March 18, 1930. L. C. KIMSEY 1,751,005

GRAVITY ACTUATED CIRCUIT BREAKER

Filed April 30, 1929

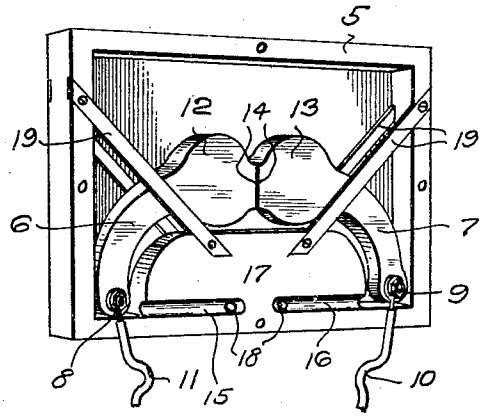


Fig. 1.

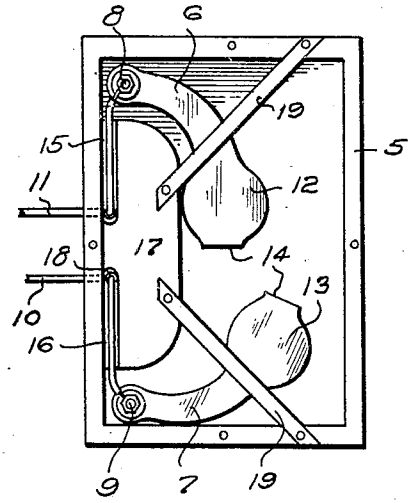


Fig. 2.

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UNITED STATES PATENT OFFICE

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GRAVITY-ACTUATED CIRCUIT BREAKER

Application filed April 30, 1929. Serial No. 359,251.

This invention relates to an automatic electric switch or circuit breaker, operable under the influence of gravity, and adapted and intended to be inserted in the connection between the battery of an automobile, and the main switch, and operable to automatically break the circuit if the automobile turns over, either upon its side or upside down, as the result of an accident.

Many people have been burned to death, and much property damage has been caused by automobiles catching fire, after overturning. In many instances the mere overturning of the automobile does not cause the engine to stop. Upon the contrary, the engine continues to run, while the fumes from the spilled gasoline spread over the immediate territory, with the result that these fumes then ignite and envelop the entire machine in flames. If the occupants of the automobile have been rendered unconscious or helpless, by the overturning of the same, they are very likely to be burned to death.

In the accompanying drawing,

Fig. 1 is a perspective view of an automatic circuit breaker, constructed in accordance with the invention, and

Fig. 2 is a front elevation with the parts in circuit breaking position.

Like numerals designate corresponding parts in both of the figures of the drawing.

Referring to the drawing, it will be seen that the device of the present invention comprises a casing 5, in which two curved contact pieces 6 and 7 are pivotally mounted at 8 and 9. A lead from the battery of the automobile is indicated at 10, and a lead to the main ignition switch of the automobile is indicated at 11. It will be observed that the curved members 6 and 7 have enlarged and relatively heavy heads 12 and 13, and that these heads, in turn, have straight contact faces 14 so that a considerable area of contact is provided when the heads fall toward each other, under the influence of gravity.

To preserve the clarity of the drawing, I have shown the leads 10 and 11 as extending directly downward from the pivot points 8 and 9. In practice, the wires 10 and 11 are led from these pivot points through grooved portions 15 and 16, of a block 17 that forms a part of the casing 5, and are carried rearwardly through the openings 18 to their respective destinations. Strips 19 constitute guides between which the contact pieces move, and by which they are guided in such way as to prevent binding upon their pivots.

It is to be noted that there are two movable contact elements, and that this insures one or the other of them moving to circuit breaking position, whether the automobile falls one way or the other.

It is to be understood that the invention is not limtied to the precise construction set forth, but that it includes within its purview whatever changes fairly come within either the terms or the spirit of the appended claims.

Having described my invention, what I claim is:

1. A device of the character described, comprising two contact making elements movable toward each other under the influence of gravity, and means for connecting them in the wiring circuit of an automobile.

2. An automatic circuit breaker of the character described, comprising a pair of arcuate contact members pivoted at their outer ends to fall toward each other under the influence of gravity, and provided at their inner ends with contact surfaces.

3. An automatic gravity operated circuit breaker of the character described, comprising a pair of arcuate contact members having their confronting ends enlarged to form weighted heads that are provided with cooperating contact surfaces, means for pivotally mounting said contact members at their outer ends in such manner that their inner ends fall toward and contact with each other under the influence of gravity.

4. A structure as recited in claim 3, in combination with guides between which said contact members move.

5. A structure as recited in claim 3, in combination with a casing within which said members are pivoted, said casing comprising a block extending upwardly from the bottom thereof, and inclined guides extending between said block and casing and between which said contact members move.

In testimony whereof I affix my signature.

LUCIEN C. KIMSEY.