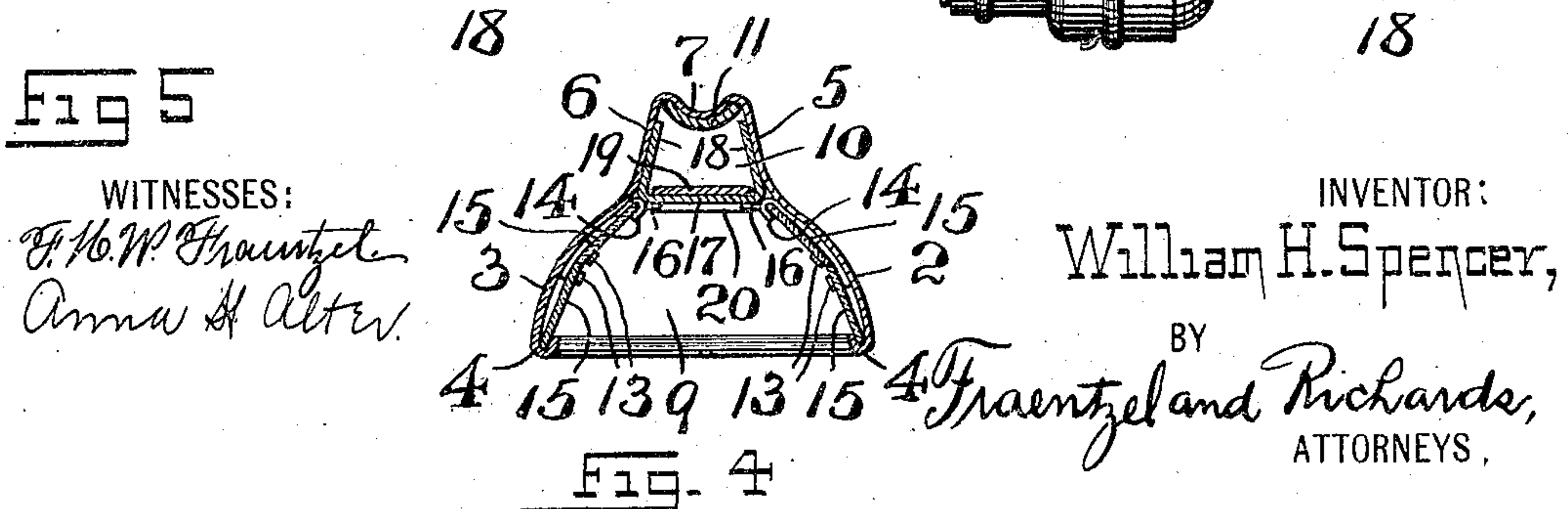
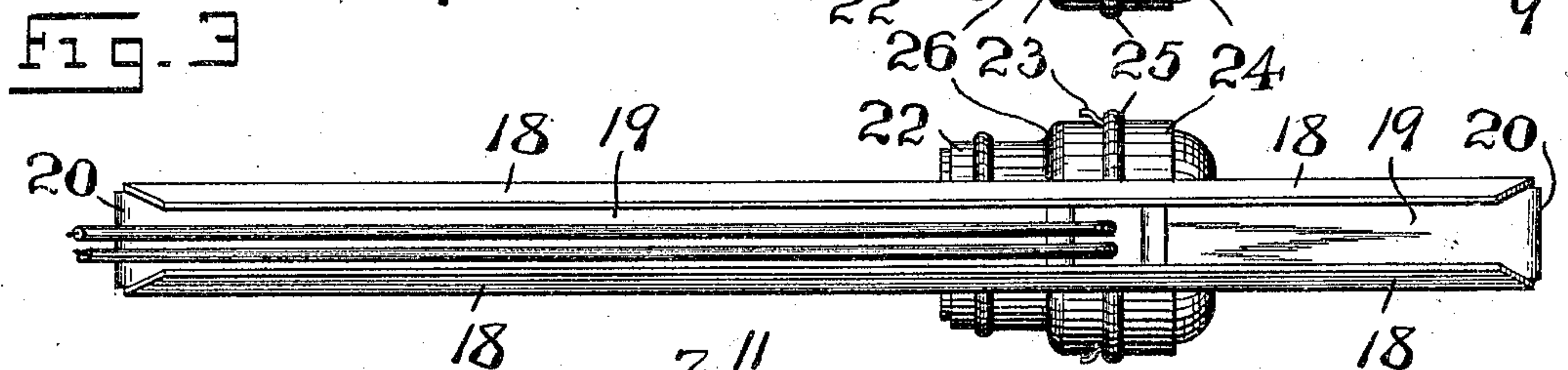
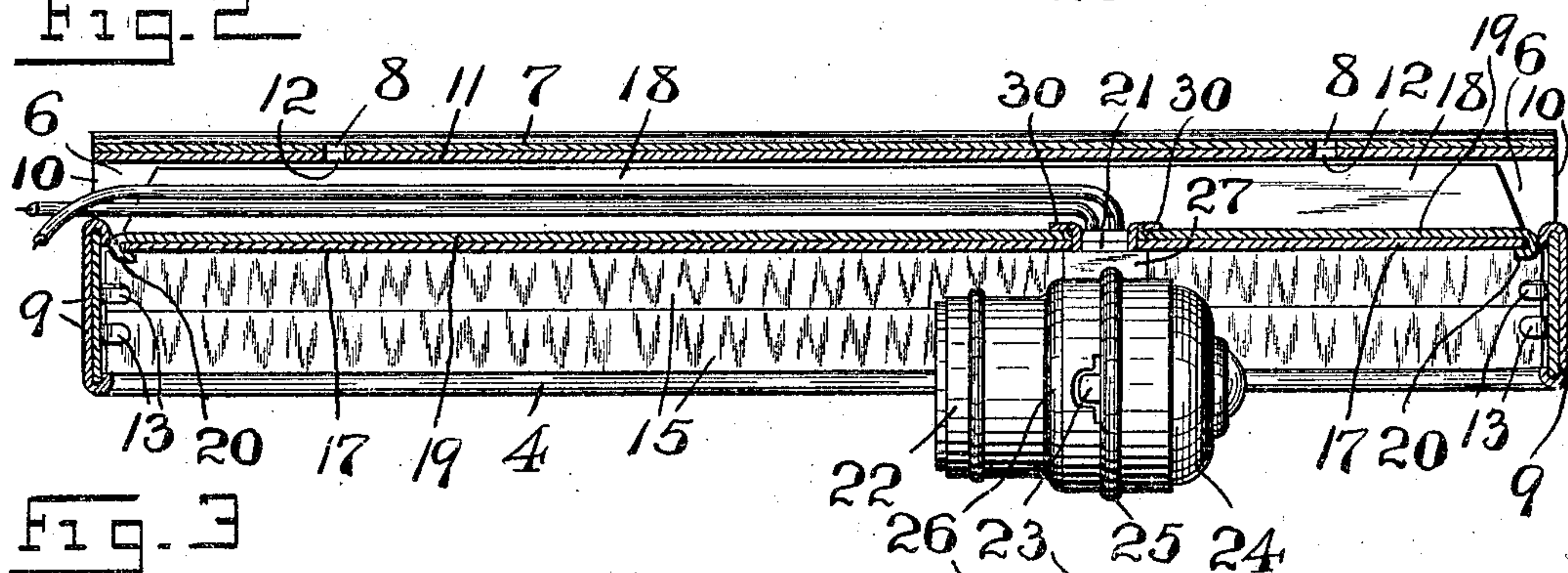
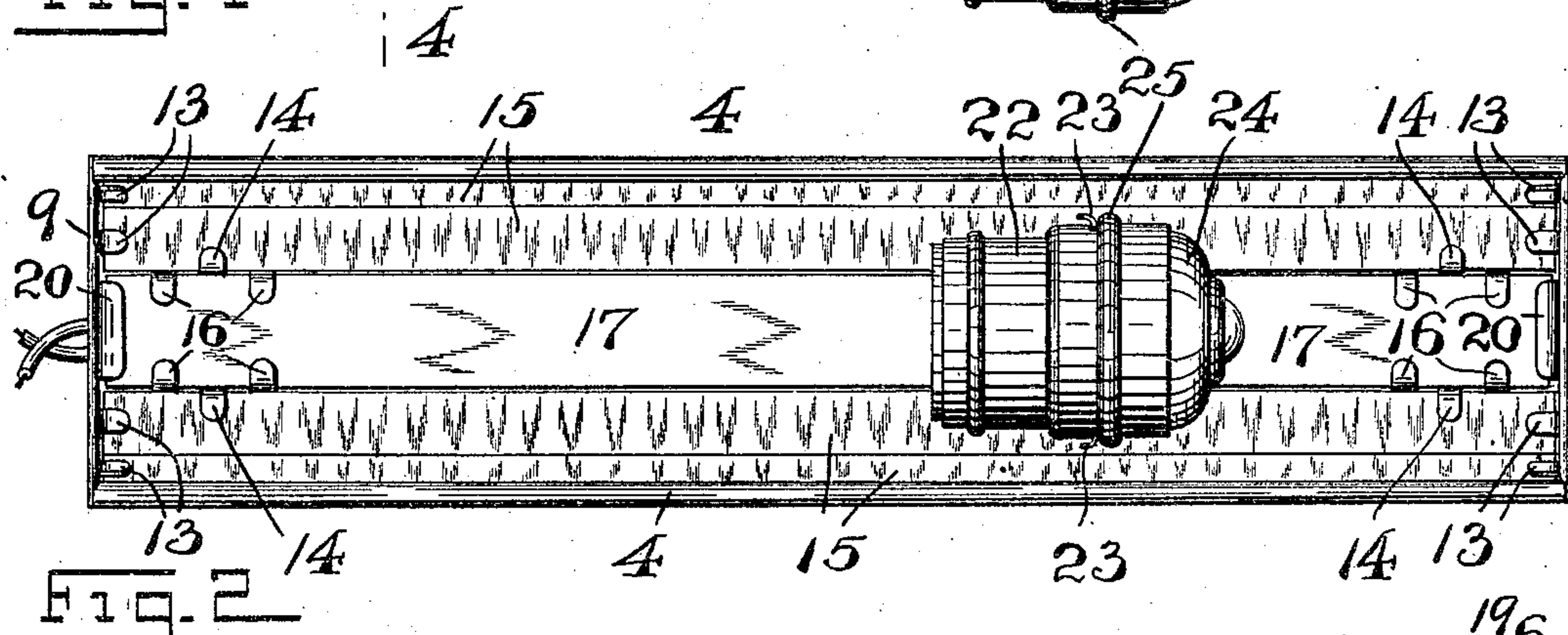
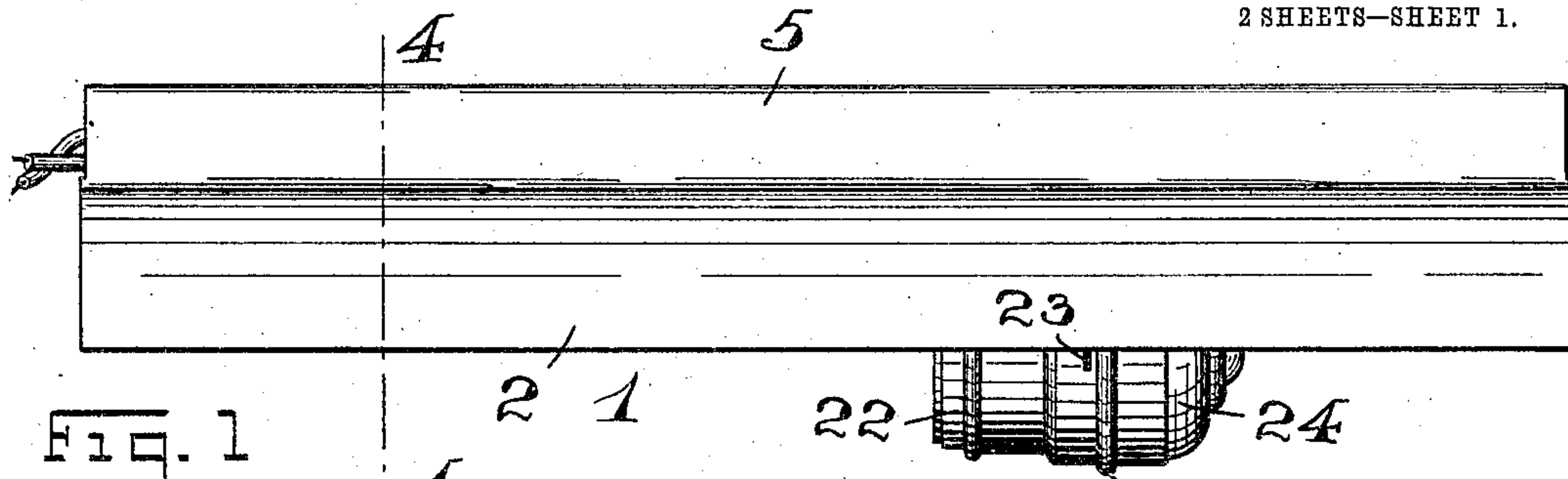


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REFLECTOR AND LAMP RECEIVING SOCKET THEREFOR.
APPLICATION FILED MAY 19, 1908.

929,336.

Patented July 27, 1909.

2 SHEETS—SHEET 1.



WITNESSES:
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INVENTOR:
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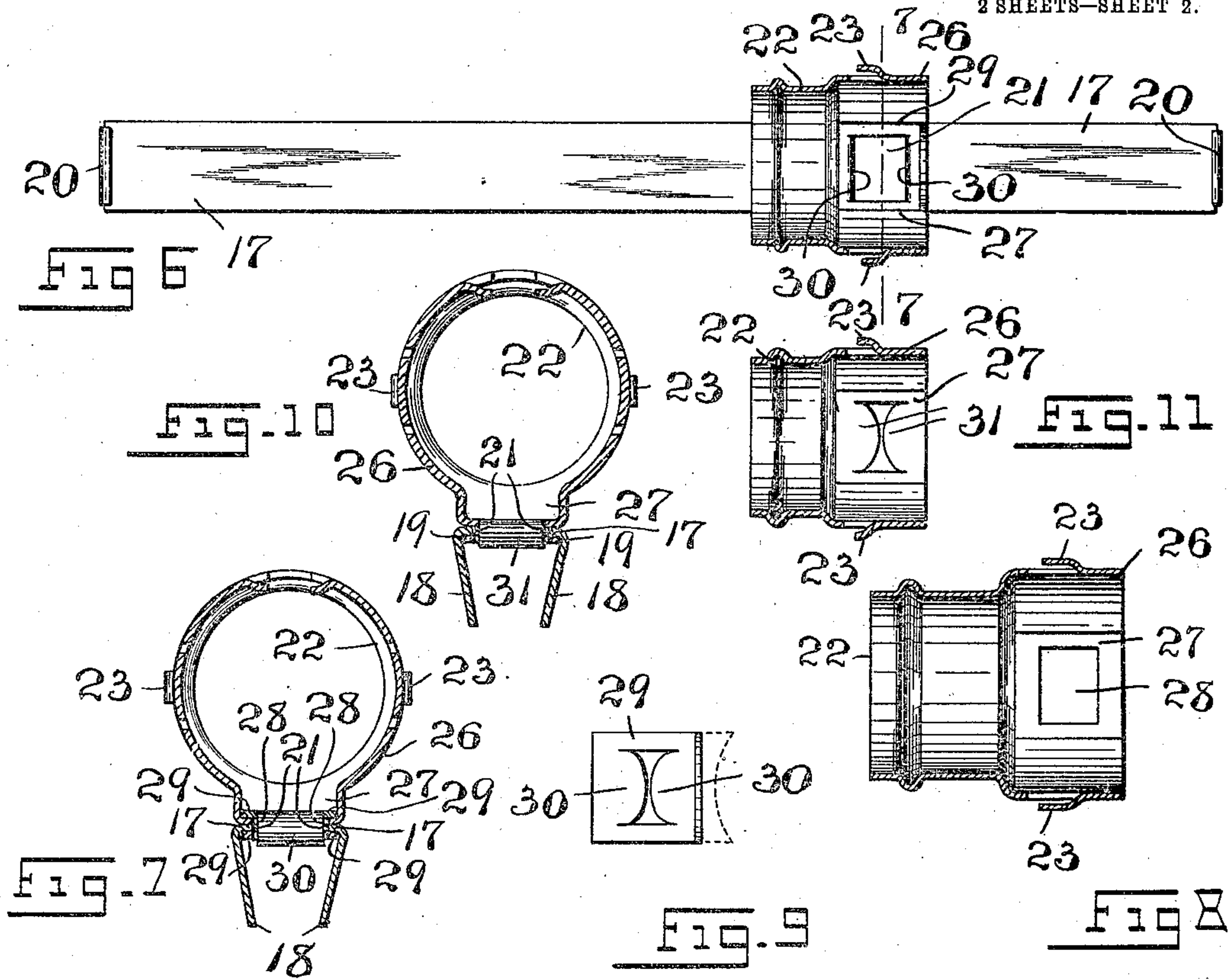
BY
Fraentzel and Richards,
ATTORNEYS.

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WITNESSES:
F. M. W. Fraentzel
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UNITED STATES PATENT OFFICE.

WILLIAM H. SPENCER, OF BROOKLYN, NEW YORK, ASSIGNOR TO GEORGE FRINK SPENCER,
OF NEWARK, NEW JERSEY.

REFLECTOR AND LAMP-RECEIVING SOCKET THEREFOR.

No. 929,336.

Specification of Letters Patent.

Patented July 27, 1909.

Application filed May 19, 1908. Serial No. 433,783.

To all whom it may concern:

Be it known that I, WILLIAM H. SPENCER, citizen of the United States, residing at Brooklyn, in the county of Kings and State of New York, have invented certain new and useful Improvements in Reflectors and Lamp-Receiving Sockets Therefor; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to characters of reference marked thereon, which form a part of this specification.

My present invention relates, generally, to improvements in reflectors; and, the invention has reference to a reflector which is more particularly adapted for use in show-cases and in the display windows of stores, and also to a novel method of attaching the lamp-receiving socket or sockets to the reflector without the use of solder.

The invention has for its principal object to provide a novel and simply constructed reflector comprising a doubly lined wiring trough, and the invention has for its further object to provide a novel lamp-receiving socket and novel fastening means connected with said socket for easily and quickly securing the socket in place without the use of solder or screws.

Other objects of this invention not at this time more particularly enumerated will be clearly understood from the following detailed description of my present invention.

With the various objects of the present invention in view, the same consists, primarily, in the novel reflector provided with a double-lined wiring-trough.

The invention consists, furthermore, in the various novel arrangements and combinations of parts, as well as in the details of the construction of the same, all of which will be more fully described in the following specification and then finally embodied in the clauses of the claims which are appended to and which form an essential part of this specification.

The invention is clearly illustrated in the accompanying drawings, in which:—

Figure 1 is a side elevation of a show-case reflector embodying the principles of my present invention; Fig. 2 is a bottom view of the reflector showing the inner or reflecting

surface-portions of the reflector; and Fig. 3 is a longitudinal vertical section of the reflector, said section being taken centrally through the wiring-trough, said Figs. 1 and 3 showing the position of the reflector with its opening downward. Fig. 4 is a transverse vertical section, taken on line 4—4 in Fig. 1. Fig. 5 is a bottom view of a double-lined socket-holding or carrying member or element removed from within the wire-carrying trough of the main reflector-body or shell. Fig. 6 is a rear face view of the socket-holding or carrying member or element, with a lamp-receiving socket attached, said socket being shown in horizontal section; and Fig. 7 is a cross-section, taken on line 7—7 in said Fig. 6, said view showing more particularly the novel means for securing the lamp-receiving socket upon said socket-carrying member. Fig. 8 is a horizontal sectional representation of the lamp-receiving socket with the securing or attaching means omitted from said view; and Fig. 9 is a plan view of the securing or attaching means. Fig. 10 is a vertical sectional representation of a lamp-receiving socket of a slightly modified construction, and Fig. 11 is a horizontal sectional representation of the parts, indicated in said Fig. 10.

Similar characters of reference are employed in all of the above described views, to indicate corresponding parts.

Referring now to the said drawings, the reference-character 1 indicates one form of reflector embodying the principles of my present invention, the same comprising a suitable reflector-body or shell, which is made from sheet-metal, said shell consisting of a pair of longitudinally extending body-members or elements 2 and 3, preferably of the curved cross-sectional configuration illustrated more particularly in Fig. 4 of the drawings, although the said elements 2 and 3 may be of any other suitable configuration. Upon their lower marginal edges the said elements 2 and 3 are lapped over so as to provide suitably formed and inwardly projecting marginal beads 4. The said elements 2 and 3 are respectively provided along their upper longitudinally extending portions with the preferably angularly disposed side-members 5 and 6, said members 5 and 6 being connected by a back-portion 7 which may be provided with suitably disposed screw-receiving holes or perforations 8. As shown,

the reflector-body or shell formed by these various parts has its two end-portions partially closed by means of suitably secured end-pieces 9, which extend part way upon the ends of the angularly disposed body-members 2 and 3. The trough-shaped portion of the reflector, formed by the side-members 5 and 6 and the connecting back-portion 7, is provided with suitably shaped end-openings 10 for the insertion of electric light wires into either or both of the ends of the wiring trough of the reflector-body or shell, as will be clearly evident.

As shown in Figs. 3 and 4 of the drawings, the inner surface of the connecting back-portion 7 is provided with a lining 11 made of metal, said lining being suitably secured upon the inner surface of said back-portion 7, so as to provide a reinforced or double thickness of metal, and said lining 11 being provided with screw-receiving holes or perforations 12, corresponding to and registering with the holes or perforations 8 in the back-portion 7, for the reception of suitable screws or pins for securing the reflector against the inner surface of the usual molding of a showcase, or for securing the reflector in any desirable position to any other body.

Suitably disposed clamping ears or tongues 13 and 14 are provided, said ears or tongues being suitably secured upon the inner surfaces of the parts comprising the reflector-body or shell, and said ears or tongues being bent into holding engagement over the edge- portions of suitably formed and longitudinally extending reflector-elements or glasses 15. Removably arranged within the trough formed by the side-members 5 and 6 and the back-portion 7, and held in place against accidental displacement from the trough by clamping or retaining ears or tongues 16, which are also suitably secured upon the inner surfaces of the reflector-body or shell, is a socket-holding or carrying-member, which also serves as a protector or shield, so as to avoid any possibility of coming in contact with the electric light-wires which lead into and are disposed within the wiring trough. The said socket-holding or carrying member consists, essentially, of a flat face-portion or element 17, and the longitudinally and downwardly extending side-pieces or members 18, which are arranged at angles, so as to extend toward each other and form the open portion, shown in said Fig. 4 of the drawings. Suitably arranged upon the inner face of said flat portion or element 17, directly between the said longitudinally extending side-pieces or members 18, is a metal lining or reinforcing plate-like member 19, having its end-portions 20 bent over the end-edges of the portion or element 17, substantially as shown, and for the purposes of securing the said plate-like member 19 in its fixed position. The said socket-holding

or carrying-member is suitably slipped into the trough-shaped portion of the main reflector-body or shell, by arranging the longitudinally extending and angularly disposed side-members 18 between the angularly disposed side-members 5 and 6, substantially as shown in said Fig. 4 of the drawings, the said socket-holding or carrying member being retained in place by the frictional contact between the members 18 and the members 5 and 6, and by the clamping or retaining ears 16 which are bent over upon the flat face-portion of the element 17, substantially as illustrated in Fig. 2 of the drawings. When these various parts have thus been assembled, it will be evident from an inspection of said Fig. 4 of the drawings, that a wiring-trough having walls of a double-thickness on all of its sides will be the result, so that a wiring-trough will be the result which is perfectly proof against fire from poorly insulated electric wires; and, while it will be evident that these various parts may be made of sheet-metal of much heavier gage, so as to avoid the linings or double thicknesses of metal, still, by the arrangement of these linings or double thicknesses of metal as here illustrated and described in the foregoing specification, it enables the manufacturer to construct a neater reflector shell, and in less time, owing to the metal being of a thinner gage, whereby it is more readily and more neatly forced into the desired shapes.

The flat face-portion or element 17 of the socket-holding or carrying member is formed with an opening 21, preferably of a rectangular shape above which is arranged and secured, in the manner to be presently more fully described, a lamp-receiving socket. This lamp-receiving socket comprises a suitably formed sheet-metal shell or body 22, in which is arranged the usual porcelain connection, not here shown, to which the electric wires within the wiring trough lead and are attached thereto, and to which connection an electric light bulb is attached in the usual and well-known manner.

As shown, the shell or body 22 is of a general cylindrical conformation, being open at its opposite ends and being formed in its sides with spring-like retaining fingers or holding lugs 23 with which the marginal bead-like portion 25 of a closing cap 24 can be brought into separable holding engagement, as will be clearly understood. The enlarged portion 26 of the shell or body 22 is made with a raised portion 27, pressed out of said shell and preferably of a rectangular conformation, said portion 27 being made with a rectangular hole or opening 28 conforming to the hole or opening 21 in the face-portion or element 17 of the socket-holding or carrying member. Resting within the rectangularly formed recess of said portion 27 is a correspondingly formed plate 29 out

of which has been forced a pair of clamping or holding tongues or lugs 30, see Fig. 9 of the drawings, said tongues or lugs being bent downwardly at right angles to the said plate, so as to be inserted into and through the registering holes or openings 21 and 28, and then bent over into holding engagement with the inner surface of that portion of the wiring-trough lying between the longitudinally extending side-members 18, whereby the various parts are all connected and secured in rigid and fixed relation to each other. In this manner, I have provided a cheap and simple fastening device for attaching the lamp-receiving socket upon the socket-carrying member or trough-shield of a reflector of the general character herein set forth, which enables me to locate the lamp-receiving socket much closer to the socket-carrying member or shield, thus obtaining many advantages in that the reflector-body may be of a smaller cross-sectional area; and, furthermore, the lamps being arranged much closer to the reflector-elements or glasses, better illuminating conditions will result. If desired, the said plate 29 may be dispensed with, in which case the oppositely located marginal edge-portions which bound the hole or opening in the depressed portion 27 of the shell or body 22 are formed with retaining or holding tongues 31 as shown in Fig. 11 of the drawings, and which are bent downwardly at right angles so as to be inserted into and through the registering holes or openings 21 and 28 and then bent over into holding engagement with the inner surface of the socket-carrying member or shield, substantially as illustrated in Fig. 10 of the drawings.

From the foregoing description of my present invention it will be clearly seen that I have devised a simply and cheaply constructed reflector which is especially adapted for the illumination of show cases, but which may be put to other uses in stores, and art-galleries, or wherever desired; and, furthermore, I have provided a simple and novel method and means for the attaching of lamp-receiving sockets to a body or plate-like member in such a manner, that the socket-shell or body will lie much closer to the surface of the body or plate-like member than is the case with the constructions and arrangements of the parts as now ordinarily used, so that a larger number of lamps can be more closely arranged within a reflector-body or shade, and the lamps can also be placed closer to the reflector-elements or glasses so as to give better illuminating effects.

I am aware that some changes may be made in the various arrangements and combinations of the devices and parts, as well as in the details of the construction of the same, without departing from the scope of the

present invention as described in the foregoing specification and as defined in the claims which are appended to said specification. Hence I do not limit my invention to the exact arrangements and combinations of the devices and parts as described in the foregoing specification, nor do I limit myself to the exact details of the construction of the parts as illustrated in the accompanying drawings.

I claim:—

1. A reflector comprising a main reflector-body provided with a trough-shaped portion forming a receiving member for the reception of electric wires, a socket-carrying member forming a shield arranged over said trough-shaped portion, said reflector-body and its trough-shaped portion and said socket-carrying member being made from sheet metal, and metal linings within said trough-shaped portion and said socket-carrying member, and holding clamps extending from the reflector-body, said clamps being bent into holding engagement with said socket-carrying member, said socket-carrying member being provided with a hole, and a lamp-receiving socket arranged directly over said hole, said socket comprising a cylindrical shell formed with a raised portion, and retaining tongues connected with and extending from said raised portion, said tongues projecting through the hole in said socket-carrying member and being bent over upon the back of said member, substantially as and for the purposes set forth.

2. A reflector comprising a main reflector-body provided with a trough-shaped portion forming a receiving member for the reception of electric wires, a socket-carrying member forming a shield arranged over said trough-shaped portion, said reflector-body and its trough-shaped portion and said socket-carrying member being made from sheet-metal, metal linings within said trough-shaped portion and said socket-carrying member, said socket-carrying member being provided with a hole, a lamp-receiving socket arranged directly over said hole, said socket comprising a cylindrical shell formed with a raised portion and a hole in said raised portion conforming to the hole in said socket-carrying member, and a plate in said raised portion, said plate being provided with retaining tongues, said tongues projecting through the holes in said raised portion of the lamp-receiving socket and in said socket-carrying member and being bent over upon the back of said member, substantially as and for the purposes set forth.

3. A reflector comprising a main reflector-body of a semi-circular cross-section, said body being formed with longitudinally extending and angularly disposed body members and a connecting back-portion, and a metal lining arranged upon said back-portion

tion, said body-members and back-portion forming a trough-shaped portion for the reception of electric wires, a socket-carrying member forming a shield arranged over said trough-shaped portion, said socket-carrying member comprising a main face-portion, and longitudinal and angularly disposed side-members, said side-members conforming to the body-members of the main reflector-body and extending into said trough-shaped portion so as to register with and be in contact with the body-members of said main reflector-body, and a metal lining arranged upon the inner surface of the main face-portion of the socket-carrying member and between the angularly disposed side-members of said socket-carrying-member, said socket-carrying member being provided with a hole, and a lamp-receiving socket arranged directly over said hole, said socket comprising a cylindrical shell formed with a raised portion, and retaining tongues connected with and extending from said raised portion, said tongues projecting through the hole in said socket-carrying member and being bent over upon the back of said member, substantially as and for the purposes set forth.

4. A reflector comprising a main reflector-body of a semi-circular cross-section, said body being formed with longitudinally extending and angularly disposed body-members and a connecting back-portion, and a metal lining arranged upon said back-portion, said body-members and back-portion forming a trough-shaped portion for the reception of electric wires, a socket-carrying member forming a shield arranged over said trough-shaped portion, said socket-carrying member comprising a main face-portion, and longitudinal and angularly disposed side-members, said side-members conforming to the body-members of the main reflector-body and extending into said trough-shaped portion so as to register with and be in contact with the body-members of said main reflector-body, and a metal lining arranged upon the inner surface of the main face-portion of the socket-carrying member and between the angularly disposed side-members of said socket-carrying-member, said socket-carrying member being provided in its main face-portion with a hole, a lamp-receiving socket arranged directly over said hole, said socket comprising a cylindrical shell formed with a raised portion and a hole in said raised portion conforming to the hole in said socket-

carrying member, and a plate in said raised portion, said plate being provided with retaining tongues, said tongues projecting through the holes in said raised portion of the lamp-receiving socket and in said socket-carrying member and being bent over upon the back of said member, substantially as and for the purposes set forth.

5. The herein-described reflector comprising a main reflector-body of a semi-circular cross-section, an upwardly extending wire-receiving member, a socket-carrying member separably connected with said wire-receiving member, said socket-carrying member being provided with a rectangularly shaped hole, and a lamp-receiving socket arranged directly over said hole, said socket comprising a cylindrical shell formed with a rectangularly shaped raised portion and a rectangularly shaped hole in said raised portion conforming to the hole in said socket-carrying member, and retaining tongues connected with and extending from said raised portion, said tongues projecting through the hole in said socket-carrying member and being bent over upon the back of said member, substantially as and for the purposes set forth.

6. The herein-described reflector comprising a main reflector-body of a semi-circular cross-section, an upwardly extending wire-receiving member, a socket-carrying member separably connected with said wire-receiving member, said socket-carrying member being provided with a rectangularly shaped hole, and a lamp-receiving socket arranged directly over said hole, said socket comprising a cylindrical shell formed with a rectangularly shaped raised portion and a rectangularly shaped hole in said raised portion conforming to the hole in said socket-carrying member, and a rectangular plate in said raised portion, said plate being provided with retaining tongues, said tongues projecting through the holes in said raised portion of the lamp-receiving socket and in said socket-carrying member and being bent over upon the back of said member, substantially as and for the purposes set forth.

In testimony, that I claim the invention set forth above I have hereunto set my hand this 9 day of May, 1908.

WILLIAM H. SPENCER.

Witnesses:

CHAS. K. WYATT,
F. C. PATTERSON.