

D. A. McCONNELL.
HORN CUT-OUT AND MOTOR CONTROL ALARM FOR MOTOR VEHICLES.
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Fig. 1.

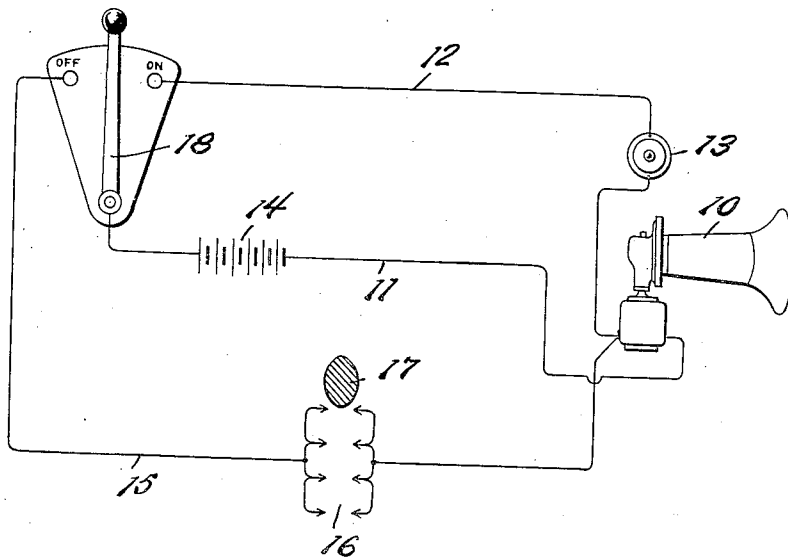
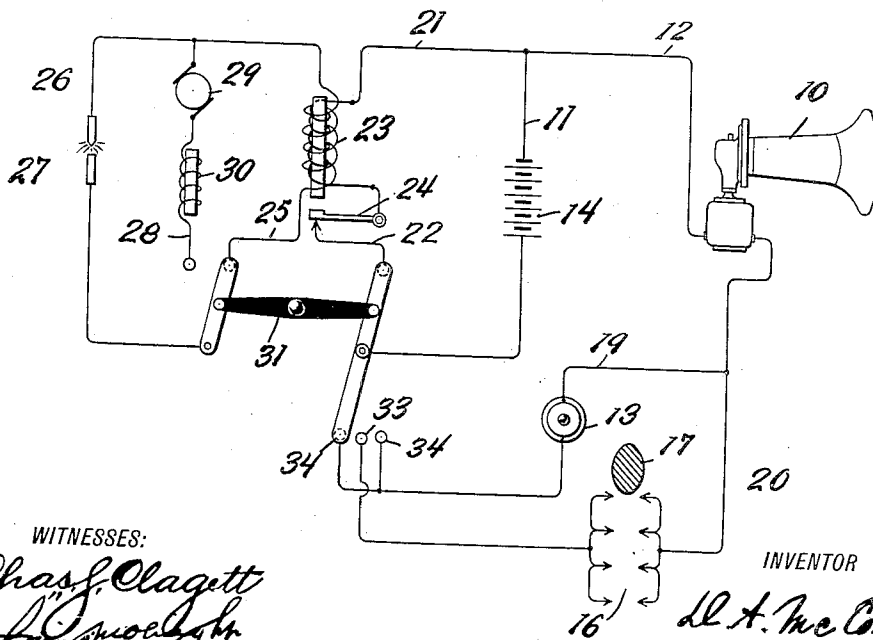


Fig. 2.



WITNESSES:

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HORN CUT-OUT AND MOTOR-CONTROL ALARM FOR MOTOR-VEHICLES.

1,173,592.

Specification of Letters Patent.

Patented Feb. 29, 1916.

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To all whom it may concern:

Be it known that I, DUNCAN A. McCONNELL, a citizen of the United States, and resident of Arlington, in the county of Hudson and State of New Jersey, have invented certain new and useful Improvements in Horn Cut-Outs and Motor-Control Alarms for Motor-Vehicles, of which the following is a specification.

10 This invention relates to systems pertaining to the traffic warning signals of motor vehicles or the like, or to the control of such vehicles or to both.

One object of the invention is to provide means whereby the customary operating circuit closer for sounding the signal may be cut out when the vehicle is at rest, preferably by the movement of some vehicle-controlling part which when the car is at rest is necessarily or customarily shifted to a certain position different from the position or positions occupied when the car is running.

25 A further object of the invention is to provide means whereby an alarm will be sounded in event of such a controlling part being left in running position when the car is brought to rest or in event of the part being shifted from rest or neutral position either accidentally or mischievously.

30 A particular object of the invention is to provide a combined push-button cut-out and gear-mesh alarm whereby the traffic warning signal cannot be sounded by operation of the button, when the car is at rest and yet the signal will be sounded when any set of gears is in mesh or operative relation for any forward speed or reverse.

40 In the accompanying drawings showing diagrammatic illustrations of different forms of the invention: Figure 1 is a view showing a combined push button cut-out and gear mesh alarm system; and Fig. 2 is a view showing a combined system for throwing out the ignition spark, cutting out the push button and setting the gear mesh alarm.

By reference to Fig. 1 it will be seen that a suitable warning signal 10 is provided with an operating circuit 11, 12, including a suitable or customary operating circuit-closer or push-button 13 and a battery 14, or other source of current. There is also an alarm circuit 11, 15, also adapted to actuate the signal, and including circuit controlling contacts at 16 which as shown comprise a

plurality of contacts arranged in parallel and controlled by a gear-shift or change-speed lever of an automobile. Such levers and their connections with the transmission are so well understood that no special illustration is here deemed necessary. The gear-shift lever is here shown in neutral position, that is the position in which the gears are not in proper relation to produce any forward speed or reverse. In this neutral position of the gear-shift lever, the circuit 11, 15 is open at all contacts 16, but in any of its running positions it closes the circuit at one or the other of them. Four pairs of contacts are indicated, corresponding to three speeds forward and a reverse, but any suitable number of contacts may be employed according to the number of speeds possible with the special transmission employed, and of course the contacts need not all be arranged at one side of the neutral position of the lever. A switch 18 is provided by means of which the signal-operating circuit may be closed and the gear-mesh alarm signal opened at another point, or by means of which this second break in the gear-mesh alarm system may be closed and the push-button circuit opened. In this form of the invention when the switch 18 is in the position designated "on" the traffic warning signal can be operated by the push-button 13 but the signal will not be operated by the shifting of the lever 17 along the contacts pertaining to the break 16. When the car is brought to rest the push-button circuit 13 is broken so that the signal cannot be mischievously sounded, and the gear-mesh alarm can be set, by throwing the lever 18 to "off" position. In the latter case the gear-shifting lever 17 if left in any of its running positions, or if shifted to this position after the car is brought to rest, will operate as a bridge across one or the other of the pairs of contacts, and a warning blast will be sounded by the signal 10, which will continue until the gear-shift lever is placed at neutral position, where it should always be when the car is at rest.

While I have described the lever 17 as a gear-shift lever, it will be obvious that it may be symbolical of any vehicle-controlling part which is necessarily or customarily in a certain position when the vehicle is at rest. In Fig. 2 I have illustrated a system wherein the push-button circuit is opened and the alarm circuit is closed by a member

which also throws off the ignition spark. Naturally the wiring may be widely varied. 10 is the signal as before, and 13 the push-button or circuit-closer, and 11, 12, 19 indicate the signal-operating circuit. 11, 12, 20 indicate the alarm circuit, having the break 16 controlled as before by the gear-shift lever 17. 11, 21, 22 indicate the primary of the battery sparking circuit, illustrating that the ignition battery 14 may be used to run the signal 10. 23 is the customary induction sparking coil, and 24 the make and break thereof. The secondary is shown at 25, and 26, and 27 indicate the sparking electrodes in the cylinder of the engine. 28, 29 is a second ignition circuit, including the magneto 29 and the spark coil 30. The wiring for only one cylinder is illustrated, but it is obvious that the wiring for a plurality of cylinders will present no new problems. 31 is a double switch, which in the position shown closes the primary and secondary of the battery sparking circuit, closes the push-button circuit at one of the contacts 34, and opens the gear-mesh alarm circuit. In the other extreme position, the switch closes the magneto circuit and the push-button circuit, the latter through the other contact 34, and opens the primary and secondary of the battery-sparking circuit, the gear-mesh alarm circuit still being open. At intermediate or neutral position, it closes the gear-mesh alarm circuit at the contact 33 and opens all of the other circuits. Thus, the act of throwing off the spark with either system of ignition cuts out the push-button, so that the signal cannot be tampered with, and sets the gear-mesh alarm, so that a warning blast is given in event of the gear-shift lever being at a position other than neutral when the car is at rest.

What I claim as new is:

1. In a signal and control system for motor vehicles and the like, the combination of an electrically operated warning signal, a source of electrical energy, and two circuit controllers arranged in parallel for controlling the delivery of current to said signal, one of said controllers comprising a push button normally preventing the delivery of current, and the other of said controllers comprising a vehicle controlling lever adapted to be retained in open or closed position at will.
2. In a control system for motor vehicles and the like, the combination of an electrically operated warning signal, a source of electrical energy, an electric circuit including two branches arranged in parallel and each including a circuit controller, one of

said circuit controllers comprising a push button and the other of said controllers comprising a vehicle controlling lever, and a switch for connecting either of said branches with said source of electrical energy.

3. In a signal and alarm system for motor vehicles and the like, the combination of a warning signal, an operating circuit therefor including an operating circuit closer, an alarm circuit also adapted to actuate said signal and having a break, a gear-shift lever adapted to open said break when in neutral position and to close the same when in running position, and an operating part adapted in one position to open said alarm circuit at another point and to close said operating circuit and in another position to open said operating circuit and close the second break in said alarm circuit.

4. In a signal and alarm system for motor vehicles and the like, the combination of a warning signal, an operating circuit therefor including an operating circuit closer, an alarm circuit also adapted to actuate said signal, and having a break, a controlling part which is customarily in one position when the vehicle is at rest and in another position when the vehicle is running, said part being adapted to open said break in the rest position and to close the same in running position, and an operating part adapted in one position to open said alarm circuit at another point and to close said operating circuit and in another position to open said operating circuit and close the second break in said alarm circuit.

5. In a signal and alarm system for motor vehicles and the like, the combination of a traffic-warning signal, an operating circuit therefor including an operating circuit closer, an alarm circuit also adapted to actuate said signal and having a break, a gear shift lever adapted to open said break when in neutral position and to close the same when in running position, an ignition circuit, and a controlling part adapted in one position to close said ignition and signal-operating circuits and to open said alarm circuit at another point and in another position to open said ignition and signal-operating circuits and to close the second break in said alarm circuit.

Signed at Newark, in the county of Essex and State of New Jersey, this 30th day of December, A. D. 1910.

DUNCAN A. McCONNELL.

Witnesses:

J. ROLLIN LINN, Jr.,
GEO. E. MORGAN.