W. H. & A. E. BRIGGS.

Locomotive Head-Light.

No. 164,516. Patented June 15, 1875.

Fig. 1

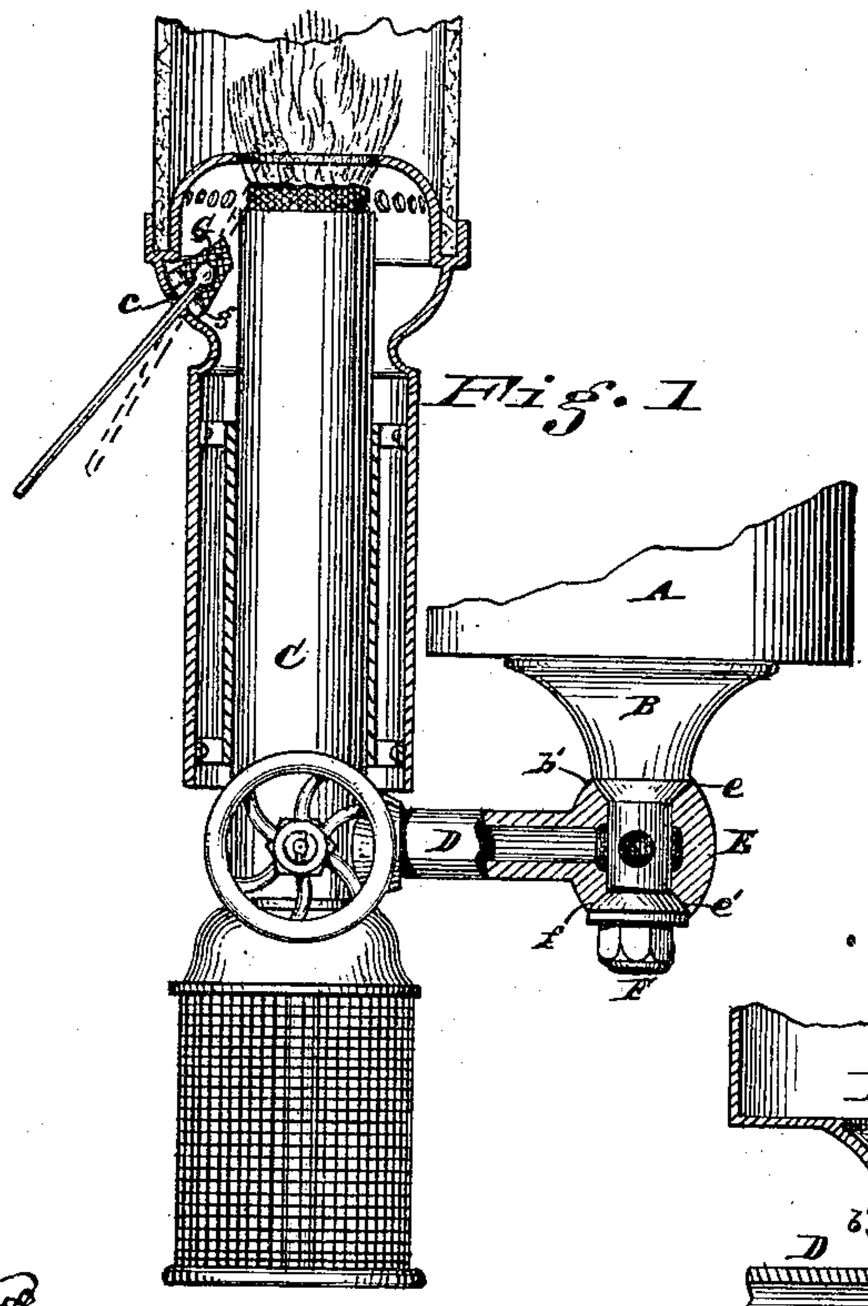


Fig. 2

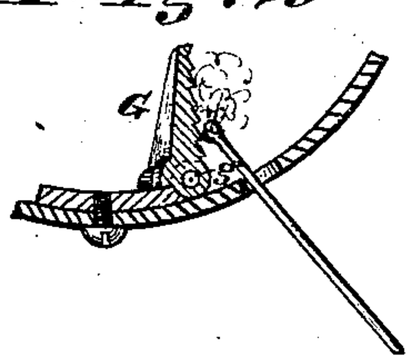


Fig. 3

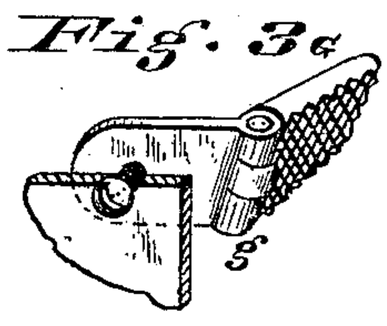
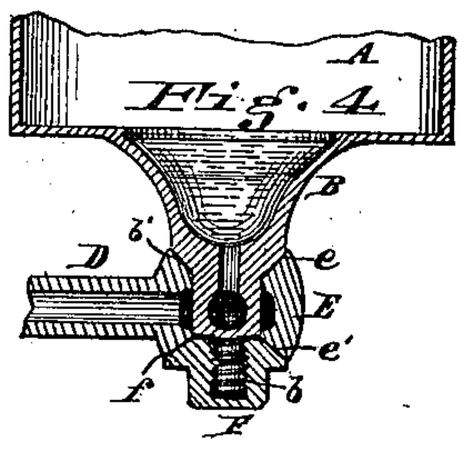


Fig. 4



Attest

Edgar J. Gross

John E. Jones

Inventors.

W. H. & A. E. Briggs

By F. Millward

Attorney

THE GRAPHIC CO. PHOTO-LITH. 39 & 41 PARK PLACE, N.Y.

UNITED STATES PATENT OFFICE.

WILLIAM H. BRIGGS, OF CHICAGO, ILLINOIS, AND ARTHUR E. BRIGGS, OF CINCINNATI, OHIO, ASSIGNORS, BY MESNE ASSIGNMENTS, TO JOSEPH BRIGGS AND POST & CO., OF CINCINNATI, OHIO.

IMPROVEMENT IN LOCOMOTIVE HEAD-LIGHTS.

Specification forming part of Letters Patent No. **164,516**, dated June 15, 1875; application filed March 6, 1875.

To all whom it may concern:

Be it known that we, WILLIAM H. BRIGGS and ARTHUR E. BRIGGS, respectively of Chicago, Cook county, Illinois, and Cincinnati, Hamilton county, State of Ohio, have invented an Improvement in Locomotive Head-Lights, of which the following is a specification:

Our invention consists, in the first part, of a peculiar device by which the burner is attached to the reservoir-shank, to admit of ready detachability of the burner for repairs, cleaning reflectors, &c.; and our invention consists, in the second part, of a peculiar construction of the match-striker at the jet end of the burner, by which, when the match is withdrawn, the aperture by which it enters and passes out is automatically closed to prevent the passage of drafts to interfere with the light.

Figure 1 is a side view, partly in section, of a burner embodying our invention. Fig. 2 is a section through the upper part of the burner, showing the match-striker open. Fig. 3 is a perspective view of the match-striker open. Fig. 4 is a section through the joint, which connects the burner with the reservoir.

A represents a portion of the customary reservoir, which is usually supported on the bottom of the frame of the head-light. B is the hollow shank of the reservoir, soldered to the bottom of the reservoir. C is the wick-tube of the burner, and D the tube, through which the oil is fed to the wick. This tube is formed at the end with an enlarged socket, E, having two seats, *e e'*. The shank B of the reservoir has a cross-aperture to communicate with the tube D, and a screw-threaded shank, *b*, for the tightening-nut F. The nut F has a ground conical face, *f*, to fit the seat *e*, and the shank B has a similar conical face, *b'*, to fit the seat *e'*.

The act of drawing up the nut F suffices to close the conical faces upon the seats, so as to make a close joint and prevent leakage of oil. The conical joints thus formed give convenience for grinding, and avoid the necessity of the use of gaskets to make them tight, for the conical form will make them so even, though the faces of the shank and nut are not true with each other and with the seats of the joints.

The match-striker consists of a plate of metal, G, having a roughened surface, as shown, arranged in close proximity to the exposed wick of the burner. It is, as heretofore customary, located in line with an aperture, *c*, in the outer case, so that when the match is pushed in it may impinge against the roughened surface with sufficient force to ignite the match, the close proximity of which to the wick serves also to ignite the wick.

In the ordinary construction of such strikers the roughened plate is an immovable structure, and the hole *c* is always open and liable to admit draft, highly injurious to the light. To remedy this we attach the plate G to the inside of the outer case of the burner by hinges *g*, the pivot of which is inclined, as shown in Fig. 3, so as to cause the plate G, when not forced open by the match, to fall, by gravity, over the opening *c*, and thus prevent the passage of air through the aperture. In the act of striking, the match forces the plate open, until it is stopped at the proper angle (shown in Fig. 2) by the stops on the hinges.

We claim—

1. The combination of shank B and pipe D, the former having tapering joint-face *b'* and tapering nut F *f*, and the latter two tapering seats, *e e'*, to match, substantially as and for the purpose specified.

2. The match-striking plate G, hinged angularly behind aperture *c*, substantially as and for the purpose specified.

In testimony of which invention we hereunto set our hands.

WILLIAM H. BRIGGS.
ARTHUR E. BRIGGS.

Witnesses as to W. H. BRIGGS:
GUSTAV WEBER,
HENRY MEYER.

Witnesses as to A. E. BRIGGS:
JNO. C. ANTHONY,
M. O. ANTHONY.