J. E. HOLMGREN.

SWITCH FOR AUTOMOBILE DIRECTION INDICATORS.

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1,426,193.

Patented Aug. 15, 1922.

Fig. 1.

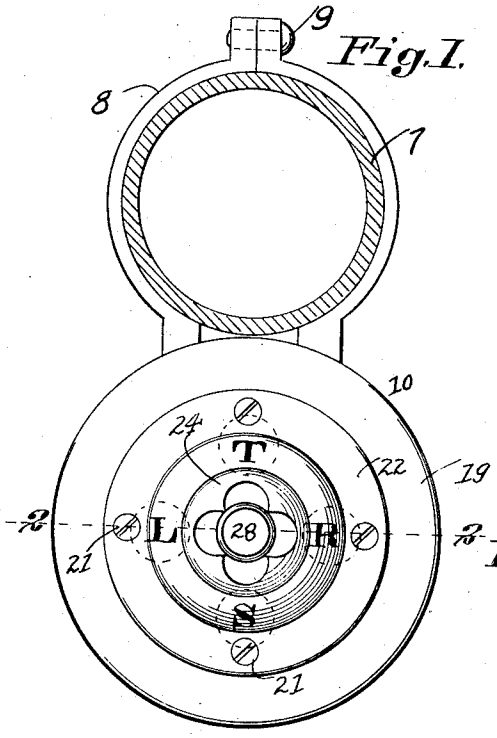


Fig. 2.

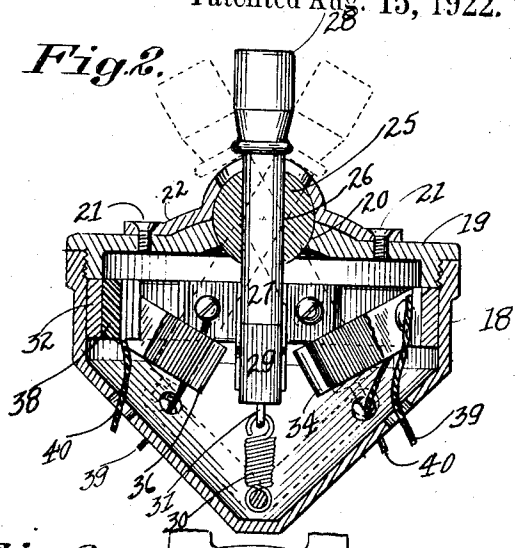
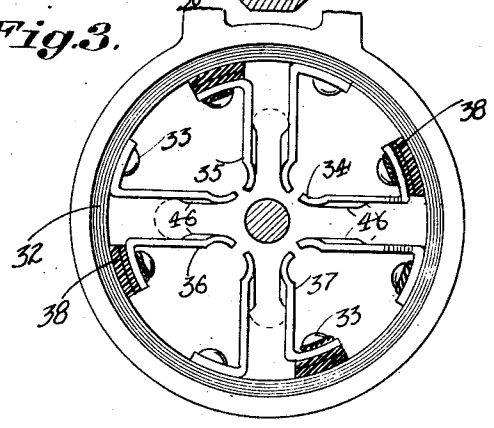


Fig. 3.



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UNITED STATES PATENT OFFICE.

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SWITCH FOR AUTOMOBILE DIRECTION INDICATORS.

1,426,193. Specification of Letters Patent. Patented Aug. 15, 1922.

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To all whom it may concern:

Be it known that I, JOHN E. HOLMGREN, a citizen of the United States, residing at San Francisco, in the county of San Francisco and State of California, have invented new and useful Improvements in Switches for Automobile Direction Indicators, of which the following is a specification.

This invention relates to an improvement in switches for direction indicating signals for automobiles, and has for its principal object to provide a selective controlled switch mechanism for an automobile capable of being moved into any one of a plurality of positions to indicate various directions of maneuvers, said switch mechanism adapted to remain in an adjusted position until manually shifted therefrom.

A further object of this invention is to provide a switch which may be readily attached to any variety of cars at a nominal price, and which can be applied to a car without materially altering the construction thereof.

An additional object of this invention is to provide a switch of the character described, which will be inexpensive to manufacture, neat in appearance and relatively free from mechanical defects which often serve to make a signal inoperative.

Other objects and advantages of the invention 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 a top plan view of the switch mechanism forming part of my invention, and showing means for clamping the mechanism to the steering post of an automobile.

Figure 2 is a vertical sectional view of the switch mechanism taken on the line 2—2 of Figure 1, with part shown in elevation,

Figure 3 is a horizontal sectional view through figure 2, showing to advantage the interior construction of the cup shaped member with its covering removed therefrom.

In the drawings wherein for the purpose of illustration is shown a preferred embodiment of my invention, the numeral 7 designates a steering column of an automobile, which is encircled by a clamping ring 8 detachably fastened to the steering column 7 by a bolt 9, or other suitable fastening means. Made integral with the clamping ring 8 is a movable switch closure mechanism indicated as a whole by the numeral 10.

The mechanism for controlling the electric circuit to illuminate the lamps of a standard signal, consists of a cup shaped member 18 made integral with the clamp 8, the cup being threaded adjacent its upper extremity to receive therein a threaded covering 19 and having formed therein a circular recess comprising a seat 20.

Detachably secured to the covering 19 by set screws 21 is a top plate 22 having formed thereon indicating letters T, L, R and S corresponding to the number and location of the lights on the rear of the machine, the top plate 22 being provided with an upraised rounded portion 24 which has formed therein four cross shaped slots.

Adapted to rest within the seat 20 is a ball and socket joint 25 having formed therein a central bore 26 in which is carried a switch element 27. This element has integrally formed on one end a handle 28 which consists of insulating material, while the opposite end is provided with a contacting surface 29. For the purpose of holding the element 27 in a normally vertical position, I have provided a light coil spring 30 connected at one end to the interior lower extremity of the cup, and at the opposite end to an eye bolt 31 formed on the element 27.

Disposed within the cup is a circular copper ring 32, while positioned on the ring and connected thereto by screw elements 33 are a plurality of pairs of spring contact fingers 34, 35, 36 and 37, it will be observed that while one of each pair of contact fingers is directly connected to the ring 32, the other finger of each pair is insulated from the ring, as shown at 38. Wires 39 and 40 lead from the respective screw elements 33 to a source of electrical supply 41, such for instance as a battery, magneto and the like.

It will be apparent that when the switch 27 is moved between the desired contact fingers for illuminating a particular lamp, the current will pass from the source of electrical supply 41 to the charged ring 33 from one of the fingers to the other through the medium of the switch 27, then back to the battery.

In order that the switch 27 may be re-

tained in position between the contact fingers, lips 46 are made integral with each finger and thus serve to retain the switch 27 between the fingers against accidental displacement. It is to be observed that the coil spring is made of light material, and accordingly it will not overcome the tendency of the lips to retain the switch element between the contact fingers. Thus after the designated signal has been given, the switch element 27 can be readily returned by a manual operation to its normal vertical position, as shown to advantage in Figure 2.

From the foregoing description, it will be seen that a very simple and efficient device has been produced for permitting the driver of one motor vehicle to give a safety signal to a following machine by indicating to the driver of a following vehicle the contemplated maneuver to be taken by the driver of the machine to which my improved device is applied.

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 in the shape, size and arrangement of parts may be resorted to without departing from the spirit of the invention or the scope of the subjoined claims.

Having thus described my invention, I claim:—

1. In a selective switch control mechanism for a signal device, a cup shaped member, a conducting ring positioned within said member, a plurality of pairs of spring contacts connected to said ring, one of each of said pairs of contacts being directly connected to said ring, the other of each of said pairs being insulated therefrom, and a universally movable switch element joined to the base of said cup member and adapted to bridge any one pair of said spring contacts.

2. In a selective switch control mechanism for a signal device, a cup shaped member having a detachable cover, a conducting ring positioned within said member, a plurality of pairs of spring contacts connected to said ring, one of each of said pairs of contacts being directly connected to said ring, the other of each of said pairs of contacts being insulated from said ring, a universally movable switch element adapted to bridge any one pair of said spring contacts, and a flexible element connected at one end to the base of said cup and at the opposite end to said switch element and adapted to retain said last mentioned element in a normally vertical position.

3. In a selective switch control mechanism for a signal device, a cup shaped member, a cover having a seat formed therein and adapted to be detachably secured to said cup shaped member, a spherical member provided with a central bore resting in the seat of the detachable cover, a conducting ring positioned within said cup shaped member, a plurality of pairs of spring contacts connected to said ring, one of each of said pairs of contacts being directly connected to said ring, the other of each of said pairs of contacts being insulated from said ring, a switch element inserted in the central bore of said spherical member and adapted to bridge any one pair of said spring contacts, and a flexible element connected at one end to the base of said cup and at the other end to said switch element and adapted to retain said last mentioned element in a normally vertical position.

In testimony whereof I affix my signature.

JOHN E. HOLMGREN.