J. S. CROSSLEY & V. R. DESPARD.

SIGN RECEPTACLE.

APPLICATION FILED NOV. 1, 1910.

1,042,406. Patented Oct. 29, 1912.

Fig. 1.

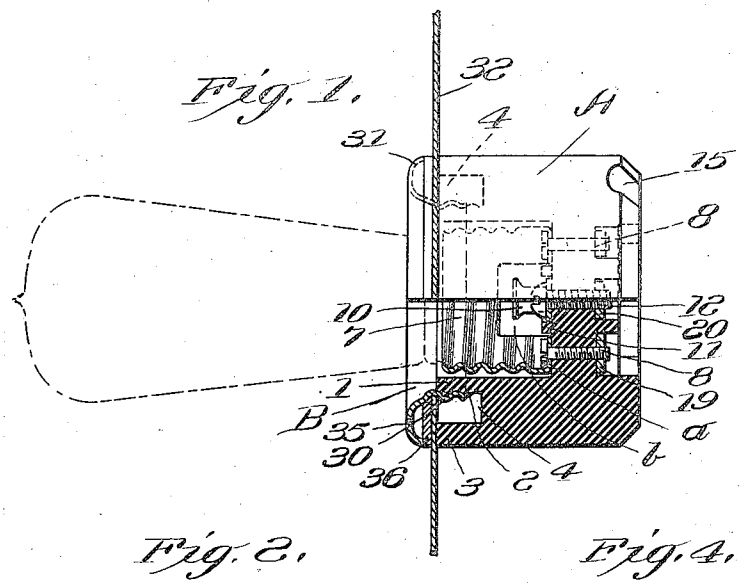


Fig. 2.

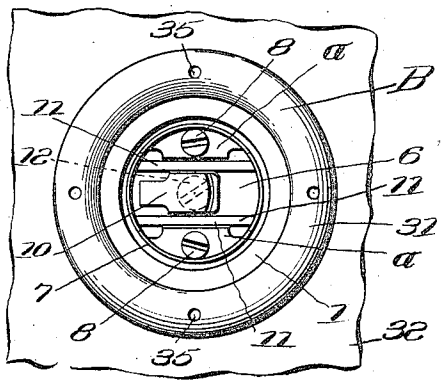


Fig. 4.

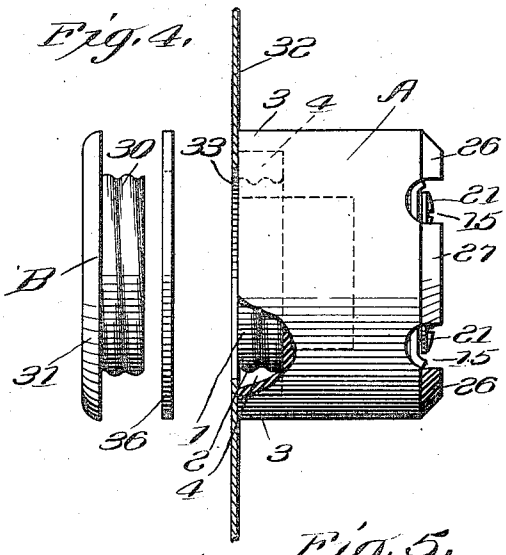


Fig. 5.

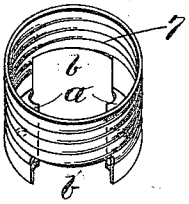
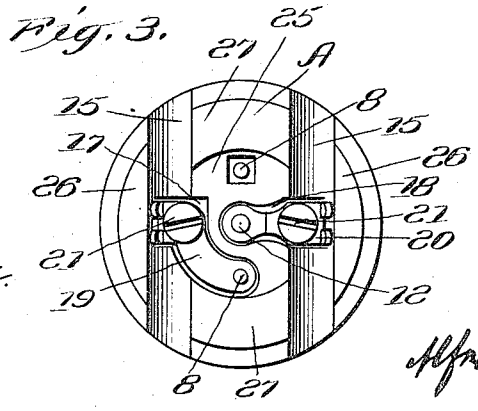


Fig. 3.



WITNESSES

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SIGN-RECEPTACLE.

1,042,406. Specification of Letters Patent. Patented Oct. 29, 1912.

Application filed November 1, 1910. Serial No. 590,233.

To all whom it may concern:

Be it known that we, JAMES S. CROSSLEY and VICTOR R. DESPARD, citizens of the United States, residing, respectively, at Solvay and Syracuse, both in the county of Onondaga and State of New York, have invented new and useful Improvements in Sign-Receptacles, of which the following is a specification.

Our invention relates to receptacles adapted for use in electric signs, and particularly to that class in which the receptacles are clamped in position on the sign plate by a screw ring.

Our receptacle consists essentially of a one piece porcelain body carrying the necessary terminals and of a metallic clamping ring adapted to engage with a threaded flange on the body.

The invention will be understood by reference to the drawing herewith in which the reference letters and numerals of this description are used to indicate corresponding parts in all the figures.

Figure 1 is a side elevation of our receptacle in position on the sign plate of which the lower half is shown in section. Fig. 2 is a front elevation of the preceding with the lamp removed. Fig. 3 is a rear elevation of the receptacle. Fig. 4 is a side elevation with the parts separated. Fig. 5 shows the center lamp terminal detached.

In the figures, A indicates the body of porcelain, or other suitable insulating material, carrying the lamp terminals and the wire terminals.

B is the metallic clamping ring.

The body is substantially cylindrical and is provided on its outer or front end with the flange 1, having the external thread 2, and with the annular margin 3 around the flange whereby is formed the annular groove 4, between the flange and margin to receive the sleeve of the clamping ring. Within the flange is the usual recess or socket for the lamp terminals. The outer threaded terminal 7 is secured in position by screws 8 8. The inner terminal 10 is separated from the outer by suitable ribs 11 formed of the insulating material of the body and is secured in position by the single screw 12. The body is formed on its rear surface with the parallel grooves 15 for the conductors and with the depressions 17 and 18 for the wire terminals 19 and 20, which have their ends, extending out into the grooves, provided with the binding screws 21 to engage with the usual short stripped portions of the conductors. The wire terminal 19 is set in the depression 17 and is connected to the outer lamp terminal 7 by one of the screws 8; the wire terminal 20 is set in the depression 18 and is connected by the single screw 12 to the center lamp terminal 10. Between the grooves the rear surface of the body may be cut away to form the depression 25, leaving side projections 26 flush with the intermediate projections 27; between these insulating cement may be run in to cover the terminals, joints etc.

The metallic clamping ring B consists of the threaded sleeve 30 adapted to engage with the thread 2 on the flange and of the rim 31 engaging with the outer surface of the sign plate 32 when the ring itself is screwed home. This is made to fit the holes 33 in the sign plate with sufficient snugness so that the receptacles will be centered when clamped in position.

The rim is best formed as shown with a slight outward curve permitting its outer edge to engage the sign plate snugly and with a certain amount of resiliency to counteract the results of vibration. It is provided with the holes 35 for the spanner wrench. The gasket 36 of rubber, cloth or other suitable material is desirably interposed between the rim and the plate to insure a tight joint, and to permit screwing home with a good bearing.

The ribs 11 are one particular form that might sometimes be useful more or less to assist in maintaining the terminals in place and to assist in the assembling.

As shown in Fig. 5 the outer terminal, or threaded shell, is provided with the flanges *a a* for the securing screws, and, between those flanges, is cut away on the sides at *b b*, so that, when the parts are assembled, there will be a clearance between the two terminals. If by accident a shell were supplied to the assembler that was not so cut away, this defect might be overlooked by a careless workman and the defective shell secured in place with danger of a short circuit. The ribs would tend to prevent the assembling of such a defective shell.

The threaded tube, or tubular flange, is

preferably made as shown flush with the margin, but might be slightly elongated to form a nose extending through the plate.

Our construction of receptacle with the metallic clamping ring is a decided improvement over forms of sign receptacles heretofore in use which are provided with the larger clamping rings of insulating material. Such porcelain clamping rings are not only large, therefore unsightly and clumsy, but are brittle, therefore liable to breakage in manufacture, transportation and handling, and also after installation owing to the expansion and contraction of the metallic sign plate. Our ring and clamping means are strong and also inconspicuous; the smallest possible projection appears on the front of the plate. This is important, for, as the whole object of these receptacles and signs is advertisement or decoration, it is desirable to reserve the front of the plate, so far as possible, for the lamps, and to avoid unsightly projections by concealing the mechanisms, connections, lamp supporting means etc., as far as possible, on the back. After the receptacles have been installed the sign plate and the rims of the clamping rings may be painted, rendering the latter almost indistinguishable. Finally our receptacle is strong and simple, economical to manufacture and convenient to install.

Having described our invention, we claim,—

1. In an electric sign, the combination with a thin metal sign plate provided with a series of suitable lamp holes, of a series of receptacles each comprising a body of insulating material, said body being formed at its front end with a screw threaded tubular flange slightly less in diameter than the lamp hole and with a shoulder around the flange to engage with the rear surface of the sign, suitable lamp and wire terminals and connections on the body, and a thin metal clamping ring for the receptacle consisting of a threaded sleeve to extend inwardly through the lamp hole and engaging with the threaded flange, and of an outwardly curved rim adapted to engage with the outer surface of the sign plate by its extreme edge, said receptacles being adapted to lie substantially entirely on the rear surface of the sign plate.

2. In a receptacle for incandescent electric signs, the combination with a substantially cylindrical porcelain body having at its front end an annular marginal wall, an externally threaded tubular flange within the wall, an annular groove between the wall and the flange, of a metal clamping ring having a rim to engage with the front of the sign plate and a threaded sleeve to extend into the groove and engage with the threaded flange.

3. In a sign receptacle the combination with a substantially cylindrical porcelain body having at its front end an annular, marginal wall, an annular flange within the wall and separated therefrom by an annular groove, said flange being screw threaded on its exterior surface, said thread extending down adjacent to the bottom of the groove, of a metal clamping ring having a rim and a threaded sleeve to extend into the groove and engage with the threaded flange, said rim being adapted to engage with the front surface of the sign plate and the margin of the wall to engage with the rear surface when the parts are in position.

4. A receptacle for incandescent electric lamp signs, having in combination a porcelain body formed with a screw-threaded tubular portion and with a shoulder to engage with the rear surface of the sign plate, suitable lamp and wire terminals and connections suitably secured on the body, and means for clamping the receptacle on the sign plate, said means consisting of a single metallic clamping ring provided with a threaded sleeve to extend through the hole in the sign plate and engage the thread on the body and with a rim to engage the outer surface of the sign plate.

5. A receptacle for incandescent electric lamp signs comprising a body of insulating material having an externally threaded, cylindrical flange and a projection to engage with the rear surface of the sign-plate, and means to secure the body on the sign-plate, said means consisting of a thin metal clamping ring provided with a threaded sleeve to extend through a hole in the sign-plate for engaging the threaded flange on the body and with a rim to engage with the outer surface of the sign-plate.

In testimony whereof we have signed our names to this specification in the presence of two subscribing witnesses.

JAMES S. CROSSLEY.
VICTOR R. DESPARD.

Witnesses:
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W. BREWSTER HALL.