

(No Model.)

W. W. RICHARDS.

SIGNAL ATTACHMENT TO LOCOMOTIVE HEAD LIGHTS.

No. 260,895.

Patented July 11, 1882.

Fig. 1.

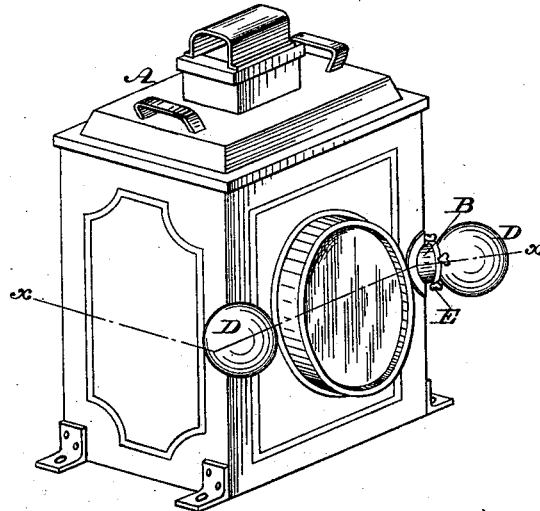


Fig. 2.

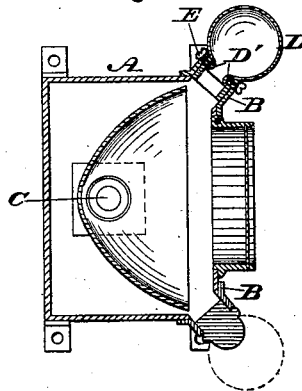


Fig. 3.

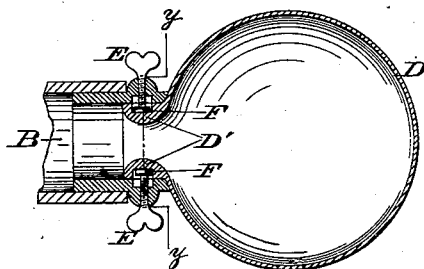
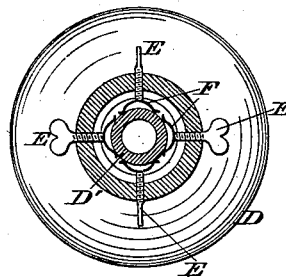


Fig. 4.



WITNESSES:

L. Douville
H. F. Kirchoff

INVENTOR:

Walter W. Richards,
BY John A. Giedersheim
ATTORNEY.

UNITED STATES PATENT OFFICE.

WALTER W. RICHARDS, OF PHILADELPHIA, PENNSYLVANIA.

SIGNAL ATTACHMENT TO LOCOMOTIVE HEAD-LIGHTS.

SPECIFICATION forming part of Letters Patent No. 260,895, dated July 11, 1882.

Application filed May 13, 1882. (No model.)

To all whom it may concern:

Be it known that I, WALTER W. RICHARDS, a citizen of the United States, residing in the city and county of Philadelphia, State of Pennsylvania, have invented a new and useful Improvement in Signal Attachments to Locomotive Head-Lights, which improvement is fully set forth in the following specification and accompanying drawings, in which—

10 Figure 1 is a perspective view of a head-light with signal attachment embodying my invention. Fig. 2 is a horizontal section in line *xx*, Fig. 1. Fig. 3 is an enlarged view of the signal attachment and adjacent portion of the head-light. Fig. 4 is a section in line *yy*, Fig. 3.

Similar letters of reference indicate corresponding parts in the several figures.

My invention consists of a signal applicable 20 to the head-light of a locomotive-engine for announcing that another train is following, or for indicating danger, or for other purposes, said signal being of the form of a hollow globe or body which is illuminated by the head-light, 25 the globe being removable, so that it may be entirely dispensed with or one of a different color substituted.

Referring to the drawings, A represents a locomotive head-light, which, excepting as far 30 as relates to my invention, is of ordinary form and construction. To the front or side plates of the frame of the light or lantern are secured tubes B, which, projecting forward or laterally, or, preferably, diagonally, from said 35 plates, communicate with the interior of the light or lantern, and are so disposed in relation to the illuminator or burner C that when the burner is lighted the light therefrom is caused to stream through said tubes.

40 D represents hollow globes or other suitably-shaped bodies of transparent material, which are formed with necks D' to enter or fit over the tubes B, whereby said globes are sustained on the head-light.

45 It will now be seen that when the globes are in position they are illuminated by the light of the illuminator or burner of the head-light, whereby there is produced a convenient, serviceable, reliable signal, which may be seen both 50 in front of the train and after the same has

passed, so that the nature of the signal may be observed in either case, the head-light being in no wise obscured or affected.

It is evident that different-colored globes 55 may be employed and a system of signals adopted on the basis of that now in vogue or another that may hereafter be adopted. For this purpose the globes are removable from the head-light, and one or both may be in service or both dispensed with. In the latter case the 60 tubes B are closed with suitable plugs, so that the light does not escape therethrough.

In the day-time the colored signals may be seen and interpreted similar to flag-signals, 65 with the advantage that the salient or projecting position of the globes permits them to be seen after a train has passed even a considerable distance.

In order to hold the globes firmly and safely 70 in position, I employ screws E and springs F, the latter being preferably of the form of bent plates of steel, which rest in a groove in the neck of the globe, the screws being fitted to and passing through the tubes B and tightening 75 against the crowns of the springs, whereby the latter bear firmly against the necks of the globes with a yielding pressure, and thus connect the globes with the head-light in a secure and safe manner without liability of being 80 wrenched out or broken off from the place of connection.

I am aware that it is not new to construct a signal attachment to locomotive head-lights 85 with tubes which communicate with the head-light and project from the sides of the head-light frame, said signal attachment being provided with means whereby it is visible from the front and back.

Having thus described my invention, what I claim as new, and desire to secure by Letters 90 Patent, is—

1. A signal for a locomotive head-light, of the form of a hollow globe attachable to the head-light and visible from all sides, substantially as set forth. 95

2. The combination, with the head-light of a locomotive, of a hollow globe provided with means of attachment to the front plates or corners of the head-light frame, whereby said globe is illuminated, but does not obstruct or 100

affect the brilliancy of the head-light, substantially as set forth.

3. The combination, with the head-light of
a locomotive, of the tubes projecting from the
5 head-light frame, and the transparent globes
attached to said tubes, so as to be readily removable therefrom, substantially as set forth.

4. The hollow globe or body provided with

a neck, in combination with the head-light, the springs, and screws, substantially as and 10 for the purpose set forth.

WALTER W. RICHARDS.

Witnesses:

JOHN A. WIEDERSHEIM,
A. P. GRANT.