R. S. MALBURG.

DOOR OPEN SIGNAL FOR ALL VEHICLES.

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1,299,979. Patented Apr. 8, 1919.

Fig. 1.

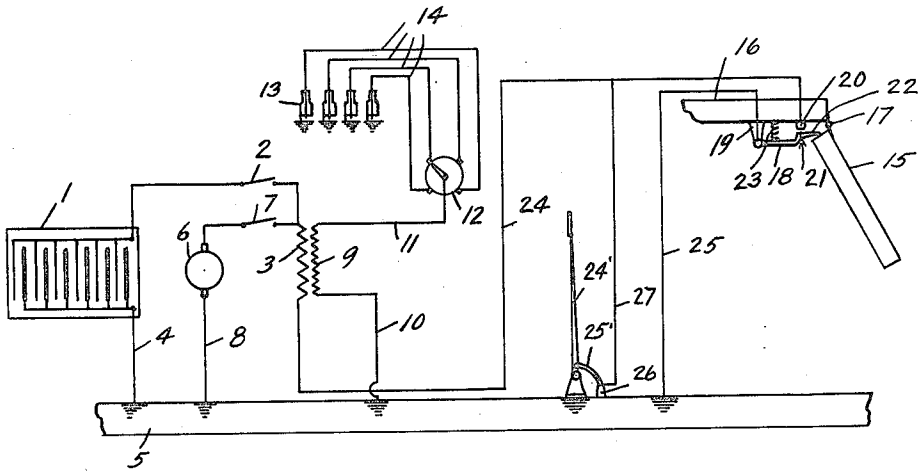
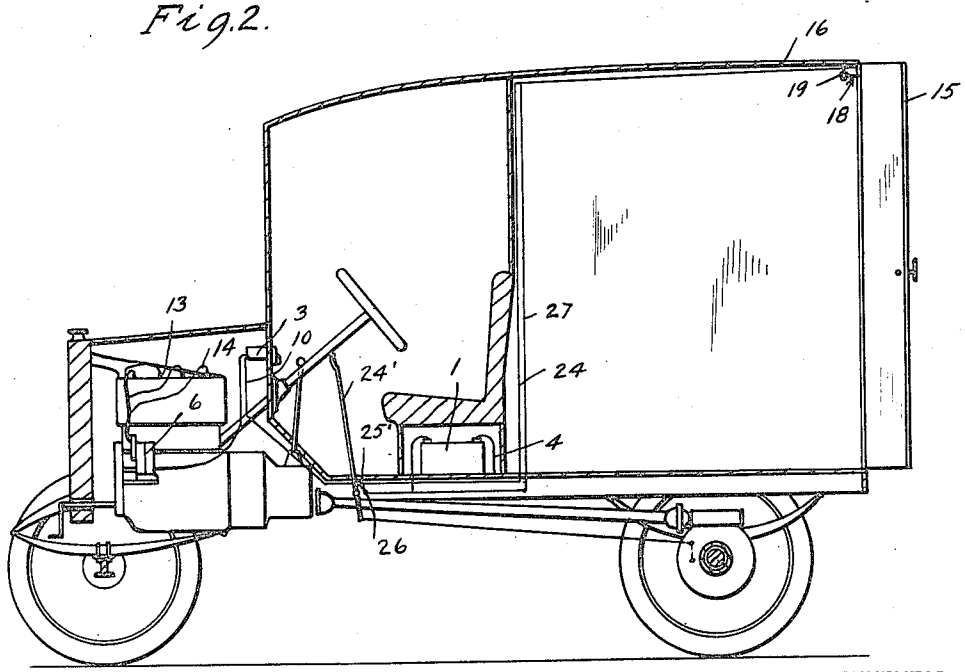


Fig. 2.



WITNESS:

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DOOR-OPEN SIGNAL FOR ALL VEHICLES.

1,299,979. Specification of Letters Patent. Patented Apr. 8, 1919.

Application filed August 19, 1918. Serial No. 250,549.

To all whom it may concern:

Be it known that I, RAYMOND S. MALBURG, a citizen of the United States, residing at Los Angeles, in the county of Los Angeles and State of California, have invented new and useful Improvements in Door-Open Signals for All Vehicles, of which the following is a specification.

My object is to make a door-open signal for motor vehicles, and my invention consists of the novel features herein shown, described and claimed.

Figure 1 is a diagram showing how my door-open signal is incorporated into the electric system of a motor vehicle.

Fig. 2 is a sectional side elevation of a motor vehicle provided with a door-open signal embodying the principles of my invention.

Referring to Fig. 1 the battery 1 is connected through a switch 2 to one end of the primary coil 3, and through the line 4 the battery 1 is grounded on the frame 5. The magneto 6 is connected through the switch 7 to the primary coil 3 and to the same end as the battery 1, and the magneto 6 is grounded through the line 8 to the frame 5. The secondary coil 9 is grounded through the line 10 to the frame 5, and the other end of the secondary coil is connected through the line 11 to the timer 12, and the timer is connected to the spark plugs 13 by lines 14, and the spark plugs are grounded.

The rear door 15 is connected to the body 16 of the vehicles by hinges 17. A switch lever 18 is connected to the body 16 by a bracket 19 and a contact 20 is mounted upon the body 16 in position to be engaged by the contact end 21 of the switch lever and a finger 22 extends from the switch lever 18 and engages the door 15 so that when the door is closed the contact 21 will engage the contact 20. An expansive coil spring 23 is placed between the body 16 and the switch lever 18 to throw the switch lever out and break the contact when the door 15 swings open. A line 24 connects the primary coil 3 to the contact 20 and a line 25 connects the switch lever 18 to the frame 5 so that when the door 15 is closed, the power circuit is closed to operate the engine and so that when the door is open the power circuit is open at this point.

Any form of circuit breaker may be used which will break the power line when the door opens and which will close the power line when the door is closed.

The emergency brake 24′ is provided with a contact 25′ to engage a contact 26 fixed upon the vehicle and a line 27 connects the line 24 with the contact 26 and the contact 25′ is grounded upon the frame 5 so that when the emergency brake 24′ is set the contact 25′ engages the contact 26 and closes the power line to operate the engine. Any form of circuit breaker may be used in connection with the emergency brake which will close the power line when the brake is set and open the power line when the brake is released.

Heretofore in the operation of laundry wagons, delivery wagons and the like, there has been no way of notifying the driver when the rear door flies open or when he fails to close the rear door or when someone surreptitiously opens the rear door. By the use of my door-open signal, it will be impossible for the driver to move the vehicle without the door being closed. When the door opens, the circuit breaker will operate to open the power line and the engine will not operate unless the emergency brake is set and, of course, if the emergency brake is set, the vehicle cannot move. If the emergency brake is released and the vehicle moves that indicates that the door is closed and if the vehicle does not move, it will call the driver's attention to the fact that the door is open.

It is obvious that the circuit breaker at the door may be arranged to operate an independent signal to notify the operator that the door is open instead of being connected into the power line.

Various changes may be made without departing from the spirit of my invention as claimed.

I claim:

1. A door-open signal for motor vehicles comprising a circuit breaker adapted to be operated by the operation of an emergency brake, and a second circuit breaker adapted to be operated by opening and closing a door, said circuit breakers being in the power line for operating the spark plugs.

2. A door-open signal for motor vehicles comprising a circuit breaker adapted to be operated by the operation of an emergency brake, and a second circuit breaker adapted to be operated by opening and closing a door, said circuit breakers being in the power line for operating the spark plugs, and said circuit breakers being set so that the vehicle cannot be moved when the door is open.

In testimony whereof I have signed my name to this specification.

R. S. MALBURG.