N. H. RAYMOND.

FLOOR BOX AND RECEPTACLE.

APPLICATION FILED JULY 7, 1908.

905,364.

Patented Dec. 1, 1908.

2 SHEETS—SHEET 1.

Fig. 1.

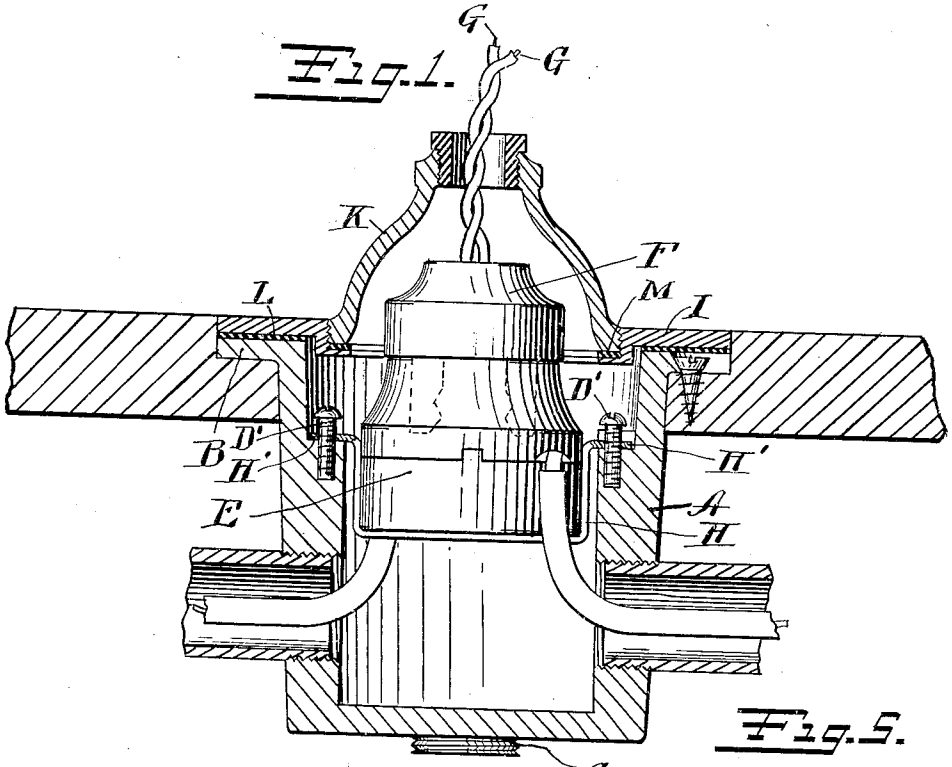


Fig. 5.

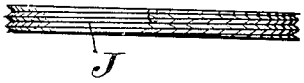
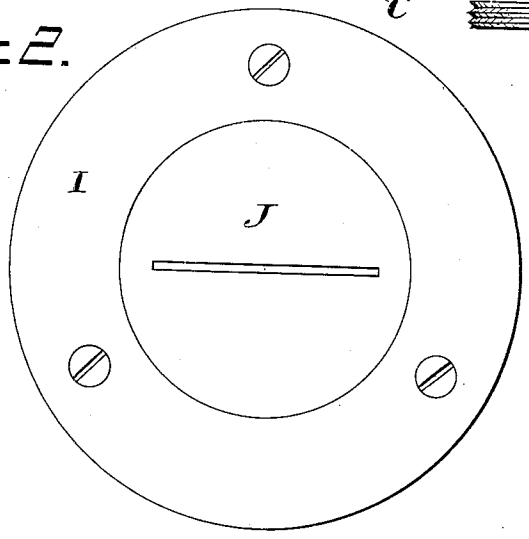


Fig. 2.



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2 SHEETS—SHEET 2.

Fig. 3.

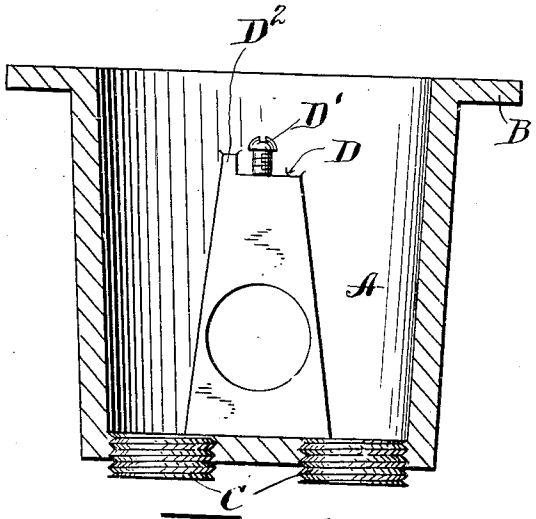
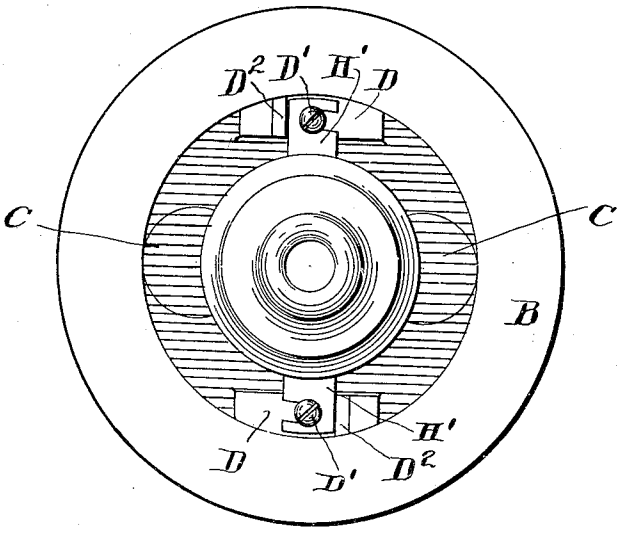


Fig. 4.



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UNITED STATES PATENT OFFICE.

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FLOOR BOX AND RECEPTACLE.

No. 905,364. Specification of Letters Patent. Patented Dec. 1, 1908.

Application filed July 7, 1908. Serial No. 442,271.

To all whom it may concern:

Be it known that I, NELSON H. RAYMOND, a citizen of the United States, residing at Trumansburg, Tompkins county, New York, have invented certain new and useful Improvements in Floor Boxes and Receptacles, of which the following is a full, clear, and exact description.

My invention relates to improved floor boxes and receptacles for electric wiring systems.

The object of the invention, in the main, is to provide a safe and effective housing for an electric floor or wall socket or box, the various parts thereof being so made as to enable them to be very easily and effectively assembled in such manner as to produce a durable structure.

In the accompanying drawings Figure 1 is a vertical section of the invention as it appears in use. Fig. 2 is a plan view as it appears when not in use. Fig. 3 is a section of the receptacle taken at right angles to the section of Fig. 1. Fig. 4 is a plan view of the parts assembled, the finishing plate being absent. Fig. 5 is an edge view of a detail.

A represents the body of the receptacle, the same being hollowed out to receive the socket and associated parts as hereinafter described. This body is preferably provided with a flange or shouldered portion B, to hold the same substantially flush with the floor. The body A is open only at the upper end, although suitable side and end perforations may be provided to permit wire carrying conduits to be connected thereto. Such openings as are not employed for this purpose may be filled by screw plugs, such as C—C. Within the body A are socket-supporting shoulders D—D (Figs. 3 and 4) which are of the preferred construction hereinafter described.

E is the body of a socket, having the usual terminal connectors therein, the particular construction of the socket and connectors being immaterial to this invention.

F is a plug adapted to be detachably connected with the socket E whenever desired. From this plug lead out the terminal wires G—G, which convey the current to the translating device, usually portable.

H is a saddle securely connected with the socket E in any desired manner, said saddle being formed, by preference, so as to pass under the socket and afford an effective support. The ends of the saddle H are bent upwardly and then outwardly, to form the outwardly projecting side arms H′—H′. These arms are located on opposite sides of the socket and arranged well above the bottom of the latter, for the purpose hereinafter pointed out. These arms H′—H′ are slotted at opposite sides, as best seen in Fig. 4, and are arranged to rest upon the supporting shoulders D—D when the socket is in place. The shoulders D—D are provided with screws D′—D′ arranged to pass through the slots or openings in the arms H′—H′.

To insert the socket in the receptacle body A requires only the lowering down of the socket into said body so as to cause the slotted portions to face up with the screw shanks D′—D′, which are partially retracted. By then giving a partial turn to the socket, the slotted ends of the arms H′—H′ embrace the screws, which latter may then be set down to permanently connect the socket in place. To guarantee a most effective connection for the socket and prevent the possibility of its jarring loose, I provide abutments D^2—D^2 directly to the rear of the arms H′—H′ and on the opposite sides of said arms from the slotted openings therein. It follows that when the socket is let down and turned into its final position to rest upon the shoulders D—D, the abutments D^2 stand in such a position that said projecting arms cannot be backed out and away from the screws, excepting as said screws are first partially retracted. By this means, a very positive and durable connection is effected between the socket and the receptacle. This connection is easily made, since the heads of the holding screws D′—D′ are well toward the upper part of both the socket and the receptacle, making it easy to gain access thereto, a feature of great importance, because of the small space afforded between the socket and the wall of the receptacle. By the preferred construction it will be seen that the screws do not have to be removed to permit the attachment or detachment of the socket. This is also a distinctly valuable feature.

I is a finishing plate, in the form of a washer, adapted to be secured to the flange B. The central edge of this plate is preferably threaded to receive a suitable closure, which may be either a plain disk (when no

connection is to be made with the socket) or a hollowed-out centrally perforated cap (when the socket is to be used).

The disk is represented at J in Figs. 2 and 5, while the cap is indicated at K, Fig. 1. When it is intended to insert the plug F into the receptacle, the disk J is removed and the plug is pushed into place. The cap K is then screwed down, affording a protection to the wires G—G, which pass loosely out through the cap. This protection is afforded by the cap, since it stands well above the floor and prevents the wire or wires from being struck by the feet of passers-by, or by furniture moved about on the floor adjacent thereto.

It will be seen that the improvement is especially applicable to floor sockets and receptacles, although, of course, such devices may be employed in side walls or ceilings, provided it is desirable to have such an appliance in either of the latter two places. In the preferred construction, a packing gasket L is arranged between the washer I and the flange B, while another packing gasket M is arranged between the disk J, or cap K, and its seat within the washer I. By this arrangement the socket is thoroughly protected and guarded against the admission of dirt or moisture, and the connections are correspondingly protected from short circuit. These and other advantages will be apparent to the mechanic skilled in the art. It should be understood that I have shown and described only the preferred form of my invention.

What I claim is:

1. In a device of the character described, a receptacle having a hollowed-out body, a socket adapted thereto and means to hold the same in the hollowed-out portion of said body, said holding means comprising supporting shoulders within the body, and a saddle having a depressed central portion arranged to be detachably mounted at its ends on said shoulders, said saddle being provided with open sided oppositely faced slots in the ends; said socket being mounted on said saddle, said connection between the saddle and shoulders including screw fastenings passing through said oppositely faced open sided slots.

2. In a device of the character described, a receptacle having a hollowed-out body, a socket adapted thereto and means to hold the same in the hollowed-out portion of said body, said holding means comprising supporting shoulders within the body, and a saddle arranged to be detachably mounted on said shoulders, said saddle being provided at its ends with slots which open through the opposite sides of said ends, said socket being mounted on said saddle, said connection between the saddle and shoulders including screw fastenings passing through said open sided slots, and abutments on said shoulders arranged to stand on opposite sides of said saddle sides and in opposition to the open sides of the slots in the latter.

3. In a device of the character described, a hollowed-out receptacle, a socket adapted thereto, supporting shoulders within said receptacle, laterally projecting arms carried at the sides of said socket above the lower portion thereof and connected to the body thereof, and means for detachably connecting said arms to said shoulders, said arms having oppositely faced open slots, said shoulders having screws adapted to said slots whereby said socket may be secured to said receptacle without detaching said screws and an abutment on each shoulder coacting with said screws to hold the socket in place.

4. In a device of the character described, a hollowed-out receptacle, a socket adapted thereto, supporting shoulders within said receptacle, laterally projecting arms carried at the sides of said socket above the lower portion thereof and connected to the body thereof, means for detachably connecting said arms to said shoulders, said arms having oppositely faced slots, said shoulders having screws adapted to said slots whereby said socket may be secured to said receptacle without detaching said screws, and means independent of said screws to prevent said socket and arms from being turned within the case when said arms are seated on said shoulders, but leaving said arms free to be turned within the case for disengagement from said screws when the latter are retracted and said arms are raised away from their seats.

NELSON H. RAYMOND.

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