

961,600.

Fig. 1.

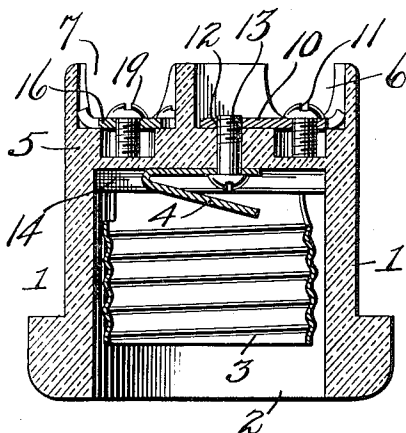


Fig. 2.

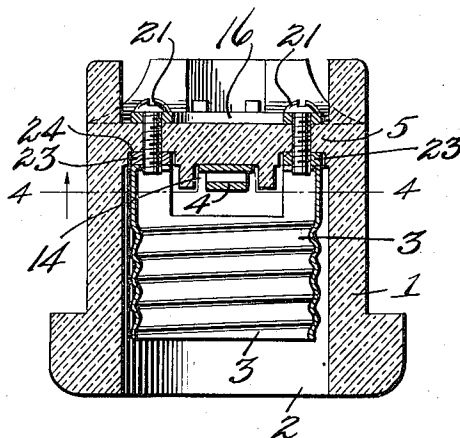


Fig. 3.

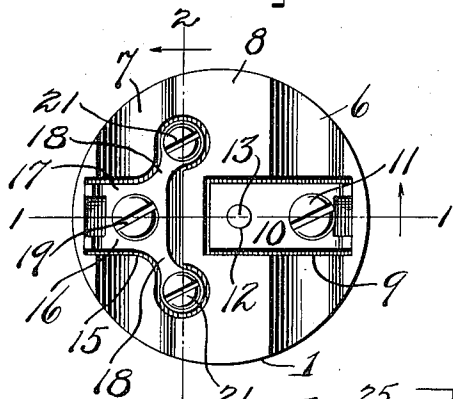


Fig. 4.

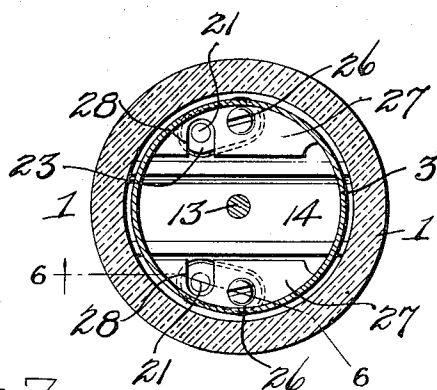


Fig. 5.

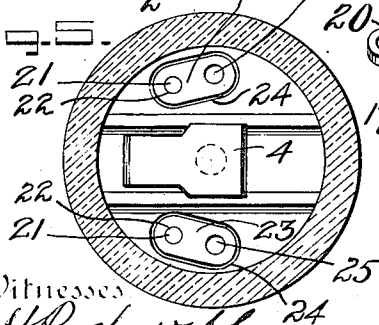


Fig. 7.

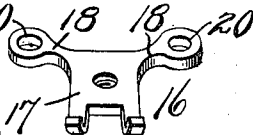
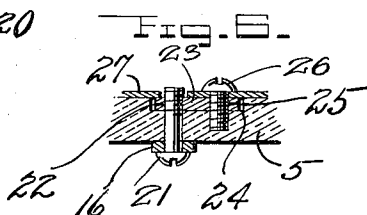


Fig. 6.



Witnesses

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UNITED STATES PATENT OFFICE.

EDGAR H. FREEMAN, OF TRENTON, NEW JERSEY.

ELECTRICAL SIGN-RECEPTACLE.

961,600.

Specification of Letters Patent. Patented June 14, 1910.

Application filed April 1, 1910. Serial No. 552,798.

To all whom it may concern:

Be it known that I, EDGAR H. FREEMAN, a citizen of the United States, residing at Trenton, in the county of Mercer and State of New Jersey, have invented certain new and useful Improvements in Electrical Sign-Receptacles, of which the following is a specification.

This invention relates to the subject of electrical receptacles or sockets which are particularly designed for use in connection with sign boards or equivalent supporting elements, and it has in view certain practical or novel improvements in receptacles or sockets of this character, which render the same more available for the use intended.

To this end the invention has in view an electrical sign receptacle or socket which is not only exceedingly simple in its construction, and embodies all of the necessary elements of an article of this character, but at the same time affords ample wiring space and permits of the ready and convenient removal and replacing of the screw-shell contact, without disturbing any of the line wire connections or terminals, or the center plug contact. This phase of the invention is of special importance inasmuch as it is exceedingly desirable in sign receptacles or sockets to be able to remove and replace a screw-shell without disturbing any of the other parts of the device.

With these and many other objects in view which will readily appear to those familiar with the art as the details of the invention are better understood, the same consists in the novel construction, combination and arrangement of parts hereinafter more fully described, illustrated and claimed.

The essential features of the invention involved in the mounting of the wire terminal plates and the detachable screw-shell are necessarily susceptible to some structural change without departing from the spirit or scope of the invention, but a practical embodiment thereof is shown in the accompanying drawings, in which—

Figure 1 is a longitudinal sectional view of an electrical sign receptacle constructed in accordance with the present invention, the view being taken on the line of section 1—1 of Fig. 3. Fig. 2 is a similar view taken on the section line 2—2 of Fig. 3. Fig. 3 is a bottom plan view of the device. Fig. 4 is a cross-sectional view on the line 4—4 of Fig. 2.

Fig. 5 is a front view of the device with the detachable screw-shell removed and exposing the nut-plates to which the screw-shell is fastened. Fig. 6 is a detail sectional view on the line 6—6 of Fig. 4. Fig. 7 is a detail in perspective of the novel approximately T-shaped wire terminal plate which is in metallic circuit with the detachable screw-shell, when the latter is in position.

Like references designate corresponding parts in the several figures of the drawings.

In carrying out the present invention the general form of the receptacle body is unimportant except that it is preferably a receptacle body of that type which is capable of being inserted in the hole of a sign board or sheet and fastened therein. However, for illustrative purposes, there is shown in the drawings a receptacle body, designated by the numeral 1, and illustrated as being of the one-piece porcelain type. This body is provided with the usual plug-receiving socket 2 within which is arranged the screw-shell contact 3 and the center plug contact 4, which respectively constitute the usual and separate contacts for the two terminals of the lamp plug which is screwed into the shell 3. These elements will be further referred to in connection with the elements directly cooperating therewith.

In addition to the usual plug-receiving socket 2 the receptacle body 1 is formed with a closed bottom wall 5 the outer side of which has formed therein the separate line wire grooves 6 and 7, respectively, and separated by the insulating bridge or rib 8. These line wire grooves 6 and 7 are wide and capacious so as to freely receive the line wires, and within the plane of the line wire grooves 6 the outer face of the bottom wall 5 is additionally provided with an approximately rectangular plate seat 9 in which is seated an approximately rectangular wire terminal plate 10, carrying the usual binding screw 11 and provided with a threaded opening 12 receiving the outer threaded end of a centrally arranged combined fastening and conducting screw 13, the inner headed end of which screw passes through one end of and holds in place a folded piece of spring metal which constitutes the center-plug contact 4 previously referred to. This center plug contact 4 is seated within a groove or seat 14 provided in the inner face of the bottom wall 5 at the bottom of the

socket 2. Within the plane of said other line wire groove 7, the bottom wall 5 has additionally formed in its outer face an approximately T-shaped plate seat 15 in which is seated an approximately T-shaped wire terminal plate 16 having the main body portion 17 and the oppositely extending arm members 18.

The body portion 17 of the T-shaped plate 16 is provided with the conventional binding screw 19 and the arm members 18 are perforated, as shown at 20 in Fig. 7, to receive the combined fastening and conducting screws 21 which pass through the bottom wall 5 and have their inner threaded extremities engaged in one of the threaded openings 22 of nut-plates 23 seated in plate seats 24 formed in the bottom of the socket 2. These nut-plates are also provided with threaded openings 25 to receive the inner threaded ends of the fastening screws 26, which pass through the bottom flanges 27 of the screw-shell contact 3, said flanges 27 being also notched at 28 to clear the inner extremities of the combined fastening and conducting screws 21.

In the construction described it will be apparent that ample wiring space is provided while at the same time the simple removal of the screws 26 provides for the complete detachment or removal of the screw-shell contact 3 without disturbing any other element of the device or any of the wiring connections thereof.

I claim,—

1. In an electrical receptacle, the receptacle body having a plug-receiving socket and external seats, a center plug contact, a wire terminal plate arranged in one of said external seats and having a screw-connection with the center plug contact, nut-plates seated within the body, a wire terminal plate arranged in the other of the said external seats and having screw-connections with said nut-plates, and a screw-shell con-

tact arranged in the plug-receiving socket and detachably fitted to said nut-plates.

2. In an electrical receptacle, the receptacle body having the plug-receiving socket, the center plug contact, an external wire terminal plate seated on the bottom of the body and having a screw-connection with the center plug contact, interior nut-plates arranged within the body, a screw-shell contact detachably fastened to said plates, and an external wire terminal plate having screw-connections with said interior nut-plates.

3. In an electrical receptacle, a receptacle body having a plug-receiving socket, the center plug contact and its wire terminal connection, a pair of oppositely arranged interior nut-plates mounted within the body, a single external wire-terminal plate having separate arm members respectively connected with the separate nut-plates, and a screw-shell contact detachably fitted to said nut-plates.

4. In an electrical receptacle, the receptacle body having the plug-receiving socket, the center plug contact and its wire terminal connection, a pair of oppositely arranged nut-plates mounted within the body, an external approximately T-shaped wire terminal plate carrying a binding screw and provided with oppositely extending arm-members, combined fastening and conducting screws extending through said opposite arm-members and respectively threaded into the separate nut-plates, a screw-shell contact, and fastening screws detachably holding said screw-shell contact to said nut-plates.

In testimony whereof I hereunto affix my signature in the presence of two witnesses.

EDGAR H. FREEMAN.

Witnesses:

CASPER J. FABER,
MARY S. CURTIS.