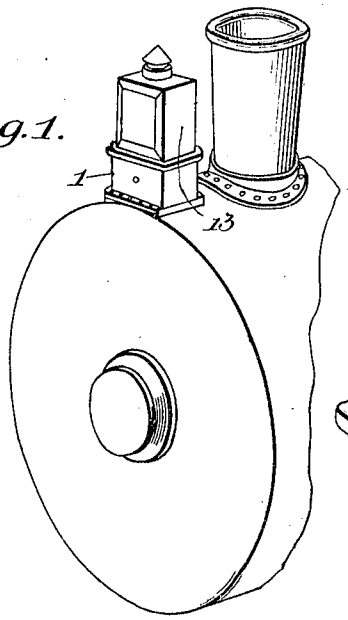
G. T. WILLIAMS & T. L. HARRIS.

HEADLIGHT SUPPORT.

APPLICATION FILED FEB. 8, 1909. RENEWED JAN. 19, 1910.

956,011. Patented Apr. 26, 1910.

Fig. 1.



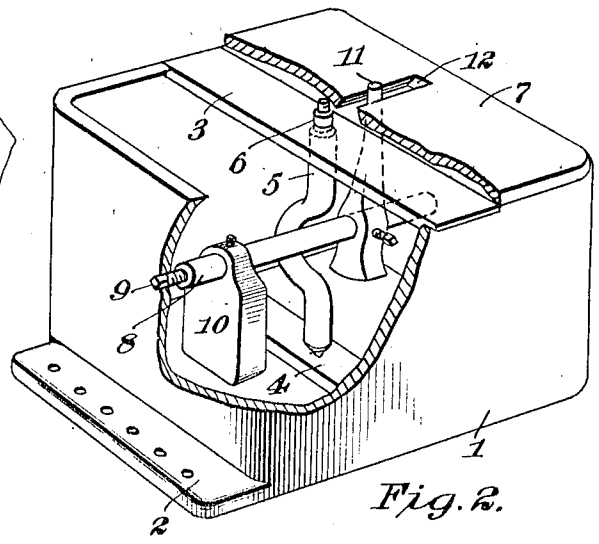


Fig. 2.

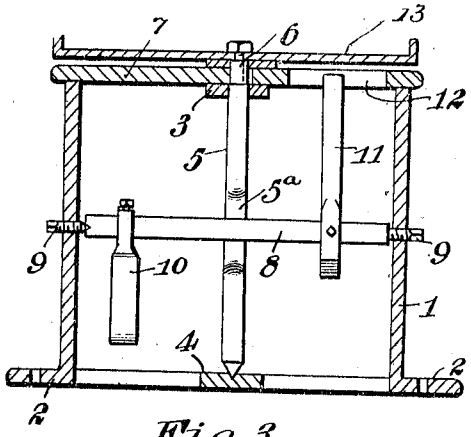


Fig. 3.

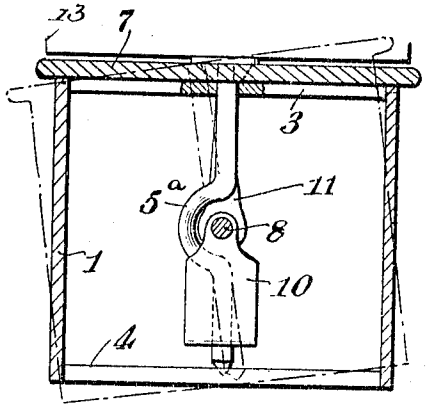


Fig. 4.

Witnesses

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UNITED STATES PATENT OFFICE.

GEORGE T. WILLIAMS AND THOMAS L. HARRIS, OF BANKS, ALABAMA.

HEADLIGHT-SUPPORT.

956,011. Specification of Letters Patent. **Patented Apr. 26, 1910.**

Application filed February 8, 1909, Serial No. 476,699. Renewed January 19, 1910. Serial No. 538,913.

To all whom it may concern:

Be it known that we, GEORGE T. WILLIAMS and THOMAS L. HARRIS, citizens of the United States, residing at Banks, in the county of Pike and State of Alabama, have invented certain new and useful Improvements in Headlight-Supports, of which the following is a specification.

This invention comprehends certain new and useful improvements in supports for locomotive headlights, and the invention has for its object, a simple and efficient construction of device of this character which will operate automatically to turn the headlight relatively to the locomotive when the latter is going around curves so as to shed the light to the best advantage, the device acting automatically and not in connection with the trucks.

With this and other objects in view, as will more fully appear as the description proceeds, the invention consists in certain constructions, arrangements and combinations of the parts that we shall hereinafter fully describe and claim.

For a full understanding of the invention, reference is to be had to the following description and accompanying drawings in which:

Figure 1 is a perspective view illustrating an improved locomotive headlight supporting device; Fig. 2 is a similar view thereof on an enlarged scale, parts being broken away; and, Figs. 3 and 4 are vertical sectional views taken at right angles to each other.

Corresponding and like parts are referred to in the following description and indicated in all the views of the accompanying drawings by the same reference characters.

Referring to the drawings, the numeral 1 designates a box or casing which is preferably provided at its front and rear edges with base flanges 2 by which it may be secured to the front portion of a locomotive boiler.

3 and 4 designate upper and lower cross bars that are secured to the casing 1, and 5 designates a vertically disposed shaft which is mounted in a step bearing in the lower cross bar 4 and which extends up through, and which is journaled at its upper end in an opening formed in the upper cross bar 3; the upwardly projecting end of the shaft being preferably reduced as indicated at 6.

7 designates a support in the form of a plate or disk to which the locomotive headlight is directly attached said support being mounted upon the upper reduced end of the shaft 5 so as to turn therewith as the shaft is rotated about a vertical axis.

A spindle 8 extends longitudinally and horizontally within the casing 1 and is journaled at its ends in the front and rear walls of the casing to turn about its longitudinal axis, the middle portion of the shaft 5 being bent or curved as indicated at 5^a to permit the spindle to pass across the same, while at the same time to allow of a limited movement of the shaft 5 without any interference by the spindle. The spindle 8 is preferably journaled in bearing pins 9 secured to the walls of the casing 1.

A weight 10 is secured, as by a set screw or the like, as shown, upon the spindle 8 near one end thereof, and an actuating arm 11 is similarly secured to the spindle near the opposite end, said actuating arm projecting upwardly into a slot 12 which is formed in the plate or support 7.

The rotatable plate or turntable 7 is formed with a longitudinally extending slot 12, and it will be noted from Fig. 2 that the arm 11 is adjustably mounted upon the shaft 8 by means of a set screw. This provision permits of an adjustment of the arc of movement of the turntable or plate 7 so that the ratio between the lateral incline of the tracks over which the locomotive is running and the degree of rotation of the plate or turntable 7 may be accurately adjusted. While we may use any form of headlight desired, we have shown a headlight 13 whose base is square, and hence the turntable 7 is also square. It will be obvious, however, that the turntable may be varied in shape to suit the variation in the size of the headlight.

From the foregoing description in connection with the accompanying drawings, it is manifest that in the practical operation of the improved locomotive headlight support, as the locomotive swings around a curve, the outside rail being higher than the inside rail at the curve, will cause the casing 1 to tilt thereby turning the spindle 8 and causing the plate or support 7 to turn in a direction to shed the light to the best advantage. Obviously the weight 10 is sufficiently large to turn the headlight and the plate or support 7 which directly carries it, and it is evident

that the headlight will be held so as to shed its light directly ahead on straight stretches of track, but will instantly respond to the movement of the weight and be turned to the right or to the left as the case may be when the locomotive is going around curves.

It is obvious that a device such as has been hereinbefore described, may be very cheaply constructed and easily assembled and attached to a locomotive boiler in place of the ordinary stationary headlight bracket or support.

Having thus described the invention, what is claimed as new is:

1. A supporting frame for locomotive headlights, including a rotatable plate upon which the headlight is to be mounted, a vertical spindle supporting said rotatable plate, said spindle being outwardly curved between its ends, a horizontal spindle parallel with the longitudinal axis of the locomotive and coincident with a vertical plane cutting said longitudinal axis, a weight depending from the horizontal spindle, and an arm extending upward from said horizontal spindle and engaging the rotatable plate to turn the same upon a rocking movement of said horizontal spindle.

2. A support for locomotive headlights, comprising a casing adapted to be attached to the front end of a locomotive boiler, in line with the longitudinal axis of said boiler, a cross bar on said casing, a plate rotatably mounted on the cross bar and adapted to support the headlight, and a longitudinally extending shaft having an arm upwardly projecting and engaging at its end with said plate, and a weight depending from and attached to said shaft.

3. A locomotive headlight support including a casing adapted to be attached to a boiler of a locomotive at the forward end thereof, cross bars at the top and bottom of said casing, a vertical spindle rotatably mounted in said cross bars, the middle portion of said spindle being outwardly curved, a rotatable plate mounted upon the upper end of the spindle and adapted to support a headlight, and a longitudinally extending shaft received within the outwardly curved portion of the vertical spindle, said shaft having a depending weight and an upwardly extending arm engaging in a longitudinally extending slot in the rotatable plate, said arm being adjustable along the horizontal shaft in order to adjust the arc of rotation of said rotatable plate.

In testimony whereof we affix our signatures in presence of two witnesses.

GEORGE T. WILLIAMS. [L. S.]
THOMAS L. HARRIS. [L. S.]

Witnesses:
CHARLES T. SPRADLEY,
VAN BUREN A. GIBSON.