

No. 814,030.

PATENTED MAR. 6, 1906.

E. A. EDWARDS.
LOCOMOTIVE HEADLIGHT CASING.

APPLICATION FILED JAN. 7, 1902.

2 SHEETS.—SHEET 1.

Fig. 1.

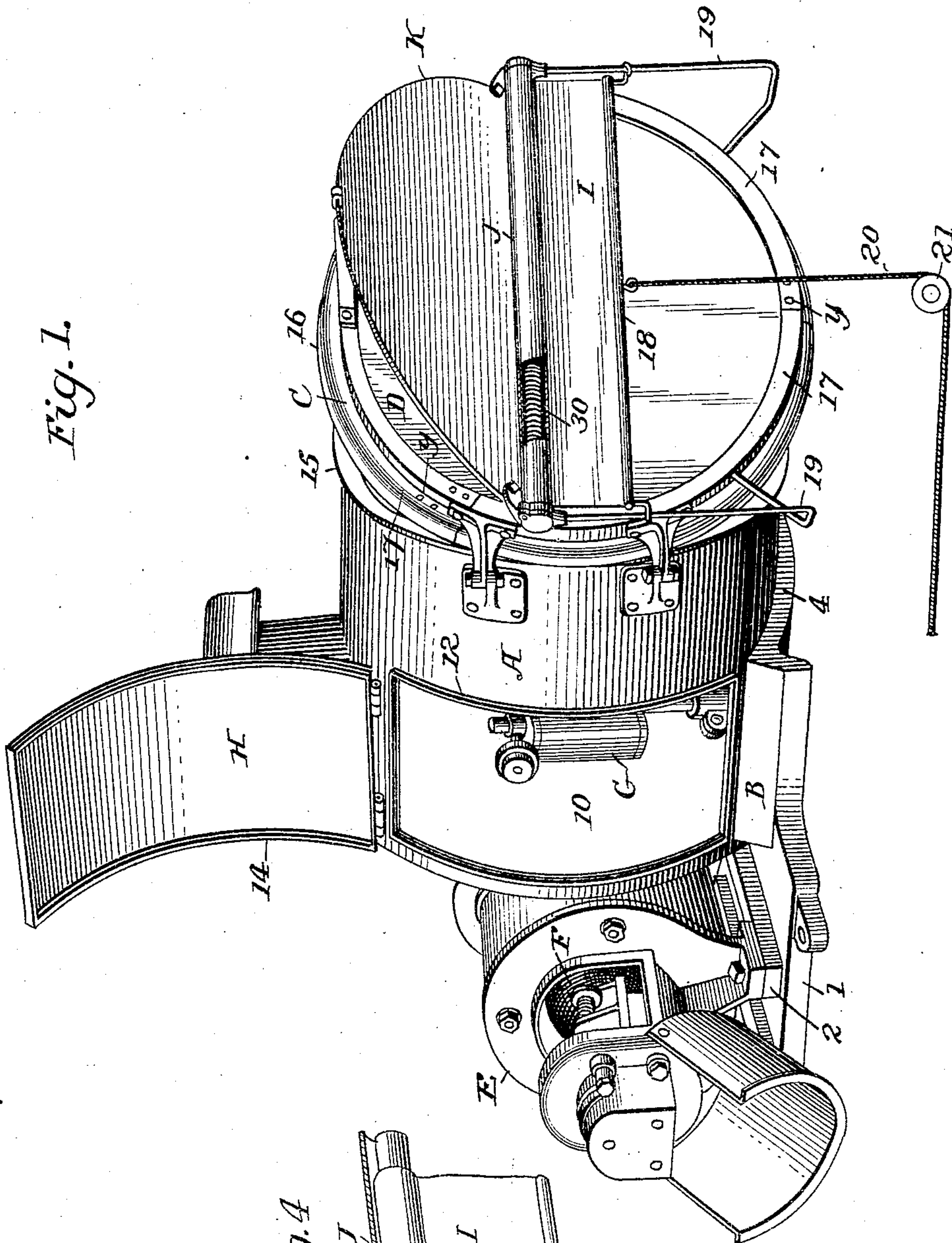


Fig. 4

Witnesses
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2 SHEETS—SHEET 2.

Fig. 2.

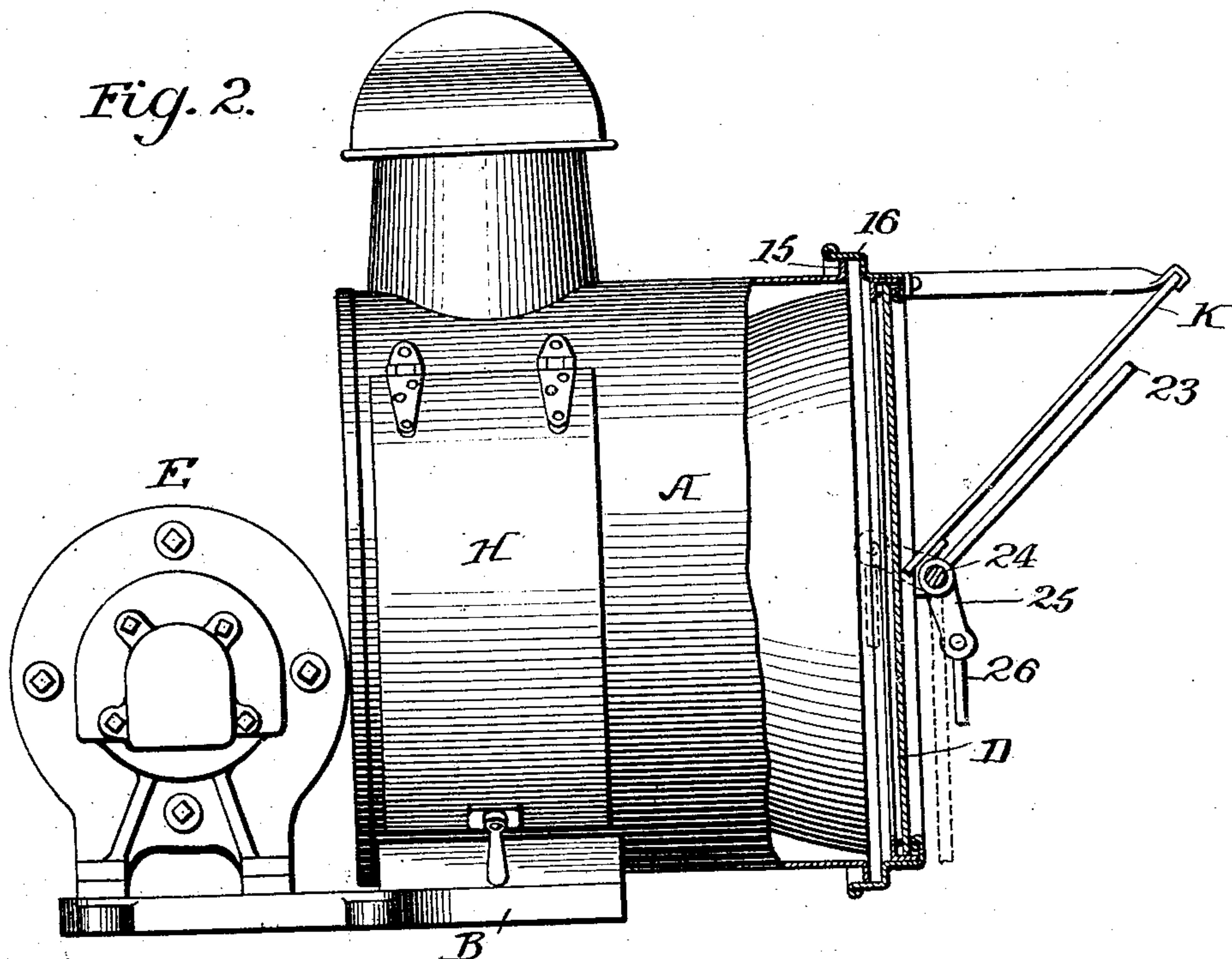
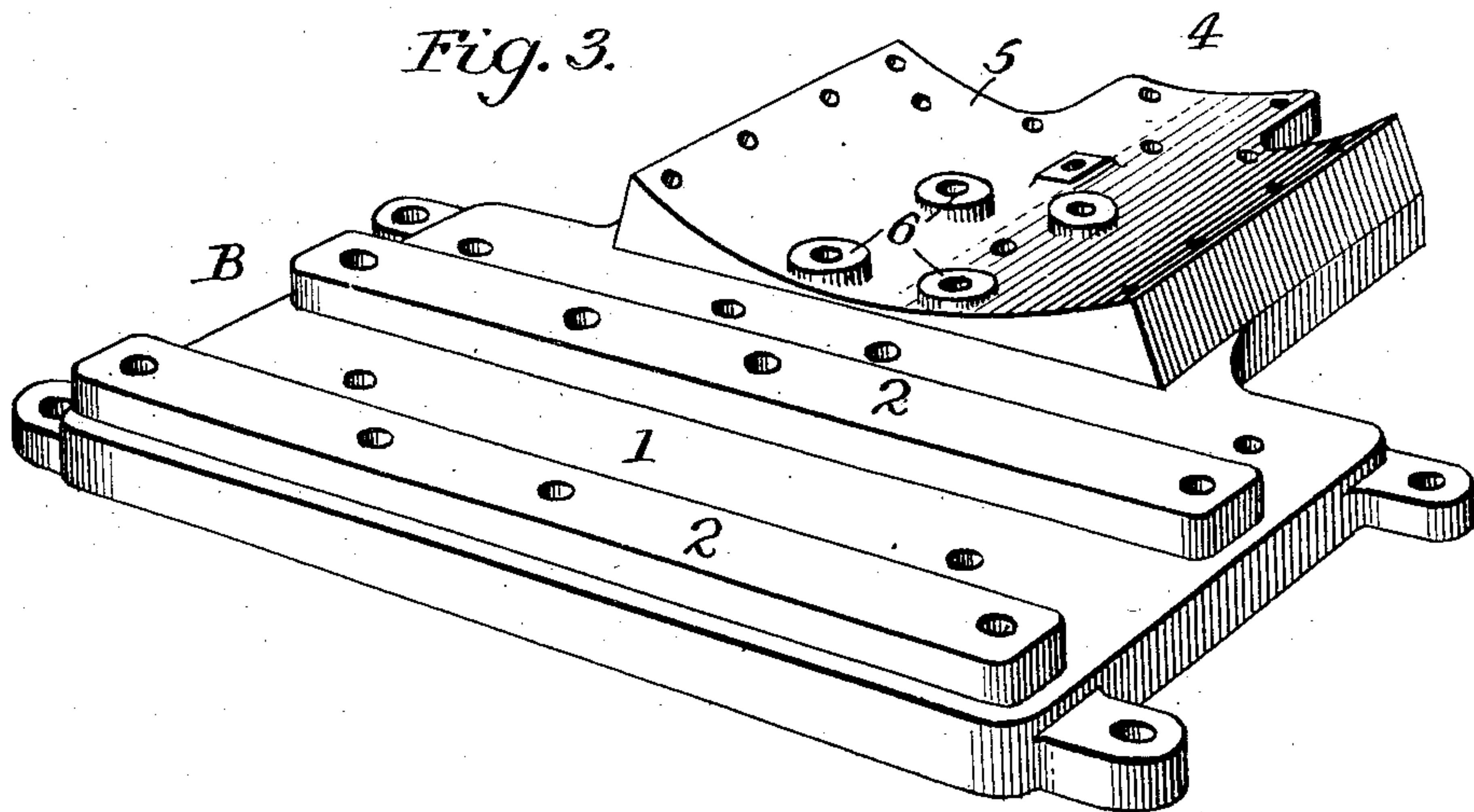


Fig. 3.



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UNITED STATES PATENT OFFICE.

EDGAR A. EDWARDS, OF CINCINNATI, OHIO, ASSIGNOR, BY MESNE ASSIGNMENTS, TO METROPOLITAN TRUST & SAVINGS BANK, TRUSTEE, A CORPORATION OF ILLINOIS.

LOCOMOTIVE-HEADLIGHT CASING.

No. 814,030.

Specification of Letters Patent.

Patented March 6, 1906.

Application filed January 7, 1902. Serial No. 88,750.

To all whom it may concern:

Be it known that I, EDGAR A. EDWARDS, a citizen of the United States, residing at Cincinnati, in the county of Hamilton and State of Ohio, have invented certain new and useful Improvements in Locomotive-Headlight Casings, of which the following is a specification.

My invention relates to locomotive-headlights, and more especially to the construction and support of the casing thereof, whereby to secure a rigid support of the parts without excessive weight of metal and to reduce the glare of the light under certain circumstances, as fully set forth hereinafter and as illustrated in the accompanying drawings, in which—

Figure 1 is a perspective view of a locomotive-headlight embodying my invention. Fig. 2 is a side elevation in part section, showing a different arrangement from that shown in Fig. 1. Fig. 3 is a perspective view of the base for supporting the other parts of the headlight, and Fig. 4 is a detached perspective view of the screen-roller and casing.

The headlight-casing consists of a body portion A, a base B, supporting the same, and a ring C, which is hinged by suitable hinges at the open front end of the casing and supports the goggle-glass D.

The base B is formed into a bed-plate 1, which has bearing-faces 2 2 2, upon which rest and are secured an electric generator E and a motor F therefor, and a projecting portion 4 of the base has a curved upper face 5, upon which is seated the curved body A of the casing, secured thereto by suitable bolts or rivets, and upon the projecting portion 4 are bearing-faces 6, upon which rests and is secured the base of an electric-arc lamp G.

By means of the base constructed as above described I am enabled to obtain a secure and rigid support for the assembly of parts which must be kept in positive relations to each other—that is, the motor, generator, lamp, and casing.

In order to obtain access to the lamp, there must be an opening 10 at one or both sides of the casing, and the cutting of such openings greatly reduces the strength of the casing. This might be increased by the use of much heavier metal, which is very undesirable, and I therefore take means to strengthen the

same, which means consist in bending up the metal to form a flange 12 at each edge of the opening, said flange extending radially outward, and the cap or cover H, which is bent to conform to the contour of the casing and is hinged at one end thereto, is provided with inwardly-projecting flanges 14, which overlap the flanges 12. This not only secures greater rigidity, as desired, but, further, the flanges 12 prevent water from flowing into the casing, while the overlapping flanges 14 form such close joints therewith that neither rain nor snow can find its way inside the casing. The casing is further strengthened by an outwardly-extending peripheral flange 15 at the front open end thereof, and in order to prevent the access of snow and rain the ring C is provided with an inner projecting flange 16, which extends across the edge of the flange 15 and forms a substantially tight joint.

It has been found extremely expensive to form goggle-rings by stamping them from a single piece of metal, as in such case the center must be cut away, resulting in a large amount of waste. To avoid this result and at the same time avoid the necessity of using cast metal for the rings, I form each of the latter of a plurality of sections 17, each of which is hammered or otherwise brought to a curve corresponding to that required for a ring of proper diameter and is bent in cross-section to form the terminal flange 16. These sections are riveted together at y end to end, thus forming an annular ribbed and flanged ring at a fraction of the cost which would otherwise be required.

It has been found very desirable, especially when arc-lamps are employed for locomotive-headlights, to reduce the intensity of the light when one engine approaches another, as the glare in the faces of the engineers prevents the proper observation of the adjacent surroundings. In order to secure this result, I provide the headlight with a translucent screen or shade I and with means whereby this screen may be carried momentarily or for any desired length of time across the outer face of the goggle-glass, the said screen, however, being adjusted by the engineer or his assistant and preferably by means within reach from the cab. This screen may be made and adjusted in various ways. Preferably it is of translucent waterproof material and also

preferably it is flexible, so that it may be placed upon a roller 30 within a roller-casing J, arranged suitably at the front of the headlight-casing; but, as shown, it is carried by the ring C and below the supplemental reflector K, which is used for reflecting upward a portion of the light. The arrangement of the casing J, however, may be varied, as desired. The flexible translucent screen thus mounted upon the roller is provided with the usual stiffening-rod 18 at the bottom, and in order to guide the shade guide-rods 19 are arranged at the opposite sides, passing through eyes upon the stiffening-rod 18. In order to permit the shade to be adjusted by the engineer, a cord or wire 20 extends to the cab. As shown, this cord or wire is connected to the lower edge of the shade and passes around a guide-roll 21; but any other means of adjustment may be employed. In the construction shown, where there is a single cord attached to the edge of the shade, a draft upon the cord will carry the screen downward, while the ordinary spring of the ordinary roller will serve to lift it when the draft upon the cord is released. Another means of securing this result is shown in Fig. 2, where the screen is carried by a frame 23, pivoted to a shaft 24, extending through bearings at the front of the goggle-glass and provided with an arm 25, to which an operating-rod 26 is connected, so that the screen may be carried to either of the positions shown in full and dotted lines. It will be seen that in each case the screen is outside the casing, so that it cannot be affected by smoke from or the heat of the lamp, and that by making it waterproof it may be thus arranged outside the

lamp without injury from water. It will further be apparent that by this arrangement set forth the shade may be used in connection with a supplementary reflector.

Without limiting myself to the precise construction and arrangement of parts shown, I claim as my invention—

1. The combination with a locomotive-headlight and goggle-glass thereof, and a supplemental reflector arranged for reflecting a portion of the light upward, of a translucent shade, and means for moving the shade across the outer face of the goggle below the reflector, substantially as described.

2. The combination with a locomotive-headlight and goggle-glass thereof, and a supplemental reflector arranged to reflect a portion of the light upward, of a waterproof shade, and means for moving the shade across the outer face of the goggle below the reflector, substantially as described.

3. The combination with a locomotive-headlight and goggle-glass thereof, and a supplemental reflector arranged to reflect a portion of the light upward, of a translucent shade, a roller supporting the shade arranged below the supplemental reflector, and means for moving the shade across the outer face of the goggle below the reflector, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

EDGAR A. EDWARDS.

Witnesses:

H. M. GILLMAN, Jr.,
W. CLARENCE DUVALL.