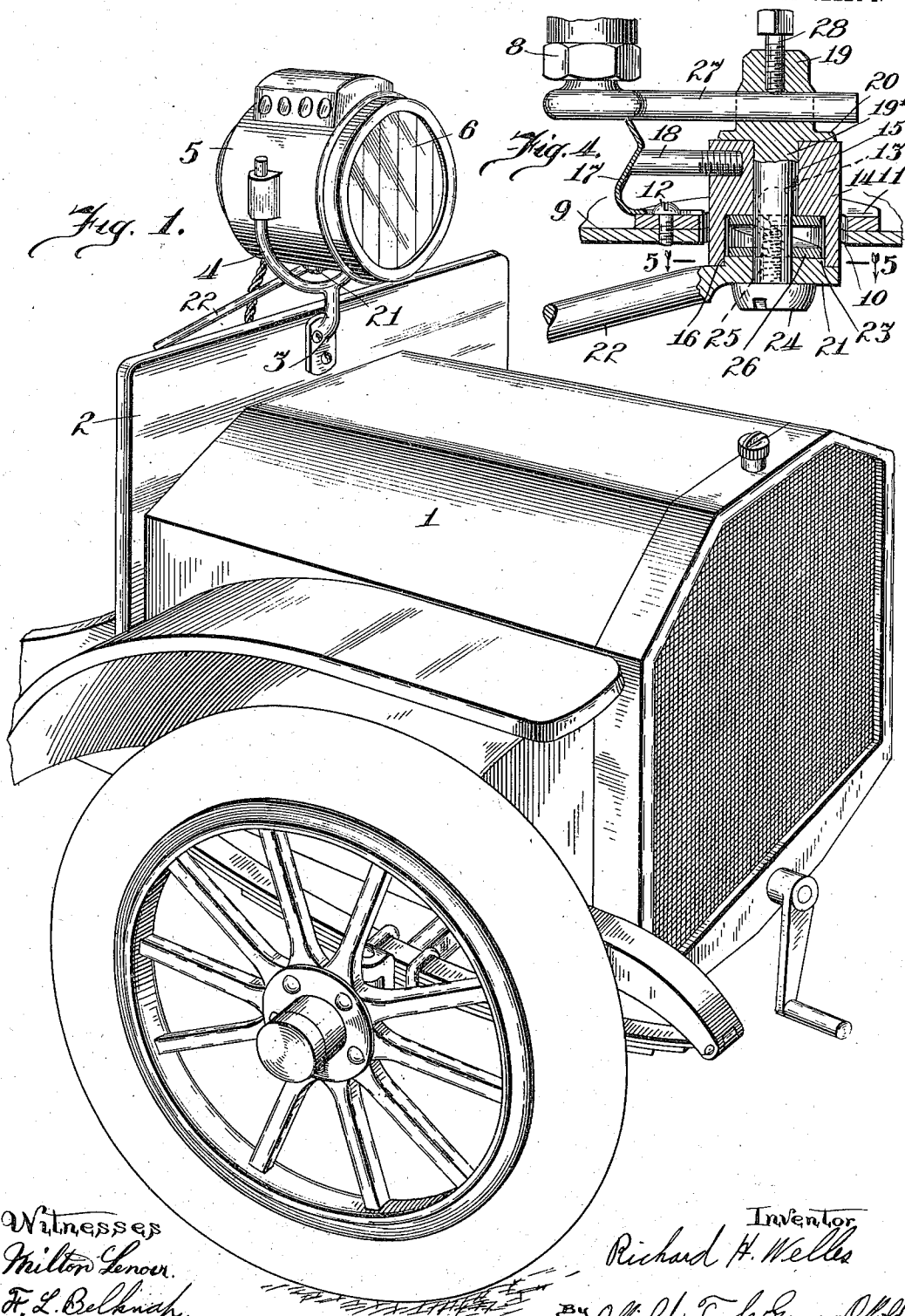


R. H. WELLES.
HEADLIGHT.
APPLICATION FILED SEPT. 19, 1910.

989,675.

Patented Apr. 18, 1911.

2 SHEETS—SHEET 1.



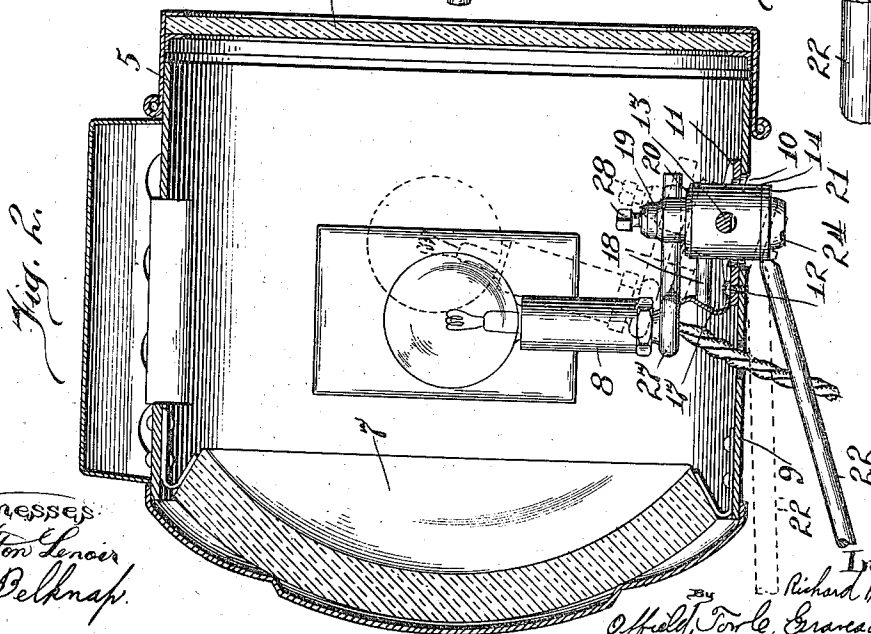
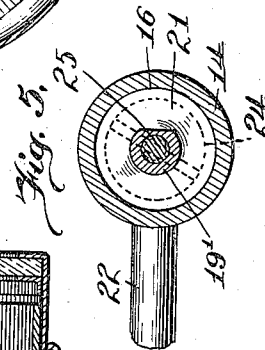
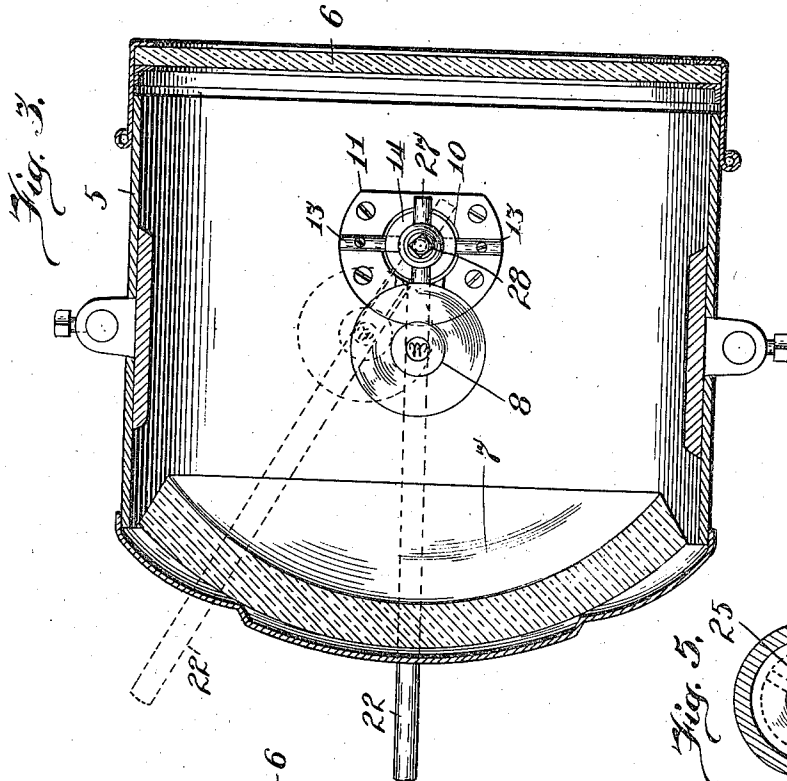
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UNITED STATES PATENT OFFICE.

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HEADLIGHT.

989,675.

Specification of Letters Patent. Patented Apr. 18, 1911.

Application filed September 19, 1910. Serial No. 582,613.

To all whom it may concern:

Be it known that I, RICHARD H. WELLES, a citizen of the United States, residing in the city of Kenosha, county of Kenosha, and State of Wisconsin, have invented certain new and useful Improvements in Headlights, of which the following is a specification.

This invention relates to improvements in headlights and refers more particularly to a headlight adapted for use with automobiles, locomotives, motor boats and the like.

Among the salient objects of the invention are to provide a construction in which the burner support may be moved into a plurality of positions in order to disperse or change the direction of the beam of light; to provide a construction in which the burner may be instantaneously and positively shifted into any one of its positions by operating mechanism; to provide in a construction of the character referred to novel mechanism for rocking the burner support forwardly and for laterally swinging the same whereby the rays of light may be directed either downwardly or at a lateral angle from the headlight; to provide means for yieldably holding the burner in whatever position it is shifted; to provide a simple and economical construction which can be readily fixed to any well known type of headlight and which is positive and reliable in operation; and in general to provide an improved construction of the character referred to.

The invention consists in the matters hereinafter described and more particularly pointed out in the appended claims.

In the drawings, Figure 1 is a perspective view of a headlight equipped with my invention and shown as attached to the dashboard of an automobile. Fig. 2 is a vertical sectional view of the headlight. Fig. 3 is a central horizontal sectional view of the same. Fig. 4 is a vertical horizontal sectional view on an enlarged scale of the burner support. Fig. 5 is a horizontal detail taken on lines 5, 5 of Fig. 4 and looking in the direction of the arrows.

In headlights of this character it is frequently desirable to modify or change the direction of the beam of light, either by directing the light laterally from the automobile or downwardly upon the road. This may be accomplished by bodily shifting the headlight, which, however, necessitates a more or less expensive and complicated

mechanism and is not always feasible. In the present construction this downward change of direction of the light is obtained by merely shifting the burner. In order to direct the light downwardly, the burner is merely rocked forwardly upon its bearings, while to direct the light laterally the burner is swung toward the side of the lamp on its pivoted supports.

Referring to the drawings, 1 designates as a whole the front end of an automobile, upon the dashboard 2 of which is rigidly fixed a lamp bracket 3 of any suitable type. Upon the forked arms 4 of the bracket is secured a headlight designated as a whole 5. Between the front end 6 of the headlight and the reflector 7 is mounted a burner 8 which in the present instance takes the form of an electric bulb. Describing now more particularly the manner of mounting this burner, the bottom 9 of the lamp is apertured as shown at 10, and around this aperture is secured a bracket ring 11 by means of screws 12. To this ring 11 is rigidly fixed a pair of aligned pivot studs 13, 13 which project horizontally into the aperture 10. On these studs is pivotally mounted a socket or rocker member 14, vertically bored as shown at 15, at its upper end and provided with an enlarged counter bore 16 in its lower end. This socket member serves in effect as a rocker bearing and the aperture 10 is so shaped as to permit the socket member 14 to be rocked forwardly into the dotted position shown in Fig. 2.

The socket member is normally held yieldably in vertical position by means of a spring 17 secured to the rear end of the ring 11 and engaging a pin 18 projecting from the upper end of the rocker member 14. A pin 19 extends through the vertical bore of the rocker member and is provided at its upper end with an enlarged head or arm 19 having shoulders 20 which limit the downward movement of the pin. The lower end of this pin projects below the bottom of the socket member 14 and receives the annular head 21 of a rearwardly extending lever arm 22. This head 21 is preferably provided with a reduced extension 23 which fits within the lower end of the socket member 14. The head 21 is confined in position by means of a screw 24 which is threaded into a suitably threaded bore 25 formed in the lower end of the pin. Between the reduced extension 23 and the upper face of the counter

bore 16 is secured a coiled expansion spring 26, which serves to prevent rattling, and also to yieldably hold the pin 15 in adjusted position when it is swung laterally by the lever 22. The enlarged head 19 of this pin is apertured to receive the horizontal arm 27 of the burner 8 and is secured in position by means of a set screw 28.

From the foregoing it will be seen that when the arm 22 is raised, the socket member 14 will be rocked on its bearings and the burner thrown upwardly and forwardly. The parts being so arranged that when the burner is thus moved, the light will be directed downwardly to the road in front of the driver. When the arm 22 is shifted laterally, the pin 15 will turn in the socket member and the burner swung into a position shown in dotted lines in Fig. 3. The burner will now be so shifted as to direct the light laterally toward the side of the road. It is to be understood, of course, that the burner may be swung laterally in either direction.

The invention is not limited to the details of construction shown except as set forth in the appended claims.

I claim as my invention:

1. In a headlight, the combination with a lamp body, of a reflector therein, a burner movably mounted between the front end of the lamp and said reflector, means for shifting said burner laterally in a substantially horizontal plane, and means for shifting said burner upwardly and forwardly.

2. In a headlight, the combination with a burner, of means for instantaneously and positively shifting said burner laterally in a substantially horizontal plane, and means for shifting said burner upwardly and forwardly.

3. In a headlight, the combination with a burner, of a supporting mechanism therefor, and means for abruptly shifting said supporting mechanism either vertically or laterally to vary the position of the burner.

4. In a headlight, the combination with a lamp body having a reflector therein, of a burner support mounted to be rocked forwardly and upwardly, a burner carried thereby, and mechanism for actuating said

burner support whereby the burner may be abruptly swung upwardly and forwardly and abruptly returned to its normal focal position.

5. In a headlight, the combination with a burner, of a movable support therefor comprising a horizontally extending rocker member, a vertical member pivotally mounted in said rocker member and securing the burner whereby the latter may be swung either laterally or vertically.

6. In a headlight, the combination with a lamp body having a reflector therein, of a burner, supporting mechanism for said burner adapted to be shifted upwardly and forwardly, and means for abruptly shifting said burner supporting mechanism to instantaneously move the burner into and out of focal position.

7. In a headlight, the combination with a main body portion, of a rocker member pivotally mounted in said main body portion, an arm extending axially into said rocker member and pivotally mounted therein, a burner carried by said arm, and means for actuating said rocker member and arm.

8. In a headlight, the combination with a lamp body having a reflector therein, of a rocker member journaled in said lamp body, an arm carried by said rocker member and projecting into the headlight, a burner mounted upon the arm at a point remote from the rocker member normally seated in the focus of the lamp, and means for actuating said rocker member to move the burner upwardly and forwardly to direct light downwardly.

9. In a headlight, the combination with a lamp body having a reflector therein, of a burner normally seated in the focus of the lamp, a support therefor, a rocker member carrying said support, and means controllable at a point remote from the headlight for abruptly actuating said rocker member to shift the burner upwardly and forwardly to restore it to its normal position.

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Witnesses:

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