F. F. TOEPFER.

DIRIGIBLE HEADLIGHT.

APPLICATION FILED JUNE 4, 1918.

1,284,818.

Patented Nov. 12, 1918.

2 SHEETS—SHEET 1.

Fig. 2.

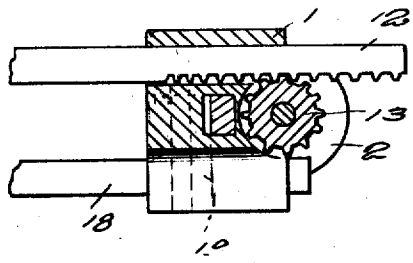


Fig. 1.

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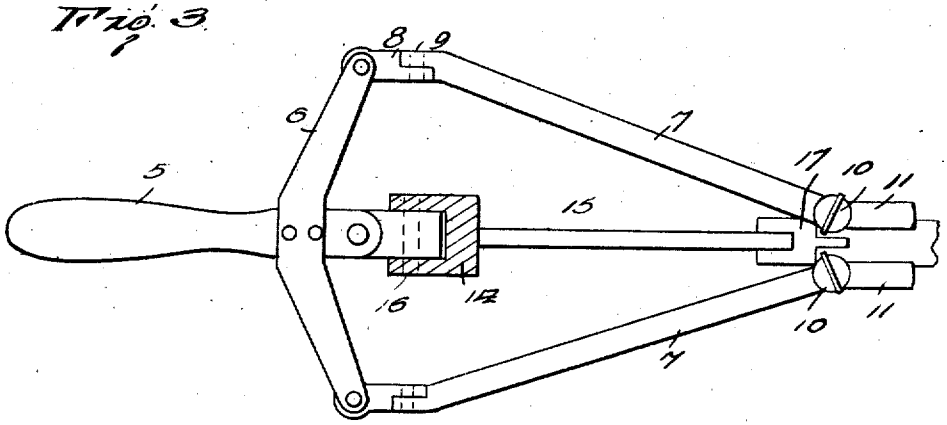
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2 SHEETS—SHEET 2.

Fig. 3.



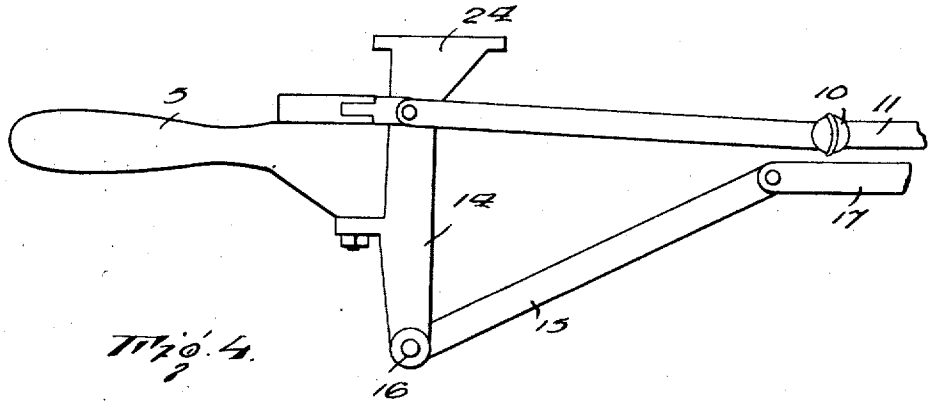


Fig. 4.

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UNITED STATES PATENT OFFICE.

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DIRIGIBLE HEADLIGHT.

1,284,818. Specification of Letters Patent. Patented Nov. 12, 1918.

Application filed June 4, 1918. Serial No. 238,121.

To all whom it may concern:

Be it known that I, FRED F. TOEPFER, a citizen of the United States, residing at Salina, in the county of Saline and State of Kansas, have invented certain new and useful Improvements in Dirigible Headlights, of which the following is a specification.

This invention relates to improvements in dirigible headlights and it is the principal object of the invention to provide a headlight capable of being moved in either horizontal or vertical planes, thus permitting the light rays emitted thereby to be projected in any direction desired.

The improvements in the details and arrangement of parts will be apparent from an inspection of the accompanying drawings, in connection with the specific description hereinafter contained, and wherein the preferred embodiment of the invention is disclosed for the purpose of imparting a full understanding thereof.

In the drawings:

Figure 1 is a fragmentary vertical section through the dirigible light support,

Fig. 2 is a horizontal section therethrough,

Fig. 3 is a top plan of the manually operable means for imparting motion to the headlight having a part shown in section, and

Fig. 4 is a side elevation of the same.

Having more particular reference to the drawings, in connection with which like reference characters will designate corresponding parts throughout the several views, 1 represents the bracket rotatably supporting the light staff 2, which bracket, as will be noted, is secured to a portion of a vehicle chassis indicated by the reference letter *c*. In this connection, attention is directed to the fact that a pair of these brackets 1 and the light staff 2 are provided, one being arranged on either side of the vehicle chassis *c* at points in proximity to the horns thereof in the usual manner common in the art. However, for the purpose of convenience, reference will be hereinafter had to but one of the headlights and supporting means therefor, it of course being understood that such description will suffice for the other.

Pivoted between the bifurcated upper end of the rotatable light staff 2 is a headlight 3, obviously, adapted to have vertical movement and carrying an apertured lug 4 on the rear portion thereof, the purpose of which will be hereinafter described.

Arranged at a point convenient to the operator's seat in the vehicle is a handle 5 carrying obliquely disposed arms 6, the extremities of which are pivoted in a vertical plane to the adjacent ends of rods 7, which rods, as will be noted are formed of sections, the shorter thereof being offset from the others as indicated by the numeral 8 and being pivoted to the same in a horizontal plane as at 9. Spherical members are formed on the remaining ends of the rods 7 and are received in sockets 10 carried on the adjacent ends of connecting rods 11, said rods being of sufficient length to permit the extending of the same into engagement with their respective headlights and supports therefor.

A rack 12 is connected to the free ends of each of the rods 11 and has the teeth thereon meshing with a pinion 13 carried on the lower portion of the adjacent light staff 2. Consequently, when the handle 5 is rocked in a horizontal plane, rotary motion will be imparted to each of the light staffs 2 due to the connection of the racks 12 with the pinion 13 carried on the lower portions thereof. Obviously, the rotary motion of the headlights can be varied at will by an operator.

A depending bracket arm 14 is pivotally secured in a horizontal plane to the intermediate portion of the diagonal arms 6 and has a rod 15 pivoted to its lower end as at 16, said rod having pivotal connection at its remaining end with a connecting rod 17. A rack 18 is connected to the outer or free end of the connecting rod 17 and meshes with an elongated gear 19 mounted in a bearing in the bracket 1 and having connection with a second rack 20 slidable in a suitable guide way formed in one side of the bracket 1 and carrying on its lower end a right angularly disposed arm 21 carrying a rod 22 on its outer end, which rod has connection with a link 23 pivoted to the apertured lug 4 carried on the rear portion of the headlights. In this way, it will be readily understood that when the handle member 5 is rocked in a vertical plane, movement of the rods 7 will be prevented but, however, the arm 14 will be rocked thus causing the rack 18 to be moved over the gear 19, rotating the same and raising the rack 20. Such

movement of the rack 20 will, of course, cause pivotal movement of the headlight 3 downwardly. To move the headlight 3 upwardly, it of course is only necessary to rock the handle 5 in an opposite direction.

As means for securing the handle member 5 and the rods connected thereto in proper position with relation to a vehicle provided with the device a bracket 24 is pivoted to the inner end of the handle member and is adapted to be secured to some suitable portion of the vehicle.

From the foregoing, it will be readily understood that by the provision of my invention movement of headlights provided therewith in horizontal and vertical planes can be effected, thus allowing the projection of the light rays therefrom in any desired directions. If desired, the construction can of course be slightly modified and adapted for use in connection with but one headlight.

As indicated, I do not wish to be understood as confining the invention to the particular embodiment chosen for illustration herein, nor to the exact construction, arrangement and adaptation of parts shown and described, but I reserve the right to make any changes and alterations that fairly fall within the spirit and scope of the invention.

I claim:

In a dirigible headlight, in combination, a bracket, a light staff rotatable on the bracket carrying a gear on the lower portion thereof, a handle member, a connecting rod pivotally connected in a horizontal plane to said handle member, a rack pivoted to the remaining end of the connecting rod and engaged with said gear, a second rod slidable in said bracket having connection with the pivotal headlight, a gear rotatably mounted in the bracket meshing with said second rack, a depending bracket arm pivoted in a horizontal plane to the handle member, a second connecting rod pivotally connected to the depending bracket arm, and a rack pivoted to the free end of said second connecting rod meshing with the last mentioned gear.

In testimony whereof I affix my signature hereto.

FRED F. TOEPFER.