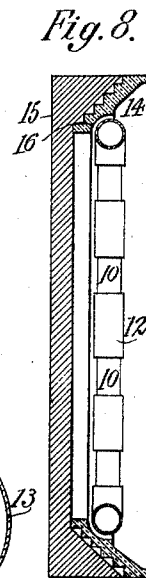
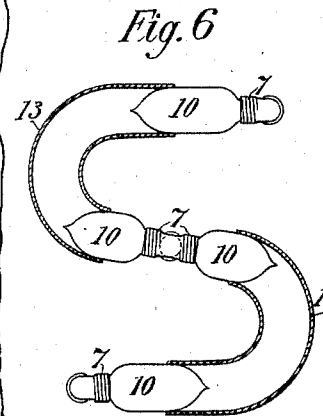
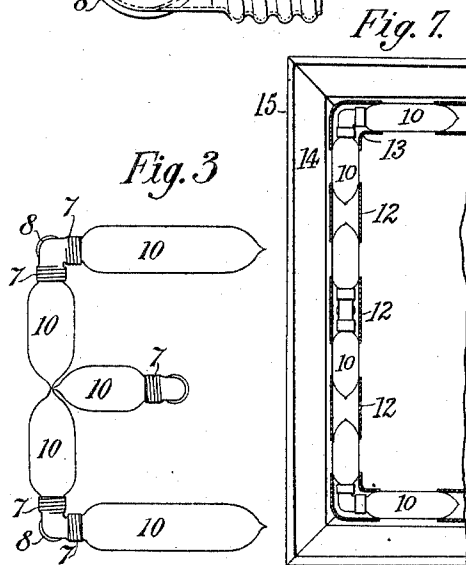
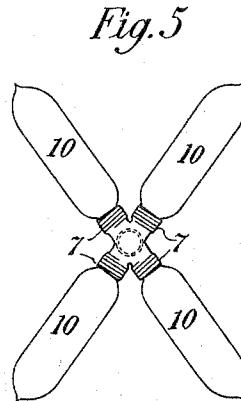
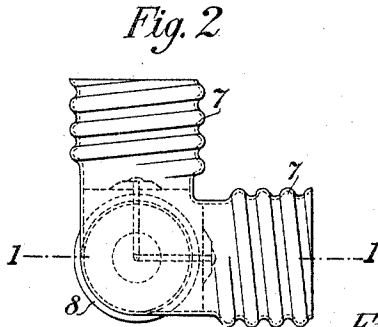
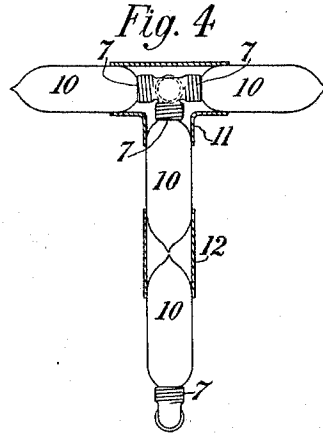
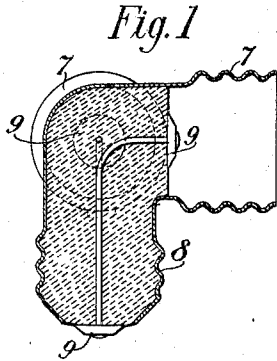


E. L. ZALINSKI.  
ELECTRIC DISPLAY APPARATUS.  
APPLICATION FILED OCT. 6, 1904.



Witnesses  
Raphaël better  
Walter A. Pauling

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# UNITED STATES PATENT OFFICE.

EDMUND L. ZALINSKI, OF NEW YORK, N. Y.

## ELECTRIC DISPLAY APPARATUS.

SPECIFICATION forming part of Letters Patent No. 788,747, dated May 2, 1905.

Application filed October 6, 1904. Serial No. 227,359.

*To all whom it may concern:*

Be it known that I, EDMUND L. ZALINSKI, a citizen of the United States, residing in the city, county, and State of New York, have invented certain new and useful Improvements in Electric Display Apparatus, of which the following is a specification.

My invention relates to electric display apparatus; and it consists in certain novel parts and combinations of parts particularly pointed out in the claims concluding this specification.

In the accompanying drawings I have shown my invention by way of example embodied in forms which are at present preferred by me; but it will be understood that various modifications and changes may be made without departing from the spirit of my invention and without exceeding the scope of my claims.

In the accompanying drawings, Figure 1 is a cross-sectional view on the line 1 1 of Fig. 2. Fig. 2 is a side view of a base involving certain features of my invention. Figs. 3, 4, 5, and 6 show three letters of the alphabet outlined in electric lights in a manner also involving certain features of my invention. Fig. 7 is a front and Fig. 8 a side view of a different application of my invention.

Similar reference-numerals indicate the same or corresponding parts in the various figures.

The following is a description of the structures shown in the accompanying drawings:

Referring to Fig. 2, 7 7 are screw-threaded sockets adapted to receive the bases of incandescent electric lamps of ordinary standard construction. Instead of being screw-threaded the bases might be, of course, provided with any other suitable engaging means—as, for example, bayonet-joints or the like. These sockets diverge from one another at right angles and are attached to a suitable plug or support 8, shown as a screw-threaded projection adapted to fit a socket such as the sockets 7 7. The sockets 7 7 being made of a suitable conducting material form one terminal of the circuit, the other terminal being formed by a button 9, centrally placed therein and duly insulated. The shell 8 of the supporting projection is adapted to fit into a socket like the

sockets 7 7 and being a continuation of the shell 7 of the lamp-socket it forms suitable contact with one of the terminals of said socket, the centrally-placed button 9 contacting with the other terminal of said socket. The plug 8 and sockets 7 7 (shown in Figs. 1 and 2) form part of an electric display apparatus, the said plug being adapted to screw into a socket carried on a suitable board or base-plate, as will be readily understood. Such plug may have mounted on it any suitable number of lamp-sockets 7 7, diverging at any suitable angles useful in the formation of letters or other symbols. For example, in Fig. 3 in the formation of the letter "E" two plugs having sockets disposed at right angles (as in Figs. 1 and 2) are employed and in addition one plug having a single socket. In Fig. 4 a plug having three sockets is employed in the formation of the letter "T," while in Fig. 5 a plug having four sockets disposed in the form of a cross is employed.

In connection with the multiple-socket bases above described I prefer to use lamps 10 of tubular form, although lamps of any suitable design and having globes of any suitable material, as plain or frosted glass, may be employed.

Referring to Figs. 4 and 6, 12 is a tube of translucent and diffusing material—such, for example, as porcelain or frosted glass—which, bridging the interval between the lamps and in part embracing the same, directs and diffuses the light-rays therefrom, and thus contributes to the continuousness of the outline of the letter "T." Such tubes may be of any suitable design adapted for the purpose. For example, in Fig. 4, at the top, I have shown such a tube in T-form 11. They may be used also to outline or partially outline portions of letters or designs having outlines not readily produced in incandescent lamps—as, for example, the curved parts 13 13 of letters, as shown in Fig. 6. By outlining letters with lamps in side view the number of lamps necessary to produce a given letter or design is diminished without sacrificing the legibility of the sign, and by employing translucent and diffusing sections the continuity of the outline is further preserved with a limited

number of lamp units. These translucent sleeves may be tubular, as shown in the drawings, or they may be of any other desired form, and they may be supported by any convenient means—as, for example, the back-ground or face of the sign or from adjacent parts of the lamps or their bases.

Referring to Figs. 7 and 8, I have here shown a panel or frame which may be of any suitable design and shape and which may be used in connection with letters or designs made up of the devices above described or in connection with any other forms of electric signs or of signs non-electric. 15 is a frame of any suitable shape. 14 is a layer of glass prisms on the rear side and smooth on the front side. 16 is a concave reflecting-surface, in front of which the lamps 10 and tubes 12 are located sidewise. These lamps thus placed tend to illuminate the lettering on the interior panel (not shown) as well as the surrounding frame, while they serve to attract attention by furnishing a bright and ornate surrounding line of light.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

1. In an electric display apparatus a letter or other design outlined by electric lamps

showing in side view, in combination with a base composed of a plurality of diverging lamp-sockets with suitable electric connections.

2. In electric display apparatus the combination with incandescent electric lamps, of translucent tubing contributing to outline the letter or other design.

3. In electric display apparatus a letter or other design outlined by incandescent electric lamps showing in side view combined with translucent tubing.

4. In an electric display apparatus the combination with incandescent electric lamps of translucent diffusing tubing contributing to outline the letter or other design.

5. In electric display apparatus the combination with incandescent electric lamps showing in side view, of a reflecting-backing with a concave reflecting-surface located behind the lamps.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

EDMUND L. ZALINSKI.

Witnesses:

JAMES A. STRACHAN,  
JOSEPH FRANCIS.