No. 671,618. Patented Apr. 9, 1901.

W. F. BREWSTER.

FLEXIBLE AND ADJUSTABLE SUPPORTING DEVICE FOR ELECTRIC LAMPS.

(Application filed Nov. 30, 1900.)

(No Model.) 2 Sheets—Sheet 1.

Fig. 1.

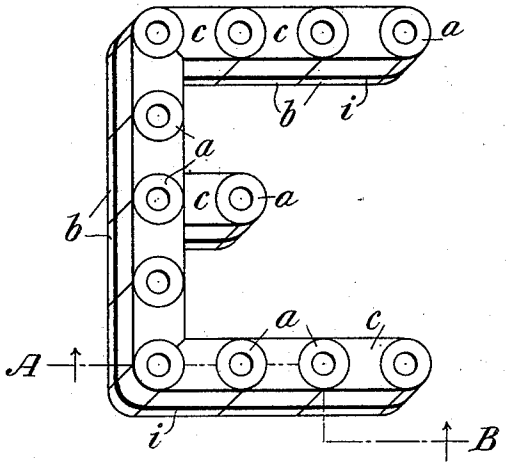


Fig. 4.

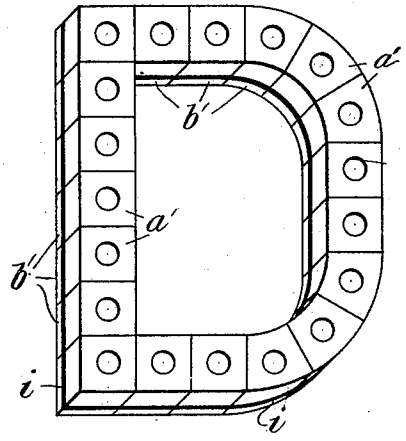


Fig. 2.

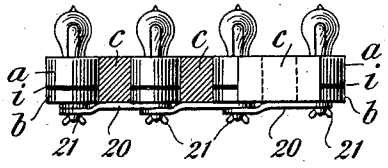
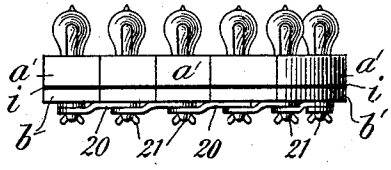


Fig. 5.



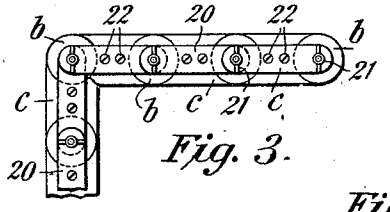


Fig. 3.

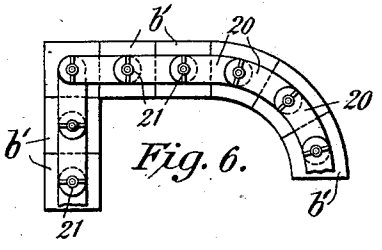
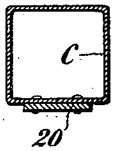


Fig. 6.

Fig. 7.

Fig. 9.



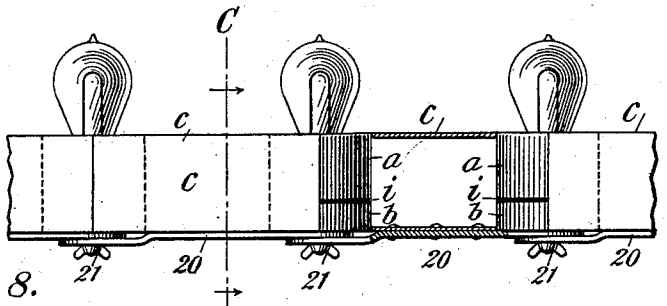
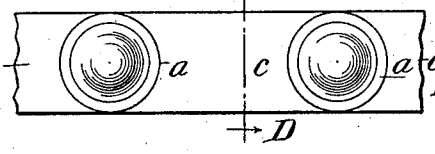


Fig. 8.



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No. 671,618. Patented Apr. 9, 1901.

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FLEXIBLE AND ADJUSTABLE SUPPORTING DEVICE FOR ELECTRIC LAMPS.

(Application filed Nov. 30, 1900.)

(No Model.) 2 Sheets—Sheet 2.

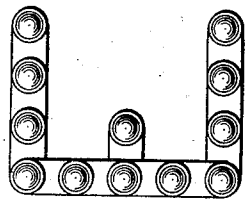
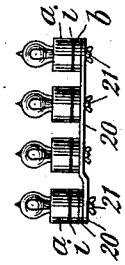


Fig. 12.



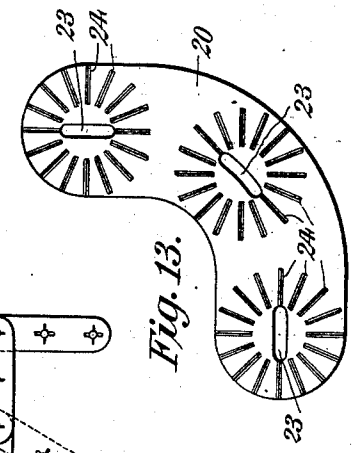
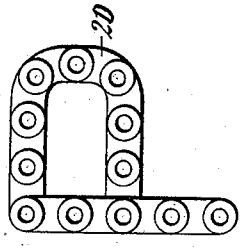
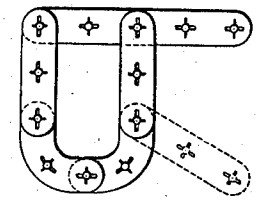


Fig. 13.





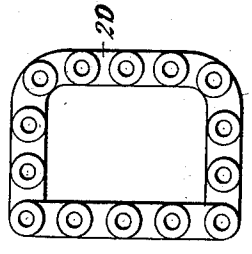
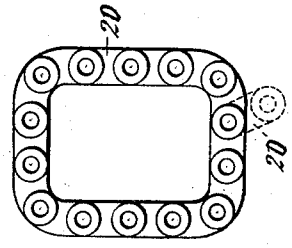


Fig. 10.



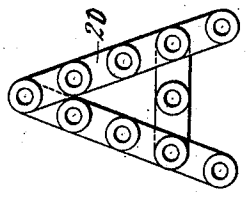
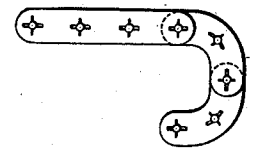
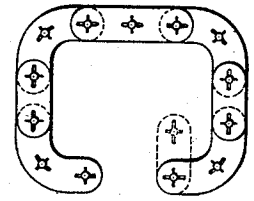
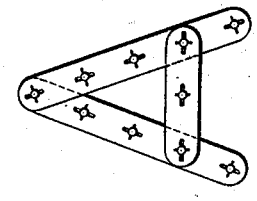


Fig. 11.







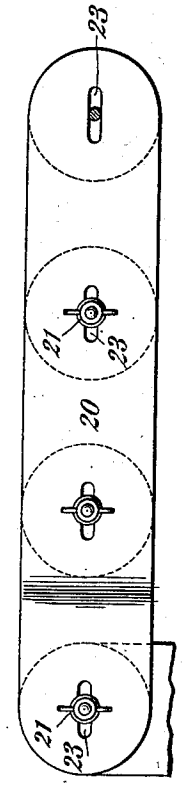


Fig. 14.

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UNITED STATES PATENT OFFICE.

WILLIAM F. BREWSTER, OF NEW YORK, N. Y.

FLEXIBLE AND ADJUSTABLE SUPPORTING DEVICE FOR ELECTRIC LAMPS.

SPECIFICATION forming part of Letters Patent No. 671,618, dated April 9, 1901.

Application filed November 30, 1900. Serial No. 38,098. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM FARLEY BREWSTER, a citizen of the United States, residing in New York city, in the county and State of New York, have made certain new and useful Improvements in Flexible and Adjustable Supporting Devices for Electric Lamps, of which the following is a specification.

The object of my invention is to provide a supporting structure for electric lamps which may be altered at will to permit rearrangement of the lamps to indicate various forms, as of letters or designs, and the receptacles or sockets to receive such lamps may be so rearranged and varied.

My invention is an improvement upon and modification of the arrangement of apparatus shown and described in my United States Letters Patent No. 663,532, dated December 11, 1900.

I provide a series of sockets or receptacles and solid links, which when united form the outline of a letter, figure, or design. These solid links are in outline sections common to the letters or designs to be represented, and may be made cubical or sections of an arch like a keystone to form part of the curve, as in capital letters. I sometimes make these links of hollow or box-like character, having the outline described, the adjacent or abutting sides in all cases being designed to make a close junction. I sometimes prefer to employ a broad thin link for connecting adjacent lamps, with holes or slot-like perforations at one or both ends suitably corrugated to provide for easy application and adjustment. The surface of this link is silvered or enameled to give it a reflecting-surface, and by its use the number of lamps required may be economized. In the solid or shell forms first described the compounded letter or design will present a solid block-like appearance at both front and side view, preserving the true outline of the letter, while in the case of the link with polished surface, having a breadth substantially equal to the diameter of the socket or receptacle of the incandescent lamp, the front or face view alone presents the true outline of the letter.

The accompanying drawings illustrate my invention.

Figure 1 shows a block letter in which the sections have straight lines, the sections being divided at or about the center of the lamp socket or receptacle. Where necessary, the outline is curved to produce an agreeable outline. Fig. 2 is a side elevation of the same, partly in section, on the line A B, Fig. 1. Fig. 3 shows the reverse side of a section of Fig. 1, including one of the horizontal arms and its angular connection to the vertical stem of the letter. Fig. 4 shows a block letter formed of receptacles of both straight and curved outlines, one lamp being assigned to each receptacle. Fig. 5 is a side view of the horizontal and curve portion of Fig. 4, with the lamps and links in position. Fig. 6 shows the reverse side of a portion of Fig. 4. Fig. 7 shows substantially the same sections formed of sheet metal, resulting in a hollow or shell-like structure. Fig. 8 is a face view of the same. Fig. 9 is a cross-section on the line C D, Figs. 7 and 8. Fig. 10 shows the arrangement of letters composed of receptacles united by thin flat links having a polished surface. Fig. 11 shows the reverse side of the same arrangement. Fig. 12 is a side view of a letter, with the broad link and lamps and receptacles in position. Fig. 13 shows a curved link slotted and corrugated as employed in forming the curved portion of the letters appearing in Figs. 10 and 11. Fig. 14 is an enlarged view of the straight links employed in building up the straight-line letters.

In Figs. 1 to 3, inclusive, a and b are two parts of the lamp sockets or receptacles, which are mechanically united. The portion b is provided with a screw which passes through a hole in the link 20, and there is a wing-nut 21 upon the screw to clamp and hold the link in any angular position. The solid block c is fixed upon the link 20, its ends being curved to receive the sockets and receptacles a b and make a close junction therewith. The series of links 20 unite adjacent lamp sockets or receptacles and permit of varying the arrangement and relative position of the lamps within the limitations imposed by the block c to form a solid block letter or device. The under side of this structure is represented in Fig. 3, the porcelain block c being fixed to the links 20 by screws 22.

In Figs. 4, 5, and 6 the receptacles a' and b' contain the lamp-socket and the screw connecting device, respectively. The parts a' and b' are united by a screw and insulated by

a layer of insulating material *i*. The sockets and receptacles are cubical and arch-shaped, like the keystone of an arch. By suitable combinations of these formations and the use of the links and set-screws any letter or design may be produced and maintained, and the letters or designs may be altered from day to day. The extent of variation of these sections of geometric forms may be varied infinitely, and each such form or section may be made to hold or receive one or more lamps.

In Figs. 7, 8, and 9 I have shown the sections of a block-letter attached to links, as in Figs. 1, 2, and 3; but I have modified the structure of the solid block *c* and made it of sheet metal and box-like, whereby lightness and economy of production are attained.

In Figs. 10 to 14 I have shown the sockets and receptacles *a* and *b* united by broad flat links of metal. The breadth of the link 20 is equal to the diameter of the lamp socket or receptacle, and the surface is polished or enameled. By this means the number of lamps employed may be economized in the formation of any letter or design. The links are shown with a capacity to receive one or more lamps. There are straight sections, as in Fig. 14, and curved sections, as in Fig. 13, and by suitable combinations of straight links and curved links an entire alphabet may be constructed. The links are provided with slots 23 to receive the bolts in the bottom of the receptacles, and the surface of the link surrounding the slot 23 is roughened or corrugated, as at 24. Fig. 14 shows the straight link with perforations for four lamps. Fig. 13 shows the curved link with perforations for three lamps, the arc of curvature being such that any letter of the general form shown in Figs. 10 and 11 may be constructed.

The arrangement of solid links and square receptacles shown in Figs. 1 to 9, inclusive, when the sections are properly assembled and connected will constitute a solid block letter from either front or side view. The thin broad enameled or polished link illustrated in Figs. 10 to 14, inclusive, presents to the eye the true outline of the letter or design in a front view.

What I claim, and desire to secure by Letters Patent, is—

1. The combination with a series of lamp-receptacles of a series of adjustable connections between the receptacles, each such connection bearing a section of suitable geometric form to constitute an integral part of a letter or design.

2. The combination with a series of lamp-receptacles of a series of separable adjustable connections and devices for filling the space between adjacent lamps, said receptacles and devices having a substantially uniform breadth, forming when abutted a letter, figure or design.

3. The combination with a series of lamp-receptacles of a series of adjustable connections bearing a hollow box-like section of suitable geometric form to constitute an integral part of a letter or design when said sections are connected and abutting.

4. The combination with a series of lamp-receptacles of a series of adjustable connections and devices for filling the space between adjacent lamps said devices having a breadth and thickness substantially equal to the diameter of a lamp socket or receptacle.

5. The combination with a series of lamp-receptacles of a series of adjustable connecting devices for uniting adjacent receptacles said devices having a breadth equal to the diameter of said receptacles.

6. The combination with a series of lamp-receptacles of a series of adjustable connecting devices having a breadth substantially equal to the diameter of the receptacles and uniting adjacent receptacles said devices having a reflecting, polished or enameled surface.

7. The combination with a series of lamp sockets or receptacles and lamps therefor, of links uniting said sockets or receptacles, means for adjustably connecting links together, suitable devices in form or outline constituting complementary sections of a letter, figure, or design, and means for securing said devices in position.

8. The combination of a series of lamp sockets or receptacles, links or mechanical connections with set-screws for adjustably uniting such lamp sockets or receptacles, and suitable devices forming complementary sections of a letter, figure or design, in position to render optically continuous the lamps and the spaces between adjacent lamps.

9. The combination with a series of lamp sockets or receptacles, of links for adjustably uniting said receptacles, suitable devices forming complementary sections of a letter, figure or design, filling the spaces between the sockets or receptacles and means for securing said devices in position.

10. The combination with a series of lamp-receptacles of a series of links or connecting devices adjustably united, each link bearing two or more receptacles for lamps and having a geometric form constituting a part or section of a letter, figure, or design.

11. The combination with a series of lamp-receptacles of a series of adjustable connecting devices, each such device having a breadth substantially equal to the diameter of a receptacle and a characteristic form or outline so that when said series are connected and abutted, a predetermined letter, figure or design will result.

12. The combination with a series of lamp sockets or receptacles, of a plurality of connecting devices uniting said receptacles said devices having a breadth at least equal to the diameter of said receptacles and means for adjustably uniting said connecting devices.

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Witnesses:
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A. M. DONLEVY.