No. 676,235. Patented June 11, 1901.

W. J. JACKSON.

DEVICE FOR DISPLAYING ADVERTISEMENTS.

(Application filed Dec. 2, 1899.)

(No Model.)

Fig. 1.

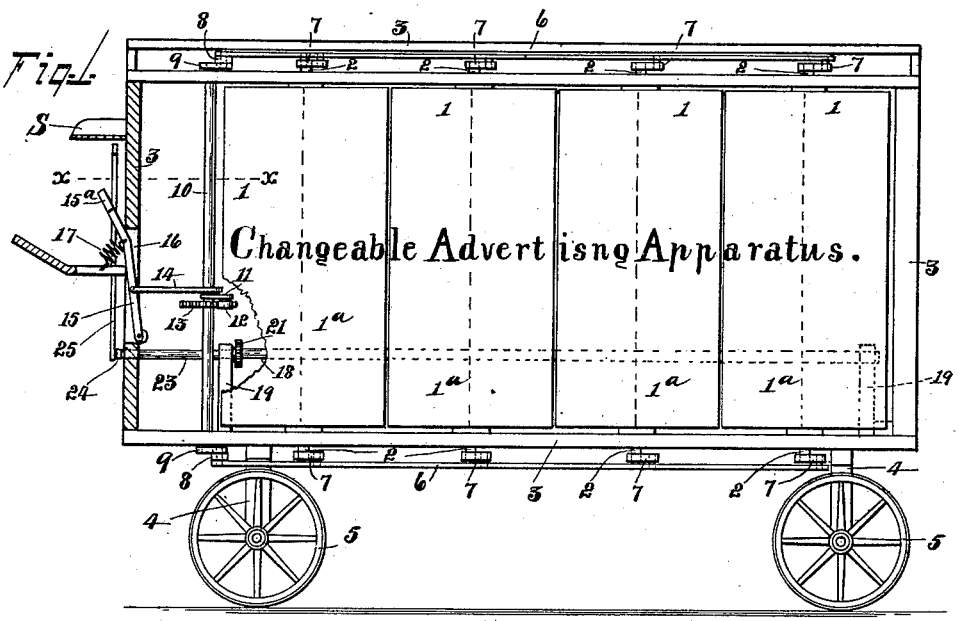


Fig. 2.

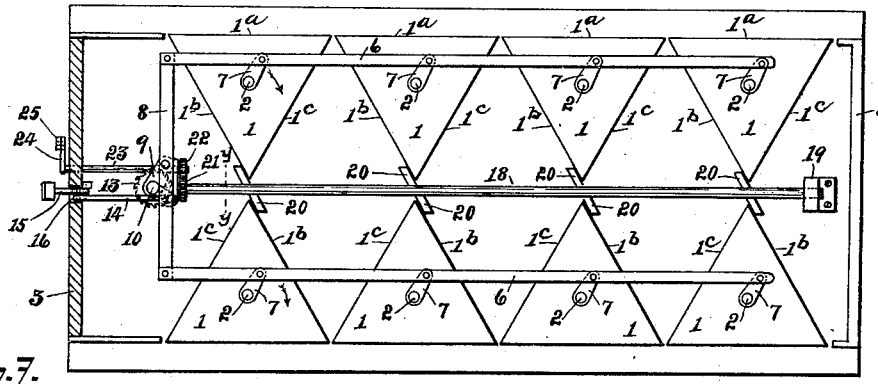


Fig. 3.

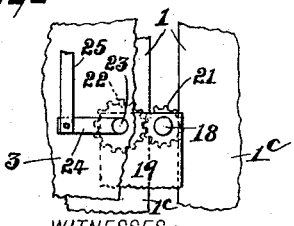


Fig. 5.

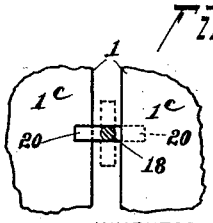
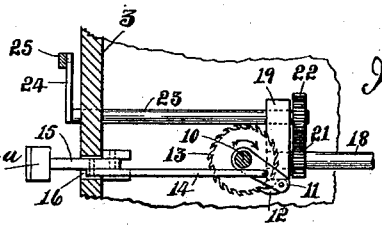


Fig. 4.



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DEVICE FOR DISPLAYING ADVERTISEMENTS.

SPECIFICATION forming part of Letters Patent No. 676,235, dated June 11, 1901.

Application filed December 2, 1899. Serial No. 738,966. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM J. JACKSON, a subject of the Queen of Great Britain and Ireland, residing at the city and county of Philadelphia, in the State of Pennsylvania, have invented certain new and useful Improvements in Devices for Displaying Advertisements, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, of which—

Figure 1 is a side elevation, partly in section. Fig. 2 is a plan view, also partially in section, and the top part or roof of the frame having been removed. Fig. 3 is a detail, enlarged and broken away, showing in elevation the means for operating the devices for stopping the prisms at the proper positions. Fig. 4 is an enlarged section as on line *x x*, Fig. 1. Fig. 5 is an enlarged section as on line *y y*, Fig. 2, showing the devices for stopping the prisms at the proper positions.

The object of this invention is to provide an improved changeable device or apparatus for displaying advertisements; and the invention consists, essentially, in its broader form of a series of equilateral triangular prisms adapted to receive advertisements on the sides thereof and journaled in a suitable frame or support and arranged with relation to each other in a manner that by suitably rotating the said prisms sides thereof may be brought to occupy substantially the same plane, and thus to present a practically-continuous plane surface, as hereinafter fully described.

The invention relates also to means for effecting the simultaneous rotation of the said prisms, also to means for maintaining the same in a certain definite relation to each other when suitably rotated simultaneously, whereby corresponding sides thereof may with certainty be brought to occupy substantially the same plane, and also to means for arresting the rotation of the prisms when such sides thereof have arrived in position to occupy such plane, all as hereinafter set forth.

I have shown in the accompanying drawings my invention as I have applied the same in actual practice—that is, mounted upon a framework upon wheels and intended to be driven about the public streets and roads. In this particular construction I employ two series of the aforesaid prisms, one on each side of the framework, in order to display advertisements to persons on each side of the street or road.

Referring to the said drawings, 1 designates each of a series—four in this instance—of equilateral triangular prisms having end journals 2, that are supported in bearings of the frame 3, which latter rests upon suitable supports 4, rising from the axles of wheels 5. As will be seen upon referring to Fig. 2, the journals of the several prisms of a series are in the same vertical plane and concentric with the major axes thereof, respectively, and the prisms being of the same size the distance apart of the centers of the journals is slightly in excess of the length of a side of a prism. Thus when the prisms are rotated to bring a side, as 1^a, of each prism parallel with a line connecting the centers of the prisms the said several sides will be in the same plane, and so will present a practically-continuous plane surface to the observer, as seen in Figs. 1 and 2. If now the prisms be suitably rotated, another side, as 1^b or 1^c, of each prism may be brought to occupy the position vacated by the first sides 1^a, and so on in continuous succession.

In order to enable the series of prisms to be rotated simultaneously and to always maintain them in the proper relative position, I connect the same by a common bar 6 in a manner that by reciprocating the latter all the prisms of a series will be rotated at the same time and to the same extent. The particular means I have used for thus connecting the bar 6 and the prisms consists in providing each of the journals 2 with a crank-arm 7, to the free end of which the said bar 6 is pivoted, as clearly shown in the drawings. There being in the present instance two sets of the prisms and two bars and two sets of the crank-arms, I connect the ends of said bars by a cross-piece 8, as seen in Fig. 2. Thus by reciprocating the latter to and fro the prisms of each of the two series will be rotated simultaneously to occupy the desired position. Although not absolutely necessary, I prefer to use similar bars and crank-arms on the lower ends of the prisms, as seen in Fig. 1.

In order to enable the required reciprocations of the connecting-bars 6 to be conveniently effected, I pivotally connect the crosspiece 8 to a crank-arm 9 upon the end of a vertical shaft 10, that is journaled in a part of the frame 3. This shaft also carries an arm 11, that is freely mounted and thus rotatable thereon. This arm has at its free end a spring-controlled pawl 12, that is adapted to engage a tooth of a ratchet-wheel 13, fixed upon the shaft 10. A rod 14 connects the arm 11 with a vertical bar 15, whose lower end is pivoted to the front part of the frame and extends up through a slot 16 in the latter, as seen clearly in Fig. 1. A spring 17, Fig. 1, serves to maintain the bar 15 and adjuncts normally in the retracted position.

Having thus described the construction of my invention, with the exception of a certain device to be hereinafter described that I prefer to use for arresting the rotation of the prisms at the proper time, I shall now proceed to explain the mode of operation, as follows: Assuming that the parts have been brought to occupy the relative positions shown in the drawings, in which one side 1^a of each of the prisms faces outwardly and those sides are in line—that is, in the same plane—displaying an advertisement thereon—such, for example, as illustrated in Fig. 1—if it be now desired to display advertisements that may be upon other sides of the prisms, as 1^b, the operator or driver of the vehicle upon which the device is mounted, sitting in the seat S, places his foot upon the outwardly-bent end 15^a of the bar 15 and pressing forward the latter draws forward the rod 14. This swings the arm 11, and the pawl 12, being engaged with the ratchet-wheel 13, turns the shaft 10, and thus obviously effects the simultaneous rotation of the series of prisms in the direction of the arrows in Fig. 2. When the sides, as 1^b, of the prisms have reached the position previously occupied by the sides 1^a—that is, in the same line or plane—the bar 15 is released and thereupon is retracted by the aforesaid spring 17. In this way the remaining sides 1^c of the prisms may also be brought around to the desired position, and so on continuously. It is desirable, however, that means be employed to arrest the rotation of the prisms at the moment that the sides thereof to be displayed have arrived in the same plane. While various stop devices to this end may be used, I have shown in the accompanying drawings a construction that I have devised and which I have found to operate satisfactorily. This is as follows: Extending adjacent to the inner edges of the prisms, in the present instance, where there are two series of prisms, extending between the two series, is a shaft 18, that is journaled in bearings of front and rear standards 19, rising from the bottom of the frame. At suitable intervals apart along the said shaft are studs 20, there being similar studs on each side of the shaft in the present instance, owing to the use of two sets or series of the prisms. By rotating the said shaft a quarter-turn, or thereabout, the studs 20 may be caused to stand horizontally, as seen in Figs. 2 and 5, or to stand vertically, as indicated by dotted lines in Fig. 5. It will be obvious that when the studs are in the first-mentioned position the prisms are stopped against them, as in Fig. 2; but when the studs are brought into the other or vertical position they are out of the path of rotation of the prisms. When it is desired to rotate the latter, the operator first turns shaft 18 to bring the studs in the vertical position. He then rotates the prisms, which are then free to turn; but before they have reached the desired position or point of alinement he turns the shaft 18 to bring the studs 20 horizontally, and (the location of the latter being designed to that end) when the sides of the prisms to be displayed have come into said alinement the inner edges of said prisms stop against the studs 20.

In order that the shaft 18 may be conveniently worked by the operator or driver mounted on the seat S, I mount on the forward end of said shaft a gear 21, whose teeth engage those of a gear 22 on a rotatable shaft 23, on the outer end of which is a crank-arm 24, to which is pivoted a vertical rod 25, that extends within reach of the driver.

I may here remark that various changes may be readily made by the skilled mechanic in the construction of my invention without departing from the essential principle thereof.

The prisms may be solid, or they may be constructed, as, in fact, I usually construct the same, of a skeleton framework and covered with sheet metal, canvas, or the like to form the sides upon which the advertisements are placed.

While I have shown and greatly prefer to have the prisms of the same dimensions, this is not absolutely necessary.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. In a device of the class described, the combination with a series of rotatable prisms mounted in a suitable support and arranged in such relation to each other that the sides thereof will lie in the same plane, of means for rotating said prisms, a shaft arranged adjacent to the inner edges of the prisms, studs carried by said shaft and adapted to lie in the path of rotation of the prisms when the shaft is suitably operated, whereby the prisms are adapted to contact with said studs for limiting the movement of the prisms, and means for operating said shaft.

2. In a device of the class described, the combination with a series of rotatable prisms mounted in a suitable support and arranged in such relation to each other that the sides thereof will lie in the same plane, of means for rotating said prisms, a shaft arranged adjacent to the inner edges of the prisms, studs

carried by said shaft and adapted to lie in the path of rotation of the prisms when said shaft is suitably operated, whereby the prisms are adapted to contact with said studs for limiting the movement of the prisms, a second shaft suitably geared to the shaft carrying the studs for operating the latter, and means for operating said second shaft.

3. In a device of the class described, the combination with a series of rotatable prisms mounted in a suitable support and arranged in such relation to each other that the sides thereof will occupy the same plane, of a bar common to all of said prisms and suitably connected thereto, a shaft journaled in said support and suitably connected to said bar, a ratchet-wheel carried by said shaft, an arm loosely mounted upon said shaft, a pawl carried by said arm and adapted to engage said ratchet-wheel for rotating the latter, means for operating said arm, a second shaft arranged adjacent to the inner edges of the prisms, studs carried by said second shaft and adapted to lie in the path of rotation of the prisms when said second shaft is suitably operated, whereby the prisms are adapted to contact with said studs for limiting the movement of the prisms, and means for operating said second shaft.

4. In a device of the class described, the combination with a plurality of rotatable prisms arranged in parallel series, the prisms of each series being in such relation to each other that their sides will occupy the same plane, of a bar common to the prisms of each series and suitably connected thereto, a transverse bar connecting said bars, a shaft suitably connected to said transverse bar, whereby the movement of said shaft is transmitted to the prisms for rotating the same, a ratchet-wheel carried by said shaft, an arm loosely mounted upon said shaft, a pawl carried by said arm and adapted to engage said ratchet-wheel for rotating the same, means for operating said arm, and means for arresting the rotation of the prisms at the required predetermined times.

In testimony whereof I have hereunto affixed my signature this 6th day of November, A. D. 1899.

WILLIAM J. JACKSON.

Witnesses:

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JOSHUA PUSEY.