ELECTRICITY—CIRCUIT
MAKERS AND BREAKERS.
4

Aug. 25, 1925. 1,550,793

G. H. FAIRBANKS

ELECTRIC SWITCH

Filed April 18, 1922

Fig. 1

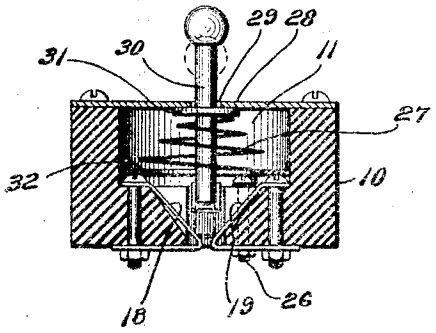


Fig. 2

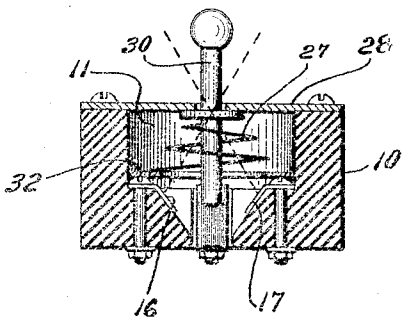


Fig. 3

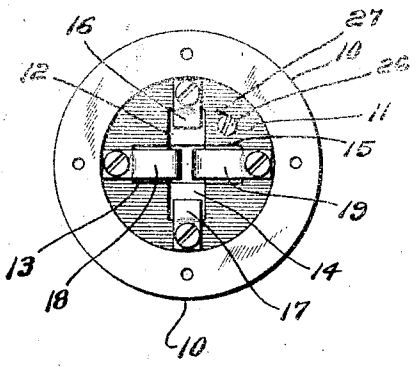


Fig. 4

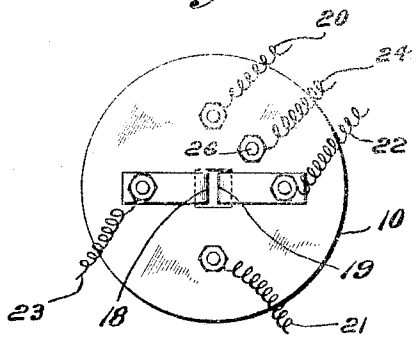


Fig. 6

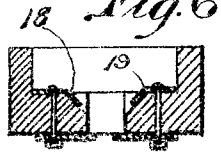
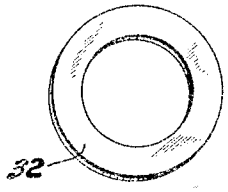


Fig. 5



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200. ELECTRICITY—CIRCUIT MAKERS AND BREAKERS.

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Patented Aug. 25, 1925. 1,550,793

UNITED STATES PATENT OFFICE.

GEORGE H. FAIRBANKS, OF CENTRAL FALLS, RHODE ISLAND.

ELECTRIC SWITCH.

Application filed April 18, 1922. Serial No. 555,096.

To all whom it may concern:

Be it known that I, GEORGE H. FAIRBANKS, a citizen of the United States, residing at Central Falls, in the county of Providence and State of Rhode Island, have invented certain new and useful Improvements in Electric Switches, of which the following is a specification.

This invention relates to improvements in a selective switch for closing a plurality of different electric circuits, more particularly adapted for use in automobile direction-signalling devices, and the object of this invention is to provide a simple and practical construction of switch for this purpose which is provided with a body having a circuit-closing handle mounted to swing or rock therein and having a plurality of circuit-closing contacts in the body whereby a single movement of the handle may be caused to complete any one of the desired circuits through the contact engaged.

With these and other objects in view, the invention consists of certain novel features of construction, as will be more fully described, and particularly pointed out in the appended claims.

In the accompanying drawings:

Figure 1 is a sectional side elevation through the body of the switch showing the contacts for the right and left indicating circuits.

Figure 2 is a view taken at right angles to that of Figure 1, showing the forward and backward indicating circuit contacts.

Figure 3 is a top view of the body portion with the top plate removed showing the four separate circuit contacts.

Figure 4 is a view of the under side of the body portion showing the wiring connections for the different circuit contacts.

Figure 5 is a perspective view of the insulating collar against which the bottom coil of the handle supporting spring is designed to rest.

Figure 6 is a modification showing another arrangement of the right and left indicating circuit contacts in which the lower portions of said contacts are set in a plane at rights angles, the endways movement of the circuit-closing handle to insure simultaneous engagement with both of said contacts.

It is found in practice very desirable to provide a selective type of switch whereby different contacts may be engaged to complete different electric circuits, particularly in direction-indicating circuits in an automobile so as to signal to approaching cars, what the operator of the car is about to do, that is the car is provided with a signal indicating—I am about to turn to the right, another—I am about to turn to the left; a third,—I am about to move back, and a fourth—I am about to go ahead; and a fifth—I am about to stop, and it is found desirable to control all of these signals by the operations of a single switch-lever, and the following is a detailed description of one means by which this result may be accomplished:—

With reference to the drawings, 10 designates the body portion of a switch, which is preferably formed of insulating material having a central recess 11. The bottom portion of this recess is preferably slotted radially as at 12, 13, 14 and 15 and in these slots are mounted the different contacts 16, 17, 18 and 19, respectively.

The contacts 16 and 17 are short as best illustrated in Figure 2, while the contacts 18 and 19 are of a greater length and closely approach each other near their bottoms portions as best shown in Figures 1 and 3.

The different circuit wires are connected to the different contact posts, for instance the wire 20 to the forward indicating signal, wire 21 to the backing-up indicating signal, wire 22 to the turn-to-the-right signal, and wire 23 to the turn-to-the-left signal, while wire 24 leads from the battery or source of power not indicated, through the post 26 to the handle tension spring 27.

On the top of this body portion covering the central recess therein, I have mounted a plate 28 having a central opening 29 through which extends the rocking circuit closing handle member 30 which is provided with a collar 31 to contact with the under side of this top plate 28 against which it is held by tension of spring 27 to be loosely swung or rocked from side to side to complete the circuit through any one of the different contacts above described, the bottom coil of this spring being arranged to rest upon the insulating washer 32.

The grooves or recesses 12, 13, 14 and 15 serve as guides to conduct the contact end of the handle into engagement with the contact plate selected by the operator.

In addition to being able to complete the circuit through any one of the contacts by

rocking the handle, I have also arranged the operating handle so that upon pressing down upon the handle and moving it in a vertical direction, its lower end will engage with the contact strips 18 and 19 and so simultaneously operate both the right and the left indicating signals, which operation serves to denote to the following car that the driver is about to bring his car to a stop.

By my improved construction of selective switch it will be seen that any one of the four circuits may be readily completed by a proper movement of the switch handle and also that the fifth indication may be obtained by a downward movement of the switch handle to complete two circuits at once and so indicate the intention of the operator to stop his car, or any other arrangement of signals may be arranged to be controlled by the operation of my improved switch.

The device is extremely simple and practical in construction and effective in its operation and is inexpensive in construction.

The foregoing description is directed solely towards the construction illustrated, but I desire it to be understood that I reserve the privilege of resorting to all the mechanical changes to which the device is susceptible, the invention being defined and limited only by the terms of the appended claims.

I claim:

1. A selective switch for electric circuits, comprising a body portion having a recess therein with a plurality of grooves radiating from said recess, different contact plates in said recesses some but less than all of said plates extending into close adjacency at the center of said recess, a switch arm supported by a yielding member to permit the same to be rocked from side to side into engagement with a single one of said contact plates or depressed vertically to engage more than one but less than all of said contact plates.

2. A selective switch for electric circuits, comprising a body of insulating material having a recess, a cover for said recess having an opening therethrough, a rocking circuit closing handle extending through said opening, a collar on said handle within said recess, a spring for causing said collar to remain in closing engagement with said opening and for operatively supporting said handle in said body, the chambered portion of said body being provided with a plurality of radiating guide grooves, a circuit controlling contact in said grooves whereby a swinging movement of said handle may be caused to enter the grooves and engage the contact mounted therein to complete the circuit through any one of said contacts.

3. A selective switch for electric circuits, comprising a body of insulating material having a recess, a cover for said recess having an opening therethrough, a rocking circuit closing handle extending through said opening, a collar on said handle within said recess, a spring for pressing said collar into closing engagement with said opening and for operatively supporting said handle in said body, the chambered portion of said body being provided with a plurality of radiating guide grooves, a circuit controlling contact in said grooves whereby a swinging movement of said handle may be guided by the groove selected to complete the circuit through its contact, and a downward movement of said handle may be caused to complete another circuit.

In testimony whereof I affix my signature.

GEORGE H. FAIRBANKS.