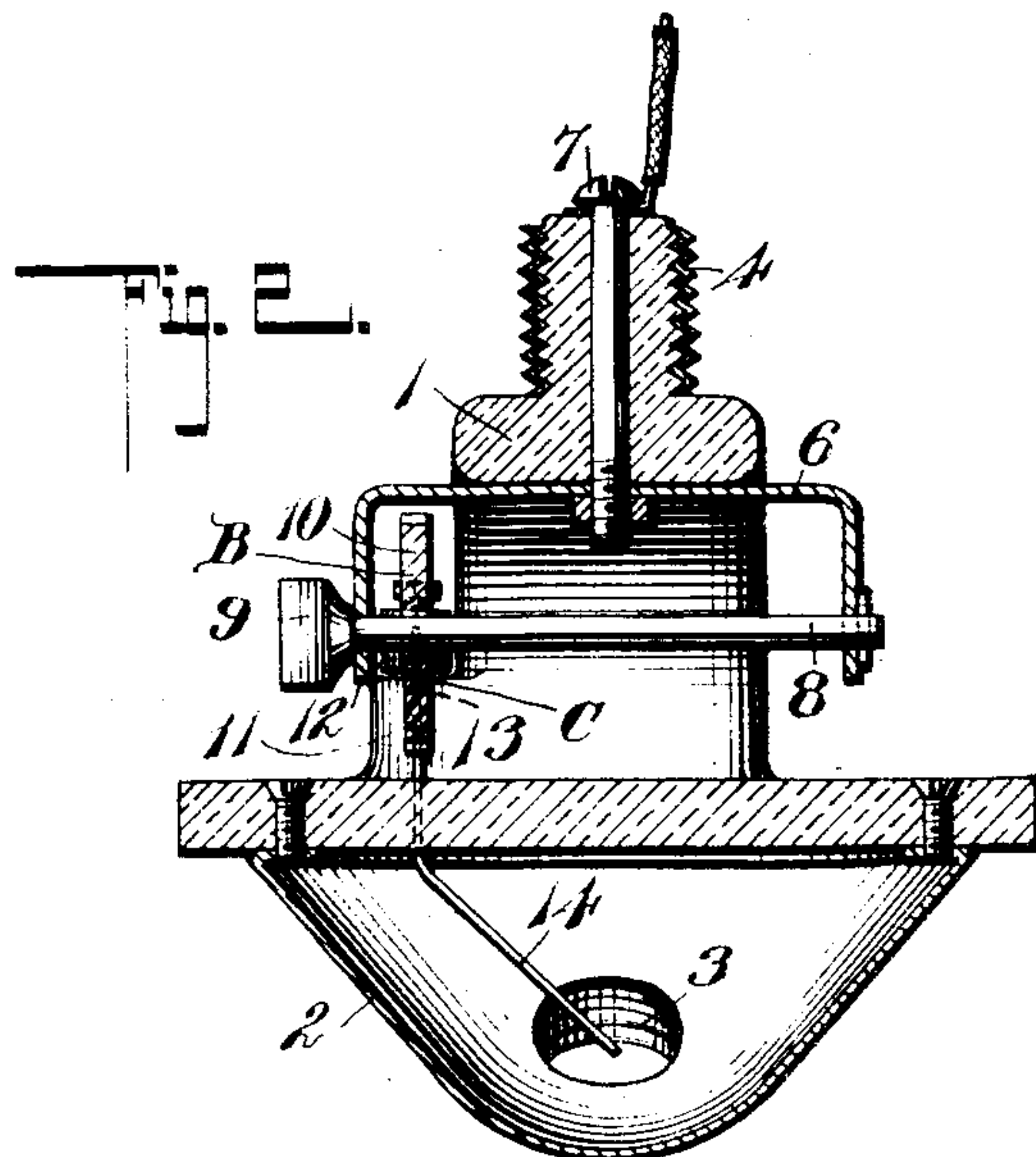
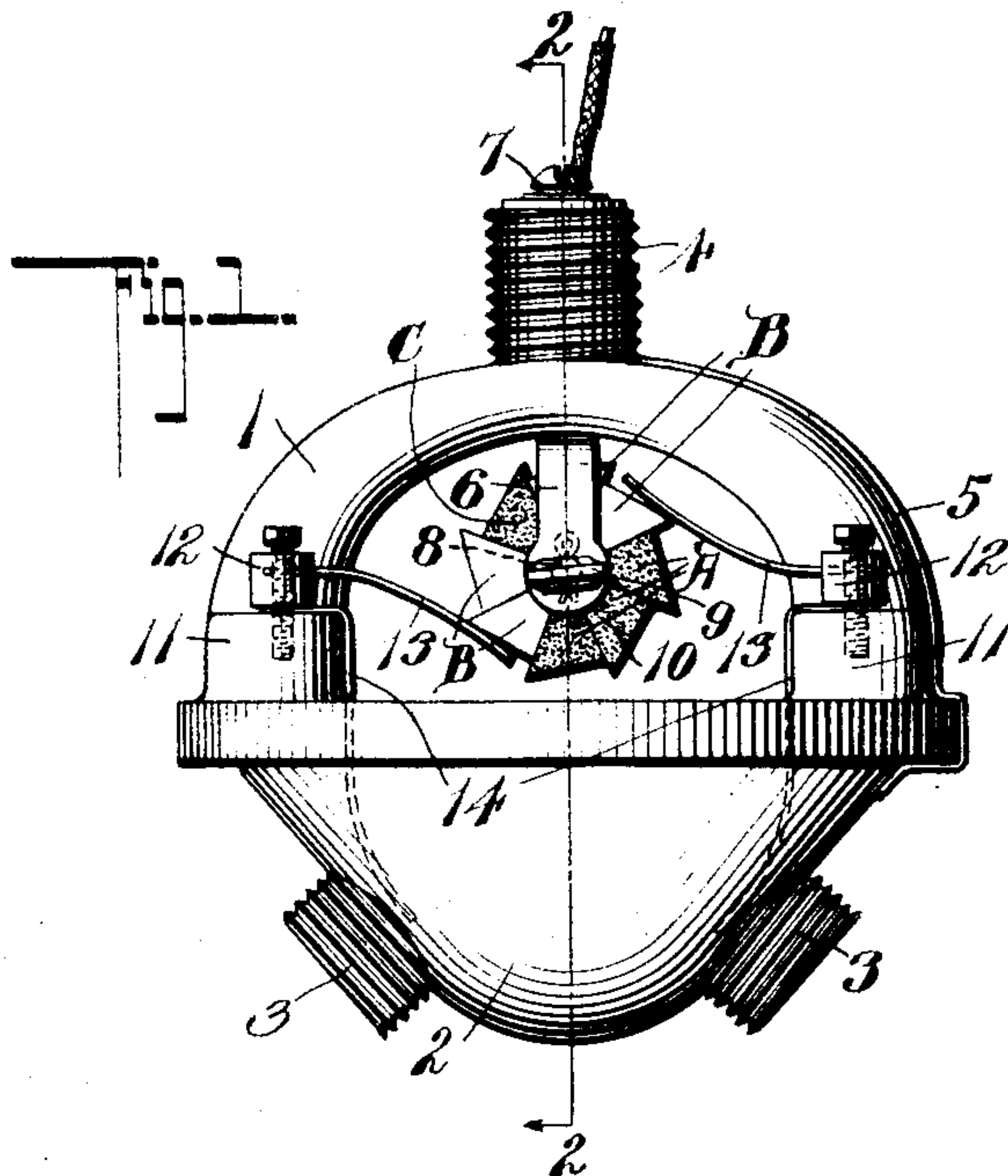


W. T. ARNDT.  
ELECTRICAL SWITCH.  
APPLICATION FILED JULY 11, 1908.

945,011.

Patented Jan. 4, 1910.



Witnesses

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# UNITED STATES PATENT OFFICE.

WILLIAM THEODORE ARNDT, OF SHREVEPORT, LOUISIANA.

## ELECTRICAL SWITCH.

945,011.

Specification of Letters Patent.

Patented Jan. 4, 1910.

Application filed July 11, 1908. Serial No. 443,156.

*To all whom it may concern:*

Be it known that I, WILLIAM T. ARNDT, a citizen of the United States, residing at Shreveport, in the parish of Caddo and the State of Louisiana, have invented a new and useful Improvement in Electrical Switches, of which this is a specification.

This invention relates to a switch by means of which current may be fed to one of two sockets, or to both sockets, or cut off from both sockets as may be desired.

The device is especially adapted for use in combination with a socket holding device to which is connected by means of one socket an incandescent lamp, and by means of the other socket an electrical fan is connected in circuit with the line wires, my switch controlling the circuits through both the lamp and the fan motor and cutting either or both of them into or out of circuit as may be desired.

The invention consists of the novel features of construction hereinafter described, pointed out in the claims, and shown in the accompanying drawings in which—

Figure 1 is a side elevation of the device. Fig. 2 is a vertical section on the line 2—2 of Fig. 1.

In the device I employ a porcelain socket block 1 centrally cut out for a purpose which will appear hereafter. To the under side of this block is secured a cup-shaped socket holder 2 of brass which carries oppositely arranged sockets 3 into which can be screwed the incandescent light or fan plugs, and while the device may carry two incandescent lights it is adapted especially for one light and one fan. The sockets 3 are of thin brass soldered or cemented into the socket holder 2. The upper portion of the porcelain block has a brass plug 4 threaded upon it and this plug is connected by any suitable conductor 5 upon the exterior of the block with the socket holder 2.

Arranged within the cut out portion of the block 1 is a brass frame 6, which is held in place by a screw 7 which passes downwardly through the upper central portion of the block 1, and which of course is insulated by said block from the plug 4. In this frame 6 is journaled a brass shaft 8 having a key or handle 9 of insulating material provided at one end with a ratchet wheel 10 which wheel is preferably formed of eight blades divided into four groups, one group consisting of 3 blades of insulating material and indicated

at A, two groups B consisting of two blades of conducting material and a single blade C interposed between the two last mentioned groups and of an insulating material.

The block 1 is provided with offset portions 11 upon which are mounted any suitable brush holding means 12 having brushes 13 which engage the ratchet wheel 10 from opposite sides of the shaft 8. Conductor wires 14 also lead from said brush holders and project into the sockets 3, respectively.

The operation of the device is as follows: Assuming that one socket 3 is connected to a lamp by turning the key or handle 9 any blade of the groups B can be brought into engagement with the brush 13 which is connected by means of the conductor 14 and the socket carrying the lamp. If the shaft is turned so that a blade B of one group engages one brush and a blade of the other group B engages the other brush both the lamp and the fan motor will be in circuit at the same time. Or the shaft may be turned so as to bring a blade of group A into engagement with one brush and the blade C into engagement with the other brush, thus cutting out both the light and the fan. Or either may be brought into the circuit and the other cut out by proper rotation of the shaft 8. It will be understood that the circuit is through the brass screw 7, the frame 6, blades of the groups B, brushes 13, the holding devices 12, conductors 14, and to the regular lamp or motor connections, the return circuit being through the socket 3, frame 2, conductor 5 and the block 4.

The advantages of a switch of this kind will be obvious.

What I claim is:—

1. The combination with a socket block, a plurality of sockets supported thereby, a rotatable ratchet wheel, said wheel being composed of blades formed respectively of conducting and insulating material, the blades being divided into alternating groups, and brushes in position to engage said blades, each brush being in a circuit including one of said sockets.

2. In a device of the kind described a socket block, sockets supported therefrom, brushes secured upon the block and in a circuit including said sockets, and a rotatable ratchet when engaged by said brushes, said wheel consisting of four groups of blades, one group consisting of a plurality

of blades of insulating material, two groups composed of a conducting material, a single blade of a non-conducting material interposed between the two last mentioned  
5 groups.

3. In a device of the kind described a wheel formed of a plurality of blades, a portion of said blades being of a conducting material, the blades being divided into

groups, three of said groups containing an unequal number of blades, and oppositely arranged brushes engaging said blades, as and for the purpose set forth.

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Witnesses:

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