

[54] **MOTORCYCLE IGNITION GROUNDING SWITCH**

[76] Inventor: **Ronald L. German**, 5131 Blairwood Dr., La Palma, Calif. 90623

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[58] **Field of Search**..... 200/6 C, 6 R, 61.42, 61.43, 200/61.44, 61.54, 61.6, 61.76, 61.79, 61.83, 61.87, 157, 159 R, 159 A, 244, 246, 283, 286, 287, 293, 294, 295

[56] **References Cited**

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Primary Examiner—Robert K. Schaefer

Assistant Examiner—John W. Redman

Attorney, Agent, or Firm—Clarence A. O'Brien;

Harvey B. Jacobson

[57]

ABSTRACT

A panel member constructed of insulative material is provided and includes a recess formed therein opening outwardly through one edge surface of the panel member between opposite side surfaces thereof. A resilient conductive member is disposed in and projects outwardly of the recess and is normally positioned with its outer exposed end spaced above a surface upon which the panel member is disposed. However, the outer end of the conductive member may be downwardly depressed into electrical contact with any conductive surface upon which the panel member rests and the edge surface of the panel member from which the conductive member projects includes an integral flat portion overlying the outer exposed end of the conductive member and including a depending abutment portion of a vertical extent no greater than the thickness of the outer end of the conductive member and against which the outer end of the conductive member is abutted, the abutment member thereby serving to retain the conductive within the recess.

7 Claims, 4 Drawing Figures

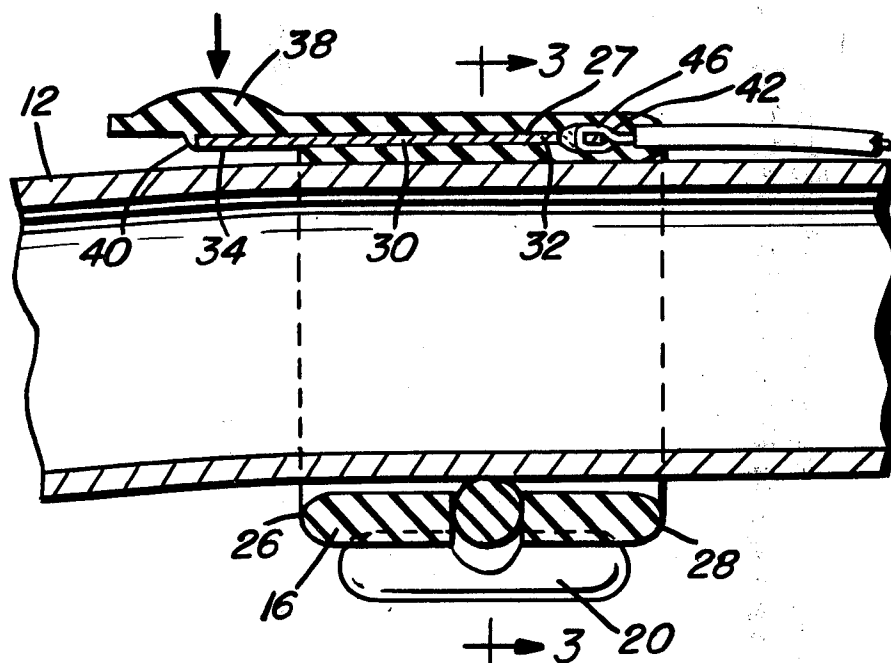


Fig. 1

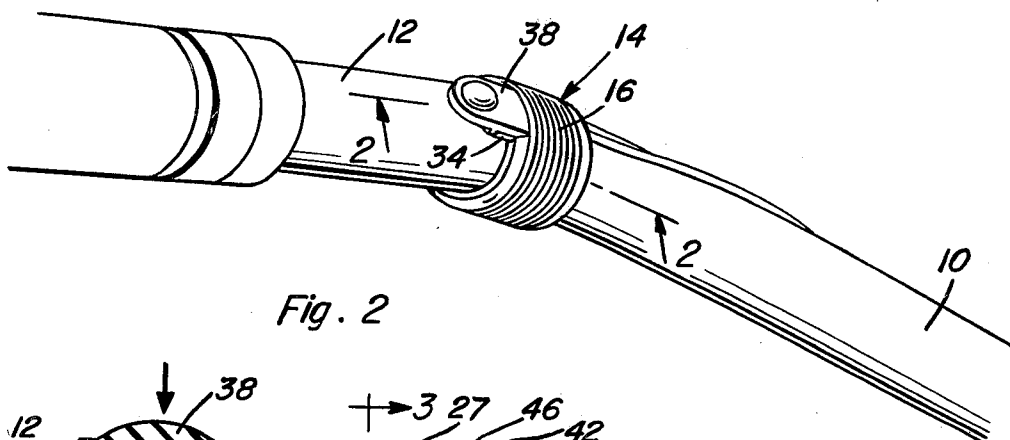


Fig. 2

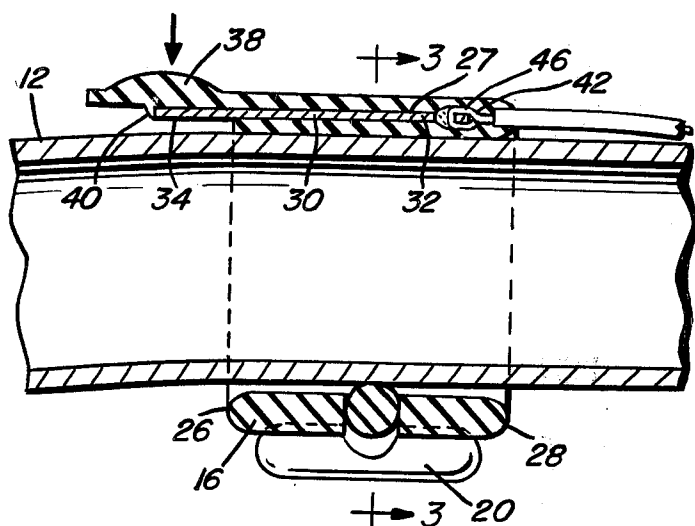


Fig. 3

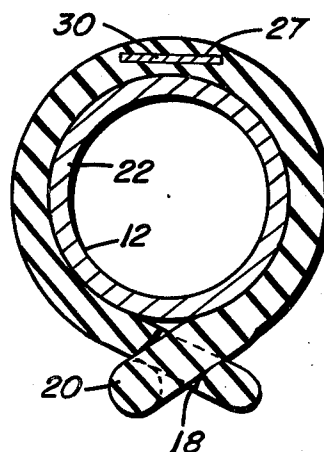
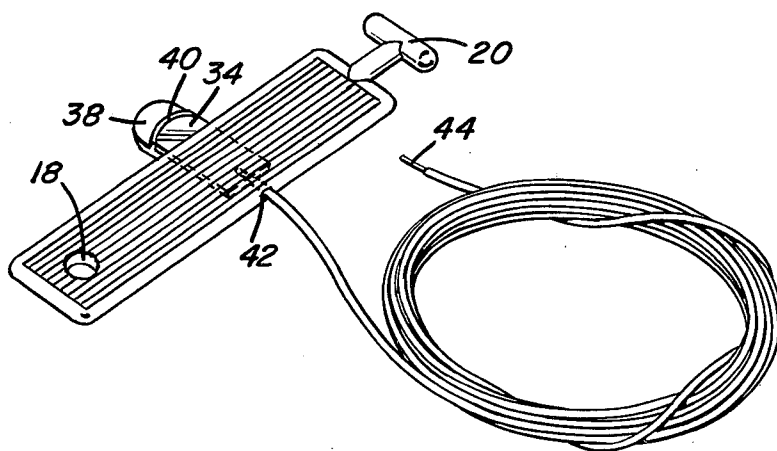


Fig. 4



MOTORCYCLE IGNITION GROUNDING SWITCH

BACKGROUND OF THE INVENTION

Motorcycles and motor bikes are in some instances provided with ignition grounding circuits controlled by handle bar mounted push button switches. The push button switches presently in use generally include a switch body relative to which a spring-biased push button is slidably supported. In addition, push button switches presently in use must either be semi-permanently attached to the associated handle bars by means of fasteners or clamps which inherently disfigure the handle bars and constitute protrusions on the handle bars which may cause injury to the user of the motorcycle in the event of an accident. Still further, conventional push button "kill" switches are subject to being clogged by mud and grit.

SUMMARY OF THE INVENTION

The ignition grounding switch of this invention has been designed in a manner enabling it to be readily removably mounted on an associated handle bar without marring the handle bar in any manner. In addition, all of the ignition grounding switch, except for the grounding contact thereof, is constructed of elastomeric material which greatly reduces the chances of injury in the event of an accident and the switch of the instant invention is not readily subject to malfunction due to grit or mud.

The grounding switch includes a band-type body of elastomeric material having an opening formed through one end and an integral T-shaped extension on the other end which may be releasably secured through the opening formed in the remote end in order to secure the ends of the band-type body about an associated handle bar assembly. One side edge portion of the band includes an outwardly opening recess in which a conductive member is seated and the conductive member projects outwardly of the recess and its outer end may be deflected from a normal position spaced slightly above the associated handle bar downwardly into electrical contact with the associated handle bar.

It is accordingly the main object of this invention to provide an extremely inexpensive grounding switch for the handle bar of a motorcycle or motor bike.

Another object of this invention is to provide a grounding switch which may be readily attached to an associated handle bar without marring the handle bar in any manner.

Yet another object of this invention is to provide a grounding switch which may be removably secured to the associated handle bar without the use of tools.

Another important object of this invention is to provide an ignition grounding switch for use on a motorcycle handle bar and constructed in a manner whereby the switch may be maintained in adjusted position on the handle bar and yet may be readily shifted in position along the handle bar without the use of tools.

A final object of this invention to be specifically enumerated herein is to provide an ignition grounding switch for the handle bar of a motorcycle which will conform to conventional forms of manufacture, be of simple construction and easy to use so as to provide a device that will be economically feasible, long lasting and relatively trouble-free in operation.

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.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is a fragmentary perspective view of one end portion of a motorcycle handle bar with the ignition grounding switch of the instant invention mounted on the handle bar;

FIG. 2 is an enlarged fragmentary sectional view taken substantially upon the plane indicated by the section line 2—2 of FIG. 1;

FIG. 3 is a sectional view taken substantially upon the plane indicated by the section line 3—3 of FIG. 2; and

FIG. 4 is a perspective view of the ignition circuit grounding switch of the instant invention prior to its being applied to an associated handle bar and electrically connected to an associated ignition circuit.

Referring now more specifically to the drawings, the numeral 10 generally designates a motorcycle handle bar including an end portion 12 having a handgrip 14 thereon.

The ignition grounding switch of the instant invention is referred to in general by the reference numeral 14 and is mounted on the handle bar end 12 in a manner which will become apparent from the following description and FIGS. 1, 2 and 3 of the drawings.

The switch 14 includes a panel member 16 constructed of insulative elastomeric material. The panel member 16 is in the form of an elongated strap member and the opposite ends of the strap member 16 include coacting anchor means operable to releasably secure the ends of the strap member together. The anchor means include an aperture 18 formed in one end of the strap member and an integral T-shaped extension 20 carried by the other end of the strap member.

The panel member 16 includes inner and outer side surfaces 22 and 24 joined by opposite side edges 26 and 28. The panel member 16 includes a blind recess 27 formed therein which opens outwardly of the side edge 26 and a flat and substantially straight and resilient strap-type conductive member 30 has one end 32 thereof seated in the recess 27 while the other end of the conductive member 30 projects outwardly of the side edge 26 of the panel or strap member 16.

From FIG. 2 of the drawings it may be seen that the outwardly projecting end 34 of the conductive member 30 is normally spaced above the underlying portion of the handle bar end 12. However, it is to be noted that the conductive member 30 is constructed of stiff but resilient material and therefore that the outer end 34 may be downwardly deflected into electrical contact with the handle bar end 12. Further, from FIG. 2 of the drawings it may be seen that the panel member 16 includes an integral flap 38 which projects outwardly of the side edge 26 and overlies the outwardly projecting end 34 of the conductive member 30. Further, the flap 38 includes a depending abutment 40 against which the outer end 34 of the conductive member 30 is abutted. In this manner, the abutment 40 tends to retain the conductive member 30, which can be lengthwise removed from the recess 27 when the outer portion of the flap 38 is upwardly deflected, in seated position within the recess 27.

Still further, the side edge portion of the panel member 16 remote from the side portion thereof from which

the conductive member 30 projects has a small diameter passage 42 formed therein. One end of the passage 42 opens outwardly through the side edge 28 of the panel member 16 and the inner end of the passage 42 opens into the center portion of the inner end of the recess 27. An insulated conductor wire 44 has one end thereof electrically connected to the inner end of the conductive member 30 as at 46 and the other end of the wire 44 may be electrically connected to any suitable portion of the ignition circuit of the associated motorcycle in order that the ignition circuit may be grounded whenever the flap 38 is depressed so as to depress the extended end 34 of the conductive member 30 into electrical contact with the handle bar end 12, it being understood that the handle bar end 12 constitutes a ground for the ignition circuit.

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.

What is claimed as new is as follows:

1. A grounding switch comprising a panel member for overlying the outer surface of a conductive member, said panel member including opposite side surfaces joined by means of an edge surface of said panel member, said panel member being constructed of insulative material and including a recess formed therein opening outwardly through said edge surface between said opposite side surfaces, a resilient conduction member disposed in and projecting outwardly of said recess, said conductive member being adapted to be electrically connected to an electrical circuit and the portion of said conductive member projecting outwardly of said recess being deflectable through a plane containing one of said side surfaces, said panel member comprising an elongated strap member constructed of elastomeric material, said edge surface comprising one longitudinal edge of said strap member, the opposite end portions of said strap member including anchor means releasably engageable with each other.

2. The combination of claim 1 wherein said panel member includes an integral flap portion thereof projecting outwardly of said edge surface and overlying said outwardly projecting portion of said conductive member on the side thereof remote from said plane.

3. The combination of claim 1 wherein said recess comprises a blind recess, said conductive member being seated in said recess.

4. A grounding switch comprising a panel member for overlying the outer surface of a conductive member, said panel member including opposite side surfaces joined by means of an edge surface of said panel member, said panel member being constructed of insulative material and including a recess formed therein opening outwardly through said edge surface between said opposite side surfaces, a resilient conductive member disposed in and projecting outwardly of said recess, said conductive member being adapted to be electrically connected to an electrical circuit and the portion

of said conductive member projecting outwardly of said recess being deflectable through a plane containing one of said side surfaces, said recess comprising a blind recess, said conductive member being seated in said recess, said panel member being constructed of elastomeric material and including an integral flap portion thereof projecting outwardly of said edge surface and overlying said outwardly projecting portion of said conductive member on the side thereof remote from said plane, said flap portion including an outer end abutment portion against which the outer extremity of said conductive member is abutted to retain said conductive member seated in said recess, said panel member comprising an elongated strap member, said edge surface comprising one longitudinal edge of said strap member, the opposite end portions of said strap member including anchor means releasably engageable with each other.

5. The combination of claim 4 wherein said anchor means comprise an opening formed through one end portion of said strap member and a T-shaped extension formed on the other end portion of said strap member.

6. The combination of claim 3 wherein said panel member has a small diameter passage formed therein opening into the inner end of said recess at one end and outwardly of the strap member at the other end, and an insulated conductor extending through said passage and electrically connected to said conductive member at one end, the other end of said conductive member being adapted to be electrically connected to a vehicle ignition circuit.

7. A grounding switch comprising a panel member for overlying the outer surface of a conductive member, said panel member including opposite sides joined by means of an edge surface of said panel member, said panel member being constructed of insulative material and including a blind recess formed therein opening outwardly through said edge surface between said opposite side surfaces, a resilient conductive member seated in and projecting outwardly of said recess, the portion of said conductive member projecting outwardly of said recess being deflectable through a plane containing one of said side surfaces, said panel member including an integral flap portion thereof projecting outwardly of said edge surface and overlying said outwardly projecting portion of said conductive member on the side thereof remote from said plane, said flap portion including an outer end abutment portion overlying and against which the outer extremity of said conductive member is abutted to retain said conductive member seated in said recess, said panel member having a small diameter passage formed therein opening into the inner end of said recess at one end and outwardly of said strap member at the other end at a point remote from said recess, and an insulated conductor extending through said passage and electrically connected to said conductive member at the end of said conductive member projecting into said recess, the other end portion of said conductive member being adapted to be electrically connected through an electric circuit of which said conductive member comprises a part.

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