Oct. 15, 1929. F. P. WILSON 1,731,960

ELECTRICALLY OPERATED COLOR RAY SIGN

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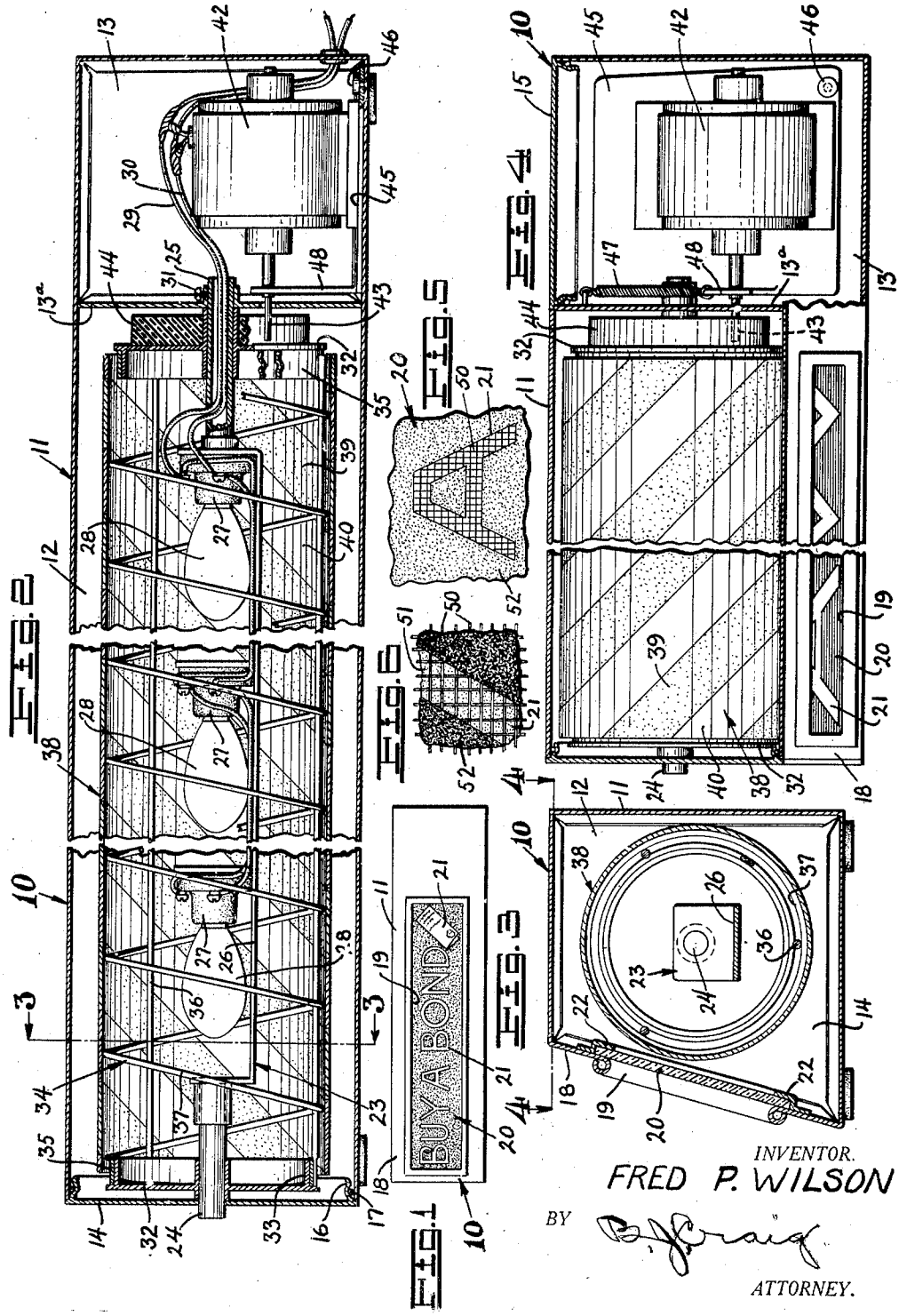


FIG. 1

FIG. 2

FIG. 3

FIG. 4

FIG. 5

FIG. 6

INVENTOR.
FRED P. WILSON
BY
ATTORNEY.

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FRED P. WILSON, OF TUJUNGA, CALIFORNIA, ASSIGNOR OF ONE-THIRD TO ELMER E. BOWEN AND ONE-THIRD TO OLIN R. GOULD, BOTH OF LOS ANGELES, CALIFORNIA

ELECTRICALLY-OPERATED COLOR-RAY SIGN

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This invention relates to improvements in advertising devices.

The general object of this invention is to provide an advertising device which may include an illuminated sign wherein improved means is provided for causing a plurality of various colors to play across the face of the sign.

Another object of this invention is to provide a novel device of the class described wherein the color producing medium is mounted for rotation in such a manner as to be readily removable and interchangeable so that different color effects may be readily produced.

A further object of this invention is to provide a sign to be used in conjunction with my improved device which is composed of an unbreakable material.

An additional object of my invention is to provide a novel mounting for a rotary illuminating device.

Other objects and advantages of this invention will be apparent from the following description taken in connection with the accompanying drawings wherein:

Fig. 1 is a front face view of my improved advertising device.

Fig. 2 is a central vertical longitudinal section through the device.

Fig. 3 is a section through the device taken on line 3—3 of Fig. 2.

Fig. 4 is a section taken on line 4—4 of Fig. 3.

Fig. 5 is a fragmentary face view of the advertising sign and

Fig. 6 is a greatly enlarged fragmentary face view of the advertising sign showing the construction thereof.

Referring to the drawings by reference characters I have indicated my improved device generally at 10. This device preferably comprises a metal casing 11 which includes a light compartment 12 and a motor compartment 13 separated by a partition 13^a. One end of the light compartment 12 is provided with a removable closure 14 and the rear of the motor compartment 13 is provided with a removable closure 15. These closures may be held in place in any desired manner but I have shown them as adapted to be retained in position by spring tongues 16 which snap over a wire 17 secured to the casing 11.

The front wall 18 of the light chamber 12 is provided with an elongated aperture 19 which is adapted to be closed by a translucent slide 20 upon which are formed symbols 21 such as letters or pictures. The slide 20 is shown as supported by a pair of rails 22 in which it is mounted for slidable movement and from which it may be readily removed or inserted when the closure 14 is removed.

Within the compartment 12 I provide a light carrying frame 23 which comprises end shafts 24 and 25 connected by a depending flat stirrup 26 upon which are mounted a plurality of electric light sockets 27 in each of which is shown an electric light bulb 28. The end shaft 25 is hollow as shown so that wires 29 and 30 may be positioned therein for supplying electric current to the bulbs 28. The sockets 27 are preferably wired in multiple as shown, but any suitable form of wiring may be employed.

The end shaft 25 is supported by the partition 13^a and the end shaft 24 is adapted to be supported by the closure 14 when it is in place. These end shafts 24 and 25 are not intended to rotate in either the partition 13^a or the closure 14, and to prevent rotation of the shafts and the light carrying frame 23 I preferably provide a set screw 31.

Rotatably and removably mounted upon the end shafts 24 and 25 I provide annular end members 32 which include annular flanges 33 upon which a cylindrical frame 34 is removably mounted. As shown this cylindrical frame 34 includes end collars 35 positioned on the flanges of the end members 32 and connected together by a plurality of longitudinally extending wires 36 upon which, and secured thereto, is a spirally wound wire 37. Instead of the wires 36 and 37 I may employ wire mesh such as "rabbit wire."

Over the frame 34 I position a color producing cylinder 38 which is shown as comprising a plurality of variously colored independent translucent strips 39 and 40 which may comprise celluloid or similar material

spirally wound upon the frame 34. The strips 39 and 40 may be spirally wound upon the frame 34 in engagement as shown or they may be positioned on the frame in any desired manner to produce the required color effect.

Instead of the color cylinder 38 being composed of a plurality of independent strips 39 and 40 as shown it may be made in one or more pieces and have the various colors applied thereto in any desired shape.

For rotating the wire frame 34 and the color cylinder 38 I provide a motor which may be a spring motor or an electric motor 42 which is positioned in the compartment 13 and which preferably has a pinion 43 on the armature shaft which engages a composition disc 44 secured to the end member 32 adjacent the partition 13^a.

The motor 42 is shown as mounted upon a base plate 45 which is pivoted as at 46 to the bottom of the casing 11. A coiled spring 47 secured to an upstanding arm 48 on the base and anchored to an outstruck lip on the partition 13^a is adapted to resiliently retain the pinion 43 in contact with the disc 44.

From the foregoing description it will be seen that when the motor is started and the electric bulbs 28 lighted the color cylinder 38 will be rotated and the various colors thereon will be reflected upon the slide 20 upon which when viewed from the exterior they will appear to be moving from one end to the other or in various directions, depending entirely on the design in which they are placed upon the cylinder 38.

The slide 20 is preferably made of an unbreakable material such as shown in Figs. 5 and 6 which comprises a body of wire mesh 50 covered with a transparent gelatinous or glass-like material 51 applied thereto so that the spaces between the wire mesh 50 are completely filled with the gelatinous material. To define the symbols 21 I have shown the portion of the slide which comprises the background as having a coating of opaque substance 52 applied over the material 51. Of course it will be understood that the symbols may be opaque and the background translucent if desired, or that some of the symbols may be translucent and some opaque depending entirely upon the design of the sign being displayed. Various figures to produce effects simulating a burning building may be worked out with the sign to suit the uses to which it is put.

I also prefer at times to construct the translucent color cylinder 38 of the same unbreakable material as the slide 20 but it will be understood that the particular material of which both the slide 20 and the cylinder 38 are made may be changed to meet various requirements without affecting the scope of the appended claims.

Having thus described my invention, I claim:

1. An advertising device comprising a casing, a transverse partition, said transverse partition forming a light compartment and a motor compartment in said casing, an aperture in the front wall of said light compartment, said aperture being closed by a translucent plate, a readily removable closure at one end of said light compartment, a light frame in said light compartment, said light frame including end shafts, a plurality of electric light sockets on said frame, one of said light frame end shafts being supported by said removable closure of said light compartment and the other of said end shafts being supported by said transverse partition and projecting therethrough, said last mentioned end shaft being hollow for the passage therethrough of electric light wires, a member rotatably mounted upon each of said end shafts, each of said members including an annular flange, a cylindrical frame having its ends fitted on said annular flanges, a translucent cylinder on said frame, said cylinder including colored portions.

2. In an advertising device a casing having an aperture in the front wall, said aperture being closed by a translucent plate, a readily removable closure at one end of said casing, a light frame in said casing, said light frame including end shafts, a plurality of lamp sockets on said frame, one of said light frame end shafts being supported by said removable closure of said casing and the other of said end shafts being supported in said casing, a member rotatably mounted upon each of said end shafts, each of said members including an annular flange, a cylindrical frame on said members, said cylindrical frame including end collars adapted to fit over said annular flanges, means connecting said end collars, a translucent cylinder on said means, said cylinder comprising a plurality of colored strips and a motor in said casing to rotate said cylindrical frame.

3. In an advertising device, a casing, a stationary light frame in said casing, spaced members rotatably mounted on said light frame, each of said members including an annular flange, a cylindrical wire frame, said cylindrical frame including end collars engaging said annular flanges of said members and a translucent cylinder comprising a plurality of colored strips fitted on said cylindrical wire frame.

4. An advertising device comprising a casing, a light compartment in said casing, an aperture in the front wall of said light compartment, a light retarding plate covering said aperture, a light supporting frame in said light compartment, a plurality of electric light sockets supported by said light frame, a supporting cylindrical member mounted to rotate about said light frame,

said cylindrical member including a frame of spaced parallel longitudinally extending wires and a wire bent to cylindrical shape and engaging said spaced parallel wires, a translucent cylinder comprising a plurality of colored strips supported on said supporting cylinder, means to rotate said supporting cylinder and a plurality of symbols on said front plate, said symbols being delineated on said light retarding material.

In testimony whereof, I hereunto affix my signature.

FRED P. WILSON.