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LIGHTING DEVICE

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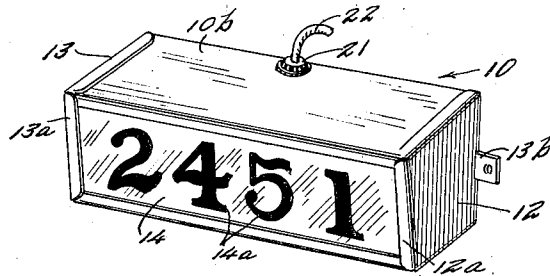


Fig. 1.

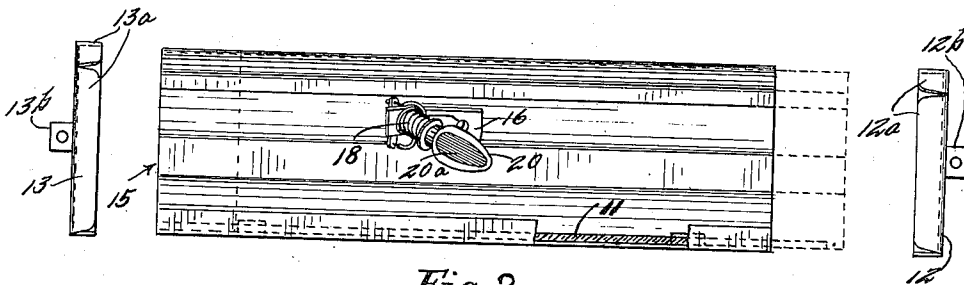
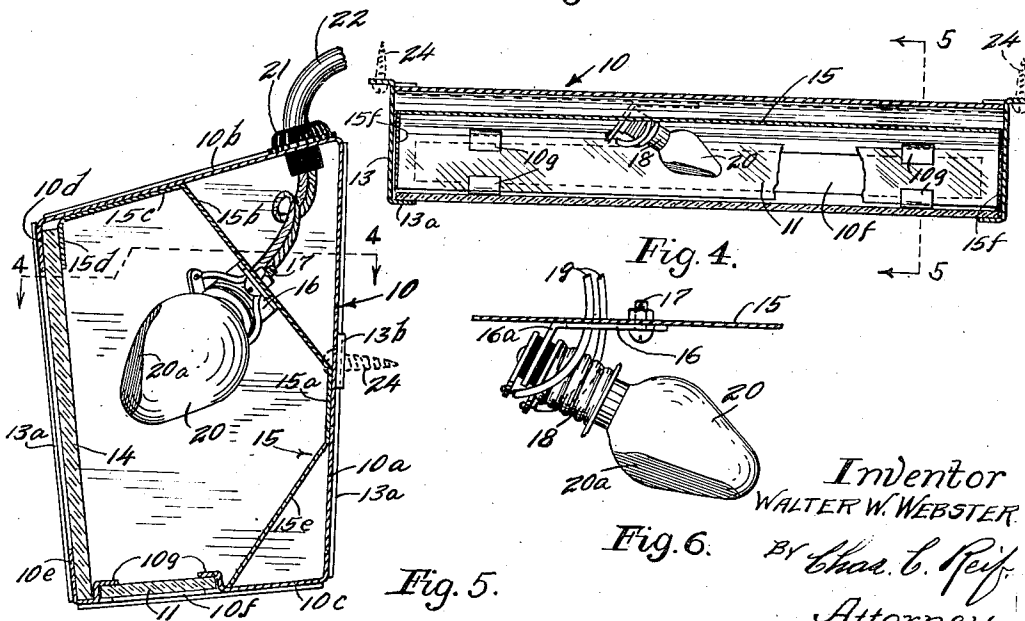


Fig. 2.



Fig. 3.



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Fig. 6. BY *Chas. C. Reif*
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LIGHTING DEVICE

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3 Claims. (Cl. 40—132)

This invention relates to a lighting device such as used for an illuminated house numbering device, illuminated signs and other similar illuminated devices where it is desirable to have letters or words conspicuously displayed. It is difficult and troublesome to locate house numbers at night and it is a great convenience to have a device by means of which the number is illuminated.

It is an object of this invention therefore, to provide a lighting device of simple, inexpensive and efficient form and one that can be easily assembled and installed.

It is a further object of the invention to provide a lighting device having a casing at the front of which is a transparent plate bearing certain characters and within which is a lamp and reflector, said casing also having an opening in its bottom through which light is projected for illuminating the zone immediately below and in front of said casing.

It is still another object of the invention to provide a lighting device comprising a casing with a removable end, a character bearing plate which is slidable from said casing and a novel and efficient reflector which is slidable from said casing and a light transmitting plate which is disposed in the bottom of said casing and slidable therefrom.

It is also an object of the invention to provide a lighting device having a casing with a character-bearing light transmitting plate at the front thereof, a novel and efficient reflector therein, said reflector having means secured thereto for supporting a lamp and lamp socket.

These and other objects and advantages of the invention will be fully set forth in the following description made in connection with the accompanying drawing in which like reference characters refer to similar parts throughout the several views and in which:

Fig. 1 is a perspective view of the device;

Fig. 2 is a view in front elevation of the casing used with the front plate removed and the end portions of the casing removed, some parts being shown in different positions in dotted lines;

Fig. 3 is a view in front elevation of the character bearing plate used;

Fig. 4 is a horizontal section taken substantially on line 4—4 of Fig. 5 as indicated by the arrows;

Fig. 5 is a vertical section taken substantially on line 5—5 of Fig. 4 as indicated by the arrows;

Fig. 6 is a partial view similar to Fig. 4 shown on an enlarged scale.

Referring to the drawing a lighting device is shown comprising a casing 10. While this casing might be variously formed, in the embodiment of the invention illustrated it is shown as having a rear wall 10a which is designed and arranged to be supported in substantially vertical position. Said casing has a top wall 10b illustrated as sloping downwardly and forwardly from rear wall 10a and said casing has a bottom wall 10c also shown as sloping downwardly and forwardly from rear wall 10a. Top wall 10b extends downwardly at a greater angle than does bottom wall 10c, the bottom wall making only a slight angle with the horizontal. Top wall 10b has at its forward portion a downwardly extending flange 10d and bottom wall 10c has at its forward portion an upwardly extending flange 10e. Said bottom wall 10c also has formed therein adjacent its forward edge an opening 10f which extends longitudinally of said wall from adjacent the ends thereof, said opening being indicated as substantially rectangular in form. Said bottom wall has at spaced points lugs 10g struck up therefrom which extend upwardly and then toward each other at right angles. Lugs 10g form guiding and retaining means for a light transmitting plate 11 supported by said bottom wall over opening 10f, said plate being slidable endwise of said casing in the guides 10g and being removable at one end of said casing. Casing 10 has provided therefor end closing members 12 and 13. Members 12 and 13 each comprise a plate shaped similarly to the end of casing 10 and having flanges 12a and 13a which extend slightly along the outer sides of said top, bottom and rear walls and also slightly along the front side of the flanges 10e and 10d. Said flanges 12a and 13a closely engage the corresponding parts of the casing so that said end members 12 and 13 are retained securely in place by friction. A plate 14 which is made of some light transmitting material such as glass is provided and this extends across the front of casing 10 having its outer or front side in engagement at its top and bottom with the top and bottom flanges 10d and 10e respectively. Said plate at its lower inner side also engages the vertical portion of the forward lugs 10g, which lugs form with the flange 10e short grooves in which the lower portion of plate 14 may slide. Plate 14 carries thereon certain characters 14a. While these may be variously formed and positioned, in practice it has been found that one very effective method is to have plate 14 translucent and the characters 14a in solid color

thereon. The characters 14a, of course, may take any desired form. A reflector 15 is provided and while this might be varied somewhat in form, in the embodiment of the invention illustrated it is shown as formed from a flat plate, the same having a rear central portion 15a extending longitudinally thereof which lies flat against the rear wall 10a. An upper portion 15b extends forwardly and upwardly from portion 15a to the top wall 10b and the top portion 15c extends for some distance in flat engagement with the top wall. At its forward end the portion 15c is provided with a downwardly extending flange 15d which extends substantially parallel to the flange 10d and engages the rear top portion of plate 14. Plate 14 is thus held securely at its top and bottom and said plate is slidable between flanges 10d and 15d so that said plate may easily and quickly be removed at one end of casing 10. Reflector 15 also has a lower downwardly and forwardly extending portion 15e which extends to and engages the vertical side of the rear lugs 10g. Reflector 15 also preferably has end portions 15f which extend along substantially in engagement with the end members 12 and 13 when the latter are in operative position. Reflector 15 is preferably made of metal and it is somewhat resilient so that when in place it exerts forward pressure against plate 14 so that the latter is thus held securely and firmly in position. A small bracket 16 made of a flat piece of metal or other suitable material is secured to portion 15b of reflector 15 by a small headed and nutted bolt 17. Bracket 16 has a forwardly extending portion 16a in which is secured a lamp socket 18. Bracket 16 has a slot at the central portion thereof through which pass conductors 19 secured to the terminal of socket 18. A lamp bulb 20 is disposed in socket 18 and this bulb preferably has a translucent or opaque portion 20a at its forward side. It will be noted that the axis of lamp bulb 20 and socket 18 extends longitudinally of the casing and forwardly at an angle of approximately 30 degrees with the plane of the reflector or of the rear wall 10a. The conductors 19 extend upwardly in casing 10 and through an insulating bushing 21 secured in the top wall 10b at the rear thereof, said conductors being enclosed in the usual electric cord 22. The cord 22 preferably has a rubber or other moistureproof or weatherproof covering thereon. Said cord will be provided with the usual electric plug in some cases and in other cases will extend to suitable contacts or switch. The end members 12 and 13 have lugs 12b and 13b extending therefrom substantially in the plane of or slightly rearwardly of the plane of rear wall 10a. Lugs 12b and 13b are apertured to receive screws 24 by means of which the device is secured in position. The reflector 15a can be slidably removed from the casing 10 when one of the end members is removed as indicated by the dotted lines in Fig. 2. Considerable slack is provided for the conductors 19 in the rear of said reflector so that said reflector and the lamp and socket carried thereby can readily be removed.

In operation, when the device is to be used as a house numbering device it will be placed above the door or other suitable location. It will be noted that the front portion is at an angle so that the numbers can be more easily read by a person standing somewhat below the device. When the device is positioned above a

door the light from the lamp 20 shines through the plate 11 and illuminates the zone below and somewhat in front of the device. This is a great advantage, particularly when the light is cast upon steps. It will be readily seen that due to the novel construction the parts of the device can be easily and inexpensively formed. The casing, the end members and the reflector can be bent up with simple operations. As above stated, the parts are very readily separated or removed, members 11, 14 and 15 being easily slidable at one end of the casing. The device will be suitably coated to withstand the weather and due to the bushing 31 and cord 22, both of which are waterproof, the inside of the casing is maintained in dry and clean condition. The reflector is so formed that the light is effectively and efficiently reflected at the interior of casing 10 so that plate 14 is effectively illuminated. When facilities are present for using the plug on cord 22 the device forms an attachment or detachable device which can be almost instantly placed in operative position.

From the above description it will be seen that I have provided an extremely simple and efficient lighting device and one that will have many applications. The structure described is suitable for various kinds of illuminated signs and these may be made with single or oppositely arranged illuminated sides or faces. The structure is also very suitable, as stated, for a house numbering device. The device has been amply demonstrated in actual practice, found to be very successful and efficient and is being commercially made.

It will, of course, be understood that various changes may be made in the form, details, arrangement and proportions of the parts, without departing from the scope of applicant's invention, which generally stated, consists in a device capable of carrying out the objects above set forth, in the parts and combinations of parts disclosed and defined in the appended claims.

What is claimed is:

1. A lighting device comprising a casing having top and bottom and rear walls and top and bottom flanges extending downwardly and upwardly respectively from the forward edges of said top and bottom walls, said casing having an opening extending longitudinally of said bottom side adjacent the front thereof, guide members for slidably receiving a light transmitting plate disposed over said opening, a reflector in said casing having a flange adjacent said top flange, a transparent character-plate slidable between said top flange and said flange on said reflector and also disposed in the rear of said bottom flange, an illuminating means in said casing and characters on one side of and aligned with said second mentioned plate in such manner that they are illuminated by said illuminating means and are visible from the front of said device.

2. The structure set forth in claim 1, said reflector having a flat portion lying flat against said rear wall, an upper forwardly sloping portion and a lower forwardly sloping portion extending to the bottom of said casing adjacent said light transmitting plate, said illuminating means being carried on said upper forwardly sloping portion.

3. A lighting device comprising a casing having a top, bottom and rear wall, a transparent plate at the front of said casing, said casing having an opening extending longitudinally thereof

in said bottom wall adjacent said plate, a light transmitting plate disposed over said opening, an illuminating means in said casing, characters on one side of and alined with said first mentioned plate in such manner that they are visible from the front of said device when said illuminating means transmits light through said first mentioned plate and a reflector having an upper portion extending along and in contact

with the top of said casing engaging said first mentioned plate at its front end and extending downwardly and rearwardly to and along said rear wall in the rear of said illuminating means and having a lower portion extending downwardly and forwardly and having its forward edge adjacent said light transmitting plate.

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