Nov. 16, 1943. E. E. CLOUD 2,334,316

ELECTRIC BURGLAR ALARM

Filed Oct. 10, 1942

Fig. 1

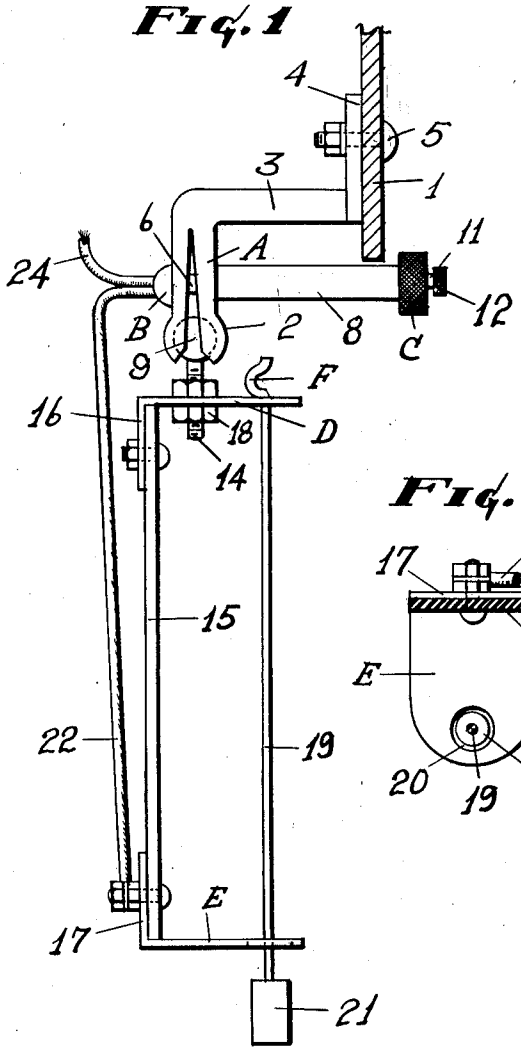


Fig. 2

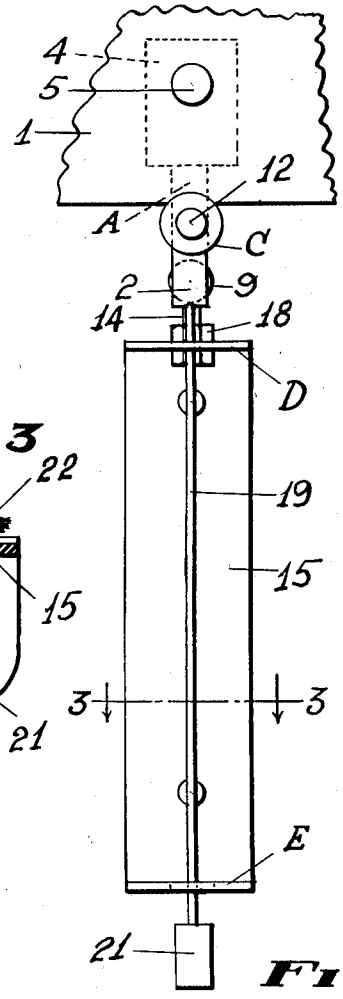


Fig. 3

Fig. 4

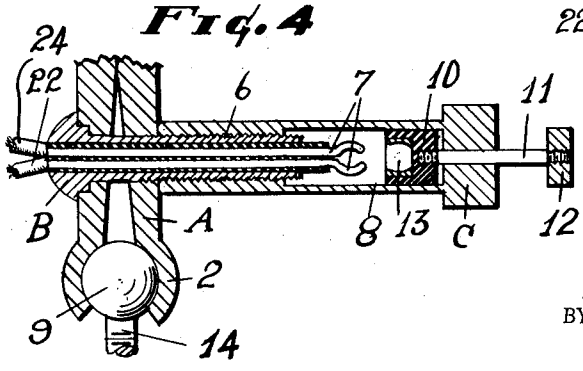
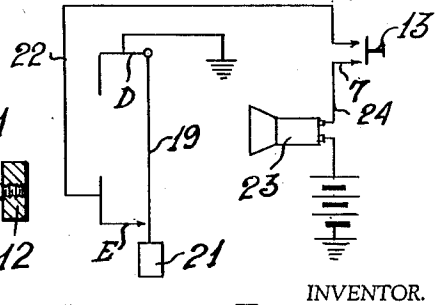


Fig. 5



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ELECTRIC BURGLAR ALARM

Everett E. Cloud, Wichita, Kans.

Application October 10, 1942, Serial No. 461,549

2 Claims. (Cl. 200—52)

My invention relates to an electric burglar alarm, and has for its principal object to function with the horn of a motor vehicle to energize the horn when the vehicle is tampered with.

A further object of this invention is to provide a simple and efficient means to set the switch automatically as carried by the vehicle whereby should the vehicle be rocked from its normally parked position, the switch will close the circuit to energize the horn, and furthermore a sudden impact with the vehicle sufficient to move the same will likewise energize the horn momentarily.

A still further object of this invention is to provide a switch of the character herein disclosed as an accessory to be applied to the instrument board or elsewhere on the vehicle.

A still further object of this invention is to provide a switch that is inexpensive to construct, easily applied and efficient in its function.

These and other objects will hereinafter be more fully explained, reference being had to the accompanying drawing forming a part of this specification, and in which like characters will apply to like parts in the different views.

Referring to the drawing:

Fig. 1 is a side view of the switch mechanism as carried by the instrument board of a motor vehicle.

Fig. 2 is a front view of Fig. 1.

Fig. 3 is a sectional view taken on line 3—3 in Fig. 2.

Fig. 4 is an enlarged longitudinal section of the main switch and pendant carrying means for the auxiliary switch.

Fig. 5 is a wiring diagram for the mechanism.

My invention herein disclosed relates to an electric switch mechanism as a burglar alarm, the mechanism comprising a bracket to be secured to an instrument board 1, the bracket having a split socket 2 downwardly extending from its horizontal portion 3 and an upwardly extending ear 4 that is apertured to receive a bolt 5 therein, the bolt engaging through an aperture positioned in the instrument board as rigid supporting means for the bracket.

The legs A extending upward from the socket are drilled transversely in registry to receive a hollow bolt 6 on which one leg of the socket will slidably engage to close the socket, the bolt also functioning as a conduit through which circuit wires 7 will engage, said wires being insulated from each other and from said bolt.

Threadedly engaging on the end of the bolt is a headed sleeve structure 8, one end of which will abut on one leg of the socket while the head B of the hollow bolt will engage on the other leg. Being so arranged, the jaws of the socket as normally opened by the tension of the legs are clamped together by turning the sleeve with its knurled head C clockwise and to permit opening of the socket, the said sleeve is turned anti-clockwise sufficient to release a pendulum ball 9 seated therein for the purpose later described.

It will be seen that the sleeve adjacent its head has an insulation 10 slidable therein and being secured to a stem 11 that slidably engages in the head of the sleeve, the stem having a head 12 on its outer end for longitudinal movement of the stem to make and break an electric circuit. To close the circuit the stem is moved inward of the sleeve so that a metal socket 13 positioned in the insulation will receive the adjacent arced ends of the wire 7 therein to close the circuit between said wires, this being the main switch and pending the closing of the circuit by a pendulum to energize the horn as later described, and furthermore the main switch is to break the circuit of the burglar alarm when the vehicle is being driven in which instance the pendulum is inactive with respect to a circuit. The arcuate form of the wires as above described is means to retain their engagement with the socket 13 frictionally for energizing the switch and when pulled outward as shown in Fig. 4 is means to break the circuit.

Secured to the ball is a threaded neck 14 as vertical carrying means for a frame comprised of a straight section 15 of insulation material, having right angle metal brackets 16 and 17 secured to their respective ends of the insulation so that the legs D and E will extend from the same side and being in parallelism and in vertical registry. The said upper bracket 16 is apertured to receive the said threaded ball neck therethrough and being secured by a lock nut 18 on each side of said leg, said leg being further apertured adjacent its outer end to receive one end of a pendulum rod 19 rockable therein, said rod having a curvature as at F to engage on the bracket while the lower bracket 17 has an aperture 20 of a greater diameter than that of the pendulum rod which extends therethrough, their relative proportions being shown in Fig. 3.

Secured to the lower end of said pendulum rod is a weight 21, the diameter of which is reduced to that of the last named aperture to pass therethrough to remove the pendulum rod by rocking the same sidewise sufficient for the arced portion of the rod to move from its aperture in the upper bracket.

Note that the ground side of the circuit is through the medium of the socket carrying bracket and the upper bracket of the frame structure, consequently when the pendulum rod is rocked to engagement with the periphery of the aperture in the lower bracket the circuit is closed, the other side of the circuit being connected to the lower bracket through the medium of a wire **22** and extending upward to where it connects with the main switch above described.

It will now be seen that when the jaws of the socket are released, the frame and pendulum are gravity actuated vertically so that the pendulum rod will centrally engage in the aperture of the lower bracket, at which instant, the bracket is secured rigid by tightening the sleeve on the bolt to close the socket to snug engagement on the ball. The purpose of the ball and socket engagement is to vertically position the frame with the pendulum regardless the slant of the body of the vehicle when parked. To raise the vehicle from its normal parked position is means to rock the frame in contact with the pendulum rod which instantly energizes a horn **23** of the vehicle through its wire connection **24**, and the circuit may be otherwise closed by a sudden movement of the body which will be an alarm for the perpetrator of such stroke. To raise either wheel of the vehicle with respect to removing its tire is a means to close the circuit for continuous sounding of the horn. Therefore to burglarize the vehicle by removing its tires would start the alarm by the horn, and the vehicle body being closed and locked will render access to the alarm switch difficult.

Modifications may be made as lie within the scope of the appended claims.

Having fully described my invention what I claim as new and desire to secure by Letters Patent is:

1. In an electric burglar alarm, a bracket having two oppositely extending portions, one extending portion being connected to an instrument board of a motor vehicle, the other portion being split to form two legs positioned in parallelism, a split socket, the portions of which are carried by their respective legs, said legs being apertured in registry adjacent the socket, a hollow headed bolt to engage through the apertures, said bolt being threaded externally, a sleeve threaded internally to engage on the bolt, the bolt head and adjacent end of the sleeve to move the said legs toward each other to close the split socket, electric circuit conducting wires extending through the hollow of the bolt and being insulated therefrom while open ends of the wires extend into the sleeve and the said electric circuit conducting wires being connected to a source of electric power, a metallic element positioned in the sleeve a spaced distance from the open wires and being insulated from the sleeve and means to move said metallic element to and from contact with the said open ends of the wires to make and break the electric circuit.

2. In an electric burglar alarm, as recited in claim 1, a pendently carried frame consisting of a bar of insulating material, said bar having on each end thereof a bracket extending at right angle from the same side of said bar of insulating material, the upper end bracket having a pendulum rod rockably carried thereby, the lower bracket being apertured and through which said pendulum rod extends and being free to move to and from in the aperture to make an electric circuit when said rod moves in contact with the peripheral wall of the aperture, and a weight element secured to the pendulum rod below the apertured bracket for positive movement of the rod to and from contact with the wall of the aperture when the frame is rocked, a ball having a threaded neck and nuts to lock the same to engagement with the upper bracket, the ball mounted in the socket.

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