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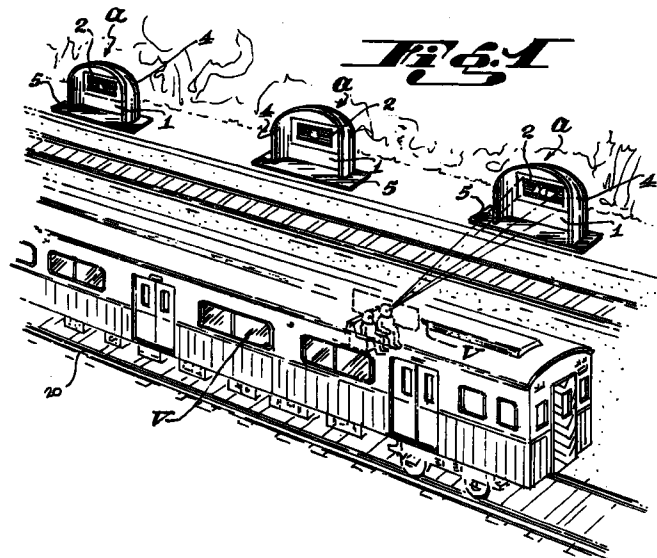
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(54) Information display system for tracked passenger transport systems

(57) An information display system for a railroad or other tracked passenger transport system which is designed to be located by the side of a track (20) of the transport system for viewing through a passenger window (v) of a vehicle (f) travelling on the track (20). The system comprises at least one set of billboards (a) with information and/or advertisement thereon. The billboards (a) of a set are spaced apart along the track (20) and arranged substantially parallel to the track (20) from which they stand at a minimum distance of 0.30 m and a maximum distance of 13 m. Each billboard (a) com-

prises at least one screen (1) with a luminous space (2) adapted to be disposed at the height of the passenger window (v) and has a shape and size that are proportional to those of the window (v). Data forming the information and/or advertisement is provided in the luminous spaces (2) and is divided between the billboards (a) that form the set so that the information and/or advertisement can be read by reading the data sequentially on the billboards (a) as the vehicle (f) moves along the track (20) past the set.



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Description

This invention relates to an information display system for tracked passenger transport systems including those in which the transport vehicle has rubber wheels, tires, or is supported by magnetic means or air cushions, and has the objective to provide a sequential displaying means of significantly attractive advertising or information messages without resorting to the assembly of large or sophisticated structures.

A large number of the people who travel every day do so by train, either by railroad or subway, or both. This is why it is convenient to launch advertising campaigns directed to that large number of people who take the same subway or train every day. In order to attract those people, traditional advertising means are normally used, such as posters on the walls or billboards, either conventionally lit or not.

Often, said billboards are used simply because there is not enough space available in the streets or avenues, as, according to the urban regulations in force, and in order to observe the rights of the owners of premises and buildings, only some billboards can be put up near the curbs, or on fences or walls around vacant lots. Alternatively, as the places around railroad tracks are both wider and larger, many other means can be available.

Billboards and posters have been erected having a supporting structure fixed to the ground or floor, on which there is a board where the posters are placed or where the messages are directly painted.

Other useful applications can be the following: bus stops, telephone boxes, lightning posts, and even the streets indicators. As these means became so popular, larger billboards appeared in order to attract the accidental watcher's attention more and more. The problem is that these billboards have metallic structures that are very large, with fitting platforms and strong light sources, which can light the whole surface of the board or poster. Of course, both the manufacturing and the assembly of these billboards is extremely expensive.

It is an object of the present invention to provide an improved information display system for tracked passenger transport systems.

The present invention resides in an information display system for a railroad or other tracked passenger transport system, said information display system being designed to be located by the side of a track of the transport system for viewing through passenger windows of a vehicle travelling on the track, and comprising billboards with information and/or advertisement thereon, and characterized in that: a) said system comprises at least one set of billboards which are spaced apart along the track and arranged substantially parallel to the track from which they stand at a minimum distance of 0.30 m and a maximum distance of 13 m; b) each billboard comprises at least one screen with a luminous space adapted to be disposed at the height of

said passenger windows and has a shape and size that are proportional to those of said window; and c) data forming said information and/or advertisement is provided in the luminous spaces and is divided between the billboards that form said set so that the information and/or advertisement can be read by reading the data sequentially on the billboards as the vehicle moves along the track past the set.

As the luminous parts of the billboards and the windows are aligned, the messages and the information can be read from the vehicle even when it is moving.

Thus, the information display system is especially designed so as to be seen from the windows of a passing vehicle, eg. a train, and has a sequential effect, so that each billboard includes one message, and all the messages of the of the many billboards taken together form one message.

If the billboards are not placed at the correct distance the messages can often be ignored. If the billboards are too near the vehicle, the watcher will not be able to see the whole set. On the other hand, if the billboards are small, or incorrectly designed, or are placed too far away from the vehicle, they can not be read either. Besides, because the vehicle moves at a certain speed, the billboards must be placed at a long distance so that the passenger can easily read the advertising message. This distance is not always taken into account, especially in the case of subway stations.

The information display system of the present invention is a solution to all these problems. It is based on a careful study and not only fixes the right distances between the information display system and the train but also defines the shape and structure of a very particular set of billboards.

The right proportion between the information display system and the window where the watcher is positioned, is complemented by a remarkably attractive luminous space. In one embodiment, the advertisement is divided among the different billboards of the same set, so that the watcher has read all the advertisement once the vehicle has passed in front of all the different billboards of the same set. That is, the messages appearing in the different billboards are complementary, and can be read by the passengers in a sequential fashion as the vehicle passes in front of them. In this way the messages or advertisements can reach the people effectively; these billboards are even more effective than huge billboards, and are not as expensive as other mega structures. Also, they can be placed in the small cross-sectional places of passageways, for example, in railroad stations.

For a better understanding of the invention, reference is made to the accompanying drawings that represent one of the preferred embodiments of the invention as an illustration only.

Figure 1 is a perspective view illustrating the layout of the advertising means in relation to the railroad

vehicle in question.

Figure 2 is a front view of the advertising means of this invention where the luminous space of the screen is shown. Also, in the top part of the figure, one of the dual windows of the train is shown;

Figure 3 is a schematic plan view of two billboard lines according to the invention, near both subway tracks; and

Figure 4 is another schematic plan view of the invention, as an alternative of the one shown in figure 3, showing the billboards in lines proximal to both subway windows.

In the different figures, the same numerals and letters refer to the same or corresponding parts.

Referring to Figs 1 and 2, an information display system for a railroad (but equally suitable for other tracked passenger transport systems) is shown located by the sides of railroad tracks (20). It is especially designed so that it can be seen from windows (v) of a train (f) as it moves. In general terms, the invention relates to a set of combined billboards (a) whose shape and size are proportional to the windows (v) of passenger cars of the train (f), and which are aligned in a parallel fashion at a certain distance from said tracks (20). Each of said billboards (a) comprises a luminous sector (2) displaying an advertisement (3) that is complemented by the advertisements (3) of the other billboards (a) that form the set.

Billboards (a) are placed at a distance from one another, so that passengers can read the advertisement in each of the billboards in a sequential fashion. The preferred distance between billboards (a) in this embodiment is about 70 meters, although said distance can be either larger or smaller.

The billboards (a), which can be grouped in sets of 10 or more, are placed at a minimum distance of 0,30 m and a maximum distance of 13 m from railroad tracks (20). Each billboard (a) comprises a support or base (5) by means of which it is assembled on a surface such as a floor or, particularly in the case of subways, a wall (see Figs 3 and 4). On said support (5) there is a screen (1) having a luminous space (2) whose edges have a shield (4) protecting said luminous space (2) from ambient light. Said luminous space (2) is aligned with the windows (v) of the train (f), and its shape and size are proportional to said windows (v). The proportion is possible because each luminous space (2) is oblong; its height (d_1) is equal to that of the windows (v), whereas its length (d_2) does not exceed that of two of the windows (v). The luminous spaces (2) of screens (1) comprise illumination means and are connected to an electric supply, either a battery or the electricity network itself (not shown). The luminous spaces (2) include the advertisement divided among the many billboards (a) that form only one set, so that the advertisement (3) in one billboard (a) is complemented by the advertisements (3) of the other billboards (a); said advertise-

ments (3) are arranged in a sequential fashion in the direction in which the train (f) moves along the railroad tracks (20) located near the billboards (a).

As the windows (v) and the luminous spaces (2) of billboards are correctly aligned, the messages or advertisements can be correctly seen or read even when the train (f) is moving. Moreover, as the advertisements or messages are divided in the many billboards (a) of the same set, all the information can be read once all the billboards (a) have been seen. Therefore, the advertisements (3) in each of billboards (a) of the same set are complementary; billboards (a) are arranged in such a way that said advertisements (3) are read sequentially in the direction the train (f) moves. Furthermore, said billboards can be separated from one another by different distances, according to the advertisement message to be conveyed.

Referring to Figs 3 and 4, the information display system is located in a subway. In this case, the billboards (a) are adapted to the environment, that is they do not comprise the shield (Figs 1 and 2), and the level of illumination will be appropriate for the subway location. It will be observed that in the subway, the billboards (a) form lines near one (Fig 3) or both (Fig 4) sides of each track (20).

In another embodiment (not shown), the luminous spaces comprise reflecting surfaces that reflect light coming from the windows of the vehicle. Such an arrangement is particularly useful when the billboards are positioned relatively close to the windows of the vehicle, for example in a subway.

Though the invention has been shown and described with respect to a certain preferred embodiment it is obvious that alterations and modifications can be introduced without departing from the main principles included in the claims that follow.

Claims

1. An information display system for a railroad or other tracked passenger transport system, said information display system being designed to be located by the side of a track (20) of the transport system for viewing through a passenger window (v) of a vehicle (f) traveling on the track (20), and comprising billboards (a) with information and/or advertisement (3) thereon, and characterized in that:

a) said system comprises at least one set of billboards (a) which are spaced apart along the track (20) and arranged substantially parallel to the track (20) from which they stand at a minimum distance of 0.30 m and a maximum distance of 13 m;

b) each billboard (a) comprises at least one screen (1) with a luminous space (2) adapted to be disposed at the height of said passenger

windows (v) and has a shape and size that are proportional to those of said window (v); and

c) data forming said information and/or advertisement (3) is provided in the luminous spaces (2) and is divided between the billboards (a) that form said set so that the information and/or advertisement (3) can be read by reading the data sequentially on the billboards (a) as the vehicle (f) moves along the track (20) past the set (a). 5
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2. An information display system as claimed in claim 1, wherein each luminous space (2) of the billboard is rectangular in shape, its height is equal to that of said windows (v) of the vehicle (f), and its length (d_2) does not exceed that of two of said windows (v). 15
3. An information display system as claimed in claim 1 or 2, wherein edges of each screen (1) have a shield (4) to shield the luminous space (2) from ambient light. 20
4. An information display system as claimed in claim 1 or 2, wherein the luminous spaces (2) of the screens (1) are surfaces that reflect the light coming from the windows (v) of the vehicle (f). 25
5. An information display system as claimed in claim 1, 2 or 3, wherein the luminous spaces (2) of the screens (1) are connected to an electric supply. 30
6. An information display system as claimed in claim 1, 2 or 3, wherein the luminous spaces (2) of the screens (1) are connected to an electric network. 35
7. An information display system as claimed in claim 1, 2 or 3, wherein the luminous spaces (2) of the screen (1) are connected to a battery. 40
8. An information display system as claimed in any preceding claim, wherein each set of billboards (a) comprises at least ten billboards. 45

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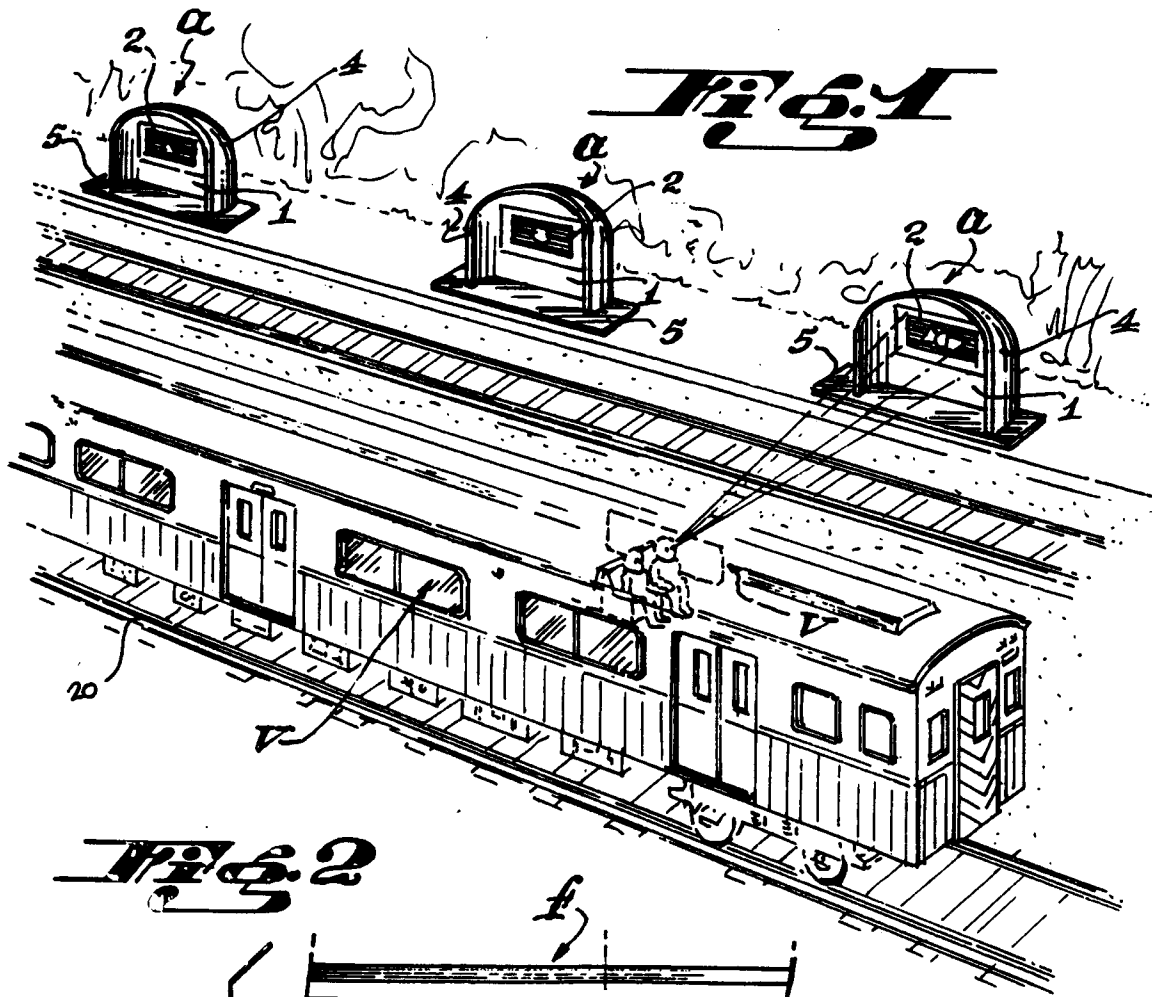


Fig. 2

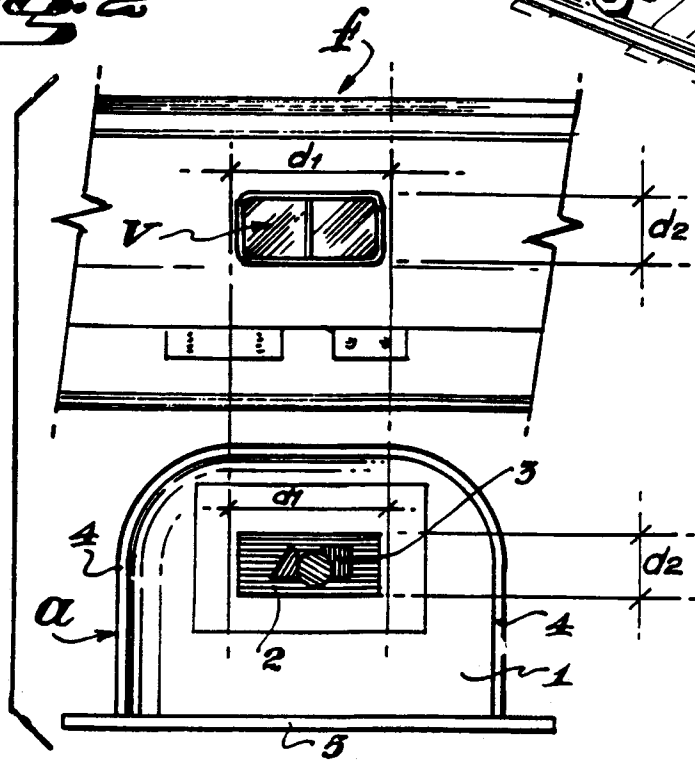


Fig. 3

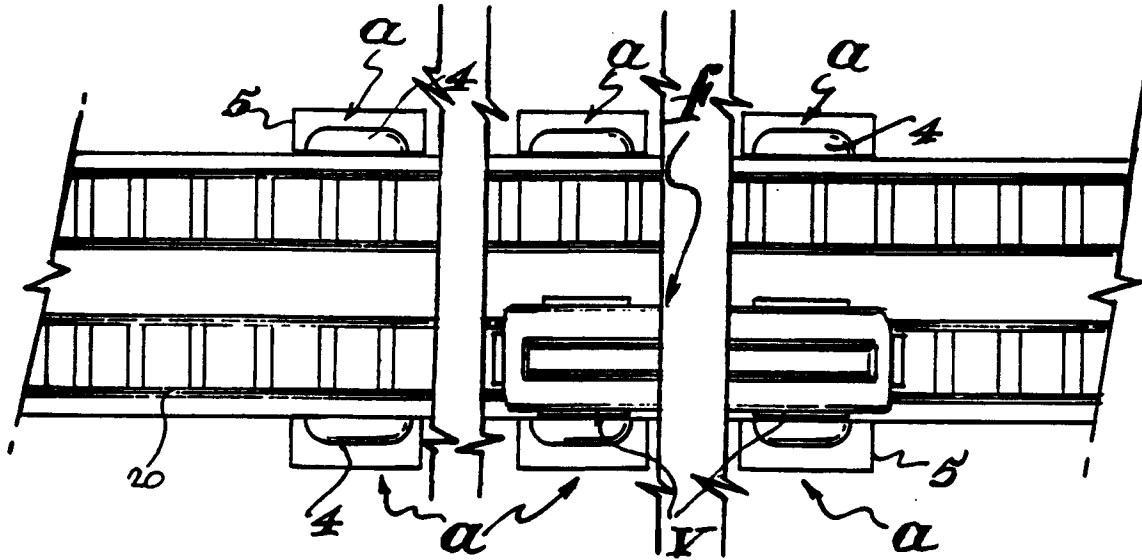


Fig. 4

