E. A. BOGERT.

VISUAL SIGNAL FOR AUTOMOBILES.

APPLICATION FILED DEC. 31, 1918.

1,302,001. Patented Apr. 29, 1919.

Fig. 1.

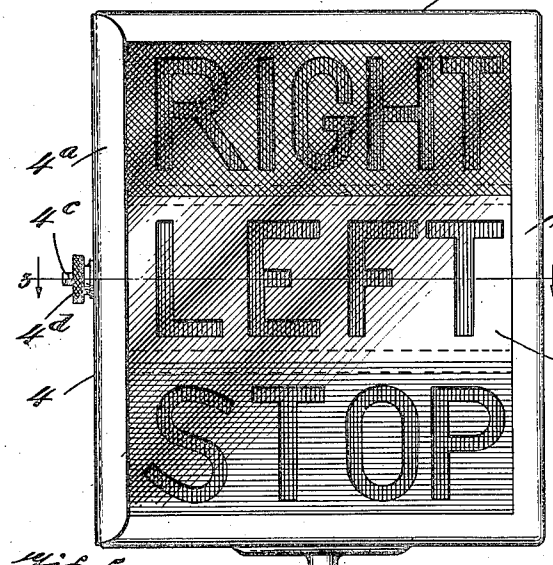


Fig. 2.

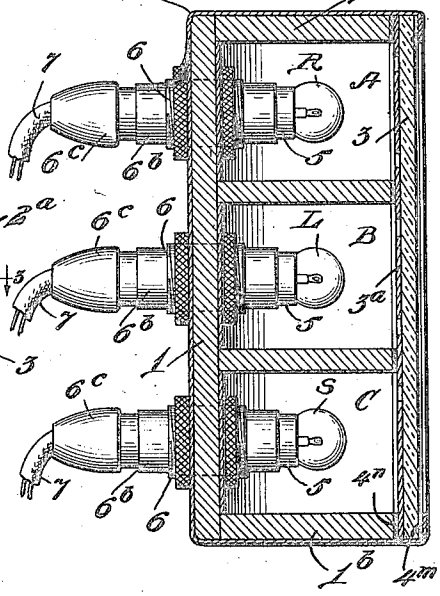


Fig. 5.

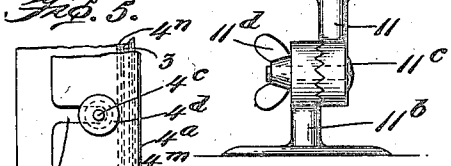


Fig. 4.

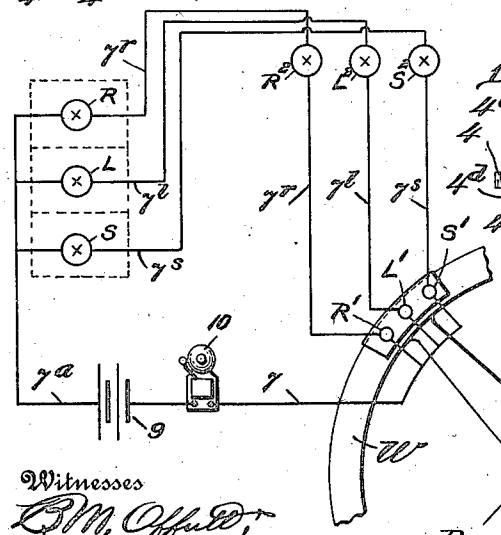
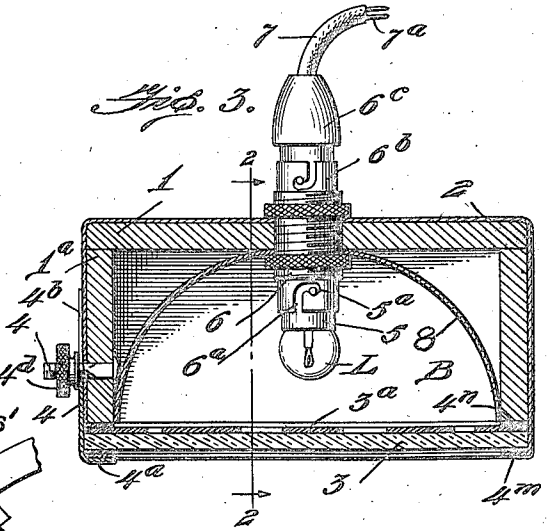


Fig. 3.



Witnesses

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VISUAL SIGNAL FOR AUTOMOBILES.

1,302,001. Specification of Letters Patent. Patented Apr. 29, 1919.

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To all whom it may concern:

Be it known that I, ELMER A. BOGERT, a citizen of the United States, residing at Montclair, in the county of Essex and State of New Jersey, have invented certain new and useful Improvements in Visual Signals for Automobiles; and I hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, which form part of this specification.

This invention is an improvement in visual signals particularly designed for use on vehicles, such as automobiles, to indicate the direction in which the driver of the vehicle intends to turn, or when he intends to stop, and to do away with the necessity of the driver using his arms to give such signals.

The invention consists in the novel construction of a signal box bearing suitable legends, preferably "Right," "Left," and "Stop," which are normally obscured but may be brought into prominence and visually displayed by illuminating them by means of electric lights controlled by push buttons conveniently located within reach of the driver, and preferably upon the steering wheel of the vehicle.

The invention consists in the novel construction of the signal device illustrated in the accompanying drawings and hereinafter described.

In said drawings:

Figure 1 is a view of the signal box.

Fig. 2 is a vertical section thereof.

Fig. 3 is a transverse section on the line 3—3, Fig. 1.

Fig. 4 is a detail diagrammatic view of the arrangement of signals and wiring for controlling the lights on a vehicle.

Fig. 5 is a detail view of the means for fastening the plate 4.

The signal box is preferably made of a wooden back 1, wooden sides 1^a, wooden top and bottom pieces 1^b, and intermediate transverse wooden partitions 1^c, parallel with the top and bottom pieces and dividing the interior of the box into three similar compartments A, B and C. These compartments are open at front but closed by a glass or transparent plate as hereinafter described.

The box is made of wood for the purpose of obtaining rigidity, lightness and economy, and it is preferably inclosed in a metal casing 2 adapted to fit snugly around the back, top and sides of the wooden box, and the top and bottom pieces and one side member of this metal frame 2 project beyond the front edges of the wooden portion of the box as shown and are then bent inwardly to form a front frame, indicated at 2^a, which frame is adapted to retain a glass front plate 3 and a stencil plate 3^a in the front of the box. This front plate 3 and stencil 3^a may be inserted through an opening in the frame at one side of the box, which opening is closable by a retainer 4 hereinafter referred to.

The glass front plate 3 is preferably formed in one piece and closes all the compartments, and is preferably stained a different color in front of each compartment so, for example and preferably, the glass in front of chamber A will be green, that in front of chamber B will be white and that in front of chamber C will be red. Against the inside of this glass plate 3 is placed a stencil plate 3^a, which is formed with suitable indicia cut therein. Preferably the word Right is cut in this plate in position to come in front of the chamber A; the word Left in position to come in front of the chamber B, and the word Stop in position to come in front of the chamber C, as indicated in the drawings.

The glass 3 and stencil 3^a are retained in position within the box by means of a retainer plate 4, which is preferably made of sheet metal and has its front edge bent to form a flange 4^a that corresponds in width with the sides of the frame 2^a; see Fig. 1, so as to present a neat appearance; and the main part of retainer 4 is adapted to lie against the side of the metallic casing as indicated in Fig. 3, and is provided with a slot 4^b that engages with a stub bolt 4^c fastened to the adjacent side of the box 1 and projecting through the casing 2, and engaged by a thumb nut 4^d by which the plate 4 can be secured in position. Other suitable fastenings may be used to fasten the retainer 4 detachably in position and which will permit the insertion and removal of the glass 3 and stencil plate 3^a when desired.

Felt or rubber washers or liners may be inserted between the glass and the members of the frame 2^a, as indicated at 4^m, and between the edges of the glass and sides and

top of the box, as indicated at 4^n, to prevent rattling and injury to the glass by direct contact with metallic or hard surfaces.

The stencil plate is opaque and as the chambers are closed on the rear and sides ordinarily the words on the stencil plate will not be readily discernible, but any one word that the driver wishes to show can be displayed by illuminating the chamber in rear thereof. As shown an electric light is provided in each chamber as indicated at R, L and S. Preferably each light has a shank 5 which is provided with a pin 5^a adapted to engage a bayonet slot 6^a in one end of a socket member 6, which has a threaded body that passes through an opening in the back 1 of the box, at the back of the compartment, and has a similar slot in its outer end 6^b which is adapted to engage with a plug 6^c to which the electric conductors are connected as usual; the electric wires being arranged in a cable in the usual manner so as to create a circuit through the light when the proper electric connections are made.

Each compartment is also preferably provided with a reflector 8 which may be perforated for the passage of socket member 6^s by which the reflector may be also secured in position; the reflector being bent in the compartment as shown in Fig. 3.

Electric current may be supplied from a generator, or from a battery, as indicated at 9 in Fig. 4. One pole of this battery may be connected by wires 7 to push button switches R′, L′, S′ of any suitable constuction preferably located upon the steering wheel W, as indicated in Fig. 4, when the invention is used on automobiles. The push button switches are respectively connected by wires 7^r, 7^l, 7^s to the lights R, L, S respectively, and each of these lights is electrically connected by return wires 7^a to the battery 9; the circuit being indicated in Fig. 4. The electric connections being well understood need no further explanation.

If desired signal lights R^2, L^2, S^2 might be arranged in the circuits between the push buttons and the lights in the signal box. When lights R^2, L^2, S^2 are used they are preferably disposed at the front of the vehicle or where the driver could readily see them and thus know when the desired signal was displayed.

If desired a bell, indicated at 10, might be interposed in the circuits.

The signal box may be attached to the vehicle in any suitable manner. As shown a bracket 11 is fastened to the underside of the box and adjustably connected to a similar bracket 11^b which may be fastened to any convenient part of the vehicle. The engaging faces of the brackets 11 and 11^b may be serrated and may be adjustably attached by means of a thumb bolt 11^e and nut 11^d.

All parts of the box are readily accessible, and it may be easily connected to a vehicle. It is very light and strong, and sound is deadened. The distinctive colors on the glass will attract attention and when a sign is illuminated it will be visible, either day or night.

The bayonet joint connections of the electric lights to the sockets are more efficient than threaded connections; and the lights are not disconnected by vibration of the box as the ordinary screw plug lights are liable to be.

What I claim is:

A visual signal box for automobiles comprising a box having its back, top, bottom and side pieces made of wood, and intermediate wooden partitions dividing the box into compartments, each compartment being open at front; a metal casing inclosing the box but open at front to form a metal frame around the front edges of the wooden box, said casing having an opening therein at one side of the box, a glass plate inserted through the opening into the frame and closing the front of the compartments, a distinctive signaling means for each compartment; illuminating means for the compartments; a retainer closing the opening in the side of the box through which the glass plate is inserted; and means for securing said retainer to the casing.

In testimony that I claim the foregoing as my own, I affix my signature.

ELMER A. BOGERT.