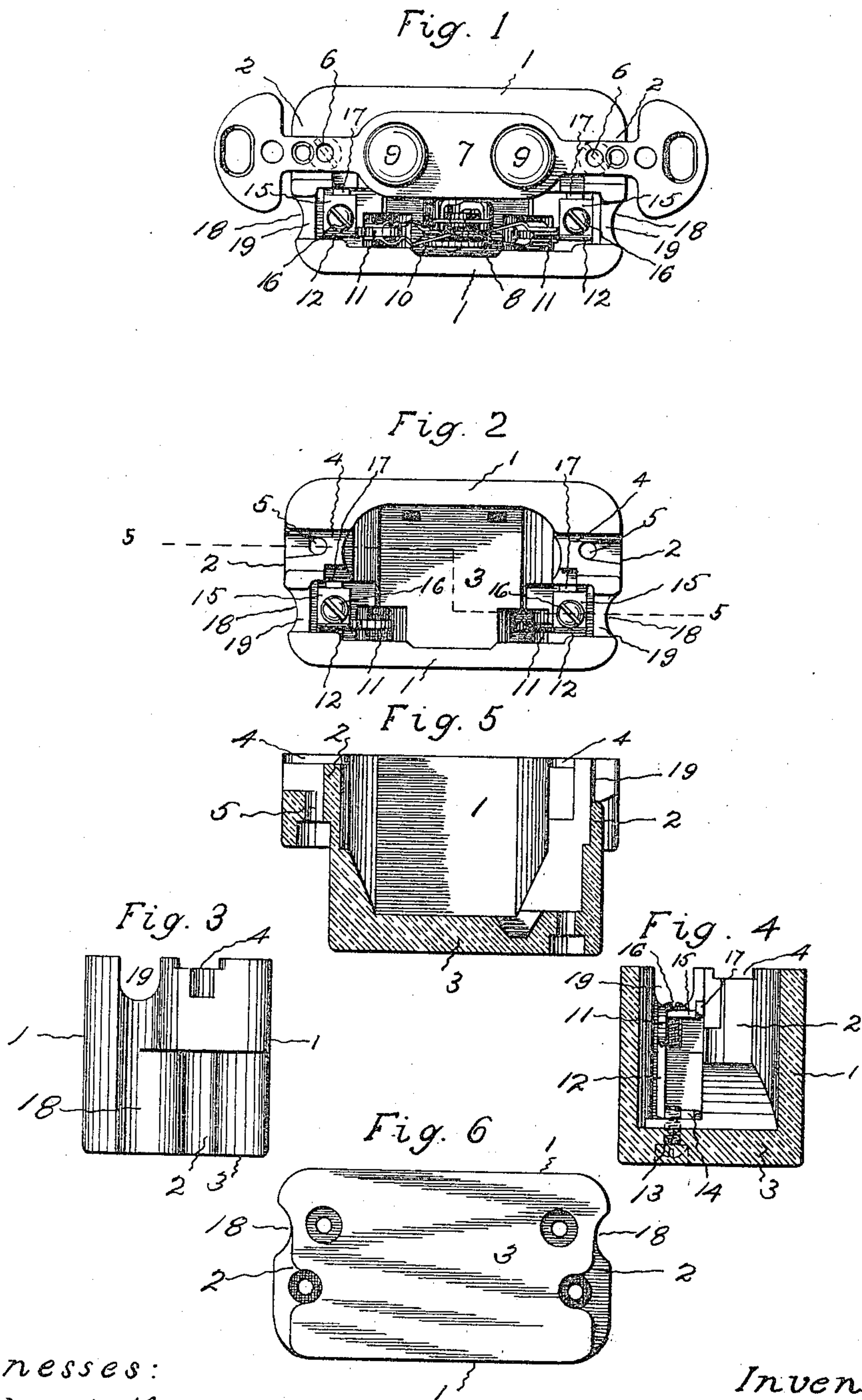


N. MARSHALL.  
 PUSH BUTTON SWITCH RECEPTACLE.  
 APPLICATION FILED SEPT. 21, 1909.

945,969.

Patented Jan. 11, 1910.



Witnesses:

Howard L. Holcomb  
 Josephine M. Stremper.

Inventor:

Norman Marshall  
 Harry R. Williams  
 atty.



# UNITED STATES PATENT OFFICE.

NORMAN MARSHALL, OF WEST NEWTON, MASSACHUSETTS, ASSIGNOR TO THE ARROW ELECTRIC COMPANY, OF HARTFORD, CONNECTICUT, A CORPORATION OF CONNECTICUT.

## PUSH-BUTTON-SWITCH RECEPTACLE.

945,969.

Specification of Letters Patent.

Patented Jan. 11, 1910.

Application filed September 21, 1909. Serial No. 518,870.

*To all whom it may concern:*

Be it known that I, NORMAN MARSHALL, a citizen of the United States, residing at West Newton, in the county of Middlesex and State of Massachusetts, have invented a new and useful Improvement in Push-Button-Switch Receptacles, of which the following is a specification.

This invention relates to the construction of a receptacle for a single-pole push-button electric snap switch.

The object of the invention is to so construct such a receptacle that it will be easier to manufacture, stronger and less liable to be broken while being made and in use, simpler to wire, and have less necessity for the provision of an insulating cover for excluding dust and dirt, than the receptacles in common use for such switches. This receptacle, as a result of its novel construction, is smaller in size, and thus requires less material in its manufacture, can be put into a smaller metal wall box, and be packed in smaller paper cartons and wooden boxes, consequently taking less space for storage, is lighter in weight, thus facilitating handling and transporting, and reducing freight charges, and enters a smaller hole in a wall, therefore making it much cheaper and more satisfactory than the prior receptacles used for the same class of switches.

Figure 1 of the accompanying drawings shows a plan of a push button switch receptacle which embodies this invention, containing a single-pole push-button switch mechanism. Fig. 2 shows a plan of the receptacle with the mechanism omitted, but with the fixed terminals in place. Fig. 3 shows an end elevation of the receptacle. Fig. 4 shows a central transverse section of the same. Fig. 5 shows a longitudinal section on the plane indicated by the dotted line 5—5 on Fig. 2. Fig. 6 shows a bottom view of the receptacle.

The receptacle which forms the subject of this invention is desirably made of porcelain, but of course it may be made of other insulating material. This receptacle is in the shape of a shallow oblong cup having side walls 1, end walls 2, and a bottom wall 3. The upper edges of the end walls, near one side, have mortises 4. Vertically extending perforations 5 are made through

the end walls beneath the mortises for the passage of the screws 6, which are used to secure the bridge plate 7. The bridge plate rests in the mortises and extends across the open end of the receptacle with its center line on one side of the middle of the receptacle. One edge of the bridge plate shown fits one of the side walls of the receptacle so as to close the opening on that side and prevent the entrance of dust and dirt into the interior. The bridge plate is a part of the frame that supports the single pole switch mechanism 8. This mechanism is of a common type, and is actuated, by pressing the push buttons 9, for oscillating the movable pole plates 10 into and out of engagement with the fixed contacts 11.

The fixed contacts are a part of the terminals 12 that are secured in recesses in the end walls near one side of the receptacle. These terminals are held in position by screws 13, which pass through perforations in the bottom of the receptacle and into threaded perforations in the lower bent ends 14 of the terminals. The upper bent ends 15 of the terminals have threaded perforations, and in these turn binding screws 16, which are employed to fasten the ends of the circuit wire. The upper ends of the terminals also have lugs 17 for the purpose of preventing the ends of the circuit wire from slipping from under the heads of the binding screws, when the screws are tightened for the purpose of securing the wires. The outer surfaces of the end walls on one side of the middle have shallow grooves 18 to provide for the free passage of the circuit wire, and the upper edges of the end walls at the top of these grooves on one side of the center, are cut away, as at 19, so that the ends of the circuit wire may be readily bent over and secured to the terminals in the interior by the binding screws.

The receptacle which embodies this invention is much narrower than the receptacles in common use for the same class of switches, and the bridge plate closes most of the opening in the top, leaving only so much open as will allow the ends of the circuit wire to be fastened conveniently. This and the objects and incident advantages previously recited, result from the features of construction which enables the bridge plate,



carrying the switch mechanism, to be located on one side of the middle line of the receptacle, and the ends of the circuit wire to be brought up and bent over in on the other side of the middle.

The invention claimed is:

1. A snap switch receptacle having end walls, side walls and a bottom wall, said end walls having provision on one side of the middle for the attachment of a bridge plate, and on the other side of the middle having provision for the entrance of the ends of a circuit wire.

2. A snap switch receptacle having end walls, side walls, and a bottom wall, said end walls having provision on one side of the middle for the attachment of a bridge plate, and on the other side of the middle having provision for the attachment of fixed contacts.

3. A snap switch receptacle having end walls, side walls, and a bottom wall, said end walls having provision on one side of the middle for the attachment of a bridge plate, and on the other side of the middle having provision on the exterior for the entrance of the ends of a circuit wire, and

having provision on the interior for the attachment of fixed contacts.

4. A snap switch receptacle having end walls, side walls, and a bottom wall, said end walls having provision on one side of the middle for the attachment of a bridge plate, and on the other side of the middle having provision for the entrance of the ends of a circuit wire, and for the attachment of fixed contacts, and one of said side walls being shaped to closely fit the edge of a bridge plate.

5. A snap switch receptacle having a bottom wall, side walls and end walls, with the upper edges of said end walls on one side of the middle of the receptacle provided with mortises for receiving a bridge plate, and with perforations for the passage of bridge plate fastening screws, said end walls having on the other side of the middle wire grooves on the exterior, terminal recesses in the interior, and openings in the top edge from said grooves to the said recesses.

NORMAN MARSHALL.

Witnesses

M. A. MARTENS,  
E. A. DANIELS.