J. F. WOITYNEK.

DIRIGIBLE HEADLIGHT FOR CARS.

APPLICATION FILED JAN. 16, 1911.

991,682.

Patented May 9, 1911.

2 SHEETS—SHEET 1.

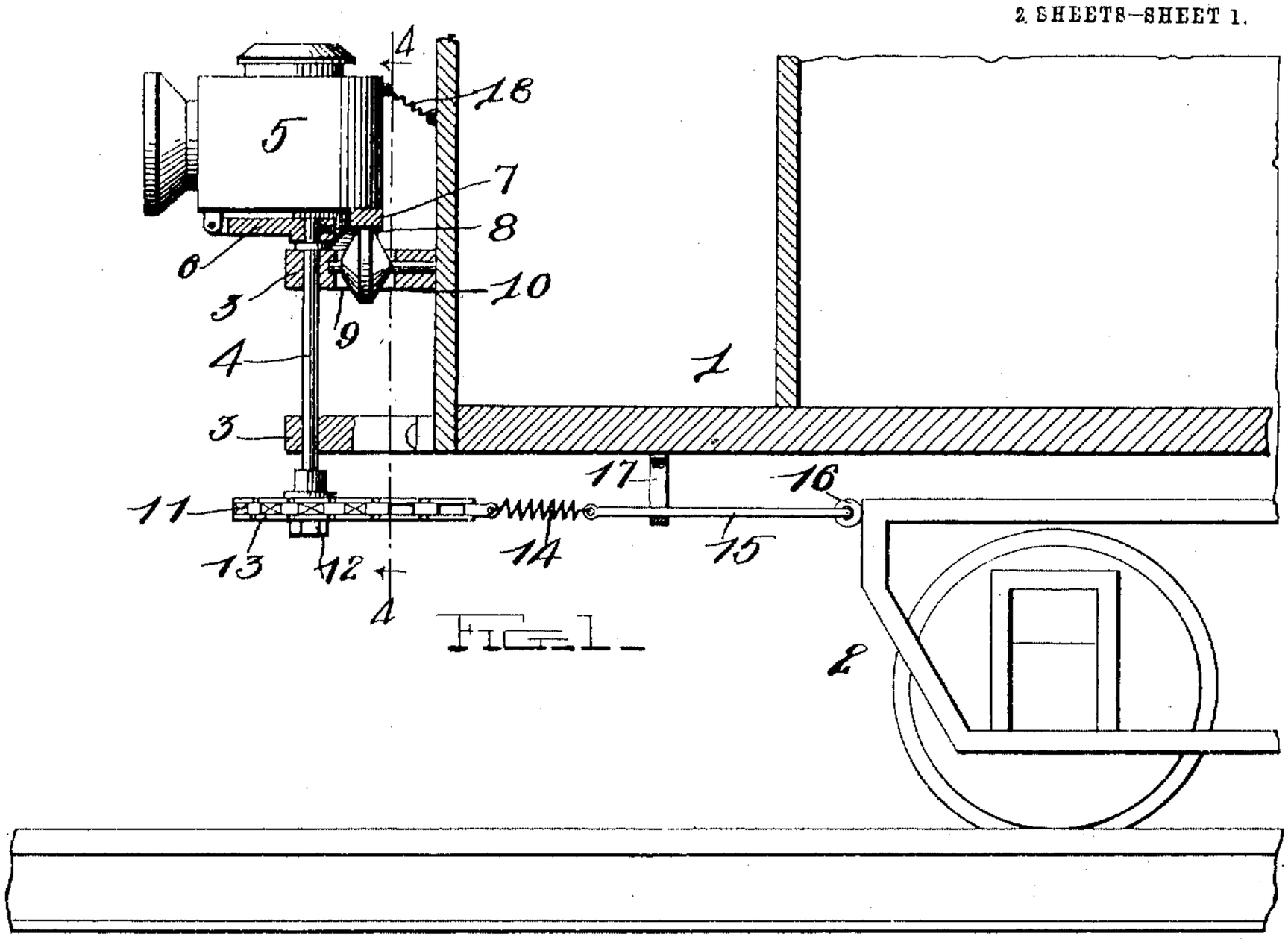

FIG. 1.

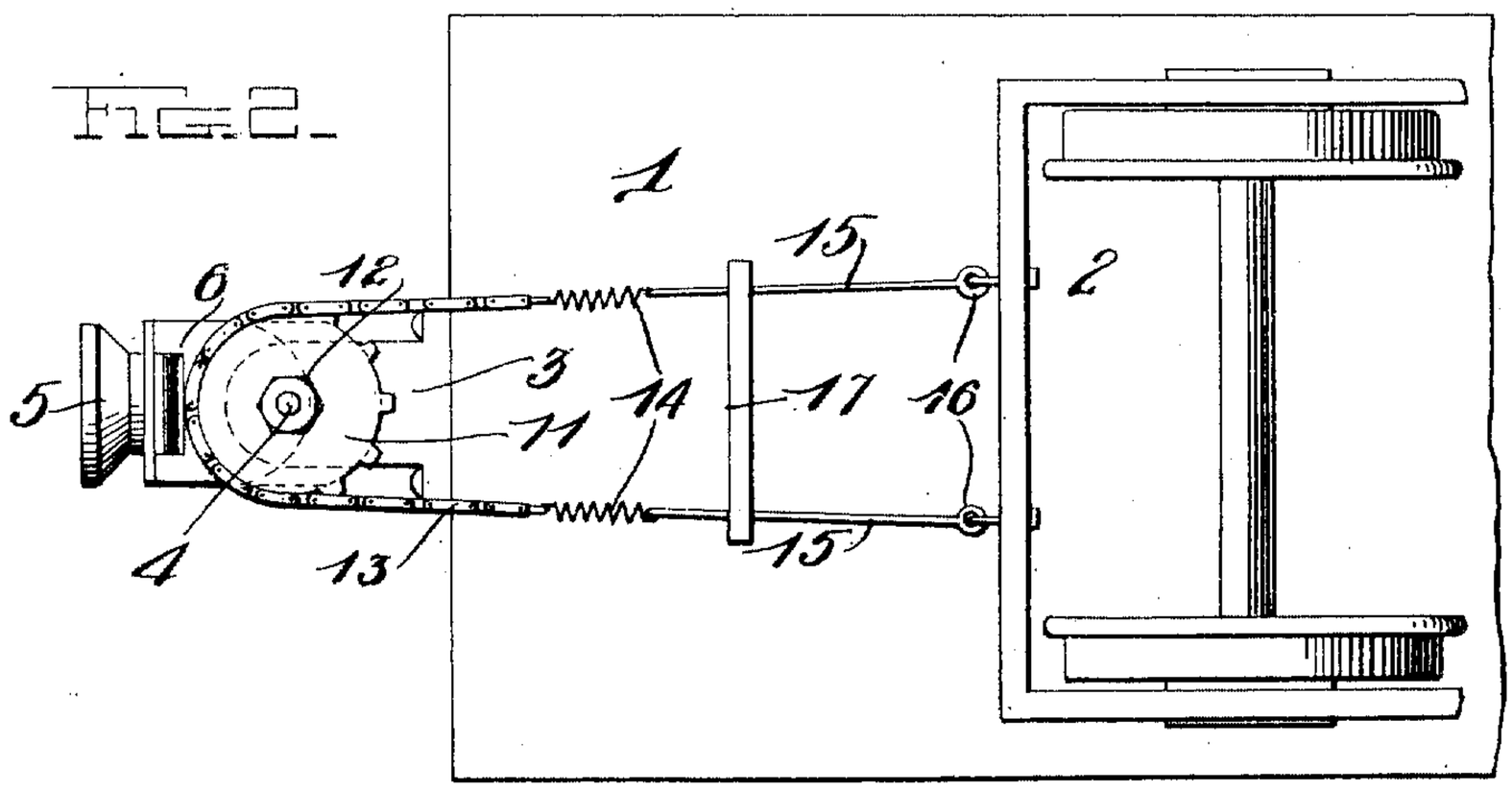

FIG. 2.

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2 SHEETS—SHEET 2.

FIG. 3.

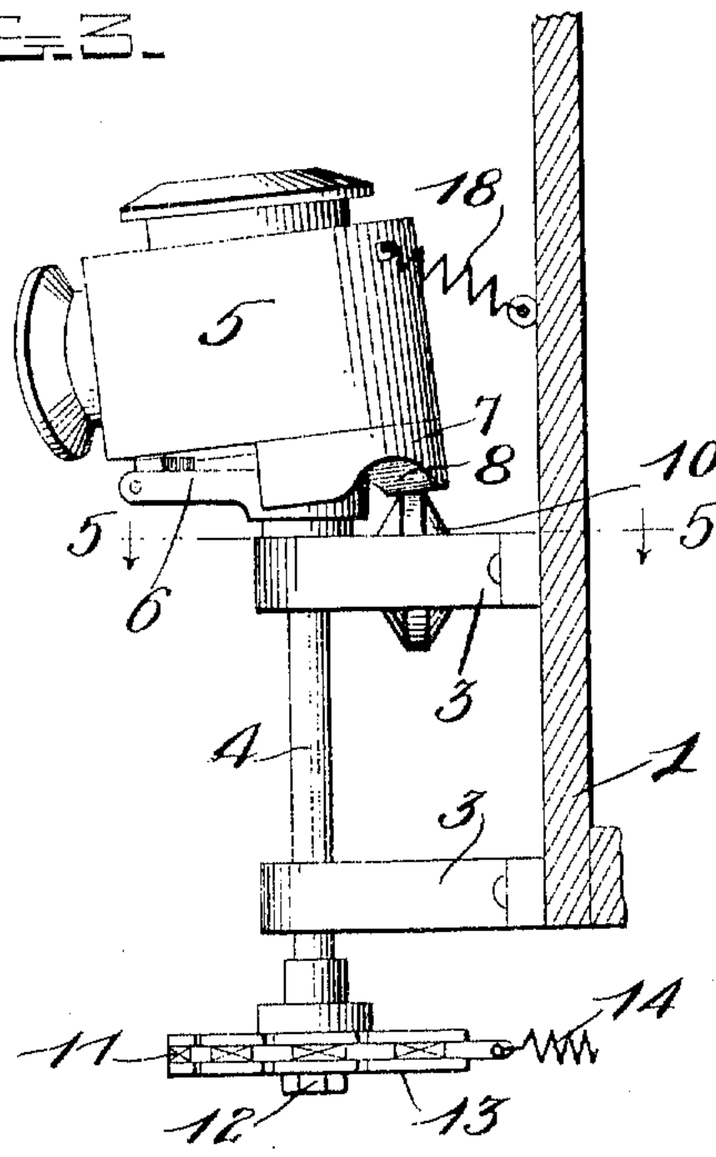


FIG. 4.

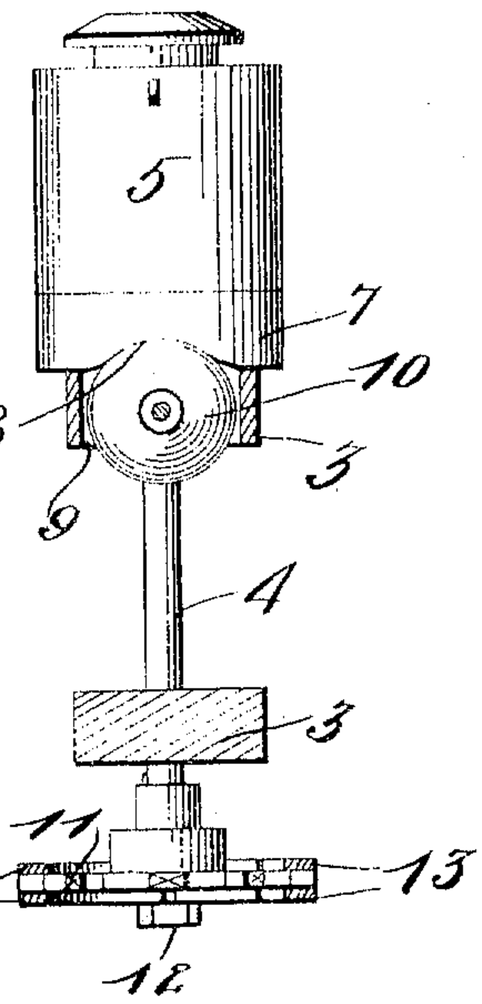


FIG. 5.

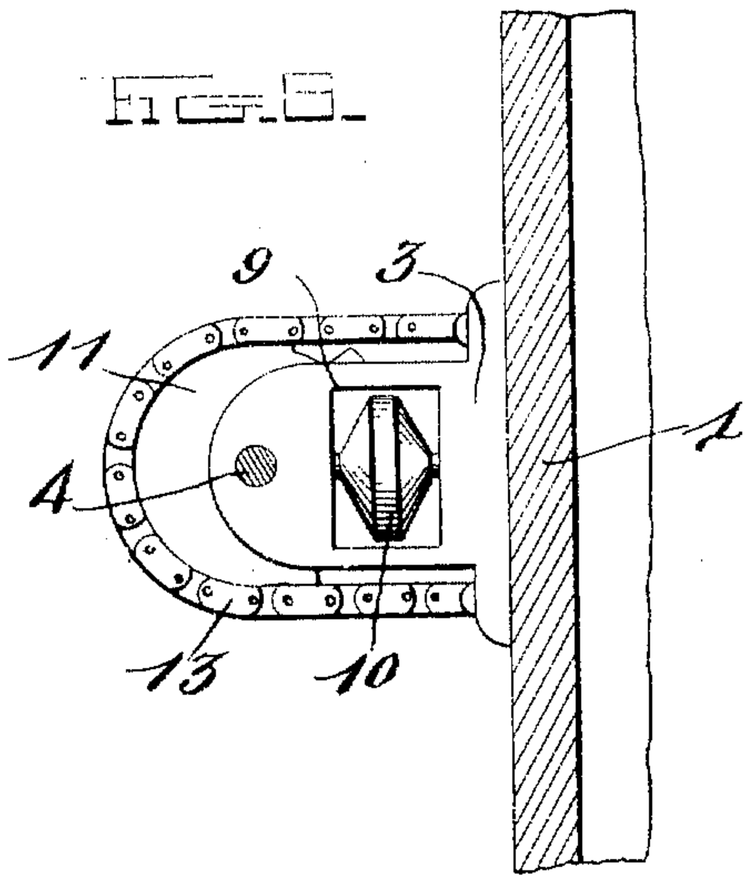
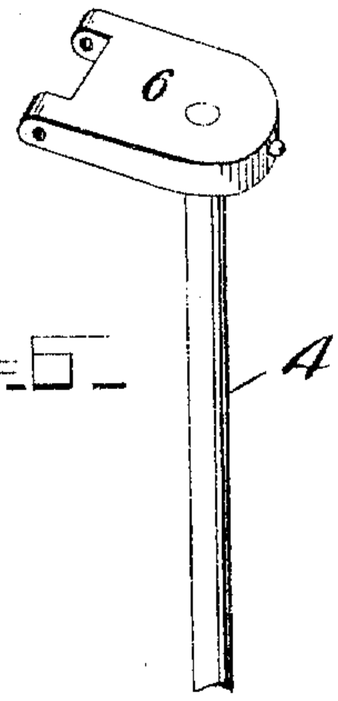


FIG. 6.



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UNITED STATES PATENT OFFICE.

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DIRIGIBLE HEADLIGHT FOR CARS.

991,682. Specification of Letters Patent. Patented May 9, 1911.

Application filed January 16, 1911. Serial No. 602,906.

To all whom it may concern:

Be it known that I, JOHN F. WOITYNEK, a citizen of the United States, residing at La Salle, in the county of Lasalle and State of Illinois, have invented certain new and useful Improvements in Dirigible Headlights for Cars; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to improvements in dirigible head lights for cars and the like.

One object of the invention is to provide a head light of this character having means whereby the same is automatically turned in the direction in which the car is turned and means whereby the lamp is tilted when thus turned to throw the light directly onto the center of the curved track.

With this and other objects in view the invention consists of certain novel features of construction, combination and arrangement of parts as will be more fully described and particularly pointed out in the appended claims.

In the accompanying drawings: Figure 1 is a vertical longitudinal sectional view of the front end of a car showing my improved head light applied thereto; Fig. 2 is a bottom plan view of the same; Fig. 3 is a side view of the lamp in turned position; Fig. 4 is a vertical section on the line 4—4 of Fig. 1; Fig. 5 is a horizontal section on the line 5—5 of Fig. 3; Fig. 6 is a detail perspective view of the lamp supporting bracket.

Referring more particularly to the drawings, 1 denotes the front end of a car and 2 denotes the front truck. To the front end of the car is secured in any suitable manner, upper and lower forwardly projecting and horizontally disposed bearing brackets 3 in which is revolubly mounted the supporting and operating shaft 4 of my improved head light or lamp 5. On the upper end of the shaft 4 is secured a horizontally disposed lamp supporting plate 6. The lamp or head light 5 is pivotally connected at its lower end adjacent to its front side to the front edge of the plate 6 as shown. On the bottom or lower end of the lamp at the rear side thereof is formed a segmental lamp tilting flange 7 in which, midway between its ends is formed a curved recess 8, the outer portions of the flange between the recess and ends thereof thus forming cam surfaces. In the upper bracket 3 below the flange 7 is formed a slot 9 in which is revolubly mounted a double cone shaped lamp tilting roller 10 which is adapted to engage the flange 7 whereby when the lamp is turned in either direction and the cam surfaces of the flange brought into engagement with the roller the lamp will be tilted forwardly and downwardly thereby throwing the light directly onto the center of the track or directly in front of the car.

When the car is running straight ahead and the lamp is in its normal position the recess 8 in the flange is engaged with the roller 10 thus permitting the lamp to sit squarely on the supporting plate 6. On the lower end of the shaft 4 is fixedly mounted a sprocket wheel 11, said wheel being preferably secured to the shaft by a key and is prevented from becoming disengaged from the shaft by a cap or nut 12 screwed onto the lower end of the shaft. Engaged with the sprocket wheel 11 is a sprocket chain 13 the ends of which are connected by short coiled springs 14 to the operating rods 15, the inner ends of which are provided with loops and connected to eye bolts 16 arranged in the front cross bar of the truck 2 as shown. The operating rods 15 are supported in operative position and prevented from sagging by means of a transversely disposed supporting bar 17 which is secured to the lower side of the car platform as shown. By connecting the operating shaft 4 with the front truck of the car as herein shown and described it will be obvious that when the truck is turned in one direction or the other as the car passes around curves that the movement of the truck will be imparted to the shaft and the lamp to turn the same in the direction that the car is traveling thus throwing the light continuously in front of the car or in the direction in which the same is traveling.

In order to prevent the lamp from being tilted forwardly too far by the engagement of the cam surfaces of the flange with the roller 10 I provide a yielding connection for the upper end of the lamp said connection being here shown in the form of a coiled spring 18 one end of which is connected to the rear upper portion of the lamp and the other end to the front of the car.

From the foregoing description taken in connection with the accompanying drawings, the construction and operation of the invention will be readily understood without requiring a more extended explanation.

Various changes in the form, proportion and the minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of the invention as defined in the appended claims.

Having thus described my invention, what I claim is:

1. In a dirigible head light for cars, a revolubly mounted lamp supporting shaft, means to operatively connect said shaft with the front truck of the car, to turn said shaft in unison with said truck, a lamp supporting plate arranged on the upper end of said shaft, a lamp hingedly connected to said plate to tilt forwardly thereon when turned in the direction the car is traveling, a revolubly mounted lamp tilting roller, and a segmental tilting flange secured to the lamp and having formed thereon cam roller engaging surfaces whereby when the lamp is turned to bring said surfaces into engagement with the roller, said lamp will be tilted forwardly and downwardly.

2. In a dirigible head light for cars, a revolubly mounted lamp supporting shaft, means to operatively connect said shaft with the front truck of the car, to turn said shaft in unison with said truck, a lamp supporting plate arranged on the upper end of said shaft, a lamp hingedly connected to said plate to tilt forwardly thereon when turned in the direction the car is traveling, a revolubly mounted lamp tilting roller, a segmental tilting flange secured to the lamp and having formed thereon cam roller engaging surfaces whereby when the lamp is turned to bring said surfaces into engagement with the roller, said lamp will be tilted forwardly and downwardly, and a yielding connection to limit the tilting movement of the lamp.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

JOHN F. WOITYNEK.

Witnesses:
TONY GRABOT,
JOHN A. KRUEGER.