H. BECKER.

DISPLAY SIGN.

APPLICATION FILED DEC. 18, 1916.

1,278,094. Patented Sept. 10, 1918.

Fig. 1.

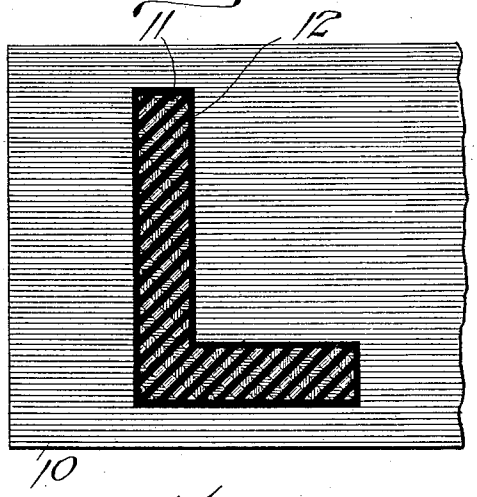


Fig. 2.

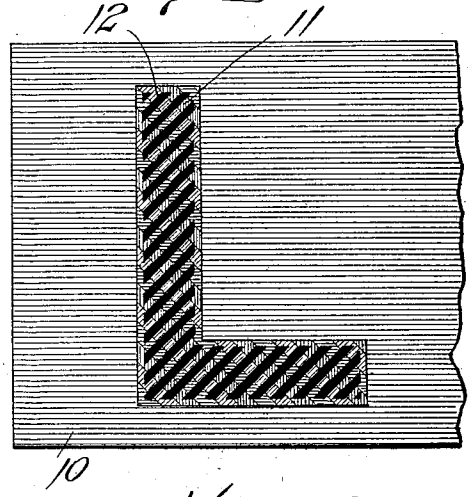


Fig. 3.

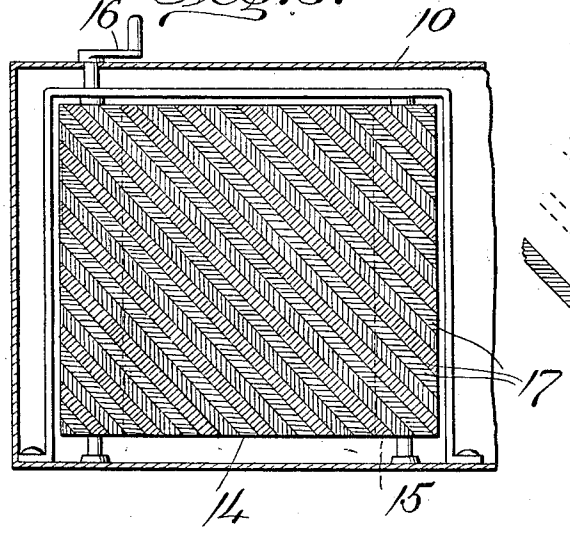


Fig. 5.

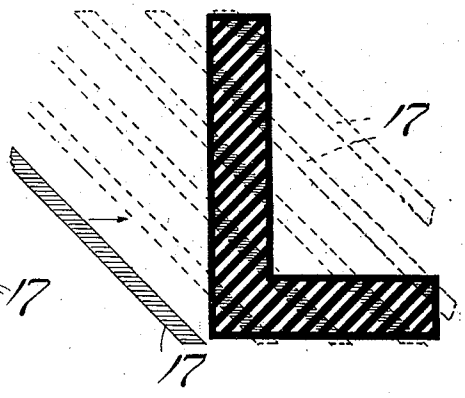
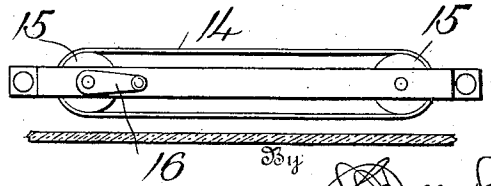


Fig. 4.



Witnesses

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DISPLAY-SIGN.

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To all whom it may concern:

Be it known that I, HERMAN BECKER, a citizen of the United States, residing at Baltimore, in the State of Maryland, have invented certain new and useful Improvements in Display-Signs; 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 display signs.

The principal object of the present invention is to provide a novel form of display sign wherein, through the use of an opaque, or substantially opaque screen, peculiarly colored and arranged and moving behind a peculiarly arranged sign front a simulation of flickering and flaming of the sign will be produced without the necessity of employing moving lights or lenses, or any like devices, the sign being adaptable for use as well in the daytime by the employment of natural lights as at night by the employment of artificial lights.

I am aware that heretofore it has been common to make signs having letters, figures, or other characters shown thereon as well as signs containing the representations of objects such as animals and the like wherein the objects have been made transparent and a strip of webbing painted with suitable colored bands has been passed behind the sign front in order to produce varying colors in the object or designs displayed. Under these conditions, however, the display was not of such character as to produce a flickering or flaming effect, since the necessary extent of the colored display affected the retina of the observer's eye in such manner as to merely present bands of varying color following one another without any flickering, the effect being analogous to that produced in a motion picture where the film is run slowly and without either interrupting the light at the proper intervals or stopping the film at stated intervals, the result being merely a blur.

The present invention, embodies a peculiar arrangement of the display on the front of the sign, be it character or simulation of an animal, or other simulation, the display being formed substantially by a series of narrow transparent slots preferably arranged angularly to the horizontal and the colored bars on the webbing being correspondingly narrow and arranged to move across the slots at an angle so that each bar of color will appear successively in different slots thereby producing the appearance of flickering or jumping of the color from one slot to the other, a novel effect which has not heretofore been produced in this manner.

With the above and other objects in view, as will be hereinafter apparent the invention consists in general of certain novel details of construction and combinations of parts hereinafter fully described, illustrated in the accompanying drawing, and specifically claimed.

In the accompanying drawing, like characters of reference indicate like parts in the several views, and:—

Figure 1 is a face view of a portion of the sign constructed in accordance with this invention, a letter being shown in black with transparent bars.

Fig. 2 is a modification showing a letter of transparent character provided with black bars.

Fig. 3 is a section through the sign showing the colored screen.

Fig. 4 is a diagrammatic view showing a simple method of operating the screen.

Fig. 5 is a diagrammatic view showing different positions of one colored bar as it moves past the transparent portion of the sign front.

In the embodiment of the invention herein illustrated it will be seen that the same is merely typical of one manner of carrying the invention into execution and that, while a single letter has been shown as the design or display which it is desired to make yet this display may be varied to meet the varying circumstances of the sign and the article which it is desired to advertise by the sign. Nevertheless, whatever be the display the same general principles will be followed in every instance.

In the embodiments shown there is disclosed a casing 10 having a design displayed thereon which consists of alternate transparent and opaque bars 11 and 12 respectively, these bars being narrow so that the transparent portions are substantially in the form of slits. These bars are inclined to the horizontal, the horizontal in this instance being understood to be one of two angularly disposed coördinate lines.

Behind this front and in close proximity thereto there is supported a colored sheet 14. As one means of supporting this sheet

there is placed behind each end of the front a roller or drum 15 and the sheet is made in the form of an endless web of some such material as cotton or the like. This sheet may be driven by any suitable motive means which circumstances may require, such means being indicated typically in the present instance by the handled crank 16. It will also be noted that while the present showing discloses the rollers 15 at each end of the device they may be just as well placed above and below the display design as in the particular positions shown, it not being deemed necessary to indicate each and every change of position which may be given to these rollers. On this sheet or web 14 is painted or otherwise provided a series of stripes 17 of varying colors, it being provided that adjacent stripes should contrast. These stripes are preferably arranged diagonally of the sheet and in such manner that they cross the bars 11 and 12 at a suitable angle, say about 93 degrees, although this angle may be varied to suit the occasion.

From the foregoing it will be observed that both the bars and the stripes are at an angle to the horizontal and that it is intended that the web shall move at an angle to both bars and stripes.

By means of this construction as each stripe travels from end to end of the device it appears through successive transparent bars, the opaque bars hiding the intermediate portions so that as it passes along a flickering effect is obtained and by properly arranging the colors on the web the precise effect of flames may be obtained as desired. It will also be obvious that by means of this flickering effect other changeable effects may be obtained, it being particularly noted that in any event the narrow stripes and narrow transparent slots are always employed, the transparent slots and stripes being at an angle to each other and the web traveling at an angle to both, the opaque bars and the slots differently affecting the continuity of light rays in line with which they are placed.

There has thus been provided a highly efficient device of the kind described and for the purpose specified.

Having thus described the invention, what is claimed as new, is:—

1. The combination with a sign including a front having a display design thereon comprising a multiplicity of alternate, transparent and opaque bars, a screen behind said front colored to present a multiplicity of bars differently disposed angularly with respect to the bars of the front, and means to move said screen past the display design at an angle to both sets of bars whereby to produce a flickering and flaming effect.

2. The combination with a sign including a front having a display design thereon comprising a multiplicity of alternate transparent and opaque narrow bars arranged at an oblique angle to one of a pair of angularly disposed coördinates, a screen behind said front colored to present a multiplicity of differently colored narrow bars arranged at an oblique angle to one of said coördinates, the last-mentioned bars being also angularly disposed with reference to the first bars, and means to move said screen past the display in the line of one of the coördinates whereby to produce a flickering and flaming effect.

In testimony whereof, I affix my signature, in the presence of two witnesses.

HERMAN BECKER.

Witnesses:
GEO. H. CHANDLEE,
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Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."