Aug. 8, 1933. C. U. JOHNSON 1,921,570

ILLUMINATED ADVERTISING SIGN

Filed May 24, 1932 3 Sheets-Sheet 1

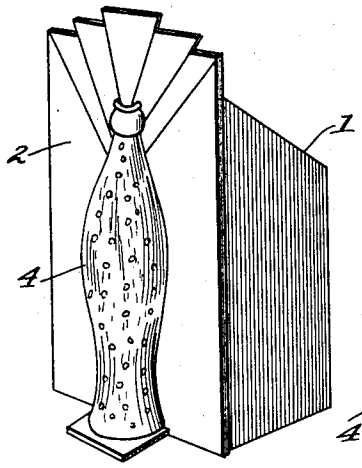


Fig. 1.

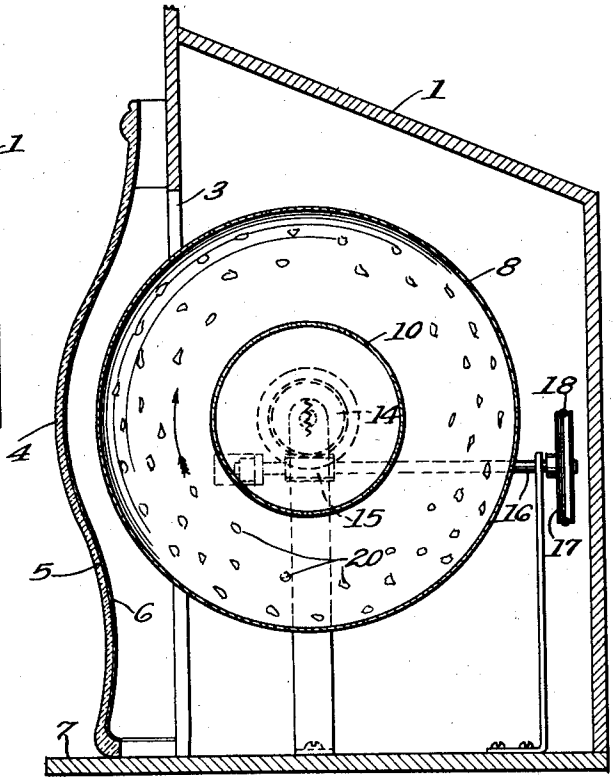
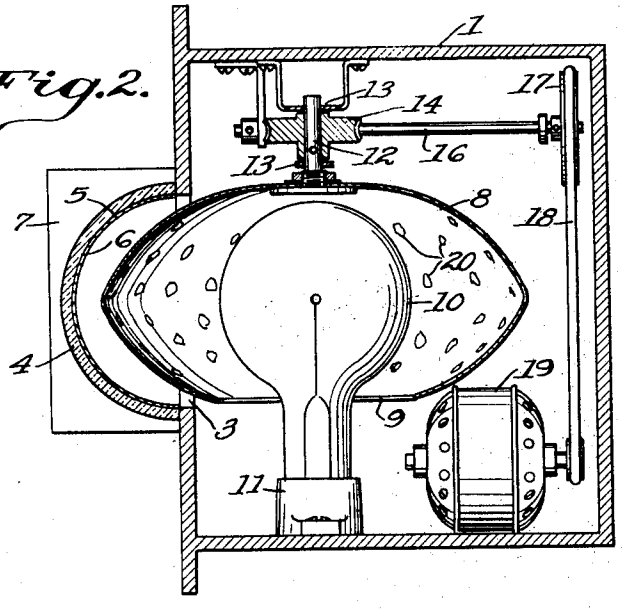


Fig. 3.

Fig. 2.



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Filed May 24, 1932 3 Sheets-Sheet 2

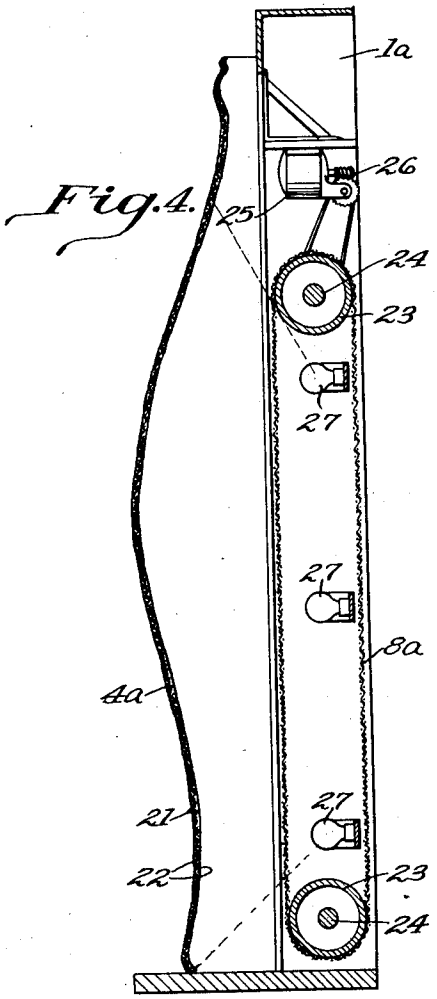


Fig.4.

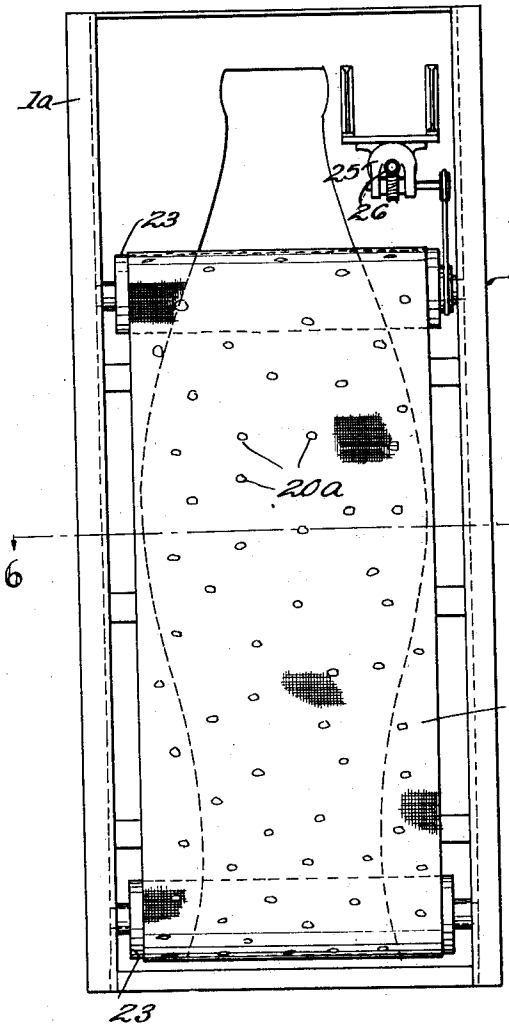


Fig.5.

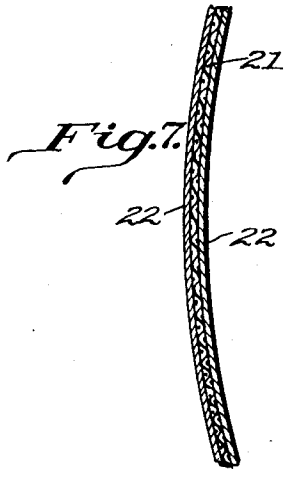


Fig.7.

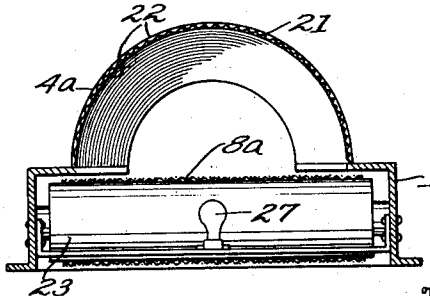


Fig. 6.

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Filed May 24, 1932 3 Sheets-Sheet 3

Fig. 8.

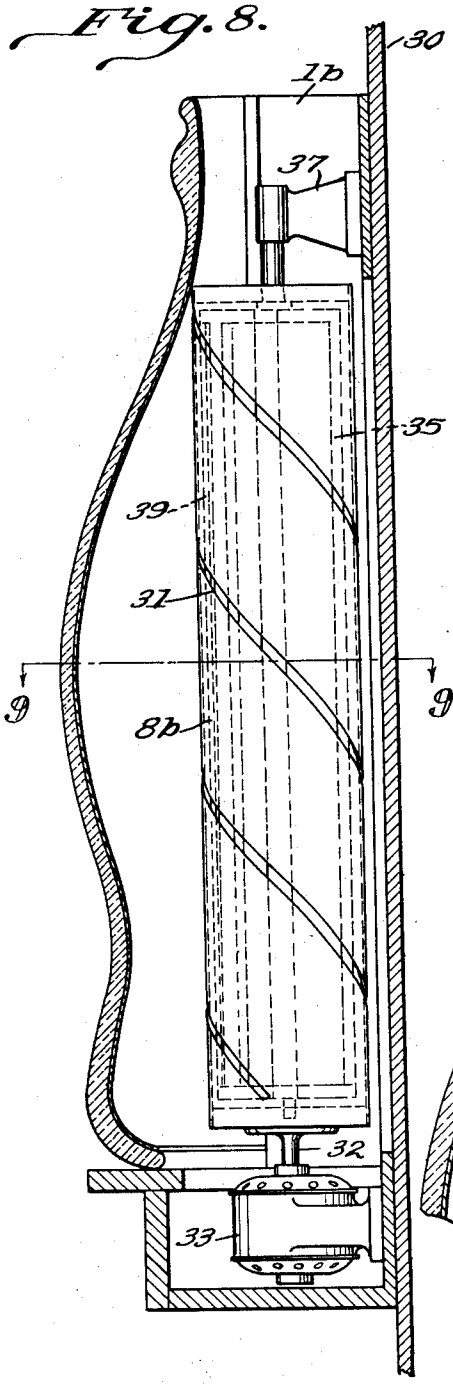


Fig. 9.

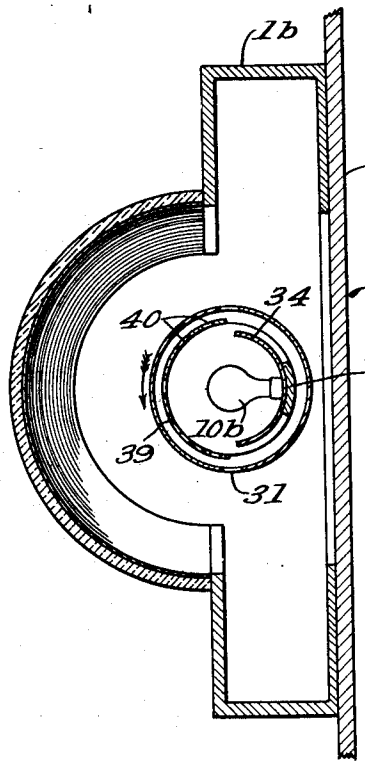
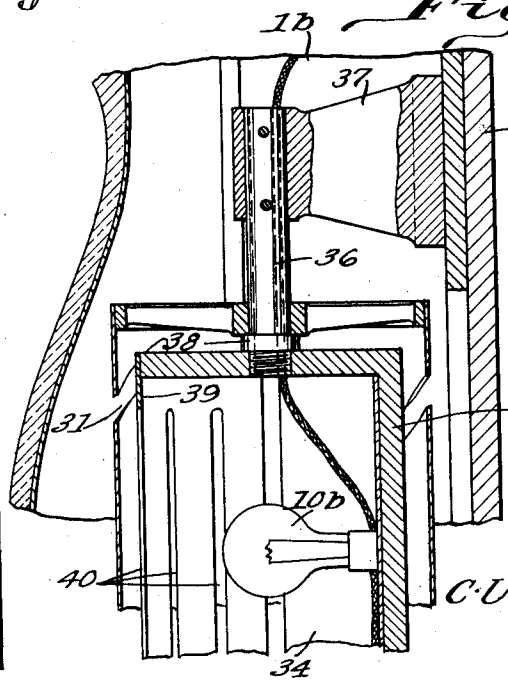


Fig. 10.



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Patented Aug. 8, 1933 1,921,570

UNITED STATES PATENT OFFICE

1,921,570

ILLUMINATED ADVERTISING SIGN

Claude U. Johnson, Columbus, Ohio, assignor to P. F. Yoerger Sign Company, Columbus, Ohio, a Corporation of Ohio

Application May 24, 1932. Serial No. 613,235

5 Claims. (Cl. 40—126)

This invention relates to an illuminated advertising or display sign wherein the illuminated area thereof presents the appearance of a bottle containing an effervescent beverage, and it is an object of the invention to provide means for constantly illuminating in a uniform and effective manner the bottle and beverage representing area so that the latter will stand out in relief from the front opaque wall of the sign in such a prominent and natural manner as to attract attention and, in effect, compel observation thereof.

Another object of the invention resides in a sign of the character specified wherein novel means are provided for effecting the illumination of the bottle and beverage representing medium and to produce therein the optical effect or illusion of gas bubbles passing upwardly through the bottle and/or its beverage representation, whereby to animate the sign and place emphasis on the charged or effervescent character of the beverage advertised by the sign and attract a greater degree of attention thereto than if the bottle area were but uniformly or statically illuminated.

Another object of the present invention is to provide an advertising sign of novel formation and construction which may be produced at a relatively low cost.

A further object rests in the provision of a sign having the above features which may be used for indoor advertising of various bottled beverages or which, when in larger form, may be used for outdoor advertising and wherein the design is such that the sign may be secured in a desired position upon the display surface of a billboard without changing the construction of the billboard or injuring or marring the latter.

Various other objects and advantages of the present invention will be apparent from the following description of advertising signs embodying the invention and for which purpose reference is made to the accompanying drawings, which illustrate several forms or examples of such an advertising sign.

In the drawings:

Fig. 1 is a perspective view of the improved bottled beverage advertising sign comprising one of the preferred forms of the present invention;

Fig. 2 is a horizontal sectional view taken through the sign;

Fig. 3 is a vertical longitudinal sectional view taken through the sign;

Fig. 4 is a similar view showing a modified form of the invention wherein the animating member partakes of the form of an endless belt;

Fig. 5 is a rear elevation of the structure disclosed in Fig. 4;

Fig. 6 is a horizontal sectional view on the line 6—6 of Fig. 5;

Fig. 7 is a detail vertical sectional view disclosing on an enlarged scale the construction of the illuminated bottle simulating member;

Fig. 8 is a vertical sectional view through a further modified form of the sign;

Fig. 9 is a transverse sectional view on the line 9—9 of Fig. 8;

Fig. 10 is an enlarged detail vertical sectional view of the construction disclosed in Fig. 8.

Referring more particularly to the form of the invention disclosed in Figs. 1 to 3 of the drawings, the numeral 1 designates the body or casing of the sign. This casing may be of any suitable box-like design adapted for the reception of the mechanism of the sign and may be formed from any suitable materials in various sizes or proportions. The front panel 2 of the sign is preferably given a decorative appearance and may contain suitable advertising matter pertinent to the beverage for which the sign is employed to impart additional publicity or information.

The panel 2, in this instance, is provided with an opening 3 possessing a configuration conforming substantially to the shape of the bottle employed for holding an advertised beverage, and arranged in registration with and mounted in front of the opening 3 is the illuminated member 4 of the sign. In this instance, the member 4 comprises substantially the form of a one-half part of a bottle. Many nationally advertised beverages are sold or distributed in bottles of distinctive configuration so that a purchaser by a mere glance at the bottle, may by its shape identify the beverage usually dispensed therein, and, in this instance, the member 4, as above stated, is formed to comprise a one-half part of such a bottle, although it will be understood that it may be of any desired configuration, whether common or distinctive. Preferably, the interior or inner surfaces 5 of the member 4 have applied thereto a coating 6 of paint, lacquer, varnish or the like, possessing a coloration corresponding to that of the bottle or of the beverage to be advertised, for instance, red, green, orange, etc., whereby when the member is illuminated, the desired color will be imparted to the bottle to effect the representation or illusion of a beverage therein. The bottom of the casing 1 may be provided with a

shelf 7 on which the lower portion of the bottle half rests and is secured in desired relationship to the front surface of the panel 2 and its opening 3. The outstanding feature of the present invention resides in not merely illuminating the bottle but in providing means by which is imparted to the bottle, when it is illuminated, the effect of upwardly moving gas bubbles in order to emphasize the effervescent character of the beverage to impel a greater degree of attention to the illuminated features of the sign and at the same time presenting a pleasing natural appearance whereby to generally increase its advertisihg value.

Rotatably mounted in the casing 1, in registration with the bottle simulating member 4 is an animating disk 8. Preferably this disk is formed from a relatively translucent material such as paper, celluloid or the like and in cross section, the disk presents a somewhat oval or elliptical configuration so that it approximately conforms to the horizontal cross sectional configuration of the member 4. One side of the wheel or disk 8 is open as at 9 for the reception of one or more incandescent lamps 10, the single lamp shown being mounted in connection with a socket 11 carried by one of the side walls of the casing. Due to the fact that the animating member is formed from translucent materials, the light derived from the lamp 10, or other equivalent source, readily passes through the walls of the member 8 to illuminate generally the bottle simulating member 4.

The wheel or disk 8 is mounted in this instance in connection with a stud shaft 12 rotatably mounted in bracket bearings 13 carried by one of the inner walls of the casing. The shaft 12 is provided with a worm gear 14 which meshes with a worm 15 carried by a counter-shaft 16. In this instance the shaft 16 is equipped with a sheave wheel 17 around which passes a belt 18, the latter being also trained over the sheave wheel carried by the shaft of a small electric motor 19.

The animating disk or wheel 8 is provided with a number of spaced perforations 20 in the peripheral regions thereof through which light from the lamp 10 may pass directly without being intercepted and diffused by the walls of the disk or wheel. The strong light which passes through the perforations 20 is directed in spaced beams on the coating 6 provided on the inner surfaces of the bottle simulating member 4 and these beams are viewable from the exterior of the sign, the effect thereof being to impart to the object the appearance of gas bubbles. Then by reason of the rotation of the animating member 8, these strong light spots or bubbles present the illusion of an effervescent or gas-charged beverage. Thus the bottle member 4 is generally illuminated to a substantially uniform degree throughout the entire height thereof and, in addition, the concentrated or direct light beams of a stronger and more readily discernible nature in a state of movement are developed by which the illusion is perfected.

Similar ends may be attained by the employment of the construction illustrated in Figs. 4 to 7 inclusive. In this form of the invention, which is used chiefly for outdoor advertising, and wherein the sign is adapted to be placed in vertical order on flat surfaces, such as bulletin boards, walls and the like, the casing 1*a* is comparatively shallow with respect to the height of the sign so that the bottle simulating member 4*a* will not project too far beyond a given base surface nor will it be necessary to cut or mutilate the base surface in order to mount the same. In this form of the sign, the member 4*a*, instead of being formed from glass, is preferably made from a non-breakable material such as wire screen, as indicated at 21. This screen is coated with a translucent gelatinous substance 22 through which light may pass in a manner comparable to a translucent glass. The animating member 8*a* takes the form of an endless belt, which may be formed from paper, fabric, celluloid or other similar materials after the manner of the disk 8. The belt 8*a* passes around drums 23, rotatable in connection with horizontal shafts 24. One of these drums may be driven by an electric motor 25 through worm gearing 26, worm gearing being preferably employed because of its simplicity and convenience in reducing high motor speeds. The belt 8*a* is provided with perforations 20*a* through which light, obtained from spaced lamps 27, passes without being intercepted by the material of the belt. These light beams directly contact with the member 4*a* and produce the effect of upwardly moving gas bubbles, giving a very realistic effect of beverage effervescence.

In the form of the invention disclosed in Figs. 8, 9 and 10, the sign is particularly used for outdoor advertising, for example, as when applied to bulletins or large scale painted surfaces such as are usually found on billboards and the like. In this form of the invention, a flat shallow casing 1*b* is used which, as shown in Figs. 8 and 9, may be directly applied to the outer surface of a billboard or the like 30 without marring the construction or appearance of the billboard in order to effect the mounting of the sign. In order to permit of the use of such a small compact casing, the animating mechanism 8*b* partakes of the form of a cylinder arranged to rotate about a vertical axis. The cylinder is carried by a suitable frame and has provided therein a helical slot 31, the cylinder being generally formed from parchment paper or its equivalent. The lower end of the cylinder is connected by a shaft 32 with an operating motor 33. In this instance, the connection, for convenience in illustration, has been shown as of the direct variety although it will be appreciated that speed reducing gearing of, for instance, the type shown in Fig. 5, may be used if found desirable. Within the cylinder, there is mounted a plurality of incandescent lamps 10*b* which are employed to illuminate the sign as a whole and may be provided with associated reflectors 34 to direct the light thereof forwardly through the bottle member 4.

The lamps 10*b* are supported in a stationary frame 35 arranged within the rotating cylinder 8*b*. The frame is suspended within said cylinder by means of a tubular shaft 36 carried by a stationary bracket 37 mounted within the casing 1*b*. The lower part of the shaft 36 is threaded into the upper end of the frame 35 and adjacent to this threaded portion, the shaft is provided with a collar 38 constituting a rotating bearing for the upper frame member of the cylinder 8*b*. The current conveying leads for the lamps 10*b* may pass through the tubular shaft 36 to the respective sides in which the lamps 10*b* are contained. The frame 35, in front of the lamps 10*b*, and within the cylinder 8*b*, is provided with a translucent shield 39 of arcuate formation, and this shield is formed with vertically extending slots 40 through which light, emanating from the lamps 10*b*, may directly pass. It will be seen that as the cylinder 8*b* rotates, the helical slot

31 formed therein will register with the vertical slots 40 to produce openings through which the light rays may pass and be directed upon the bottle 4, producing the illusion of upwardly moving gas bubbles.

What is claimed is:

1. An advertising sign for bottled effervescent beverages, comprising a casing having an opening formed in the forward wall thereof, a translucent member of bottle configuration positioned exteriorly of said casing and in registration with said opening, a source of light arranged within said casing, a perforated animating member movably mounted within said casing, and means for imparting motion to said animating member whereby to direct a plurality of localized strong light beams upon said translucent bottle resembling member to simulate the appearance of upwardly moving bubbles in a represented beverage.

2. In an illuminated advertising sign, a casing provided with an opening in a forward wall, a translucent bottle section arranged in front of said casing in registration with said opening, said section being internally coated to represent a beverage, means for statically illuminating said bottle section to a relatively low uniform degree, and cooperative means for imparting an animated higher degree of illumination to said bottle section to simulate the appearance of ascending gas bubbles in the beverage portrayed thereby.

3. In an illuminated advertising sign, a casing provided with an opening in the forward wall thereof, a translucent receptacle section arranged in front of said casing in registration with said opening, said section being internally coated to represent a beverage, means for statically illuminating said receptacle section to a relatively low uniform degree, and cooperative means for imparting a higher degree of illumination to said receptacle section to simulate the appearance of ascending gas bubbles in the beverage portrayed thereby.

4. In an illuminated advertising sign, a casing provided with an opening in its forward wall, a translucent member of bottle configuration positioned exterior of said casing and in registration with said opening, a perforated translucent screen mounted for vertical movement within the casing, a source of light back of said screen, and means for imparting motion to said screen whereby to direct a plurality of localized light beams upon said translucent member to simulate the appearance of upwardly moving bubbles in a represented beverage.

5. In an illuminated advertising sign, a supporting structure having an opening therein, a translucent receptacle section arranged in registration with said opening, an endless belt mounted for vertical movement within said structure, said belt being of a translucent character and formed with perforations therein, a source of light arranged back of said belt, and means for imparting motion to said belt whereby to direct a plurality of localized strong light beams upon said translucent receptacle section to simulate the appearance of upwardly moving bubbles in a represented beverage.

CLAUDE U. JOHNSON.