F. D. SPEAR.

SIGNAL LAMP.

APPLICATION FILED OCT. 20, 1910.

1,018,016. Patented Feb. 20, 1912.

2 SHEETS—SHEET 1.

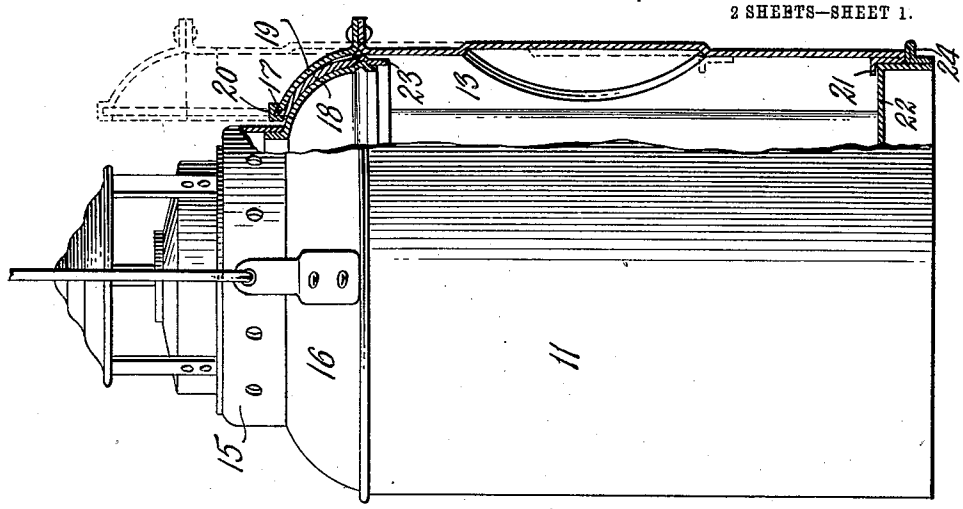

Fig. 2.

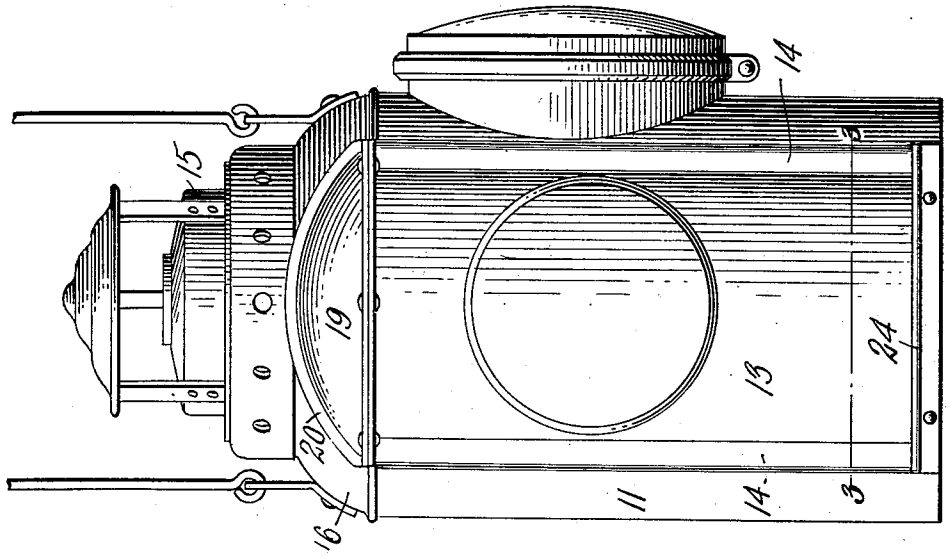

Fig. 1.

WITNESSES:

Juliust H. Smith

C. A. Bund.

INVENTOR

Furman D. Spear,

BY

Wilhelm, Parker & Hard

ATTORNEYS

F. D. SPEAR.

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2 SHEETS—SHEET 2.

Fig. 3.

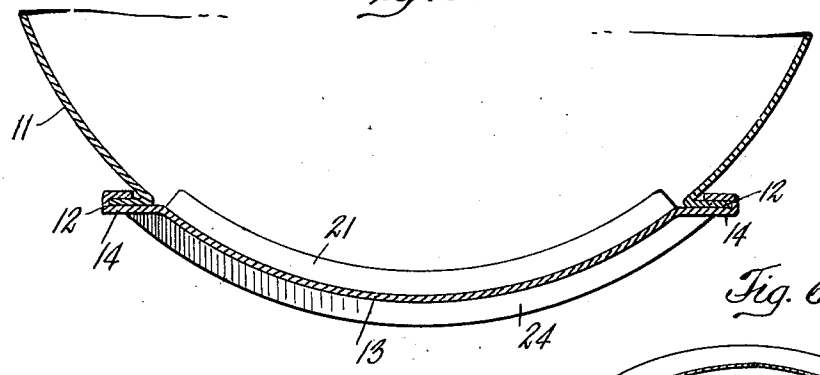


Fig. 6.

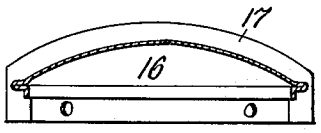


Fig. 4.

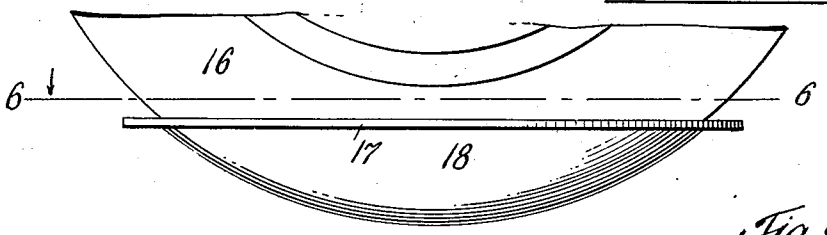


Fig. 9.

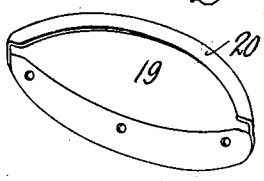


Fig. 7.

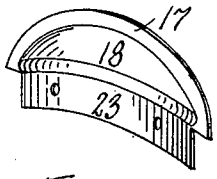
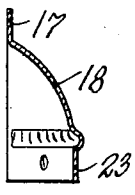


Fig. 8.



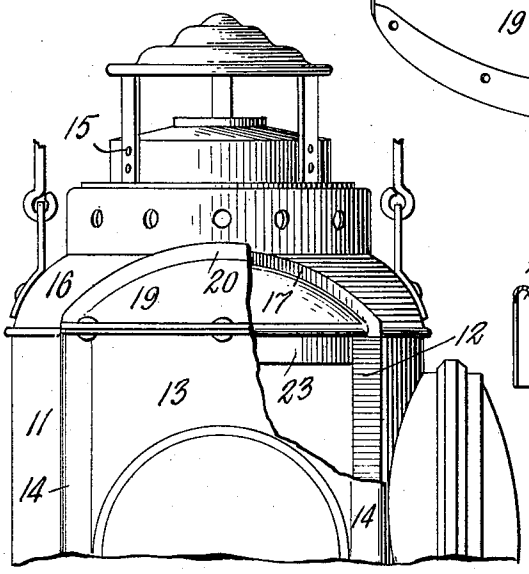


Fig. 10.

Fig. 5.

Witnesses:
Juliust Lutz.
A. B. Band.

Inventor
Furman D. Spear,
By his Attorneys
Wilhelm, Parker & Hard.

UNITED STATES PATENT OFFICE.

FURMAN D. SPEAR, OF NEW YORK, N. Y., ASSIGNOR TO ARMSPEAR MANUFACTURING COMPANY, OF NEW YORK, N. Y.

SIGNAL-LAMP.

1,018,016. Specification of Letters Patent. Patented Feb. 20, 1912.

Application filed October 20, 1910. Serial No. 588,020.

To all whom it may concern:

Be it known that I, FURMAN D. SPEAR, a citizen of the United States, residing at New York, in the county of New York and State of New York, have invented a new and useful Improvement in Signal-Lamps, of which the following is a specification.

This invention relates to that class of signal lamps which comprise an upright cylindrical body or casing, a contracted top which contains the air inlets and the outlet for the products of combustion, and a sloping breast connecting the top with the cylindrical body. Lamps of this character have been provided in the side of the cylindrical body with an opening for access to the interior of the body, which opening is closed by a sliding door mounted on upright slideways which are formed on the body on opposite sides of this door opening. Considerable difficulty has been experienced in preventing the entrance of rain, snow, dust and air blasts, &c., through this door opening into the body, particularly through the upper portion of the opening which is located underneath the breast of the casing, and the object of this invention is to so construct the lamp that a practically waterproof joint is formed between the sliding door and the lamp body without preventing the door from being freely opened or closed.

In the accompanying drawings, consisting of two sheets: Figure 1 is a side elevation of a lamp embodying this invention. Fig. 2 is an elevation of the same, partly in vertical section, at right angles to Fig. 1. Fig. 3 is a horizontal section through the lower portion of the door and lamp body in line 3—3, Fig. 1, on an enlarged scale. Fig. 4 is a fragmentary top plan view, on an enlarged scale, of the breast of the lamp body and the guard flange and shield arranged thereon. Fig. 5 is an elevation of the upper part of the lamp with part of the door broken away. Fig. 6 is a vertical section, on a reduced scale, in line 6—6, Fig. 4, looking outwardly in the direction of the arrow. Fig. 7 is a detached perspective view of the guard flange and its attaching base or shield. Fig. 8 is a vertical radial section through the same. Fig. 9 is a detached perspective view of the cap or top extension of the door. Fig. 10 is a vertical section through said cap.

Like reference characters refer to like parts in the several figures.

11 represents the cylindrical body or casing of the lamp, preferably made of sheet steel, and provided in its side with a door opening and on opposite sides of the latter with upright guide flanges or slideways 12 formed by turning the edge portions of the body outwardly.

13 represents the door which has its upright edge portion 14 turned over for engaging over the slideways 12.

15 represents the contracted top of the lamp containing the air inlets and the outlet for the products of combustion. 16 represents the sloping breast which connects this top with the upper end of the cylindrical body.

17 represents an upright dam, tongue or guard flange which is arranged upon the breast and over the door opening, approximately in the position of the chord of the arc which is occupied by the door. This dam separates the small portion of the breast which lies in front of this dam and over the door opening from the main portion of the breast which lies behind this dam. That part of the breast which lies behind this dam and adjacent thereto forms a water shed or sloping deflecting surface which slopes in opposite directions from the crown or highest point. Rain, snow, dust and air blasts which fall upon the upper part of the lamp behind this dam are intercepted by the same and directed to opposite sides of the door opening, rearwardly of the upright guide flanges 12, and are so prevented from entering the door opening. This dam or guard flange is conveniently secured to the breast by being formed on a curved base or shield 18 which is secured to the breast over the door opening by rivets or other suitable means. This shield is preferably stamped of sheet steel in one piece with the dam or flange 17 and forms not only a convenient means for securing the dam in position but also furnishes an extra thickness of metal over the door opening and serves as a stiffener or brace across the top of the same. The side flanges 12 and the dam 17 are preferably arranged in the same vertical plane, with the upper ends of the side flanges abutting against the dam.

The door is provided with a curved cap or top extension 19 which conforms to the

shield 18 and which is provided at its upper edge with a rim 20 which is recessed on its under side and fits over the dam or flange 17 when the door is closed, as represented in Fig. 2. For convenience of manufacture this extension is preferably made separate from the door and secured thereto by rivets or other means.

The door is preferably provided near its bottom with a stop piece 21 which projects rearwardly and which limits the movement of the door in either direction. In closing the door this stop limits the downward movement by striking upon the bottom 22 of the body, as represented in Fig. 2, and in raising the door it limits the upward movement by striking against the lower edge 23 of the shield 18. In Fig. 2, the door is shown partly raised in dotted lines.

The body is preferably provided in the lower portion of the door opening and below the door with a cross piece 24. The upright transverse dam or guard flange over the door opening and the sloping deflecting surface behind this dam or flange form an effective shed for excluding rain, snow, dust and air blasts from the door opening. Water cannot accumulate on the breast behind the dam or guard flange because the sloping surface of the breast provides for a free escape of the water, whether resulting from rain or melted snow or ice. The evil effects of the leakage of water into the lamp are by this construction avoided.

While it is preferred to extend the dam or guard flange straight across the breast over the door opening, as shown, this form is not essential and may be modified without materially affecting the operation of the device.

I claim as my invention:

1. The combination with a cylindrical lamp body having an upright door-opening in its side, a sloping breast above said opening, and a vertically sliding door applied to said opening, of a dam arranged on said breast over said opening and operating to deflect the water on said breast laterally past the sides of said opening, substantially as set forth.

2. The combination with a cylindrical lamp body having an upright door-opening in its side, a sloping breast above said opening, and a vertically sliding door applied to said opening, of an upwardly projecting flange arranged on said breast over said opening in substantially the position of the chord of the arc occupied by said opening, substantially as set forth.

3. The combination with a cylindrical lamp body having an upright door-opening in its side and a sloping breast above said opening, of an upwardly projecting flange arranged on said breast above said opening, and a vertically sliding door provided at its top with a rim which is recessed on its under side and engages over said flange when the door is closed, substantially as set forth.

4. The combination with a cylindrical lamp body having an upright door-opening in its side and a sloping breast above said opening, of a vertical arched flange arranged on said breast above said opening, and a vertically sliding door provided at its top with an arched rim which engages over said flange when the door is closed, substantially as set forth.

5. The combination with a lamp body having a door-opening in its side, a sloping breast above said opening, and a vertically sliding door applied to said opening, of a curved shield applied to said breast over said opening and having an upwardly projecting guard flange, substantially as set forth.

6. The combination with a lamp body having a door-opening in its side and a sloping breast over said opening, of a curved shield applied to said breast over said opening and having an upwardly projecting guard flange, and a vertically sliding door provided at its top with a rim which engages over said flange when the door is closed, substantially as set forth.

7. The combination with a lamp body having a door-opening in its side and a sloping breast over said opening, of an upwardly-projecting guard flange arranged on said breast over said opening in substantially the position of the chord of the arc occupied by the door-opening, and a vertically sliding door provided at its top with a rim which engages over said flange when the door is closed, substantially as set forth.

8. The combination with a cylindrical lamp body having a door-opening in its side, upright guides at the sides of said opening, and a sloping breast above said opening and guides, of an upwardly projecting flange arranged on said breast over said door-opening and alined with said guides, and a door mounted on said guides and provided with a top rim which engages over said flange when the door is closed, substantially as set forth.

Witness my hand in the presence of two subscribing witnesses.

FURMAN D. SPEAR.

Witnesses:
JENNIE STANTON,
WM. L. ARMOUR.