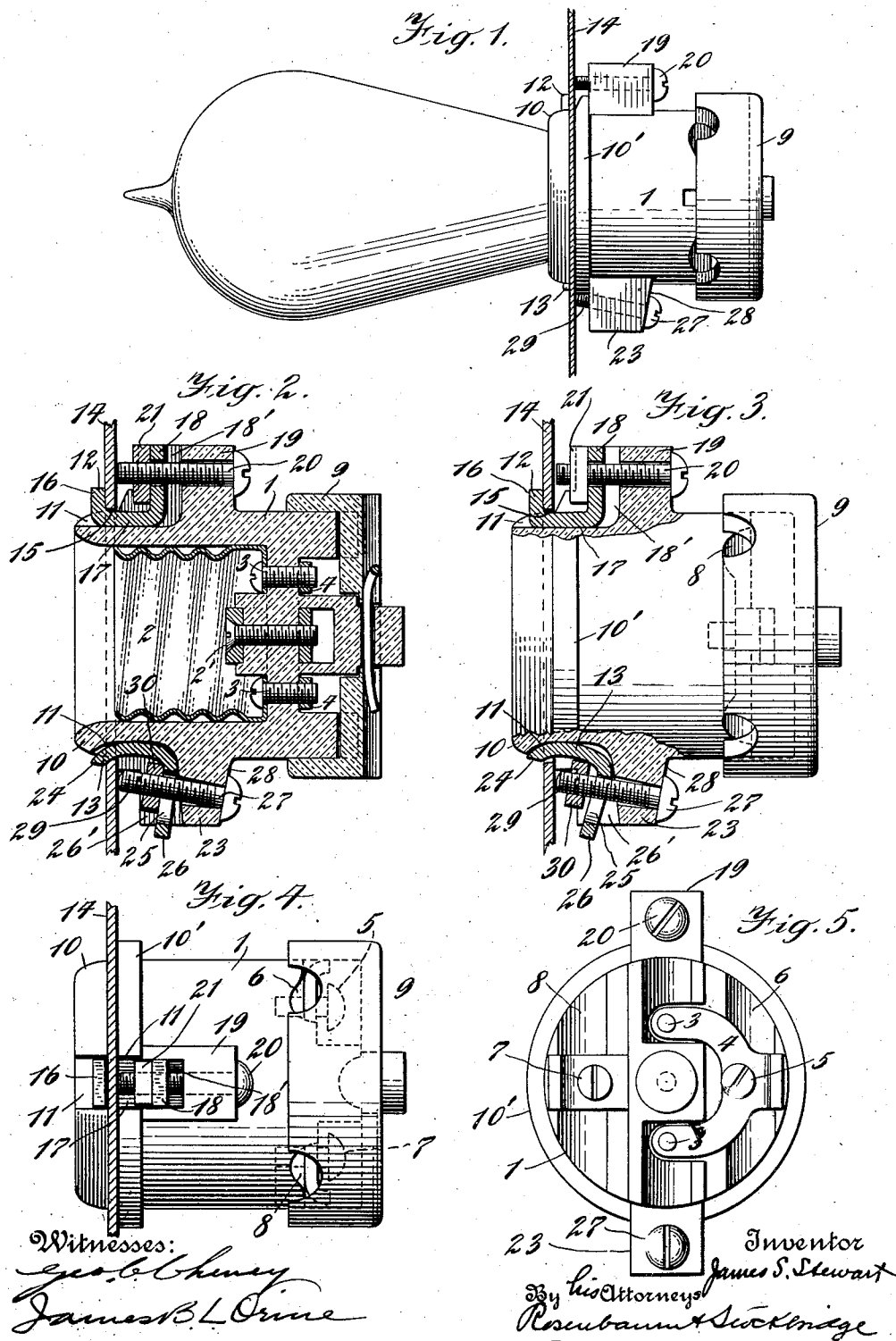


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ELECTRICAL RECEPTACLE ATTACHING DEVICE.
APPLICATION FILED DEC. 18, 1912.

1,097,736.

Patented May 26, 1914.



UNITED STATES PATENT OFFICE.

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ELECTRICAL-RECEPTACLE-ATTACHING DEVICE.

1,097,736.

Specification of Letters Patent.

Patented May 26, 1914.

Application filed December 18, 1912. Serial No. 737,379.

To all whom it may concern:

Be it known that I, JAMES S. STEWART, a citizen of the United States, residing at the city of New York, in the borough of Manhattan and State of New York, have invented certain new and useful Improvements in Electrical-Receptacle-Attaching Devices, of which the following is a full, clear, and exact description.

10 This invention relates to sockets or receptacles adapted for use in electric signs and has more particular reference to a means of attachment for such devices to signs.

15 The principal object of the present invention is to provide a receptacle capable of rapid and easy installation by the operation of a single man, and at the same time to provide a device which will consist of only a few parts and which shall operate efficiently not only to hold the receptacle in place but also to prevent its rotation.

20 The invention accordingly consists in the combination of elements and the arrangement of parts, which will be exemplified in the construction hereinafter set forth and claimed.

Referring now to the accompanying drawing wherein is shown one of the various possible embodiments of the invention, Figure 1 represents an elevation of the device 30 attached to a sign, the latter being shown in cross-section; Fig. 2 represents a longitudinal sectional elevation taken substantially on the median line of the receptacle showing the clamping members in holding position; Fig. 3 represents a partial sectional elevation of the device showing a clamping member loosened to permit the removal of the receptacle; Fig. 4 represents a plan view 40 of the device; and Fig. 5 represents a rear view with the rear cap removed.

Similar reference characters refer to similar parts throughout the various views of the drawing.

45 The receptacle consists primarily of a cylindrical porcelain body 1 containing the usual metallic threaded sleeve 2, into which the base of the lamp is screwed. In the bottom of the threaded sleeve there is the usual center contact 2'. The sleeve 2 is connected 50 by means of screws 3 with a semi-annular member 4 through whose extremities the screws pass. Projecting from the middle of this semi-annular member is a lug through

which passes a binding-post 5 into the body 55 1. Extending on either side of 5 is a groove 6 which is adapted for one of the conductors serving to lead current to the receptacle. A second binding-post 7 is located diametrically opposite the binding-post 5 60 and is screwed through a flattened plate, which is in electrical communication with the center contact 2'. Extending on either side of the binding-post 7 is a groove 8 which is adapted to receive the other conductor or lead wire. A porcelain protective cap 9 is removably attached to the rear of the receptacle and is provided with suitable apertures in line with the grooves 6 and 8 through which the conductors may pass. 70

The porcelain body 1 is provided with an annular lip 10 about its front and immediately in the rear of this lip is a flange 10' concentric with the body. Diametrically opposite channels 11 pass through this lip 75 and the flange and extend along the body portion for a distance about one-third of the length thereof. Fitting these channels, respectively, are clamp members 12 and 13 which are of such thickness that they may 80 lie in the channels 11 flush with the body 1. The clamps are adapted to co-act with the front surface of the sign plate 14 about an aperture 15 therein. The clamp member 12 consists of a plate bent in substantial U- 85 shape, the shorter flange portion 16 thereof being adapted to overlap the edge of aperture 15 to engage the sign surface when in holding position, the straight body portion 17 thereof being adapted normally to lie in 90 the channel 11 and the longer flange portion 18 being adapted to lie in a substantially rectangular cavity 18' in an ear 19 formed integrally or otherwise on the side of the body portion 1. This cavity 18' communi- 95 cates with the channel 11 adjacent thereto. Adjacent the extremity of the flange 18 of the U-shaped member is an aperture through which is adapted to pass a screw member 20 which passes through the ear in a plane 100 substantially parallel to the longitudinal axis of the receptacle. The head of the screw 20 is seated on the rear end surface of the ear. Co-acting with the threaded portion of the screw is a nut 21 which fits 105 within the cavity in the ear 19 and when the screw is turned, the nut being held and guided by the walls of the cavity, must move

along the cavity. The screw head is adapted to abut the rear end surface of the ear 19 and the opposite extremity is adapted to engage the rear surface of the sign when the screw has been forced home. Upon rotation of the screw, the nut travels into engagement with the flange 18 of the U-shaped member and the flange 16 is thereby brought into clamping engagement with the edge of the sign-plate about the aperture 15.

Diametrically opposite the ear 19 is a second ear 23 which is formed integrally or otherwise with the body portion 1. This ear is placed to aid in holding the clamp member 13 and its associated parts. The clamp member is substantially J-shaped and is mounted so that its curved extremity 24 is adapted to be projected through the aperture 15 in the sign. The edge of this aperture is adapted to be overlapped by the extremity 24 to permit the clamp to engage with the edge of the aperture 15 and surface thereabout. The curved portion lies in the channel 11. The clamp is provided with a slot 25 which is situated in the straight portion 26 of the J. The straight portion is adapted to lie in a substantially rectangular cavity 26' in the ear 23 communicating with the corresponding channel 11. Through this slot 25 is adapted to pass a screw 27 whose head portion is adapted to co-act with the slanting rear wall 28 of the ear 23. The opposite extremity of the screw 29 is adapted to abut and engage with the rear surface of the sign 14. Upon the screw 27 is a nut 30, the dimensions of which are such as to permit the nut to be guided by the side walls of the cavity in the ear 23. This nut co-acts with the forward surface of the straight portion 26 of the J-shaped clamp, thereby to move the extremity 24 laterally with respect to the receptacle to a projecting or overlapping position with respect to the edge of the sign about the aperture 15. The movement of the clamp with respect to the screw 27, will be permitted by virtue of the slot 25 therein.

It will be noted that the screw 27 is inclined to the longitudinal axis of the receptacle and that the clamp member may be positioned so that the straight portion thereof is disposed at an angle to the axis of the receptacle and the body thereof and the curved portion lies within the channel 11 without overlapping the edge of the aperture 15. Being thus disposed, when the nut 30 presses against portion 26 this portion will swing rearwardly and the curved portion 24 simultaneously will slide along the channel 11. In this way the curved portion 24 will be brought into contact with the outer surface of the sign about the aperture and will exercise then not only a lateral thrust on the edge of the aperture but a com-

pression substantially normal to the front surface. This clamp is thus not only adapted to hold the receptacle in place but is also adapted to prevent the rotation thereof.

As noted in connection with the screw member 20, the extremity 29 of the screw 27 co-acts with the sign surface when the screw has been turned a sufficient distance and these two screw members 20 and 27 according to this embodiment thus also prevent the rotation of the receptacle.

In operation, the U-shaped clamp member 12, the screw 20 and the nut 21 being loosely in place upon the body portion 1, this body portion is slightly tilted and thrust through from the rear of the sign so that the lip 10 and the short up-turned flange 16 project beyond the front sign surface. The rear sign surface will co-act with the flange member 10' to thereby hold the receptacle against further forward movement. The screw 20 may then be turned until nut 21 co-acts with the portion 18 of the clamp member to securely hold the clamp member in place. The extremity 22 will then contact with the rear surface of the sign. This operation may be conveniently effected with one hand operating the screw-driver, for all that is necessary is to turn the screw 20 and the nut 21 will thereby travel along the shank of the screw. When the clamp 12 is placed, and thus, when the receptacle is positioned in the aperture, the J-shaped clamp member may be tightened by turning the screw 27. As heretofore mentioned, the nut 30 will co-act with the portion 26 about the slot 25 and will force the J-shaped member to move so that its curved portion projects beyond the edge of the aperture in the sign. The turning of the screw 27 may be effected by one hand as noted in connection with screw 20, by virtue of the guidance of the nut 30, as heretofore related. When the clamp member and associated parts have thus been secured in place, the projecting extremities 16 and 24 of the clamp members, together with the screws 22 and 29, will effectively hold the receptacle from displacement and rotation.

It will thus be apparent that the objects enumerated are completely fulfilled by this embodiment of the invention.

As many apparently widely different embodiments of this invention could be made without departing from the scope thereof, it is intended that all matter herein included shall be interpreted as illustrative and not in a limiting sense.

Having thus described my invention, I claim:—

1. A sign receptacle comprising a body portion and a clamping member located adjacent the front of said body portion and attached thereto, said clamping member including a clamping jaw slidably mounted on said body portion, and means coöperating

with the body portion for moving said clamping jaw radially outward for the purpose set forth.

2. A sign receptacle comprising a body portion and a clamping member located adjacent the front of said body portion and attached thereto, said clamping member including a clamping jaw slidably mounted on said body portion and a screw cooperating with said clamping jaw to radially move the jaw outward for the purpose set forth.

3. The combination of a sign plate having an orifice therein and a sign receptacle comprising a body portion and a clamping member located adjacent the front of said body portion and attached thereto, said clamping member including a clamping jaw slidably mounted on said body portion and means cooperating with said body portion for moving said jaw radially outward to engage the edge of the sign plate.

4. A sign receptacle comprising a body portion having a cam surface and a clamping device for holding the body portion in position, said clamping device comprising a two armed lever slidably mounted with respect to said cam-surface, one arm of which affords a clamping jaw, and means cooperating with said body portion and with the other arm of said lever to move said lever with respect to said cam-surface and to throw said clamping jaw into clamping position.

5. In an electrical device, in combination, a receptacle having a cam surface and means adapted to hold said receptacle in position, comprising a clamp member having a rounded portion co-acting with the cam-surface and a straight portion, another clamp member adapted to co-act with the straight portion of said first member to thereby slide said first member against the cam of said receptacle and to move it into engaging position.

6. In an electrical device, in combination, a receptacle provided with an ear and means adapted to hold said receptacle in position with respect to an aperture in a face-plate comprising a clamp member having a rounded portion and a straight portion, said straight portion being slotted, a screw adapted to pass through said ear and said slotted portion of said clamp member and to abut against the rear of said face-plate, said screw being inclined at an angle to the longitudinal axis of said receptacle, the straight portion of said clamp being inclined at an angle to the body of said receptacle and to

the front surface of said ear, a nut co-acting with said screw and adapted to contact with the straight portion of said clamp, said screw being adapted upon rotation to force said nut against said clamp member to thereby turn said clamp to cause the rounded portion thereof to engage with the front of the face-plate about said aperture.

7. In an electrical device, in combination, a receptacle provided with ears having cavities therein, said receptacle having channels therein, a substantially L-shaped clamp member having its body portion lying within one of said channels and the longer flange portion lying within one of said cavities the shorter flange portion thereof being adapted to co-act with the front surface of a face-plate, a screw member passing through said clamp member and the ear associated therewith, said screw being adapted on rotation to force said nut into engagement with the longer flange of said clamp and to thereby draw the shorter flange into tight engagement with the said plate, said nut being guided by the side of said groove, a second substantially J-shaped clamp associated with the other of said ears, the rounded portion of said clamp being adapted to rest in the other of said channels in the receptacle and having a portion adapted to project over and engage with the front surface of the face-plate, the flange of the J-shaped clamp being slotted, a screw being adapted to pass through said slot and ear associated with said flange, a nut on said screw, said screw being adapted upon rotation to force said nut into engagement with said flange to thereby move said clamp and to bring its rounded portion into engagement with said face-plate said nut being guided by the sides of said cavity.

8. A sign receptacle comprising a body portion and clamping members attached thereto, one of said members including a clamping jaw having a movement substantially parallel to the axis of the receptacle and the other of said clamping members including a clamping jaw slidably mounted on said body portion and movable radially outwardly with respect to the body portion, and means for moving said clamping jaws.

In witness whereof, I subscribe my signature, in the presence of two witnesses.

JAMES S. STEWART.

Witnesses:

WALDO M. CHAPIN,
IDA M. PATTERSON.