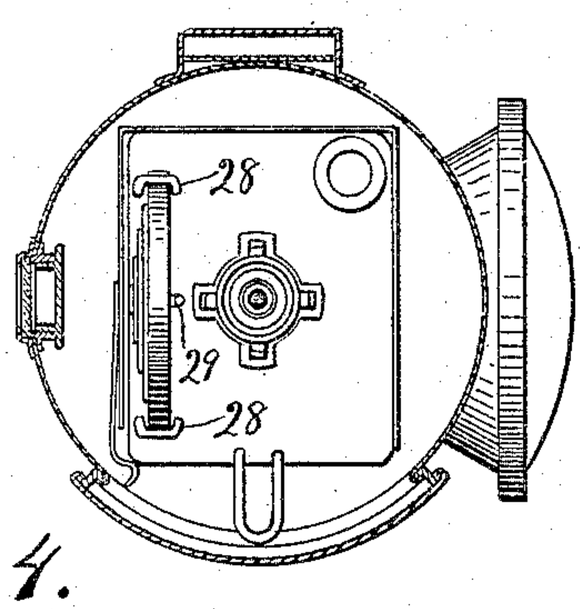

Fig. 4.

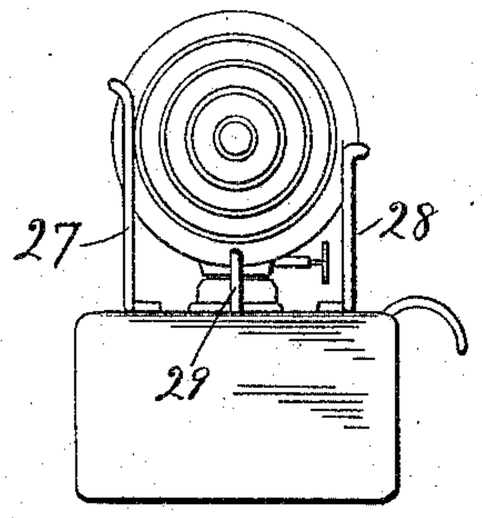

Fig. 5.

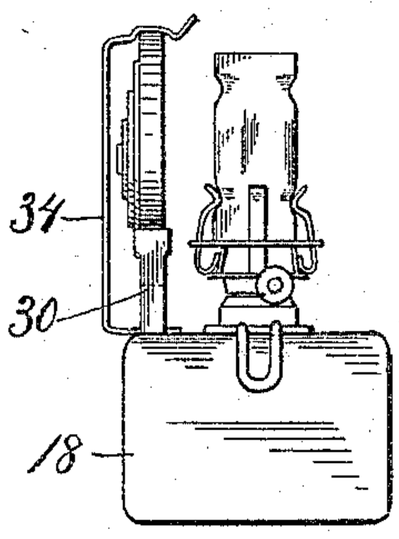

Fig. 6.

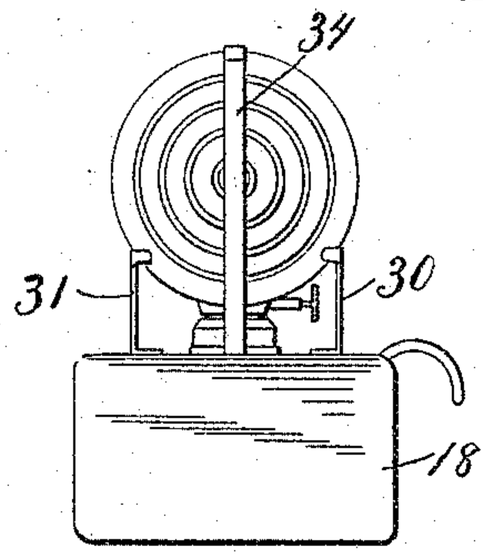

Fig. 7.

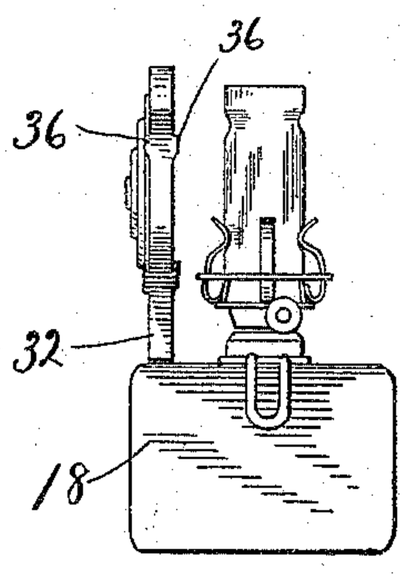

Fig. 8.

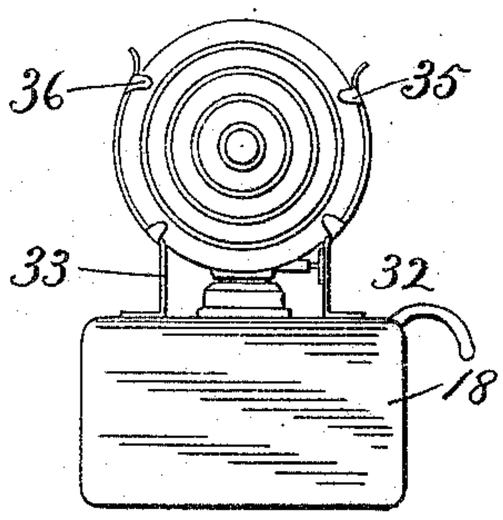

Fig. 9.

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UNITED STATES PATENT OFFICE.

WILLIAM S. HAMM, OF LAKESIDE, ILLINOIS, ASSIGNOR TO THE ADAMS & WESTLAKE COMPANY, OF CHICAGO, ILLINOIS, A CORPORATION OF ILLINOIS.

LANTERN.

947,036. Specification of Letters Patent. **Patented Jan. 18, 1910.**

Application filed December 29, 1906. Serial No. 350,022.

To all whom it may concern:

Be it known that I, WILLIAM S. HAMM, a citizen of the United States, and resident of Lakeside, county of Cook, and State of Illinois, have invented certain new and useful Improvements in Lanterns, of which the following is a specification, and which are illustrated in the accompanying drawings, forming a part thereof.

It has been proposed to use in lanterns, particularly such as are employed for signaling purposes on railways, a glass reflector.

The object of this invention is to provide a suitable holder for supporting such a reflector within the lantern; and it consists, broadly, in a channeled seat for the rim of the reflector, and a stem or standard for supporting this seat, which is attached to either the body of the lantern or the font of the lamp.

The invention is illustrated in the accompanying drawings, which show several modifications of it and in which—

Figure 1 is a plan section of the lantern through its lens and reflector; Fig. 2 is a vertical central section of the lantern through its lens and reflector; Fig. 3 is a rear elevation of the lamp font, showing the form of reflector holder illustrated in Figs. 1 and 2; Fig. 4 is a plan section of the lantern taken above the reflector and lens and showing a modified form of reflector holder; Fig. 5 is a rear elevation of the lamp shown in Fig. 4; Figs. 6 and 7 are side and rear elevations, respectively, of the lamp showing a further modification of form of the reflector holder; Figs. 8 and 9 are side and rear elevations, respectively, of the lamp showing a still further modification of the reflector holder.

The reflector used in the lantern illustrated is marked 15 in the drawings, is made of glass, and is a concavo-convex disk, its concave face being smooth and its convex or rearward face being annularly ribbed, the ribs being so arranged that when the reflector is properly positioned with reference to the flame the light rays emanating therefrom are directed backwardly to it, and hence are projected upon the lens 16 on the same lines as the rays primarily proceeding from the flame to the lens. It becomes important, therefore, to properly support the reflector relatively to the flame of the burner.

The body of the lantern is designated 17, the font of the lamp used therein, 18, and its burner, 19. The font is secured in proper position by means of a chair composed of the flanges 20, 21 and 22, rising from the floor of the lantern, a spring 23, secured to one of the flanges, hooking over one corner of the font to retain it in the chair. In the forms of reflector holder shown in Figs. 1 to 9, the reflector is supported by the font of the lantern, the support, in the construction of Figs. 1, 2 and 3, taking the form of a single standard 24 secured to and rising from the top of the font, its upper edge conforming in shape to the rim of the reflector 15 and extending through approximately a half circle and being channeled, as plainly shown in Fig. 1, to form a seat for the reflector.

A spring 25, represented as a piece of wire, is secured to the standard 24 and extends upwardly along the rim of the reflector, and has at its upper end a laterally curved hook 26 adapted to take over the reflector rim, thus constituting in effect a continuation of the channeled seat for the reflector and yieldingly forcing it to the seat provided in the standard. The reflector is readily inserted and removed by forcing back this spring, but the latter securely holds it in place against any jarring to which the lantern may be subjected.

In the construction illustrated in Figs. 4 to 9, the reflector holder is sectional in form, comprising a plurality of posts, as 27, 28 and 29, in Figs. 4 and 5, 30, 31, in Figs. 6 and 7, 32, 33, in Figs. 8 and 9. All of these posts are forked at their upper ends to receive the rim of the reflector, as in a channel.

Referring to Figs. 4 and 5, the post 29 is coincident with the vertical diameter of the reflector and constitutes a vertical support therefor. The posts 27, 28, engage the side edges of the reflector and serve as lateral stays, at least one of these posts, as 27, rising above the horizontal diameter of the reflector, thereby providing with the other two posts a support which engages it through more than half of its circumference. These

posts are of spring metal, and hence will yieldingly engage the reflector, allowing its easy insertion and removal while holding it against accidental displacement.

Referring to Figs. 6 and 7, the posts 30 and 31 rise vertically from the font and are of such length that they engage the reflector below its horizontal diameter. A spring arm 34 rises from the font 18 back of the reflector, and has its upper end bent forwardly and curved to spring over the upper edge thereof, thus holding it to the seat provided by the forked ends of the posts 30, 31, by a yielding pressure.

In the construction illustrated in Figs. 8 and 9, the posts 32, 33, are substantially of the same form as the posts 30 and 31, but are projected upwardly from the point at which they first engage the reflector and bent to conform to the rim thereof, their upper ends extending above its horizontal diameter and being provided with inturned lugs 35, 36, which form a continuation of the channel seat. These posts are preferably of elastic sheet metal and engage the rim of the reflector with a yielding pressure.

I claim as my invention—

1. In combination, a lantern having a font, a reflector, and a support for the reflector comprising a standard rising from the font and having a channeled seat for receiving the edge of the reflector, and a spring arm having a fixed anchorage and engaging the reflector at its rim above its horizontal diameter.

2. In combination, a lantern having a font, a reflector, and a support for the reflector comprising a standard rising from the font and having a bifurcated seat for receiving the edge of the reflector, and a spring arm having a fixed anchorage and engaging the reflector at its rim above its horizontal diameter.

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