

W. FORSYTH.
Signal Head-Light.

No. 210,313.

Patented Nov. 26, 1878.

Fig. 1.

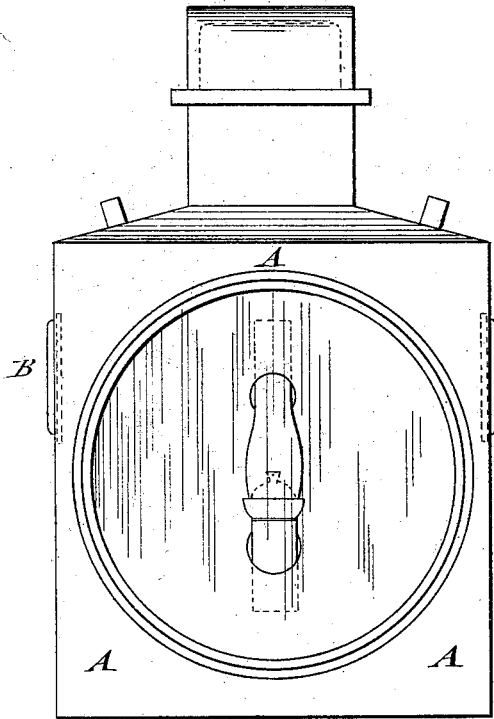


Fig. 2.

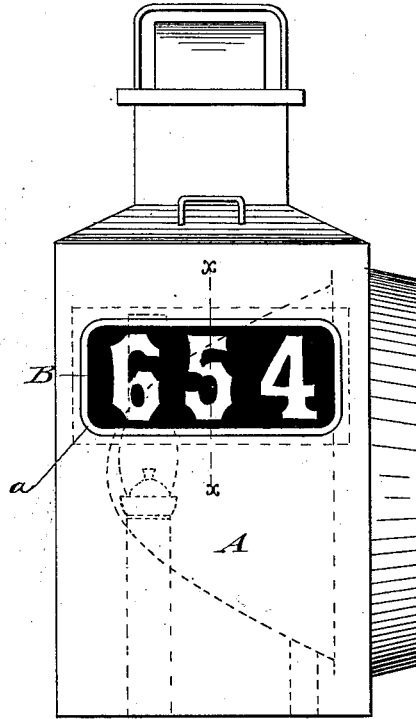
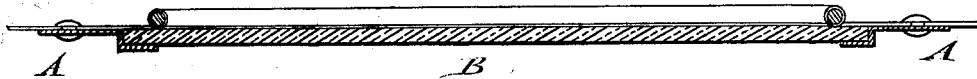


Fig. 3.



Fig. 4.



WITNESSES:

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UNITED STATES PATENT OFFICE.

WILLIAM FORSYTH, OF ALTOONA, PENNSYLVANIA.

IMPROVEMENT IN SIGNAL HEAD-LIGHTS.

Specification forming part of Letters Patent No. **210,313**, dated November 26, 1878; application filed February 6, 1878.

To all whom it may concern:

Be it known that I, WILLIAM FORSYTH, of Altoona, in the county of Blair and State of Pennsylvania, have invented a new and Improved Locomotive Head-Light, of which the following is a specification:

In the accompanying drawing, Figure 1 represents a front elevation of my improved locomotive head-light; Fig. 2, a side elevation of the same; Fig. 3, a detail view of the transparent-glass slide or name-plate; and Fig. 4, a vertical transverse section on line *x x*, Fig. 2, on enlarged scale, taken through the side of the case of the head-light.

Similar letters of reference indicate corresponding parts.

This invention is intended to furnish locomotive head-lights that display the number or name of the engine at night in a very distinct manner, so as to facilitate the running of night-trains for train-dispatchers and operators in telegraph-offices and on block signals.

The invention consists of the case of the head-light, having broken-out sides and transparent-glass plates, through which the number or name of the locomotive is visible by means of the light in the upper part of the case, the interior of the case and back of the reflector being painted white for that purpose.

Referring to the drawing, A represents the outer case of a locomotive head-light, which is provided with the usual reflector and lamp.

The sides of the casing or lantern A are formed with openings, located at the upper portion or about on a level with the aperture formed for the chimney in the reflector, so that the light escaping through the aperture may illuminate the glass plate B, on which the name or number of the locomotive is placed. These glass plates or panels B are guided in suitable manner at the inside of the sides of the case, back of the openings in the same, and ground on one side, and painted black with

the exception of the outlines of the figures or letters, which are left clear, so that the light can shine through them for illuminating the figures.

The inside of the head-light case and the back of the reflector are painted white, so that the light is not absorbed, but utilized for the purpose of illuminating the glass panels. In place of the glass panels, the figures may be cut out of the sheet-iron case, and a plain glass slide placed back of the same, by which the desired illumination can be obtained. The desired illumination may also be obtained in other manner, as I do not confine myself to the special modes given.

By the use of such locomotive head-lights the running of night-trains is facilitated, as the number or name of the locomotive is readily furnished for the information of dispatchers and operators in telegraph-offices and on block signals.

I am aware that locomotive head-lights having figures or names located in front of the lantern-case and reflector have before been known and used; and also that a patent was granted to Mills, Bell, and Carey, January 4, 1876, No. 171,843, in which transparencies are described as being illuminated through openings formed in the sides of the reflector. I do not therefore broadly claim the use of a locomotive head-light for signaling purposes.

What I do claim as my invention is—

A locomotive head-light having transparencies in the sides of the lantern-case for signaling purposes, said transparencies being located in the upper portion of the lantern above the reflector so as to be illuminated by the rays of light which pass through the opening formed in the reflector for the passage of the lamp-chimney, substantially as set forth.

WILLIAM FORSYTH.

Witnesses:

JNO. W. CLOUD,
CHAS. B. DUDLEY.