R. A. WAKEFIELD.

AUTOMATIC GRAVITY PIVOT HEADLIGHT.

APPLICATION FILED MAY 9, 1911.

1,013,706. **Patented Jan. 2, 1912.**

Fig. 1

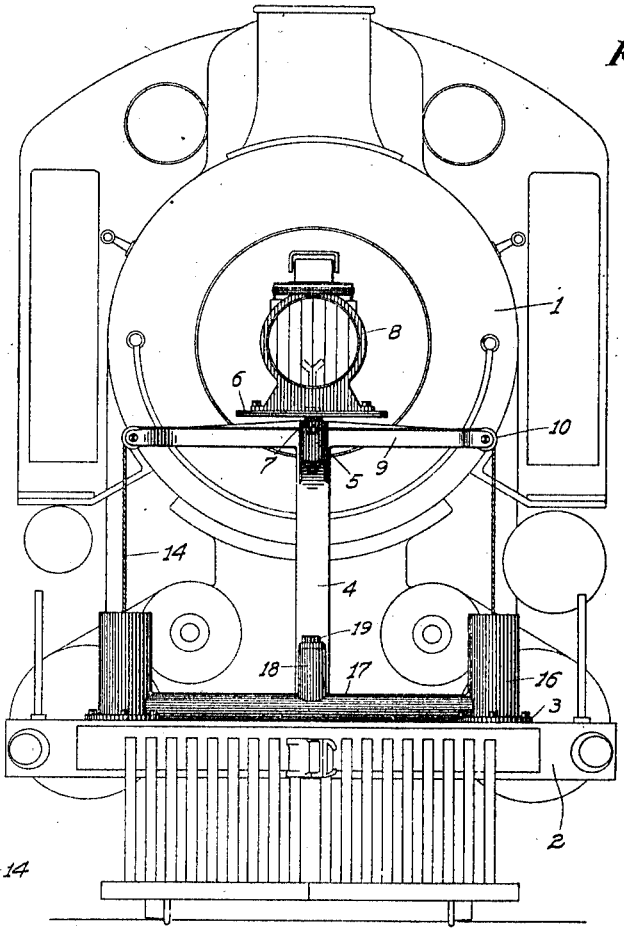


Fig. 2

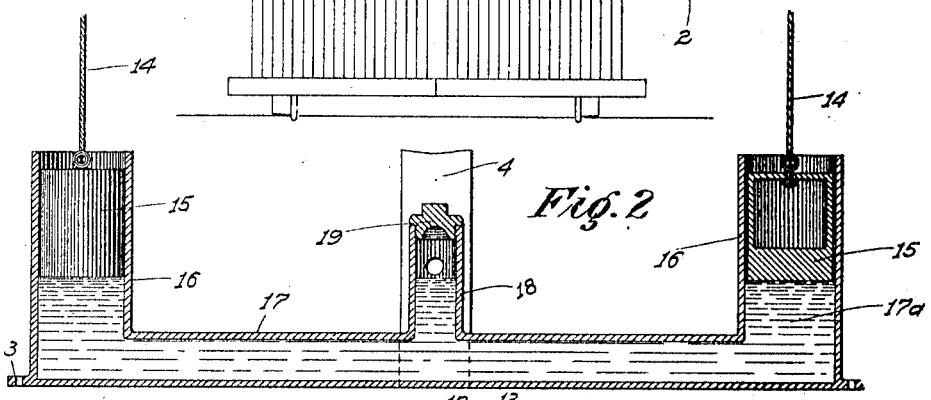
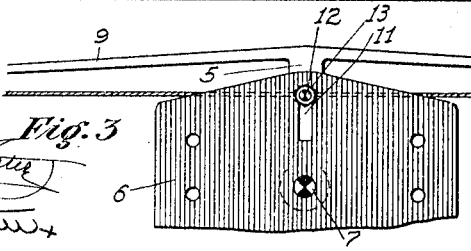


Fig. 3



Witnesses

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AUTOMATIC GRAVITY PIVOT-HEADLIGHT.

1,013,706. Specification of Letters Patent. Patented Jan. 2, 1912.

Application filed May 9, 1911. Serial No. 626,071.

To all whom it may concern:

Be it known that I, RALPH A. WAKEFIELD, a citizen of the United States, residing at Sacramento, in the county of Sacramento, State of California, have invented certain new and useful Improvements in Automatic Gravity Pivot-Headlights; and I do declare the following to be a full, clear, and exact description of the same, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the characters of reference marked thereon, which form a part of this application.

This invention relates to improvements in railway head lights, the object of the invention being to produce such a head light as will be shifting, according to the curvature of the railway, whereby the light will show directly ahead of the locomotive along the track regardless of whether it is traveling on a straight or curved track, thus facilitating the operation of a train line, since a greater speed can be maintained with greater safety by having a light continuously on the track ahead.

With the present commonly used head lights, in striking a curve the light is continually on a tangent to the curve and hence it is impossible for the engineer to know what is ahead of the locomotive on the curved track.

A further object of the invention is to produce a simple and inexpensive device, and yet one which will be exceedingly effective for the purposes for which it is designed.

These objects I accomplish by means of such structure and relative arrangement of parts as will fully appear by a perusal of the following specifications and claim.

In the drawings similar characters of reference indicate corresponding parts in the several views.

Figure 1 is a front elevation of a locomotive showing my improved head light thereon. Fig. 2 is a sectional view of the light shifting mechanism. Fig. 3 is a fragmentary plan view of the platform or turn table upon which the head light is secured.

Referring now more particularly to the characters of reference on the drawing, 1 designates a locomotive, and 2 the front beam thereof.

In applying my improved invention I first provide a platform 3 adapted to be bolted to the beam 2 or to any other suitable place, said platform 3 having an upwardly projecting supporting member 4 provided with an outwardly projecting pivot arm 5. In practice a supporting plate or turn table 6 is provided with a pin 7 pivotally mounted in the outer end of the arm 5, upon which turn table 6 is secured a headlight 8. Projecting laterally on either side of the member 4 are arms 9, having pulleys or rollers 10 in their outer ends.

The platform 6 is provided with a longitudinal slot 11 in which is secured a bolt 12 and nut 13 adapted to be adjusted at any point in said slot 11 whereby the platform 6 may be turned to any degree desired. Secured to the bottom of the bolt 12 is a cable 14 which extends over the pulleys 10 and is provided at each end with a hollow weight 15 movable in vertical tubular members 16. There is a communication from these vertical tubular members 16 by a horizontal tubular member 17, and into said tubular members is filled any desired liquid 17^a, preferably oil, for the reason that it will not freeze or evaporate to any extent.

When the locomotive reaches a curve on the track, the outside rail of the curve is always raised higher than the inside rails, and hence the locomotive sways to the lower side off the perpendicular, which will raise the oil 17^a in the lower one of the members 16, which will cause the member 15 in the other tubular member 16 to sink downward, which will turn the platform 6 according to the curve, and throw the light around the curve instead of at a tangent to the curve as is the case with a stationary light.

18 is an auxiliary central tubular member having a cap 19 and communicating with the member 17 for the purpose of filling in the liquid in said tubular members.

As before pointed out, by shifting the position of the bolt 12, the arc at which the light will swing can be varied.

From the foregoing description it will readily appear that I have produced such a device as substantially fulfils the objects of the invention as set forth herein.

While this specification sets forth in detail the present and preferred construction of the device, still in practice such deviations from such detail may be resorted to as do not form a departure from the spirit of the invention.

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

A device of the character described comprising a locomotive, a frame secured thereon, a swiveled platform on said frame, tubular members secured to said locomotive, liquid in said members, weights movable in said tubular members, and resting on said liquid, and cables connecting said weights with said swiveled platform, as described.

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

RALPH A. WAKEFIELD.

Witnesses:
PERCY S. WEBSTER,
JOSHUA B. WEBSTER.