No. 674,018. Patented May 14, 1901.

M. ROBINSON.

ELECTRICAL CONTACT DEVICE.

(Application filed Jan. 31, 1901.)

(No Model.)

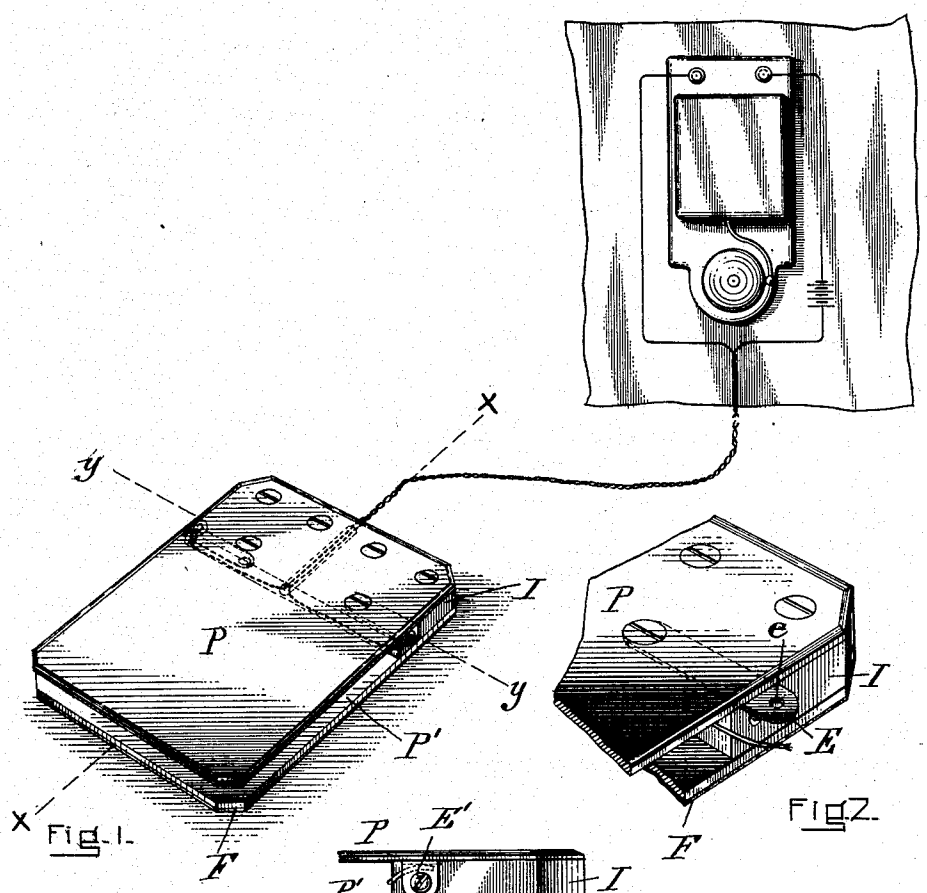


Fig. 1.

Fig. 2.

Fig. 3.

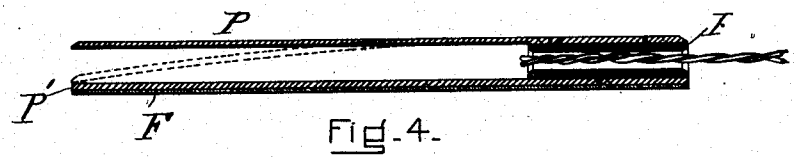


Fig. 4.

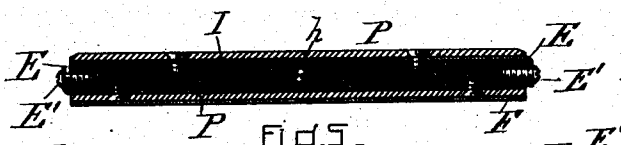


Fig. 5.

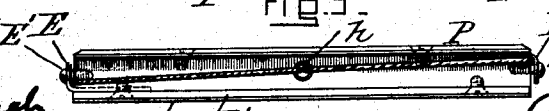


Fig. 6.

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UNITED STATES PATENT OFFICE.

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ELECTRICAL CONTACT DEVICE.

SPECIFICATION forming part of Letters Patent No. 674,018, dated May 14, 1901.

Application filed January 31, 1901. Serial No. 45,437. (No model.)

To all whom it may concern:

Be it known that I, MINER ROBINSON, of Newton, in the county of Middlesex and State of Massachusetts, have invented certain new and useful Improvements in Electrical Contact Devices, of which the following is a specification.

My invention is a form of floor-push button or tread of the kind commonly used for operating an electric bell from a dining-room. I consider it a much simpler and more convenient arrangement than has been employed heretofore, overcoming many objections to the common floor-push, which is ordinarily mortised rigidly in the floor, and the combination floor-push, with a flexible cord and presselle attached to the table, both forms having frequently proved a source of trouble and expense.

Of the accompanying drawings, Figure 1 shows a perspective view of my device connected to a bell. Figs. 2 and 3 show the construction of the connecting-ears or "binding-posts." Fig. 4 is a longitudinal section on $x x$, Fig. 1. Fig. 5 is a transverse section on $y y$, Fig. 1. Fig. 6 is an end view.

My invention consists of two broad resilient metal or electrical conducting-plates P P′, as shown in the accompanying drawings, made of any convenient size, separated and insulated from each other by a piece of hard rubber or fiber or other insulating material I, to which the two electrodes P P′ are securely attached. The plates are made of such thickness and stiffness as to offer considerable resistance to being pressed together in order that the device may be used under a carpet or rug. Two wires which lead from the circuit, composed of a battery, bell, or buzzer, are connected one to each plate through suitable binding-posts or connections, as shown. The binding-post connections consist of a conducting material preferably a thin narrow strip E of soft malleable metal, interposed one on each side between each plate and the insulating member, there being a hole *e* drilled through the conducting-strip and into the insulating member I, in which it is threaded to receive the binding-screw E′ for forming the connection, as shown in Fig. 3. The cord is carried through a hole *h* in the insulating member. The whole is so constructed as to form virtually a thin flat readily-movable pad, adapted to lie flat upon the floor and be placed wherever desired within radius of the flexible conducting-cord, to which it is attached, which may be made of any length. When the plates are brought together by pressure of the foot or otherwise, as shown in Fig. 4, the circuit is closed, which rings the bell in the usual manner.

The advantages gained may be enumerated as follows: Great simplicity and non-liability to get out of order. It can be used under any carpet or rug without necessitating a hole being made in either carpet or rug. The carpets or rugs may be removed at any time without in any way interfering with this attachment. This floor-tread cannot be injured by the leg of the table being pushed over it or by receiving a heavy blow in any other manner, which is a constant source of trouble with the old devices. In order to protect a highly-polished surface, such as a hard-wood floor, one of the electrodes is preferably covered with felt or other soft material F, as shown. By bending the insulating-plates P P′ apart sufficiently to form a permanent "set" in the metal almost any tension to resist pressure tending to force the electrodes together may be obtained, which may be necessary in case of a heavy rug or carpet. The device may be used either above or below a rug or carpet, or otherwise, as may be found convenient.

I am aware that presselles are made usually of wood patterned in shape after a common clothes-pin and provided with electrical connections so arranged that the circuit is closed when the device is squeezed in the hand, and this I do not claim. My device, on the contrary, is of such shape as to be at all times in proper position to operate by the foot even when under a rug, being to this end made broad and flat, so thin, in fact, as to make no appreciable obstruction or bunch if used under the rug.

Having now described my invention, what I claim is—

A circuit-closing device consisting of the combination of two broad resilient conducting metal plates P P′, the insulating member I, metal strips E E, interposed between said conducting-plates and insulating member, having the projecting ears provided with holes *e*, and binding-screws E′ E′, engaging with said ears and with the insulating material, substantially as and for the purposes described.

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

MINER ROBINSON.

Witnesses:
ALBERT E. LEACH,
HERMANN C. LYTHGOE.