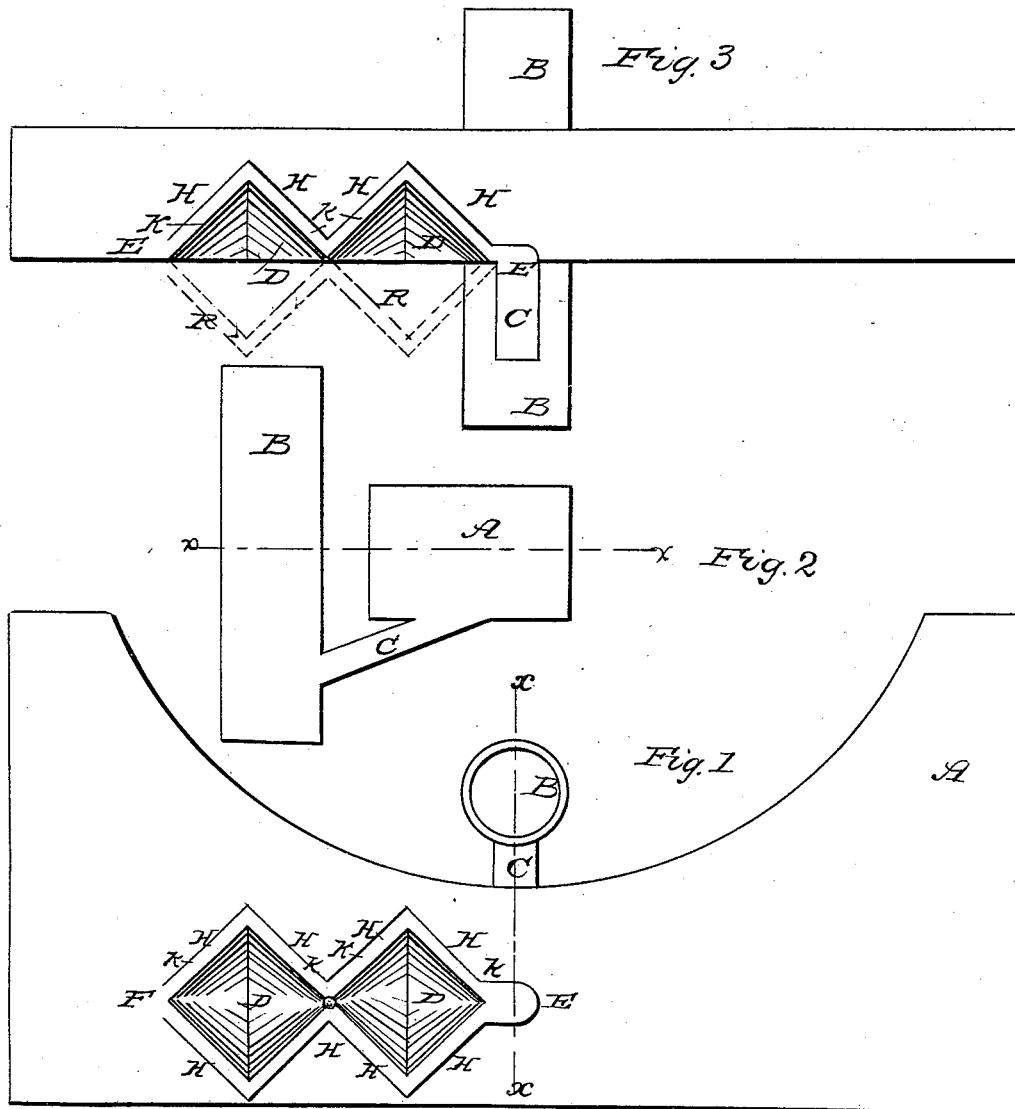


S. M. DAVIES.

Locomotive Head Light.

No. 46,998.

Patented March 28, 1865.



Witnesses
Jas A. Cowles
Carl Gayles

Inventor
S. M. Davies.

UNITED STATES PATENT OFFICE.

S. M. DAVIES, OF CHICAGO, ILLINOIS.

IMPROVEMENT IN ENGINE HEAD-LIGHTS.

Specification forming part of Letters Patent No. 46,998, dated March 28, 1865.

To all whom it may concern:

Be it known that I, S. M. DAVIES, of the city of Chicago, county of Cook, and State of Illinois, have invented a new and Improved Mode of Constructing Locomotive Head-Lights; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, and to letters of reference marked thereon.

The nature and object of my invention is to provide the oil-chamber of a locomotive head-light with a series of cones or semi-cones and frustums of cones or semi-frustums of cones, so arranged, one within another, leaving a space between the two, through which the oil passes as it is fed to the light so as to afford a continuous and uniform flow of oil to the wick-tube, notwithstanding the disturbing influences to the oil caused by the motion of the locomotive.

Figure 1 is a top view of the interior of the oil-chamber. Fig. 2 is a vertical section of the oil-chamber, taken through the line *xx*, Fig. 1. Fig. 3 is a vertical longitudinal section of the same.

Similar letters of reference in the different figures refer to similar parts.

A A, Fig. 1, is the oil-chamber.

B is the wick-tube.

C is the oil-passage leading from the oil-chamber to the wick-tube.

D D D D are semi-cones cut longitudinally through the center and laid with the flat surfaces down upon the bottom of the oil-chamber and their bases adjacent to each other. The apexes of two of these cones are so laid upon the bottom of the oil-chamber as to unite at *o*.

H H H H are a series of semi-frustums of cones, constructed in similar style with D D, but with a broader base. These semi-frustums of cones H H H H are placed immediately over the semi-cones D D D D, and, hav-

ing a broader base, a space, *kkkk*, is left surrounding the semi-cones D D D D.

E is where the passages *kkkk* unite in one and connect with the oil-passage C, which leads to the wick-tube B. The position and location of the oil-passage C is more distinctly shown at C, Fig. 2. The cones D D D D and the frustums of cones H H H H need not from necessity be halves of each, but may be entire and located as shown at the red dotted lines R R, Fig. 3, the lower halves extending below the bottom of the oil-chamber.

The operation of my invention is as follows: The oil is placed in the oil-chamber A A. At F the passages *kkkk* unite with the interior of the oil-chamber. This admits of a free passage of the oil into the passages *kkkk*, through which it passes, and at E it passes into the oil passage C, which carries it into the wick tube B, where it is evenly and uniformly fed to the wick. The use and combination of the cones or semi-cones D D D D with the frustums of cones or semi-frustums of cones H H H H, as shown, insures a uniform flow of oil to the wick-tube.

I do not claim the use and employment of serpentine or zigzag tubes. They are shown and claimed by Thomas Newland.

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

1. The use and employment of the semi-cones D D D D, for the purpose and in the manner described.

2. The use and the employment of the semi-frustums of cones H H H H, in the manner and for the purpose described.

3. The combination of semi-cones D D D D with the semi-frustums of cones H H H H, in the manner and for the purpose described.

S. M. DAVIES.

Witnesses:

J. A. COWLES,
CAROL GAYTES.