To all whom it may concern:

Be it known that I, ISAAC G. WATERMAN, a citizen of the United States, residing at Santa Barbara, in the county of Santa Barbara and State of California, have invented certain new and useful Improvements in Electrical-Contact-Controlling Floats; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to electrical-contact-controlling floats.

The object of the present invention is the provision of an improved and novel electrical-contact-controlling float of simple, compact, and inexpensive construction which can be used to make and break electrical circuits wherever it is desired to control them through the rise and fall of a fluid, and the invention is designed more particularly for use in connection with certain improvements in the electrical control of water to lavatory bowls or basins and bath-tubs constituting the subject-matter of my copending applications.

The invention comprises certain improvements in the float and electrical contacts and their manner of cooperation, as fully set forth hereinafter and recited in the appended claims.

In the accompanying drawings, Figure 1 is a side elevation; Fig. 2, a vertical section; Fig. 3, a detail of the hook on the float; Fig. 4, a bottom interior view of the cap, showing the contacts and plate; Fig. 5, a detail of the insulating-block, and Fig. 6 a detail of the movable plate.

The cylindrical float-casing 1 has a suitable pipe connection 2 for supplying the water or other fluid to said casing through the relatively small aperture 3. The hollow cylindrical metallic float 4, located in casing 1, is provided with a hook 5 on its top.

The numeral 6 designates the cap or cover for the casing 1, said cap being secured to the casing by the screws 7. The cap is made of insulating material; but a metallic cap could be employed and the contacts insulated therefrom, if preferred. The center of the cap is recessed at 8 to permit the proper amount of play of the contacts and flexible or movable plate. There are three contacts (shown at 9, 10, and 11) connected to the cap by screws 12, to which the circuit-wires led in through the holes 13, 14, and 15 in the flange of the cap 55 are secured, and the free ends of the contacts extend under the recessed portion 8. The contacts extend in a radial direction, with the center contact 10 having its free end located below and adapted to make contact with the 60 other contacts, but normally separated therefrom. Disposed diametrically opposite the contacts is a plate 16, having a broadened end 16', loosely secured to the cap by screws 17, passing loosely through apertures in said end, while the free end of the plate 16 extends under the recessed portion 8 and has secured thereto by a screw 18 a block 19, of insulating material, provided with a slit 20, which receives the free end of the contact 10. The block 19 has an aperture 21, which receives the hook 5. The rise and fall of the float will therefore induce a corresponding movement in the insulating-block 19, contact 10, and free end of plate 16, and when the float 75 has risen, incident to the inflow of water or other fluid in the casing 1, the contact 10 will be forced into contact with the contacts 9 and 11, completing the circuits in which said contacts are included.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In an electrical-contact-controlling float, the combination with a float-casing, and a float, of an electrical contact, a movable electrical contact, a movable member, and an insulating-block on the movable member which is engaged with the movable contact, said movable contact and movable member being operated by the float.

2. In an electrical-contact-controlling float, the combination with a float-casing, and a float, of an electrical contact, a movable electrical contact, a movable member, and an insulating-block secured to the movable member and having a slit which loosely receives the movable contact, said movable contact and movable member being operated by the float.

3. In an electrical-contact-controlling float, the combination with a float-casing, and a float, of an electrical contact, a movable electrical contact, a movable member, an insu-
lating-block secured to the movable member and engaged with the movable contact and having an aperture, and a hook on the float which is received in said aperture, whereby the engagement and disengagement of the contacts are effected by the rise and fall of the float.

4. In an electrical-contact-controlling float, the combination with a float-casing, and a float therein, of a cap on the casing, an electrical contact on the cap, a plate, fastenings passing loosely through openings in the plate whereby it is loosely or flexibly secured to the cap, and a movable electrical contact on the cap cooperating with the plate, said movable contact and plate being operated by the float.

5. In an electrical-contact-controlling float, the combination with a float-casing, and a float therein, of a cap on the casing which has a recessed portion, an electrical contact on the cap extending under the recessed portion, a movable electrical contact on the cap extending under the recessed portion and the contact first named, and a plate connected to the cap and extending under the recessed portion and cooperating with the movable electrical contact, said movable contact and plate being operated by the float.

6. In an electrical-contact-controlling float, the combination with a float-casing, and a float therein, of a cap secured to the float-casing and provided with a recess, an electrical contact secured to the cap and extending under the recess, a movable electrical contact secured to the cap and extending under the recess and under the contact first named, a plate, fastenings loosely connecting the plate to the cap, said plate extending under the recess, an insulating-block secured to the plate and having a slit which receives the movable electrical contact and also having an aperture, and a hook on the float which is received in the aperture aforesaid.

In testimony whereof I affix my signature in presence of two witnesses.

ISAAC G. WATERMAN.

Witnesses:

W. W. KINCAID,
ELMER TEAVEY.