

J. S. STEWART.

ROSETTE.

APPLICATION FILED DEC. 23, 1907.

908,166.

Patented Dec. 29, 1908.

2 SHEETS—SHEET 1.

Fig. 1.

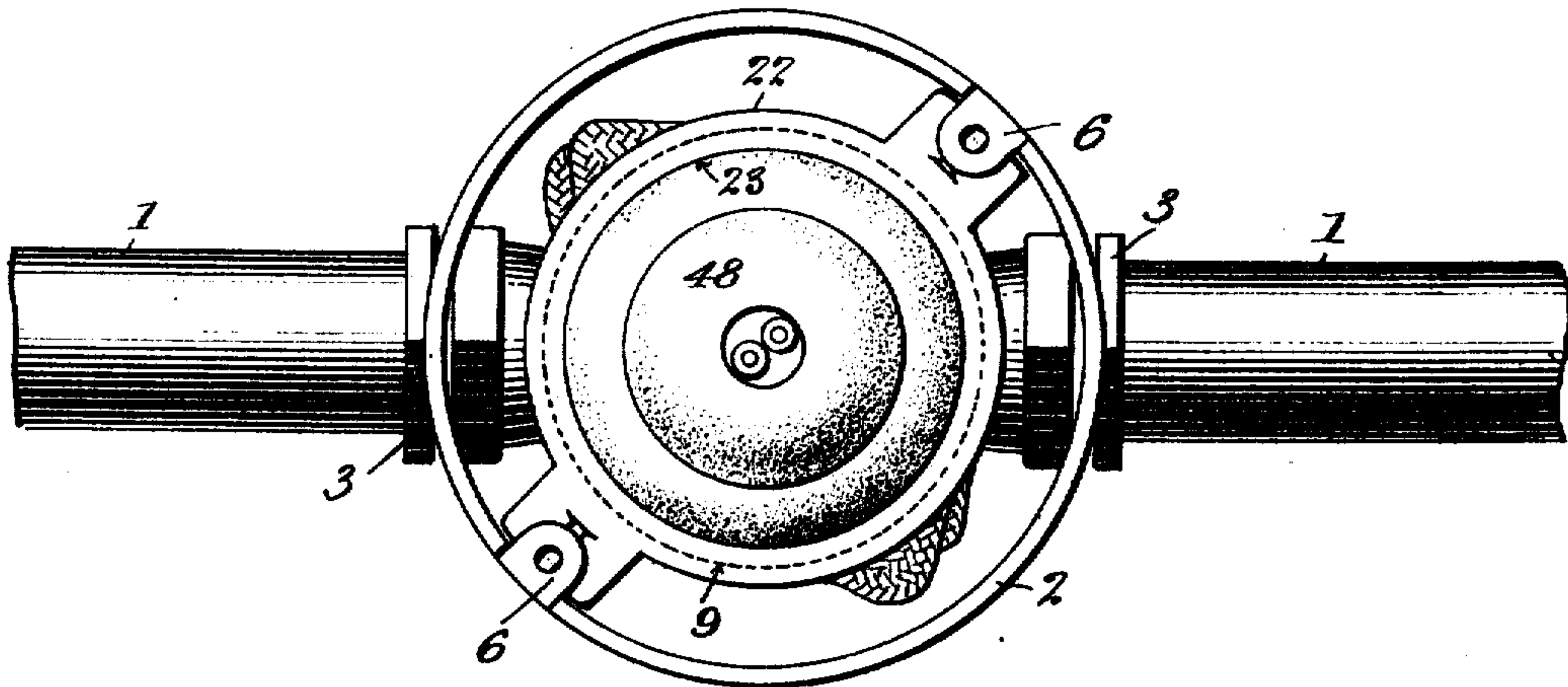
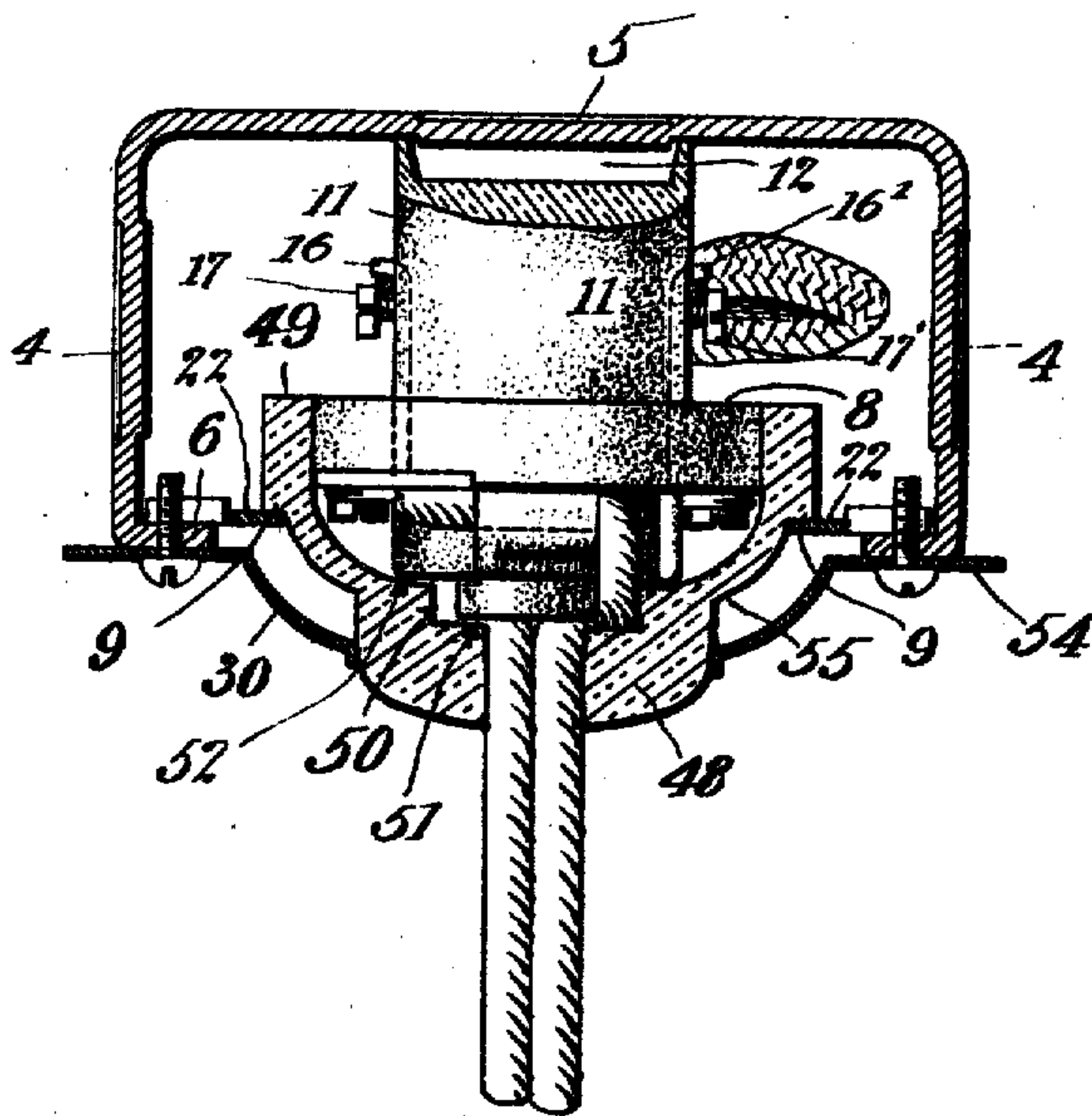


Fig. 2.



Witnesses:
Paul S. Ober
Amherst

Inventor
James S. Stewart
By Attorneys
Rosenbaum & Stockbridge

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2 SHEETS—SHEET 2.

Fig. 3.

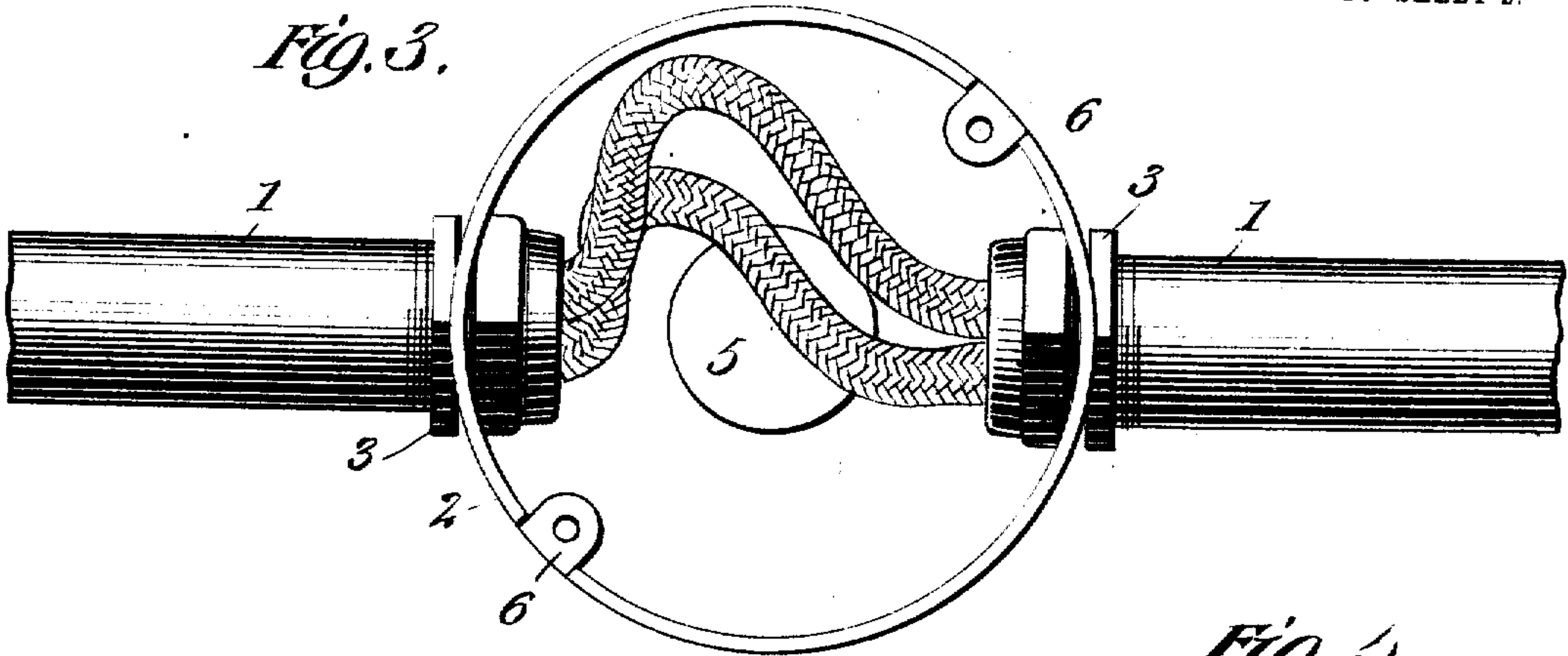


Fig. 4.

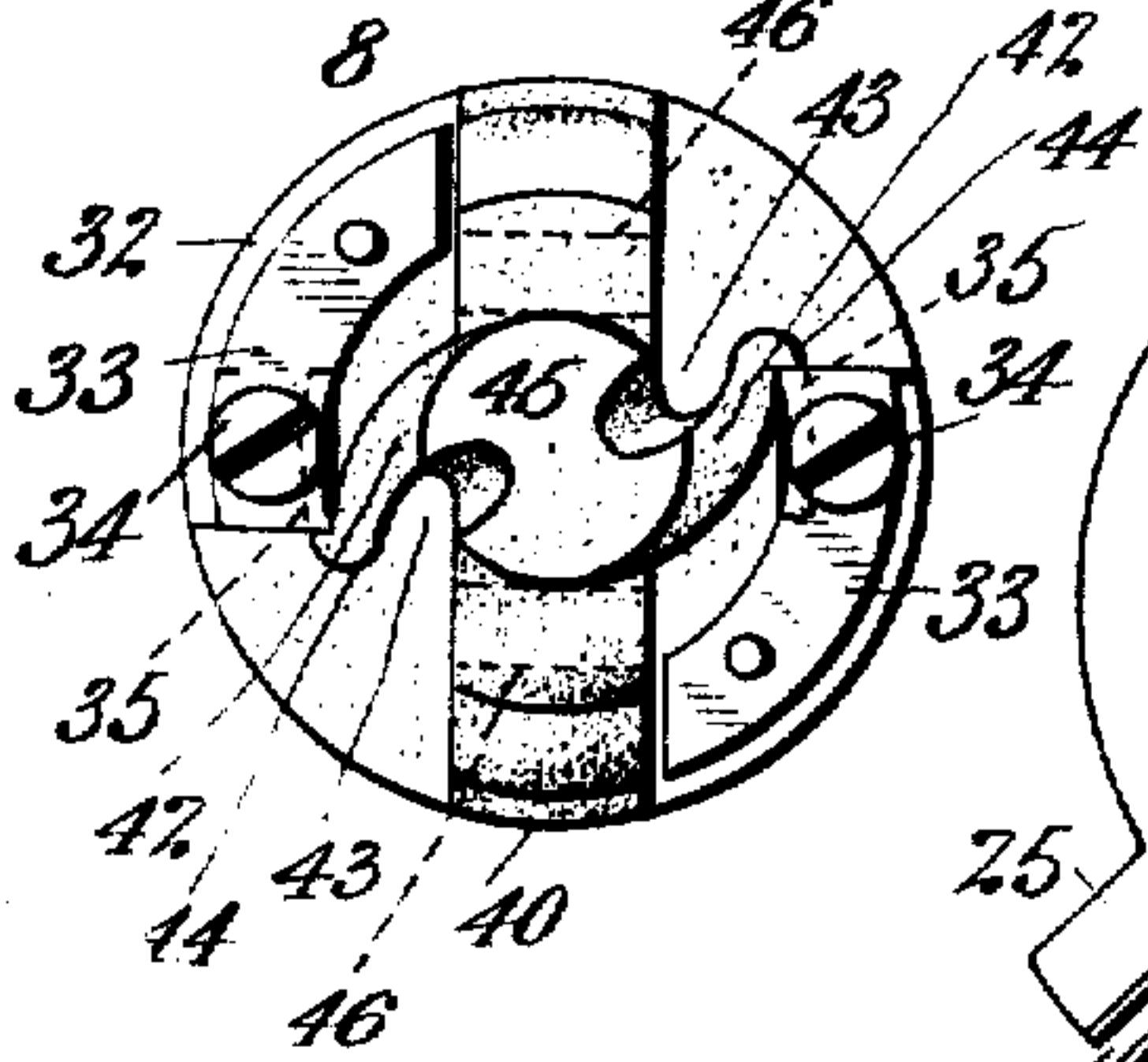
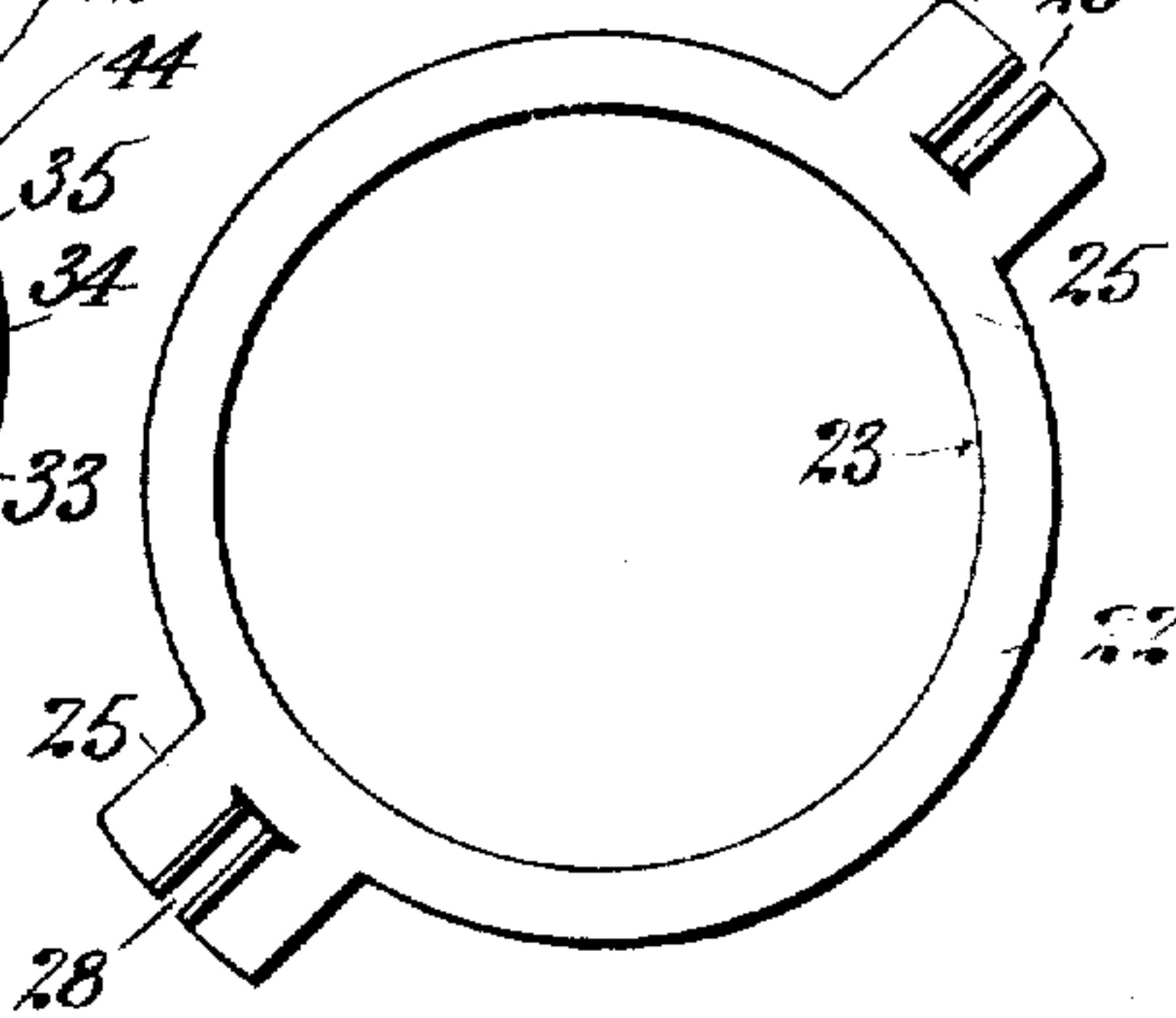


Fig. 6.



UNITED STATES PATENT OFFICE.

JAMES S. STEWART, OF NEW YORK, N. Y., ASSIGNOR TO ANNIE STEWART, OF NEW YORK, N. Y.

ROSETTE.

No. 908,106.

Specification of Letters Patent.

Patented Dec. 29, 1908.

Application filed December 23, 1907. Serial No. 407,642.

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 county of New York and State of New York, have invented certain new and useful Improvements in Rosettes, of which the following is a full, clear, and exact description.

My invention relates to appliances for electric wiring and more especially to rosettes for conduit wiring where the circuit wires are run in inclosing pipes or conduits terminating at outlet boxes at any desired point.

The present invention covers more particularly a form of my generic invention embodied in my application Serial No. 401,932, which also includes a receptacle in its specific aspects.

The present invention is to be distinguished from my companion application Serial No. 407,641 filed herewith, in which a rosette more particularly applicable to cleat wiring is set forth.

In all rosettes and similar appliances, the drop or extension lines have considerable strains applied thereto in use, and their connections with the rosettes must be of such a strong and substantial character as to withstand all such strains. A common practice for obtaining this result consists in forming a knot in the extension cord which coöperates with a cavity in the rosette. This necessitates a rather clumsy and awkward structure, and is also unreliable, because the knot is liable to slip. By the present invention, I aim to provide a fastening of great security which does not rely upon a knot in the drop or extension cord. At the same time, I provide a number of other features, particularly a very efficient insulating barrier between parts of opposite potential, particularly the bared or exposed connections. I also form gripping jaws of such a type that each individual strand of the drop or extension cord is grasped in a tortuous path. I further provide for so holding the strands or wires in place that they automatically fall into alignment with the clamping jaws above mentioned. These various features and functions are secured in addition to those forming part of and broadly stated in my companion application above referred to.

In the drawings, Figure 1 is a top or plan view of an outlet box having a rosette embodying my invention, the usual cover being

removed. Fig. 2 is a vertical sectional view of the same. Fig. 3 is a view showing all the parts removed from the box to expose the wiring. Fig. 4 is a top view of the body of the rosette or appliance. Fig. 5 is a side view thereof. Fig. 6 shows the retaining device. Fig. 7 is a view similar to Fig. 1, the cap or casing of the rosette being removed.

Referring to the drawings in which like parts are designated by the same reference sign, 1 indicates the sections of a conduit pipe which are joined to the outlet box 2 by the usual nuts and bushings 3 which need not be described.

4 and 5 designate the inwardly embossed portions of the outlet box which can be knocked out when desired to permit the connection of additional pipes.

6 indicates lugs formed by inwardly bent portions of the outlet box, which have threaded holes for fastening screws of the cover. All these features are of the standard and well known construction, and constitute no part of my invention.

8 designates the body of a form of rosette embodying the principles of my invention. This body is organized with a cap or casing 48 later described and having a ledge or shoulder 9 directed toward the open end of the outlet box.

A feature of the body 8 which I regard as peculiarly characteristic is the provision of a comparatively slender elongated portion 11 generally coaxial and symmetrical with the body of the receptacle and extending in a direction opposite to the cap or casing 48. In practice, I make this elongated portion 11 of a diameter slightly greater than the inset portions 4 and 5 of the outlet box, and recess the flat end faces slightly at 12, so as to just fit nicely over the inwardly embossed part 5 in the bottom plate. The length of the elongated portion is just sufficient to bring the shoulder 9 near or on a level with the lug 6 of the outlet box.

22 indicates the retaining device referred to, and which serves a very important purpose in the combination. This part extends across the open side of the outlet box, and secures the receptacle in place therein. In practice, I form the retaining device from sheet metal with a central opening 23 of such a size as to receive the body 8 with the edges of the holding plate resting snugly against the shoulder 9. At diametrically opposite

points on this retaining device or holding plate, corresponding to the location of the lugs 6 of the outlet box, there are integral ears 25 having their terminal ends separated by a distance corresponding to the internal diameter of the outlet box. These ears are designed to be passed beneath the lugs 6, in which relation they bear the holding plate downward against the shoulder 9 of the rosette which is snugly anchored or locked in position by this simple engagement on account of the projection 11 which abuts against the bottom plate of the outlet box. The resiliency of the holding plate is sufficient to hold the parts in place without any additional fastening devices, but I do not rely on this engagement to absolutely lock the rosette in place. The ends of the ears 25 have elongated slots or holes 28 which are directly beneath the holes of the lug 6. When the cover 30 of the outlet box is secured into place, the usual screws pass downwardly through the lugs and through the elongated holes 28 forming an engagement therewith so secure as to prevent any independent movement of the holding plate with its rosette. In practice, the slots 28 are formed by merely shearing the ears 25 and bending down the edges formed into a V-shape. In this way, the width of the hole or slot adjusts itself somewhat to the size of the screw used and binds tightly on the threads thereof at the engaging edges.

The body or part 8 of the rosette has a flat upper face 32 to which are secured flat plates 33 with screw terminals 34 for the drop or extension cord.

35 designates ears extending inwardly from the plates 33 through suitable openings in the flat face 32. These ears are extended alongside the elongated portion 11 of the block or body being received in depressions or recesses therein. At their inner ends, these ears are deflected at 16, 16', and have terminal screws 17, 17', for the engagement of the circuit wires. The drop or extension cord is engaged with the certain parts of the body 8 and with the plates 33, so as to secure all the functions mentioned in the preliminary part of the specification. For this purpose, I provide a barrier or partition 40 integrally extending from the face 32 between the plates 33. This barrier has laterally offset portions 42 about the middle thereof which produce reentrant angles or grooves 43 at their junction with the body of the barrier 40. In practice, I form the grooves 43 very deeply in the face of the material, so that the ledge or shoulder 44 is left between each of said grooves and the adjacent terminal clip 33. At their junction with the upper face 45 of the barrier or partition 40, the grooves 43 are rounded over so that a sharp corner will not be left to abrade or injure the conductor. 46 designates holes ex-

tending transversely through the partition 40 and terminating in close proximity to the grooves 43.

The cap or casing 48 of the rosette is particularly shown in Fig. 2, and fits over the body part 8 of the rosette, so as to wholly cover the various terminal parts and connections, together with the partition or barrier 40. In practice, I make the cap or casing 48 of circular outline corresponding to the form of the body 8, and having a rim 49 closely embracing said body around its outer circumference. The interior cavity of the cap or casing 48 may be of any form desired, but I prefer to make this form a true surface of revolution, so that the cap will fit upon the rosette body in any angular relation in a plane normal to the axis of said surface of revolution when the cap is positioned on the barrier 40. In order to secure this result, the barrier or partition 40 should be rounded off and cut away corresponding to the transverse sections of the cavity in the cap or casing. A desirable outline for this purpose is that shown in Fig. 5, it being understood that the various surfaces indicated by the reference character 40^x are molded or formed concentric with the axis of the rosette body.

An important characteristic of the cap 48 consists in the provision of a surface 50 extending in a direction generally parallel to the length of the grooves of passages 43, but spaced apart therefrom a distance sufficient to receive a strand or conductor of the extension cord. 51 designates another surface at an angle to the surface 50 and which extends over the top surface 45 of the barrier or partition 40. In accordance with the principles above mentioned, both the surfaces 50 and 51 may be made concentric or co-axial with the axis of the cap. Each of these surfaces constitutes a clamping jaw or jaws to cooperate with the grooves 43 and the surface 45 of the barrier 40, and closely engage or bind the drop or extension cord conductors in position. It will be observed that such action takes place on two lines at an angle to one another, so that each conductor or strand is bound at two points or areas and in a tortuous path. The surface 50 need not be long enough to cooperate with the length of the entire groove or passage 43, and in practice, I terminate this surface 50 in a radial plane 52 corresponding to the upper surfaces of the offsets 42 previously mentioned. This construction is necessary if the cavity of the cap is to be made a surface of revolution.

In use, the rosette is assembled within the outlet box 2 and connected to the circuit wires thereof in a manner which has been fully described in my companion application above referred to, and which, therefore, need not be repeated in this case. The drop or

extension cord conductors are bared for a short distance, and pass through the holes 46, being finally connected to the terminal screws 34. It will be observed that in case

an unnecessarily large amount of wire is bared that the vitreous walls of the holes 46 constitute an effective insulating medium for the conductors. Both conductors emerge from the holes 46 in close proximity to the grooves 43 in which they extend upward, being finally folded over on to the face 45 of the barrier or partition 40. In this relation, they are adapted to be engaged by the walls or surfaces 50 and 51 of the cap which form clamping or gripping jaws to engage them in two zones or areas and in a tortuous path, as already described. By virtue of this engagement, and also the tortuous path in which the conductors are passed through the holes 46, the drop or extension cord is held with very great security sufficient to resist any strains or pulls which may be applied in use. Should the insulation be abraded from the strands or conductors in this connection, no likelihood of a ground or short-circuit is caused, because of the corner or shoulder 44 which effectually separates each strand from the clip 33 of opposite polarity.

What I claim, is:—

1. In combination with an outlet box having an open side, a member having terminals, and comprising two parts of insulating material and formed to provide cooperating gripping jaws for engaging the conductors of a circuit, and a retaining device separate from the cover of the box for positively holding said member in place within said box.

2. In combination with an outlet box having an open side, a member having terminals, and comprising two parts of insulating material and formed to provide cooperating gripping jaws for engaging the conductors of a circuit in a tortuous path, and a retaining device directly engaging one of the parts of said member for positively holding said member in place within the box.

3. In combination with an outlet box having an open side, a body having an integral barrier or partition on its upper side, terminal clips fastened to said body at either side of said partition, a cap fitting over said partition and cooperating therewith to engage and bind circuit conductors in a tortuous path, and a retaining device engaging said cap to hold said body in place in the box.

4. In combination with an outlet box having an open side, a body of insulating material having terminal clips thereon, a cap of insulating material fitting over said body and formed to cooperate with the body to grip circuit conductors in a tortuous path, and a retaining device engaging said cap and extending across the open side of said outlet box.

5. An electrical appliance comprising an insulating body having terminals on its exposed face and having an integral barrier or partition between said terminals, a cap of insulating material having its interior surface a surface of revolution and cooperating with said barrier to engage circuit conductors, whereby said circuit conductors are engaged at whatever angular position said cap may occupy.

6. An electrical appliance comprising an insulating body having terminal clips on its exposed face and having an integral partition or barrier between said clips, said partition or barrier having transverse holes through which circuit conductors may extend into connection with said terminal clips, and also having ledges or shoulders between each conductor and the clip of opposite polarity, and a cap fitting over said partition or barrier and cooperating therewith to engage and bind the circuit conductors in place.

7. An electrical appliance comprising an insulating body having terminal clips on its exposed face and having an integral partition or barrier between said clips, said partition or barrier having transverse holes through which circuit conductors may extend into connection with said terminal clips, and also having ledges or shoulders between each conductor and the clip of opposite polarity, and a cap having its interior surface a surface of revolution and adapted to fit over said partition or barrier to bind the circuit conductors in place at whatever angular position said caps may occupy.

8. An electrical appliance comprising a body of insulating material and having a generally circular outline at all points, said body having a partition or barrier on its exposed face, terminal clips on said face on opposite sides of said barrier, a cap having an interior surface of revolution which is adapted to fit on said body, and cooperating with said barrier to bind circuit conductors into engagement therewith, said barrier having a longitudinal outline corresponding to the longitudinal section of said surface of the cap, as and for the purpose set forth.

9. An electrical appliance comprising a body having terminal clips on its exposed face and having an integral partition or barrier with transversely extending shoulders 44, said partition or barrier extending upward at its middle portion beyond said shoulders, and a cap having an interior cavity of a form generally corresponding to said upwardly extending middle portion of said barrier and adapted to cooperate therewith to engage circuit conductors in a tortuous path.

10. An electrical appliance comprising an insulating body having terminal clips on its exposed face and having an integral barrier between said terminal clips, said barrier having transverse holes through which circuit

conductors may be passed to connect with said terminal clips, and a cap interiorly formed to engage and bind said conductors in proximity to said holes.

- 5 11. An electrical appliance comprising an insulating body having terminal clips on its exposed face and having an integral barrier between said terminal clips, said barrier hav-
10 ing transverse holes through which circuit conductors may be passed to connect with said terminal clips, and a cap having an interior surface of revolution to engage and bind said conductors on said barrier in proximity to said holes as and for the purpose set forth.
- 15 12. An electrical appliance comprising a body having terminal clips on its exposed

face and having a partition or barrier between said terminal clips and extending upward at its middle portion into the form of a cylindrical stud or protuberance, said protu- 20
berance having grooves 43 on opposite sides, and a cap interiorly formed with side walls to bind circuit conductors in said grooves and an inner surface to bind the conductor on the top surface of said stud or protuber- 25
ance, as and for the purpose set forth.

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

JAMES S. STEWART.

Witnesses:

WALDO M. CHAPIN,
JAMES D'ANTONIO.