Aug. 14, 1928. 1,680,732

D. R. DE TAR

CONTROL APPARTUS

Filed March 16, 1927

Fig. 1.

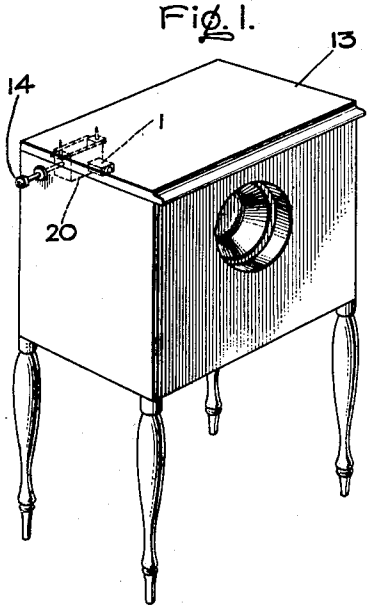


Fig. 2.

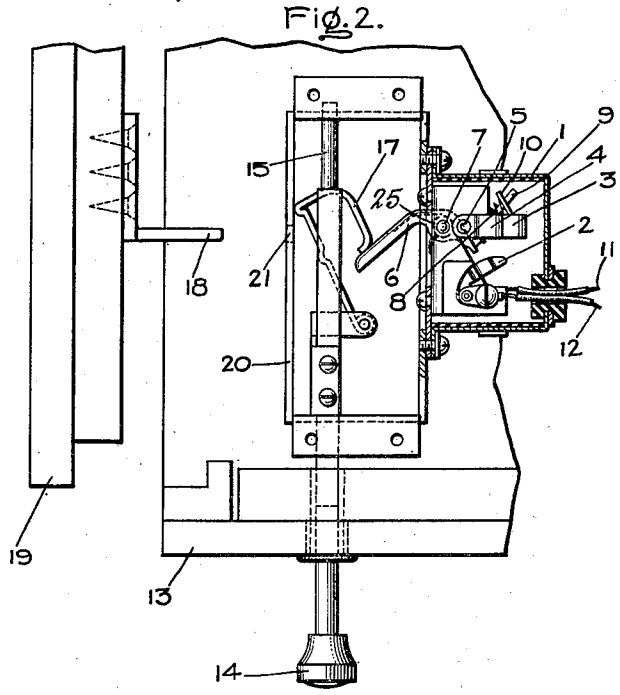


Fig. 3.

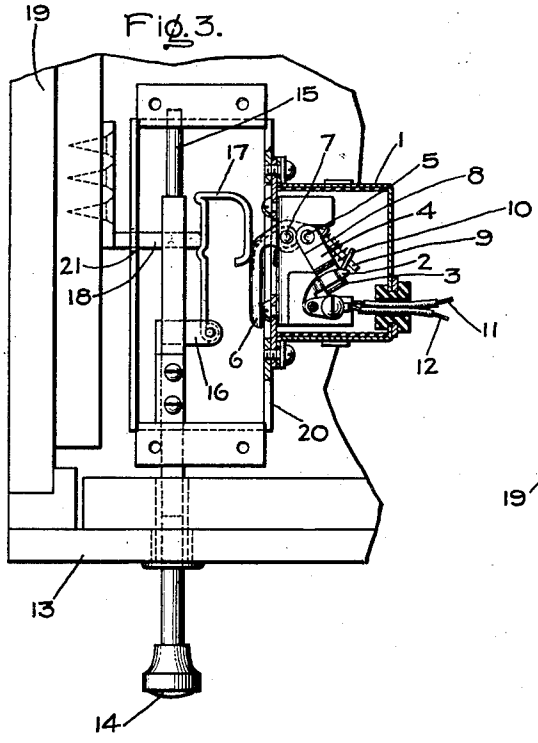
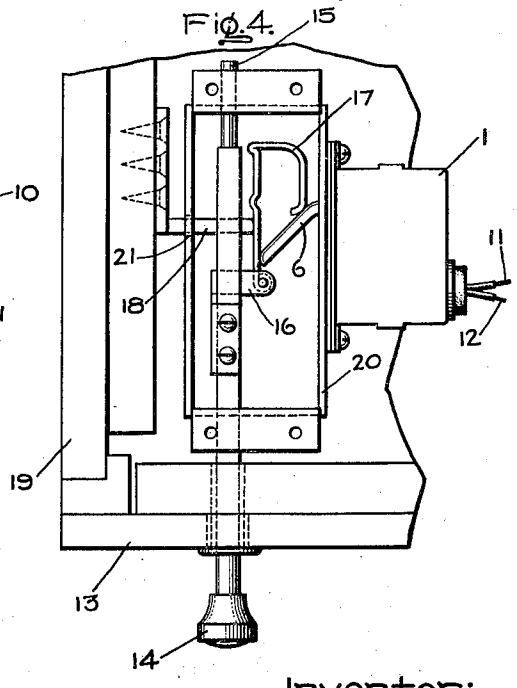


Fig. 4.



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UNITED STATES PATENT OFFICE.

DONALD R. DE TAR, OF SCHENECTADY, NEW YORK, ASSIGNOR TO GENERAL ELECTRIC COMPANY, A CORPORATION OF NEW YORK.

CONTROL APPARATUS.

Application filed March 16, 1927. Serial No. 175,949.

My invention relates to apparatus for controlling the energization of an electrical device mounted within a casing or cabinet, and has for its principal object the provision of an improved control apparatus whereby energization of the device is controlled from a point exterior to the cabinet and whereby the device is always deenergized when it is exposed by removal of the cabinet cover.

My invention will be better understood from the following description when considered in connection with the accompanying drawings and its scope will be pointed out in the appended claims.

Referring to the drawings, Fig. 1 illustrates the application of my invention to a radio receiving apparatus; and Figs. 2 to 4 illustrate the positions of the control apparatus under different conditions of operation.

This apparatus comprises a switch 1 provided with a pair of stationary contact members 2 arranged to be interconnected by a movable contact member 3 which is mounted upon and insulated from a member 4 pivoted at 5. Movement of the contact member 3 into and out of engagement with the members 2 is produced by movement of a control lever 6 pivoted at 7, biased to its open position by a spring 25 and coupled to the movable contact member 3 through a spring 8 and a link 9. The link 9 is pivoted to the end of the control lever 6 and is arranged to extend through an opening in an extension 10 of the member 4. Under these conditions the member 3 is snapped in between the members 2 when the control lever 6 is rocked about the pivot 7 in a counterclockwise direction and is snapped out of engagement with the contacts 2 by the spring 8 when the lever 6 is free to rock in a clockwise direction. The stationary contacts 2 are provided with leads 11 and 12 through which current is supplied to the device mounted within a cabinet 13.

A control knob 14 attached to the end of a rod 15 extending into the cabinet 13 is provided for controlling the operation of the switch 1 through a member 16 which is adjustably attached to the rod 15 and a P-shaped member 17 which is hinged at one end to the member 16 and is arranged to cooperate with a support 18 mounted on the cabinet cover 19.

When the cover 19 is in its normal closed position as illustrated in Fig. 4, movement of the control knob 14 toward the cabinet wall releases the control lever 17 and permits opening of the switch 1 by the spring 8, and movement of the knob 14 from the wall of the cabinet forces the enlarged part of the member 17 in between the support 18 and the control lever 6, thus rocking this lever in a counterclockwise direction and closing the switch 1 as indicated in Fig. 3.

In either position of the knob 14, however, removal of the cover 19 allows the member 17 to rotate into engagement with a wall of a casing 20 which is mounted on the wall of the cabinet 13, is provided with an opening 21 adapted to receive the support 18, and is provided at its opposite ends with openings adapted to permit movement of the rod 15. With the member 17 in engagement with the wall of the casing 20 as illustrated in Fig. 2, the switch 1 is maintained in its open position by the spring 8 and is unaffected by movement of the control knob 14. This ensures that the electrical device mounted within the cabinet 13 is always deenergized when it is exposed by removal of the cover 19 and permits inspection, adjustment or repair of the device without the danger of electrical shock.

The embodiment of the invention illustrated and described herein has been selected for the purpose of clearly setting forth the principles involved. It will be apparent, however, that the invention is susceptible of being modified to meet the different conditions encountered in its use and I therefore aim to cover by the appended claims all modifications within the true spirit and scope of my invention.

What I claim as new and desire to secure by Letters Patent of the United States, is:—

1. The combination of a cabinet comprising a removable cover, a support member mounted on said cover, an electrical switch provided with a control lever and with means tending to maintain said control lever in its open position, and means arranged to be moved between said support and said control lever for moving said lever into its closed position.

2. The combination of a cabinet comprising a removable cover, a support member mounted on said cover, an electrical switch mounted on a wall of said cabinet and pro-

vided with a control lever which tends to assume its open position, a control element external to said cabinet, and means coupled to said control element and adapted to be moved between said support and said control lever for moving said lever into its closed position.

3. The combination of a cabinet comprising a removable cover, a support member mounted on said cover, an electrical switch provided with a control element and with means tending to maintain said control element in its open position, and means comprising a pivoted member arranged to be reciprocated between said support and said control element for moving said element into its closed position.

4. The combination of a casing comprising a removable cover, a support member mounted on said cover, an electrical switch mounted on a wall of said casing and provided with a control lever which tends to assume its open position, a control element extending through a wall of said casing, and a member pivoted to said control element and adapted to be reciprocated between said support and said control lever for moving said lever to its closed position.

5. The combination of a casing comprising a removable cover, a support member mounted on said cover, an electrical switch mounted within said casing and provided with a control lever, a control element extending through a wall of said casing, and a member arranged to be reciprocated between said support and said lever by movement of said element and to be rotated away from said lever when said cover is removed.

In witness whereof, I have hereunto set my hand this 15th day of March, 1927.

DONALD R. DE TAR.