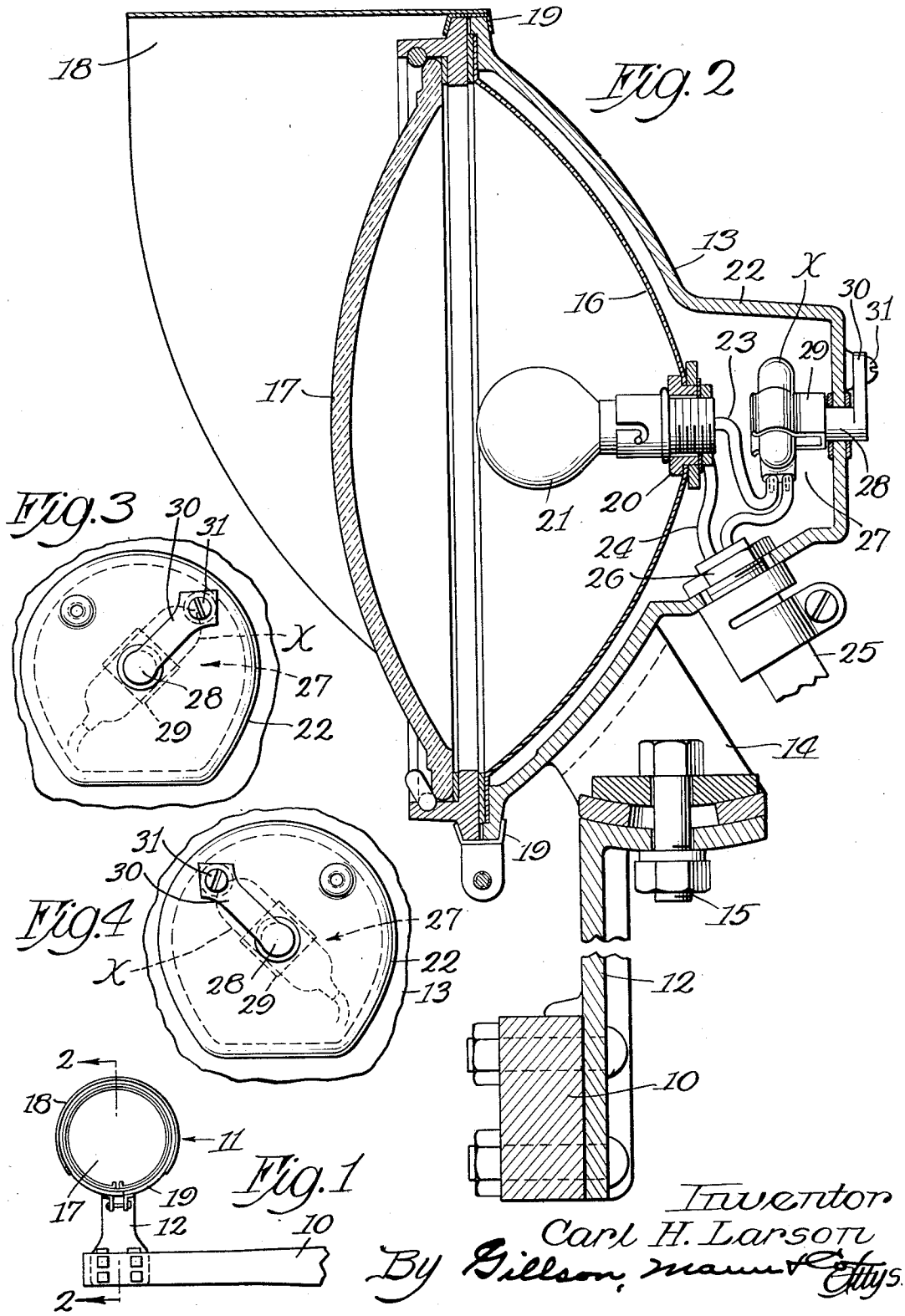
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SIGNAL LAMP

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SIGNAL LAMP

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1 Claim. (Cl. 177—329)

This invention relates particularly to lamps adapted for use in connection with vertically swinging crossing gates, and its principal object is to render the lamp easily adaptable to gates located on either side of the roadway.

Further objects of the invention will appear in connection with the description of the device.

The lamp is of the automatic type in that its circuit is closed by the lowering of the gate to a substantially horizontal position and is opened when the gate is swung upwardly.

The invention consists in a lamp the casing of which encloses a mercury switch pivotally mounted for adjustment to two different positions with means for readily effecting the adjustment from the exterior of the casing and for securely fixing the switch in either of its positions.

In the accompanying drawing—

Fig. 1 is a detail end elevation of a crossing gate in its horizontal position and provided with the improved lamp;

Fig. 2 is a sectional view on the line 2—2 of Fig. 1; and

Figs. 3 and 4 are detailed elevations of the lamp casing, the switch being shown in dotted lines and in the two positions to which it is adjustable.

The gate is of the usual type employed at railway and other crossings to prevent vehicles or pedestrians from attempting to cross the track when a train is approaching. It may be mounted at either side of the roadway, and frequently two gates are used, one at each side of a wide road. These gates being so well known, there is shown in the drawing only the bar 10 which constitutes the barrier. The lamp 11 is fixed to the bar and is mounted at right angles thereto in order that when the gate is closed, it will be in upright position, and when the gate is open, it will have been moved 90 degrees from such position. A suitable bracket 12 is provided for attaching the lamp to the gate bar and the lamp casing 13 is provided with an arm 14 adapted to be clamped to the bracket as by means of a bolt 15, the bearing faces of the bracket and arm being preferably curved as shown to provide for accurate positioning of the lamp.

Within the casing there is mounted the usual reflector 16 and the front thereof is closed by the lens 17.

A hood or visor 18 projects forwardly from the casing and one of the features of the invention is the mounting of the visor upon the retaining band 19 by means of which the lens and reflector are secured in position, the visor being welded to the band. The reflector is centrally apertured for the reception of a lamp socket 20 within which is fixed a bulb 21. The casing is provided with a central rearwardly projecting chambered extension 22 for enclosing the bulb circuit comprising the leads 23, 24 which connect with the leading in cable 25 through a plug 26.

Housed within the extension 22 is a mercury switch 27 through which one branch 23 of the bulb circuit passes, the electrodes of such branch being located adjacent one end of the tube and the latter being so positioned that the contained mercury will submerge them when the lamp is in upright position and will flow away from one or both of them when the lamp is turned from such position.

The tube "X" is carried by a shaft 28 journaled in the rear wall of the extension 22 and provided preferably with a spring clamp 29 for clasping the tube. The outer end of the shaft 28 is provided with a crank arm 30 by means of which it may be manually turned, and suitable means, such as a screw 31, is provided for securing the crank arm in either of two adjusted positions.

Preferably, the crank arm is parallel with the axis of the tube "X" and in either of its adjusted positions the axis of the latter is preferably inclined from the vertical when the lamp is upright.

When the switch tube is in the position indicated in Fig. 3, the gate being closed, the bar of the latter extends in the direction indicated in Fig. 1 and the mercury will occupy the lower end of the tube and close the circuit. Upon the opening of the gate, the mercury will flow to the opposite end of the tube. When the switch tube is in the position indicated in Fig. 4, the gate bar extends in the opposite direction, and the circuit will be correspondingly closed and opened by the gate movement. It is obvious that if the relative positions of the gate bar and switch tube were reversed from those above described, the circuit would not be opened by the raising of the gate.

The adjustability of the switch tube therefore provides for adapting the lamp for use upon gates swinging from either the right or left side of the road and avoids the necessity of constructing the lamps as "rights" and "lefts."

What I claim, therefore, is:—

In a signal lamp for road gates in combination, a lamp comprising a lamp casing adapted for attachment to a vertically swinging gate and in angularly normal position relative thereto, such casing having a rearward chambered extension,

a reflector mounted within the casing, a bulb carried by the reflector, a circuit for the bulb, a mercury switch incorporated into one branch of the circuit, a shaft carrying the switch and extending through the rear wall of the casing extension, a crank arm fixed to the outer end of the shaft, and means for securing the crank arm in either of two positions such that the switch may be positioned to close the circuit when the gate is in horizontal position and to adapt the lamp for use on gates mounted at either side of a road.

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