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MOTORIST ELECTRIC SHOCK SLEEP INHIBITOR

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Fig. 1

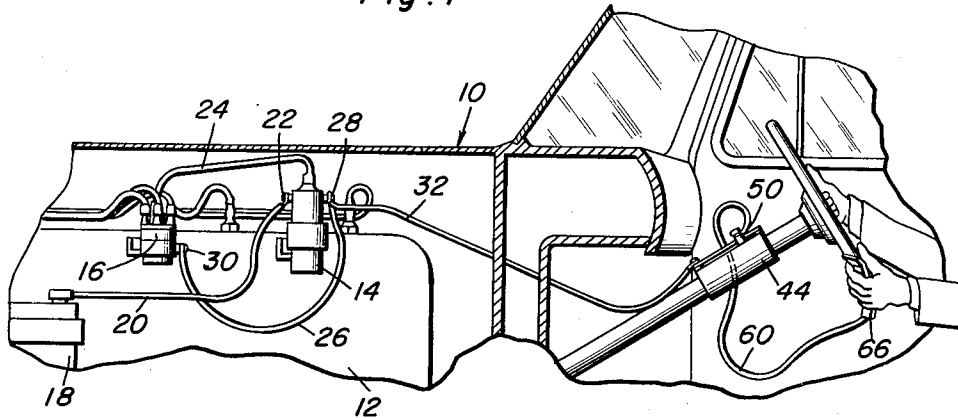


Fig. 2

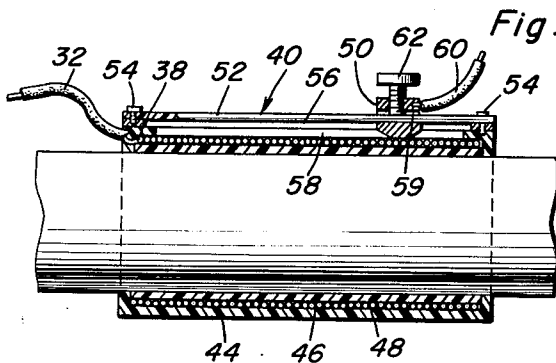


Fig. 3

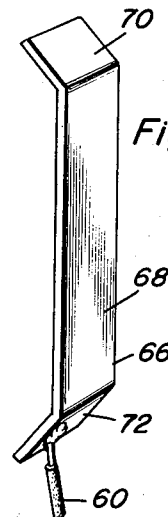
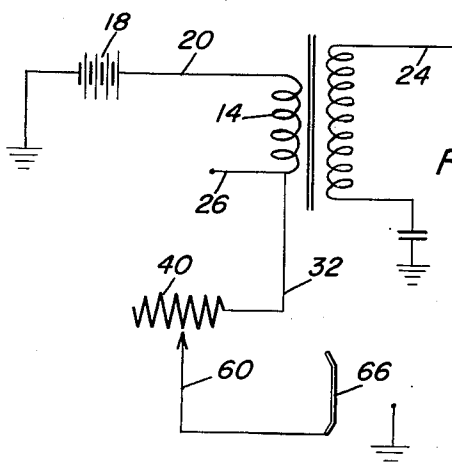


Fig. 4



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MOTORIST ELECTRIC SHOCK SLEEP INHIBITOR

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6 Claims. (Cl. 340—279)

This invention relates to sleep inhibitors and particularly to an arrangement for preventing the operator of a motor vehicle from falling to sleep while operating his vehicle.

An object of the present invention is to provide an electric shock sleep inhibitor adapted to be used by the operator of a motor vehicle who is prone to drowsiness or who must operate his vehicle for many hours.

A more specific object of the invention is to provide an electric shock type sleep inhibitor for a motor vehicle operator which has means for connection to the primary winding terminal of the motor vehicle coil, an adjustable resistor in order to select the voltage of shock, and means adapted to contact the person of the motor vehicle operator in order to conduct the electrical energy from the adjustable resistor to the vehicle operator, whereby upon grounding of the vehicle operator he becomes shocked. Such shock stimulates the vehicle operator and dispels drowsiness and the tendency toward sleep.

A further object of the invention is to provide a practical device for reducing one of the major hazards of highways and that is the sleepiness of motor vehicle operators.

These together with other objects and advantages which will become subsequently apparent reside in the details of construction and operation as more fully hereinafter described and claimed, reference being had to the accompanying drawings forming a part hereof, wherein like numerals refer to like parts throughout, and in which:

Figure 1 is a fragmentary sectional view schematically showing a part of a motor vehicle with the sleep inhibitor which exemplifies the invention applied thereto;

Figure 2 is an enlarged sectional view of the adjustable resistor which forms a part of the sleep inhibitor;

Figure 3 is a perspective view of one suggested electrically conductive member for contact with the person of the vehicle operator; and

Figure 4 is a schematic diagram showing the sleep inhibitor's connection with the ignition system of a motor vehicle.

In Figure 1 there is a fragmentary part of a motor vehicle 10, the illustration including an engine 12 on which there is mounted a standard induction coil 14 and distributor 16. Storage battery 18 is the source of electrical energy for the motor vehicle and has a circuit for the vehicle ignition. This circuit includes a number of wires and circuit elements, a representative system shown in Figures 1 and 4, this system being only partially complete. With this understood, wire 20 is shown as extending from the battery 18 to the secondary terminal 22 of induction coil 14. A high tension cable 24 is connected at one end to the coil 14 and at the other end to the center connector in the distributor cap of the distributor 16. A conductor 26 extends from the primary terminal 28 of the coil 14 and is connected to terminal 30 of the distributor 16.

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The sleep inhibitor comprises an electrical conductor 32 which is secured at one end to the primary terminal of the induction coil 14. As an alternative point of entry into the automotive vehicle ignition circuit, terminal 30 on the motor vehicle distributor body may be used. In either case the ignition circuit is entered at a point wherein there are approximately 250 to 300 volts potential. Conductor 32 extends from its terminal to a terminal 38. Terminal 38 is operatively connected with the adjustable resistor 40.

Resistor 40 is mounted in the motor vehicle at a place accessible to one of the occupants of the vehicle. The adjustable resistor shown in Figure 2 comprises a cylindrical body 44 having a cylindrical core 46 therein. A winding 48 is provided on form 46 between core 46 and cylindrical body 44. Terminal 38 is formed by a binding post or a solder connection at one end of the coil 48. An electrically conductive slide 50 is mounted on rail 52, the latter extending longitudinally of body 44 and secured to the exterior thereof by fasteners as screws 54. Rail 52 is spaced from the surface of body 44 in order to provide slot 56 therebetween. This slot is in registry with a longitudinal slot 58 formed in a wall of the cylindrical body 44. Slide 50 is sufficiently deep to fit in slots 56 and 58 so that the lower surface of the slide bears against the surface of coil 48.

Slide 50 has a passageway 59 extending therethrough, this passageway accommodating the rail 52. Wire 60 is electrically connected and mechanically connected with slide 50. In addition there is a set screw 62 carried by the body of slide 50 and having an end which bears against the rail 52. Therefore the slide 50 may be moved longitudinally of rail 52 and locked in place by adjustment of the set screw 62.

The conductor 60 is made of a convenient length and has means at one end for touching the person of the motor vehicle operator. Such means may assume several mechanical configurations, there being a flat highly conductive strip 66 illustrated in Figure 3. This strip has a center portion 68 together with angularly extending end portions 70 and 72, one of which is connected to the conductor 60. This connection may be made by soldering or by use of a binding post or clip.

In use the motor vehicle operator holds the member 66 in his hand while he operates the motor vehicle. It is to be understood that the member 66 is merely representative. It could be substituted by a flexible conductive member, as a wire cloth or mesh. In addition it could assume other mechanical forms such as a thimble or ring, although it is preferred to have the member 66 held in the hand.

When the motorist falls asleep his other hand will touch the metallic part of the steering gear, for example the horn ring. Inasmuch as through the described wiring and adjustable resistor, the member 68 when grounded conducts electrical energy, the grounding of the motor vehicle operator causes him to become electrically shocked.

When a motorist feels that he is becoming drowsy and sleepy, the intentional shocking of his body in the same manner will dispel the drowsiness and cause the motorist to become alert for safe driving.

The foregoing is considered as illustrative only of the principles of the invention. Further, since numerous modifications and changes will readily occur to those skilled in the art, it is not desired to limit the invention to the exact construction and operation shown and described, and accordingly, all suitable modifications and equivalents may be resorted to, falling within the scope of the invention as claimed.

What is claimed as new is as follows:

1. A sleep inhibitor for the operator of a motor vehicle which has an induction coil provided with a primary

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winding terminal, said inhibitor comprising an adjustable resistor, a conductor connected to the primary winding terminal, a hand held member of conductive material for the vehicle operator, and means connecting said member to said resistor for electrical conduction so that the vehicle operator is electrically shocked when he becomes grounded.

2. For use on a motor vehicle which has an induction coil including a primary winding terminal, a motor vehicle operator shock device comprising a conductor attached at one end to said terminal, a hand held member adapted to be placed in contact with the person of the motor vehicle operator so that upon grounding of the motor vehicle operator he is electrically shocked.

3. For use on a motor vehicle which has an induction coil including a primary winding terminal, a motor vehicle operator shock device comprising a conductor attached at one end to said terminal, a hand held member adapted to be placed in contact with the person of the motor vehicle operator so that upon grounding of the motor vehicle operator he is electrically shocked, said conductor having interposed therein an adjustable resistor, said adjustable resistor including a body of electrically insulating material, a coil wound in said body, said body being adapted to be connected to the steering column of the motor vehicle, an adjustable slide carried by said body and cooperable with the coil in said body in order that the motor vehicle operator may select the potential at which he is to be shocked.

4. In a sleep inhibiting device for a motor vehicle, a

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variable resistor, said variable resistor including a slide, a conductor secured to said slide and extending therefrom, a member adapted to be placed in contact with the persons in the motor vehicle and secured to said conductor for electrical continuity, and an electrical conductor secured to said adjustable resistor and adapted to be connected with a source of electrical energy.

5. In a motor vehicle having a source of electrical energy, a sleep inhibitor for the vehicle operator, said inhibitor comprising an electrical conductor adapted to connect to the source of electrical energy in the motor vehicle, an adjustable resistor to which said conductor is connected, said adjustable resistor having an adjustable element thereon which is electrically conductive, a wire extending from said adjustable element, and a motor vehicle operator hand held contacting member connected with said wire.

6. The combination of claim 5 wherein said motor vehicle operator contacting member includes an electrically conductive strip adapted to be held in the hand of the motorist as he holds the steering wheel of his vehicle so that upon grounding of the motorist the electrical circuit including the motorist's body is completed.

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