E. A. COLNOT.

DIRECTION INDICATOR.

APPLICATION FILED NOV. 16, 1917.

1,288,519. Patented Dec. 24, 1918.

Fig. 1.

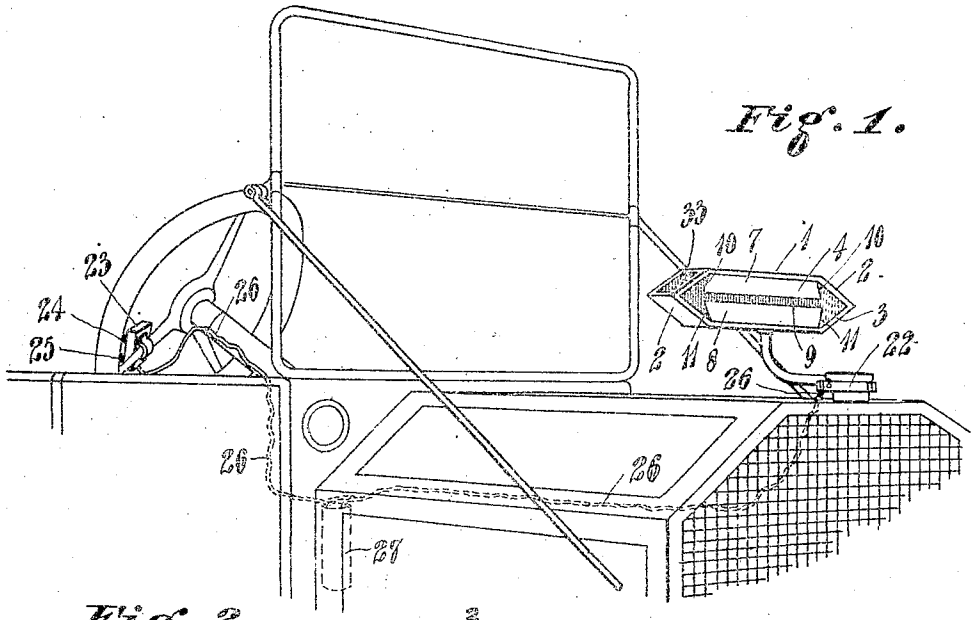


Fig. 2.

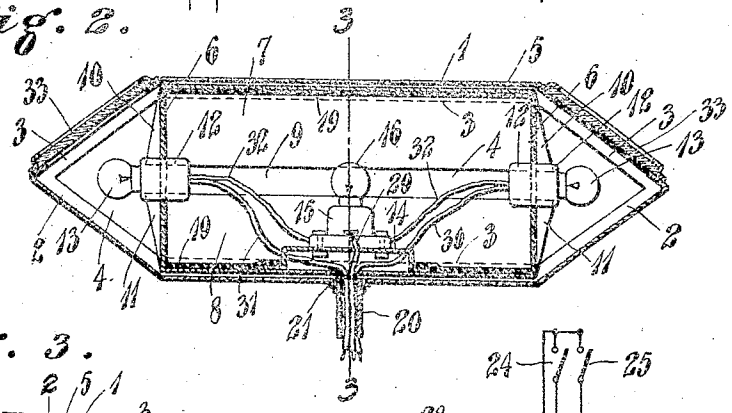


Fig. 3.

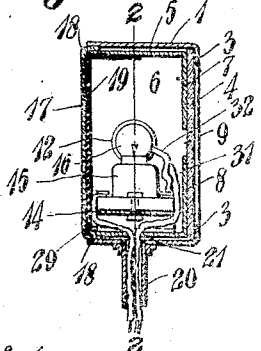
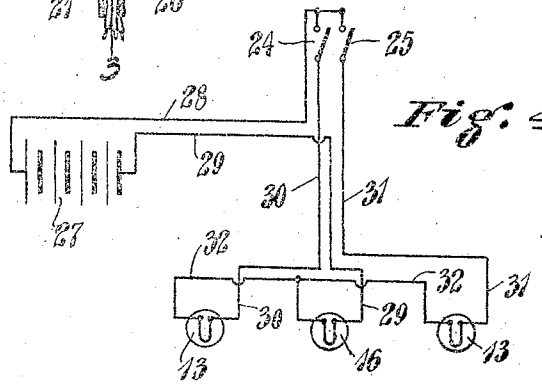


Fig. 4.



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DIRECTION-INDICATOR.

1,288,519. Specification of Letters Patent. Patented Dec. 24, 1918.

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To all whom it may concern:

Be it known that I, ERIC A. COLNOT, a citizen of the United States, and a resident of Cincinnati, in the county of Hamilton and State of Ohio, have invented certain new and useful Improvements in Direction-Indicators, of which the following is a specification.

My invention relates to signals, and its object is to provide means whereby the intended direction of a conveyance, especially an automobile, may be indicated either at the front end of the conveyance for the benefit of conveyances approaching in the opposite direction, or of pedestrians, or to facilitate traffic by notifying traffic officers of the intended direction so that they may grant the right of way more readily; or at the rear of the conveyance to indicate an intended change of direction to the drivers of conveyances following, so that rear end collisions may be prevented. The special object of my invention is to provide a device of this character which will be extremely simple, both in construction and in operation, so that it will be inexpensive to manufacture and install and may be operated with very little inconvenience to the driver of the vehicle.

My invention consists in the combination of parts and in the details of construction and arrangement of parts as will hereinafter be more fully described and claimed.

In the drawing:

Figure 1 is a general perspective view of part of an automobile equipped with my invention as I prefer to construct it;

Fig. 2 is a rear elevation of the signal-box with the back removed to reveal the interior construction, and with the lower part of the support broken away;

Fig. 3 is a vertical cross-section on a plane, corresponding to the line 3—3 of Fig. 2, but with the back of the box in place; and

Fig. 4 is a diagram showing the wiring attachment.

The signal-box comprises a major middle part 1 with its upper and lower sides parallel, and triangular end parts 2. The front side of this box is open except for a flange 3 turned in from the walls of its part 1 and its end parts 2. Thus, the front side of the box presents an opening with pointed ends to the right and to the left, respectively. A glass plate 4 fits forwardly against this flange 3, and preferably, this plate 4 has one of its sides roughened as indicated in Fig. 3, so that it is merely translucent. It will be understood that any other kind of transparent material may be used and that the plate may be transparent or translucent, although the translucent glass plate is preferred.

Fitting inside of the main part 1 of the signal-box is the lamp-box 5 of rectangular formation with upper and lower sides parallel with the upper and lower sides of the main part 1, but slightly spaced apart from said sides of said main part, and having ends 6 that extend across the signal-box about where the triangular parts 2 join the main part 1. The front of the lamp-box is made up of upper and lower plates 7 and 8 with their lower and upper edges, respectively, parallel and spread some distance apart, so that a rather wide slit 9 is left in the front of the lamp-box. Preferably, these plates 7 and 8 extend past the ends 6 a short distance at their adjacent sides and have their ends 10 and 11 inclined toward the middle of the structure upwardly and downwardly to the respective corners of the lamp-box.

Insulating bushings 12 are fixed in the ends 6 and hold small electric lamps 13 inside the triangular parts 2. Fixed on the bottom of the lamp-box and spaced upwardly therefrom is a base plate 14 that supports a socket 15 holding a small electric lamp 16 midway of the length of the lamp-box and on a level with the slit 9 in the front thereof.

The front sides of the plates 7 and 8 of the lamp-box fit snugly against the rear side of the glass plate 4, and a back 17 with a forwardly turned flange 18 all around it fitting snugly inside of the signal-box and between the adjacent walls of said

signal-box and the lamp box at the top and bottom holds the lamp-box forward against said glass plate. Thus, with the back 17 suitably secured in the signal-box, the interior structure is held in place. Preferably, a sheet of insulating material 19 fits inside the back of the lamp-box between the back 17 and the lamp mountings.

A tubular support 20 has its upper end fixed in the bottom of the signal-box midway of the length thereof and about midway from the front to the rear thereof while the lamp-box has an opening 21 in its bottom registering with the upper end of said support 20 which opens through the bottom of the signal-box. As here shown, this support 20 extends downward and then forward and is fixed to suitable clamping means 22 (Fig. 1) by means of which it is clamped around the neck of the radiator of the automobile, and thus supports the signal-box somewhat above and to the rear of the front end of the engine-hood of the automobile where it is in plain view to any one in front of or at a considerable distance either side of the automobile.

The controlling switch 23 as here shown, is mounted on one of the spokes of the steering-wheel of the automobile, (Fig. 1) and has two buttons 24 and 25 from which a cable 26 leads to a battery 27 suitably concealed in some part of the automobile and from this battery through the top of the hood to the interior of the tubular support 20 through which support it enters the signal-box and lamp-box.

It will be understood that the buttons 24 and 25 may be simple push buttons and their relation to the battery and to the lamps 13 and 16 is readily understood by inspecting the diagram in Fig. 4. Thus, it will be seen that a conductor 28 leads from one terminal of the battery to the terminals of both push buttons 24 and 25, and another conductor 29 leads from another terminal of the battery to one of the terminals of the middle lamp 16. From the other terminal of the push button 24, a conductor 30 leads to one of the terminals of the lamp 13 at one end of the signal-box and from the other terminal of the other push button 25 another terminal 31 leads to one of the terminals of the lamp 13 at the other end of the signal-box. The remaining terminals of both lamps 13 and the lamp 16 are all connected together by a conductor 32. Thus, if the push button 24 is depressed, the conductors 28 and 30 are connected and current flows from the battery through the conductor 28, button 24, conductor 30, left-hand lamp 13, conductor 32, middle lamp 16 and conductor 29 back to the battery. If the push button 25 is depressed, the current flows from the battery through the conductor 28, button 25, conductor 31, right-hand lamp 13, conductor 32, middle lamp 16 and conductor 29 back to the battery.

With the construction and electrical connections just described, it will be seen that the signal-box has three distinct compartments, each having its lamp and each having an opening to the translucent front 4 of the signal-box. The opening of the middle compartment is the long horizontal slit 9 and the opening of each end compartment is in the shape of an arrow-head pointing to the left or right, as the case may be. The slit 9 is adapted to form the shank of the arrow pointing in either direction. It is for this reason that the middle lamp 16 is always lighted while the end lamps 13 are lighted alternatively, as will be understood from the description just given.

Thus, the driver of the vehicle grasping the rim of the steering-wheel has within reach of his thumb either one of the buttons 24 or 25. By pressing one button, there is formed at the front of the signal-box an illuminated arrow as seen in Fig. 1, and by pressing the other button, such an arrow is produced pointing in the opposite direction, as faintly indicated by the dotted lines at the right. Preferably, the glass plate 4 is colored red, as indicated in Fig. 1. Also, preferably the signal-box has apertures with red glass plates 33, affording side markers for the conveyance.

It will be understood that the signal-box may be mounted on the rear of the vehicle in any well-known manner and operated by the push buttons on the steering-wheel as just described, or signal-boxes may be provided at both front and rear and suitably connected to the push buttons on the steering-wheel for simultaneous operation.

It will also be understood that my invention is applicable to conveyances other than automobiles, such as other land vehicles, as well as boats and the like.

Having fully described my invention, what I claim as new and desire to secure by Letters Patent is:

In a direction indicator, a signal box with an open back and comprising closed upper and lower sides and closed ends, and a front having an aperture with tapering ends at opposite sides of said front, a light-transmitting plate against the inner side of said front across said aperture, a lamp-box inside said signal-box, with an open back and comprising ends forming partitions defining spaces adjacent to the respective tapering ends of said aperture, and comprising a front having a transverse aperture about midway of its height, and bearing against said light-transmitting plate, a lamp secured to said lamp box inside thereof, lamps mounted on the respective ends of said

lamp-box, in said spaces, adjacent sides of said signal-box and said lamp-box having registering openings, electrical conductors leading from said lamps out through said openings, and a back fitting in the open back of said signal box against said lamp box, whereby said back holds said lamp-box and said light-transmitting plate in their positions, and whereby, when said back is removed, said lamp-box and said lamps are collectively removable from said signal-box.

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