

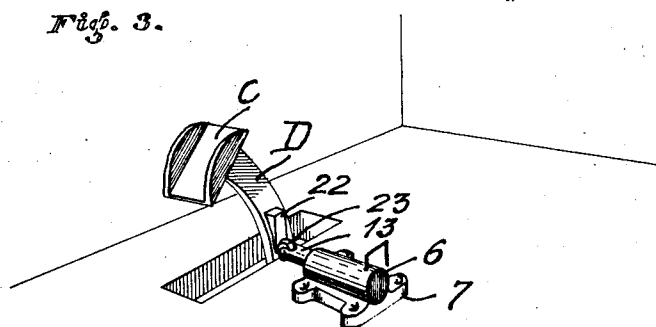
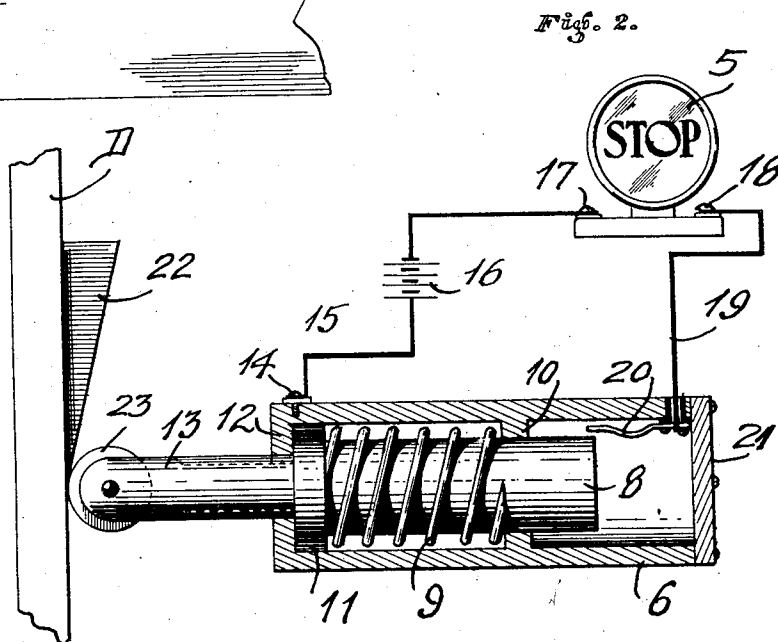
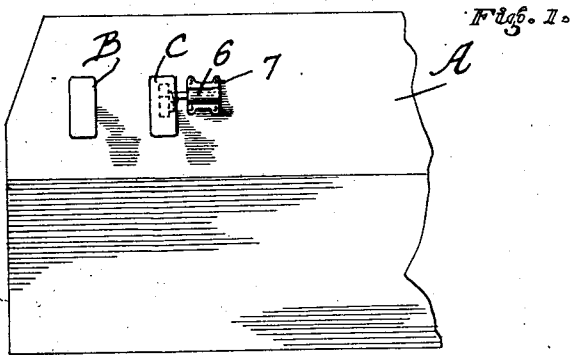
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STOP SIGNAL SWITCH FOR MOTOR VEHICLES

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STOP-SIGNAL SWITCH FOR MOTOR VEHICLES.

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My invention relates in general to signals for motor vehicles and has reference more particularly to an improvement in automatic stop signals for use in indicating, from the back of a vehicle, when the vehicle is to be brought to a stop, so as to warn other vehicles approaching from the rear.

The primary object of my invention is to provide a cheap and positive signal which can be relied on at all times to properly function, and especially one which may be automatically manipulated so that it will not depend on the memory of the driver to give a warning.

A still further object of my invention is to provide a stop signal which may be used in combination with a direction indicator, and which may be actuated independently thereof, so as to avoid confusion.

The invention possesses further objects and features which will appear as the description now proceeds with reference to the accompanying drawing, in which Figure 1 is a view in plan showing the application of my invention, Figure 2 is an enlarged schematic view, and Figure 3 is a perspective view of the application of the invention.

Referring now to the drawing in detail A represents the footboard of a motor vehicle in front of the driver's seat, B represents the clutch pedal, and C the foot brake pedal. To realize the automatic actuation, I prefer to associate the actuating mechanism with the arm D of the foot brake pedal C, so that whenever the foot brake is applied the signal will automatically function. The signal is represented as at (5), and it is preferably mounted in a convenient place on the rear of an automobile. The actuating mechanism of the signal preferably comprises a mounting (6) which may be made in the form of a casing adapted to be fixed by the plate (7) to the footboard, and made to house a plunger or the like (8) which is maintained under the influence of a coil spring (9). The casing (6) has an internal flange or ring (10) intermediate its ends to form an abutment for one end of the spring which is coiled around the plunger (8) and with a collar (11) on the plunger to form an abutment for the opposite end of the spring.

With this construction the plunger is mounted free to slide within the casing, but

with the spring holding the same normally toward the end (12) of the casing. Formed as a part of plunger (8) and projecting through the end (12) of the casing is an extension (13). The collar (11) acts also as a stop for limiting the outward thrust of the extended end of the plunger in case it is desirable to make the opening in the end (12), through which the extension projects, of the same diameter as that of the plunger.

On the casing (6) is a terminal (14) for one wire (15) of the circuit for the signal. The wire (15) is connected through the battery (16) to the post (17) of the signal, and the circuit is completed from the post (18) through the wire (19) to the other terminal of the casing, which preferably comprises the spring contact (20) which is mounted within the casing in the path of the plunger (8) so that when the plunger is moved toward the end (21) of the casing it will contact with the spring contact (20) and complete the circuit. So far as concerns the showing made, the terminal (14) merely connects the wire (15) to the casing and the other terminal is properly insulated from the casing so as to prevent a short circuit.

Since the actuation of the signal is realized by moving the plunger (8) to contact with the spring contact (20) and to realize an automatic action, I have elected to mount a wedge shaped block (22) to the arm D of the foot brake, pedal C, so that when the brake is applied the wedge shaped block will impart a thrust to the plunger and close the circuit. To reduce friction to a minimum, a roller or wheel (23) may be carried on the termination of the extension (13) so that it can ride over the face of the block (22). The block (22) may be welded, bolted, or otherwise applied to the arm D according to the requirements.

From the above it will be seen that I have devised a cheap and convenient way of realizing a positive operation of the signal, and furthermore, it will be seen that a motor vehicle may be equipped with the signal without departing from the existing conventional construction of the parts which co-operate to actuate the signal, thus avoiding unnecessary expense in realizing the benefits of the invention.

I claim:

A switch comprising a cylinder having an open end and a closed end with a small open-

ing therein for receiving the shank of a piston, a piston slidably disposed in said cylinder and having a shank movable through said small opening, said piston having a portion thereof engaging with the interior surface of the cylinder, and having a reduced portion for permitting a spring to be mounted thereon and still be spaced from the interior of the cylinder, a spring mounted on the reduced portion, said cylinder having an integral, inwardly-extending, annular flange, for aiding and guiding the reduced portion of the piston and providing a support for one end of the spring, an insulated spring contact carried by said cylinder and engageable with said piston when said piston is in retracted position.

ELLEN E. SAFELY.