

No. 860,036.

PATENTED JULY 16, 1907.

J. KIRBY, JR.
ELECTRIC ARC HEADLIGHT.
APPLICATION FILED NOV. 26, 1906.

Fig. 2.

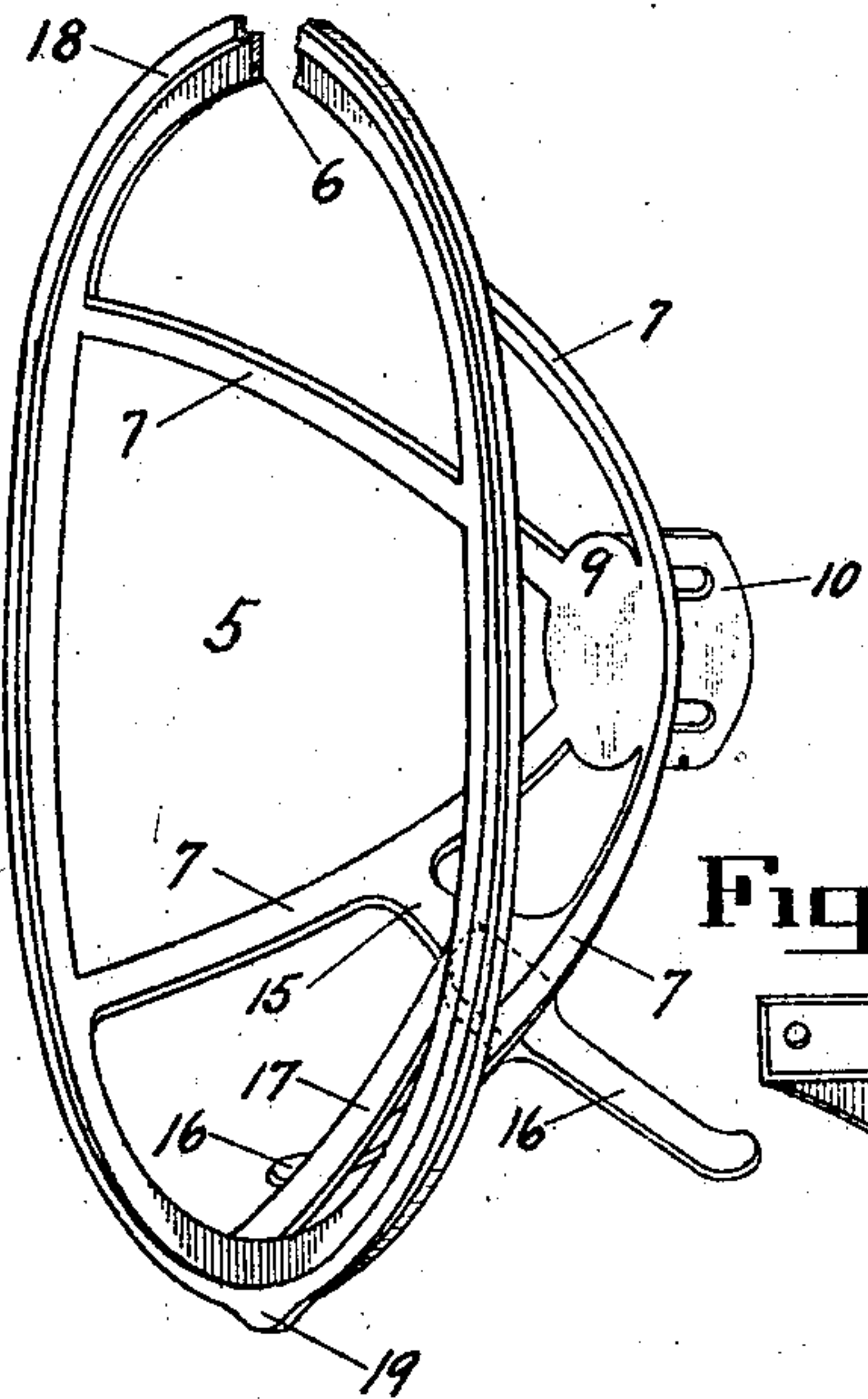


Fig. 1.

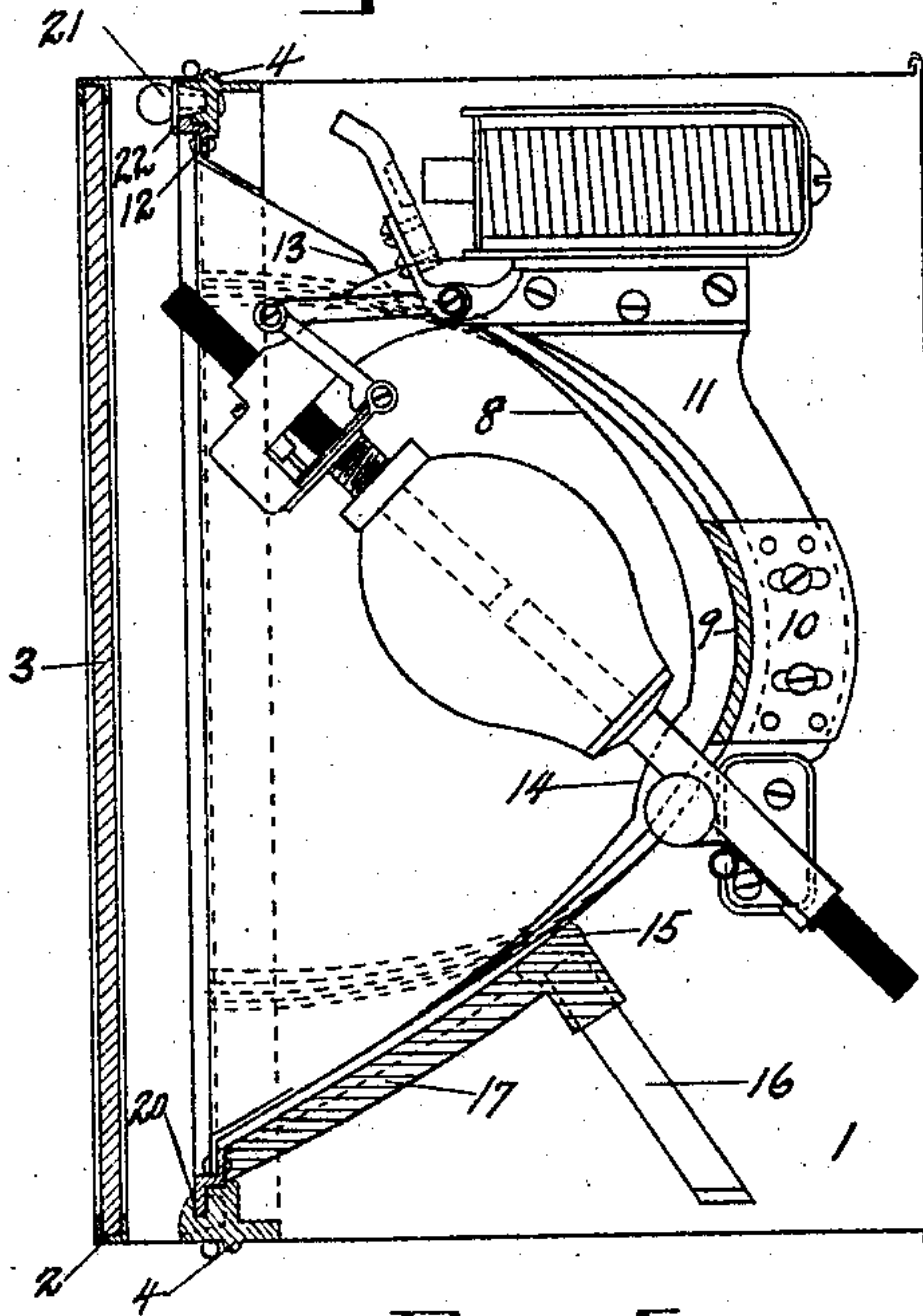


Fig. 3.

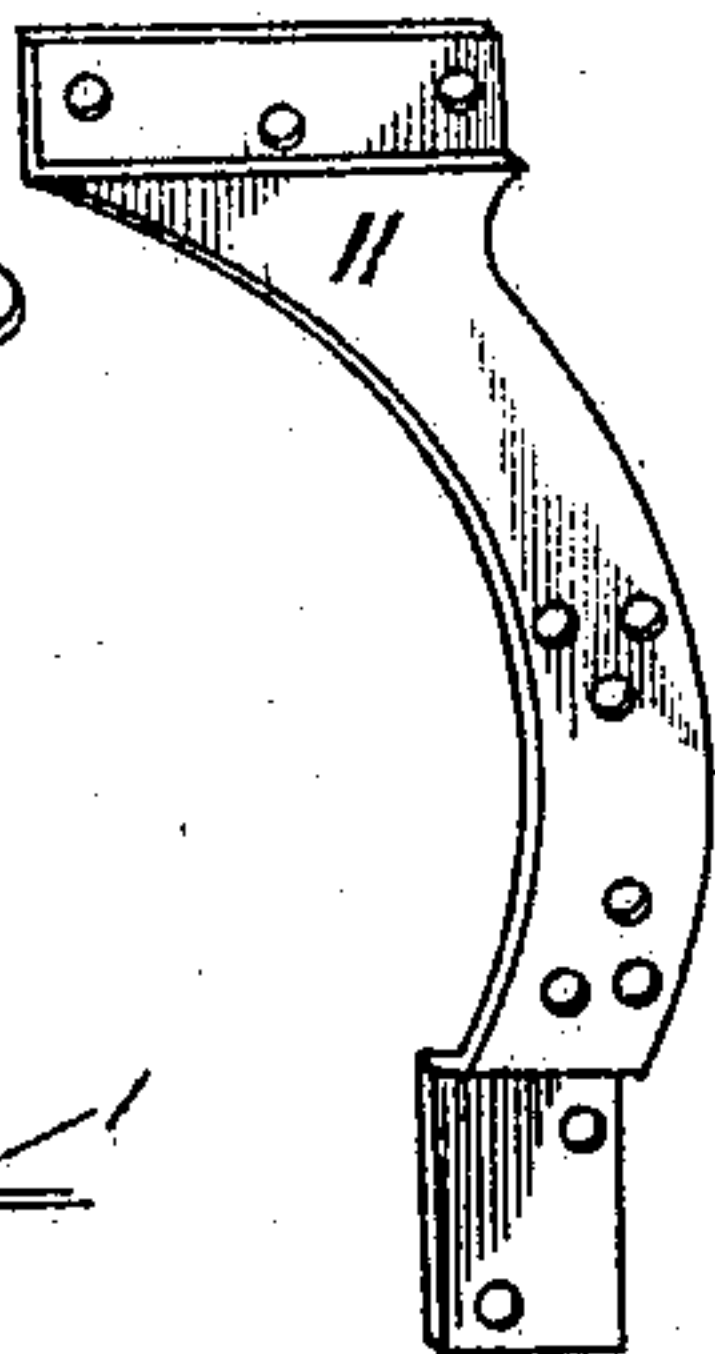


Fig. 4.

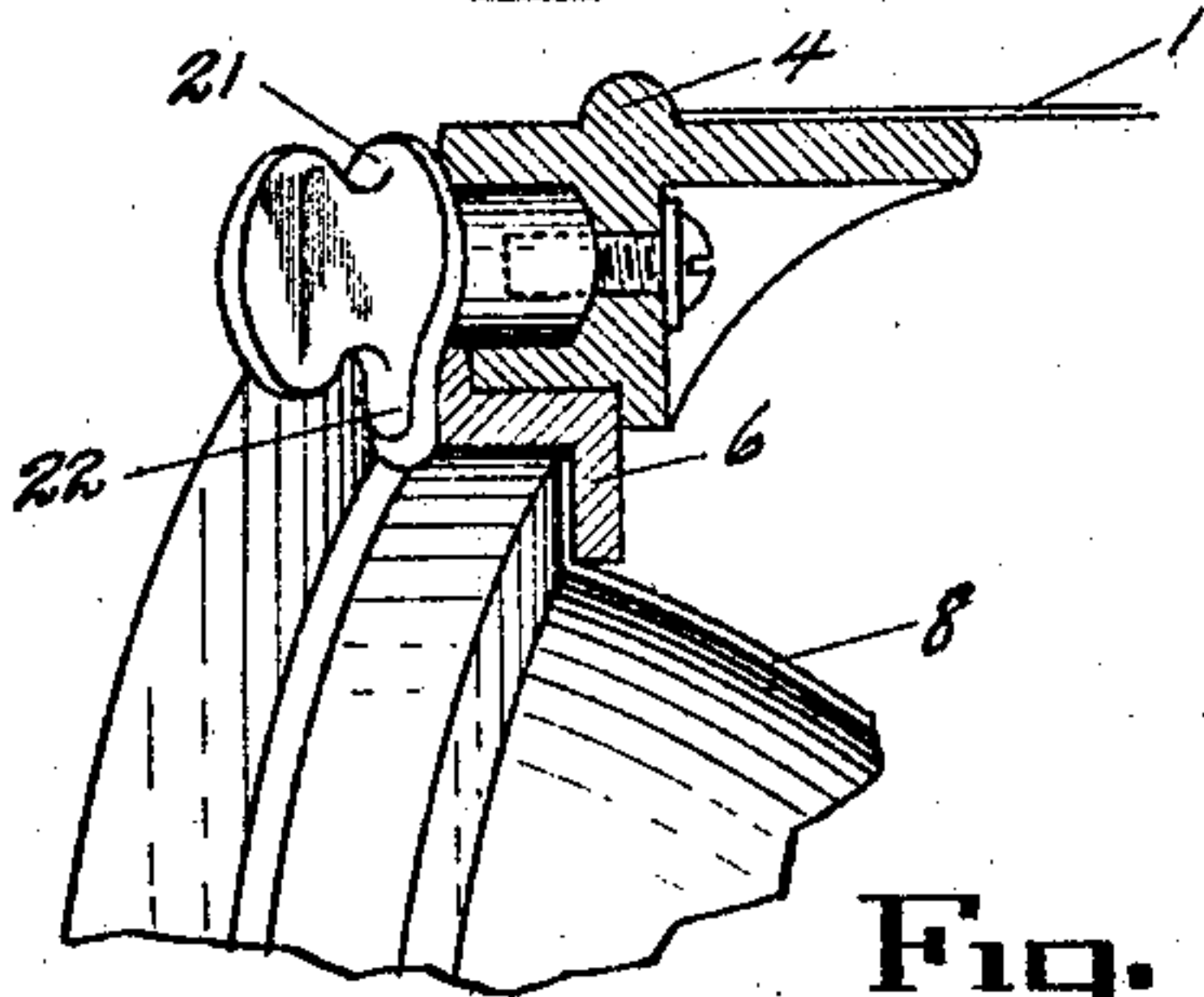


Fig. 5.

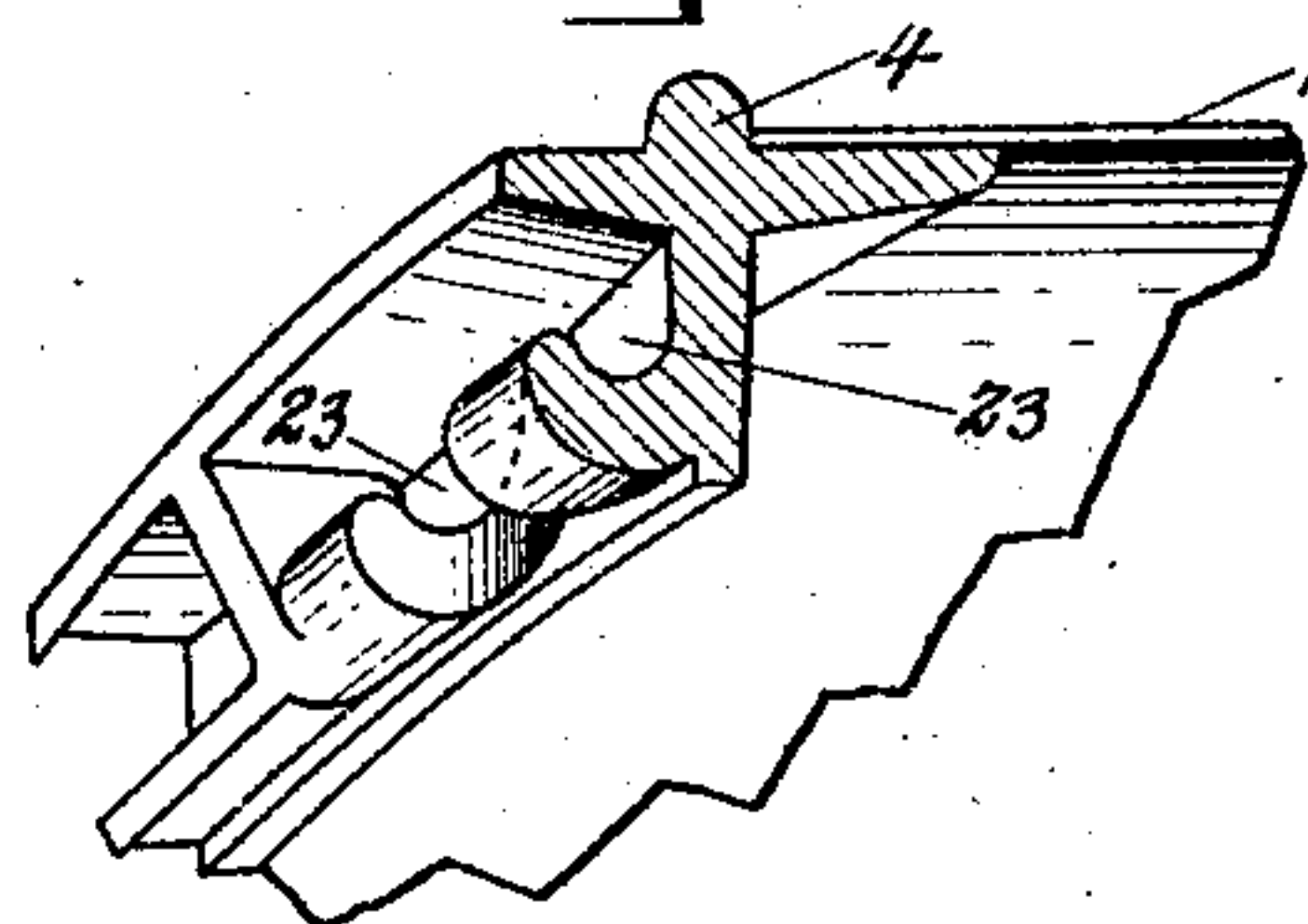


Fig. 7.

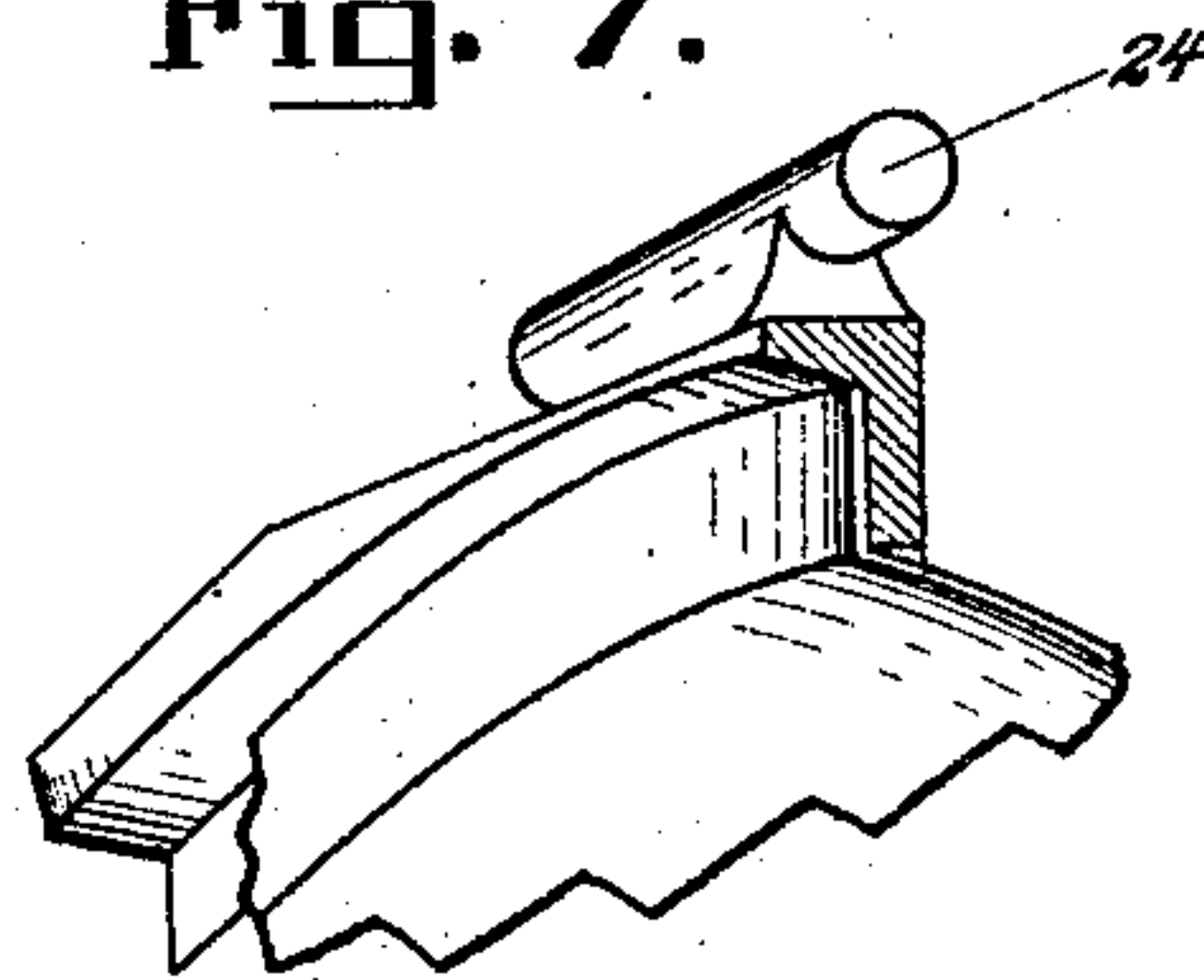
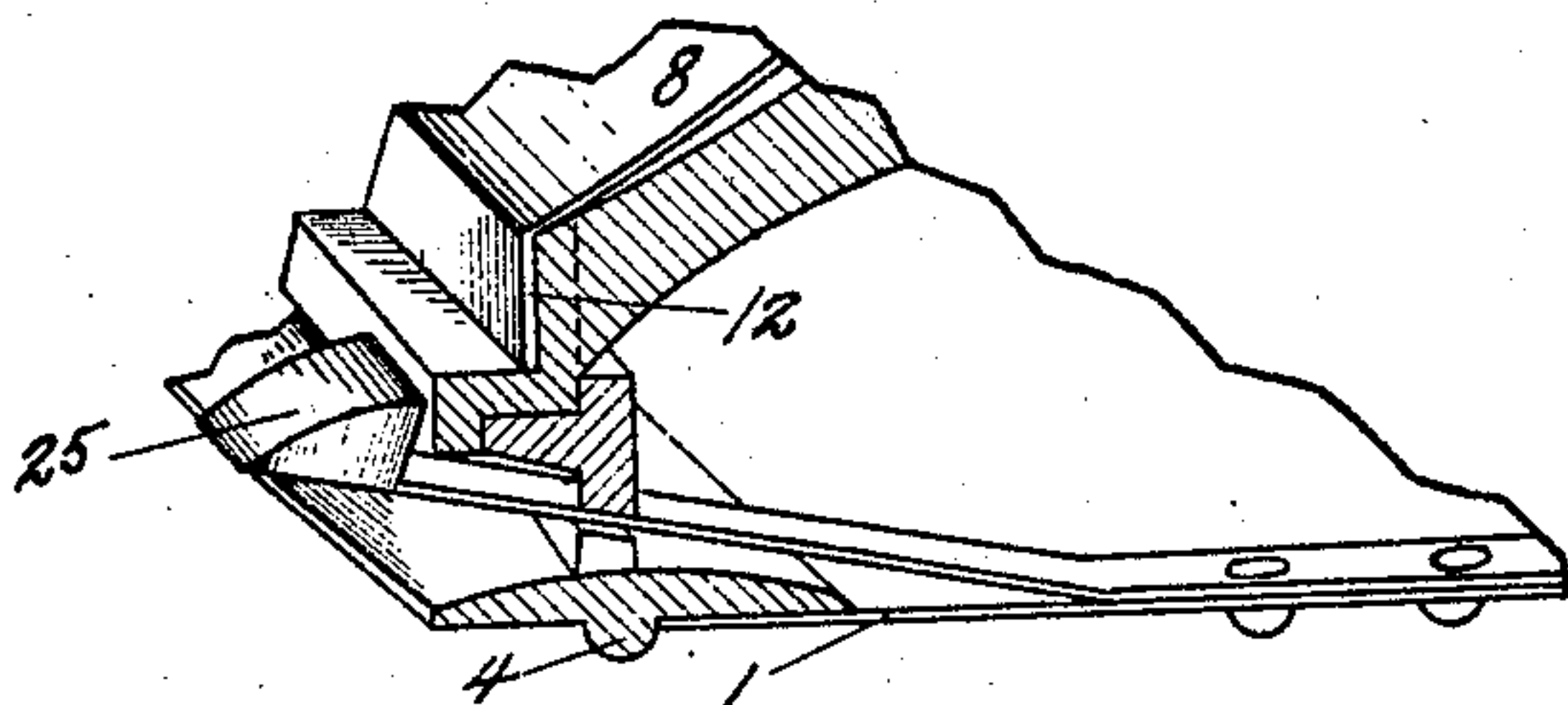


Fig. 6.



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UNITED STATES PATENT OFFICE.

JOHN KIRBY, JR., OF DAYTON, OHIO, ASSIGNOR TO UNITED STATES HEADLIGHT COMPANY,
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ELECTRIC-ARC HEADLIGHT.

No. 860,036.

Specification of Letters Patent.

Patented July 16, 1907.

Application filed November 26, 1906. Serial No. 345,072.

To all whom it may concern:

Be it known that I, JOHN KIRBY, JR., of Dayton, in the county of Montgomery, in the State of Ohio, have invented new and useful Improvements in Electric-Arc Headlights, of which the following, in connection with the accompanying drawings, is a full, clear, and exact description.

The invention relates to electric arc headlights, and its objects are to improve upon the present method of constructing and mounting the interior of the headlight, and the manner of supporting it within the case.

Heretofore it has been customary to mount the reflector and lamp mechanism upon a sliding base, or plate, adapted to slide in ways secured within and longitudinally of the case, as, for example, is shown in patent to Wagenhals, No. 615,927 and, as contradistinguished from such construction my present invention contemplates mounting the reflector within a frame which encircles the front or open end thereof and to which the reflector is secured at points around the frame, the latter extending around the exterior of the reflector to the rear thereof; either in the form of a solid shell or a ribbed or open frame or tripod as may be desired, and carrying the lamp mechanism. The said frame together with the reflector and the lamp mechanism is suspended within the case around the inner wall thereof at the front or open end of the frame. The advantages of such construction over the present method of constructing the interiors of such headlights is that it provides a more convenient means of removing from and replacing the interior in the case, and affords a simpler and less expensive manner of making and assembling the parts that constitute the interior of the headlight. These and other objects and the manner in which they are attained will be hereinafter fully set forth and are clearly illustrated in the accompanying drawings, which form a part of this specification, and in which—

Figure 1 is a vertical section through the headlight casing, the frame and the reflector. Fig. 2 is a front perspective broken view of the supporting-frame for the interior. Fig. 3 is a perspective view of the upright supporting-arm detached from the frame. Fig. 4 is an enlarged view showing the upper fastening for securing the interior within the casing. Figs. 5, 6 and 7 are broken perspective views showing a modification in the manner of supporting the interior within the casing.

Similar reference numerals indicate corresponding parts throughout the drawings.

1 represents the headlight case, which may be of any suitable material and is, by preference, made circular in form, with a closed back, and open front closed by a door 2 carrying a glass disk 3 and hinged

to the case in the usual manner. On the inside of the case, at its open end, is secured a ring or supporting-frame 4, which may be of the form shown or of any other form suitable for its purpose, and which is to receive and support the interior of the headlight, presently to be described.

5 is a frame provided with a rim 6, from which radiate a plurality of arms or ribs 7 which, preferably, follow substantially the contour of the parabolic reflector 8 and which terminate, at the rear end, in a solid section 9, from which projects a plate or bracket 10 to which is attached an upright arm 11 whose function is to carry the upper and lower mechanism of the lamp, and which being the subject of another application, Serial No. 353,302, need not be described herein.

The reflector 8 is provided with the usual flange 12, by which it is mounted in the frame 5 by securing the said flange to the rim 6 thereof in any desirable manner. The said reflector is also provided with openings 13 and 14, above and below the focal axis thereof, for the passage of the lamp mechanism to within the reflector in the usual manner.

To a cross-bar 15 of the frame 5 there are secured legs or branches 16 which form a stand for the interior, when removed from the headlight case. This cross-bar is connected with the rim 6 by a short rib 17. At the bottom of an outer rim, 18, of the rim 6 there is a downwardly projecting-lug 19, adapted to enter a pocket 20 in the ring 4, at the opposite or top side of which there is a fastening 21, having a lip 22 adapted to lap over the rim 18 and thus lock the interior securely in the ring 4, and to remove which all that is necessary to be done is to turn the fastening 21 until the lip 22 clears the rim 18, when the whole interior can be tilted forward sufficient to permit the projecting-lug 19 to be lifted out of the pocket 20 and the interior removed from the case.

In Figs. 5, 6 and 7 of the drawings I have shown a modification of the manner of securing the frame and interior of the headlight in the case-ring or frame 4, consisting of a double pocket or receptacle 23, formed in the ring at the top thereof, and corresponding extensions or projecting-pins 24 formed on the rim of the frame 5, whereby the frame and interior is suspended within the said ring or frame, at the bottom of which there is a spring-catch 25 adapted to snap over the rim of the frame and hold the same in position. In the use of this modification, to insert the interior in the case the said extensions or projecting-pins are first inserted in the pockets or receptacle 23 and the interior can then be swung into place, and to remove it it will only be necessary to release the spring-catch at the bottom, when the interior will tilt forward and can then be lifted out.

It will be apparent that other modifications may be made in the details of construction without departing from the spirit of my invention and therefore I do not wish to be limited to the exact construction herein described, disclaiming, nevertheless, the construction hereinbefore referred to as described in Patent No. 615,927.

Having thus fully described my invention I claim—

1. In a headlight, the combination of a lamp containing casing, an interior therefor comprising an electric arc lamp and a reflector mounted in and on a frame and by which frame the reflector is supported at its open end, and means whereby the said interior is removably supported within said casing at the open end of said frame, substantially as described.
2. In a headlight, the combination of a lamp containing casing, an interior therefor comprising a frame, a reflector mounted therein and secured thereto at its open end, and an electric arc lamp carried by the frame, and means whereby the said structure is removably supported at the open end of said frame within said casing around the inner wall thereof, substantially as described.
3. In a headlight, the combination of a lamp containing casing, an interior therefor consisting of a single structure comprising an electric arc lamp; a reflector having an annular flange around the open end thereof and a frame incasing the reflector and to which the said annular flange is secured, a supporting frame for said interior secured around the inner wall of the casing at the open end thereof, and means for removably securing the said interior within said supporting frame, substantially as described.
4. In a headlight, a lamp containing casing, an interior therefor comprising a frame, a reflector having an annular flange around its open end and thereby secured to said frame, and an electric arc lamp fixture carried by said frame, in combination with means whereby the said frame is supported at the open end thereof within said casing, substantially as described.
5. In a headlight, the combination of a lamp contain-

ing casing having an open end provided with a supporting ring on the inside of the casing at the open end thereof, an interior comprising an electric arc lamp and a reflector mounted in a frame adapted to register with said supporting ring and to be removably supported therein, and means for securing said frame in said supporting ring, substantially as described.

6. In a headlight, the combination of a lamp containing casing, an interior therefor comprising an electric arc lamp; a reflector and the within described frame carrying the said lamp and reflector, means for suspending the said frame within the lamp casing, and a device for securing the frame in its suspended position therein, substantially as described.

7. In a headlight, the combination of a lamp containing casing provided with a ring on the inside of the casing at the open end thereof, an interior comprising an electric arc lamp; a reflector and the within described frame carrying the said lamp and reflector, and means for removably supporting the said frame in said ring and securing the same thereto, substantially as described.

8. In an electric arc headlight, a casing having a supporting-ring or frame secured therein around the sides thereof, an interior comprising a parabolic reflector provided with an outwardly turned flange around its open end; a frame having a rim to which said flange is secured and by which the reflector is carried within the frame, and from which rim radiate a plurality of arms or ribs which follow substantially the contour of the reflector and terminate in a solid section at the rear thereof, and an electric arc lamp fixture supported on and carried by the frame, in combination with means for removably securing the interior in the said supporting ring or frame, substantially as described.

In testimony that I claim the foregoing as my own, I hereunto subscribe my name, this 19th day of November, 1906, in the presence of two witnesses.

JOHN KIRBY, JR.

Witnesses:

JNO. I. UNDERWOOD,
E. L. SPENCER.