

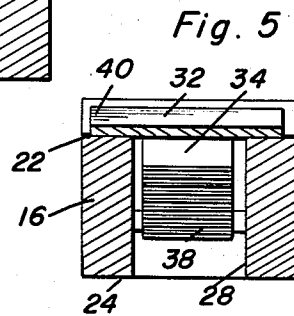
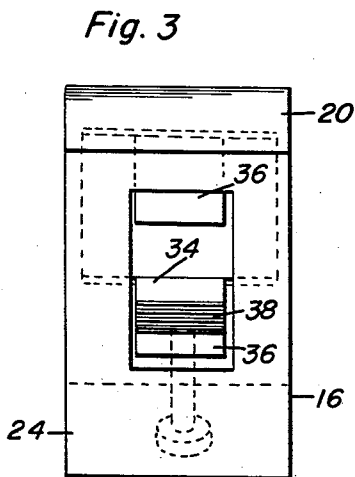
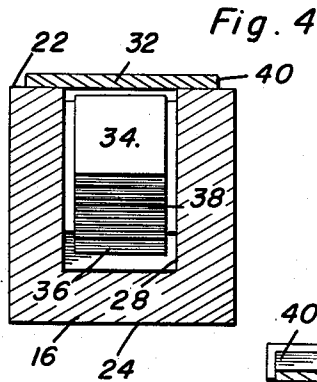
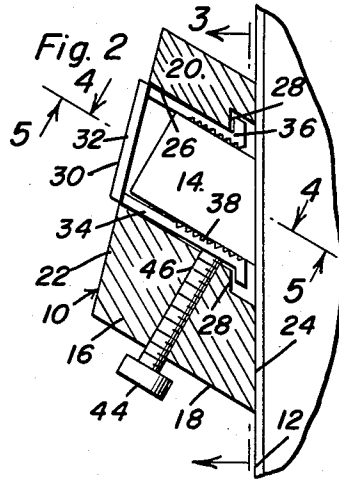
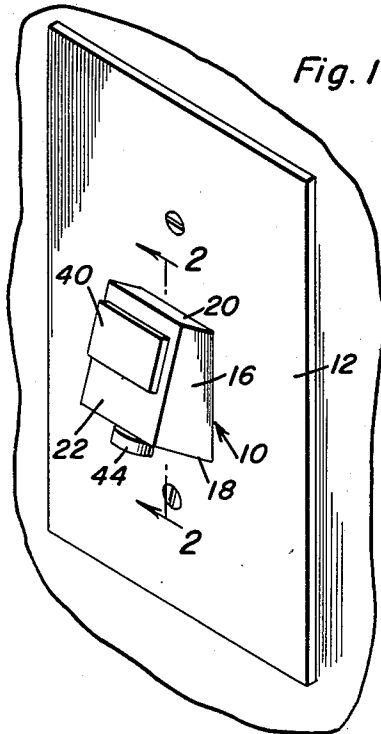
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2,795,663

TOGGLE SWITCH CLAMP

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TOGGLE SWITCH CLAMP

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4 Claims. (Cl. 200—44)

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This invention relates to a toggle switch clamp and more specifically provides an attachment designed for use in connection with electric switches or circuit breakers having a pivoted actuating arm extending through a slot in the face plate of the switch.

An object of this invention is to provide a toggle switch clamp for securing and locking a pivotal switch actuating arm in either its "on" or "off" position to prevent the operation of the switch by unauthorized persons, such as children or other people ignorant of the importance of such switches.

A further object of this invention is to provide a toggle switch clamp which may be utilized for securing a switch in either "on" or "off" position wherein a person working on an electric circuit will be protected from accidental shock or injury caused by some unauthorized person turning on the switch for connecting the electric circuit being repaired to a source of power.

Still another important object of this invention is to provide a toggle switch clamp which may be utilized for retaining the actuating arm of a toggle switch or a circuit breaker in "on" or "off" position, thereby providing uninterrupted electrical energy to certain circuits as desired.

A still further object of this invention is to provide a toggle switch clamp which is simple in construction, practical in operation, easy to use, well adapted for its purposes and relatively inexpensive to manufacture.

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 perspective view showing the toggle switch clamp of the present invention secured to the switch actuating arm and engaging the front plate or cover plate of the switch housing;

Figure 2 is a detailed vertical section taken substantially along section line 2—2 of Figure 1 showing the details of construction of the toggle switch clamp of the present invention;

Figure 3 is a detailed section taken substantially along section line 3—3 of Figure 2 showing the details of construction of the inner end of the sleeve and the projecting extensions thereon;

Figure 4 is a section taken substantially along section line 4—4 of Figure 2 showing the relationship of the sleeve and the projection on the bight portion; and

Figure 5 is a detailed section taken substantially along section line 5—5 of Figure 2 showing further relationship between the sleeve and the block.

Referring now specifically to the drawings, it will be seen that the numeral 10 generally designates the toggle switch clamp of the present invention for use in conjunction with a switch having the usual face plate 12 and the pivotal actuating arm 14 that is usually con-

structed of some plastic type material. The clamp 10 of the present invention may be utilized with a conventional toggle switch, circuit breaker or the like wherein the actuating arm is pivoted from an "off" to an "on" position.

The switch clamp 10 includes a block of material 16 having parallel edges 18 and 20 forming the top and bottom of the block and angularly related edges 22 and 24 forming the outer face and the inner face of the block 16. The edges 18 and 20 are angularly arranged in relation to the switch face 12 and the edge 18 is longer than the edge 20. The block 16 is provided with an aperture 26 extending completely therethrough and including recessed areas 28 adjacent its junction with the inner face 24. A U-shaped sleeve 30 having a bight portion 32 and a pair of parallel legs 34 is positioned in the aperture 26 and each of the legs 34 is provided with an outwardly extending projection 36 for engaging in the recessed areas 28. Each of the legs 34 is provided with serrations 38 on opposing inner surfaces for engaging the switch arm 14 extending through the face plate 12 of the switch. The bight portion 32 of the U-shaped sleeve 30 has projections 40 integral therewith which engage the block 16 on each side of the aperture 26 and rest against the outer surface 22 of the block 16. A thumbscrew 44 is screw threaded into a suitable threaded bore 46 and engages the outer surface of one of the legs 34 of the U-shaped sleeve 30 for urging the legs 34 towards each other, thereby securely clamping the arm 14 between the legs 34 by utilization of the serrations 38 in an obvious manner.

The operation of the device will be readily understood. With the switch arm 14 substantially as shown in Figure 2, the sleeve 30 and block 16 are inserted over the switch arm 14 and the thumb screw 44 manipulated to securely clamp the U-shaped sleeve 30 and the block 16 to the arm 14 with the inner face 24 of the block 16 being in intimate contact with the face plate 12 of the switch thereby preventing pivotal movement of the switch arm 14. When it is desired to change the position of the switch arm 14, the block 16 is removed by manipulating the thumbscrew 44 in an obvious manner, and the switch arm 14 is pivoted downwardly, and the block 16 is then reversed and placed over the switch arm 14 in an obvious manner with the long edge 18 then facing upwardly in relation to the switch arm 14. This specific arrangement and shape of the block 16 provides easy access to the thumbscrew 44 at all times, and also indicates the position of the pivotal arm 14. Obviously, the device may be constructed by any suitable material such as wood, plastic, metal or the like. The relative simplicity and cheapness of construction will enhance the feasibility of this device for holding the switch arms in a desired position.

From the foregoing, the construction and operation of the device will be readily understood and further explanation is believed to be unnecessary. However, 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 shown and described, and accordingly, all suitable modifications and equivalents may be resorted to, falling within the scope of the appended claims.

What is claimed as new is as follows:

1. A device for locking a pivotal actuating arm of an electrical switch in its "off" or "on" position with the arm being disposed in acute angular relation with the switch body, said device comprising an independent block having a generally flat inner surface and an outer surface spaced therefrom, said block having substantial thickness and having a passageway extending inwardly from the inner surface thereof a distance for receiving a major

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portion of the actuating arm, the longitudinal axis of said passageway being in acute angular relation to the plane of the inner surface of the block and being substantially the same as the acute angular relationship between the actuating arm and switch body whereby the actuating arm may be received in the passageway in either position of the arm by inverting the block, and clamp means extending laterally into the passageway for securing the block on the arm with the inner face thereof in abutting engagement with the switch body adjacent the actuating arm thereby preventing pivotal movement of the actuating arm, the actuating arm of the switch forming the sole support for the block.

2. A toggle switch clamp for securing the pivotal actuating arm of the toggle switch in its "off" or "on" position comprising a block having an inner surface, a socket in said block for receiving the switch actuating arm, and means for securing the arm in said socket with the inner surface of the block engaging the front face of the switch, said socket extending angularly into said block for receiving the arm in normal position thereby preventing pivotal movement of the actuating arm from the normal position, a U-shaped sleeve disposed in said socket, said sleeve having serrations on opposing inner

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surfaces of the leg members for engaging the arm, and said means includes a thumbscrew threaded in said block and engaging one leg of the U-shaped sleeve for securely locking the arm to the sleeve.

5 3. The structure as defined in claim 2 wherein the legs of said sleeve are provided with outwardly flared projections received in recessed areas in said block, and the bight portion of said sleeve is provided with an extension for engaging said block thereby securely locking the sleeve in the socket.

10 4. The structure as defined in claim 3 wherein said block is trapezoidal with the thumbscrew positioned in the longer side thereof thereby providing easier access to the thumbscrew and indicating the position of the switch arm.

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