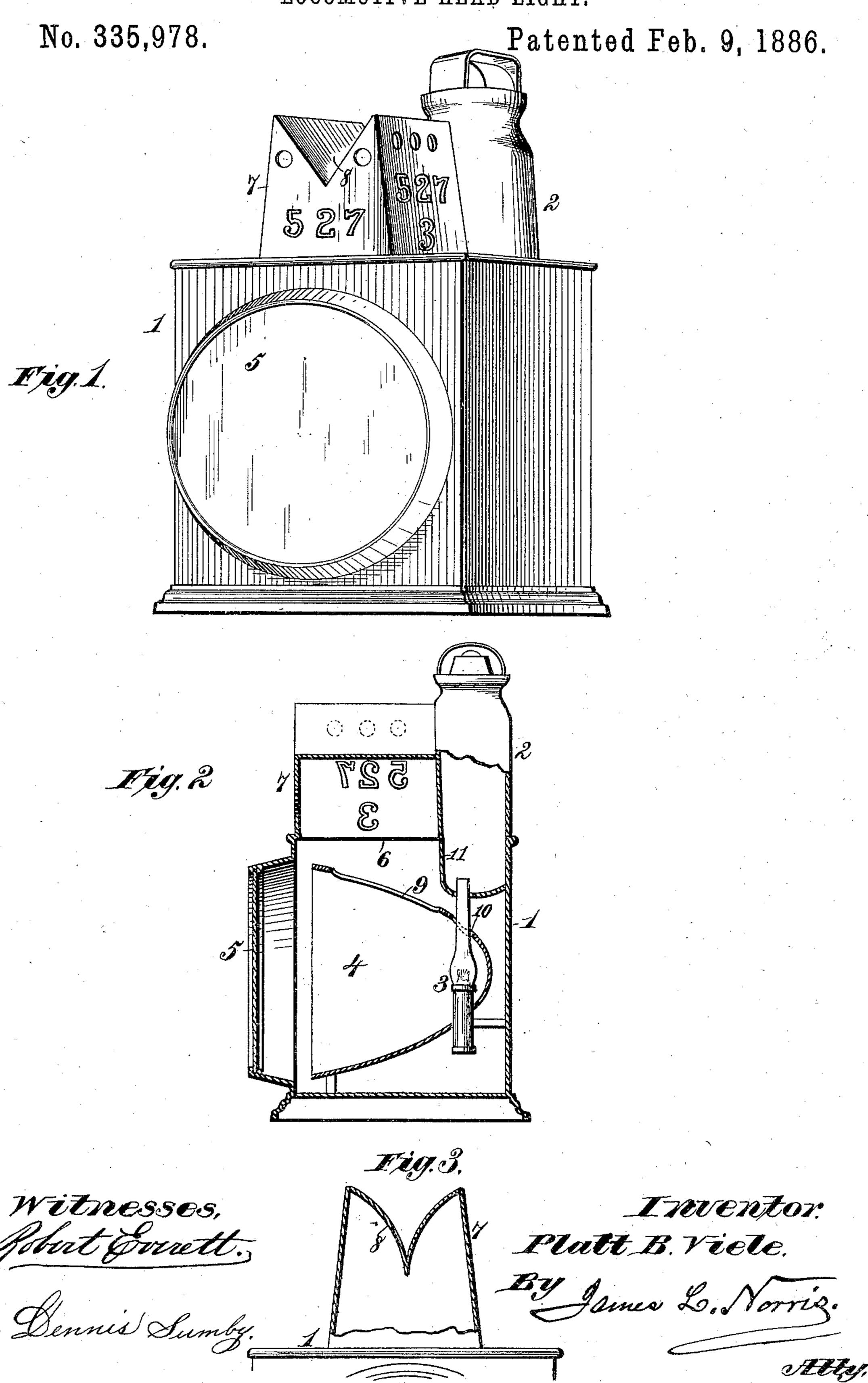
## P. B. VIELE.

## LOCOMOTIVE HEAD LIGHT.



## United States Patent Office.

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## LOCOMOTIVE HEAD-LIGHT.

SPECIFICATION forming part of Letters Patent No. 335,978, dated February 9, 1886.

Application filed June 27, 1885. Serial No. 169,986. (No model.)

To all whom it may concern:

Be it known that I, PLATT B. VIELE, a citizen of the United States, residing at Rochester, in the county of Monroe and State of New York, have invented new and useful Improvements in Locomotive Head-Lights, of which the following is a specification.

This invention relates to locomotive headlights, the object being to provide a convenient mode of displaying signal-lights, together with the number of the locomotive and train, without cutting through the sides of the head-light

case and main reflector.

The invention consists in the combination, with a head-light case, of a superimposed open-bottomed hood of peculiar construction containing reflectors and having suitable openings for displaying signals and train and locomotive numbers, said hood and its reflectors being arranged to receive light from the main reflector through a longitudinal slot in the upper part thereof and through an opening in the top of the head-light case, over which the hood is placed.

My invention also consists in the construction and combination of parts, as hereinafter

more fully set forth.

In the annexed drawings, illustrating my invention, Figure 1 is a perspective view of my improved head-light for locomotives. Fig. 2 is a vertical longitudinal section of the locomotive head-light; and Fig. 3 is a vertical transverse section of the same, showing a modification.

35 The reference-numeral 1 denotes an ordinary head-light case, having chimney 2, lamp 3, reflector 4, and glass face 5. In front of the chimney 2, and placed over an opening, 6, in the top of the case 1, is an open-bottomed 40 hood, 7, having approximately the form of a double wedge, or somewhat resembling in cross-section the form of a capital letter M or an inverted W. The central V-shaped portion of this hood consists of reflectors 8, that 45 are inclined upward and outward toward the inclined outer sides of the hood. Instead of the reflectors 8 having a plane surface, they may, if desired, be more or less curved, either convexly or concavely, the double concave 50 form, as shown in Fig. 3, being preferred, in

which the reflectors have in cross section somewhat the form of an inverted bell.

In the inclined sides of the hood 7, and also in its vertical front, are openings for displaying, through glass or otherwise, the number of 55 the train and locomotive, together with any required signal. These signals and numbers may be indicated by any suitable characters or devices.

The main reflector 4 in the head-light case 1 60 is provided with a longitudinal slot, 9, that may or may not communicate with the circular aperture 10, through which the lamp-chimney passes. Through the slot 9, which is about an inch wide, (more or less,) a sufficient quan- 65 tity of light will pass from the lamp and main reflector to the hood and its reflectors 8, to clearly and fully illuminate the signals and numbers displayed on the front and sides of said hood. On looking into the main reflector 70 from the front of the head-light case it will be seen that the slot 9, which extends upward and forward, comes in a direct line with the lamp-chimney, and as this slot is comparatively narrow it will not cause any material 75 diminution in the illuminating power of the head-light.

The opening 6 in the casing 1, over which the hood 7 is placed, may be nearly as wide and long as the hood, which is secured in place 80 over said opening by any suitable means.

It is obvious that the exterior form of the open-bottomed hood 7 may be modified, and it may be provided with a flat, rounded, or other formed roof without affecting the arrange- 85 ment of its internal reflectors.

In order to prevent the smoke from the lamp getting into the body of the casing 1, and thence into the hood 7, where it would be likely to smut and obscure the signal glasses or plates, I 90 provide the lower end of the chimney-casing 2 with a shield, 11, having an opening through which the lamp-chimney 12 passes.

What I claim is—

1. The combination, with a locomotive head- 95 light case having an opening in its top and provided with a reflector having a slot in its upper portion, of a hood placed over the opening in the top of said case, and having reflectors and openings for displaying signals or 100 numbers, or both, substantially as described.

2. The combination, with a locomotive headlight case having an opening in its top and provided with a reflector having a longitudi-

nal slot in its upper portion, of an open-bottomed hood secured to the top of said case and having the form of a double wedge, with openings for displaying numbers or signals, and 5 reflectors arranged longitudinally in the center of said hood, substantially as described.

3. The combination, with a locomotive headlight case having an upper opening and provided with a reflector having a longitudinal 10 slot in its upper portion, of a hood located over the opening in the top of said case and provided with openings for displaying signals or numbers, or both, and a double concave reflector placed centrally beneath the top of said | presence of two witnesses. 15 hood, substantially as described.

4. In a locomotive head-light, the combination of the casing 1, having an opening, 6, in its top, the lamp 3, the main reflector 4, having a slot, 9, in its upper portion, and the hood

7, placed over the opening in the top of the 20 head-light case, and provided with reflectors 8, and front and side openings for displaying signals and numbers, substantially as described.

5. The combination, with a locomotive head- 25 light case having an opening in its top and provided with a reflector having a longitudinal slot in its upper portion, of a hood placed over the opening in the top of said case, and having openings for displaying signals or num- 30 bers, or both, substantially as described.

In testimony whereof I affix my signature in

PLATT B. VIELE.

Witnesses:

WM. H. FARRAND, WM. E. CRAIB.