

May 10, 1938.

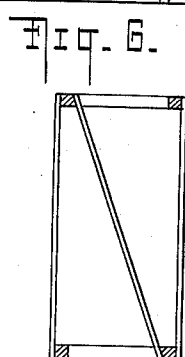
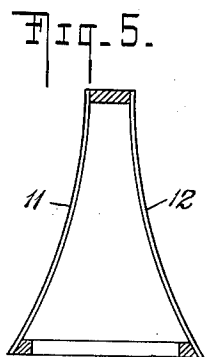
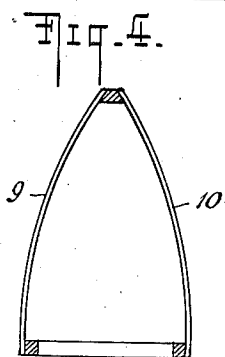
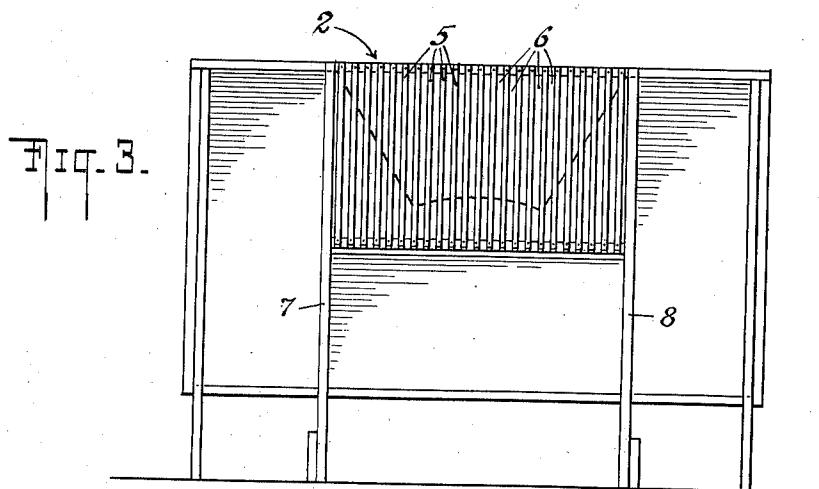
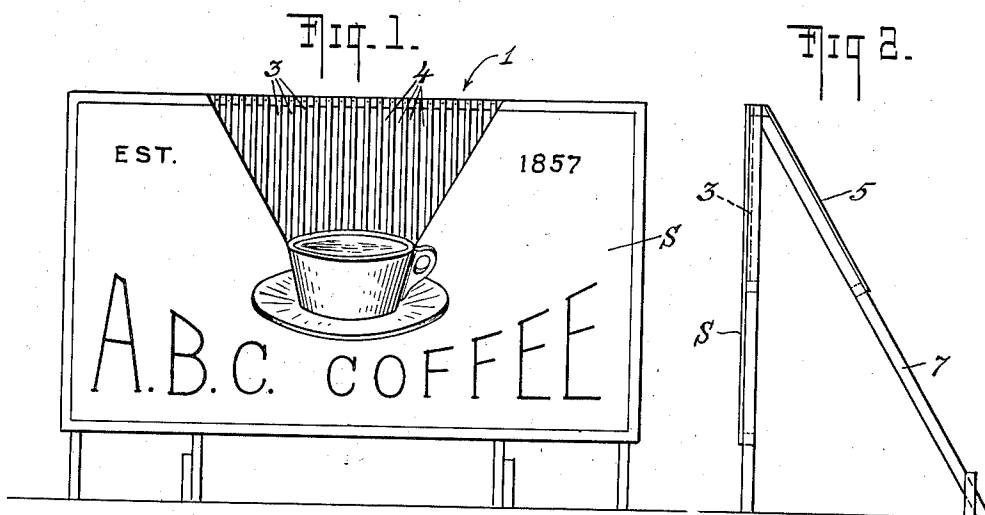
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2,116,542

ADVERTISING DEVICE

Filed Nov. 11, 1936

2 Sheets-Sheet 1



INVENTOR
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2 Sheets-Sheet 2

Fig. 7.

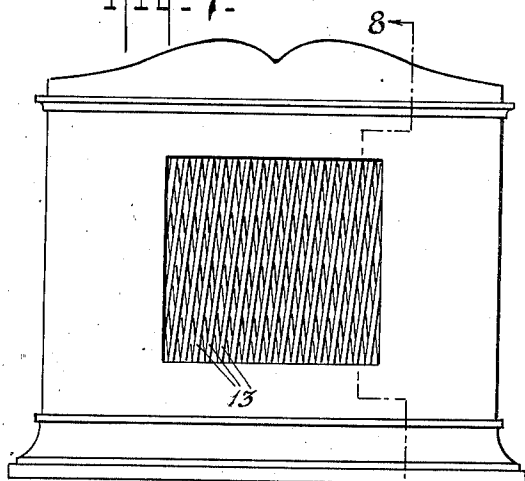


Fig. 8.

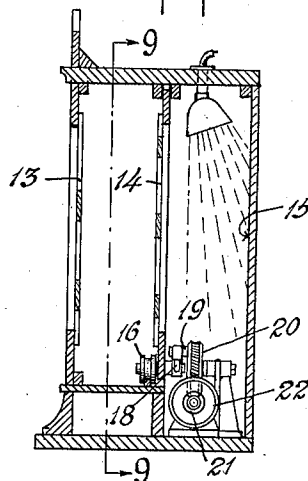


Fig. 9.

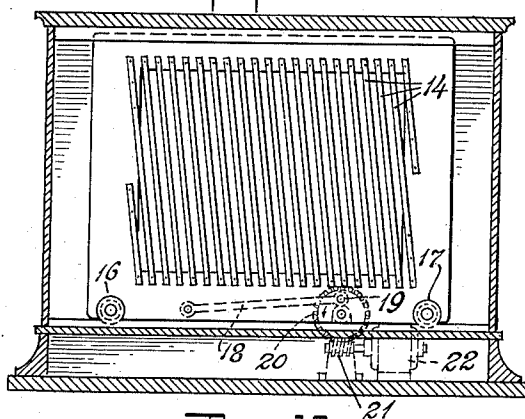


Fig. 11.

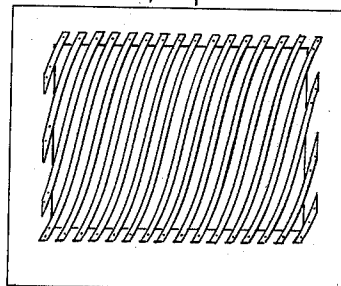


Fig. 10.

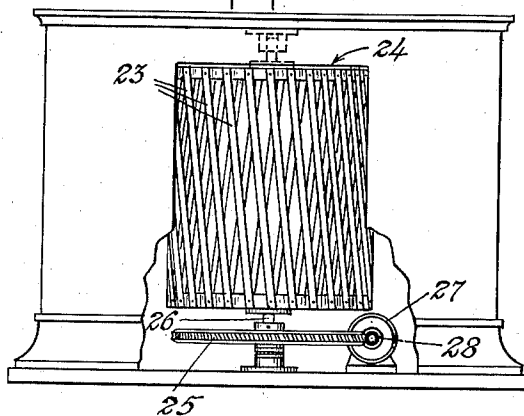
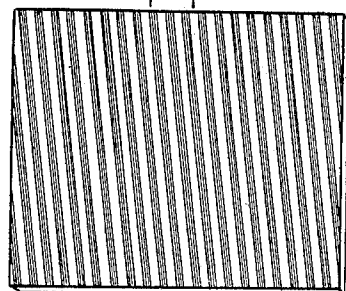


Fig. 12.



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2,116,542

ADVERTISING DEVICE

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14 Claims. (Cl. 40—137)

This invention relates to the art of advertising devices for the purpose of attracting the attention of persons to a sign or the like bearing an advertisement.

5 The embodiment of the invention consists of a device composed of two or more non-parallel grids, each grid being formed of relatively narrow slats with spaces therebetween for the admission of light, such grids being so arranged with respect to each other that light may be passed through them to the observer, as is more fully described hereinbelow.

10 Among the objects of my invention is the construction of a device to be used as part of an advertising board, or other display structure, for the purpose of attracting attention to the board, or other display element. It may be used as a standard for an advertising board, or may be adapted to be used as an integral part of the board, or other advertising medium.

In the accompanying drawings,

Fig. 1 is a front elevation of a signboard which includes as an integral part thereof a device constructed in accordance with my invention;

25 Fig. 2 is a side elevation of the signboard shown in Fig. 1;

Fig. 3 is a rear elevation of the same;

Fig. 4 is a side elevation of two grids placed in juxtaposition in accordance with my invention showing convexly curving slats;

30 Fig. 5 is a side elevation of such a device showing concavely curving slats;

Fig. 6 is a side elevation of a device constructed in accordance with my invention showing three grids placed in juxtaposition;

35 Fig. 7 is a front elevation of a device showing two parallel grids, the individual slats in one grid being disposed angularly with respect to the individual slats in the adjacent grid;

40 Fig. 8 is a side sectional view of the device of Fig. 7, the section being taken along the line 8—8 of Fig. 7; it shows also a mechanism adapted to move one of the grids with respect to the other grid;

45 Fig. 9 is a sectional view of the device in Fig. 8 along the line 9—9 of Fig. 8;

Fig. 10 is a front elevation of a device having a grid formed in the shape of a cylinder, the front part being broken away to show mechanism adapted to rotate the cylinder about its axis;

50 Fig. 11 is a front elevation of a grid having irregularly curved slats; and

Fig. 12 is a front elevation of a board with a grid painted thereon, adapted to be used as a rear grid.

55 The simplest embodiment of my invention is illustrated in Figs. 1, 2, and 3. This embodiment is made part of a signboard S, such as is used for roadside advertising. In the upper part of the board is placed a grid 1 formed of slats 3 extending

from top to bottom thereof with spaces 4 for the admission of light. At the rear of grid 1 and adjacent to it is placed another grid 2 similarly formed with slats 5, spaces 6 being provided between the slats. The two grids are placed at a 5 vertical angle to each other. The rear grid 2 may be attached to the supports 7, 8 of the signboard.

This construction, when set up in such a way that light is passed from behind the device to an observer who is passing horizontally as along a road in front of the device, gives the effect of horizontal parallel lines or streaks of light which are in fact composed of rows of adjacent open spaces 4 and 6. These rows appear as lines or streaks of light because of the vertical angle at which the grids are placed, thus cutting off the admission of light through the entire device, except where the spaces in one grid coincide, from the observer's standpoint, with spaces in the adjacent grid. This appearance is substantially the same as that shown in Fig. 7. As the observer passes the device horizontally, such rows or streaks of light give the remarkable illusion of rising or falling, depending upon the direction in which the observer is moving with respect to the device, and upon whether the grids are placed with the vertical angle converging at the top or at the bottom. In the particular embodiment illustrated in Figs. 1, 2 and 3, where the slats in each grid are vertically disposed, the illusion of rising or falling rows, streaks or waves of light, is obtained when the observer is passing and is situated at any position in front of the device except directly in front. At such position, of course, the spaces in the rear grid correspond exactly with the spaces in the front grid and the rows of apertures caused by the apparent crossing of the slats in the several grids are not seen. This may be 40 remedied by placing the slats of one or more of the grids at an angle other than ninety degrees to the horizontal top or bottom of the grid, as shown, for example, in Fig. 7, or by some of the other constructions described hereinafter.

45 If used in a field adjacent to a highway on relatively high ground, so that light from the sky may pass through the grids of the device to an observer seated in a passing automobile, the effect of rising or falling rows or streaks of light will be so striking that it cannot fail to attract the attention of such passing motorists.

50 In order that the device may be effective at night, or in such a place that daylight will not give the effect, artificial light may be placed on the far side of the device from the observer so that the same effect as with daylight may be secured. This artificial light may come from a small source, or may be reflected light from a large plane or other surface, as 15 in Fig. 8.

The length and width of the slats in the grids may, of course, be varied according to the effect desired and the desirability of wide or narrow spaces, depending on the distance of the device from the observer, the lighting conditions obtaining and the type of row or streak of light desired.

The vertical angle at which the grids are placed may be varied for the purpose of determining the speed with which it is desired the streaks or rows of light should rise or fall which, in turn, depends upon the horizontal speed of movement of the observer. The vertical angle may be varied also, for the purpose of determining the width or apparent width of the rows or streaks of light, the less the vertical angle, other things being equal, the greater the apparent width of the row or streak of light.

Another variation is in the regularity of the width of the slats and of the spaces. The effect of straight horizontal rows of light may be supplanted by irregular rows or waves of varying width and intensity, if the slats are made with curved or crooked edges, of varying width from top to bottom, or are placed different distances apart, the distances varying either from top to bottom, or from one part of the grid to another part of the grid. A grid composed of irregularly curved slats is shown in Fig. 11.

The grids may be placed at any angle with respect to each other, provided the individual slats in one are not parallel to the individual slats in the other grid. The slats of one grid may be placed in such a way that their edges, if straight, will be contained in a plane containing one or more slats in the other grid, or they may be placed in such a way that no slat, or edge thereof, in one grid is in a plane which contains a slat, or edge thereof, in the other grid. In the latter case, to wit, absence of parallelism between slats in different grids, the grids themselves need not be so placed that the principal plane of one is at an angle to the principal plane of the other in order to produce the effect of rising or falling rows, streaks, or waves of light.

The grids may be plane or they may be composed of surfaces curved regularly or irregularly, depending upon the lighting effect desired. Fig. 4 shows two grids juxtaposed in accordance with my invention whose surfaces 9 and 10, respectively, are curved convexly. Fig. 5 shows a device composed of juxtaposed grids whose surfaces 11 and 12 are curved concavely.

A third grid may be added to the device, as shown in Fig. 6. By the use of a third grid, as light from behind the device will reach the observer's eyes only when openings in all three grids coincide, unusual lighting effects may be obtained, for instance intermittent and irregular flashing of the rows, streaks or waves of light.

The same effect is produced when the grids are placed in parallel relation to each other, as in Figs. 7, 8 and 9. In such case, it is necessary to the production of the effect above referred to, that the slats in one grid be not parallel to the slats in the other grid with which they are in operative relation. By placing the slats in one grid almost or quite parallel to the slats in the juxtaposed grid an effect of intermittent flashes or interrupted flashes of the light showing between the slats is produced.

In Figs. 7, 8 and 9, the front grid 13 is parallel to the rear grid 14, but the slats in the two grids are not parallel. The device is provided with an artificially lighted background 15 for use at times or in places where artificial light is not available

to provide the light background. The device shown in Figs. 1, 2 and 3 utilizes the grid device as part of a signboard, for the purpose of attracting attention thereto, that shown in Figs. 7, 8 and 9 as part of a store window sign. The proportions of the device may be varied according to whether the board is to be used as a roadside sign or as a store window sign.

In Figs. 7, 8 and 9, the rear grid 14 is provided with wheels 16, 17 and is attached to one end of a connecting rod 18, the other end of which is connected to a crank 19 operated through gear 20 and worm 21 by motor 22. The operation of the motor 22 thus gives to the rear grid a reciprocating movement, which gives the effect of rising or falling rows, streaks or waves of light without movement on the part of the observer. Such an arrangement is desirable when the device is used in a store window, before which observers are likely to stand motionless.

The same effect may be secured by rotary motion of the grids. In that event I prefer to use a form such as is illustrated in Fig. 10, the slats 23 forming, and running from top to bottom of, a cylinder 24, the light, as in all other instances hereinabove referred to, being situated on the far side of the device from the observer. Obviously, a cone or frustum thereof or a cube or other geometrical form bearing grids may be substituted for the cylinder 24. In Fig. 10, cylinder 24 and gear wheel 25 are fixedly mounted on shaft 26. Source of power 27 operates worm 28 which actuates gear 25 and so rotates cylinder 24.

The same striking effect of rising or falling rows, streaks or waves of light may be secured by the substitution for the rear grid of an illuminated surface painted or otherwise having applied thereto parallel strips or sections of alternating black and white or other contrasting colors, to correspond to the slats and spaces between them for the admission of light, such as shown in Fig. 12. The lighting effect may be varied by the use of curved, tapered or irregularly formed slats in one or more of the grids or by similarly varying the outline of the painted strips or sections of a painted rear section substituted for a grid. The lighting effect may be varied by the use of one or more gratings formed substantially of slats, but having relatively small cross pieces between the slats, operating to strengthen the structure. This form might be used were the grid to be manufactured by stamping it out of a piece of sheet metal.

It will thus be seen that there are numerous variations in the devices in which the objects and functions of this invention may be achieved and which are well adapted to meet the conditions of practical use.

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

I claim:

1. A device composed of a plurality of grids disposed adjacent to each other and one behind another, each grid consisting of slats and having spaces between the slats, the slats of one grid being non-parallel to the slats of another grid, and a light background behind such plurality of grids, capable of creating in a passer-by an illusion of animation, placed in association with an advertising display so that the attention of a passer-by

may be attracted by the device and directed to the advertising display.

2. A device composed of a plurality of grids disposed adjacent to each other and one behind another, each grid consisting of slats and having spaces between the slats, the slats of one grid being non-parallel to the slats of another grid, and a light background behind such plurality of grids capable of creating in a moving observer an illusion of motion of the light areas bounded by the slats of such grids.

3. A device composed of a plurality of adjacent grids consisting of slats and having spaces between the slats, the slats of one grid being non-parallel to the slats of another grid and the slats of neither of such grids being horizontal and a source of light adapted to be seen through the spaces in such grids so as to create in a passer-by an illusion that the light areas bounded by the slats of such grids move, placed in association with an advertising display so that the attention of a passer-by may be attracted by the device and directed to the advertising display.

4. A device composed of two grids disposed adjacently and one behind the other, consisting of slats and having spaces between the slats, the slats of one grid being non-parallel to the slats of the other grid and the slats of neither grid being horizontal and a light background, capable of creating in a passer-by an illusion of animated light areas, in association with an advertising display so that the attention of a passer-by may be attracted to the device and directed to the advertising display.

5. A device composed of two non-parallel grids disposed adjacently and one behind the other each grid consisting of slats and having spaces between the slats, none of the slats being horizontal, and a light background so that an illusion of moving light areas is created in one passing the device, in association with an advertising display.

6. Two independent, adjacent, non-parallel grids disposed one behind the other consisting of slats and having spaces between the slats, none of the slats being horizontally placed and a light background, capable of creating an illusion of animation in a passer-by, in visual association with an advertising or other display.

7. A device composed of two adjacent, independent, non-parallel grids, one disposed behind the other, each grid composed of bars having substantially straight edges and having spaces between the bars, none of the bars being horizontally placed and a light background so as to create in a moving observer an illusion of animation, in visual association with an advertising display.

8. Two independent grids disposed one behind the other, each grid composed of bars and having spaces between the bars, the bars in one grid being non-parallel to the bars of the other grid, and none of the bars being in the same plane with the direction of motion of a passer-by and a light background so as to create in a passer-by an illusion of moving light areas, in visual association with an advertising display.

9. Two substantially flat, adjacent grids, disposed one behind the other, composed of slats and having spaces between the slats, the slats of one grid being non-parallel to the slats of the other grid, one grid being adapted to be moved substantially horizontally, and means for so mov-

ing such grid, and a light background so that an illusion of non-horizontal motion of light areas visible between the slats of the grids is induced in a stationary observer, in visual association with an advertising display.

10. A device composed of two grids disposed adjacently and one behind the other, each grid consisting of bars and having spaces between the bars, the bars of one grid being non-parallel to the bars of the other grid, one such grid being adapted to be independently moved, and means for moving such grid and a light background so that an illusion of moving light areas bounded by the slats of such grids is induced in a stationary observer, in visual association with an advertising or other display.

11. A device composed of two adjacent grids disposed one behind the other, consisting of slats and having spaces between the slats, the slats of one grid being non-parallel to the slats of the other grid and an illuminated background visible through the spaces in the grids, one grid being adapted to be moved independently, and means for so moving such grid, none of the slats of either grid being parallel to the direction of motion of the movable grid, so that an illusion is produced in an observer that light areas bounded by the slats vary and an advertising or other display in visual association therewith.

12. A device composed of two or more non-parallel, adjacent grids placed one behind the other, each grid consisting of slats and having spaces between the slats, one grid being adapted to be moved independently in a substantially horizontal direction, and means for so moving such grid, none of the slats in the movable grid and in one other grid being horizontally placed, so as to create an illusion in an observer of non-horizontal motion of light areas bounded by the slats of such grids, in visual association with material to be displayed.

13. An advertising device capable of producing an illusion of animation whereby passers-by will be attracted to the advertising matter associated therewith comprising two grids, each composed of spaced slats substantially vertically disposed, one of said grids being disposed adjacent to and in back of the other grid and the spaced slats of each of said grids being substantially parallel to each other and in non-parallel relation with respect to the slats of the other grid and a light background in back of said grids adapted to be seen through the spaces between the slats of said grids so that as the passer-by moves relative to said grids the light areas bounded by the slats of said grids will vary.

14. An advertising device capable of producing an illusion of animation whereby passers-by will be attracted to the advertising matter associated therewith comprising two grids, each composed of spaced slats substantially vertically disposed, one of said grids being disposed adjacent to and in back of the other grid and the spaced slats of each of said grids being substantially parallel to each other and in non-parallel relation with respect to the slats of the other grid and a source of light adapted to project light beams from in back of said spaced grids forwardly through the spaced slats of such grids so that as such grids move relative to the observer the light areas bounded by the slats of such grids will vary.

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