R. K. WITZ.

ILLUMINATING DEVICE.

APPLICATION FILED JULY 22, 1912.

1,081,646.

Patented Dec. 16, 1913

2 SHEETS—SHEET 1.

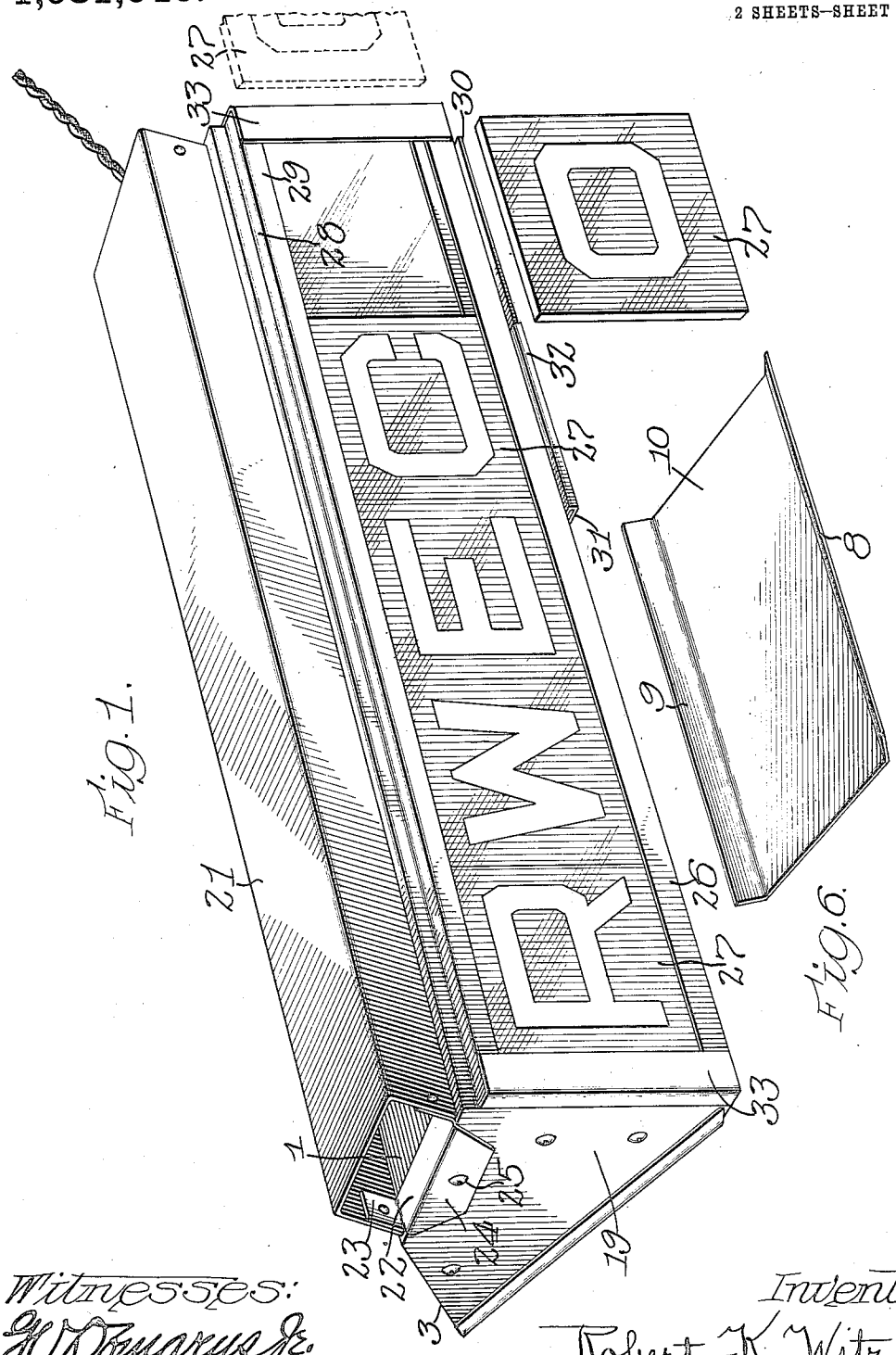


Fig. 1.

Fig. 6.

Witnesses:
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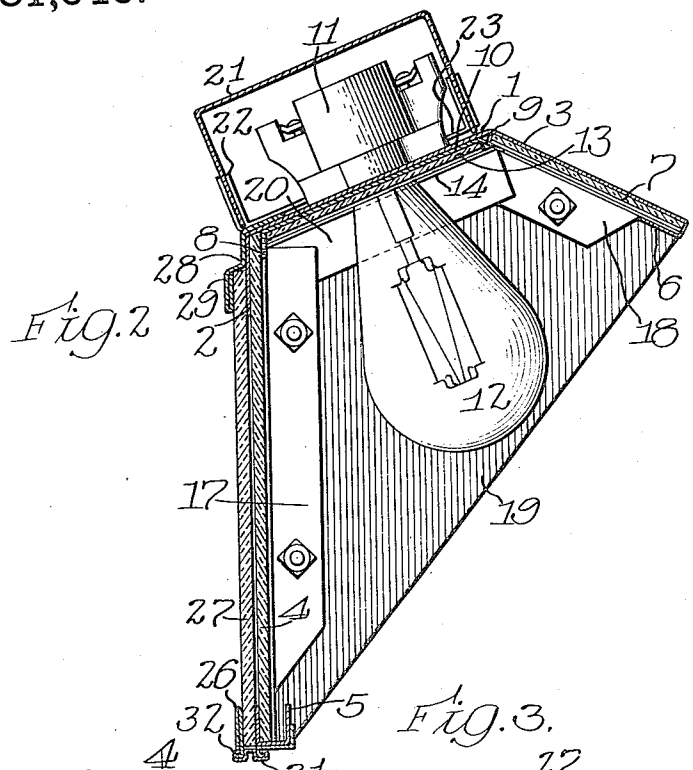


Fig. 2

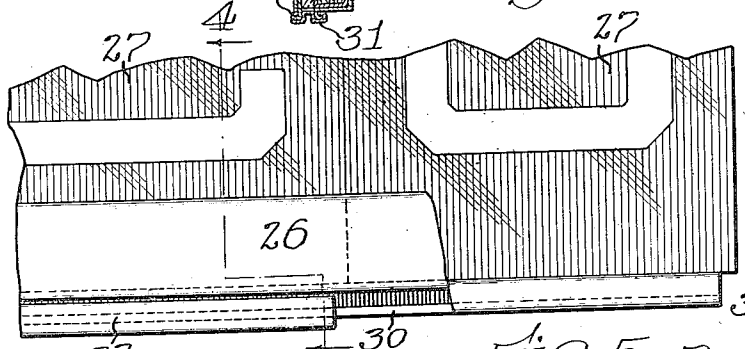


Fig. 3.

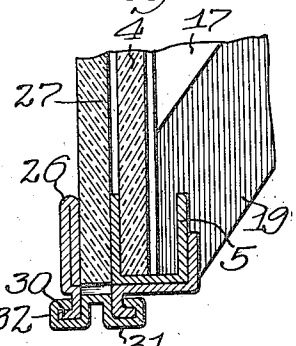


Fig. 4.

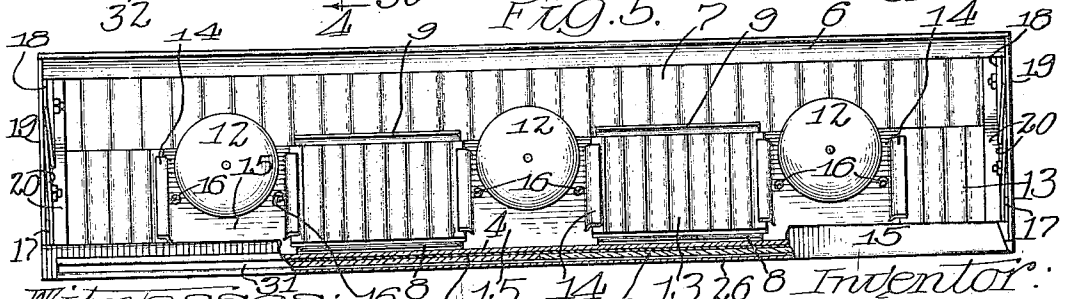


Fig. 5.

Witnesses:

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Inventor:

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By: Rudolph Kopp & Co. Atty's.

UNITED STATES PATENT OFFICE.

ROBERT K. WITZ, OF CHICAGO, ILLINOIS.

ILLUMINATING DEVICE.

1,081,646. Specification of Letters Patent. Patented Dec. 16, 1913.

Application filed July 22, 1912. Serial No. 710,875.

To all whom it may concern:

Be it known that I, ROBERT K. WITZ, citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Illuminating Devices; 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.

This invention relates to improvements in illuminating devices and more particularly to a device for illuminating show windows and display signs therefor.

The invention consists in the features of construction and combinations of parts hereinafter fully described and particularly claimed.

The principal object of my invention is to provide a simple and efficient device which will simultaneously serve two purposes, namely, to illuminate a show window for the purpose of displaying the goods therein and at the same time to illuminate the sign disposed in the show window. The invention resides particularly in certain details of construction which will more fully appear from the following specification.

In the accompanying drawings illustrating the invention: Figure —1— is a perspective view of an illuminating device embodying my invention. Fig. —2— is a vertical transverse section of the same taken at a point between the ends thereof. Fig. —3— is a fragmentary detail front elevation of the device. Fig. —4— is a fragmentary detail sectional view on the line 4—4 of Fig. —3—. Fig. —5— is a bottom plan view of the device partly broken away and showing certain parts in section. Fig. —6— is a detail perspective view of a reflector retaining plate employed.

The device comprises a housing having a top, a front and a rear wall 1, 2 and 3 respectively, all formed from a single piece of sheet metal, the walls 2 and 3 constituting side edge flanges of the top wall 1. The front wall 2 is adapted to be vertically disposed and the top wall 1 and rear wall 3 are disposed at an angle to each other and to said front wall. The rear wall is of less depth than the front wall, the housing being open at its lower end and the width of the opening being greater than the width of said top wall 1. Said front wall 2 is provided with a large rectangular opening behind which a pane 4 of glass is adapted to be disposed. The lower edge of said front wall 2 and of the rear wall 3 are bent over inwardly to form troughs 5 and 6 respectively, in which the lower edge of the pane 4 and the similar edge of a reflector 7 are adapted to be received and held. The upper edges of the pane 4 and reflector 7 respectively, are adapted to be engaged between the walls 2 and 3 respectively, and the edge flanges 8 and 9 respectively, of a plate 10, shown in detail in Fig. —6—. The top wall is equipped at intervals on its upper face with lamp sockets 11 in which the ends of incandescent lamps 12 are adapted to be engaged, there being openings in the top wall 1 for the passage of the lamp plugs. The said plates 10 are disposed at intervals between the lamps 12 and are adapted to be held in place together with reflectors 13 adapted to be received between the flanges 8 and 9 by means of flanges 14 of a very soft flexible material suitably secured to the plates 15 secured to the top wall 2 by means of screws or bolts 16, as shown. The said flanges 14 thus serve to hold the reflectors 13 and the plates 10 in place and by engagement of the flanges 8 and 9 of the latter with the pane 4 and reflector 7 respectively, the said parts are also held in place, as will be obvious.

The ends of the pane 4 and reflector 7 are suitably engaged by means of the flanges of angle plates 17 and 18 respectively, one flange of each of which is screwed or bolted to an end wall 19 of the lamp housing. The angle plates 17 and 18 and a similar plate 20 disposed therebetween are all composed of a single continuous strip having incisions in one of its flanges and bent along its other flange at points flush with said incisions, the portion 20 of said strips being adapted to hold the ends of the endmost reflectors 13 in place. The end walls 19 of the housing are suitably secured to the walls 1, 2 and 3 along the meeting edges of said parts.

The lamp sockets 11 are adapted to be covered by a removable channel plate 21, the flanges of which rest on the outer face of the top wall 1 and which are secured in place by means of the angle plates 22 each of which has two end flanges 23 secured by bolts or rivets to the side flanges of the channel 21 and each of which is further provided with a flange 24

adapted to be secured by a bolt 25 to an end wall 19 of the housing. Said channel member 21 may be easily removed for purposes of inspecting the connection between the lamp sockets 11 and the source of current, or for making said connections, by removing said bolts 25.

Secured to the lower edge of the front wall 2 is a channeled strip 26 which passes underneath the lower wall of the overturned flange 5 and is secured to the latter, the said strip 26 thus affording a support and guide for the transparent plates 27 bearing letters of the alphabet or other characters constituting a sign. The latter are engaged at their upper ends between the upper end portion of the front wall 2 and a substantially W-shaped plate 28 having one flange secured to the top wall 1 and affording an off-set portion having a flange 29 parallel with the front wall 1 and between which and the latter the upper edges of said plates 27 are received. The said channeled strip 26 is provided in its lower wall, or preferably adjacent one end thereof, with a longitudinal slot through which the plates 27 may be inserted and removed, the said slot being bordered by oppositely disposed L-shaped flanges 30 on which a member 31 is slidable, the latter being provided on its side edges with overturned flanges 32 in which the flanges 30 are adapted to be received and the middle portion of which is of inverted U-shape and is adapted to support one of said plates 26. Said member 31 constitutes a gate for closing the slot. The length of the latter is preferably substantially equal to the length of one of said plates 27 so that all of the latter may be consecutively inserted therethrough and then moved longitudinally in the guides adapted to receive the same. The said plates are prevented from leaving the ends of the guide-ways in which they are adapted to be received by the end plates or stops 33 which may be suitably secured to the end walls 19 of the housing or the edges of the front wall 2 thereof or may be integral with the latter.

The device is simple and efficient and affords the advantage of being capable of being knocked down for purposes of shipment and repair and affords the further advantage of enabling different signs to be displayed thereon at different times. It may be disposed either in the top of a show window so that the incandescent lamps 12 serve not only to illuminate the sign but also to illuminate the window or if desired it may be disposed in inverted position in the bottom of a show window and similarly illuminate the latter.

The device may also be used in connection with advertising sign boards and similar places for the purpose of illuminating advertising matter displayed on the sign and render particularly prominent such matter as may be most desirable.

I claim as my invention:

1. A device of the kind specified comprising a housing having divergent front and rear walls and a top wall angularly disposed relatively to and meeting the upper edges of both said walls, said front wall having a transparent pane disposed in an opening therein, incandescent lamp sockets mounted on the top wall, incandescent lamps engaging in said sockets through openings in said top wall, reflectors mounted upon the latter between contiguous openings therein, and a reflector mounted upon said rear wall.

2. A device of the kind specified comprising a housing having divergent front and rear walls and a top wall angularly disposed relatively to and meeting the upper edges of both said walls, said front wall having a transparent pane disposed in an opening therein, incandescent lamp sockets mounted on the top wall, a hood removably mounted on said top wall and covering said sockets, incandescent lamps engaging in said sockets through openings in said top wall, reflectors mounted upon the latter between contiguous openings therein, and a reflector mounted upon said rear wall.

3. A device of the kind specified comprising a housing having divergent front and rear walls and a top wall angularly disposed relatively to and meeting the upper edges of both said walls, said front wall having a transparent pane disposed in an opening therein, incandescent lamp sockets mounted on the top wall, incandescent lamps engaging in said sockets through openings in said top wall, reflectors mounted upon the latter between contiguous openings therein, a reflector mounted upon said rear wall, said reflector on said rear wall adapted to reflect some of the rays of light from said lamps upon said front wall and the remainder thereof substantially parallel with said wall, and said reflectors on said top wall adapted to reflect the rays from said lamps divergently from the open end of the housing.

4. In an illuminating device, a housing having lamps disposed therein, and means for removably securing reflectors to a wall of the housing, comprising flexible plates secured to said wall, the edge portions of said plates being free and adapted to be bent by hand, and reflector plates alternated with said flexible plates and adapted to be supported by the edge portions thereof when the latter are bent to overlap the edges of said reflector plates.

5. A device of the kind specified comprising a housing having divergent front and rear walls and a top wall angularly disposed relatively to and meeting the upper

edges of both said walls, said front wall having a transparent pane disposed in an opening therein, channels in the outer edges of said front and rear walls, the channel in said front wall adapted to receive an edge of said pane, a reflector for said rear wall having one edge engaged in the channel thereof, and plates each having divergent side-edge flanges removably secured to the inner face of the top wall, the respective flanges of said plate parallel with the front and rear walls respectively and engaging said pane and reflector plate respectively along the edge portions opposite those engaged in said channels for holding the same in place.

6. A device of the kind specified comprising a housing having divergent front and rear walls and a top wall angularly disposed relatively to and meeting the upper edges of both said walls, said front wall having a transparent pane disposed in an opening therein, channels in the outer edges of said front and rear walls, the channel in said front wall adapted to receive an edge of said pane, a reflector for said rear wall having one edge engaged in the channel thereof, plates each having divergent side-edge flanges removably secured to the inner face of the top wall, the respective flanges of said plate parallel with the front and rear walls respectively and engaging said pane and reflector plate respectively along the edge portions opposite those engaged in said channels for holding the same in place, reflectors mounted within said channeled plates and engaging the flanges thereof for preventing their lateral movement relatively to said plates, and plates of a flexible metal mounted on the top wall of the housing between said plates and of greater width than the spaces separating the latter, the end portions of said flexible plates adapted to be bent over upon the end portions of said reflectors for holding the same in contact with said plates and securing the latter to said upper wall of said housing.

In testimony whereof I have signed my name in presence of two subscribing witnesses.

ROBERT K. WITZ.

Witnesses:

RUDOLPH WM. LOTZ,

M. M. BOYLE.