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ELECTRICAL SIGN RECEPTACLE.
APPLICATION FILED DEC. 11, 1907.

Patented Apr. 6, 1909.

917,145.

Fig. 1.

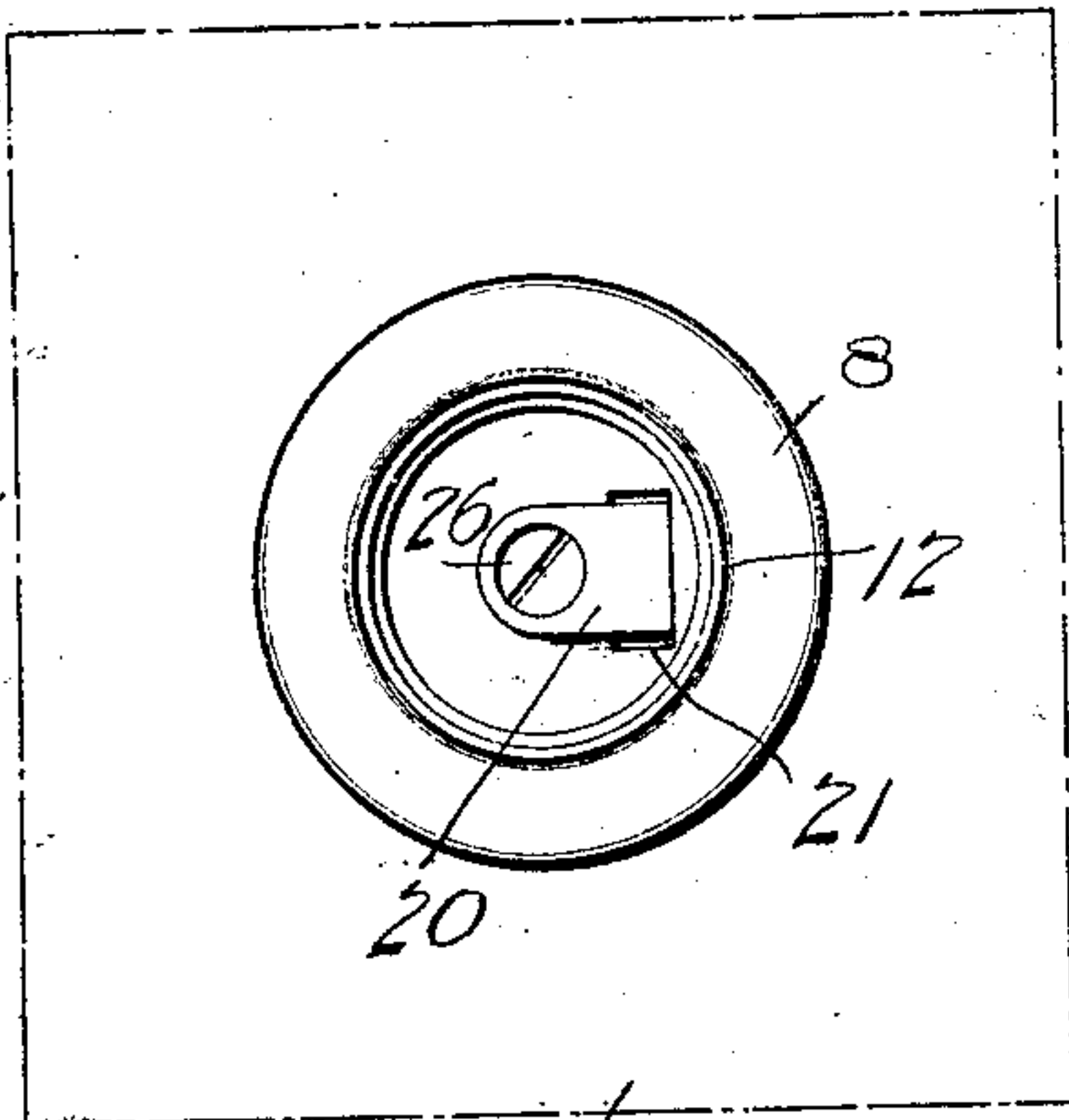


Fig. 2.

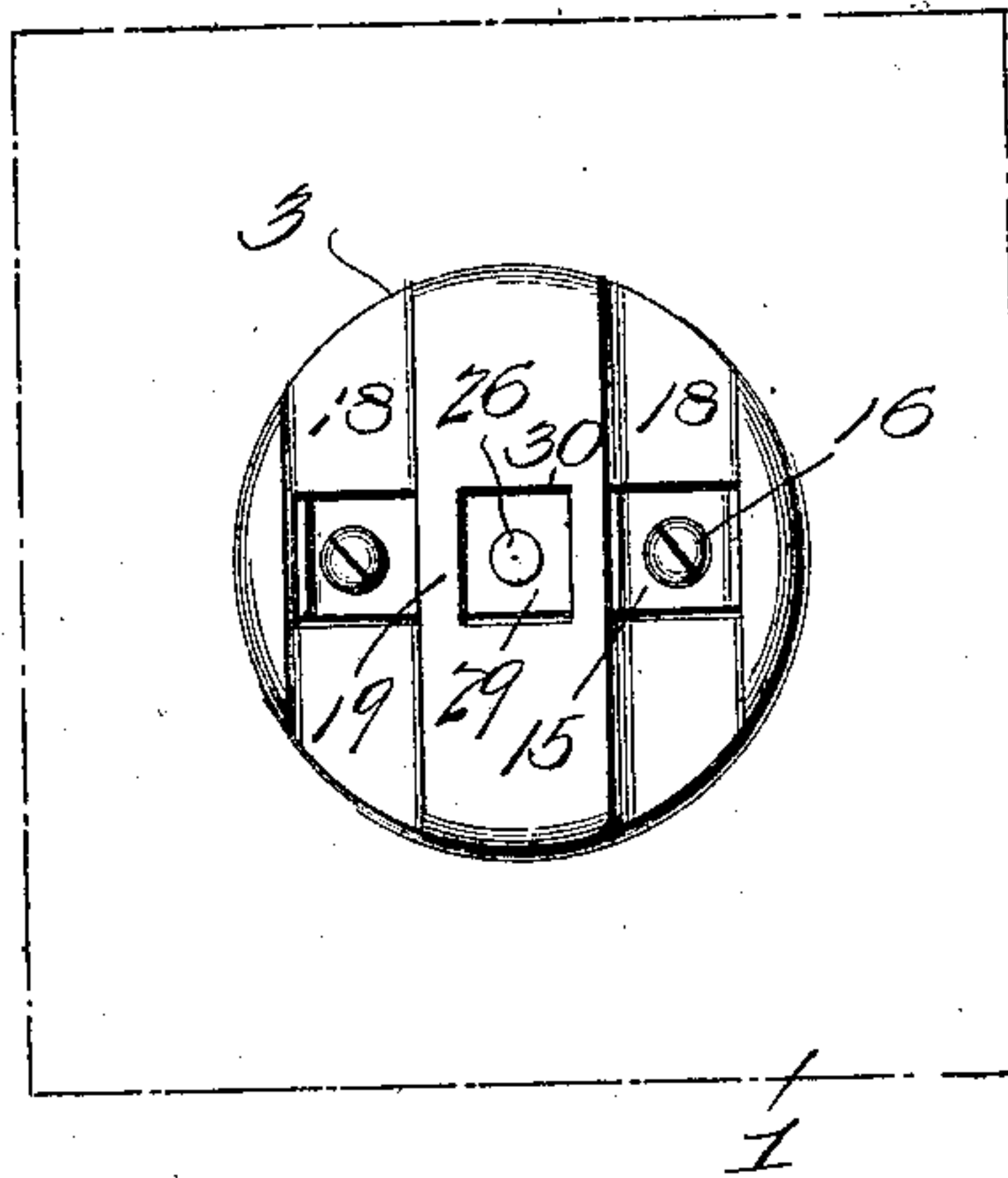


Fig. 5.

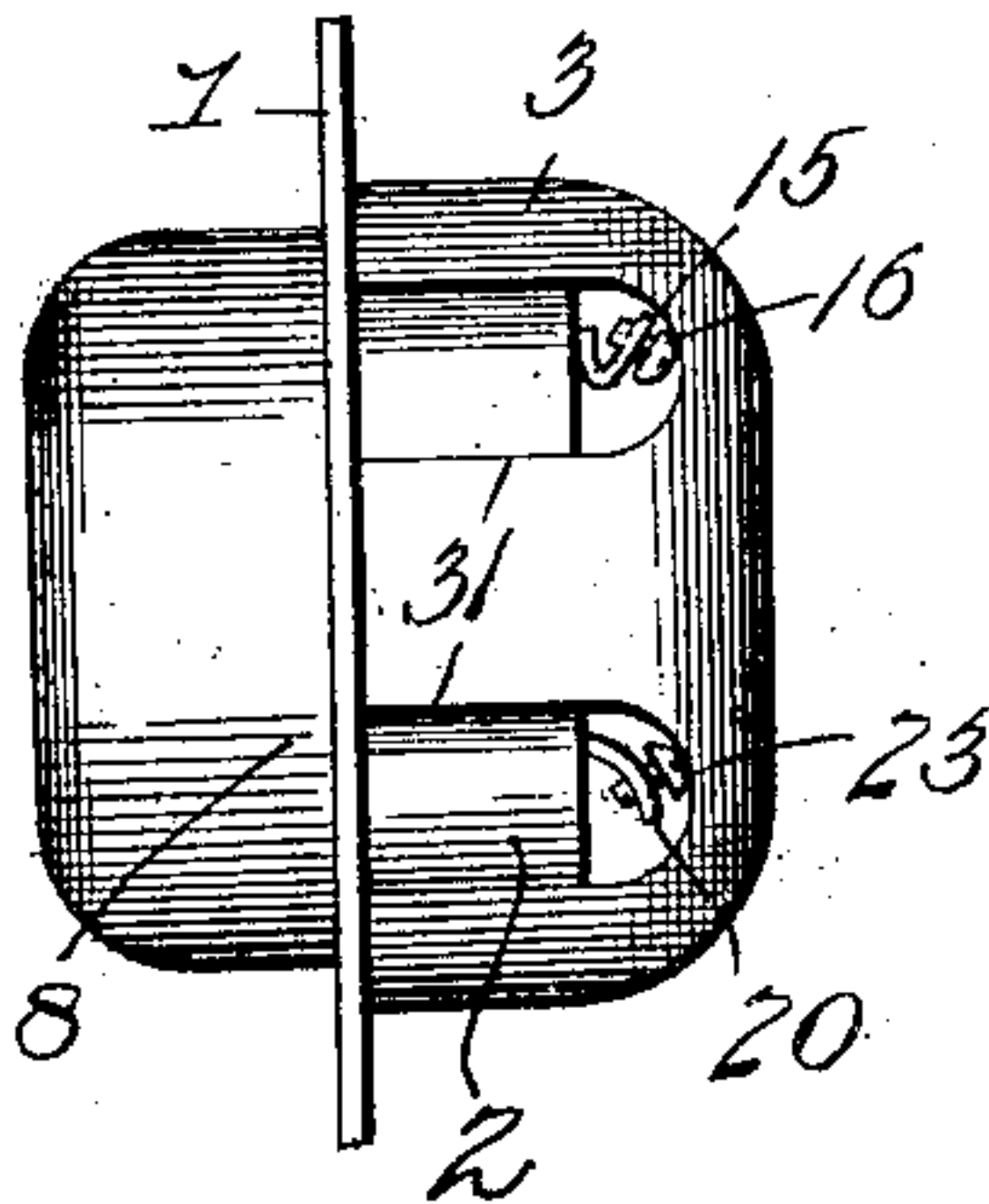


Fig. 3.

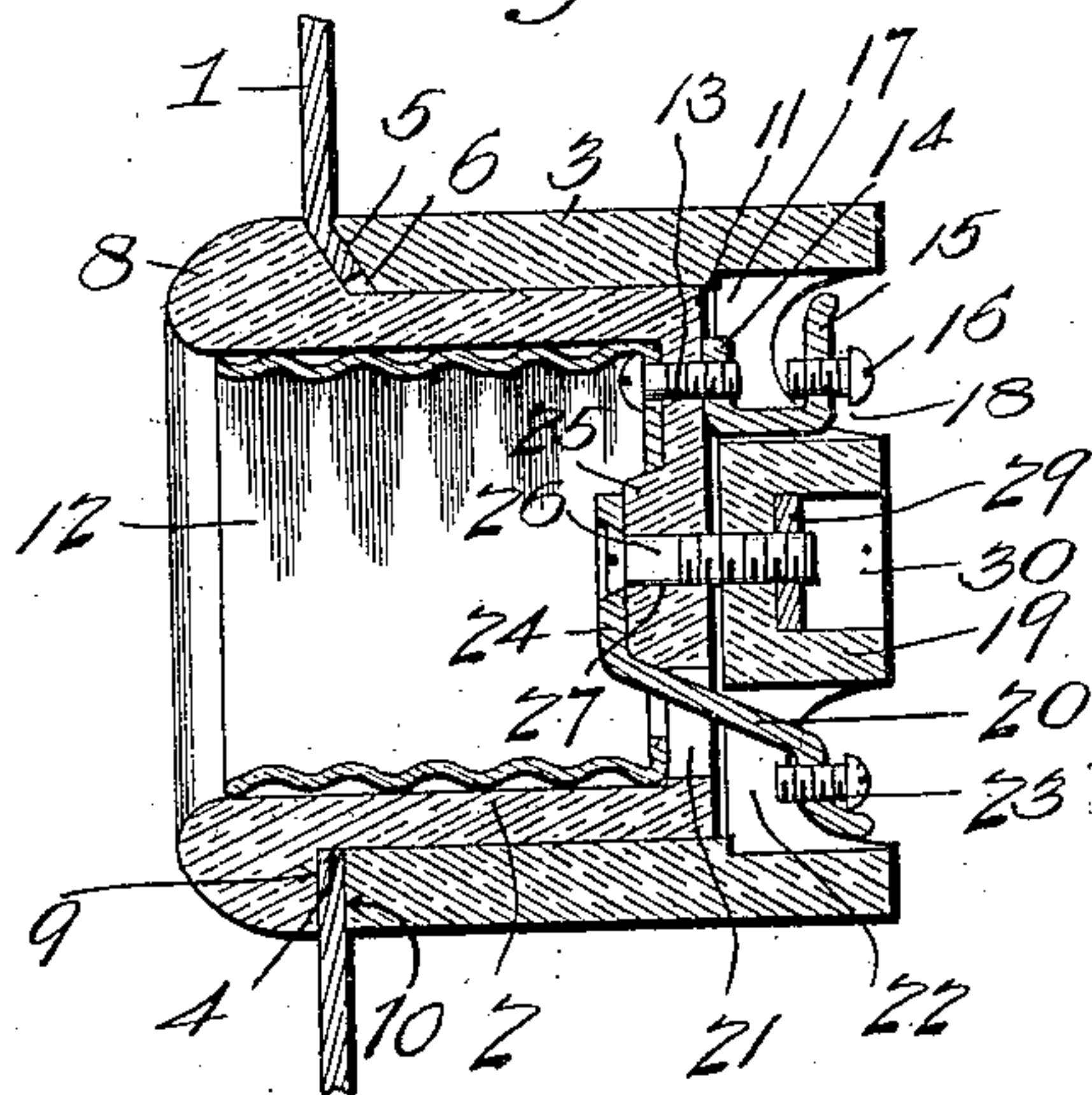


Fig. 6.

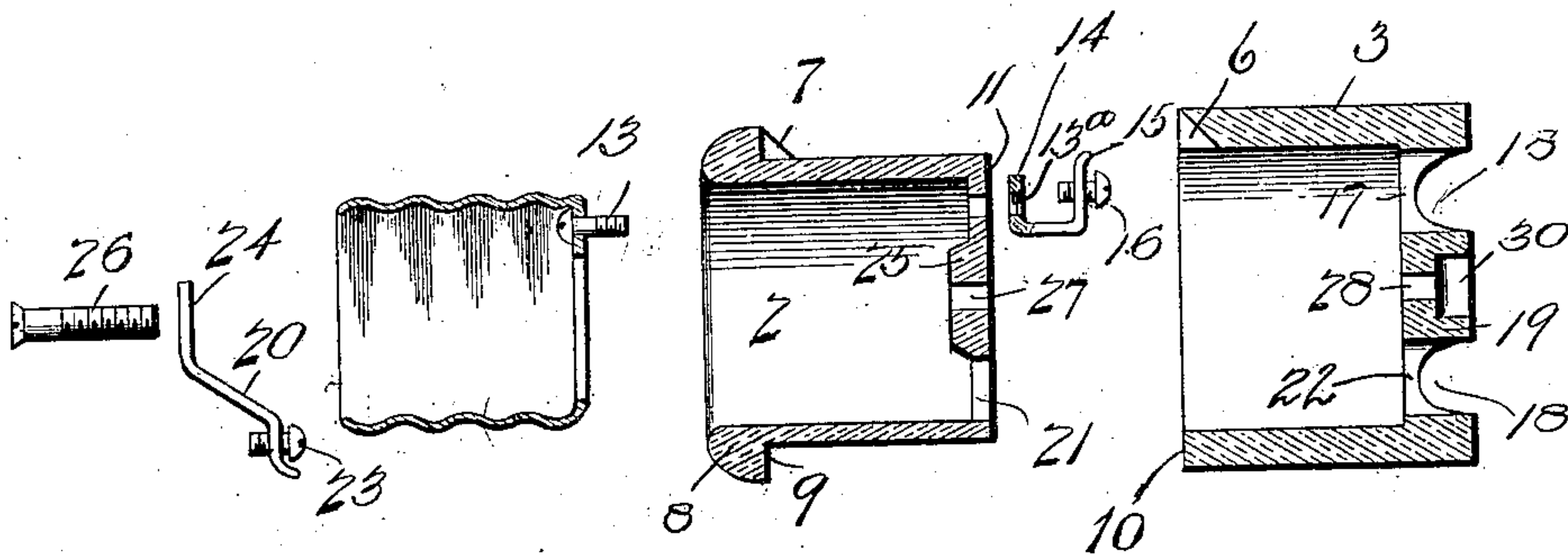
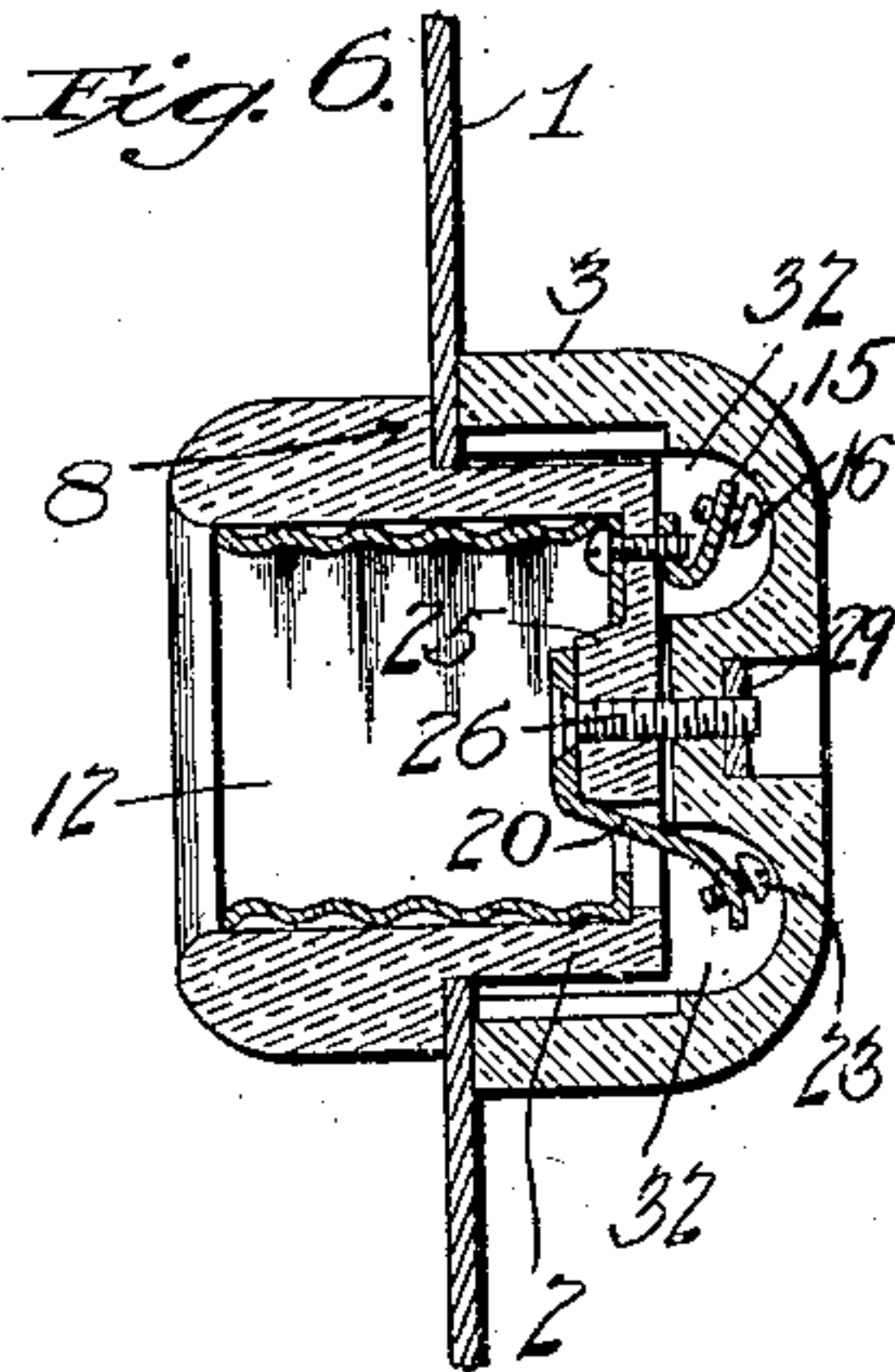


Fig. 4.

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ELECTRICAL SIGN-RECEPTACLE.

No. 917,145.

Specification of Letters Patent.

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Application filed December 11, 1907. Serial No. 406,009.

To all whom it may concern:

Be it known that I, FRANK J. RUSSELL, a citizen of the United States, residing at New York city, in the county of New York and State of New York, have invented certain new and useful Improvements in Electrical Sign-Receptacles, of which the following is a specification.

This invention relates to an improved electrical receptacle designed to receive and connect with the standard forms of electrical connecting plugs such as the common incandescent lamp plugs and extension circuit plugs, and possessing special utility as a sign receptacle for carrying the lamps employed in forming an electric light sign.

To this end the invention contemplates an improved electrical receptacle which may be characterized as a two-piece sign receptacle embodying telescopically and adjustably related members which provide for clamping the receptacle body directly upon the sign board, plate, or other supporting element. In this connection, the invention has in view a construction of receptacle which can be firmly secured to the supporting element without the employment of screw holes or auxiliary fastening means, while at the same time providing thoroughly effectual weatherproof features so as to protect the metallic parts from the action of the weather.

A further general object of the invention is to so construct an electrical receptacle that the same shall possess considerable strength so as to make the same better adapted to the strain of assembling than other forms of receptacles particularly adapted for sign use, especially those having extended fastening ears. Also, the invention provides a receptacle of very compact construction and made-up of simple and durable parts which are so arranged as not to disturb or break the electrical connection by shaking loose as is sometimes the case with other types of receptacles.

With these and many other objects in view which will more readily appear as the nature of the invention is better understood, the same consists in the novel construction, combination and relation of parts herein-after more fully described, illustrated, and claimed.

The essential features of the invention involved in carrying out the objects above indicated are necessarily susceptible to a wide range of structural modification without de-

parting from the scope of the invention, but certain preferred embodiments thereof are shown in the accompanying drawings, in which:

Figure 1 is a front elevation, or front end view, of a two-piece sign receptacle constructed in accordance with the present invention. Fig. 2 is a rear elevation or end view of the receptacle. Fig. 3 is a central longitudinal sectional view of the receptacle. Fig. 4 is a sectional view of the receptacle showing the various parts thereof separated and illustrating their relation to each other. Fig. 5 is a side elevation of a modified form of the receptacle showing the complete housing of the line wire terminals between the bottoms of the two cup members, the view also illustrating a modification in the proportion of parts, showing the receptacle provided with a deeper front at the front side of the supporting element or plate. Fig. 6 is a longitudinal sectional view of the form of receptacle shown in Fig. 5.

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

A distinctive feature of the invention resides in the construction of the receptacle body whereby the same provides for carrying the various parts for the electrical connection while at the same time the body itself acts as a clamp for securing the receptacle upon a sign board, plate, or other supporting element designated by the numeral 1 in the drawings. The said receptacle body consists essentially of two parts or members, namely, a pair of inner and outer cup members 2 and 3 made of porcelain, fiber or other insulating material such as is commonly employed in manufacturing fixtures of this character.

The inner and outer cup members 2 and 3 are adapted to adjustably and telescopically register one within the other, and to clamp respectively upon opposite sides of the supporting element 1 which is provided therein with a receiving hole or opening 4 through which the receptacle body is inserted, and exposed for the mounting of the electrical plug carried by the lamp. To provide for an effective, non-rotative clamping support of the receptacle body on the element 1, the latter may be provided at one side of its hole or opening 4, with a laterally deflected retaining projection 5 adapted to engage in a keeper notch 6 formed in one edge of the outer cup member 3 and held in such notch

by a holding lug 7 projected from the inner side of an annular clamping collar 8 provided at the outer end of the inner cup member 2 and presenting at its inner side a binding shoulder 9 which impinges against one side of the supporting element in opposition to the binding shoulder 10 presented at one end of the outer contact member 3, as plainly shown in Figs. 3 and 4 of the drawings. This provides, when the two cup members are assembled and secured together, a self-sustaining clamp for the receptacle body upon the supporting element 1.

The inner cup member 2 of the receptacle body is preferably provided with an integral insulating bottom piece 11 upon the outer side of which is supported the shell terminal or side plug contact 12 which is housed wholly within the plug receiving opening of the cup member 2. Preferably, the shell terminal or side plug contact 12 consists of the conventional threaded metallic shell and may be conveniently secured in place in a thoroughly practical and electrical manner through the medium of the combined fastening and conducting screw 13 passing through aligned screw holes in the base of the shell and the bottom 11 of the cup member 2, and engaging a threaded opening 13^a in the attaching foot 14 of a U or equivalent shaped wire terminal plate 15 carrying a binding screw 16 and projecting through a clearance opening 17 formed in the bottom of the cup 3. The said wire terminal plate 15, therefore, is entirely supported by, or carried from the inner cup member and has no support or connection whatever with the base member or outer cup member of the receptacle, but by reason of the projection of the said wire terminal plate 15 through the clearance opening 17 of the base member or outer cup member, the said wire terminal 15 is exposed within the plane of one of the pair of line wire grooves 18 formed in and extending transversely across the outer side of the integral bottom piece 19 of the cup 3. The other wire terminal element designated by the reference number 20, also is directly connected with the inner cup member and has no support or connection whatever with the base or outer cup member 3 of the receptacle, so that according to the present invention, the inner cup member of the receptacle which carries the plug contacts, also carries both of the wire terminal connections, thus entirely obviating the objection to providing the base part, or outer cup member, with one or both of the wire terminal connections. In other words, the present construction provides a simple and effective arrangement of parts wherein all of the contacts and terminal connections are carried by one member, viz: the inner cup member constituting the socket or receptacle proper for receiving the electrical plug.

Referring further to the wire terminal 20, it will be observed that this terminal is preferably in the form of an angle plate having a main leg portion projected through the aligned clearance openings 21 and 22 formed respectively in the cup bottoms 11 and 19 so that the binding screw 23 carried by said leg portion of the terminal 20 is exposed for use in the line wire groove 18 opposite that one of said grooves in which is exposed the binding screw 16 of said wire terminal plate 15. In addition to the main leg portion thereof, the said angle plate constituting the terminal 20 is provided at its inner end with a contact piece 24 constituting the center plug contact and arranged flat upon a centrally elevated rest boss 25 formed integrally with and projecting from the bottom 11 of the cup 2. The said contact piece 24 is preferably perforated to receive the head of the center assembling screw 26 extending through centrally aligned screw holes 27 and 28 in the cup bottoms 11 and 19 and engaging a threaded opening of a washer plate or nut 29 seated in a plate seat 30 journaled in the outer side of the cup bottom 19. It will be observed from this construction that the screw 26 acts as the main assembling screw for the receptacle and also holds in place the combined terminal and plug contact 24, but is not a current carrying part of the device.

A modification of the invention is suggested in Figs. 5 and 6 of the drawings. This modification involves the thought of having the bottom piece 19 of the cup 3 entirely imperforate except for the passage of the center assembling screws 26, thereby providing for the complete housing of the wire terminal elements between the bottoms of the two cup members, as plainly shown in Fig. 6 of the drawings. Furthermore, the modification, illustrated in said Figs. 5 and 6 of the drawings, suggests the idea of so changing the proportion of the two cup members as to provide the inner cup member with a deeper front projecting beyond the front side of the supporting element or plate. In this connection, it will of course be understood that the relative sizes of the two cup members may be changed to suit conditions or the wish of the manufacturer without departing from the scope of the invention. In connection with the modification referred to, the passage of the line wires through the receptacle may be conveniently provided for by forming the shell or wall part of the cup 3 in its opposite sides with the line wire receiving slots 31, and the inner side of the bottom piece 19 of the cup member may or may not be provided with the line wire passages or grooves 32, according to the design in which the receptacles may be manufactured.

Other modifications, and also various changes in the form, proportion, and minor details of construction may be resorted to

without departing from the spirit or sacrificing any of the advantages of the invention.

I claim:

1. An electrical receptacle including a cup member having side walls and a rear wall or bottom integral therewith, a side plug contact arranged within the cup, a wire terminal plate located exteriorly of the rear wall or bottom, and electrically connected to the side plug contact, a center plug contact plate having one end located upon the rear wall or bottom of the cup member, said center plug contact plate extending through said rear wall or bottom and having its outer end exposed exteriorly thereof and constituting a wire terminal plate, a second cup member and an assembling screw passing through the inner end of the center plug contact plate, and arranged to hold together said two cup members.

2. An electrical receptacle, comprising telescoped cup members, each comprising side walls and a rear wall integral with the side

walls, a side plug contact arranged within the inner cup member, a wire terminal plate located exteriorly of the rear wall of the inner cup member, a fastening screw connecting the side plug contact and the wire terminal plate, a center plug contact plate having one end located against the rear wall or bottom of the inner cup, said center plug contact plate extending through said rear wall or bottom and having its outer end disposed exteriorly thereof and constituting a wire terminal plate, and an assembling screw having a head engaging the inner end of the center plug contact plate, said screw passing through the rear walls or bottoms of the cup member and holding the same together.

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

FRANK J. RUSSELL.

Witnesses:

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EDWARD A. PERFALL.