

G. B. McBEAN.
 OUTLET BOX COVER.
 APPLICATION FILED FEB. 23, 1907.

903,221.

Patented Nov. 10, 1908.

2 SHEETS—SHEET 1.

Fig. 2.

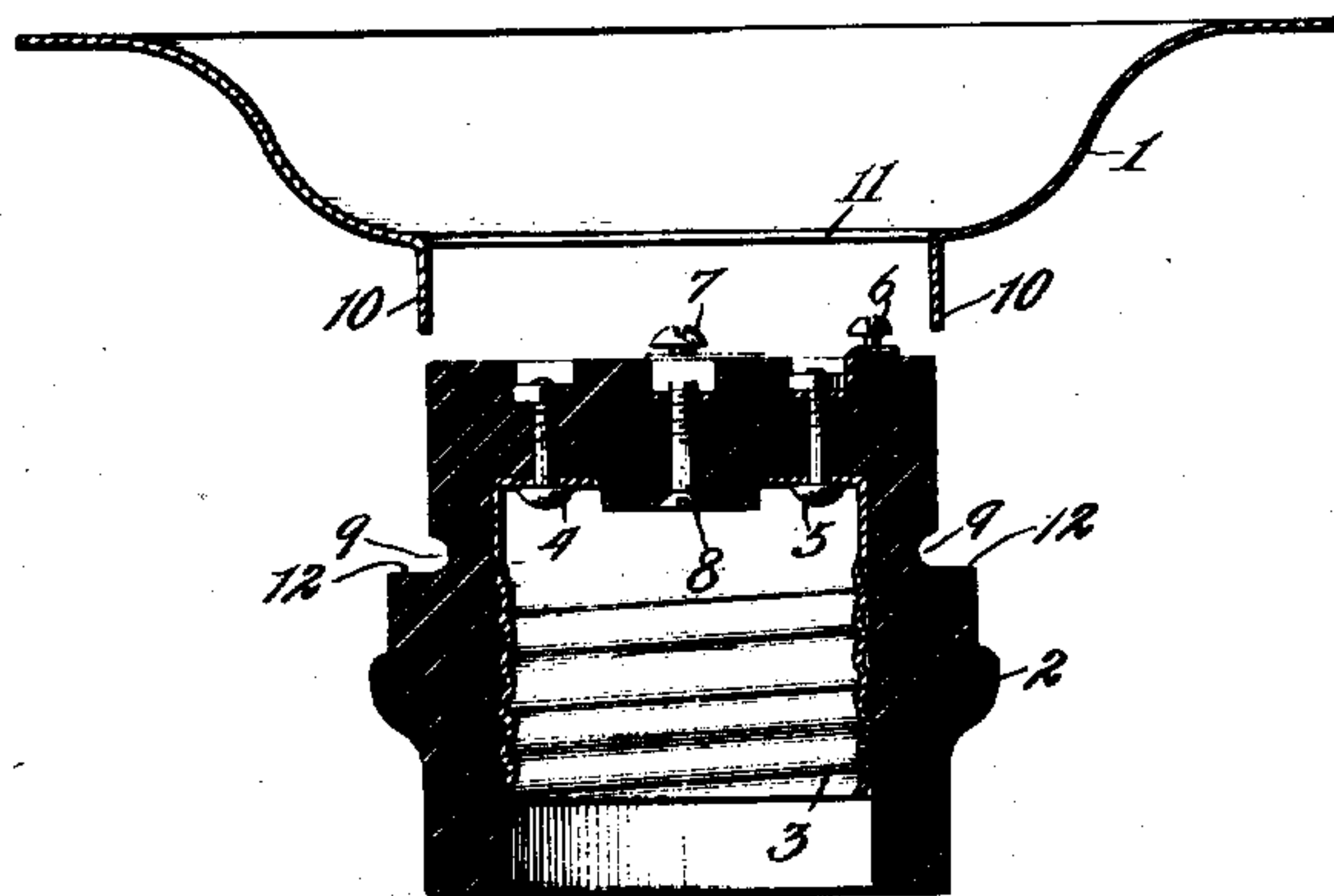


Fig. 1.

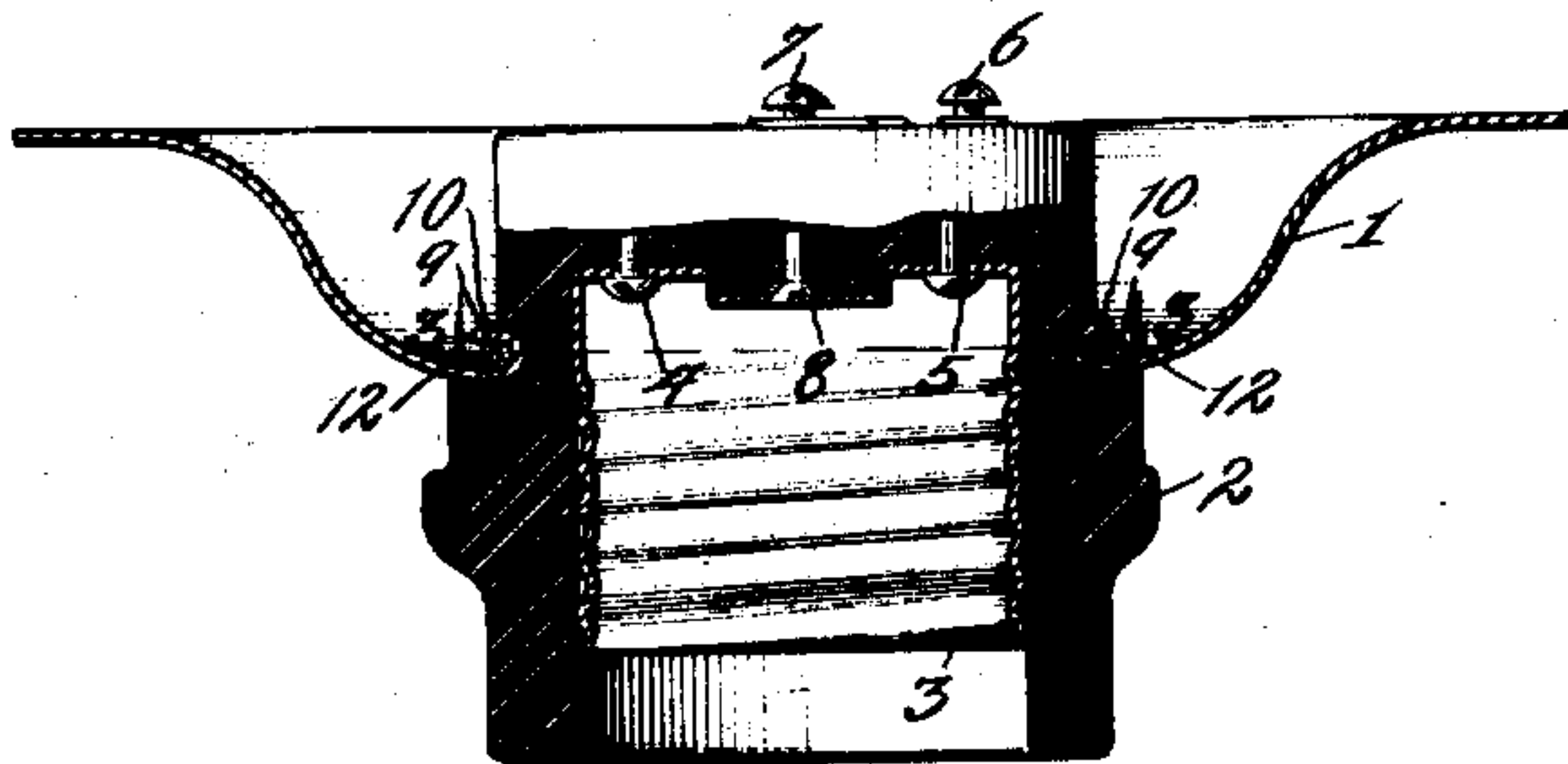


Fig. 3.

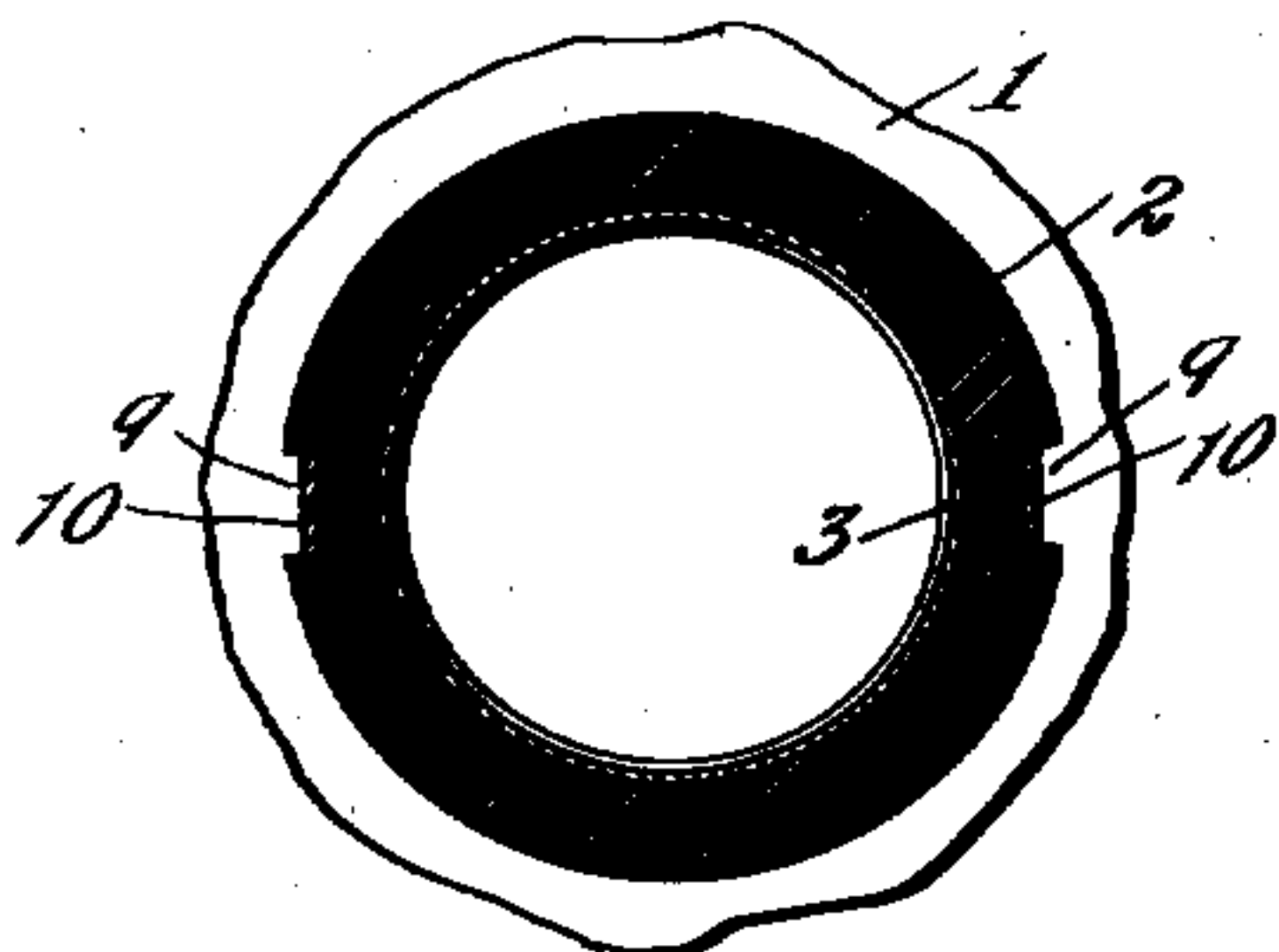


Fig. 4.

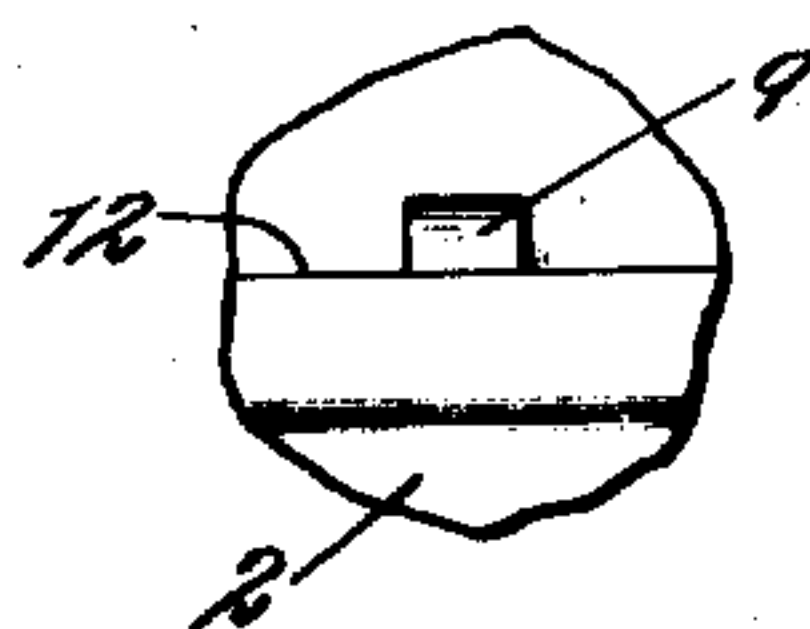


Fig. 5.



Witnesses:

Geo D. Perry
John H. Nelson Jr.

Inventor:

Geo B. McBean
By Perry & Nelson
Attys.

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2 SHEETS—SHEET 2.

Fig. 7.

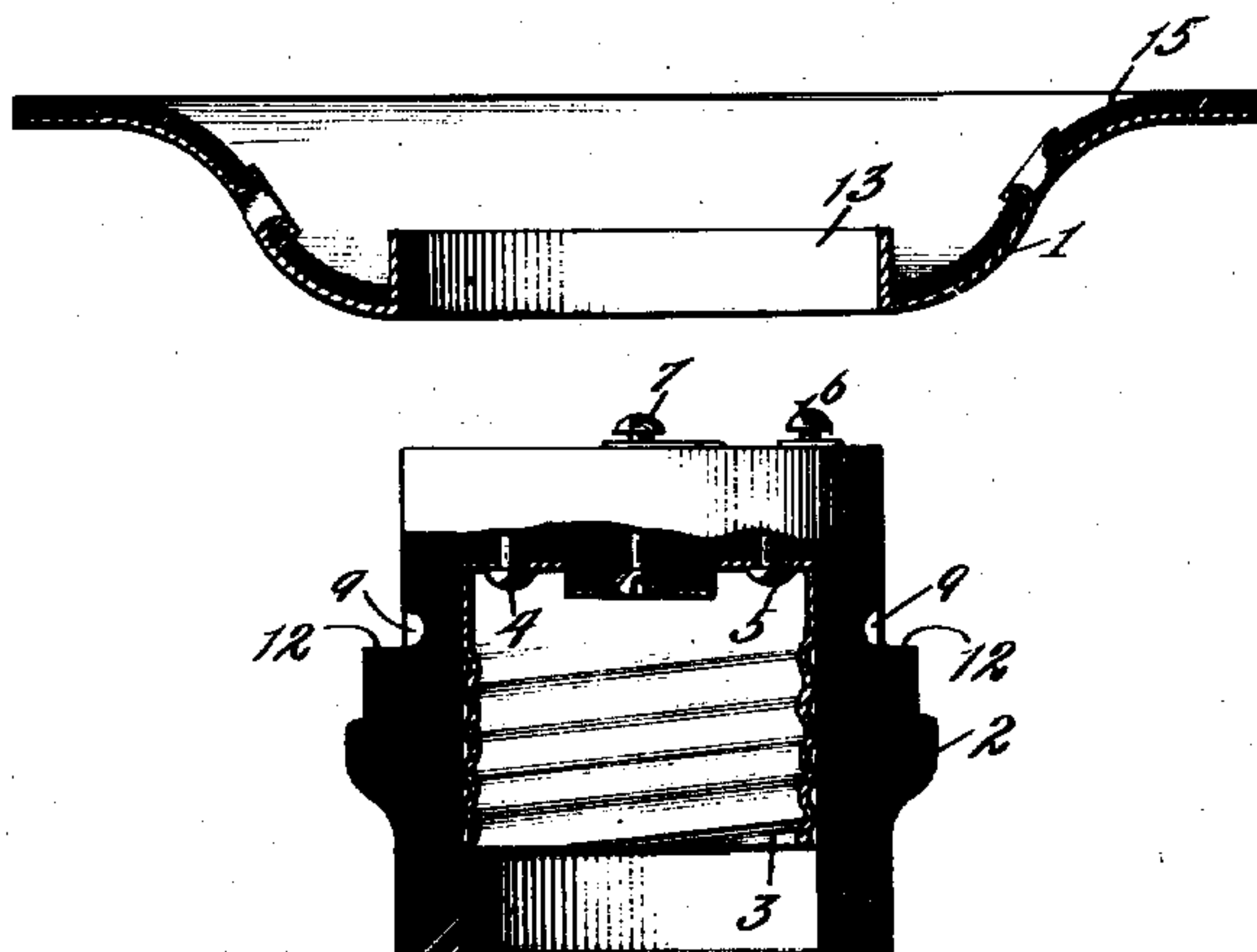


Fig. 6.

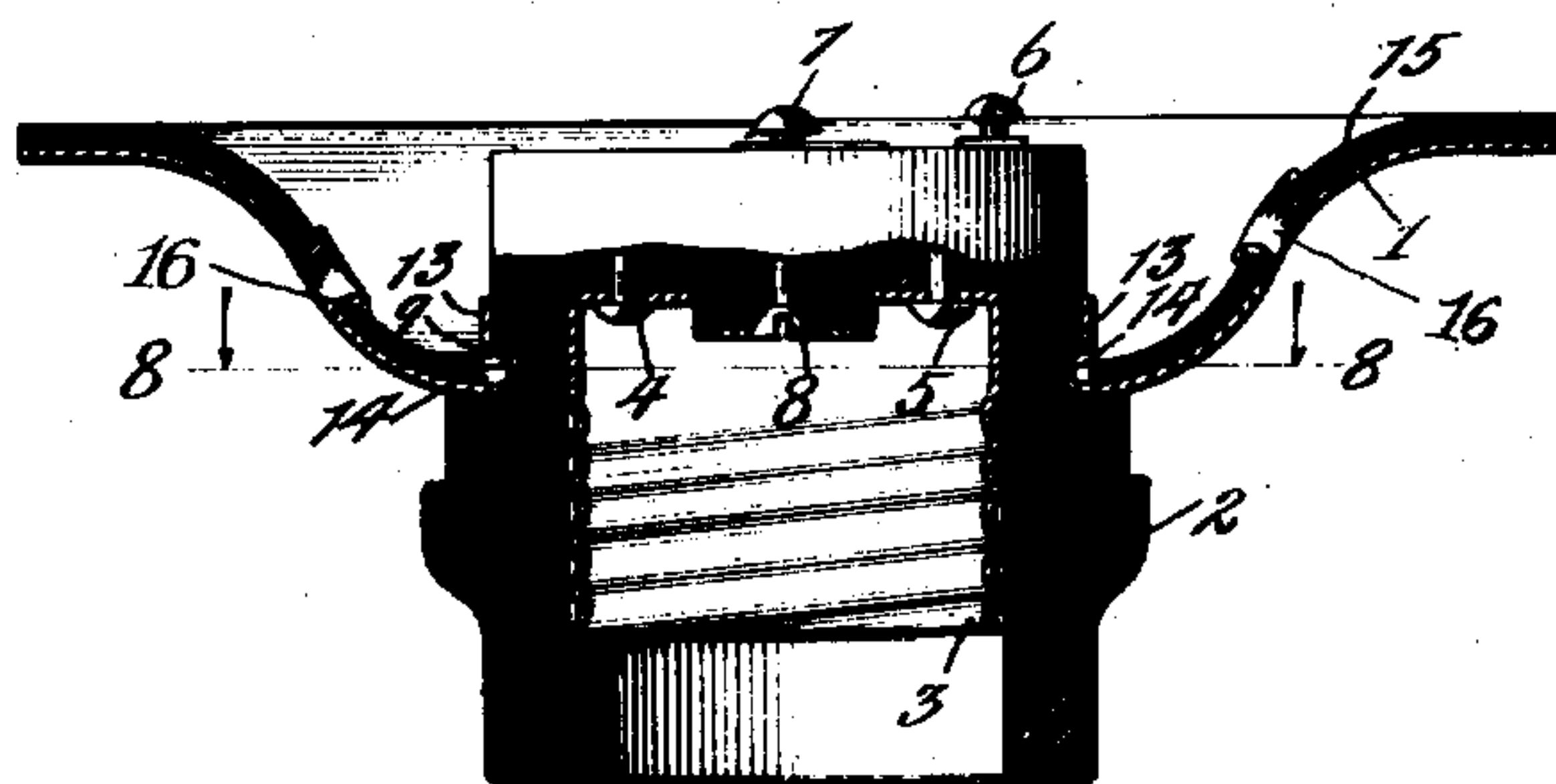


Fig. 8.

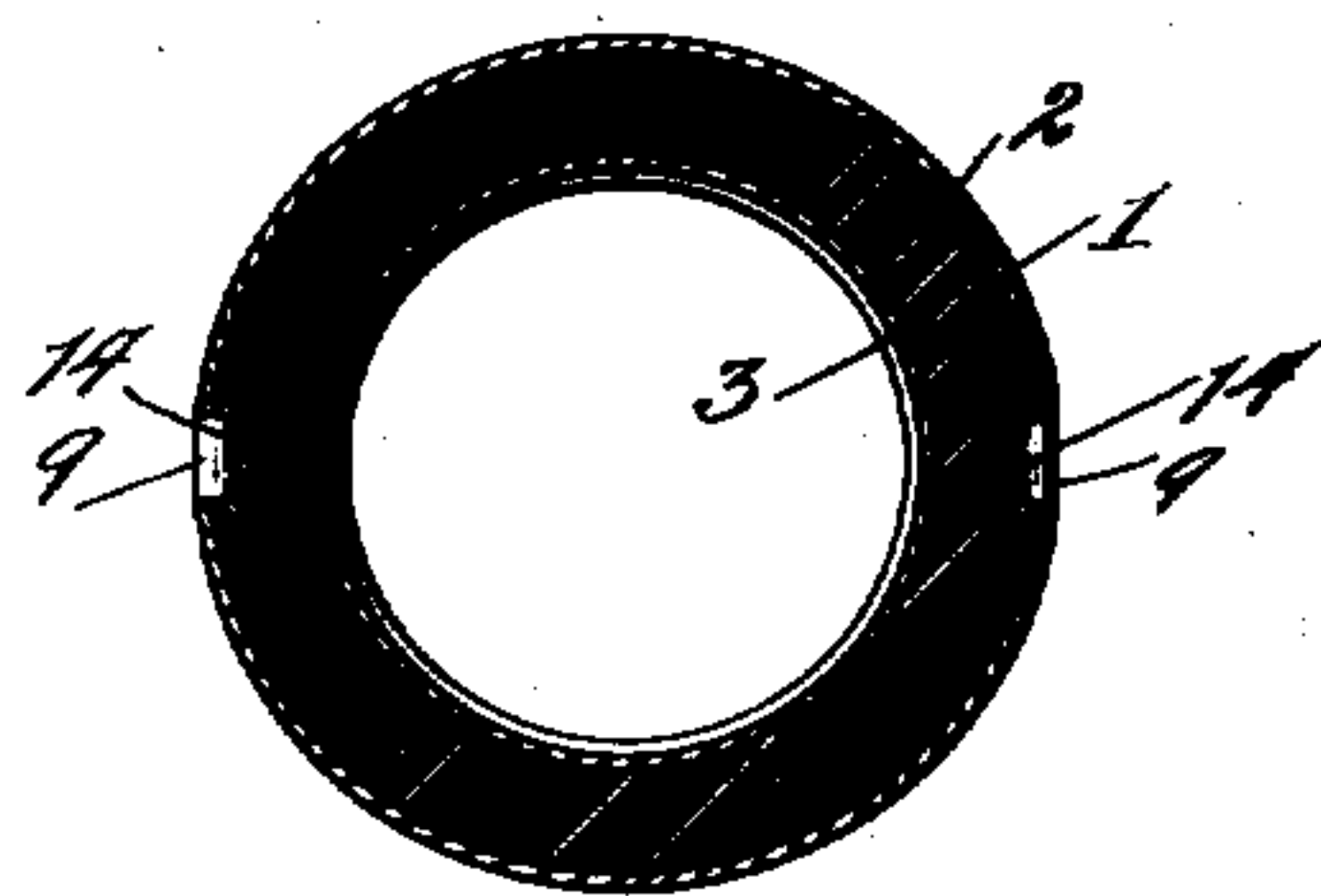
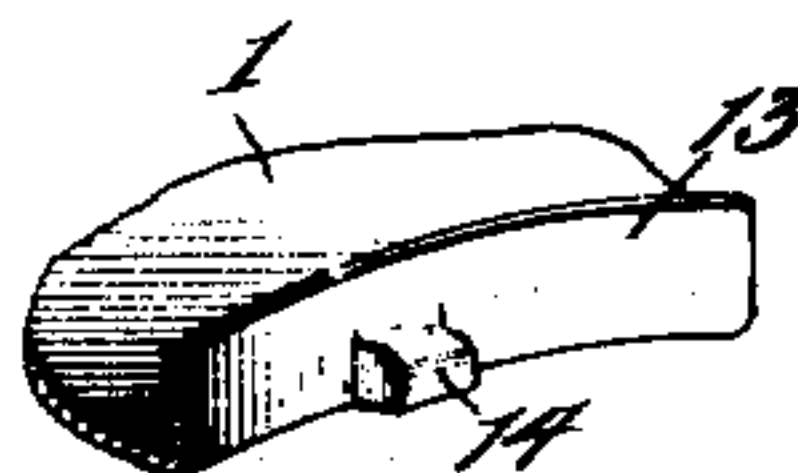


Fig. 9.



Witnesses:

Wm. D. Perry
J. Mott Nelson

Inventor:

G. B. McBean
By Henry W. [Signature]
Att'y.

UNITED STATES PATENT OFFICE.

GEORGE B. McBEAN, OF CHICAGO, ILLINOIS, ASSIGNOR TO MECHANICAL & ELECTRICAL MANUFACTURING COMPANY, OF CHICAGO, ILLINOIS, A CORPORATION OF ILLINOIS.

OUTLET-BOX COVER.

No. 903,221.

Specification of Letters Patent.

Patented Nov. 10, 1908.

Application filed February 23, 1907. Serial No. 358,990.

To all whom it may concern:

Be it known that I, GEORGE B. McBEAN, a citizen of the United States, and a resident of Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Outlet-Box Covers, of which the following is a specification.

This invention relates to improvements in outlet box covers for electric light installations, and particularly to that class of such devices in which a metal cover is directly combined with a porcelain or similar non-conducting socket for receiving the screw threaded base of an incandescent lamp, or the equivalent plug of any electric connector.

The object of the invention is to provide an improved form of fastening between the metal portion of the cover and the porcelain socket for the lamp, which shall be simple of construction, easy of application and effective and permanent in its holding power—and to provide means whereby all danger of short circuiting between the metallic portion of the cover and the terminal wires and connections within the outlet box is done away with. And to this end the invention consists in the matters hereinafter set forth and particularly pointed out in the appended claims, which will be fully understood when considered in connection with the accompanying drawings, in which,—

Figure 1 is a transverse sectional detail of an outlet box cover constructed in accordance with my invention in one form. Fig. 2 is a similar view showing the two portions of the cover in the act of being applied to each other. Fig. 3 is a sectional detail taken on the line 3—3 of Fig. 1. Fig. 4 is a fragmentary detail in side elevation, showing one of the recesses in the side of the porcelain socket, with which the fastening ears on the metallic portion of the cover interlock. Fig. 5 is a perspective detail showing the shape of one of the fastening ears prior to its engagement with the porcelain socket. Fig. 6 is a transverse sectional detail of an outlet box cover constructed in accordance with my invention but slightly modified from the form shown in Fig. 1. Fig. 7 is a similar view showing the two portions of this cover in the act of being applied to each other. Fig. 8 is a sectional detail taken on line 8—8 of Fig. 6. Fig. 9 is a perspective detail showing the intumed flange around the neck of the metallic cover and also showing the

manner in which the lug is struck from this flange to interlock with the recess in the porcelain socket.

In said drawings, Figs. 1–5, 1 designates the metallic or flanged portion of my improved cover, which is adapted to close the open side of any ordinary wall or outlet box of the character commonly used in the wiring of houses and other buildings for electric lighting. 2 is a porcelain socket which fits through an opening in the center of the metallic flange 1, after the manner presently to be described. The socket 2 is lined with the usual metallic sleeve 3 which is threaded to receive the screw threaded base of an incandescent light bulb, or the similar plug of any other electric connector. This sleeve is here shown as secured in place by two clamping screws 4 and 5, of which the latter forms connection with one of the binding post terminals 6 for the circuit connections of the socket. The other binding post 7 is shown as connected with the usual center screw 8, the head of which is designed to make contact with the end of the lamp or electric plug, in the usual manner. These details of construction, however, will be understood to be purely illustrative, as their details have no particular bearing on the present invention.

My improved mode of fastening the metallic flanged portion 1 of the cover to the socket 2 involves the provision in opposite sides of the socket of recesses 9, and the provision at corresponding points in the neck of the metallic flange 1, of fastening ears 10 that are adapted to interlock with the recesses 9 when the flange and socket are brought together. In stamping out the metallic flange 1, the ears 10 are left projecting downwardly in a direction substantially parallel to the axis of the flange, at the opposite edges of the central opening 11 in the flange through which the inner end of the socket 2 is adapted to fit. Then when the socket is thrust into the aperture in the flange and the parts are forced together, the ends of the ears strike the usual shoulder 12 on the socket and are deflected thereby, so that they bind inwardly and follow the curves of the recesses 9 until completely reversed in position and doubled back, as shown in Fig. 1, the body portion of each ear then occupying the corresponding recess 9, while the face of the flange 1 around

the central opening fits closely against the annular shoulder 12 on the socket. In this manner the parts are caused to firmly and permanently interlock so that no strain or blow to which the cover will ordinarily be subjected, will in any manner affect the permanency of the connection.

The above description relates more particularly to the construction shown in Figs. 1-5. In the slightly modified construction shown in Figs. 7-9, the general shapes of the flange 1 and socket 2 are the same, and the socket is provided, as before, with the opposite recesses 9, but instead of having ears 10, the flange 1 is provided with an intumed annular collar portion 13 adapted to closely surround the neck of the socket just above the shoulder 12, and then, after the parts are brought together, the metal of the collar portion 12 is swaged into the recesses 9, thereby forming lugs 14 which, by their engagement with these recesses, hold the parts firmly interlocked.

In order to prevent short circuiting from occurring between the terminals on the inner end of the socket or the circuit wires attached thereto in the outlet box, on the one hand, and the metallic flanged portion 1 of the outlet box cover, on the other, the latter is shown in Figs. 6-9 as provided with a lining 15 formed of non-conducting fiber or other suitable non-conducting material, which is bent to conform closely to the inner surface of the flange 1 of the cover. This lining is herein shown as fastened to the cover by eyelets 16 punched out of the metal of the flange 1 itself and left integral therewith, thus forming, in effect, rivets which hold the lining in place.

I claim as my invention:—

1. An outlet box cover comprising a non-conducting socket having an annular external shoulder facing toward its inner end and recesses extending radially inward and lying inside of said shoulder, and an annular me-

tallic cover portion embracing said socket and bearing against the shoulder thereof and provided with integral projections extending into said recesses and abutting against the walls thereof whereby the cover is held rigidly and permanently against said shoulder and against rotative movement on the socket.

2. An outlet box cover comprising a non-conducting socket, an annular metallic cover portion embracing said socket, means for securing the metallic cover portion upon the socket, and a non-conducting lining for the inner face of the metallic cover portion, said lining being secured to the metal by integral eyelets formed from the body of the metal, substantially as described.

3. An outlet box cover comprising a non-conducting socket having lateral recesses and an annular shoulder in proximity to said recesses, and an annular metallic cover portion embracing said socket and impinging on the annular shoulder thereof, said cover portion having ears which are forced in to permanently interlock with the recesses, substantially as described.

4. In combination with a non-conducting annular socket of the type set forth having recesses in its outer wall extending radially inward, of a metal cover having a central hole for the passage of said socket, integral portions of this cover being extended radially inward into said recesses and being shaped to closely abut against the walls thereof, whereby the cover and socket are permanently locked against any movement on each other.

In testimony, that I claim the foregoing as my invention, I affix my signature in presence of two subscribing witnesses, this 15th day of February, A. D. 1907.

GEORGE B. McBEAN.

Witnesses:

K. A. COSTELLO,
M. V. McGRATH.