March 13, 1928. 1,662,711

M. A. MAYNARD

SIGNALING DEVICE

Filed Oct. 4, 1926

Fig.1.

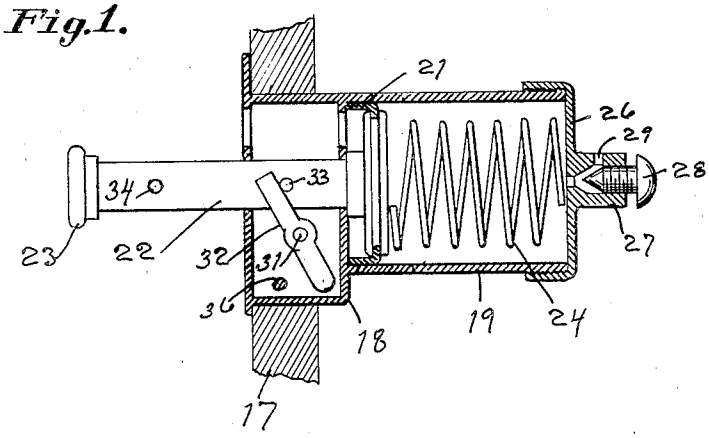


Fig.2.

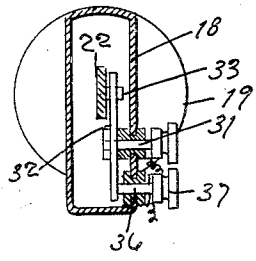


Fig.3.

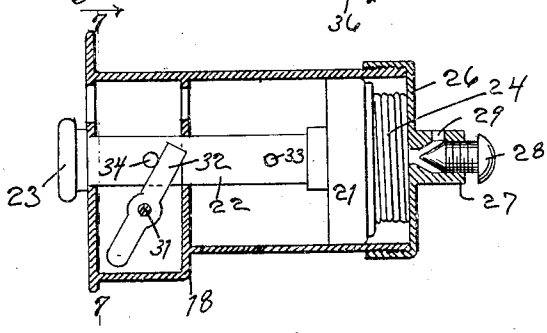
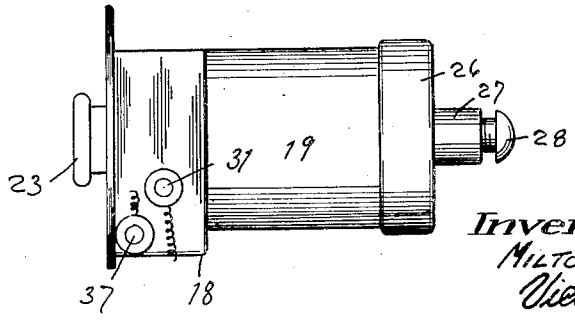


Fig.4.



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UNITED STATES PATENT OFFICE.

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SIGNALING DEVICE.

Application filed October 4, 1926. Serial No. 139,496.

This invention relates to improvements in signaling devices, and has particular reference to a signaling device adapted to be used in automobile direction indicators.

The principal object of this invention is to produce a simple means whereby the driver of one vehicle may indicate to the driver of another vehicle his intentions as to the maneuvers which he is about to make.

A further object is to produce a device of this character which is simple in construction and therefore cheap to manufacture.

A still further object is to produce a device of this character which may be readily attached to any car now upon the market without materially altering the construction of the same.

Other objects and advantages will be apparent during the course of the following description.

In the accompanying drawings forming a part of this specification, and in which like numerals are employed to designate like parts throughout the same,

Figure 1 is an enlarged detail cross-section of a circuit closure,

Figure 2 is a cross-section taken on the line 2—2 of Figure 1,

Figure 3 is a view similar to Figure 1 showing the circuit closure in depressed position, and

Figure 4 is a side elevation of Figure 1.

I am aware of the fact that various simple devices have been placed upon motor vehicles for the purpose of indicating the direction of travel the vehicle is about to take. These devices have, in most instances, employed positively actuated switches which had to be manually operated to illuminate the signal or to extinguish the same.

It is my intention to provide means whereby one manual operation will serve to illuminate the signal which will remain illuminated for a predetermined length of time, and thereafter become automatically extinguished.

Referring now to Figures 1 to 4, the numeral 17 refers to a dash-board of the vehicle, upon which I mount a switch casing 18 having a tubular projection 19. This tubular projection carries therein a piston 21 adapted to be manually actuated by a plunger 22 having a button 23 on the end thereof. A spring 24 abuts one end of the tubular projection 19, which in the present instance is formed by a cap 26 and tends to normally maintain the piston in the position shown in Figure 1.

A boss 27 formed upon the cap 26 has a screw 28 positioned therein, which screw in turn is adapted to regulate the passage of air through a bleeder opening 29 communicating with the interior of the tubular projection 19.

The switch casing 18 has secured in the side thereof and insulated therefrom a binding post 31 having the switch arm 32 pivoted thereto. This switch arm is adapted to have one end contacted by pins 33 and 34 carried upon the plunger 22. The opposite end of the switch arm is adapted to engage one end of a contact 36 carried by a binding post 37 supported in but insulated from the switch housing 18.

The binding posts 31 and 37 are adapted to be electrically connected into any electrical circuit.

The manner of operating my device is as follows:—

Assuming that the device has been placed upon a motor vehicle and connected to a signal system and that the driver wishes to execute a right hand turn, he presses the button upon the dashboard which is connected to the right hand signaling device. Immediately upon pushing the plunger in, the pin 34 contacts the end of the arm 32 and moves the same to the position shown in Figure 3. This brings the lower end of the arm into engagement with the contact 36 and completes the circuit to the signal.

The act of pushing in upon the button causes the plunger 28 to move the piston 21 to the full line position of Figure 3 and as the piston is of the flexible kind, any air confined within the tubular projection either escapes around the piston or through the plunger opening 29.

As soon as the driver of the vehicle removes his finger from the button 23 the spring 24 will commence to function and attempt to drive the piston toward its normal position as shown in Figure 1.

The action of the spring will be retarded through the partial vacuum formed in the tubular projection, which vacuum will be gradually overcome through the admission of air through the bleeder 29. As soon as

the piston has returned to its normal position, the pin 33 will have engaged the end of the lever 32 and moved the same to the position shown in Figure 1. This will break the circuit and extinguish the light.

It will thus be seen that I have devised simple means whereby a driver may give a signal, which signal will be maintained for a pre-determined length of time and will later be automatically extinguished.

It is to be understood that the form of my invention herewith shown and described is to be taken as a preferred example of the same and that various changes relative to the material, shape, size and arrangement of parts may be resorted to without departing from the spirit of the invention or the scope of the subjoined claim.

Having thus described my invention, I claim:—

In a switch mechanism, a housing, a pair of binding posts positioned on said housing, a lever connected to one of said binding posts, a contact connected to other of said binding posts, a tubular projection secured to said switch housing, a piston movable in said tubular projection, a plunger secured to said piston, pins secured to said plunger and adapted to actuate said lever so as to move said lever into and out of engagement with said contact, and means for retarding the movement of said piston in one direction.

In testimony whereof I affix my signature.

MILTON A. MAYNARD.