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SAFETY DEVICE

Filed Jan. 27, 1930

Fig. 1.

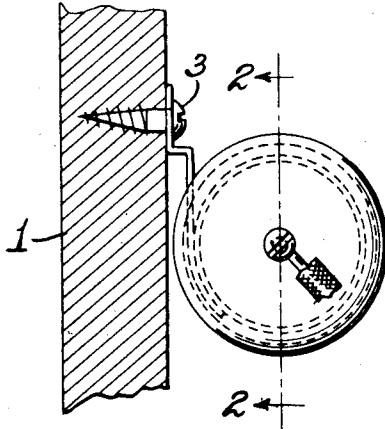
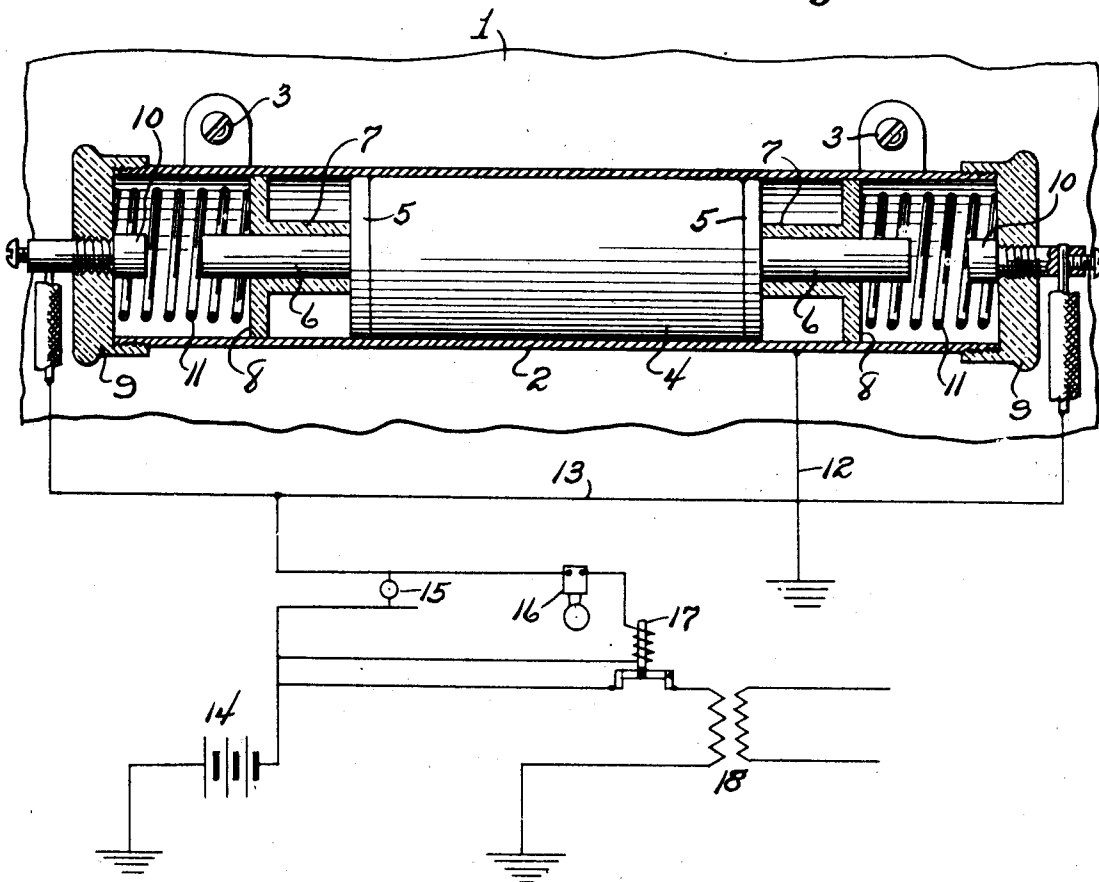


Fig. 2.



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WITNESS:

UNITED STATES PATENT OFFICE

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SAFETY DEVICE

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My present invention has reference to a safety device for automobiles or like vehicles.

The object of the invention is the provision of a safety device which will prevent accidents of automobiles going too fast around a curve.

A further object is the provision of a safety device for this purpose that includes a horizontally disposed gravity influenced weight and plungers movable by the shifting of the weight to cause said plungers to be brought against contacts to which are secured the wires of electric circuit and the said circuit being provided with both an audible and visible alarm as well as a means for cutting off the ignition to the automobile when the machine attempts to round the curve too rapidly.

To the attainment of the foregoing and other objects which will present themselves as the nature of the invention is better understood the improvement also resides in certain other novel features of construction, combination and operative association of parts, one satisfactory embodiment of which is disclosed by the accompanying drawings.

In the drawings:

Figure 1 is a side elevation of the improvement in applied position.

Figure 2 is a sectional view on the line 2-2 of Figure 1.

On the dash or other support 1 of an automobile I fix a horizontally disposed metal cylinder 2. The cylinder, on the rear face thereof has attached thereto spaced brackets, and through these brackets there are passed the means 3 that hold the cylinder in proper horizontal position upon the support 1.

Arranged in an upper cylinder there is a slidable weight 4. The weight, as disclosed by the drawings, may be in the nature of a solid cylindrical member or the said weight may be in the nature of one of a plurality of heavy spheres. The weight 4 has its ends in contact with the heads 5 of plunger rods 6. The plunger rods are guided through sleeves 7 having outer disc heads 8. The cylinders and the heads therefor are of insulating material.

The ends of the metal tube or cylinder 2

are threaded and have screwed thereon the flanges of caps 9 which are of insulating material. Each cap 9 has a central contact member 10. The contact members are in the nature of metal rods and have their body portions threaded through the caps 9. By this arrangement it will be noted that the contacts 10 may be adjusted with respect to the plunger rods 6. Arranged between each cap and the head 8 of each cylinder 7 there is a coil spring 11. The springs exert a pressure between the caps and heads 8 to urge the heads away from the caps and to bring the sleeves 7 thereof into contact with the plunger heads 5. The tension of the spring and likewise the adjustment of the contacts 10 with respect to the plunger rod 6 is obtained by screwing or unscrewing the caps of the tube or cylinder 2. The numeral 12 designates a wire which is connected to the cylinder 2, and is suitably mounted. The contacts each have fixed thereon a wire 13 in an electric circuit which includes a battery 14. The circuit is that employed in connection with any ordinary automobile motor and which includes the usual induction, make brake means, etc. In the circuit there is a lamp 15 and an alarm 16. Also in the circuit there is a solenoid switch 17 that is wired to a transformer 18, one of the wires of the transformer being grounded and the other being hitched to a secondary wire leading to the ignition and spark plugs.

With a simple construction of elements as above described and the arrangement of the improvement in a horizontal position in an automobile or like vehicle it will be apparent that the contacts 10 may be adjusted with respect to the contacts provided by the plunger rod 6, so that the weight when shifted in the tube or cylinder 2 forcibly engages with one of the plunger heads 5 to move the same against the tension of the spring 11 to bring the rod 6 against one of the contacts 10 and thereby energize the circuit to illuminate the bulb 15, sound the alarm 16 and shut off the ignition of the automobile, when such sliding of the weight 4 is occasioned by the rapid travel of the machine around a curve in either direction.

It is believed that the simplicity of the construction and the advantages thereof, as well as the life saving property embodied therein will be understood and apparent so that further detailed description will not be required.

The strength of the springs with respect to the weight of the sliding weight 4 are so proportioned as to give the danger signal at any time within an allowed margin of safety which is thought best and obviously the weight may be of any desired shape, such for instance as a sphere or the like.

Having described the invention, I claim:

A circuit closure for the purpose set forth, comprising a metal tube, caps of insulating material closing the tube, a contact member screwed centrally through each of the caps, a weight normally arranged in the center of the tube, metal plunger rods having heads which are in contact with the ends of the weight, sleeves of insulating material through which the rods are guided, and said sleeves having disc ends that are in contact with the bore of the cylinder, and coiled pressure springs in the cylinder between the disc ends and the caps.

In testimony whereof I affix my signature.
FRANK E. RICHARDS.

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