

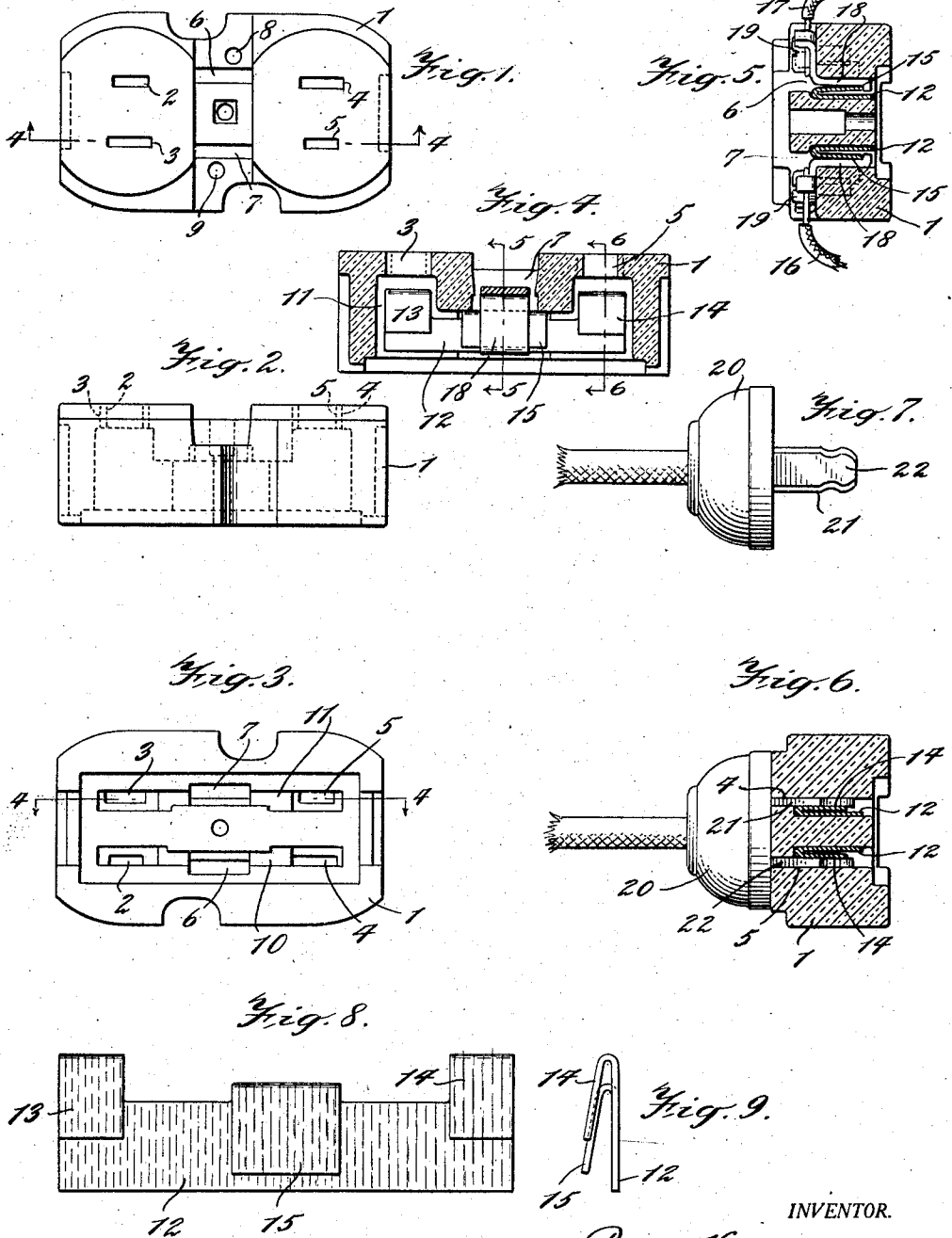
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FLUSH RECEPTACLE

Filed Sept. 30, 1922



INVENTOR.

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UNITED STATES PATENT OFFICE.

PAUL HARTMANN, OF BROOKLYN, NEW YORK, ASSIGNOR, BY DIRECT AND MESNE ASSIGNMENTS, OF ONE-HALF TO CHARLES L. EIDLITZ, OF NEW YORK, N. Y., AND ONE-HALF TO METROPOLITAN ELECTRIC MFG. CO., A CORPORATION OF NEW JERSEY.

FLUSH RECEPTACLE.

Application filed September 30, 1922. Serial No. 591,489.

My invention relates to duplex electric receptacles that is, receptacles having two pairs of slots so as to afford outlets for two plugs at the same time, and more particularly to such receptacles for use with selective polarity plugs, that is, plugs having one blade wider than the other, the outlet slots in the receptacle being of correspondingly differential width so that the plug can be put in only one way.

Such selective polarity outlets and plugs have their utility with D. C. current and with appliances which will operate only with the current going through in one direction. With such appliances the selective polarity receptacles and plugs provide insurance that, if the plug is properly connected to the appliance for the particular receptacle, the appliance will always be properly connected into the circuit since the plug cannot be put in the wrong way.

However, considerable confusion results in the use of such plugs, from the fact that the receptacle may be connected indifferently either way to the circuit leads, and hence the plugs are indifferently connected to the cable by the manufacturer; and while for one having the necessary skill it is not a difficult matter to reverse the plug connection to the cable, many users have not the requisite skill and are unable to make the appliance operate in case the connection is wrong.

An object of my invention is to eliminate the possibility of confusion from this cause, and to provide a receptacle with which the plug may be used irrespective of the way it is connected to the appliance. Other objects of my invention will appear from the following description.

My invention contemplates a duplex receptacle, the two pairs of slots being both of the selective polarity type, and in accordance with my invention I reverse the two pairs of slots with respect to each other. In other words, the narrow slot of one pair provides communication to the same pole as the wide slot of the other pair. With this construction, if the appliance does not operate when the plug is inserted in one pair of slots, all the operator has to do is to remove the plug from that pair of slots and insert it in the other pair. In this way the neces-

sity of reversing the connection of the plug to the cable is avoided.

My invention includes other features of construction as will hereinafter more fully appear.

I shall now describe the illustrated embodiment of my invention and shall thereafter point out my invention in claim.

Figure 1 is a face or plan view of the body member of a receptacle embodying my invention;

Figure 2 is a side elevation of the same;

Figure 3 is a rear face or plan view of the same;

Figure 4 is a longitudinal section of the complete receptacle taken on lines 4—4 of Figures 1 and 3;

Figure 5 is a transverse section of the same taken on line 5—5 of Figure 4;

Figure 6 is a transverse section of the same taken on line 6—6;

Figure 7 is a detail in side elevation of a selective polarity plug;

Figure 8 is an enlarged detail in elevation of one of the bus contact members;

Figure 9 is an end view of the same.

The body member 1 is molded of porcelain or other suitable insulating composition and has in its upper face two pairs of plug blade slots 2, 3 and 4, 5. These slots are of the selective polarity type, that is, one slot of each pair is wider than the other slot. In this particular device, the slot 3 is wider than the slot 2, and the slot 4 is wider than the slot 5 and it will be noted that the arrangement of the slots in the two pairs is reversed with respect to each other.

The internal construction of the body member 1 is such that the narrow slot 2 connects with the same bus contact member as does the wide slot 4, and similarly the wide slot 3 connects with the same bus contact member as does the narrow slot 5.

The construction of the contact members and their manner of support within the body member is substantially the same as that described and claimed in my copending application Serial No. 591,487, filed September 30, 1922.

Between the slots 2 and 4, the body member is provided with another slot or passage 6, while a similar slot or passage 7 is pro-

vided between the two slots 3 and 5. Adjacent the slot 6 is a hole 8 for a binding post, while a similar binding post hole 9 is provided adjacent the slot 7.

In its rear face the body member is provided with two relatively narrow longitudinal recesses 10 and 11, and the slots 3, 7 and 5 connect with the recess 11, while the slots 2, 6 and 4 connect with the recess 10.

In each recess 10 and 11 is disposed a bus contact member of the type shown in detail in Figures 8 and 9. This is composed of a thin strip 12 of phosphor bronze or other suitable conductive metal and has at its two ends on its upper edge integral spring contact leaves 13 and 14 formed by turning back a tongue or projection from that edge while between the two contact leaves 13 and 14 is a third similarly formed contact leaf 15 of somewhat less height than the two leaves 13 and 14. Such a bus member is inserted in each of the slots 10 and 11, and when it is so positioned the leaves 13 and 14 on one bus member register with the slots 3 and 5, while the corresponding contact leaves of the other bus member register with the slots 2 and 4. The contact leaves 15 of the two bus members register with the slots 6 and 7, respectively.

To connect the bus bars with the main leads 16 and 17, angle connecting members 18 are provided. These angle members extend downwardly within the slots 6 and 7, respectively, and overlie the binding post holes 8 and 9. The arm of the angle members which extend within the slots 6 and 7 has its inner end turned outwardly as shown in Figure 5, to provide a hook portion which catches underneath the bottom edge of the spring leaf contact 15 on the respective bus member. Binding screws 19 pass through the outer arms of the angle members and

into the holes 8 and 9, while the lead wires are clamped against the angle members by the binding screws, as shown.

In Figure 6 a selective polarity plug 20 of a usual type is shown inserted in the slots 4 and 5, the wider blade 21 being in the slot 4, while the narrower blade 22 is in the slot 5. As will be seen, these blades make good contact with the contact leaves 14. If it should be found that the current was of the wrong polarity when the plug is inserted in these slots, it is only necessary to take the plug out and insert it in the slots 2 and 3, thereby reversing the connection of the blades 21 and 22 with the bus contact members 12.

It is obvious that various modifications may be made in the construction shown in the drawings and above particularly described within the principle and scope of my invention.

I claim:

A duplex electric receptacle comprising a body member of insulating material provided in its rear face with two longitudinal recesses for the reception of bus contact members and provided in its front face with two pairs of slots for selective polarity plug blades, one slot of each pair leading to each recess and the two slots of each pair being of different relative configuration with respect to each other but the same as those of the other pair, and those of one pair being reversed with respect to those of the other pair, whereby plug blades of a configuration corresponding to that of the slots of each pair may be inserted only one way in each pair of slots and in reversed positions in the respective pairs.

In witness whereof, I hereunto subscribe my signature.

PAUL HARTMANN.