Sept. 20, 1927. 1,643,224

F. J. SHELTON

MEANS FOR DISPLAYING GOODS, MERCHANDISE, OR THE LIKE

Filed Feb. 10. 1926 3 Sheets-Sheet 1

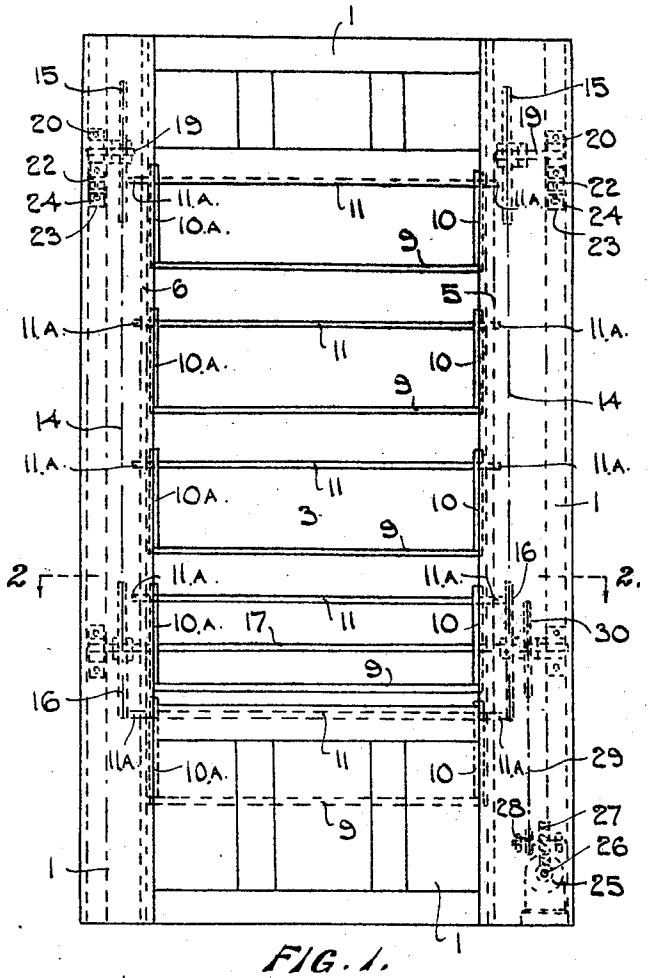


FIG. 1.

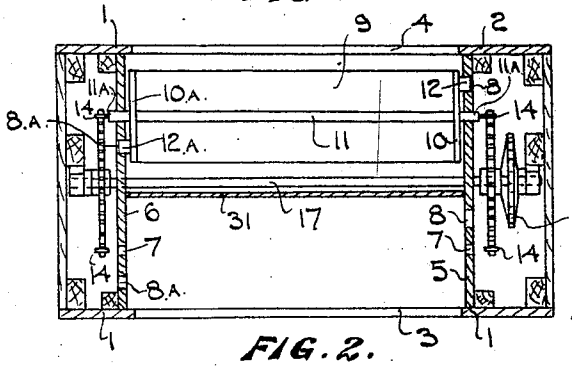


FIG. 2.

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Filed Feb. 10. 1926 3 Sheets-Sheet 2

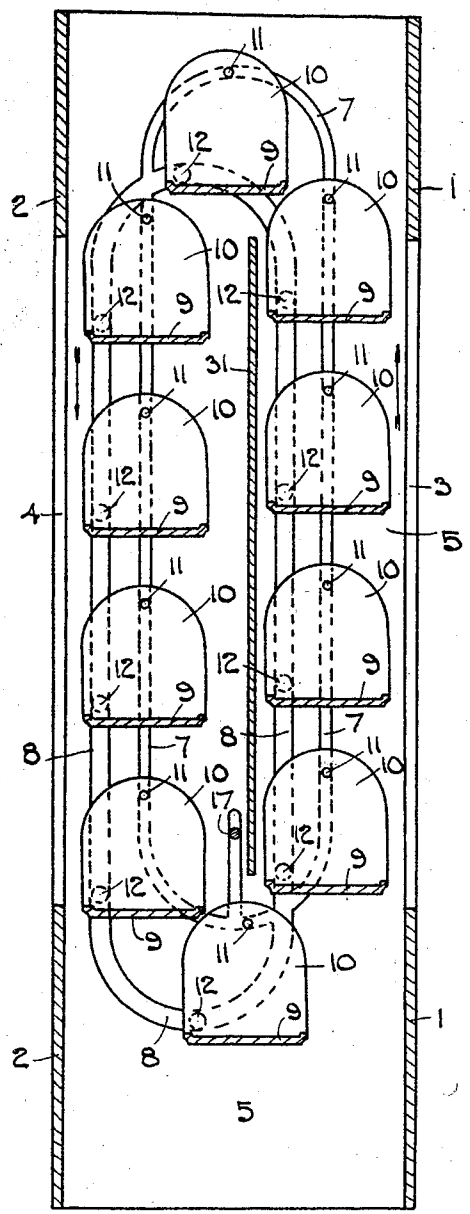


FIG. 3.

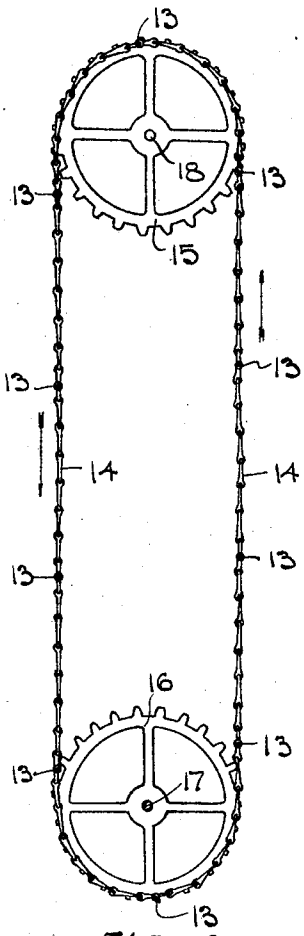


FIG. 4.

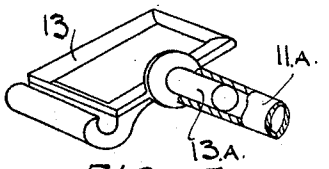


FIG. 5.

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MEANS FOR DISPLAYING GOODS, MERCHANDISE, OR THE LIKE

Filed Feb. 10. 1926 3 Sheets-Sheet 3

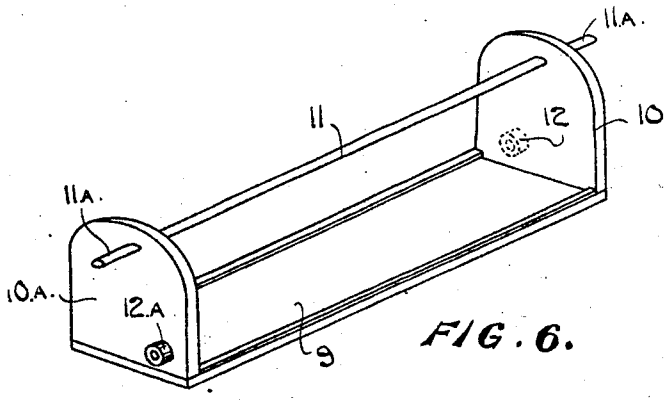


FIG. 6.

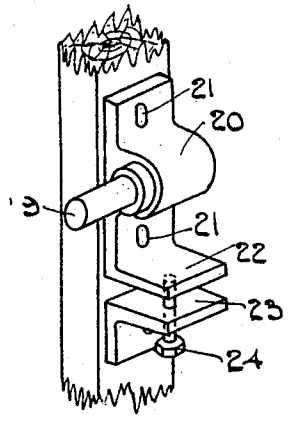


FIG. 7.

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Patented Sept. 20, 1927. 1,643,224

UNITED STATES PATENT OFFICE.

FREDERICK JAMES SHELTON, OF WELLINGTON, NEW ZEALAND.

MEANS FOR DISPLAYING GOODS, MERCHANDISE, OR THE LIKE.

Application filed February 10, 1926, Serial No. 87,377, and in New Zealand March 12, 1925.

This invention relates to means for displaying goods, merchandise, advertising matter or the like.

It is generally conceded that, from an advertising point of view, a stationary advertising medium, especially in shop frontages and the like does not catch the eye of the passer-by as does a moving medium and an object of this invention therefore is to provide a convenient moving advertising medium for use particularly in shop window frontages, and other suitable places visible to the public whereby either the goods or merchandise to be advertised are successively and under most advantageous circumstances featured before the public either by day or by night. Advertising matter indicative of the goods may of course be displayed instead of the goods themselves.

The invention consists in this feature and in the features and arrangements and combinations of parts hereinafter described and more particularly pointed out in the claims.

Broadly speaking, the aforementioned object is effected by the provision of a plurality of horizontally disposed trays or the like containing means adapted to be successively moved in a substantially vertical plane so that goods or the like displayed thereupon as advertising matter will catch the eye of the pedestrian at some stage in their progress at the most convenient height for such pedestrian.

These trays are pivoted between extension pieces of the links of two endless chains between which the trays are so suspended that they are adapted to retain their horizontal position as they pass between the suitably disposed upper and lower sprocket wheels of such endless chains.

Referring to the accompanying drawings which illustrate a constructional embodiment of the invention, Figure 1 is a front elevation of the invention shewing a general view of the device the vertical screen and descending or back shelves omitted for clearness, Figure 2 is a section plan through 2—2 Figure 1 shewing the position of the driving sprockets, one shelf being omitted from the drawing to clearly shew the relative positions of the various grooves in the inner side panel, Figure 3 is an elevation of one of the side panels shewing the position of the shelves in relation to the grooves, Figure 4 is a side elevation corresponding to Figure 3 shewing the driving sprocket wheels and chains which carry the shelves, Figure 5 is an enlarged perspective view of one of a type of links on which are carried the shelf cross bars or pipes, and illustrating the inwardly projecting extension pins, Figure 6 is a perspective elevation of one of the shelves shewing the position of the steadying or guide rollers, Figure 7 is a perspective elevation of one of the bearings for the upper sheaves shewing the chain tightening attachment.

The invention comprises a vertical preferably rectangular framework of wood or other suitable material having a front 1 and rear casing 2 with convenient openings 3 and 4 provided respectively. These openings may be glassed in or otherwise protected from dust or the like while permitting the trays to be visible. The front and rear casings 1 and 2 are joined together by cross pieces and suitably and sufficiently supported and strengthened in any known convenient way. It will be noted that the front and rear openings are centrally disposed and substantially limited in width to the size of the trays so that the chain drives and other mechanical details are preferably concealed in order that attention may be solely directed to the advertised goods. Side panels 5 and 6 connect the front and rear casings 1 and 2 and the distance between them is a little more than the length of the trays 9. These side panels have each a guide slot 7 as shown in Figure 3 to receive the ends 11^a of the supporting hollow cross bars 11 of the trays 9, which project through the end boards 10 thereof. Guide rollers 12 and 12^a are provided on the other sides of end boards 10 and 10^a respectively and on opposite sides of cross bars 11 as shown in Figure 6 and move in substantially diagonally opposed endless slots 8 and 8^a in said side panels 5 and 6 as shown in Figure 3 to ensure steadiness of movement of the trays and prevent tipping. The ends 11^a of the hollow cross rod 11 after passing through said grooves 7 in said side panels 5 and 6 are adapted to fit over inwardly projecting extension pins 13 on convenient connecting links provided in the link chains 14. The link chains 14 are adapted to pass over upper and lower sprocket wheels 15 and 16 the upper sprocket wheels being freely mounted through holes 18 in any suitable manner on short spindles 19 provided with outer bearings 20 secured to the framework of the de-

vice as shown in Figure 7. These bearings 20 form part of a bearing plate provided with vertical slots 21 for bolts to secure same to the framework and these slots 21 permit of said plate being adjusted in position to angle piece 23 therebelow through set pin 24 adapted to bear against the under side of plate 22 to take up tension in sprocket chain. It will be seen by these means the tension of the chain may be adjusted if and when occasion required it.

In connection with the foregoing it is to be observed that the side portions of the slots 8 and 8^a are substantially parallel with the side portions of the slots 7 while the curved end portions are substantially eccentrically arranged with respect to the curved ends of the slots 7. As a result the ends 11^a working in the slots 7 coact with the rollers 12 and 12^a respectively operating in the slots 8 and 8^a to insure of the maintenance of the trays in a horizontal untiltable position as they are carried throughout their cycle by the chains.

The lower sprocket wheels 16 are rigidly secured on connecting spindle 17 and are driven from any suitable source of power such as an electric motor 25 through worm pinion 26 worm wheel 27 sprocket wheel 28 and driving chain 29 to driver sprocket 30 on spindle 17.

A vertical screen 31 is preferably placed in front of spindle 17 so as to ensure that only the ascending shelves shall be in view of the public.

In operation, the device is located in a shop frontage or other suitable place for display, the goods required to be displayed are placed in the trays 9 and the motive power switched on, thus rotating through the gearing described the sprocket wheels 16 and thus moving the endless chains 14 carrying the trays 9. The trays will thus move up in succession and reaching the top pass down between and rearwardly of the upper sprocket wheels 15. It is to be noted that even when passing over and between the sprocket wheels the trays 9 retain their horizontal position by gravity as they are freely mounted on the link extension pieces as hereinbefore described.

The trays travel round and under the horizontal shaft in the lower portion of the framework, the width of the trays being less than the radius of the sprocket wheel thus enabling them to clear the horizontal shaft 17.

Claims:

1. An apparatus for displaying or advertising goods, merchandise, and the like, comprising a framework, including spaced side panels having opposed endless central slots therein and also provided with substantially diagonally opposed endless slots the side portions of which are parallel to the other slots while the curved end portions are substantially eccentric thereof, endless chains operating on the outside of the panels and opposite the central slots, a plurality of horizontally disposed trays situated between the panels, cross bars carried by the upper parts of the trays and engageable through the central slots with the chains and supported by the latter, and rollers mounted on the ends of the trays and on opposite sides of the cross bars and operating in the diagonally opposed slots so as to be guided thereby and prevented from tilting during movement.

2. An apparatus as claimed in claim 1 wherein the ends of the cross bars are hollow and wherein the chains includes a plurality of links, and laterally extending bearing pins projecting from the sides of some of the opposed links of the chains over which are movably fitted the hollow ends of the cross bars, substantially as and for the purposes set forth.

3. An apparatus as claimed in claim 1 wherein the framework includes front and rear open faced rectangular casings connected by the panels and divided into middle and end compartments for respectively accommodating the trays and chains, and a vertical partition screen situated between the lays of trays.

In testimony whereof I affix my signature.

FREDERICK JAMES SHELTON