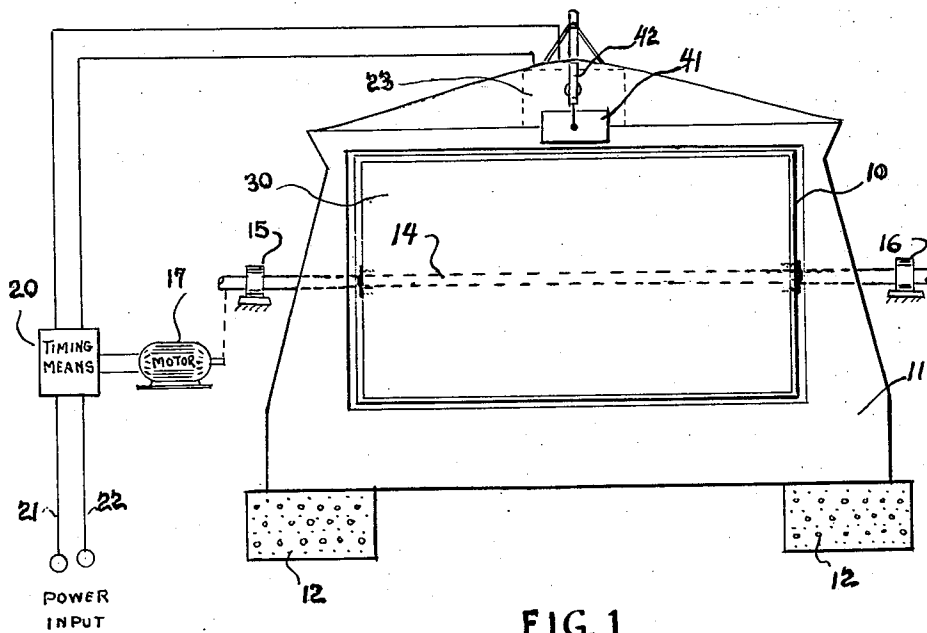
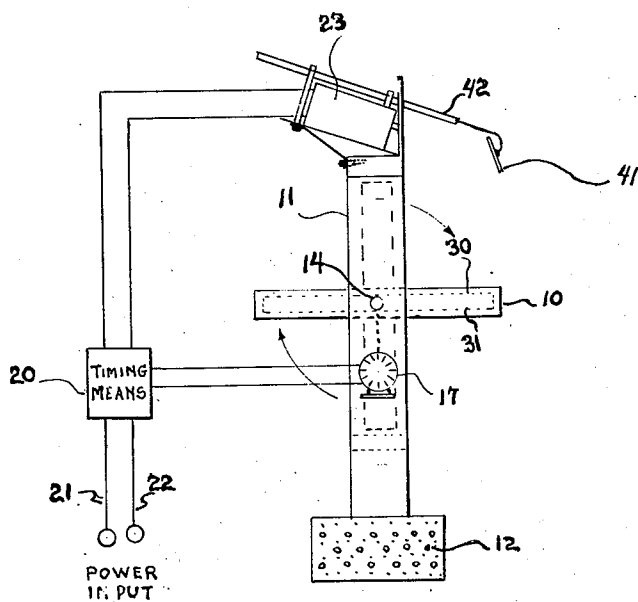


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ROTATABLE OUTDOOR ADVERTISING PROJECTION
DISPLAY BILLBOARD DEVICE
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ROTATABLE OUTDOOR ADVERTISING PROJECTION DISPLAY BILLBOARD DEVICE

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2 Claims. (Cl. 88—24)

This invention relates to outdoor advertising and more particularly to a novel rotatable billboard arrangement for day and night advertising.

There are numerous forms of outdoor advertising in use today. Generally, however, outdoor advertisements come in four basic forms: 24 sheet posters, 3 sheet posters, painted bulletins and spectaculars. All of these, of course, are located out of doors at strategic locations for viewing by concentrations of automobile and pedestrian traffic.

Although outdoor advertising is used primarily in connection with mass production products such as automobiles, tires, gasoline, beer, wine, soft drinks, food etc., its use is not limited to such products. For example, various forms of outdoor advertising may be used purely for local purposes such as advertising local services of banks, hotels, theaters etc. Use of outdoor advertising to publicize political figures during election time is also often desirable.

This invention is concerned with the form of advertising generally associated with the 24 sheet poster form of advertising. Such a form of advertising derived its name from an old method of printing a complete design on each of 24 sheets, and pasting each of the 24 sheets on a panel. Register marks were placed on the selvage to assure the proper position of each sheet as they were pasted on the panel. Later, when lithographic presses were made larger, the number of sheets required to fill the area of the panel was reduced from 24 to 10 sheets, which is the number most widely used today. However, the name 24 sheet poster is still retained.

The standard posting period of the 24 sheet poster is 30 days, so that the advertiser is provided with 12 changes of copy a year if he utilizes a 12 month showing. Most 24 sheet posters are produced by lithography since the large runs required for national posting make that method most suitable for outdoor conditions, and modern lithographic colors afford a high degree of fastness in the face of sun and rain.

Two types of frame for the poster panel should be noted. By far the most common is the familiar green moulding with a section of lattice work across the base. The frames may be of wood or steel, and they enclose a galvanized sheet metal face on which the paper is posted. The second and newer type, which was adopted by the Outdoor Advertising Association of America Inc. in 1946, consists of a stainless steel molding which not only enhances the appearance of the structure, but reduces maintenance costs. Both of these types are standard in the industry, but it is expected that as new panels are built, stainless steel frames will ultimately replace the old wooden molding.

It is also known in the outdoor advertising business, that posters or billboards may be illuminated, although the number of non-illuminated signs far outnumber the illuminated signs. The ratio of non-illuminated to illuminated panels or billboards is governed by the type of market. Cities with heavy after-dark traffic flow will

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normally have a higher ratio of illuminated panels in a showing. This ratio is determined by the local outdoor advertising company in view of the coverage requirements of the market. Illuminated panels are usually located in downtown areas or within the urban limits of a market or points where night traffic is heavy.

While the present systems employed for outdoor advertising have proved satisfactory for many purposes, there are times when the costs of installing and maintaining such systems are excessive.

As has been pointed out, in connection with the 24 sheet panel means of advertising, lithographic processes are involved to produce the prints and much time is consumed in applying the prints to the panels. Even if particular prints are to be shown for a period of time, it is often not desirable to utilize the entire billboard at all times for the same advertising matter.

It is an object of this invention to provide a novel billboard arrangement which will permit the advertising matter on the billboard to be changed quickly and inexpensively and at the same time provide advertising space for matter of a more permanent nature without the necessity of an additional billboard.

It is a further object of this invention to provide a novel billboard arrangement which will provide means for displaying different advertising matter automatically at different times.

It is a further object of this invention to automatically provide a relatively permanent form of advertising matter during the day light hours and to provide different advertising matter during the after-dark hours.

Other objects and advantages of the present invention will, of course, become apparent and immediately suggest themselves to those skilled in the art to which the invention is directed from a reading of the following specification in connection with the accompanying drawing.

This invention provides a novel billboard in which a rotatable panel member is pivotally mounted on a support. One side of the panel is adapted to receive printed material, such as the 24 sheet panel type. The other side of the panel comprises a screen surface adapted to receive a beam of light or a projected picture. Driving means are provided to rotate the panel and a projector is disposed to project a picture on the screen surface. A timing means is provided to connect the driving means and the projector to a source of operating potential, whereby the driving means and the projector are actuated at certain predetermined times and for predetermined intervals. This arrangement permits a permanent form of printed matter to be shown in the daytime on one side of the panel and a projected picture to be shown on the screen surface during the afterdark hours, upon the rotation of the panel.

In the drawing:

Figure 1 is a front view of a billboard arrangement embodying the present invention;

Figure 2 is a side view wherein the arrangement is shown while the panel is being rotated from one position to another.

Referring to the drawing, an embodiment of the invention shows a panel 10 suitably mounted on a frame 11. Such a frame may be suitably placed upon concrete footings 12. Such a frame may be one of the conventional types previously described with its size being 25 feet wide and 12 feet high. The size of the panel, when assembled may be, for example, 8 feet, 8 inches high by 19 feet, 6 inches wide. Of course, the scope of this invention is not limited by the size of such frames or panels as will be apparent from reading the appended claims.

The panel is pivotally mounted on the frame member by means of a supporting shaft 14 extending from the panel to a pair of bearing members 15 and 16. One

end of the shaft is operatively connected to a driving motor 17. Such a motor may drive the shaft directly or a gearing mechanism may be interposed between the motor and the shaft. It is seen that when the shaft is turned the panel will rotate around its longitudinal axis.

A timing means 20 electrically connects a pair of power input terminals 22 and 21 to the motor.

A projector 23 is mounted on the upper portion of the frame member and is disposed to project a picture on the panel. The projector is also electrically connected to the pair of power input terminals through the timing means.

The timing means 20 may be of the conventional type such as used in clock radios, or in numerous other commercial applications. In the embodiment of the invention shown, the timing means connects the source of power from the terminals 21 and 22 to the motor at a predetermined time and for a predetermined period. The timing means also electrically connects the projector 23 at a predetermined time and for a predetermined period.

Referring to Figure 2 a side view of the embodiment of the invention of Figure 1 is shown while the motor is in operation and has rotated the panel 90 degrees from its normal position. The direction of the panel is indicated by the arrows. It may be seen that the panel has two surfaces, one surface 30 being for printed material and a second surface 31 comprising a screen composed of suitable material for reflecting light, or a picture such as may be projected by the projector 23, when the screen is in position and the projector is connected to the source of power through the timing means.

In the embodiment shown, the picture is projected from the projector and indirectly reflected on to the screen by a reflector 41, which extends outwardly away from the frame member and supported by a rod 42. Of course, various means of projecting the picture on to the screen may be employed. The position of the projector or the size or the kind of pictures projected on to the screen is not important as far as the scope of this invention is concerned.

In operating this arrangement, it is seen that the timing means may be set, so that during the daylight hours, the motor driving the shaft of the panel is rendered inoperative and is not connected to the source of operating potential. However, at night or at a predetermined time, the timing means connects the source of operating potential to the motor to thereby operate the motor to turn the panel. The timing means is so set that the motor operates long enough to rotate the panel 180 degrees and is then disconnected from the source of operating potential. At the time the panel is rotated to place the screen surface 30 in position to receive a picture, the projector is automatically connected to the operating potential to thereby operate the projector.

After the projector has been in operation for a predetermined time, such as during the after dark hours until dawn, the timing means will operate to disconnect it from the source of power. At the same time the timing means connect the driving motor to the source so that the panel is again rotated 180 degrees to its original position to advertise the printed material.

The type of film used in the projector or the size of the picture projected is not important as far as this invention is concerned. A preferred embodiment uses a single film to project a single stationary picture. This film

could be easily replaced from time to time with different films to thereby change the showing of the advertised material. Means could be employed in the projector whereby the film is changed automatically at periodic intervals.

It is seen that the use of easily replaceable film inserts cuts down considerably on the cost of outdoor advertising. Much time and labor may be saved by the use of such film replacement instead of the usual means of pasting printed material on panels. At the same time, the same billboard installation used with the screen is also used for advertising printed matter. This, of course, permits a maximum amount of advertising in a given space. Space requirements for advertising may be an important factor in crowded cities where outdoor advertising is most profitable.

There has thus been provided a novel billboard arrangement which permits more than one type of advertising to be displayed on the same installation while, at the same time, providing means for automatically changing the advertising matter from one form to another.

The invention has therefore provided a quick and inexpensive means of changing the advertising matter, and is particularly useful for day and night advertising.

Although a single embodiment of the invention has been described, it is obvious that many modifications may be made without departing from the spirit or scope of this invention.

I claim as my invention:

1. A billboard comprising a frame member, a rotatable panel having two flat surfaces mounted on said frame member, one of said surfaces being adapted to receive printed material, the second of said surfaces comprising a screen for receiving a projected picture, driving means including a motor to operatively engage and rotate said panel, a projector disposed to project a picture on said screen, a source of power, and timing means to connect said source of power to said motor and said projector, said motor rotating said panel 180 degrees at predetermined intervals, said projector projecting a picture on said screen for predetermined periods of time.

2. An outdoor advertising arrangement comprising a frame member, display means attached to said frame member, said display means having a plurality of surfaces, one of said surfaces having printed matter, driving means to operatively engage said display means, a projector disposed to illuminate one of said surfaces free of printed matter, and timing means to connect said driving means and said projector to an operating potential whereby said projector will project a picture on one of said surfaces free of printed matter for predetermined periods of time, and said driving means when energized will move said display means at predetermined intervals to display different surfaces of said display means.

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