

M. ROSENBERG.
OBSTRUCTION ALARM.
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1,376,166.

Patented Apr. 26, 1921.

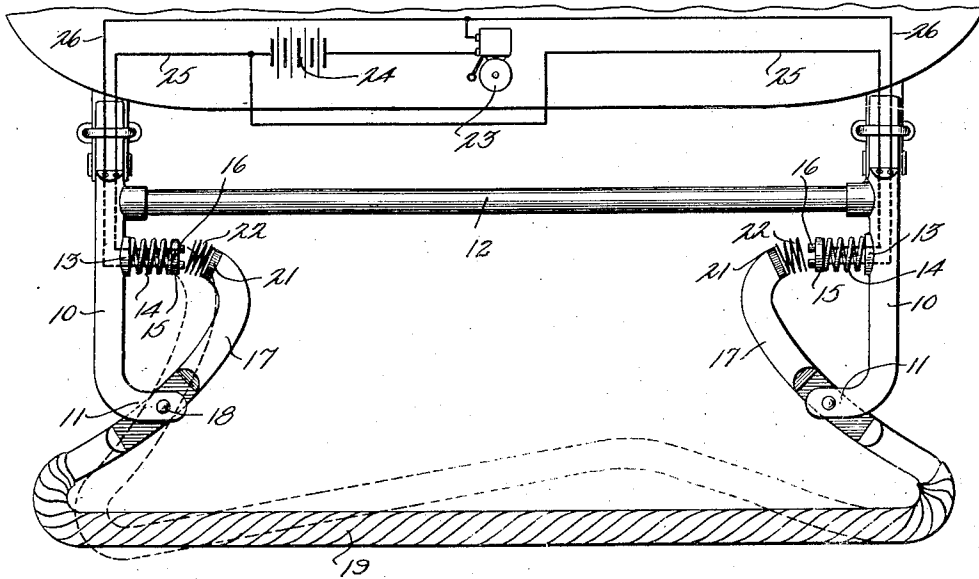


Fig. 1.

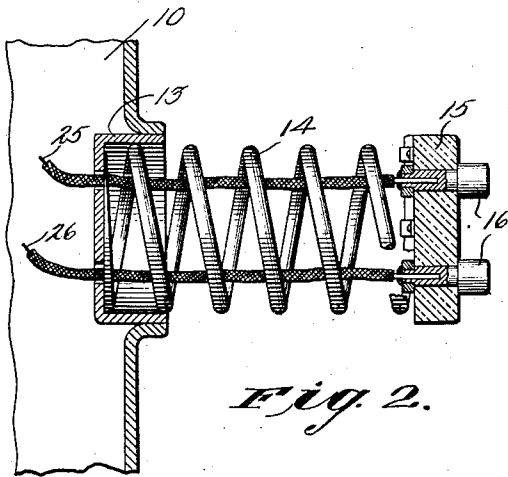


Fig. 2.

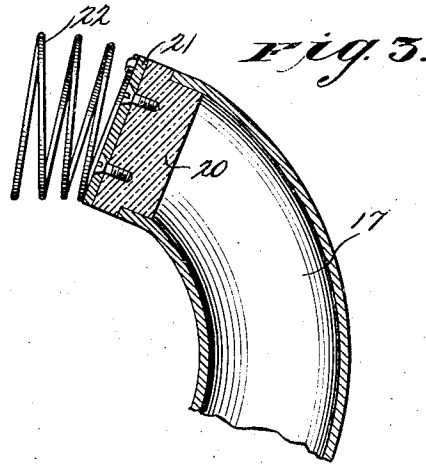


Fig. 3.

WITNESSES
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OBSTRUCTION-ALARM.

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To all whom it may concern:

Be it known that I, MORRIS ROSENBERG, a citizen of the United States, and a resident of the city of New York, borough of Brooklyn, in the county of Kings and State of New York, have invented a new and Improved Obstruction-Alarm, of which the following is a full, clear, and exact description.

10 This invention relates to safety attachments for automobiles or other vehicles and has particular reference to means preferably of an audible nature for apprising the driver of his proximity to some obstacle adjacent to either the front or the rear end of the vehicle.

Among the objects of the invention is to provide a means whereby when the vehicle is being maneuvered in close or crowded positions, such as in garages, crowded streets or hampered parking places, the driver is enabled to devote practically all his attention to the controlling devices of the machine and hence is relieved to a large extent from attending to the conditions located especially at the rear of the machine or vehicle.

With the foregoing and other objects in view the invention consists in the arrangement and combination of parts hereinafter described and claimed, and while the invention is not restricted to the exact details of construction disclosed or suggested herein, still for the purpose of illustrating a practical embodiment thereof reference is had to the accompanying drawings, in which like reference characters designate the same parts in the several views, and in which—

Figure 1 is a plan view of my attachment indicating diagrammatically an alarm circuit or circuits adapted to be closed in the operation of my improvement.

Fig. 2 is a horizontal sectional view of the stationary portion of the circuit system.

Fig. 3 is a similar view of the relatively movable portion of the normally open switch device.

Referring now more specifically to the drawings I show at 10 two supports secured rigidly in any suitable manner to any desired part of a vehicle, such as the rear end. These supports may be of any suitable nature as to mechanical construction but preferably are of a hollow structure such as a gas pipe tubing or the like and each terminating at its free

end in a fork 11. A bar 12 extends across between the supports 10 and constitutes a brace to stiffen the structure and may in some instances constitute a conduit through which the circuit wires may be projected.

Formed on or attached in any desired manner to the support 10 is a cup shaped holder 13 in which one end of a relatively strong spring 14 is fixed, the same projecting laterally beyond the holder toward the opposite support 10. To the other end of the spring 14 is connected a contact carrier 15 of any suitable insulating material and in which are fitted two spaced metallic contacts 16 of copper or its equivalent.

Journaled in each of the forks 11 is a switch arm 17 the same being supported by means of a pivot 18 in the fork as indicated and adapted for relatively free oscillation around the pivot as the vertical axis. As shown in Fig. 3 the arm 17 may be tubular throughout its length except at its middle where it is flattened for compact cooperation with the fork 11.

The ends of the arms 17 remote from the vehicle are connected by a strong, flexible, but non-elastic striking member 19 which may be in the nature of a rope suitably faced with fabric, leather, or some other suitable neat appearing cleansable material.

The free end of each arm 17 carries a block of insulation 20 faced with a plate of metal 21 such as copper which serves as a bridge for connecting the contacts 16 during the intended operation of the invention. Any suitable means may be provided to prevent the undesired bridging of the contacts 16 during ordinary road use which might result from the vibration of the arms 17. To this end I indicate a light spring 22 carried by either the bridge 21 or insulation block 20 and projected normally between the two blocks 15 and 20 so that the bridge 21 will under ordinary conditions be held spaced from the contacts 16 preventing the closing of the circuit. When however any portion of the striking member 19 meets an obstruction causing it to be deflected from its normally substantially straight form the effective length between the points of connection between the striking member and the arms 17 will be shortened and thereby one or the other of the bridges 21 will be sure to engage and bridge its contacts 16.

23 indicates an audible alarm device

which may be in the nature of an electric bell, while 24 is a source of energy for the operation of the alarm device. The source of energy is shown as being in circuit 5 through wires 25 and 26 with the contacts 16 of each pair of contacts. The contacts 16 are located in independent lines so that when either pair of contacts are bridged by the plate 21 the alarm will be sounded. If 10 therefore the driver is backing for example into or against an obstruction causing the bending of the striking member 19 and shortening the effective distance between the arms 17 he will be apprised of this 15 fact before any damage can result to the vehicle or the obstruction, or any injury can result to the person who might be struck by any device. As soon as the obstruction is withdrawn the parts come back immediately 20 automatically to normal idle position stopping the audible manifestation of the alarm device. This device is adapted to be installed and used either alone or in con-

nection with any suitable or conventional type of bumper, and the nature of the 25 springs 14 is such that no damage is likely to result to the installation even though the obstacle or obstruction encountered by the striking member 19 may be of a relatively immovable nature or the impact may 30 be of considerable moment, in fact the improvement may be regarded under certain conditions as a sort of bumper.

I claim:

The herein described circuit closer comprising a pair of spaced supports, a brace 35 extending between said supports and serving to hold them rigid with respect to each other, a pair of spaced contacts carried by each support, a switch arm pivoted in the 40 free end of each support, a bridge carried by one end of each arm, and a flexible striking member connecting the ends of the arms remote from the bridge members.

MORRIS ROSENBERG.