

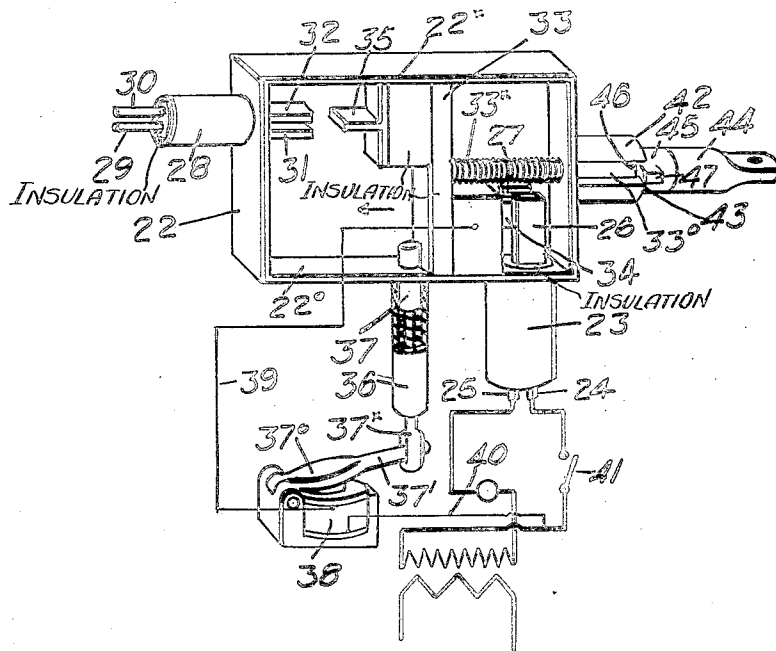
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CIRCUIT MAKER AND BREAKER

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CIRCUIT MAKER AND BREAKER

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1 Claim. (Cl. 200—16)

My invention relates to improvements in circuits makers and breakers, and the object of the present invention is to devise a circuit making and breaking device coacting with a main circuit and a supplemental circuit by which the maker and breaker is released by the closing of the main circuit to successively re-open the main circuit and close the supplemental circuit and it consists essentially of opposing guideways, an insulating member slidably held in the guideways, a contact carried at each end of the member coacting alternately with terminal contacts of the main circuit and a terminal contact of the supplemental circuit, withdrawable means for releasably holding the maker and breaker in the main circuit closing position, an actuating circuit and means operated by the closing of the actuating circuit for withdrawing said withdrawable means as hereinafter more particularly described.

The figure shows a perspective view of my circuit maker and breaker and coacting parts.

In the drawing like characters of reference indicate corresponding parts in each figure.

22 is a casing forming opposing guideways 22^x and 22^o. 23 is a sleeve depending from one end of the casing bottom and filled with suitable insulation through which the lead wires 24 and 25 of the main circuit extend to contact fingers 26 and 27. 28 is a horizontal sleeve extending from the opposite end of the casing also filled with insulation through which the lead wires 29 and 30 of the supplemental circuit extend to finger contacts 31 and 32. The numeral 33 indicates a slide member carrying insulated contacts 34 and 35 adapted to enter alternately between the fingers 26 and 27 and the fingers 31 and 32. The numeral 36 indicates a tube depending from the bottom of the casing and containing a spring pressed slide pin 37 which projects into the casing to form a stop for the spring pressed member 33. 33^x is a spring surrounding a stem 33^o extending from the member 33 through the wall of the casing 22.

The lower end of the pin 37 is provided with a slotted head 37^x. 38 is an electromagnet provided with a hinged armature 37^o having a finger 37¹. 39 is a wire connected at one end to the contact 34 at one side of the main circuit and at the other end to one end of the magnet coil 38. The opposite end of the coil 38 is connected by a wire 40 to the other side of the main circuit.

When the main circuit is closed at 41 the coil 38 becomes energized drawing down the armature 37^o so as to retract the pin 37 freeing the member 33. The member 33 when freed is carried

in the direction of arrow breaking contact between the contact 34 and the contacts 26 and 27 to re-open the main circuit and making contact between the contacts 35 and the contacts 31 and 32 to close the supplemental circuit.

In some cases it is desirable to lock the member 33 in its normal position with the contact 34 in engagement with the contacts 26 and 27. In order to accomplish this I provide a cylindrical hollow boss 42 of larger diameter than the stem 33^o and having an open ended slot 43. 44 is an enlargement at the outer end of the stem 33^o and 45 is a collar turnable upon the stem in the groove 46. 47 is a projection extending from the collar 45. Normally the collar 45 is slidable within the boss 42 and the projection 47 within the slot 43. When it is desired to lock the parts in position shown independently of the locking pin 37, the collar 45 is turned so that the projection 47 bears against the end of the boss 42 holding the stem 33^o from movement even should the locking pin 37 be withdrawn.

Although I have described my device as used as an alarm for buildings, it may be used in an automobile to automatically close the horn circuit when the ignition switch is closed. It may also be used to give warning when a motor or generator circuit has been closed.

What I claim as my invention is:—

In a device of the class described, a circuit breaker and maker comprising a casing, the opposite walls of which form guides, a member slidable between the guides, a contact carried at each end of the member and extending from the front and rear side thereof and circuit closure contacts coacting with one contact of the member at one end of its stroke and forming the terminals of a main circuit, a circuit closure contact coacting with the other contact of the member at the other end of its stroke and forming the terminals of a supplemental circuit, a withdrawable stop for holding the member from movement, means for locking the slidable member in its normal position comprising a tubular longitudinally slotted boss extending from the casing, a stem extending from the member through the boss and having an enlarged outer end, and a collar surrounding the stem between the enlargement and the end of the boss and having a radial projection slidable within the slot when turned to a registering position therewith and a spring surrounding the stem between the casing and said member.

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