C. T. HAM.

Locomotive Head-Light.

No. 197,932. Patented Dec. 11, 1877.

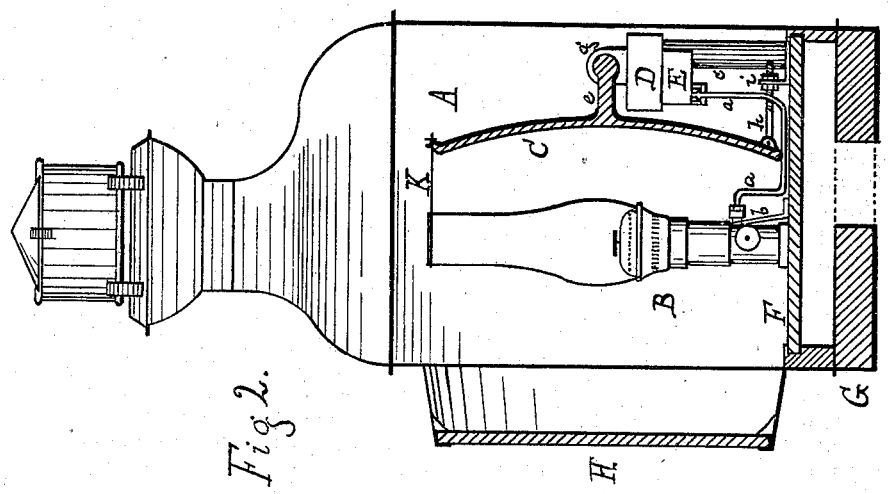

Fig. 2.

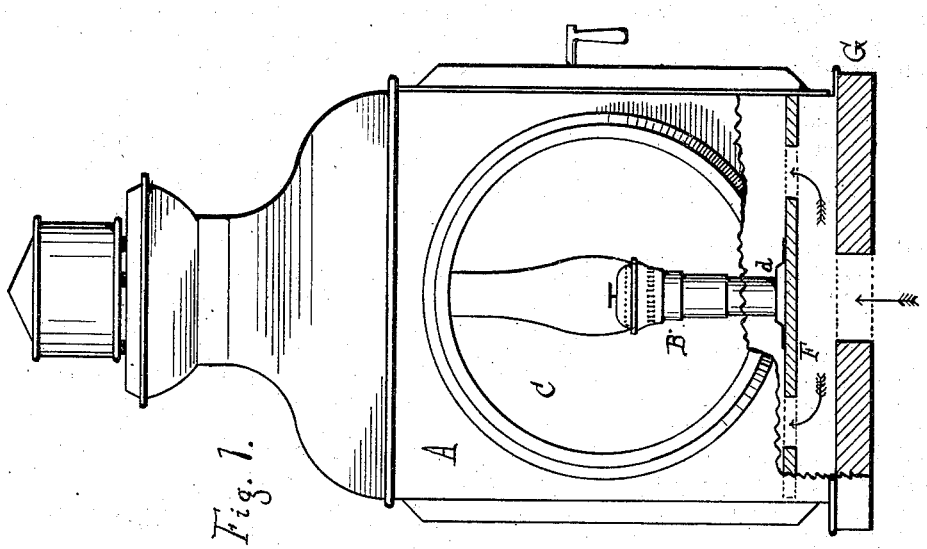

Fig. 1.

WITNESSES:

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UNITED STATES PATENT OFFICE.

CHARLES T. HAM, OF ROCHESTER, NEW YORK.

IMPROVEMENT IN LOCOMOTIVE HEAD-LIGHTS.

Specification forming part of Letters Patent No. **197,932**, dated December 11, 1877; application filed November 23, 1877.

To all whom it may concern:

Be it known that I, CHARLES T. HAM, of the city of Rochester, in the State of New York, have invented an Improvement in Locomotive Head-Lights, of which the following is a specification:

My invention consists in the combination of a burner and reflector, arranged as described, with an oil-reservoir behind the reflector, which supplies the burner through a tube passing below and around the edge of the reflector.

It also consists in the combination of the parts just mentioned, and arranged as described, with a board sliding in and out of the head-light case through a door in the side thereof.

It also consists in the combination of the aforesaid burner, reflector, and reservoir with a perforated sliding board and a perforated bottom board, arranged as hereinafter described, to afford a steady supply of air to the burner.

In the accompanying drawings, Figure 1 is a front elevation, partly in section, of a locomotive head-light embodying my invention. Fig. 2 is a central longitudinal section of the same.

A A, Figs. 1 and 2, is the outer case of my improved head-light. B is the burner, and C the reflector.

The burner B may be of ordinary construction, and it is supplied from the reservoir D, Fig. 2, through a feed-pipe, *a*, which passes down below the reflector, and rises in front of it to connect with the burner B. This pipe is attached to the reservoir and the burner by a core-joint at each of its ends, so that the burner or pipe may be readily removed.

For the purpose of securing a steady flow of oil, the reservoir D may be provided with a supplementary reservoir, E, with the reservoir D above it, through a small opening in the bottom of the latter. A suitable bracket, *b*, Fig. 2, steadies the burner B. The air to supply the interior of the burner passes into the lower end of the same under the bent sustaining-plate *b*. The reservoir D is supported on a suitable standard rising from the slide-board F, one of which is seen at *c*, Fig. 2. The reflector C is hinged in a socket, *g*, Fig. 2, upon the upper side of the reservoir, by a rod attached to the back of the reflector. Near the lower edge of the reflector a threaded rod, *h*, is attached to it by a suitable joint. This rod passes through a bracket, *i*, secured to the slide-board F, and by means of nuts on each side thereof the position of the reflector may be adjusted in a vertical direction, so as to throw the light upon the track at any desired distance in front of the engine.

The chimney is supported at its upper end by a spring, K, which is attached to the top of the reflector by a screw passing through a slot in the spring, so that the chimney can be always kept in a vertical position.

An opening is made to admit air through the center of the base-board G. This opening is covered with perforated sheet metal.

Similar openings, also covered with perforated metal, are made through the slide-board F, but at or near the ends thereof. By this means the air entering the case of the light is compelled to pass through the chamber formed between the two perforated boards, and a steady supply of air is obtained.

The front of the light is protected by a circular glass plate, H, Fig. 2, in the ordinary manner.

I claim—

1. The combination of the burner B, reflector C, reservoir D, and supply-tube *a*, arranged and operating substantially as described.

2. The combination of the burner B, hinged reflector C, and adjusting-screw *h*, arranged to operate substantially as described.

3. The combination of the burner B, hinged reflector C, reservoir D, supply-pipe *a*, and the slide-board F, substantially as described.

4. The combination of the burner B, hinged reflector C, reservoir D, supplementary reservoir E, and supply-tube *a*, substantially as described.

5. The combination of the burner B, hinged reflector C, reservoir D, perforated slide-board F, and perforated base-board G, substantially as described.

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Witnesses:

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