June 28, 1927. 1,634,185

M. GUETT

DOUBLE THROW SWITCH

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Fig. 1.

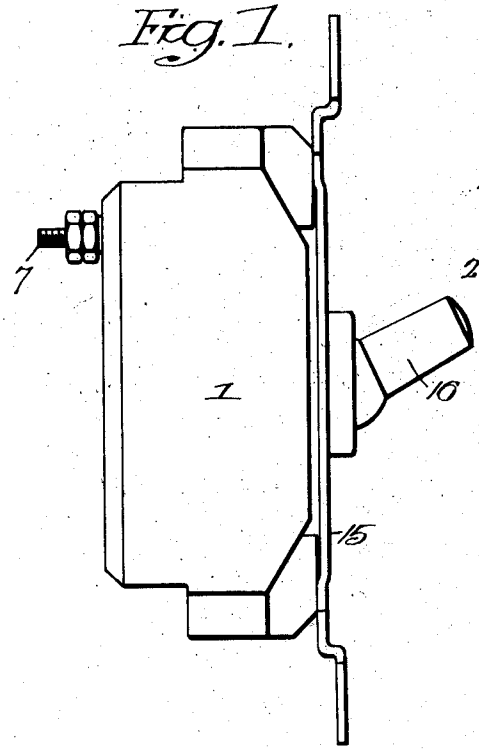


Fig. 2.

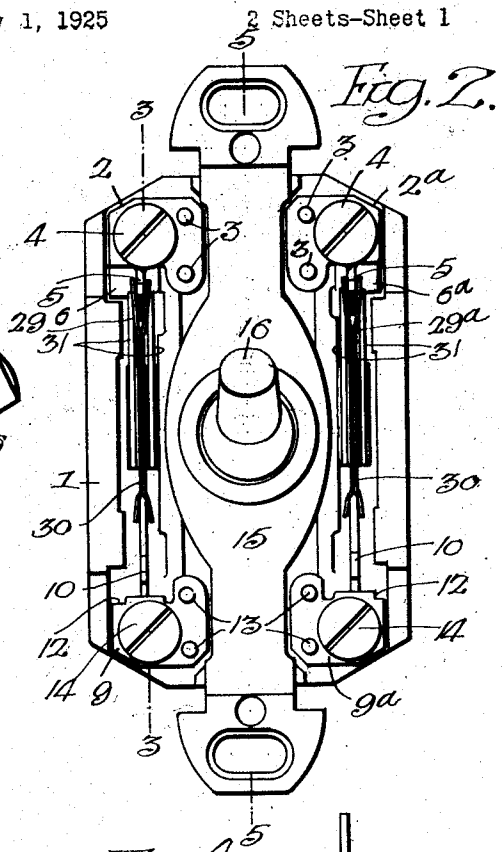


Fig. 3.

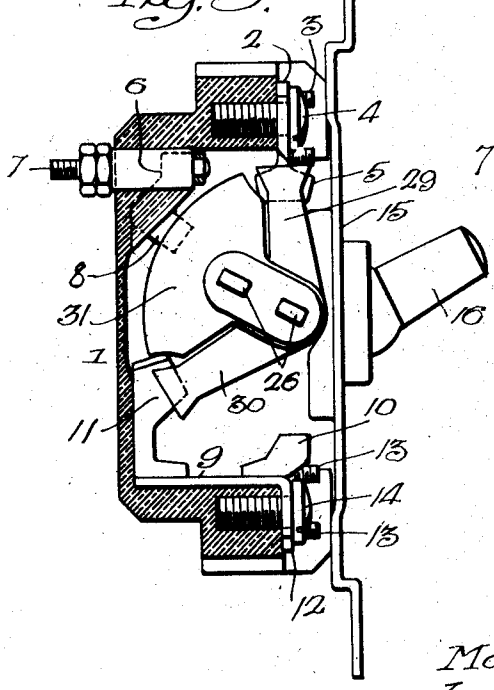
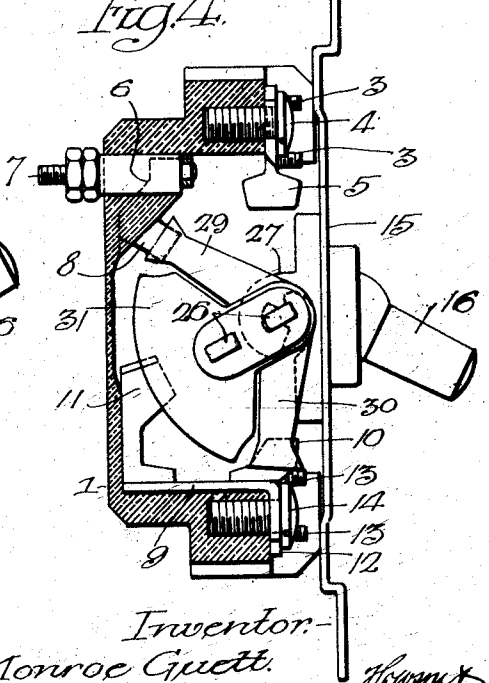


Fig. 4.



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DOUBLE THROW SWITCH

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Fig. 5.

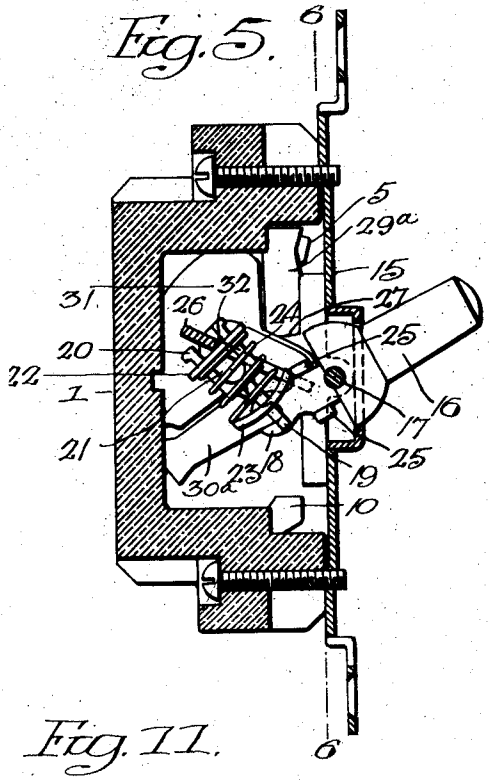


Fig. 6.

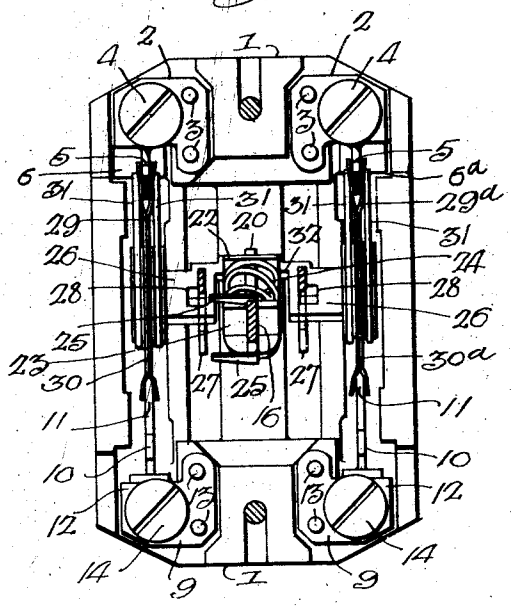


Fig. 11.

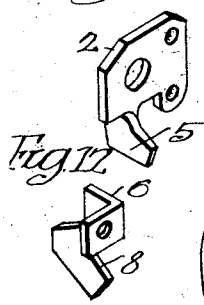


Fig. 7.

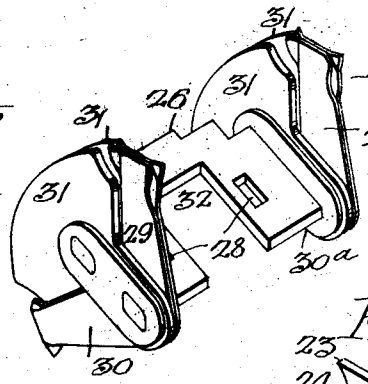


Fig. 9.

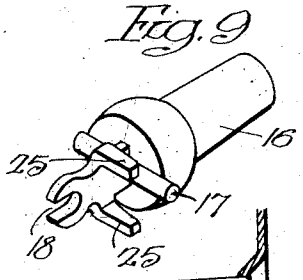


Fig. 8.

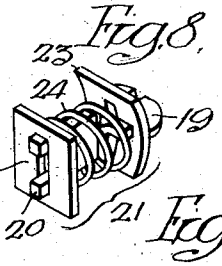


Fig. 10.

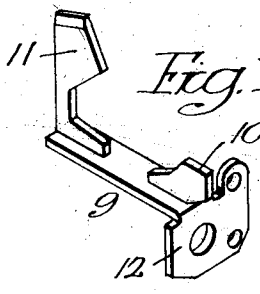
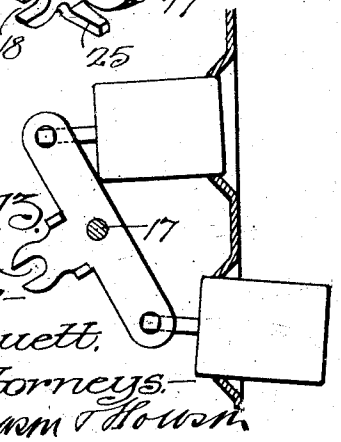


Fig. 13.



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UNITED STATES PATENT OFFICE.

MONROE GUETT, OF HARTFORD, CONNECTICUT, ASSIGNOR TO HART & HEGEMAN MANUFACTURING COMPANY, OF HARTFORD, CONNECTICUT, A CORPORATION OF CONNECTICUT.

DOUBLE-THROW SWITCH.

Application filed July 1, 1925. Serial No. 40,872.

One object of my invention is to construct a double pole, double throw electric switch, in which a reciprocating carrier is operated by a switch lever or push buttons.

A further object of the invention is to construct the switch so that it can be placed in a wall in the same maner as the ordinary flush wall switch.

In the accompanying drawings:

Fig. 1 is a side view of my improved double pole, double throw switch;

Fig. 2 is a face view;

Fig. 3 is a vertical sectional view on the line 3—3, Fig. 2, showing the switch blades in one position;

Fig. 4 is a view, similar to Fig. 3, showing the switch blades in the other position;

Fig. 5 is a vertical sectional view on the line 5—5, Fig. 2;

Fig. 6 is a sectional view on the line 6—6, Fig. 5;

Fig. 7 is a detached perspective view of the carrier and its blades;

Fig. 8 is a perspective view of the snap mechanism;

Fig. 9 is a perspective view of the handle;

Figs. 10, 11 and 12 are detached perspective views of the terminals on one side of the switch; and

Fig. 13 is a view illustrating a modification.

The base 1 of the switch is made of porcelain, or other suitable non-conducting material, and is recessed to accommodate the movable elements of the switch. Secured to one end of the base are terminals 2, 2^a. Each terminal is secured to the base by two screws 3, 3 and has a binding screw 4 by which a wire can be attached thereto. The contact portion 5 is bent at right angles to the base of the terminal, as shown in Fig. 11.

Located within the recess of the base are two terminals 6, 6^a, which are made as illustrated in Figs. 3 and 12. Each terminal has a base through which extends a screw 7 that acts as a means of attachment to the base and also as a binding screw by which a wire can be attached to the terminal. The contact portions 8 of the terminals 6, 6^a are located at or about forty-five degrees from the contact portions 5 of the terminals 2, 2^a, respectively.

At the opposite end of the base are two double terminals 9, 9^a, which are made as shown in Fig. 10. Each terminal has two contact portions 10 and 11. The base 12 of each terminal is secured to the base 1 of the switch by screws 13. Each terminal has a binding screw 14 by which a wire can be attached thereto. Mounted on a plate 15, which is secured to the base 1, is a switch lever 16. This lever is mounted on a pivot 17, Fig. 9, and has a slotted extension 18, which engages a slotted head 19 of a slide 20 that forms a part of a snap structure 21, Fig. 8. The slide 20 is forked and the forked portions extend through a slot in a plate 22. Between the plate 22 and a curved plate 23 is a spring 24, which is compressed when the switch lever is moved from one position to the other. Stops 25 on the switch lever 16 limit its movement in either direction.

The blade carrier 26, shown in detail in Fig. 7, is pivotally mounted on arms 27, which extend through slots 28 in the carrier as shown in Fig. 7. When the lever 16 is moved from one position to the other, the carrier is shifted from the position shown in Fig. 3 to that shown in Fig. 4. There are two sets of blades on the carrier. The blades 29, 29^a are made double, as illustrated in Fig. 7, and are arranged to pass on each side of the contact portions of the terminals 2, 2^a, and 6, 6^a. The blades 30, 30^a are also made double and engage either the contact portions 10 or 11 of the terminals 9, 9^a, respectively.

Between the blades 29 and 30, and 29^a and 30^a, respectively, are segmental sections 31 of non-conducting material. These sections are made in pairs, which are spaced apart and act not only to prevent sparking, but also as guides for the blades when they are shifted from one terminal to another.

The snap mechanism shown in Fig. 8 is located in the recess 32 of the carrier 26. The plate 22 rests against the base of the recess and the forked portions of the slide 20 extend on each side of the body of the carrier.

By this construction, a double pole, double throw switch can be made in which the switch lever is oscillated in the same manner as the ordinary wall switch. The switch can also be made as a flush wall switch.

The invention is especially adapted as a

switch for radio work where the battery charger is used for storing the battery. In this case, the terminals 9, 9ª are connected to the storage battery and the terminals 6, 6ª are connected to the battery charger. The terminals 2, 2ª are connected to the receiving set of the radio apparatus.

While this switch is particularly adapted for use in the manner hereinbefore described, it will be understood that it can be used for other purposes without departing from the essential features of the invention.

In Fig. 13 a modification is illustrated in which the switch lever is actuated by push buttons 16ª that project through a surface plate.

It will be understood that the means for operating the carrier can be modified without departing from the main features of the invention.

I claim:

The combination in a double pole, double throw switch, of a receased base of non-conducting material; a plate extending across the recess of the base; a switch lever pivotally mounted on the plate; a carrier located within the recess and pivotally mounted on the plate, said carrier having two sets of blades; sections of non-conducting material mounted on the carrier between the sets of blades; snap mechanism connecting the switch lever with the carrier; a pair of double terminals located at one end of the case; a single pair of terminals located at the opposite end of the base; and a single pair of intermediate terminals located in the recess of the base between the double and single terminals and so positioned that, when the carrier is in one position, the blades will engage one of the contacting portions of the double terminal, and one of the single terminals, and, when the carrier is shifted, the blades will engage the other contacting portion of the double terminal and the other single terminal.

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