

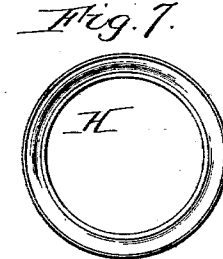
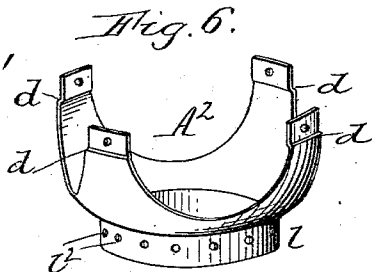
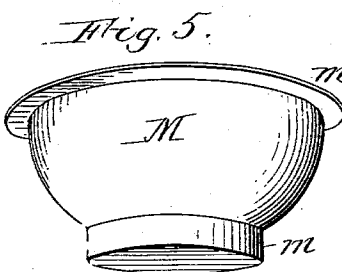
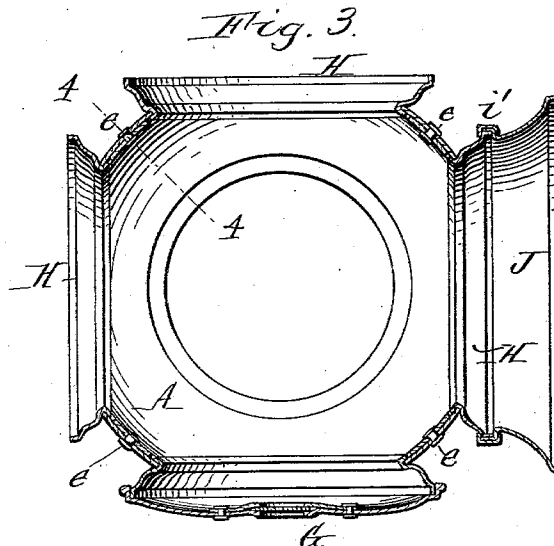
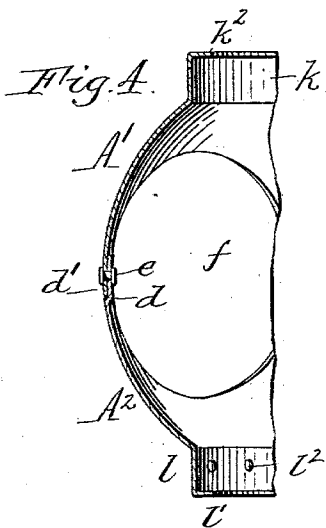
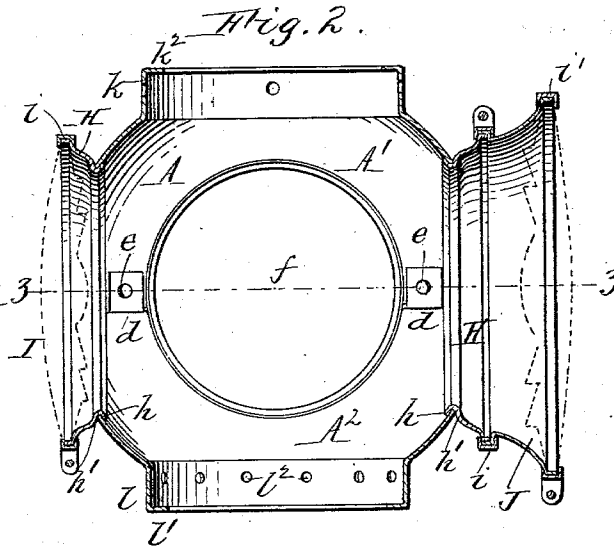
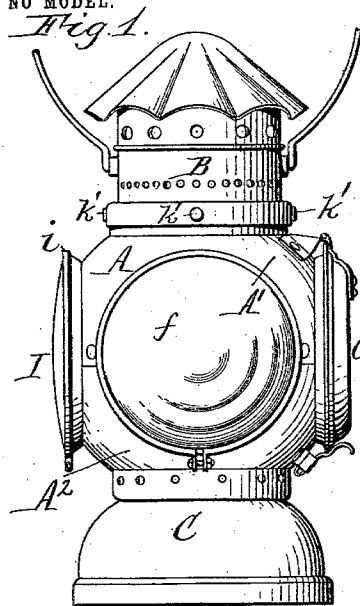
No. 743,997.

PATENTED NOV. 10, 1903.

F. K. WRIGHT.  
SIGNAL LAMP.

APPLICATION FILED AUG. 23, 1901.

NO MODEL.



E. A. Volk.  
F. F. Scherjager

Fredrick K Wright Inventor.  
Witnesses. By Wilhelm Mornet Attorneys.

# UNITED STATES PATENT OFFICE.

FREDERICK K. WRIGHT, OF SYRACUSE, NEW YORK.

## SIGNAL-LAMP.

SPECIFICATION forming part of Letters Patent No. 743,997, dated November 10, 1903.

Application filed August 23, 1901. Serial No. 72,991. (No model.)

*To all whom it may concern:*

Be it known that I, FREDERICK K. WRIGHT, a citizen of the United States, residing at Syracuse, in the county of Onondaga, in the State of New York, have invented new and useful Improvements in Signal-Lamps, of which the following is a specification.

This invention relates to that class of signal-lamps which are used on locomotives, the rear cars of trains, switches, &c., and in which the body is composed of an upper and a lower part connected by a horizontal joint which intersects the lens-openings in the side of the body about in line with the center of said openings.

The object of my invention is to provide a lamp of this kind which is very strong and durable and which is at the same time simple in construction and can be produced at comparatively small cost.

In the accompanying drawings, Figure 1 is a side elevation of my improved signal-lamp. Fig. 2 is a vertical section of the body of the lamp on an enlarged scale. Fig. 3 is a horizontal section in line 3 3, Fig. 2. Fig. 4 is a vertical section in line 4 4, Fig. 3. Fig. 5 is a sectional perspective view showing a blank of sheet-steel for one of the halves of the body stamped to semispherical form. Fig. 6 is a perspective view showing the lower half of the body completed. Fig. 7 is a front elevation of one of the circular frames which are secured in the side openings of the body.

Like letters of reference refer to like parts in the several figures.

The lamp consists, generally stated, of a body A, approximately spherical in form, a top or dome B, which is secured upon the body, and a base C, which receives the oil pot and burner and which is secured to the lower end of the body.

The body A consists of upper and lower semispherical halves A' A<sup>2</sup>, each of which is stamped of a single blank of sheet-steel. These halves are connected by a horizontal equatorial joint, which extends around the large part of the body. This joint is preferably a lap-joint, one of the halves—in the drawings the lower half—being provided with an offset or shouldered marginal portion d, against which the marginal portion d' of the other half fits closely, Figs. 2, 3, and 4. The

overlapping portions of the halves are secured together by rivets e or other suitable fastenings. The overlapping or joined portions of the two semispherical parts of the body lie substantially in the spherical curvature of the body and do not project laterally from the body, so that the two semispherical parts when secured together form a body of spherical or approximately spherical form having no laterally-projecting portions at the joint, as indicated in Fig. 4.

The lamp-body is provided in its sides with circular openings f, formed partly in the upper and partly in the lower half of the body, the joint intersecting the openings about in line with the centers thereof. Three or four of these openings are usually formed in the body, one for inserting and removing the oil pot and burner and the rest for the reception of the lenses. The opening for inserting and removing the oil pot and burner is closed by a hinged door G, Fig. 1. H represents circular frames which are secured in these openings for receiving the lenses or the door. Each of these frames is continuous and is secured in the opening by swaging or bending the inner portion h of the frame against the inner side of the body, while the outer portion h' bears against the outer side of the body. The outer portion h' flares outwardly and receives the lens I. (Indicated in dotted lines in Fig. 2.) The lens is clamped in the annular frame by the usual clamping-ring i, applied to the outer side of the frame, as shown on the left-hand side of Fig. 1. When a larger lens is required, a detachable extension-frame J is secured in the frame I by the usual clamping-ring i, and the lens is clamped in said extension-frame by a clamping-ring i', as shown on the right-hand side of Figs. 2 and 3.

The upper half A' of the body is provided with a collar k, to which the dome B is secured by rivets k' or other suitable means and which has an inwardly-projecting top flange k<sup>2</sup>, upon which the dome rests. The lower half A<sup>2</sup> is provided with a collar l, having an inwardly-projecting lower flange l', to which the base C is secured. The collar l is provided with the usual perforations l<sup>2</sup> for the admission of air. Each half of the body is stamped or drawn of a blank of sheet-steel by suitable

dies until the blank has assumed the form of a flanged bowl M, having a depressed bottom *m*, as shown in Fig. 5. The top flange *m'* of this blank is then removed, the bottom is cut out to form the inwardly-projecting flange *k*<sup>2</sup> or *l'*, the halves of the side openings are cut in the semispherical portion of the blank, the marginal or end portions of the metal between the side openings are rolled to form the shouldered portions *d* of the joint if the blank is designed for the offset half of the body, and the holes are punched, whereby the half of the body is completed. The two halves are then secured together, the annular frames are inserted into the side openings and secured therein, and the dome and base are finally secured, respectively, to the collars *k* and *l*.

My improved lantern-body is very simple in construction and exceedingly strong and durable. It is produced with comparatively little waste of material, the parts are quickly assembled, and the body is therefore produced at comparatively small cost. The spherical body has no projecting flanges at the joint, and the annular frames for the lenses and for the door are secured directly in the openings of the body. This renders the lamp very compact and attractive in appearance, permits the drawing of the blank of sheet metal to the desired form by but few operations, and also permits the same body to be used for lenses of different diameters, as the openings in the body can be made of

a diameter which is suitable to receive a lens-frame for the smallest lens, and the frame can be enlarged for a larger lens by the addition of an extension-frame, which flares outwardly like the lens-frame to which it is secured for properly illuminating the lens.

I claim as my invention—

1. A lamp-body composed of upper and lower semispherical parts which are connected by a horizontal joint extending around the body, the latter having the joined portions of its semispherical parts arranged substantially in its spherical curvature, and having a side opening which is intersected by said joint, and an annular frame which is separate from the body and secured in said opening, substantially as set forth.

2. A lamp-body composed of upper and lower semispherical parts which are connected by a horizontal lap-joint extending around the body, one of said parts having offset marginal portions which lie substantially in the spherical curvature of the body and which are overlapped by the marginal portions of the other part, the body being provided with a side opening which is intersected by said joint, substantially as set forth.

Witness my hand this 19th day of August, 1901.

FREDERICK K. WRIGHT.

Witnesses:

FRANK C. CROWELL,  
EARL S. BORST.