No. 681,725. Patented Sept. 3, 1901.

W. J. NEWTON.

ELECTRICAL FLUSH RECEPTACLE AND PLUG.

(Application filed Oct. 10, 1899.)

(No Model.

Fig. 1

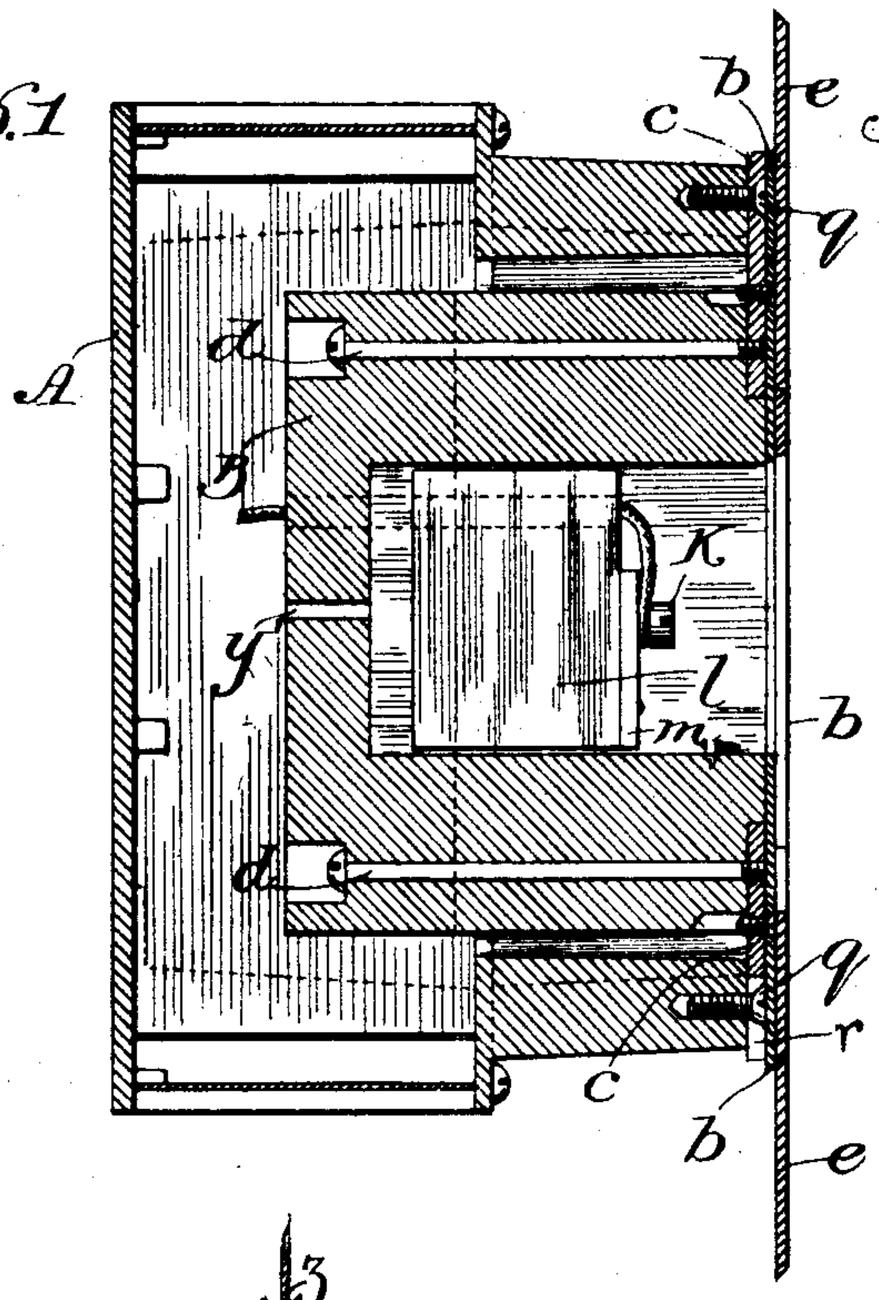


Fig. 2.

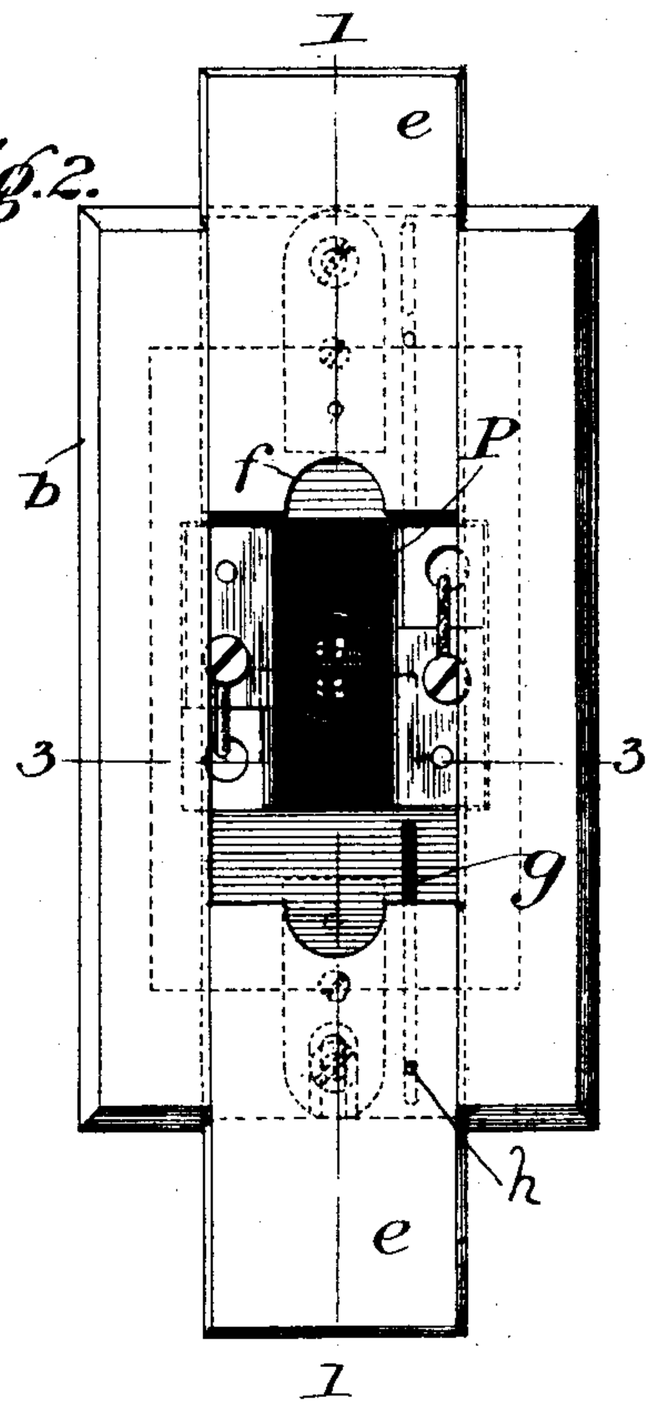


Fig. 3.

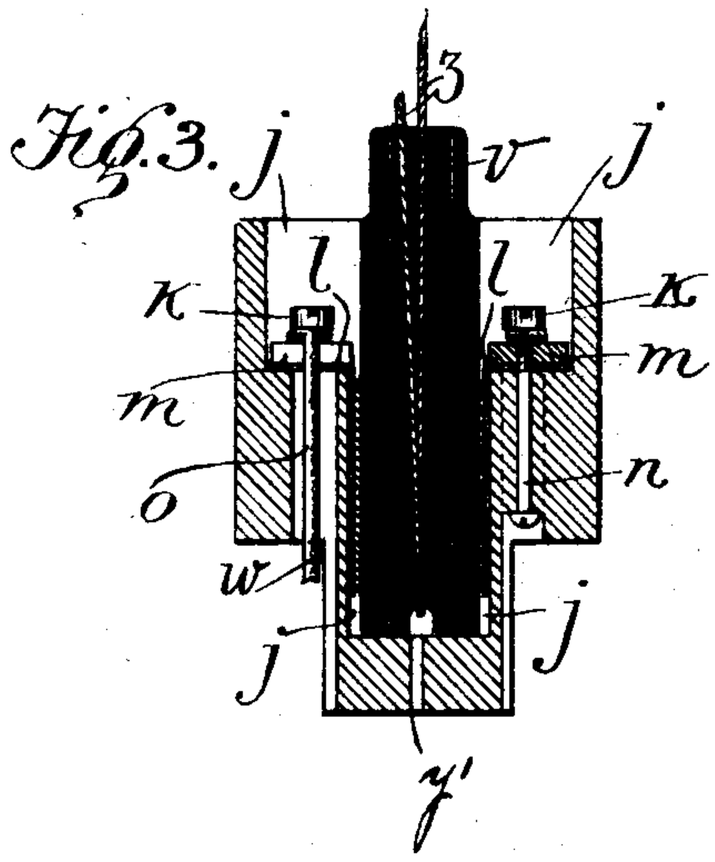


Fig. 4

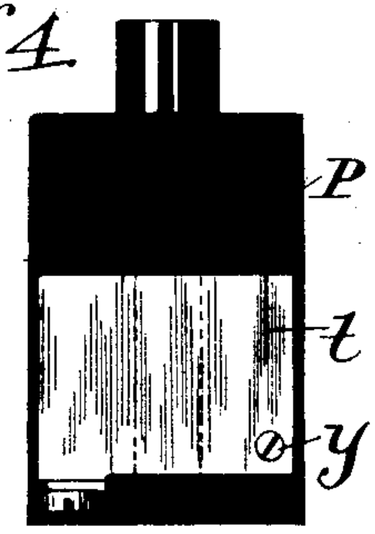
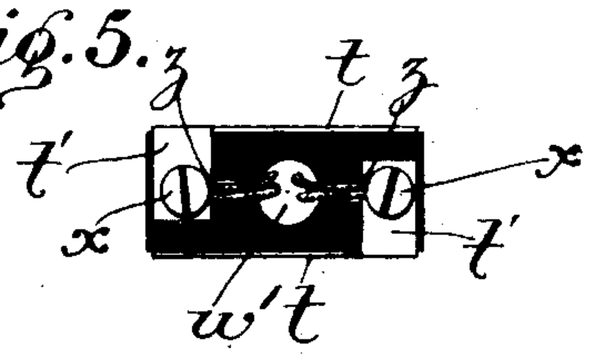


Fig. 5.



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UNITED STATES PATENT OFFICE.

WILLIAM J. NEWTON, OF NEW YORK, N. Y.

ELECTRICAL FLUSH RECEPTACLE AND PLUG.

SPECIFICATION forming part of Letters Patent No. 681,725, dated September 3, 1901.

Application filed October 10, 1899. Serial No. 733,232. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM J. NEWTON, a citizen of the United States, residing at the borough of Manhattan, in the city of New York, State of New York, have invented a certain new and useful Improvement in Electrical Flush Receptacles and Plugs, of which the following is a specification.

This invention relates to improvements in receptacles and plugs for connection in electrical circuits.

The purpose of the invention is, first, to provide a casing and plug of such shape and construction that the insulated leading-in wires can be drawn taut when being secured to the contact-plates of the receptacle, which is a matter of considerable importance; second, to provide such a construction that the appearance of the block shall be attractive and inconspicuous and such as not to mar the wall or floor in which it is placed, and which construction shall also be such as to provide for the ready insertion and withdrawal of the plug from the receptacle and for good contact between the plates of the plug and receptacle when the plug is home, and, third, to so construct the plug that the wires from at least two lamps or other fixtures can be led through it and secured to its contact-plates, since this is a very desirable matter in the practice of the day. The said advantages, with others which will be apparent from the description, are attained by the construction shown on the accompanying drawings and hereinafter described.

Referring to said drawings, Figure 1 is a longitudinal vertical section of the receptacle connected with a "universal box," which is inserted in a wall, the plug, however, being omitted. Fig. 2 is an elevation of the face of the receptacle with the slides open and the plug in place. Fig. 3 is a section on the line 3 3 of Fig. 2. Fig. 4 is an elevation of the plug. Fig. 5 is a view of the inner end of the plug.

A is a so-called and well-known "universal box" intended to be inserted in a wall or floor (in the drawings which accompany this specification shown inserted in a wall) and *per se* constituting no part of this invention.

B is the receptacle of my improved flush receptacle, and P the plug thereof. Said receptacle B, of any suitable non-conducting material, as porcelain, has a top plate *b*, preferably of metal and screwed to the plates *c c*, which are held to said receptacle by bolts *d d*, and said top plate *b* will be flush with the surface of the wall or floor in which said box A is placed. Slides *e e* work with accurate fit in rectilinear undercut grooves in said plate *b* and are provided at their inner ends with half-round holes *f f*, which fit accurately around the neck *v* of said plug P when said slides are closed. Said slides are flush with said plate *b*, and the whole presents a neat attractive appearance superior to that of any other flush receptacle. The outward play of said slides is limited by pins *h* in the slides and grooves *g* in the plate *b*. Said receptacle B has a chamber *j*, enlarged at the outer part, as shown in Fig. 3, to permit ready insertion of a tool to set up the binding-screws *k k*. The flanges of contact-plates *l l*, one at each side of said chamber *j*, are clamped to said receptacle B by metal plates *m*, held to said receptacle B by screws *n*, so that normally said plates *l l* spring a little inwardly to make good contact with the corresponding contact-plates *t t* of plug P. The main leading-in wires, as *w*, are led into box A in the usual manner and, being properly insulated, are passed up through holes *o* in said receptacle, one or more at each side of said chamber *j*, and by reason of the accessible position of said binding-screws *k* can be readily drawn taut and their bare portion then clamped by the binding-screws *k k*. This possibility of tightening the leading-in wires when securing them to the contact-plates of the receptacle of the cut-out block arises from the position of the holes *o* and the manner of connecting the wires with the contact-plates *l l*, (which is known as a "face connection" and is a valuable feature of this invention.) To facilitate connecting said receptacle B with any box A, one of the holes for the screws *q* is slotted, as at *r*, and to provide for draining the receptacle when set in a floor a hole *y'* is made in the inner wall, which then becomes the bottom. The aforesaid plug P, of any suitable insulating material, is provided with the neck *v* and the

hole w'. The tongue-flanges t' of the aforesaid contact-plates t turn over the inner end of said plug P and are secured by screws x, the heads of which are sunk below the surface of said plug and insulated by raised walls. The inner corners of said contact-plates $t\,t$ are secured to the plug by countersunk screws y, and said plates flare outwardly a little, so as to be compressed and make good contact with plates $l\,l$ when the plug is home in the receptacle B. The wires z from the lamp or other fixture are led through said hole w', which is preferably large enough for two sets of wires, and secured in contact with the tongues t' by the binding-screws x. When the plug is home, the circuits to the lamps or the fixtures are completed, the slides $e\,e$ are closed, and the whole presents an attractive inconspicuous appearance which does not mar a wall or floor.

Now, having described my improvements, I claim as my invention—

The combination in a flush receptacle, of an outer box, a receptacle adapted to be placed therein, and provided with a slot for one of the screws or bolts which secure the receptacle to the box, a porcelain plug, a chamber in said receptacle for said plug equipped with flush sliding doors, contact-plates, face connections with said plates, and leading-in holes in said receptacle large enough for insulated wires, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

WILLIAM J. NEWTON.

Witnesses:
BERNARD J. ISECKE,
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