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J. M. PALMER ET AL

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DISPLAYS

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2 Sheets-Sheet 1

FIG. 1

FIG. 2

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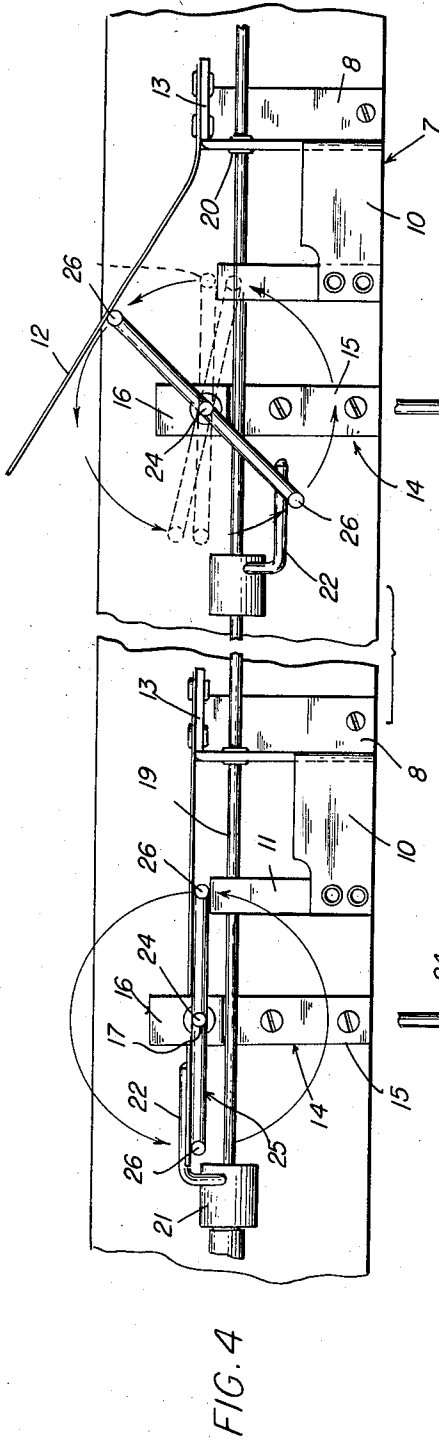
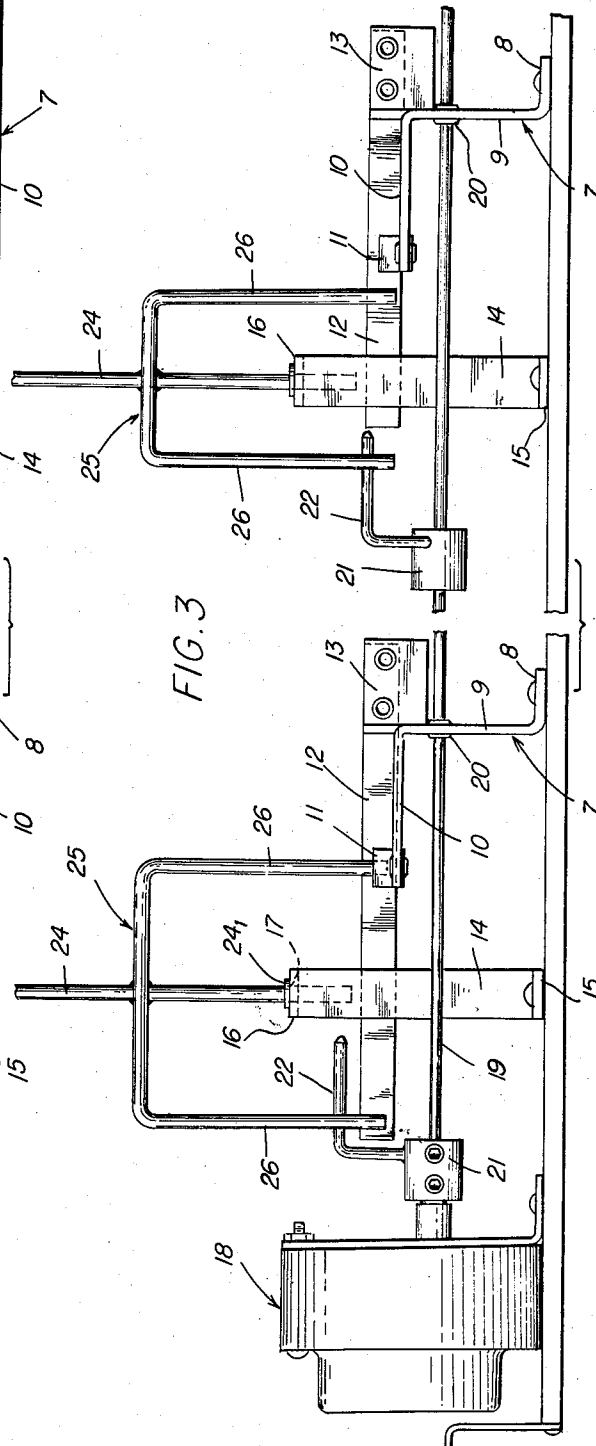
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DISPLAYS

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1 Claim. (Cl. 40—33)

Generically, the invention relates to display devices and specifically to a unitary, mobile display which provides an intermittent, rotary motion to a message or messages carried on elements of the device, with consequent, dynamic, attention-compelling effects.

A primary object of a display device is to attract and hold a viewer's attention for the purpose of "driving home" a sales story.

The most important feature, then, in the sales picture or the movement of goods is what is aptly termed "the point of purchase"—that is, the store or place where goods are sold, and the moment at which the customer is about to enter or is in the store ready to buy at the counter and is uncertain as to the brand for which he will put his money down on the "barrelhead." That is the reason why "point-of-purchase" displays, which influence buyers when they are about to buy must be prepared with exacting care and skill. A sign on a counter which merely says "buy X toasters" will not sell a twenty dollar electric toaster—but one which attractively pictures a housewife holding a toaster may. And a moving display which exhibited the toaster and a picture of the lady would certainly sell.

We have invented a unique display device with an intermittent motion that is dynamic, which rivets the attention of a customer on the sales message or product and holds it for a second "straight to the bull's-eye" appeal, and sells merchandise, among its other manifold uses.

One object is the provision of an intermittently rotating, mobile display device, having what we term "stop and go" motion. It is intended, as one primary use, as a "point-of-purchase" display with maximum impact on prospective purchasers, consumers, or on any viewer within visual range of the device.

Another object is a display device for use in retail establishments to advertise goods sold therein, which is attractive, attention-compelling and adapted for use on or above counters, on floor-displays, on shelves, walls, in windows, or for that matter, in any position which can be seen by a customer. The device may even be weather-proofed, and placed out of doors.

We have for another object a display device which can be manufactured in a variety of sizes and shapes, as for example, a single, double, quadruple, quintuple or any reasonably numbered series of intermittently rotating signs or objects, adjusted for "stop and go" motion in unison, or sequentially, or in any desired order. The only feature limiting the size of the display is the space allotted in the store.

A further feature of our invention contemplates a display device which is adapted for exhibiting a longitudinally spaced message in one plane, or a plurality of planes, that is one message above the other or side by side.

We further provide a dynamic display which is adapted for exhibiting one or a plurality of advertising messages, news, any visual matter, or three dimensional objects in a dramatic fashion and to intermittently, completely,

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change the exhibit to present a different message, visual message or object, at regular frequent intervals.

Still another object contemplated the provision of: a device capable of displaying either a flat message or advertising carrying panel or three-dimensional objects of suitable configuration, and intermittently changing the viewed side of the panel or object after a sufficient time lag or dwell for the viewer to see one side of the display or object.

We comprehend a device in which the individual panel components of the display may be readily interchanged at will to provide new sales messages without undue disturbance of the display housing or mechanism.

Finally, we have invented a display which can be manufactured at minimum cost, and of inexpensive materials.

These and other objects will be manifest after the specification and claim unfold.

Briefly described, the invention comprises a unitary, mobile display, with a mounting including a base plate, a main shaft operatively connected with an electric clock or other motor and one or a plurality of similar mountings cooperating with said shaft for sustaining and intermittently rotating multi-sided panels, with what we term "stop and go" movement.

The foregoing mechanism is encased in an attractive frame, or housing, and can be used as a shelf piece, a window display, wall hanging or as a unit in a multi-piece window display.

In the drawings:

Fig. 1 is a front view of "stop and go" triple turn display with intermittent motion mechanism partially shown.

Fig. 2—perspective view of display mechanism.

Fig. 3—front elevation of a multiple motion display mechanism with principle of that shown in Fig. 1.

Fig. 4—plan view of Fig. 3 showing both neutral and flip over positions.

In the specification, where reference is had to advertising, this is not intended to be limitative in any manner, for the invention can be used for the display of anything which can be seen, whether point-of-purchase advertising, designed to further the sale of goods at the point or place where they are actually being sold or any place whatsoever, or for such material as fund-raising drives or the like, news, any visual matter, or to display three-dimensional objects. And additionally, while a clock motor is employed for rotating the horizontally or vertically disposed shaft—it should be understood any motor with a reduction gear or source of power capable of slowly rotating a shaft can be employed. Also, the word "panel" is used to denote signs, or any message carrying object.

Finally, where the parts are duplicated, like numbers for such parts are employed.

Referring to the drawings, 5 denotes the entire multi-panelled display, with the supporting and intermittent-motion imparting mechanism of the multi-signed display being delineated in Figs. 2, 3, and 4. Therein number 6 denotes the base plate which may be fabricated of metal or any other rigid material. At one end of said base and intermediate the ends we provide mounting brackets 7, which include base 8, vertical wall 9, and horizontally disposed shelf 10, which may be struck from wall 9. From the rear of shelf 10 extends flexible stop spring 11, rigidly affixed to shelf 10, which is formed with its free end angled upwardly, for the purposes hereinafter explained.

One end of another but longer flexible spring 12 is mounted on wall 13 of bracket 7.

Inwardly of bracket 7 we mount another bracket 14, with lower palm 15 secured to plate 6 and its upper end oppositely extending palm 16 centrally bored at 17.

As motive power we provide a clock motor 18 oper-

actively joined to shaft 19, journaled and supported in walls 9 as at 20.

At suitably spaced intervals along shaft 19 are couplings 21 adjustably secured to the shaft, carrying bell cranks 22. These may be provided with "Allen" type set screws (not shown) to permit of desired adjustment of the couplings around the shaft.

In each bracket 14 there are rotatably seated panels 23, each of which are either rigidly or removably mounted on rods 24, to which are welded forks 25, having downwardly extending legs 26. Rods 24 have support bearings 24₁, which are seated on the brackets 14, and their upper ends 24₂, fit into and are removable from slots 40 in upper support 41—while 49 is an upper attachment means mounted on the rods to assist in holding panels 23.

The intermittent motion mounting mechanism and signs 23 are all mounted in a housing 27, with 28 referring to one side and 29 the opposite side of the panels. Housing 27 it is to be noted must have sufficient depth to accommodate the driving mechanism and to permit panels 23 to turn therein, with 44 the top, 45 the bottom, sidewalls 46, back 47 and opening 48 spaced from the foregoing sufficiently to cover the operating mechanism from the viewer and said opening also spaced equidistantly from the outer edges of the said top, bottom and sidewalls which serves to frame the opening. Further, bracket 14 must be positioned rearwardly of opening 48 to permit fork 25 to travel 180° in their orbit free of the rear wall of the opening.

Operation

With shaft 19 rotating slowly (i. e. 7½ to 8 R. P. M.) in a clockwise direction, the bell crank 22 carried thereby frictionally engages one of the legs 26 depending from the sign 23 and thereby rotates rod 24 (see Fig. 2), impelling spring 12 rearwardly. After a revolution of about a quarter segment of rod 24, or the point at which bell crank 22 has, by its orbit of movement disengaged from contact with one of legs 26, spring 12 in its distorted position takes charge and carries the other leg 26 around to the free end of the spring while the opposite leg 26, is moved along and depresses stop spring 11 until the end of leg 26 is carried beyond the end of said spring and assumes the median dotted line position shown in Fig. 4. Spring 11 acts as both a brake and a stop.

There is a short time lag or dwell during which sides 28 of signs 23 are visible—and there follows another 180° turn of the signs 23, to display sides 29 of signs 23, with a different message from that depicted on sides 28.

The mechanism has a number of desirable characteristics: slow starting and stopping action, sufficient dwell between rotation of the signs, absence of noticeable overthrow, positive positioning of the panels between movement, and compactness.

It comprises a dramatic, compelling display for use at the point where the manufacturer most desires consumer attention—namely, at the point of purchase.

It is within the inventive concept that panels with three or four sides (not shown) may be mounted.

We reserve the right to make such changes or modifications as may come within the scope of the appended claim.

We claim:

10 A unitary, mobile, display device comprising a three-dimensional housing having a top, bottom, side walls and an opening in the front of the housing spaced equidistantly from and framed by the top, bottom and side walls, a vertically disposed rod having a horizontally mounted support attached to the upper portion thereof and a fork having a horizontal portion and two depending legs mounted inwardly of the lower end of said rod, a support bearing mounted on the rod above the lower end of the rod, pairs of brackets mounted on a base plate, said support bearing disposed between the brackets and below the opening in said housing and carrying a two-sided panel above the horizontal portion of the fork, a motor operated horizontal shaft mounted within the housing on said brackets and carrying a projection rotatable about a horizontal axis operatively engaging one of said forks, a horizontally bendable stop spring affixed to one of said brackets having its free end upwardly angled, a horizontally bendable spring also mounted on said last mentioned bracket, both of said springs engageable by said legs whereby upon rotation of the shaft, the said projection engages one of said legs to initially impart a rotative movement to said rod and the other of said legs is thereupon engaged by the last mentioned spring to complete a 180° rotation of said rod and whereby the leg engaged by said projection will at the end of its movement be engaged by said stop spring to cause the panel to dwell in the framed opening.

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