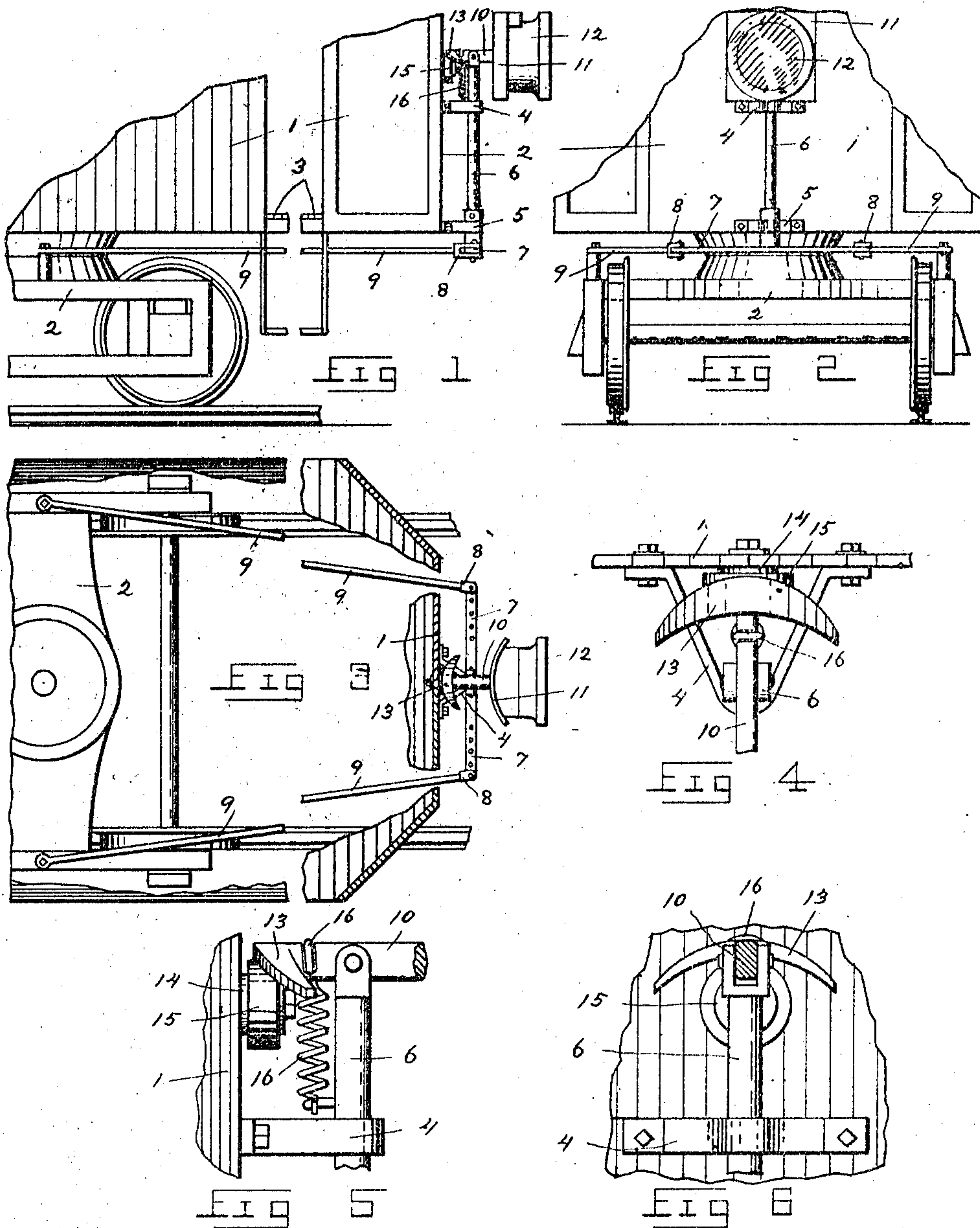


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 AUTOMATIC HEADLIGHT ADJUSTER.
 APPLICATION FILED MAR 22, 1908.

945,369.

Patented Jan. 4, 1910.



WITNESSES:

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AUTOMATIC HEADLIGHT-ADJUSTER.

945,369.

Specification of Letters Patent.

Patented Jan. 4, 1910.

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To all whom it may concern:

Be it known that I, AMOS B. BRACKBILL, a citizen of the United States, residing at Salunga, in the county of Lancaster and State of Pennsylvania, have invented certain new and useful Improvements in Automatic Headlight-Adjusters, of which the following is a specification, reference being had therein to the accompanying drawing.

My invention relates to improvements for automatically operating head-lights for street cars and other vehicles.

The objects of the invention are to provide a head-light bracket mounted upon a new and novel support attached to the car in such a way that as the direction of the vehicle is changed the head-light will be shifted to either side of a center line in such a manner as to follow the curves of the track or road; while by my novel arrangement, at the same time that the light is moved in a horizontal manner, it is also automatically moved in a vertical manner, so that on short curves the light will be deflected downward to fully illuminate the short road-bed, and at greater curves the light will be raised in proportion to the curve to cast its rays at a greater distance from the vehicle.

With these and other objects in view my invention consists in certain construction and combination of parts as will hereinafter be fully described and claimed in the annexed specification and illustrated in the accompanying drawings forming a part of the same, and in which like figures of reference refer to corresponding parts in all of the views, but it is fully understood that while I have here described my invention as herewith illustrated, I do not confine myself to the exact design as shown, as slight changes may be made within the scope of the appended claims without departing from the spirit of the invention.

Referring to the drawings:—Figure 1, is a side elevation of a portion of a car, showing my invention applied thereto. Fig. 2, is a front elevation of the same. Fig. 3, is a top plan view, with portions of the car-body removed. Fig. 4, is a detail top plan view of the device, showing the tilting mechanism. Fig. 5, is a side elevation of the same. Fig. 6, is a front elevation of the same.

In the drawings, 1, indicates the front of the car; 2, the truck; and 3, the platform of the usual street car. Upon the front of the car 1, are secured the bearing brackets 4,

and 5, within which is mounted the shaft 6, which is provided at its lower end with the cross-arm 7, to the ends of which are adjustably secured by the swivel connections 8, the connecting rods 9, which have their other ends secured to the sides of the truck 2, at a point opposite the center or pivot point thereof. Upon the upper end of said shaft 6, is pivoted the rocker-arm 10, which has secured upon its forward end the plate or bracket 11, upon which the head-light 12, is detachably secured in the usual way; while the rear end of said rocker-arm 10, is formed with the T-head arm 13, which is formed with a double curve; the two ends having the downward curve, as shown in Fig. 6, and the forward curve, as shown in Fig. 4. Directly under said curved head 13, and in contact with the under side thereof is secured by a stud plate 14, to the front of the car 1, the roller 15, upon which the head 13, is designed to slide; while for retaining the head 13, in contact with said roller 15, and to balance the weight of the head-light, I provide the spring 16, which has an end secured to said T-head arm 13, and the other end to the shaft 6.

The operation of the device is as follows: As the car reaches a curve in the track, the forward truck is turned to one side or the other; and by the action of the rods 9, which will turn the cross-arm 7, the shaft 6, connected thereto and the rocker-arm 10, thus turning the light in the direction the curve takes, and at the same time the curved T-head arm 13, will be forced upward as its curved surface rides upon the roller 15, thus raising that portion of the arm 10, which is in the rear of its pivot point upon the shaft 6, and thus deflecting its forward end which carries the light downward; so that the greater the curve the more the light will tip, thus illuminating the track in the proper manner.

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

1. The combination with the truck of a car, and a car-body thereon, of a head-light supported upon a rocker-arm pivoted upon a vertical shaft mounted upon said car-body, means for automatically turning said head-light support from side to side and means for automatically deflecting said head-light support proportionately to the side motion thereof.

2. The combination with a vehicle body and a running gear pivotally mounted thereto, of a shaft mounted upon the end of said vehicle body, a cross-arm attached 5 to the lower end of said shaft, connecting rods attaching said cross-arm to said running gear, a rocker-arm pivoted upon the upper end of said shaft, a head-light support secured upon the forward end of said 10 rocker-arm, and automatic means for deflecting said rocker-arm by the revolution of said shaft.

3. The combination, in a car, and a supporting truck pivoted thereto, of an upright 15 shaft mounted upon said car and arranged to turn on a vertical axis, a connection between said shaft and the truck whereby the shaft is turned by the action of said truck, a rocker-arm pivoted upon the upper end 20 of said shaft, and provided with a head-light support upon its forward end and with a cross-head formed upon the rear end

thereof, a roller secured upon the front of said car and in rolling contact with said cross-head, and a tension spring for the 25 purpose of retaining said cross-head in contact with said roller.

4. The combination with the truck of the car, a body pivoted thereon, and a head-light support attached thereto; of suitable 30 connections between the head-light support and the truck for turning said head-light support in a horizontal plane, and means carried by said head-light support and said car-body for automatically depressing the 35 front of said head-light support in unison with the independent movements of the car-body and its truck.

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

AMOS B. BRACKBILL.

Witnesses:

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