No. 812,982. PATENTED FEB. 20, 1906.

H. M. DAVENPORT.

HEADLIGHT COVER.

APPLICATION FILED MAR. 3, 1905.

FIG. 1.

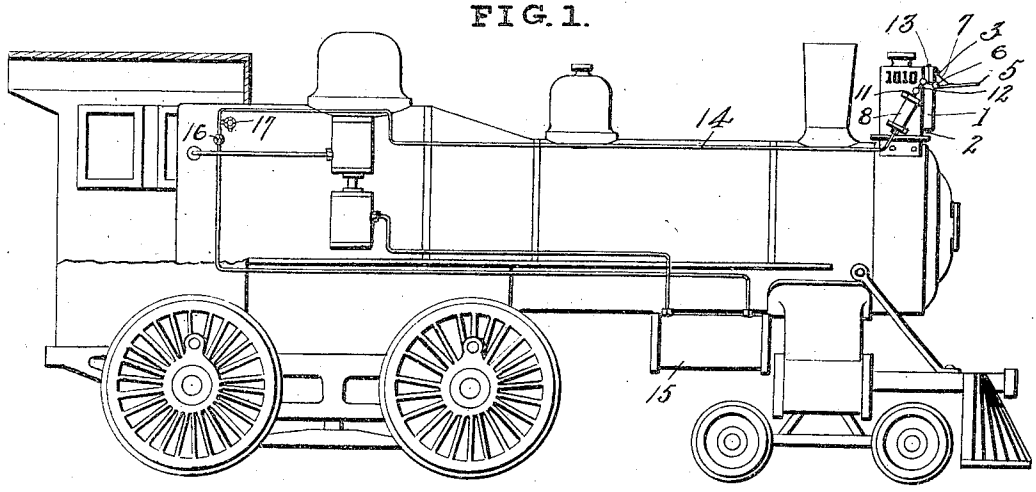


FIG. 2.

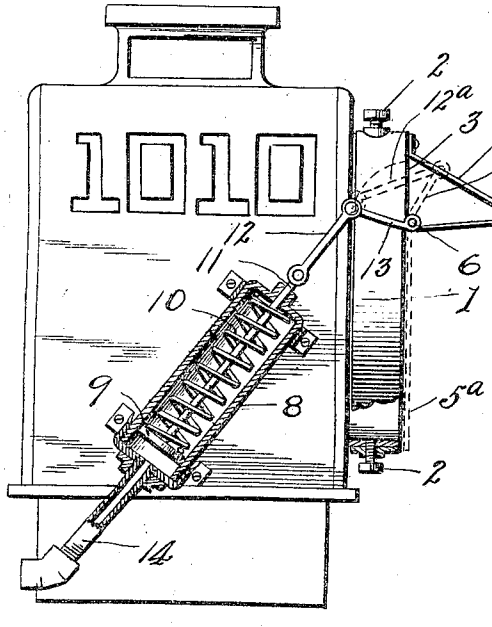
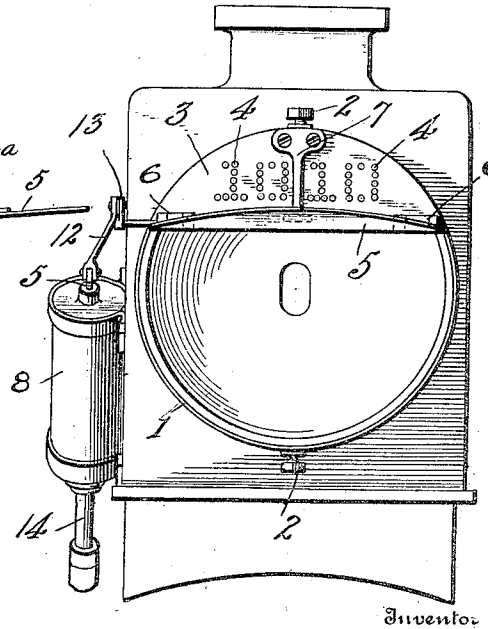


FIG. 3.



Witnesses

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UNITED STATES PATENT OFFICE.

HARVEY M. DAVENPORT, OF SHERIDAN, WYOMING.

HEADLIGHT-COVER.

No. 812,982. Specification of Letters Patent. Patented Feb. 20, 1906.

Application filed March 3, 1905. Serial No. 248,313.

To all whom it may concern:

Be it known that I, HARVEY M. DAVENPORT, a citizen of the United States, residing at Sheridan, in the county of Sheridan and State of Wyoming, have invented certain new and useful Improvements in Headlight-Covers, of which the following is a specification.

My invention relates to headlights, and especially to headlights provided with covers to close the opening by fluid-pressure. It is well known that in the operation of single-track railway-lines when one train is side-tracked to permit the passage of another train it is necessary to extinguish the headlight of the side-track locomotive or to cover the opening. The headlights commonly in use are provided with a sheet-metal hinged cover which is closed by an operative going from the cab along the "running-board" to the front of the locomotive and closing the cover by hand. In inclement weather the closing of the headlight-cover becomes a very disagreeable task and is therefore sometimes omitted, to the confusion and possible accident to traffic.

It is the object of my invention to provide a headlight-cover and means whereby the cover may be opened and closed from the cab by the use of steam-pressure from the boiler or air-pressure from the storage-tank.

A further object of my invention is to provide a fluid-operated cover for headlights which may be readily applied to headlights of the ordinary construction and in common use.

With these and other objects in view the present invention consists in the combination and arrangement of parts, as will be hereinafter more fully described, shown in the accompanying drawings, and particularly pointed out in the appended claims, it being understood that changes in the form, proportion, size, and minor details may be made within the scope of the claims without departing from the spirit or sacrificing any of the advantages of the invention.

In the drawings, Figure 1 is a view in side elevation of a locomotive upon which a headlight is mounted provided with my improved fluid-pressure-operated cover, with the cab shown in section, with a means for operating the cover by controlling the fluid-pressure from the cab. Fig. 2 is a view in side elevation of my improved headlight-cover mounted upon a headlight, showing the operating-cylinder in section and the attaching-band broken away. Fig. 3 is a view in front elevation of a headlight with my improved cover mounted thereon.

Like characters of reference designate corresponding parts throughout the several views.

In its preferred embodiment my headlight-cover comprises a band 1, proportioned to be placed upon and embrace a bezel of a headlight-glass and provided at a plurality of points with means for clamping the bezel, as the set-screws 2. The upper part of the band 1 is provided with a segmental cover 3, permanently secured thereto and provided with perforations 4 in the form of figures to indicate the number of the locomotive bearing the headlight. To the segmental cover 3 is hinged a cover 5, proportioned to cover that portion of the headlight-glass not covered by the segmental cover 3 and carried upon horizontally-disposed hinges 6. At any convenient point, as the upper portion of the segmental plate 3, may be disposed a brace 7, arranged to limit the upward movement of the hinged cover 5, so that when contacting with the brace 7 the hinged cover 5 is disposed in approximately a horizontal plane.

To the side of the headlight-body is secured in any convenient manner a cylinder 8, within which is disposed a reciprocating piston 9 and a coiled spring 10, arranged to hold the piston normally at the extreme of its inward movement. A piston-rod 11 extends from the piston 9 through the end of the cylinder 8, and a link 12 connects the piston-rod 11 with a crank-arm 13, rigidly secured to the hinge-rod of the cover 5. A pipe 14 communicates with the cylinder 8 and with a source of fluid-pressure, as the storage-tank 15, and in its course passes through the cab of a locomotive. The pipe may be provided with any approved means for controlling the flow of a fluid within said pipe, as the cock 16, arranged to permit the flow of fluid through the pipe 14 into the cylinder 8, and the bleeder 17, to permit the escape of the compressed fluid.

The operation of my improved headlight-cover is as follows: The several parts will be normally arranged as shown in the several figures of the drawings, with the cover member 5 held in a raised position in contact with the brace 7 by the tension of the spring 10. When it is desired to close the cover, the cock 16 may be opened, permitting fluid from the source of supply to flow through the pipe 14

into the cylinder 8 and acting therein upon the piston 9 will produce a longitudinal movement of the piston against the tension of the spring, causing the crank 13 to move about the hinge 6 as a center to the position 13^a, closing the cover 5, as indicated at 5^a. So long as it is desirable to maintain the cover in a closed position the fluid-pressure may be maintained within the cylinder. When it is desired to open the cover 5, the cock 16 is closed and the bleeder 17 opened, permitting the escape of the fluid from the piston 8 under the tension of the spring 10, and the strain exerted by the spring 10 will return the cover to its normal position.

While I have shown the movable cover hinged to a stationary cover-plate, it is obvious that the movable cover may be a complete disk and hinged in any convenient manner. While I have shown the cylinder 8 as being obliquely disposed upon the body of the headlight, thus exposing to view the illuminated numbers which are almost universally carried by headlights, it is obvious that the cylinder may be arranged horizontally along the upper part of the headlight-body or may be arranged vertically along the front edge and that numerous other changes may be made in the form and arrangement of the several members constituting my improved headlight without departing from the spirit of my invention or the scope of the claims.

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

1. In a device of the character described, a band adapted to embrace and be secured about the bezel of a locomotive-headlight glass, a segmental cover permanently secured thereto, a movable cover hinged to the segmental cover and normally open, a cylinder, a piston disposed within the cylinder, a lever rigidly connected to the hinged cover, a link pivoted to the said lever and to the piston, a source of fluid-pressure, and means for admitting the fluid-pressure to the cylinder to close the said hinged cover.

2. In a device of the class described, the combination of a headlight, a source of fluid-pressure, a hinged cover adapted and arranged to be removably secured to the bezel of a headlight, and to be swung upward to uncover the light, a brace adapted to limit said upward movement, a cylinder attached to the headlight-body, a piston slidably mounted within the cylinder, a pivoted link connecting the piston and a rigid arm carried by the cover whereby the reciprocation of the piston opens and closes the cover, a spring mounted within the cylinder and disposed to hold the piston at the extreme of its movement, pipes connecting the cylinder and source of fluid-pressure, a valve disposed to admit fluid under pressure to the cylinder to move the piston and close the cover, and means to permit the escape of the air from the cylinder to permit the spring to act.

3. The combination with a headlight of a removable cover consisting of a band and means for securing said band to the bezel of said headlight, a cover hinged to the band and an arm to limit the swing of said cover, a cylinder and motive-fluid inlet thereto, a spring-pressed piston within the cylinder, a lever-arm attached to the hinged cover, and a link connecting said arm and the piston-stem.

4. The combination with a headlight of a removable band and screws for securing said band to the bezel of the headlight, a cover over the band having a hinged portion, an arm projecting from the cover to limit the movement of the hinged portion, a cylinder secured to the headlight and connected with an air-drum, means for admitting air to said cylinder, a piston within the cylinder, a lever-arm attached to the hinged cover, and a link connecting said arm and the piston-stem.

5. The combination with a locomotive-headlight of a band and means for securing the same to the bezel of the light, a cover over the band having a stationary and a hinged portion, means for opening the hinged portion upward away from the light, and perforations in the stationary portion of the cover identifying the locomotive.

In testimony whereof I affix my signature in presence of two witnesses.

HARVEY M. DAVENPORT.

Witnesses:
H. E. ZULLIG,
R. L. MOSS.