March 24, 1931. J. A. LAWRENCE 1,797,508

SIGN

Filed Nov. 8, 1929

Fig. 1.

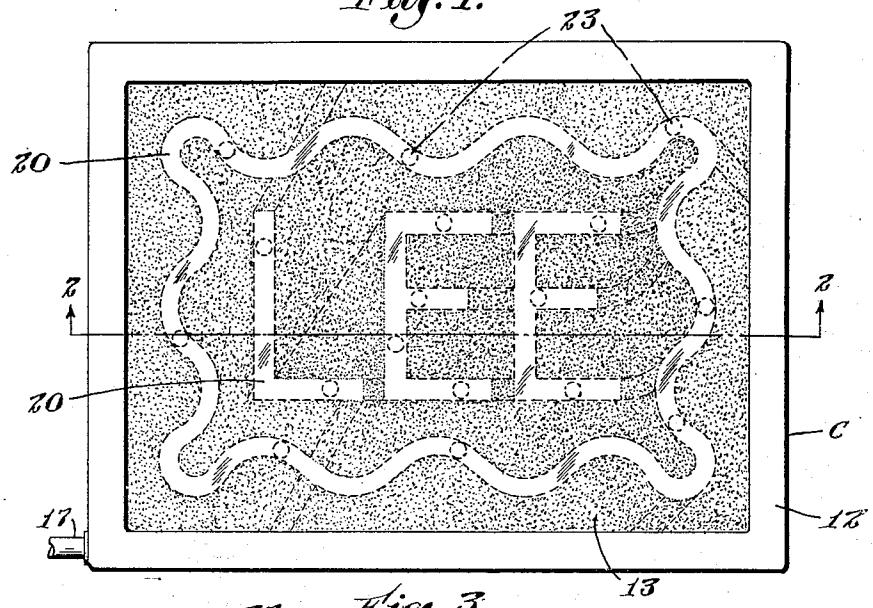


Fig. 3.

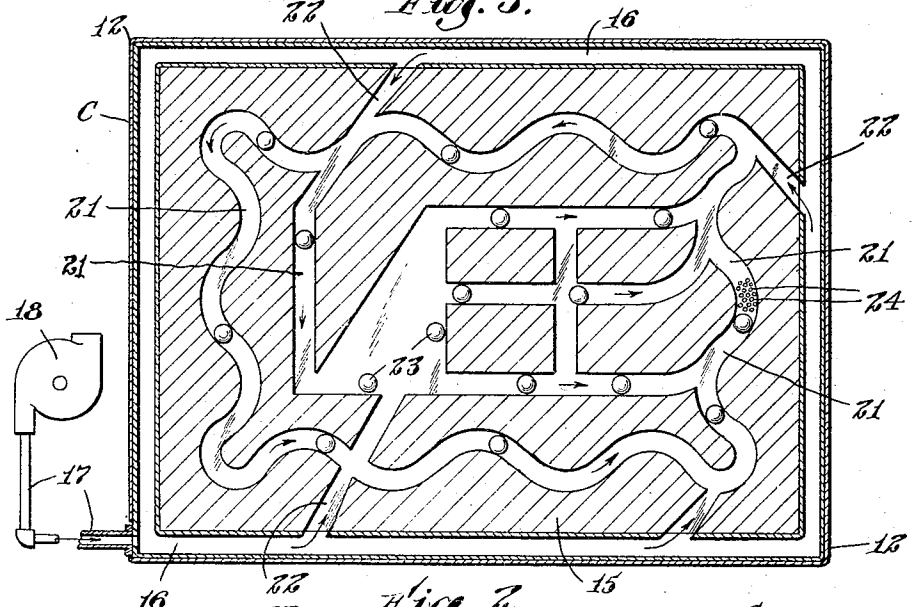
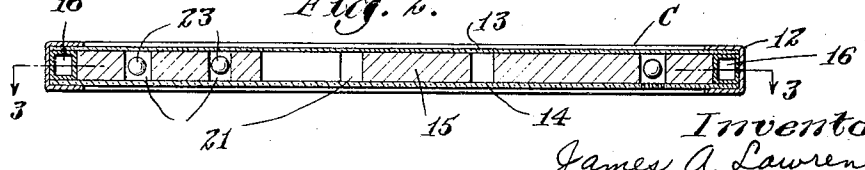


Fig. 2.



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UNITED STATES PATENT OFFICE

JAMES A. LAWRENCE, OF BOSTON, MASSACHUSETTS, ASSIGNOR OF TWENTY-FOUR ONE-HUNDREDTHS TO MILTON J. SEGAL AND TWENTY-FOUR ONE-HUNDREDTHS TO LOUIS COHEN, BOTH OF BOSTON, MASSACHUSETTS

SIGN

Application filed November 8, 1929. Serial No. 405,636.

This invention relates to signs and more especially to advertising signs.

One of the objects of my invention is to provide a sign which will attract the attention of people and prove interesting enough to hold their attention for an unusual length of time. A further object is to provide such a sign that is simple in construction and inexpensive to manufacture and operate.

It is the object of advertisers to impress upon the minds of the public firm names, trade-marks, symbols and the like by which their products are known. It is well known that action or movement of anything attracts the eye and creates interest and when action can be combined with the display of the name or symbol of a product such name or symbol is unconsciously impressed upon the mind of the person watching said movement. Accordingly signs which represent changes or movement are extensively used, such as flashing signs, spelling signs, et cetera.

Heretofore, in order to get sufficient movement or variety in such signs an intricate and expensive arrangement of lights has often been necessary and such signs are practically without effect during the day when large numbers of people are about, depending for their effectiveness upon artificial lighting in the night time when fewer people are about.

Having this in mind it has been my object to advance the advertising art by providing a sign which will attract the attention of a person during the day as well as at night, by causing a movement of members in and about the sign, which is visible and interesting to watch both by daylight as well as by artificial light.

The foregoing and other objects which will appear as the nature of the invention is better understood, may be accomplished by a construction, combination and arrangement of parts such as is disclosed by the drawings. The nature of the invention is such as to render it susceptible to various changes and modifications, and, therefore, I am not to be limited to the construction disclosed by the drawings; but am entitled to all such changes therefrom as fall within the scope of my claims.

In the drawings:

Figure 1 is a front elevation of my sign.

Figure 2 is a cross-sectional view on the line 2—2 of Figure 1.

Figure 3 is a cross-sectional view on the line 3—3 of Figure 2 showing the air ducts and passages in which the balls move.

As illustrated my sign comprises a case C having an outer frame 12 made of channel iron as here shown, a front 13 and a back 14 fitting into said frame 12, between said front 13 and back 14 is a center portion 15 which may be made of wood or other suitable material in which passages may readily be cut.

Said center portion 15 is surrounded on all sides by an air passage or duct 16 formed by means of hollow tubing which is connected by a pipe or tubing 17 to a blower 18 of any common type operated by a motor or otherwise. An air pump, fan or tank of compressed air may be substituted for the blower as any means suitable for forcing air through said tubing 17 to said air duct 16 may be used.

The name, trade-mark, symbol, scroll or the like which it is desired to show or advertise I shall term outlines and designate by the numeral 20. They are formed on the front 13 by painting or otherwise in the usual way. The front may be made of any transparent material such as glass, mica, and the like. Corresponding with said outlines 20 are passages 21 cut in the center portion 15, which passages are connected to each other as shown. While these outline passages 21 correspond with the outlines 20 they extend further than said outlines in order to connect with each other. Connecting the air passage 16 with said outline passages 21 are the air delivery passages 22 which are preferably slanted as shown in order that the currents of air shall strike the balls somewhat indirectly and not at right angles. Circular members 23 such as balls made of celluloid or other light material move or travel in said outline passages 21, being forced along by the air entering said passages. Vent

holes 24 are provided in the back 14 for the escape of air, and if advisable a pipe, not shown, could be connected to said vent 24 to return the air to the blower 18.

So long as air is supplied to the sign the movement of the balls 23 is continuous and this never ending procession of balls following the advertising outlines serves to attract and interest the public thereby serving the purpose of effectively advertising the goods or services represented by the outlines.

Such a sign may be used on a building, as an overhead sign, display sign or on a vehicle such as an automobile. In the event that the sign is used on a moving vehicle some movement of the balls is caused without artificially forcing air through the passage, and the sign may be used without a blower.

The moving balls 23 are clearly visible during the day and are made visible at night with the same electric lighting arrangement that suffices for the ordinary sign. It will be seen, therefore, that the moving balls as a substitute for the flashing lights are much more economical in the number of bulbs required, in the electric current used and in the equipment necessary to automatically operate said flashing signs. Radium or phosphorous paint may also be used instead of electric lights with good effect.

The speed with which the balls 23 move in the passages may be governed by a valve of common construction, not shown, attached to the pipe 17. Also the balls may be multicolored to produce a more pleasing effect.

My sign is adapted for use in practically all places where signs are now used and different types of mirrors may be used to beautify, enlarge or otherwise enhance the appearance and attractiveness of the advertising outlines.

While a specific embodiment of the invention has been illustrated and described, the invention is not to be considered as limited to the particular combination and arrangement of parts as above described except as limited in scope by the appended claims.

What I claim is:

1. A sign comprising a case provided with passages, members adapted to travel in said passages and means connected with said passages adapted to force air into them to thereby cause said members to so travel, said case having provision to permit escape of said air.

2. A sign having a plurality of passages therein, and members adapted to travel in said passages, said passages being inter-connected with each other whereby said members may continuously travel in the advertising portion of said sign indefinitely, and means connected with said passages to cause said members to so travel.

3. A sign comprising a case provided with air intake passages, outline passages formed in said case connected to said air intake passages, members adapted to move in said outline passages, and means connected with said air intake passages to force said members to move, said case having provision to permit the escape of said air.

4. A sign comprising a case having outlines formed thereon, passages provided in said case in substantial alinement with said outlines, said case being provided with air intake passages leading into said first-mentioned passages, members adapted to move in said first-mentioned passages, and means connected with said air intake passages adapted to force air into said passages to thereby cause said members to move.

5. A sign having a plurality of passages therein and members adapted to travel in said passages, and a plurality of other passages connected with the first-mentioned passages into which air from outside said sign enters prior to entering the first-mentioned passages, said sign having provision for the escape of said air.

6. A sign comprising a case provided with outline passages and slanting air delivery passages connected to said first-mentioned passages, members adapted to travel in said first-mentioned passages and means to cause said members to so travel by forcing air to said air delivery passages, said case having provision to permit the escape of air.

7. A sign comprising a case having outlines thereon of the advertising matter desired to be displayed, passages provided in said case substantially following said outlines and extending beyond them to thereby connect with each other, members adapted to move in said passages, and means adapted to cause a movement of said members in said passages.

8. A sign comprising a case having outlines formed thereon and passages formed therein corresponding with said outlines and extending beyond them, said passages being connected, members adapted to move in said passages and means for delivering air to said passages at a plurality of points to thereby cause said members to move, said case having provision for the escape of said air.

9. A sign comprising a case embodying a frame, a front, outlines formed on said front, a back, a center portion, hollow tubing surrounding said center portion, said center portion having air delivery passages formed therein connected with said tubing and outline passages connected with said air delivery passages, said outline passages being connected one with the other, balls adapted to move in said outline passages and means for forcing currents of air to said tubing and passages to thereby cause said balls to move, said case having provision for the escape of said air.

10. A sign comprising a case embodying

a frame, a front having outlines formed thereon, a back, a center portion, said front, back and center portion being held in position by said frame, hollow tubing surrounding said center portion, means connected with said hollow tubing for forcing air thereto, said center portion being provided with slanting air delivery passages connected to said tubing, and outline passages connected to said air delivery passages, balls adapted to move in said outline passages, said air delivery passages being of such size as to prevent the entrance of said balls into them, said case having provision to permit the escape of the air.

JAMES A. LAWRENCE.