Sept. 20, 1949. E. F. GERBER 2,482,475

ADVERTISING SIGN AND DISPLAY DEVICE WITH ROTARY DRUM

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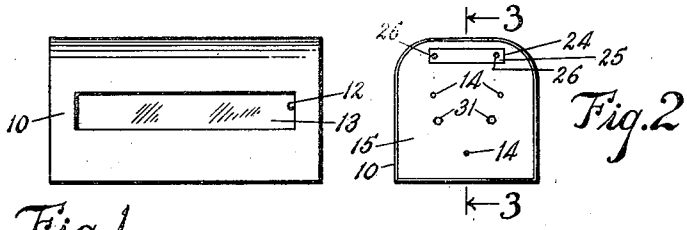


Fig. 2

Fig. 1

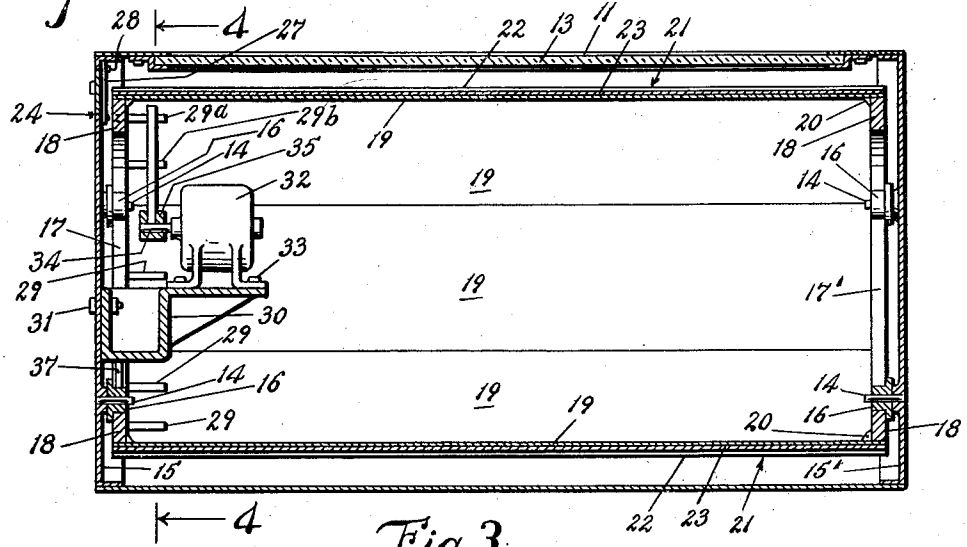


Fig. 3

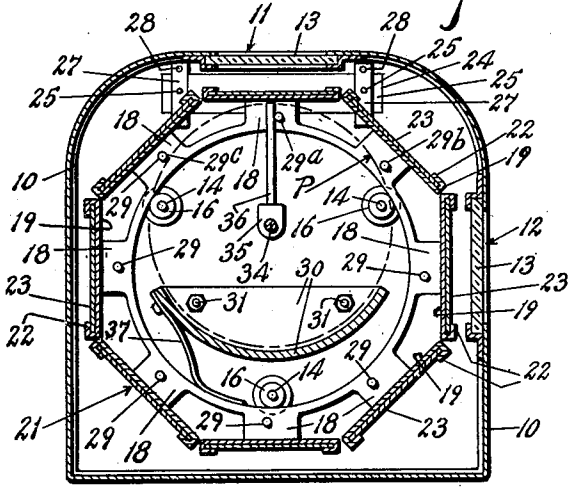


Fig. 4

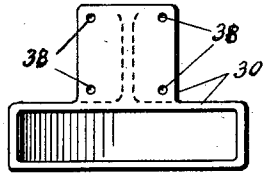


Fig. 5

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ADVERTISING SIGN AND DISPLAY DEVICE WITH ROTARY DRUM

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4 Claims. (Cl. 40—33)

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The principal object of my invention is the provision of a device providing a unique means for attracting attention both day and night, either as an advertising sign or other message carrier, or as a merchandise display means to successively enable the public for intermittent periods of time depending upon the speed at which the device is adjusted or calculated to operate, to read the message or messages thereby conveyed, and/or observe the merchandise thereby displayed.

It is thus an important object of my invention to provide a device which will automatically function, and whereby advertising media and messages of varying kind as well as merchandise may interchangeably be brought to view in a relative compact space, and at will, changed to incorporate varying other subject matter.

A further object of my invention is to provide a merchandise display device of an attractive and useful character which will visually display in rotation, a varied assortment of small merchandise, jewelry, ornaments and novelties, for example, readily accessible, yet protected from being handled, and from the accumulation of dust.

A still further object of the invention is the provision of a device which may be produced in varying sizes and for either indoor or outdoor use.

And a still further object of the invention is the provision of a device adaptable to readily permit the matter to be observed simultaneously from the side, top and bottom of the device as the rotating carrier successively brings the same to view for the intermittent periods of time to which the device may readily be adjusted.

I attain these objects by the device illustrated in the accompanying drawings, in which:

Figure 1 is a side elevation of one form of the device;

Figure 2 is an end elevation of the same;

Figure 3 is an enlarged vertical section on line 3—3 of Figure 2;

Figure 4 is a section on line 4—4 of Figure 3, and

Figure 5 is a plan of the motor supporting bracket shown in section in Figures 3 and 4.

Similar letters and numerals represent like parts throughout the several views.

The mechanism disclosed for obtaining the intermittent movement characteristic of the invention may be housed and adopted to variously shaped, sized and constructed housing cases with equally satisfying results as claimed, but as shown in the drawings for illustrative purposes only, embodies a case or housing 10 having a viewing opening or window 11 in the top, and a similar window 12 in one side, each of which may be provided with transparent closures 13.

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A plurality of stub shafts 14 having one of their ends fixed in walls 15 and 15' of the case 10 protrude into the interior of said case.

Rollers 16 are journalled upon the shafts 14 to provide bearings for a pair of rings 17 and 17' which are positioned (one each) adjacent the end walls 15 and 15'.

The outer periphery of the rings 17 may be provided with a plurality of lugs 18.

A plurality of channelled trays 19 of rectangular form connected at their ends to the lugs 18 as by welds 20 form a drum 21 of polygonal cross section which is rotatable upon the rollers 16 and embodies numerous facets.

The channelled trays 19 are provided with overlying lips 22 which securely hold sign cards 23 or other display material in the trays 19, such as cards to which the displayed objects are attached.

An opening 24 is provided in one of the walls 15 to facilitate the removal or placement of the cards 23 from the trays 19 by sliding the cards therein endwise. Said opening 24 may be closed by a plate 25 held by screws 26 to a pair of supporting bars 27 secured upon the interior of the wall 15 by screws 28.

Each of the lugs 18 of the ring 17 has fixed therein a pin 29 which protrudes toward the interior of the drum 21.

A motor supporting bracket 30 attached to one of the end walls 15 as by bolts 31 provides a shelf for a motor 32 attached thereto by bolts 33 through holes 38 in the bracket 30; the motor 32 is connected to the source of electrical energy in the customary manner, not shown. It is mounted so that the axis of its shaft 34 is eccentric to the axis of the rings 17 and 17', likewise the axis of the drum 21.

The motor shaft 34 is fitted with a hub 35 having a driving arm 36 extending radially from the shaft 34.

A spring 37 is provided to constrain the drum 21 against accidental movement.

As shown best in Fig. 4, the arm 36 when in a vertical position extends adjacent to but does not touch the uppermost tray 19. Hence, the arm 36 will contact and move past the uppermost pin 29a which is in the path (indicated by broken line P) thereof as it moves in a clockwise direction, thereby rotating the drum 21 until the pin 29a has reached the position indicated by the pin 29b which will not be in the path P of the arm 36 at which time the drag or tension of the spring 37 will prevent further movement of the drum 21.

The arm 36 will continue its clockwise movement by-passing all other pins 29 until it again reaches its vertical position where it will again contact a pin 29 which has automatically been moved upwards from the position 29c by the herein described intermittent movement.

The drum 21 is shown as having eight facets or card and material display means. However, said number of facets may readily be varied by changing the width of the facets or the diameter of the drum. Upon such change, the number of pins 29 would obviously likewise be changed so as to at all times correspond with the number of facets.

The outer periphery of the drum could be annular, if desired.

The case or housing 10 is shown as having a window 11 in the top and a window 12 in the side, but it is conceivable that it could also have one in the bottom (not shown), and if the case were of a different shape, hexagon or otherwise, for example, it could readily have additional windows to be viewed from any side, top and bottom, if suspended above the eyes of the observer. Moreover, the case while varied in shape, may also be adapted for placement on one of its ends so as to be observed from any position radially of the drum 21.

Produced from materials readily obtainable in the open market, the device furnishes an ideal advertising and display means that may be produced at a reasonable cost.

As many apparent different embodiments and changes in construction of the invention could readily be made without departing from the scope thereof as herein shown and described, it is intended that the description and drawings shall be interpreted as illustrative and not in a limiting sense.

Having thus described my invention, what I claim as new and novel, and desire to secure by Letters Patent is:

1. In a display device, an elongated housing having a viewing window extended longitudinally thereof, a rotary display drum comprising rings adjacent the ends of the housing, and a plurality of elongated display-holding trays extending between said rings and secured adjacent their ends on the outer peripheries of said rings, a plurality of bearing rollers on the ends of said housing arranged to bear against the inner peripheries of said rings for rotatably supporting said drum with said trays disposed to be successively brought into view through said window on rotation of said drum, a bracket secured to an end of said housing and extending thru one of said rings into said drum, a motor supported on said bracket having a drive shaft disposed in eccentric relation to the axis of said drum, a plurality of drive pins on said last named ring and a driving arm carried by said shaft and arranged to contact certain of said pins on each revolution of said shaft for intermittently turning said drum.

2. In a display device, an elongated housing having a viewing window extended longitudinally thereof, a rotary display drum comprising rings adjacent the ends of the housing, and a plurality of elongated display-holding trays extending between said rings and secured adjacent their ends on the outer peripheries of said rings, a plurality of bearing rollers on the ends of said housing arranged to bear against the inner peripheries of said rings for rotatably supporting said drum with said trays disposed to be successively brought into view through said window on rotation of said drum, a bracket secured to an end of said housing and extending through one of said rings into said drum, a motor supported on said bracket having a drive shaft disposed in eccentric relation to the axis of said drum, a plurality of drive pins on said one ring and a driving arm carried by said shaft and arranged to contact certain of said pins on each revolution of said shaft for intermittently turning said drum, and spring means arranged to frictionally restrain movement of said drum.

3. In a display device, an elongated housing having a viewing window extended longitudinally thereof, a rotary display drum comprising rings adjacent the ends of the housing, and a plurality of elongated display-holding trays extending between said rings and secured adjacent their ends on the outer peripheries of said rings, a plurality of bearing rollers on the ends of said housing arranged to bear against the inner peripheries of said rings for rotatably supporting said drum with said trays disposed to be successively brought into view through said window on rotation of said drum, a bracket secured to an end of said housing and extending through one of said rings into said drum, a motor supported on said bracket having a drive shaft disposed in eccentric relation to the axis of said drum, a plurality of drive pins on said last named ring and a driving arm carried by said shaft and arranged to contact certain of said pins on each revolution of said shaft for intermittently turning said drum, and a spring secured to said bracket and bearing on the inner periphery of said one ring to frictionally restrain it against movement while said driving pin is free from driving contact with said drive members.

4. In a display device, a housing having a viewing window, a rotary display drum in said housing comprising rings and a plurality of display-holding trays extending between said rings and fixed to the outer peripheries thereof, bearing rollers supported by said housing and contacting the inner peripheries of said rings for rotatably supporting said drum so that the trays will be successively presented opposite said window on rotation of said drum, said housing having an opening therein with which the ends of the trays may be aligned for placing and removing displays, means for rotating said drum intermittently for successively positioning said trays in display alignment opposite said window, a bracket carried by said housing and extending through one of said rings into said drum, a motor supported on the portion of said bracket within said drum and having a shaft eccentrically disposed in relation to the axis of said rings, a plurality of projections on said rings projecting inwardly therefrom, a driving arm fixed to and extending radially from said shaft for contacting a certain one of said projections during each revolution of said shaft for intermittently turning said drum, a spring member carried by said bracket and bearing on the inner periphery of said one ring for frictionally restraining the drum against rotation.

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