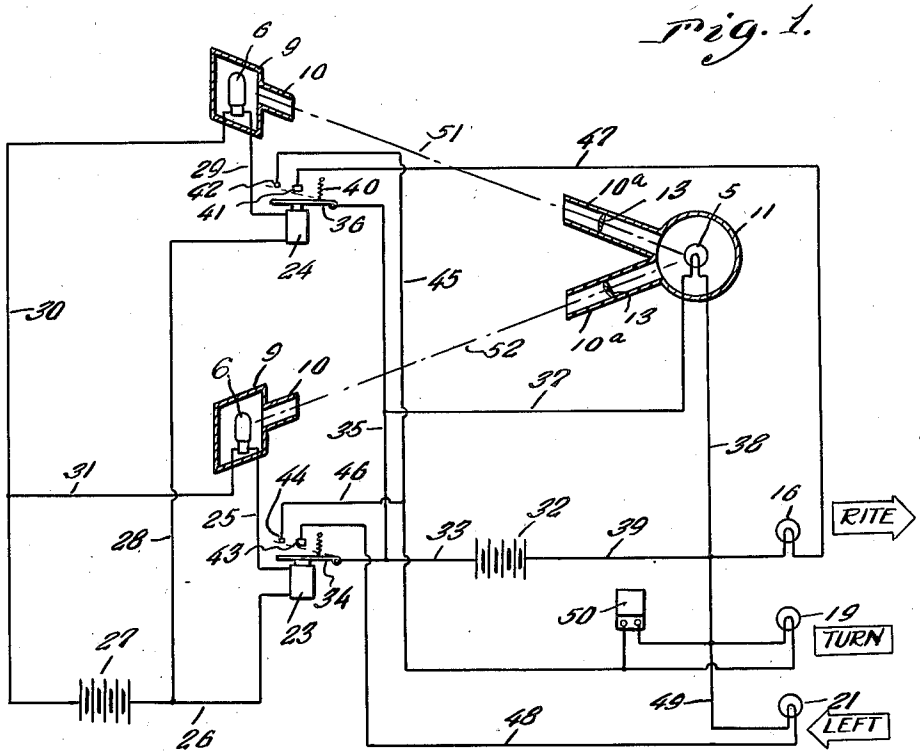
May 5, 1936. A. D. MILLER ET AL 2,039,604

SIGNAL FOR MOTOR VEHICLES

Filed Sept. 5, 1934

Fig. 1.



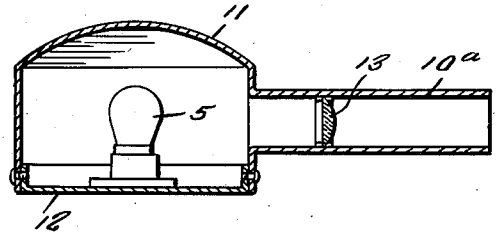


Fig. 2.

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SIGNAL FOR MOTOR VEHICLES

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2 Claims. (Cl. 177—339)

This invention appertains to new and useful improvements in the general art of electrical signaling and more particularly to a direction signal for motor vehicles.

The principal object of the present invention is to provide a direction signal which will require a mere lifting of one hand or the other of the driver to a position within one or the other of two beams of light so as to affect photo-electric cells in a manner transmitting the intention of the driver to turn to outside signal devices on the vehicle.

During the course of the following specification, other important objects and advantages of the invention will become apparent to the reader.

In the drawings:

Figure 1 represents a diagrammatic view disclosing the electrical connections between the electrical devices involved.

Figure 2 represents a vertical sectional view through the light source structure.

Referring to the drawings wherein like numerals designate like parts, it can be seen in Figure 1 that numeral 5 represents an electric bulb serving as a source of light while numerals 6—6 represent photo-electric cells located in containers 9, each provided with a tubular extension 10 alined with a corresponding tubular extension 10a protruding divergingly from the shell 11 which houses the electric bulb 5. These casings 11 and 9 are preferably provided with removable bottoms 12 so that the cells 6 or bulb 5 can be replaced when desired. It is preferable that the tubes 10a each contain a lens 13 for magnifying the light being directed into the boxes 9 through the tubular extensions 10.

By further referring to Figure 1, it can be observed that numeral 16 represents the right signal light bulb, while numeral 19 represents the "turn" light bulb. The "left" signal lamp 21 is also provided.

Numeral 23 represents the magnet for the left photo-electric cell 8 while numeral 24 represents the magnet for the right photo-electric cell 6. A conductor 25 connects one side of the cell 8 with one side of the magnet 23, while the other side of the magnet 23 is connected by the conductor 26 to one side of the battery 27. This side of the battery is connected by way of the lead 28 to one side of the coil 24, while the other side of the coil 24 is connected by the jumper 29 to one side of the cell 6, the other side of the cell 6 having its return by way of the wire 30 to the battery 27 as the other side of the cell 8 by way of the jumper 31.

Numeral 32 represents a battery having the lead 33 which connects to the armature 34 of the magnet 23 and also by way of the wire 35 to the armature 36 of the magnet 24. A branch lead 37 is also made to one side of the lamp 5, the remaining side of the lamp 5 being connected by the wire 38 to the return wire 39. A spring 40 normally serves to pull the armatures 34—36 away from the magnets 23—24 respectively, and will do this when one or the other of the magnets becomes sufficiently de-energized.

Located within the path of the armature 36 is the contact 41 and also the contact 42, while located within the path of the armature 34 is the contact 43 and also the contact 44. From the contact 42, a conductor 45 extends to the "turn" bulb 19 and also by way of a branch wire 46 to the contact 44 adjacent the magnet 23.

A conductor 47 extends from the contact 41 to the "right" bulb 16 and the other side of this bulb is connected to the return wire 39. A conductor 48 extends from the contact 43 adjacent the armature 34 to the bulb 21, the return side of the bulb 21 being connected by the conductor 49 to the return wire 39. A buzzer 50 is connected between the conductor 45 and the return wire 49 for the bulb 41.

It can now be seen that when the driver lifts a hand into the light beam 51 so that less light reaches the photo-electric cell 6, the resistance set up in the circuit including the magnet 24 in the photo-electric cell 6 will be sufficient to de-energize the coil 24 so as to release the armature 36 and permit it to bridge the contacts 41 and 42. Current will now flow from the battery 32 by way of the wire 35 and armature 36 to the conductors 45 and 47, thus energizing the "turn" light 19 and the "right" signal light 16. As soon as the driver removes his hand from the path of the beam 51 or from the path of the beam 52, the corresponding circuit will be restored and the corresponding light will become extinguished.

While the foregoing specification sets forth the invention in specific terms, it is to be understood that numerous changes in the shape, size, and materials may be resorted to without departing from the spirit and scope of the invention as claimed hereinafter.

Having described the invention, what is claimed as new is:

1. In combination, a vehicle, a signal thereon, photo-electric control means for the said signal, a source of light situated on said vehicle so as to throw a beam of light upon the photo-electric ele-

ment of said means to keep said signal inoperative, the path of said beam being in the vicinity of the operator of the vehicle whereby it may be blocked off by the operator who operates the signal.

2. In combination, a vehicle, a signal on said vehicle, photo-electric control means for said signal, said photo-electric control means including a pair of spaced photo-electric cells, said signal including a right and a left signal light electrically connected individually with corresponding photo-electric cells and a source of current, a signal source of light situated on said vehicle so as to throw beams of light upon the said photo-electric cells so as to normally keep said signal light inoperative, the path of said beams being in the vicinity of the operator of the vehicle whereby same may be blocked off selectively by the operator to operate one or the other of the said signal lights.

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