W. DONOHUE.

CIRCUIT CLOSER.

APPLICATION FILED MAR. 30, 1917.

1,311,214. Patented July 29, 1919.

Fig. 1.

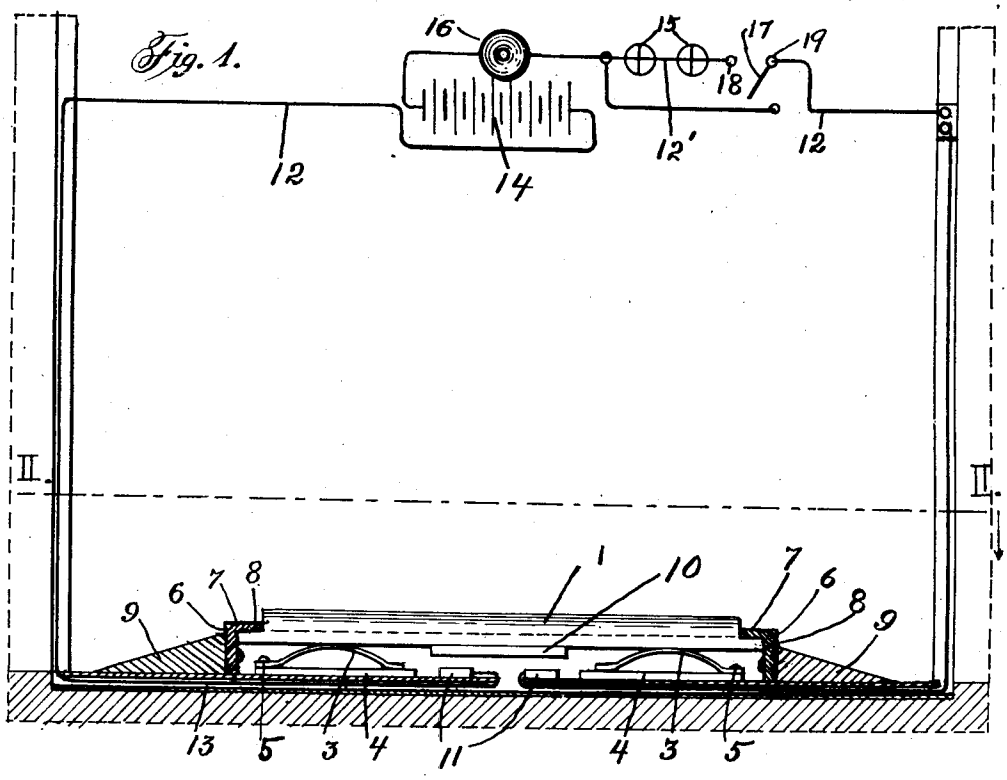


Fig. 2.

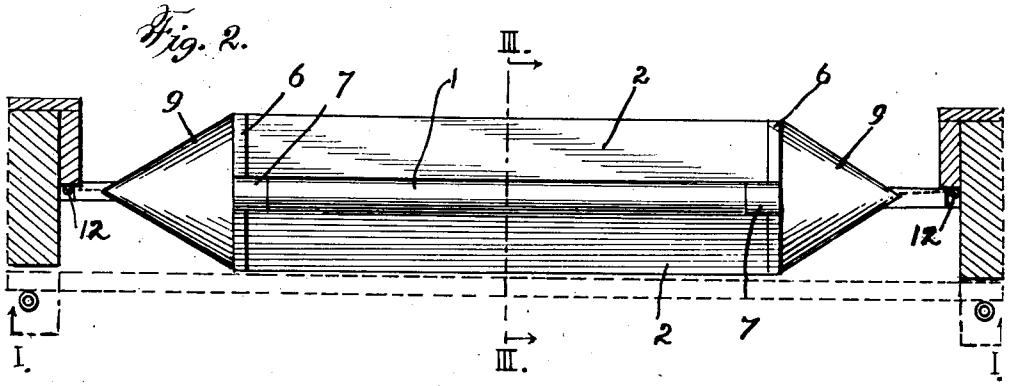
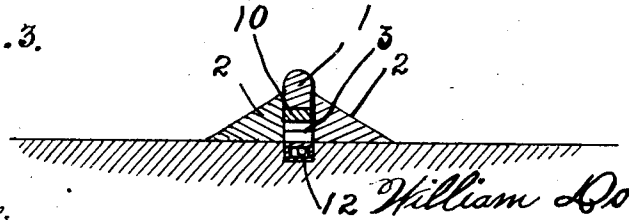


Fig. 3.



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CIRCUIT-CLOSER.

1,311,214. Specification of Letters Patent. Patented July 29, 1919.

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To all whom it may concern:

Be it known that I, WILLIAM DONOHUE, a citizen of the United States, residing at New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Circuit-Closers, of which the following is a specification.

This invention relates to certain new and useful improvements in a signal system whereby notice may be given whenever a vehicle enters or leaves a garage.

The object of the invention is to provide a circuit closer designed to be placed upon the threshold of the garage and included in an electrical circuit of any kind desired whereby the vehicle wheels in rolling over the circuit closer will actuate the same to close the circuit.

With these objects in view and others which may appear as the description proceeds, the invention consists in the novel combination and arrangement of the coöperating parts as hereinafter more specifically described, shown in the accompanying drawings and pointed out in the appended claims.

In the drawings forming a part of this application and in which similar reference characters designate corresponding parts throughout several views,

Figure 1 is a diagrammatic view of the complete system, with the movable member and switch member and guide shown in longitudinal section,

Fig. 2 is a horizontal section on the plane of line II—II of Fig. 1, looking in the direction indicated by the arrow, and

Fig. 3 is a detail transverse section on the plane of line III—III of Fig. 2, looking in the direction indicated by the arrows.

Referring more in detail to the drawings, 1 designates the movable member or switch member which is positioned between the side members 2 normally held in raised position by means of the springs 3, which latter are preferably in the form of leaf springs with the central portions bulged or curved upwardly and engaging the underface of the movable member or switch member 1. The springs 3 are positioned upon supporting blocks 4 and each spring 3 has one end secured to the supporting block 4 provided for the same, as shown at 5. The side members 2 are inclined from their outer longitudinal edges to their inner longitudinal edges and are connected by end connecting plates 6, which have inwardly directed central extensions 7 engaging the upper faces of the end extensions 8 of the movable member or switch member 1 when the latter is in its raised or uppermost position, as shown in Fig. 1. The upper edges of the end connecting plates 6 are inclined in opposite directions to correspond with the upper faces of the side members 2. Attention is also directed to the fact that the upper edge of the movable member or switch member 1 is rounded and extends above the side members 2 when the movable member or switch member 1 is in its raised or uppermost position. It will also be understood that the side members 2 are spaced apart to form a channel within which the movable member or switch member 1 may move vertically without turning to either side. This will be readily apparent by reference to Fig. 3 of the drawings.

Triangular end members 9 are secured in a suitable manner to the outer faces of the end connecting plates 6 and inclined from their outer ends or points to said plates and also from their side edges to the center of said end members to permit wheels of vehicles passing through the doorway in which this device may be positioned to pass over said end members 9, as will be later clearly understood.

This device is intended to be positioned in a doorway of the garage and should be of the proper length to extend practically all of the way across the door opening. The movable member or switch member 1 is also of such length as to make it impossible for any vehicle to enter or leave the garage without the wheels of one side or both sides of the vehicle passing over the movable member or switch member 1 and forcing the same downwardly. Should the vehicle pass through one side of the door opening, the wheels on one side of the vehicle may pass over one of the end members 9 but the wheels on the other side of the vehicle must travel over the movable member or switch member 1 and operate the signal.

The device is secured in position in any suitable manner and the movable member or switch member 1 carries the circuit closing plate 10 upon its underface which will engage the switch terminals or spaced contact

members 11 positioned below the circuit closing member 10 and having the negative and positive wires 12 connected thereto. The wires 12 are extended in opposite directions through the channel 13, which latter is extended longitudinally beneath the movable member or switch member 1 and the end members 9. The wires 12 are then continued and connected with the opposite poles of the battery 14 or other source of electric energy. The visible signals 15 and also audible signal 16 are positioned in the path of one of the wires 12 and may be located at any suitable points within the garage or adjacent the door opening thereof. It will also be understood that any number of visible signals 15 and audible signals 16 may be employed and the visible signals are preferably in the form of electric lights or lamps while the audible signal or signals 16 are in the form of electric horns or buzzers and visible signals 15 should be placed in the path of the branch 12′ of one of the wires 12 and which branch 12′ serves to place the visible signals 15 in a separate circuit. The separate circuit for the visible signals 15 also includes a switch 17 connecting the switch terminal 18 with the switch terminal 19 when the switch 17 is closed. This will make it possible to discontinue use of the visible signals 15 except when necessary or desired to include the same in the system. This is an advantage as it will not be necessary to employ the visible signals except during the evening hours or at other times when it may be desirable to attract attention by means of the same. It may also be suggested that one of the visible signals be positioned adjacent the door opening.

While the preferred embodiment of the invention has been shown and described it will be understood that minor changes in the details of construction and arrangement of parts may be resorted to within the scope of the appended claims without departing from the spirit of the invention or sacrificing any of the advantages thereof.

Having thus fully described my invention what I claim as new and desire to protect by Letters Patent of the United States is:

1. A circuit closer comprising a movable member adapted to be positioned in the doorway of a garage, means for resiliently retaining said movable member in its uppermost position, oppositely inclined guide members on opposite sides of said movable member, inclined end members, connecting plates for said guide members, said connecting plates being provided with means to limit upward movement of said movable member, a circuit closing member mounted on said movable member, contact members spaced from said movable member, means for resiliently retaining said movable member in one position, said movable member being adapted to be forced downwardly to engage said circuit closing member with said contact members.

2. A circuit closer comprising a movable switch bar having a rounded upper face, oppositely inclined guide members for said switch bar, said bar being adapted for vertical movement between said guide members, end plates connecting said guide members, inclined end members projecting from said end plates, said end connecting plates being provided with means to limit upward movement of said switch bar, said switch bar and guide members being adapted to extend across a doorway with the end members pointed toward the opposite sides of said doorway and positioned adjacent to said sides, and means to normally retain said switch bar in raised position.

In testimony whereof I affix my signature in presence of two witnesses.

WILLIAM DONOHUE.

Witnesses:
WILLIAM MEREDITH,
WILLIAM S. FOWLER.