Dec. 24, 1929. W. E. PRICE 1,740,747

ELECTRIC LIGHTED DISPLAY SIGN OR EMBLEM

Filed April 30, 1926

Fig. 1,

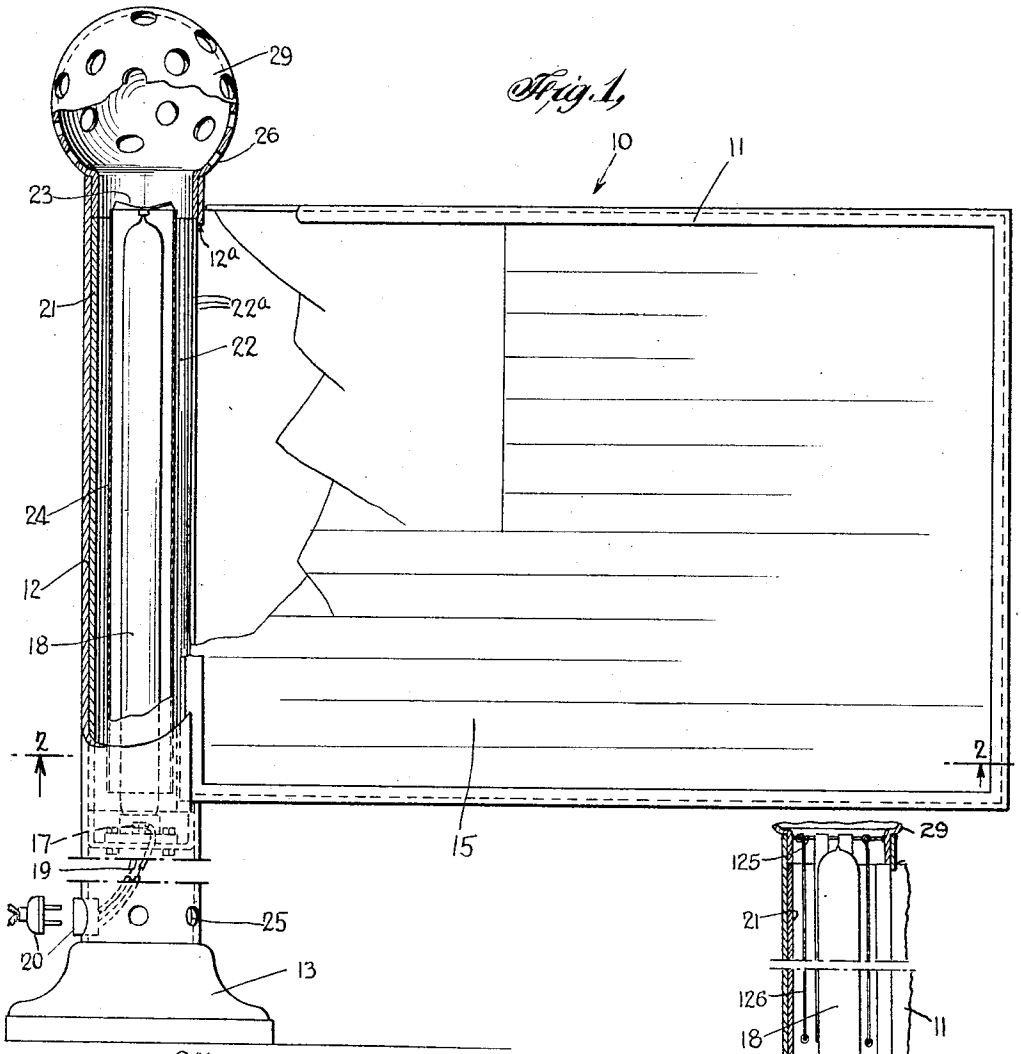



Fig. 2,

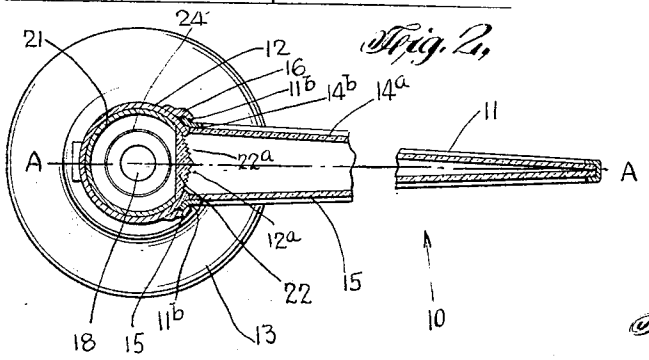
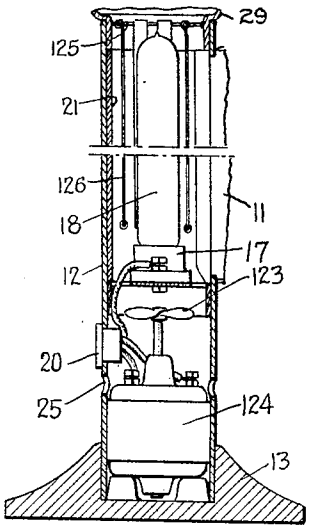



Fig. 3,




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# UNITED STATES PATENT OFFICE

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## ELECTRIC-LIGHTED DISPLAY SIGN OR EMBLEM

Application filed April 30, 1926. Serial No. 105,663.

This invention relates to electric display devices, such as electric signs for commercial and ornamental purposes.

An object of the invention is the provision of a practical portable device for displaying an electric lighted flag or like emblem, or decoration, which device shall be simple in construction, comparatively cheap to manufacture, and efficient in operation to a high degree.

Other objects of this invention will in part be obvious and in part hereinafter pointed out.

The invention accordingly consists in the features of construction, combination of elements, and arrangement of parts which will be exemplified in the construction hereinafter described and of which the scope of application will be indicated in the following claims.

In the accompanying drawing, in which is shown one of the various possible illustrative embodiments of this invention,

Fig. 1 is a front elevational view of the device, partly broken away to show the interior construction,

Fig. 2 is a cross sectional view taken on line 2—2 in Fig. 1, and

Fig. 3 is a fragmentary cross sectional view showing a modified form of light changing mechanism.

Referring in detail to the drawing, 10 denotes an electric lighted display device embodying the invention. As here shown, the same is seen to comprise a box-like casing 11, preferably of triangular cross-section, mounted in an overhanging position to extend outwardly from a vertically disposed tubular stanchion 12, supported on a suitable base member 13.

Said casing 11 may be constructed in any suitable manner, and may be either molded or made of sheet metal and have openings $14^a$ in opposite enclosing sides thereof to serve as frames 14, wherein are fitted translucent signs or emblems 15 as for example, American flags. The signs or emblems 15 may be painted or otherwise formed on glass, celluloid or other like sheet material, or may be constructed of printed or woven textile fabrics, said sign preferably being removable from said frame openings $14^a$ to permit interchanging thereof. The casing 11 may be secured to the stanchion 12 by a demountable support of any suitable construction for easily separating the several parts in shipping and transporting of the device. As here shown, said demountable support comprises a slideway frame member 16 fastened to extend along the exterior rim portions of an opening $12^a$ provided to extend lengthwise of said stanchion 12. Said slideway frame member is adapted to receive out-turned edge flanges $11^b$ formed on an open end of the casing 11 for retaining said open end in registry with the stanchion opening $12^a$.

Mounted within the stanchion 11 is an electric light socket 17 having a bulb 18, the latter being connected through any suitable means, such as conducting wires 19 and an attachment fitting 20 to a suitable electric power source (not shown). The bulb 18 is preferably arranged to transmit the light uniformly through the openings $12^a$ into the casing for illuminating the emblems 15.

If desired, the lighting efficiency may be improved by providing a suitable reflecting surface or reflector 21 along the inner surface of the stanchion 11 about the bulb 18 and adjacent the opening $12^a$. To further intensify the illumination on the signs 15, a suitable lens 22 may be interposed in the said opening $12^a$. Said lens may have its surface $22^a$ ribbed for further refracting and uniformly distributing the light rays from the bulb 18 over the inner surfaces of the signs 15.

For giving a novel lighting effect to the sign as for example to effect the simulation of a waving flag, a suitable light intensity changing mechanism is provided. Said mechanism may be operated in any suitable manner and for simplicity and economy as shown in Figs. 1 and 2, is seen to comprise a

heat motor having the propeller 23 pivoted on the tip of the bulb 18, said propeller having depending therefrom a tubular covering 24 surrounding the bulb 18. The covering 24 may be made of a suitable translucent sheet material such as paper or silk, painted or otherwise decorated to color or to subdue to various degrees the light passing therethrough whereby the lighting effects on the flags 15 are kept continuously changing on rotation of the propeller so as to produce the simulation of the waving of the flag 15. With the form of heat-motor described above, one or more air inlet openings 25 are provided in the stanchion 12 below the bulb 18, and one or more outlet air openings 26 in a ball cap 29 forming the closure on the top or free end of the stanchion. Said ball is preferably demountably secured in position to permit the replacement and removal of the bulb 18 and the light quality changing mechanism. In the above described construction of the device 10, the stanchion 12 is preferably made of opaque material to conceal from view the lighting source and said mechanism.

The operation of the device 10 will now be made clear. After assembling the parts as shown in Figs. 1 and 2, the device is attached to a suitable electric power source for lighting the bulb. The air surrounding the latter will be heated and in rising through the propeller 23 will cause the same to rotate and carry the covering 24 around therewith. Direct rays of the light from the bulb together with rays from the reflector 21 pass through the lens $22^a$ and are directed to uniformly illuminate the emblems 15. The sides of the casing 11 carrying the emblems are preferably set in an angular position relative to a central line A—A, (see Fig. 2) which passes centrally through the bulb 18 and the lens 22 so as to bring the emblems in the direct path of the light rays, the surface $22^a$ of said lens being shaped to uniformly distribute the light over the surface of each of said emblems 15.

The heated air inside the stanchion passes out through the outlet openings 26 and cool air is drawn in at the inlet openings 25 thereby causing a continuous flow of air through the stanchion for keeping the propeller in motion as will be well understood. The covering 24 serves to vary the intensity or color of the light projected therethrough from the bulb 18.

In shipping or transporting said device 10, the parts may be easily disassembled by dismounting the ball cap 29 for removing the propeller 23, covering 24 and the bulb 18, and the casing 11 may be detached from the stanchion by simply sliding the casing flanges $11^b$ free from the slideway frame member 16.

In Fig. 3 is shown a modified form of light quality changing mechanism which is seen to comprise a fan 123 driven by a motor 124 which is preferably positioned in the base 13, the fan being adapted to blow air supplied through inlets 25 up through the stanchion and around the bulb 18. Loosely suspended from suitable fittings 125 and surrounding the bulb 18, there are provided streamers 126 formed of suitable opaque or translucent material, each of the latter preferably being weighted at its lower end. When the motor 124 is operated to rotate the fan 123, air is forced up through the stanchion 12 and is effective to blow the streamers about. The irregular movement of the streamers intercepts the light from the bulb and varies the intensity and color of the light projected on the emblems 15.

It will thus be seen that there is provided a device in which the several objects of this invention are achieved and which is well adapted to meet the conditions of practical use.

As various possible embodiments might be made of the above invention and as various changes might be made in the embodiment above set forth, it is to be understood that all matter herein set forth or shown in the accompanying drawings is to be interpreted as illustrative and not in a limiting sense.

Having thus described my invention. I claim as new and desire to secure by Letters Patent:

1. A device of the character described, comprising a vertically disposed hollow supporting stanchion having an opening extending lengthwise thereof, a casing having an open end mounted in an overhanging position to extend outwardly from and supported by said stanchion, said open end of the casing being in registry with the stanchion opening, said casing having an enclosing side thereof constructed of translucent material formed with display matter, and means mounted in the hollow of said stanchion for illuminating the display matter.

2. A device of the character described, comprising a vertically disposed hollow supporting stanchion having an opening extending lengthwise thereof, a display sign mounted in an overhanging position to extend outwardly from and supported by said stanchion in registry with said stanchion opening, and means in the hollow of said stanchion for illuminating said sign.

3. A device of the character described, comprising a vertically disposed hollow supporting stanchion, a casing having an open and mounted on said stanchion in an overhanging position to extend outwardly from said stanchion, said casing having an enclosing side constructed of translucent material formed with display matter, lighting means concealed in said stanchion, the latter having an opening extending lengthwise thereof in registry with the open end of said casing wherethrough the light from said means passes to illuminate said display matter and

a lens interposed in the path of the light passing through said stanchion opening for intensifying the illumination of said display matter.

4. A device of the character described, comprising a vertically disposed hollow supporting stanchion having an opening extending lengthwise thereof, a display sign mounted in an overhanging position to extend outwardly from and supported by said stanchion in registry with said stanchion opening, a light source mounted in the hollow of said stanchion for illuminating said display matter, and means on the interior side of said stanchion for reflecting light from said source through said opening.

5. A device of the character described, comprising a vertically disposed hollow supporting stanchion having an opening extending lengthwise thereof, a display sign mounted on said stanchion in an overhanging position to extend outwardly from said stanchion in registry with said stanchion opening, a light source illuminating said display matter, and means for varying the intensity of the light from said source, said source and means being mounted in the hollow of said stanchion.

6. A device of the character described, comprising a vertically disposed hollow supporting stanchion having an opening extending lengthwise thereof, a display sign mounted on said stanchion in an overhanging position to extend outwardly from said stanchion in registry with said stanchion opening, a light source, means for varying the quality of light from said source, said source and means being mounted in the hollow of the stanchion, and means on the interior side of said stanchion for reflecting light from said source through said opening.

7. A device of the character described, comprising a vertically disposed hollow supporting stanchion, a casing having an open end mounted in an overhanging position to extend outwardly from said stanchion, said casing having an enclosing side constructed of translucent material formed with display matter, lighting means concealed in said stanchion, reflector means on the interior side of said stanchion, the latter having an opening extending lengthwise thereof in registry with the open end of said casing wherethrough the light from said lighting and reflecting means pass to illuminate said display matter.

8. A device of the character described, comprising a vertically disposed hollow supporting stanchion, a casing having an open end mounted in an overhanging position to extend outwardly from said stanchion, said casing having an enclosing side constructed of translucent material formed with display matter, lighting means concealed in said stanchion, reflector means on the interior side of said stanchion, the latter having an opening extending lengthwise thereof in registry with the open end of said casing wherethrough the light from said lighting, and a lens positioned in the stanchion opening for intensifying the illumination of said display matter.

9. In a device of the character described, a translucent sheet having display matter, a concealed elongated light source for illuminating said sheet extending parallelly along one edge of and at a spaced distance from said sheet, a lens interposed between and parallel to said source and said sheet for intensifying the illumination of said display matter and means movable with respect to said source for varying the intensity of light directed on said sheet.

10. In a device of the character described, a tubular supporting stanchion having an opening extending lengthwise thereof, a light source mounted in said stanchion, the light of which is projected through said opening, and a translucent sheet having display matter mounted in an overhanging position and supported by said stanchion to extend from the rim portion of said opening outwardly and in angular relation thereto for intercepting the projected light rays.

11. In a device of the character described, comprising an upright tubular stanchion having an opening extending lengthwise thereof, a casing having an open end, demountable means for supporting said casing in an overhanging position to extend outwardly from said stanchion, the open end of said casing being in registry with the stanchion opening, the enclosing sides of said casing being constructed of translucent material formed with display matter, means mounted in the stanchion for illuminating said display matter, and a removable closure for the free end of said stanchion.

12. In a device of the character described, comprising an upright tubular supporting stanchion having an opening extending lengthwise thereof, a casing having an open end mounted in an overhanging position on said stanchion, said open end of the casing being in registry with the stanchion opening, and means mounted in said stanchion for projecting light through said opening, said casing having at least one enclosing side thereof positioned in angular relation to the plane of said opening for intercepting the projected light rays.

13. In a device of the character described, comprising an upright tubular supporting stanchion having an opening extending lengthwise thereof, a casing having an open end mounted in an overhanging position on said stanchion, said open end of the casing being in registry with the stanchion opening, and means mounted in said stanchion for projecting light through said opening, said casing having a pair of enclosing sides there-

of positioned to extend convergingly outward from said opening, said sides being constructed of translucent material formed with display matter, each side being positioned to intercept the projected rays for illuminating said display matter.

In testimony whereof I affix my signature.

WILLIAM E. PRICE.