

M. J. MANDELBAUM.
 SIGNALING DEVICE.
 APPLICATION FILED DEC. 6, 1912.

1,167,308.

Patented Jan. 4, 1916.

2 SHEETS—SHEET 1.

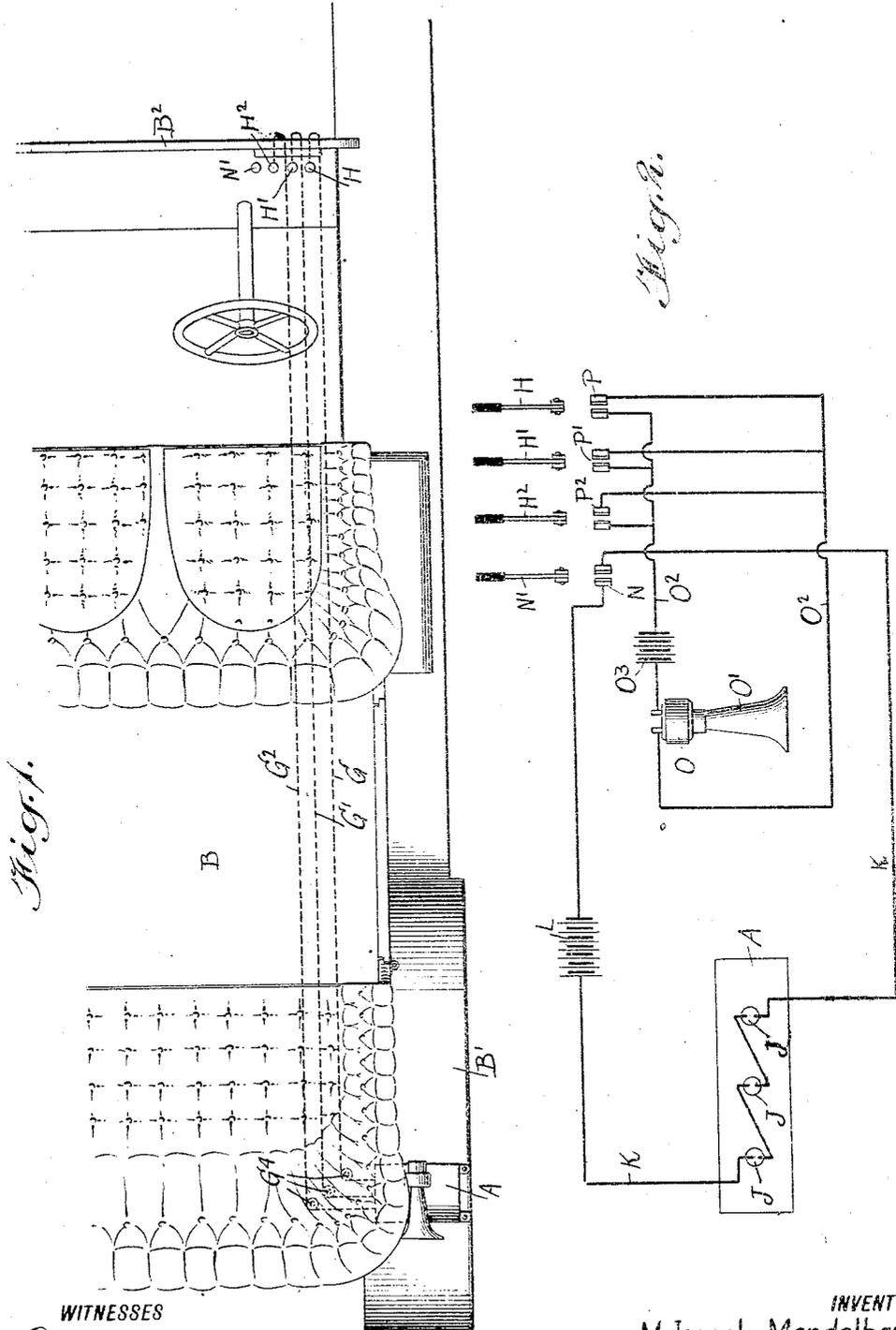


Fig. 1.

Fig. 2.

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Fig. 3.

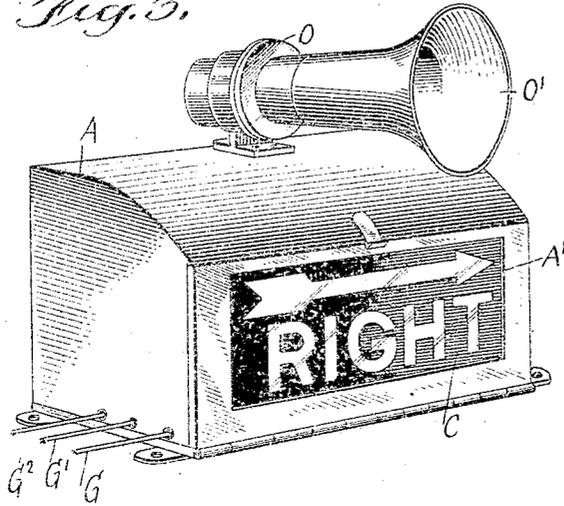


Fig. 4.

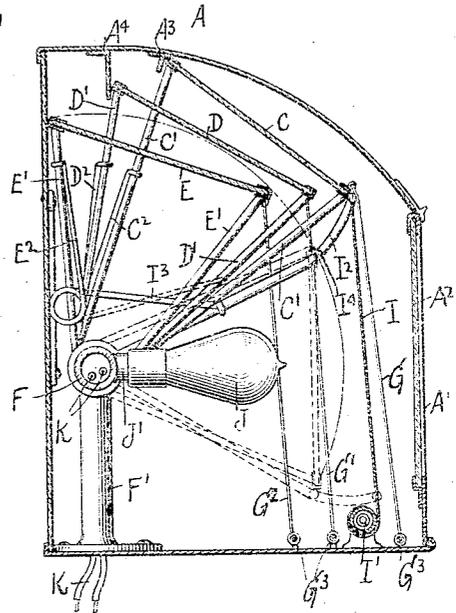


Fig. 6.

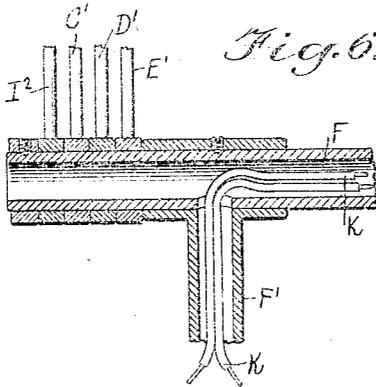
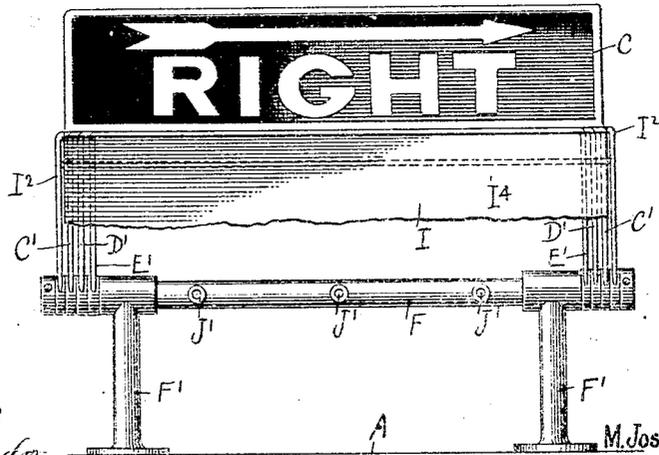


Fig. 5.



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M. JOSEPH MANDELBAUM, OF NEW YORK, N. Y.

SIGNALING DEVICE.

1,167,308.

Specification of Letters Patent.

Patented Jan. 4, 1916.

Application filed December 6, 1912. Serial No. 735,223.

To all whom it may concern:

Be it known that I, M. JOSEPH MANDELBAUM, a citizen of the United States, and a resident of the city of New York, borough of Manhattan, in the county and State of New York, have invented a new and Improved Signaling Device, of which the following is a full, clear, and exact description.

The object of the invention is to provide a new and improved signaling device for automobiles and similar vehicles, and arranged to permit the chauffeur to display warning signals during the day and night to following vehicles whenever it is desired to stop the vehicle or to turn from a straight course to the right or to the left.

In order to accomplish the desired result use is made of a casing, preferably located on one of the rear mud guards, a series of signs mounted to swing in the said casing independent one of the other, the signs being normally in a dormant position, and manually-controlled means connected with the said signs for swinging the same into display position, that is, in register with a display opening in the rear of the said casing.

A practical embodiment of the invention is represented in the accompanying drawings forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the views.

Figure 1 is a plan view of the signaling device as applied to an automobile; Fig. 2 is a diagrammatic view of the illuminating device and the alarm; Fig. 3 is a perspective view of the signaling casing containing the display signs and supporting the alarm for emitting an audible signal; Fig. 4 is an enlarged sectional side elevation of the same; Fig. 5 is a rear end elevation of the display signs and the curtain for normally closing the display opening in the casing; and Fig. 6 is an enlarged cross section of part of the bearing on which the display signs are mounted to swing.

The casing A of the signaling device is attached to a vehicle on the desired rear part, preferably, however, to the rear end of the mud guard B' for the right rear wheel of the automobile or other vehicle B, as shown in Fig. 1. Within the casing A are arranged a plurality of signs C, D and E, preferably made of glass or other transparent or translucent material, and having legends thereon, as follows: The sign C bears the legend "Right" and an arrow

pointing to the right, as plainly indicated in Figs. 3 and 5; the sign D bears the legend "Stop;" and the sign E bears the legend "Left," similar to the sign C. The signs C, D and E are normally in inactive position in the upper portion of the casing A, as plainly indicated in Fig. 4, and the said signs are mounted on supporting arms C', D', E' mounted to swing independent of each other on a transverse hollow bearing F supported on hollow posts F' attached to the bottom of the casing A, as plainly indicated in Figs. 4 and 5. The arms C', D' and E' are pressed on by springs C², D², E² attached to the front end of the casing A so as to normally hold the signs C, D and E in uppermost inactive position. The signs C, D and E can be swung independently downwardly and rearwardly into register with a display opening A' formed in the rear wall of the casing A, and preferably covered up by a pane A² of glass or other transparent or translucent material so that the corresponding legend is displayed in the opening A' as a signal to the operator in charge of a following vehicle.

In order to impart downward swinging movements to the signs C, D and E, use is made of ropes, cables, chains or other flexible connections G, G', G² attached to the rear ends of the signs and extending downwardly through guides G³ arranged at the bottom of the casing A, to then pass through openings in one end of the casing A (see Fig. 3), and then to pass around the guide pulleys G⁴ (see Fig. 1) mounted on the body of the automobile or other vehicle B. The flexible connections G' and G² then extend forwardly to the dashboard B² of the vehicle and connect there with levers H, H', H² fulcrumed on the dashboard B² and within convenient reach of the chauffeur or other operator in charge of the vehicle. Now when the operator swings the lever H downward a pull is exerted by the flexible connection G on the sign C so as to swing the same downward into display position, that is, into register with the display opening A', and when the operator returns the lever H to normal vertical position then the sign C returns to normal uppermost position by the action of its spring C². In a like manner the signs D and E are actuated by the operator correspondingly manipulating the levers H', H², and the signs return to normal position by the action of their

springs D^2 , E^2 as soon as the levers H' and H^2 are returned to vertical position.

It is understood that when the operator desires to signal that the vehicle is coming to a stop, the lever H' is actuated to swing the sign D into display position, when it is desired to turn to the right the lever H is manipulated to swing the sign C into display position, and when it is desired to turn to the left the lever H^2 is actuated to move the sign E into display position relative to the opening A' .

When the signs C , D and E are in normal uppermost position, the display opening A' is curtailed by a curtain I winding and unwinding on a spring roller I' journaled on the bottom of the casing A . The free end of the curtain I is connected with a swing frame I^2 fulcrumed loosely on the bearing F , and the said swing frame is pressed on by a spring I^3 to normally hold the swing frame in uppermost position with the curtain I unwound from the roller I' in front of the display opening A' . The free end of the swing frame I^2 normally rests on the rear end of the sign C , and the swing frame I^2 is provided with a cross bar I^4 adapted to be engaged by the rear members of the arms D' and E' , so that when either sign C , D or E is swung downward into display position it carries the swing frame I^2 along to allow the roller I' to wind up the curtain I during the time the sign is in display position. When the sign is returned to normal uppermost position the curtain I is unwound from the roller I' owing to the return movement of the swing frame I^2 .

The return movement of the signs C and D is limited by stops A^3 , A^4 arranged on the top of the casing A , and the sign E is limited in its return movement by the front of the casing, as indicated in Fig. 4.

During the night the interior of the casing A is illuminated, and for this purpose use is made of a series of lamps J , preferably electric lamps, arranged opposite the display opening A' , and in front of the signs C , D and E at the time the latter are swung down into display position, so that the rays of light of the lamps J illuminate the display sign C , D or E to render the same readily visible to the operator in a following vehicle. The electric lamps J are preferably mounted in sockets J' arranged in the support F , and the circuit wires K for the electric lamps J extend through the hollow bearing F and one of the posts F' to connect with a battery L and with a switch contact N adapted to be engaged by a switch lever N' arranged on the dashboard B^2 adjacent the lever H^2 . Thus when the lever N' is swung into engagement with the contacts N then the circuit for the lamps J is closed so that the lamps are ignited and provide the desired illumination.

An electric alarm O , of any approved construction, is preferably mounted on the top of the casing A and is provided with a rearwardly-extending horn O' to direct the sound rearward to be heard by the operator in charge of the following vehicle. The circuit wires O^2 of this electric alarm are connected with a battery O^3 or other source of electrical energy located on the vehicle B . The circuit wires O^2 are provided with sets of contact plates P , P' and P^2 (see Fig. 2) in alignment with the levers H , H' , H^2 so that when any one of the said levers is swung downward by the operator, as previously explained, then the lever makes contact with the corresponding set of contact points P , P' or P^2 to close the circuit and to sound the alarm O . Thus when either of the signs C , D and E is displayed then the alarm O is sounded audibly to warn a following vehicle.

The signaling device shown and described, is very simple and durable in construction and composed of comparatively few parts, not liable easily to get out of order.

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

1. A signaling device for automobiles and similar vehicles, comprising a casing having a display opening, a series of signs mounted to swing in the said casing one independent of the other, the signs being normally one above the other and out of register with the said display opening, manually-controlled actuating means under the control of the operator in charge of the machine for swinging either of the said signs into display position at the said display opening, a spring roller mounted in the said casing, a curtain winding and unwinding on the said roller, and operating means connected with the free end of the said curtain to normally close the display opening, the said operating means being adapted to be engaged by the said signs to allow the roller to wind up the curtain on moving a sign into display position.

2. A signaling device for automobiles and similar vehicles, comprising a casing having a display opening at the rear, a transverse bearing arranged in the casing, stop and turn-out signs within the said casing and normally out of register with the said display opening, arms carrying the said signs and mounted to swing independent one of the other on the said bearing, springs pressing the said arms to normally hold the signs in normal inactive position, levers under the control of the operator, flexible connections connecting the said levers with the said signs to swing the latter in displaying position at the said display opening, a spring roller journaled in the said casing, a curtain winding and unwinding on the said roller

and normally closing the said display opening, and a swing frame fulcrumed on the said bearing and adapted to be engaged by either of the said arms.

8 4. A signaling device for automobiles and similar vehicles, comprising a casing having a display opening, a plurality of signs in the casing to move in front of the opening, a spring roller in the casing, a curtain carried by the roller, and a member operated by the signs and to which the curtain is attached.

13 5. A signaling device for automobiles and similar vehicles, a casing having a display opening at the rear, a plurality of movable and spring pressed signs mounted in the casing, means for moving the signs in front of the opening of the casing, a spring roller in the casing, a curtain carried by the roller, and a movable and spring pressed member in the casing and to which the curtain is attached, said member being operated by the

signs when moved in front of the opening to permit the curtain to wind upon its roller.

25 5. A signaling device for automobiles and similar vehicles, a casing having a display opening therein, a plurality of pivoted and spring pressed arms in the casing, signs carried by the arms, means for swinging the arms to bring the signs in front of the opening of the casing, a spring roller, a curtain carried by the roller, and a pivoted and spring pressed frame to which the curtain is secured, said frame being adapted to be swung downward by the arms carrying the 30 signs.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

M. JOSEPH MANDELBAUM.

Witnesses:

THOS. G. HOSTER,
PHILIP D. ROLLHAUS.