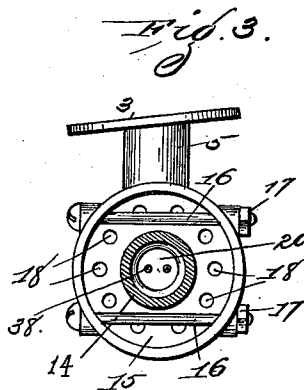
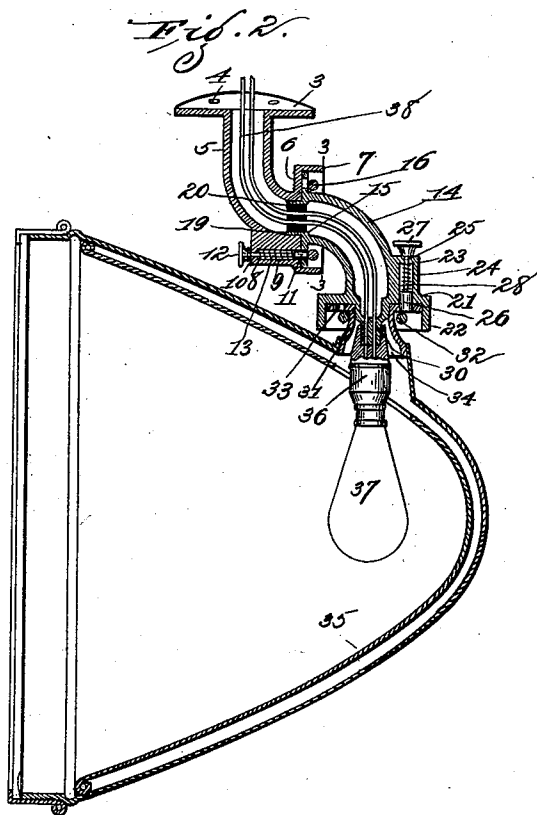
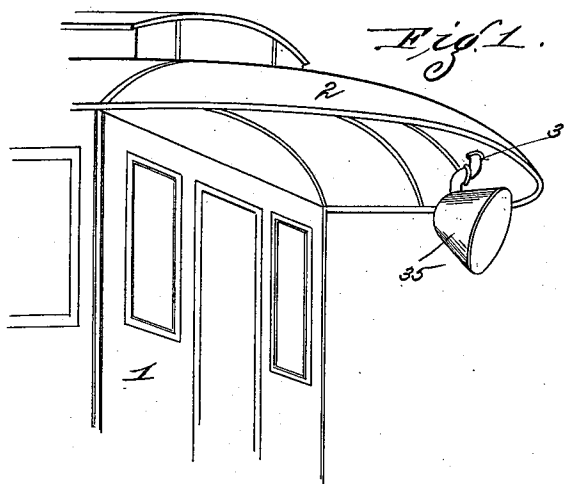


(No Model.)

A. C. THOMPSON.
ELECTRIC HEADLIGHT FOR STREET CARS.

No. 564,036.

Patented July 14, 1896.



Attest
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John L. Dunson.

Inventor:
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UNITED STATES PATENT OFFICE.

ALEXANDER C. THOMPSON, OF ST. LOUIS, MISSOURI.

ELECTRIC HEADLIGHT FOR STREET-CARS.

SPECIFICATION forming part of Letters Patent No. 564,036, dated July 14, 1896.

Application filed August 26, 1895. Serial No. 560,597. (No model.)

To all whom it may concern:

Be it known that I, ALEXANDER C. THOMPSON, of the city of St. Louis, State of Missouri, have invented certain new and useful

5 Improvements in Electric Headlights for Street-Cars, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part hereof.

10 My invention relates to an improved electric headlight for street-cars; and it consists in the novel construction, combination, and arrangement of parts hereinafter described and claimed.

15 In the drawings, Figure 1 is a view in perspective of a car having my improved headlight attached thereto. Fig. 2 is a vertical sectional view of my improved headlight. Fig. 3 is an enlarged sectional view taken approximately on the indicated line 3 3 of Fig. 2.

20 Referring by numerals to the accompanying drawings, 1 indicates a car, and 2 the hood or bonnet thereof.

3 indicates a plate that is located upon the under side of the hood or bonnet to one side of the center thereof, said plate being inclined slightly to fit the incline of the under side of said hood, and apertures 4 are formed in said plate through which pass screws that fasten it to said hood.

30 Formed integral with and depending from the under side of the plate 3 is a tube or hollow elbow 5, the lower end of which is bent at right angles to the upper portion and terminates in a vertically-arranged flange 6, around the edge of which is formed an integral flange or housing 7. A lug 8 is formed integral with the under side of the outwardly-bent end of the tube 5 and with the rear of the flange 6, and passing through said lug is a horizontally-arranged bore 9, having a shoulder therein. A pin 10, provided with an integral head 11, which fits the forward end of the bore 9, is arranged to operate in said bore, and upon the rear end of said pin is located a button 12.

45 13 indicates a coil-spring that is located upon the body of the pin 10 and interposed between the head 11 thereof and shoulder formed in the bore 9.

14 indicates a tubular elbow, the upper end of which terminates in a vertically-arranged

plate 15, the same lying directly upon the face of the plate 6 and within the flange 7. Said plate 15 is held in this position by transversely-arranged bolts 16, that pass through opposite sides of the flange 7 and have located upon their ends nuts 17. Formed in the plate 15 is a continuous row of apertures 18, any one of which will, when the plate is properly turned, coincide with the bore 9, formed in the lug 8. The normal tendency of the coil-spring 13 is to throw the head 11 of the pin 10 outwardly and cause the same to enter one of these apertures 18.

55 Formed integral with the face of the plate 15 is a collar 19, that enters the outwardly-bent end of the tube 5, and located in said collar is a body of insulating material 20. Formed integral with the lower end of the elbow 14 is a horizontally-arranged plate 21, around the edge of which is formed a depending flange 22. Formed integral with the outer side of the elbow 14 and the rear side of the plate 21 is a lug 23, through which passes a bore 24, having a shoulder therein. A pin 25, provided with an integral head 26 and button 27 on its rear end, is arranged to operate in this bore 24. An expansive coil-spring 28 is located upon the pin 25 and interposed between the head 26 and the shoulder within the bore 24. Formed integral with the under side of the plate 21 and depending therefrom is an exteriorly-screw-threaded projection 30, having a centrally-arranged bore or aperture therein.

65 31 indicates a plate that is arranged to lie directly upon the face of the plate 21 and within the flange 22. Transversely-arranged bolts 32, passing through the opposite sides of the flange 22, hold this plate 31 in position. Formed in said plate 31 is a continuous row of apertures 33, in which the head 26 of the pin 25 engages. Depending from the under side of this plate 31 is a collar 34, to which is fixed an ordinary reflector 35. A socket 36 of an ordinary electric lamp 37 is located upon the screw-threaded depending portion 30, and to said lamp lead suitable conductors 38, that pass through the body of insulating material 20 and through the aperture formed in the projection 30.

80 85 90 95 100 By withdrawing the pin 10 until the head 11 thereof disengages from the aperture 18 in

which it has been engaged the elbow 14 and contiguous parts of the headlight may be swung laterally relative the path of travel of the car.

5 By withdrawing the pin 25, which disengages the head 26 from one of the apertures 33, the plate 21 and reflector attached thereto may be rotated in a horizontal plane. When said headlight has been swung to the proper
10 position, the pins 10 and 25 are released, and the expansive coil-springs located upon said pins will cause the heads thereof to engage in certain of the apertures 18 and 33, thereby locking said headlight in the desired position.

15 Thus will be seen how I have constructed an electric headlight for street-cars that can be easily and quickly adjusted and swung at any point desired relative a car to which it is attached, said headlight being simple, com-
20 pact, easily operated, and very efficient in use.

It can be readily perceived from the foregoing description that I have devised a headlight which permits of both a lateral adjustment relative the path of the car and also
25 a horizontal adjustment, whereby it can be readily seen that the light and deflector may be moved and adjusted to any desired position.

I claim—

30 1. In an electric headlight for street-cars, a tubular elbow attached to the under side of the car-hood, a second tubular elbow adjustably held to the lower end of said first-mentioned tubular elbow, a collar adjustably held
35 to the lower end of the second-mentioned elbow, a reflector secured to said collar, an electric lamp arranged within said reflector, and conductors leading to said lamp, the same passing through the tubular elbows and the
40 collar.

2. In an electric headlight for street-cars, a pair of tubular elbows, the same being adjustable relative one another, the upper one of which is attached to the car-hood, a collar
45 adjustably attached to the lower end of the lower tubular elbow, a reflector carried by said collar, and an electric lamp removably attached to said collar and depending in the reflector.

50 3. In an electric headlight for street-cars, a tubular collar secured to the under side of the car-hood, a plate formed integral with the lower end thereof, a spring-actuated bolt passing through said plate, a second tubular elbow
55 constructed with an integral plate on its upper end, the same lying adjacent the plate on the upper elbow, bolts passing through the

lower end of the upper elbow that engage said plate, said plate being constructed with a continuous row of apertures in which the spring-
60 actuated bolt engages, a plate formed integral with the lower end of the second tubular elbow, a spring-actuated bolt arranged to operate through said plate, a tubular collar, a plate formed integral with the upper end
65 thereof that lies adjacent the plate at the lower end of the second-mentioned elbow, said plate being constructed with a continuous row of apertures in which the second-mentioned spring-actuated bolt engages, re-
70 taining-bolts passing through the lower end of the second elbow to hold said plate in position, a reflector carried by the collar, an electric lamp carried by the lower end of the second-mentioned elbow, and suitable connec-
75 tions to said lamp, the same passing through the tubular elbows.

4. In combination with a car, a tubular elbow secured to the under side of the hood thereof, a tubular elbow adjustably attached
80 to the lower end of the first-mentioned elbow and arranged to swing laterally relative the car, and a reflector and electric lamp carried by the lower end of said second-mentioned tubular elbow.
85

5. In combination with a car, a tubular elbow carried thereby, a second tubular elbow secured to the lower end thereof and arranged to swing laterally relative the car, a collar adjustably secured to the lower end of said second-mentioned elbow and arranged to rotate
90 thereon, a reflector carried by said collar, a lamp carried by the lower end of the second-mentioned elbow, the same depending into the reflector, and suitable connections to said
95 lamp the same passing through the tubular elbows.

6. The herein-described headlight for street-cars, comprising mechanism adapted to be secured to the hood or bonnet of the car, a laterally-adjustable device secured to said mechanism, and a horizontally-adjustable device carrying an electric-light socket secured to said laterally-adjustable mechanism, whereby the electric light mounted in said socket may
100 be moved and adjusted to any desired position.
105

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

ALEXANDER C. THOMPSON.

Witnesses:

EDWARD EVERETT LONGAN,
MAUD GRIFFIN.