Dec. 8, 1925. 1,564,321

J. A. CAMERON

INSULATING COVER FOR SWITCH TERMINALS

Filed Oct. 31, 1922

Fig. 1.

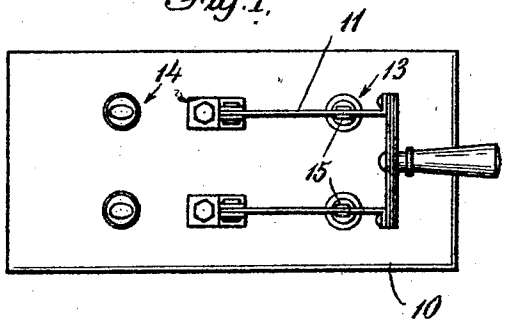



Fig. 2.

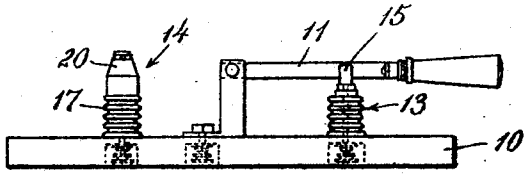



Fig. 4.

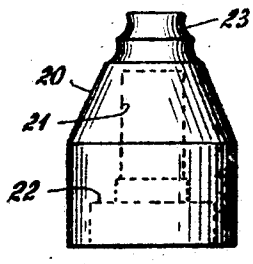



Fig. 3.

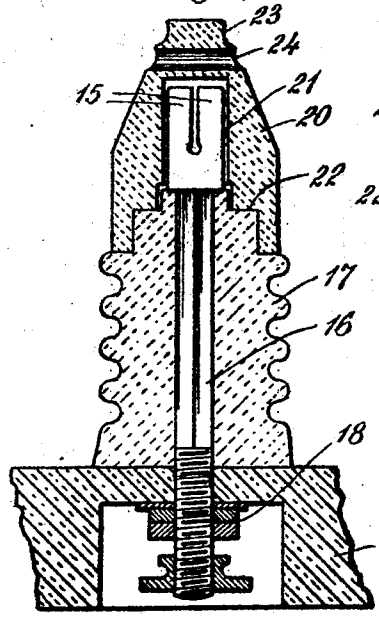



Fig. 5.

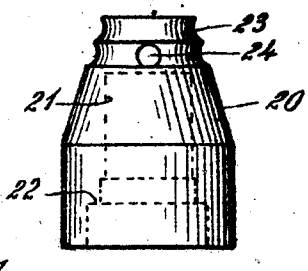



Fig. 6.

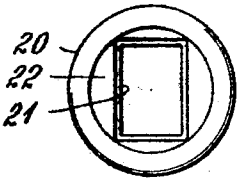



Fig. 7.

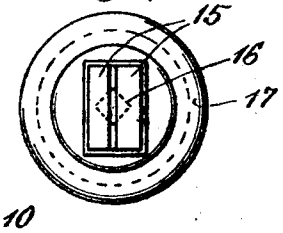
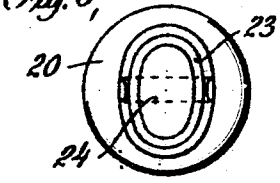



Fig. 8.




INVENTOR

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Patented Dec. 8, 1925.

1,564,321

# UNITED STATES PATENT OFFICE.

JOHN A. CAMERON, OF MOUNT VERNON, NEW YORK.

## INSULATING COVER FOR SWITCH TERMINALS.

Application filed October 31, 1922. Serial No. 598,056.

*To all whom it may concern:*

Be it known that I, JOHN A. CAMERON, a citizen of the United States, and a resident of Mount Vernon, county of Westchester, and State of New York, have invented certain new and useful Improvements in Insulating Covers for Switch Terminals, of which the following is a specification.

This invention relates to electric switches and particularly to safety devices for use with such switches.

In power houses, sub-stations, switching towers and like structures, where high potential is used, many accidents occur due to the accidental or unintentional closing of switches. These accidents usually occur with double throw switches when the operator in pulling the switch from one set of terminals swings the switch far enough to contact with or cause the current to arc over to the other set of terminals, thus closing a circuit not intended to be closed or grounding the circuit, thereby often causing serious damage to the electrical equipment and injury to the operator.

Operators are also injured frequently by their hands or other parts of their bodies coming in contact with unprotected live terminals.

This invention has for its salient object to provide a device which will cover such terminals effectively and which will prevent accidental or unintentional closing of switch circuits.

Another object of the invention is to provide a simple, practical and inexpensive device for accomplishing the aforesaid results.

Further objects of the invention will appear from the following specification taken in connection with the drawings, which form a part of this application, and in which

Fig. 1 is a top plan view of a portion of a switch board panel showing a double throw switch and switch terminals provided with safety devices constructed in accordance with the invention.

Fig. 2 is a side elevation of the construction shown in Fig. 1.

Fig. 3 is a sectional elevation on a large scale of a switch terminal having a protective cap thereon.

Fig. 4 is an elevational view of the safety device or switch terminal cap.

Fig. 5 is an elevational view taken at right angles to Fig. 4.

Fig. 6 is a bottom plan view of the construction shown in Fig. 4.

Fig. 7 is a top plan view of one of the switch terminals, and

Fig. 8 is a top plan view of the construction shown in Fig. 4.

The invention briefly described consists of a cover or cap formed of suitable insulating material and adapted to fit over the switch terminals when these terminals are not in use. The cap by completely covering the terminals prevents accidental throwing of the switch from one set of terminals into engagement with the other set, and make it impossible for an operator to touch a live terminal thus protected, with his hand

Referring to the drawings, there is shown a panel 10 of a switch board having pivoted thereon a double throw switch 11 and having secured thereto for engagement by the switch two sets of terminals 13 and 14.

The switch may be of any desired construction and the terminals may be secured to the board in any desired manner. In the form of the invention illustrated a knife switch is shown and the terminals comprise a pair of blades 15 adapted to be engaged by the knife switch. The terminal blades are carried by a bolt 16 which extends through an insulating support 17 and is secured to the switch board panel by nuts 18.

The safety device consists of a cap 20 formed of any desired insulating material, such as paper, wood, raw hide, rubber, glass, porcelain, bakelite and so forth, and is provided with a socket or opening 21 extending upwardly from one end and having a ledge 22 adapted to seat on a correspondingly formed portion at the outer end of the support 17. The cap has formed on its outer end a handle or gripping portion 23 adapted to be grasped by the operator and also has formed therein a transverse opening 24 into which a tool may be inserted for removing the cap.

In the showing in Figs. 1 and 2 it is assumed that the switch terminals 13 are in use and that the operator does not desire to throw the switch directly from the terminals 13 into engagement with the terminals

14. For this reason the safety caps 20 have been placed over the terminals 14 and will effectively prevent any accidental or unintentional throwing of the switch 10 from the terminals 13 into contact with or into a position adjacent the terminals 14 such that the current can arc over from the switch blades to the terminals.

It will thus be seen that simple, practical and effective means have been provided for insulating switch terminals not in use and for preventing accidental contact therewith of the switch.

Although one specific embodiment of the invention has been shown and described, it will be understood that further modification and that further changes in the construction and in the arrangements of the parts may be made without departing from the spirit or scope of the invention as expressed in the following claims.

What I claim is:

1. An insulating cover for switch terminals comprising a closed cap of insulating material having a socket extending inwardly from one end and adapted to receive and entirely cover a switch terminal.

2. An insulating cover for switch terminals comprising a closed cap of insulating material having a socket extending inwardly from one end and adapted to receive and entirely cover a switch terminal and having a grip portion by which the cap may be gripped by the operator and applied to or removed from the terminals.

3. In combination with a switch terminal having a base of insulating material, a removable closed cap for said terminal, said cap being constructed of insulating material having a part provided with a cavity into which the terminal fits, said part being arranged to entirely cover the terminal, and with a portion projecting beyond said terminal covering part arranged to extend over and form a supporting engagement with said insulating base.

4. In combination with a switch terminal having a base of insulating material, a removable closed cap for said terminal, said cap being constructed of insulating material having a part provided with a cavity into which the terminal fits, said part being arranged to entirely cover the terminal, and with a portion projecting beyond said terminal covering part arranged to extend over and form a supporting engagement with said insulating base, said cap having a grip portion by which said cap may be gripped by the operator and applied to or removed from the terminals.

In witness whereof, I have hereunto set my hand this 30th day of October, 1922.

JOHN A. CAMERON.