

Aug. 15, 1950

A. ST. CLAIR PERRY
ADVERTISING DEVICE

2,518,633

Filed Oct. 28, 1946

2 Sheets-Sheet 1

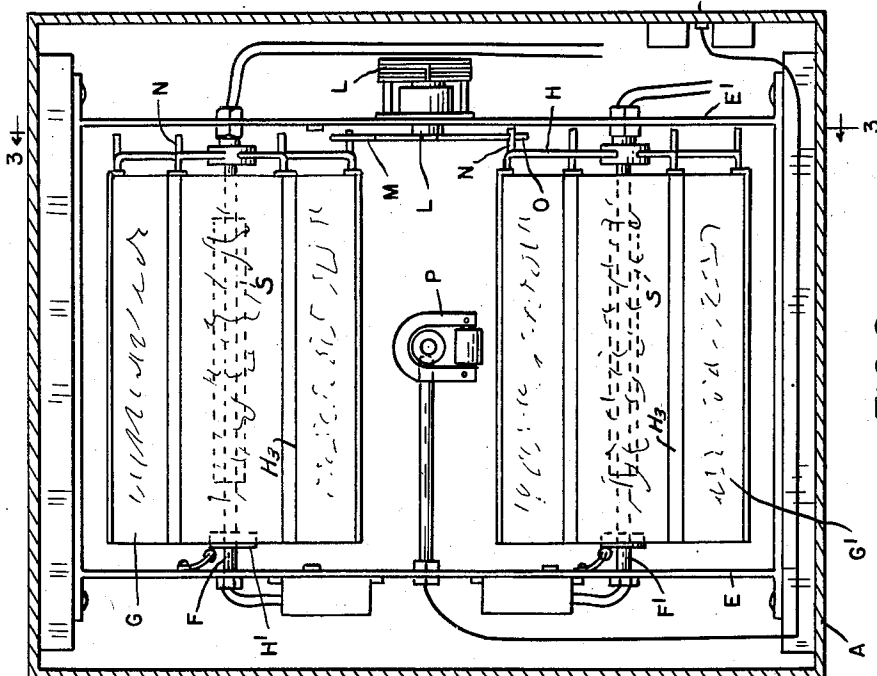


FIG. 2.

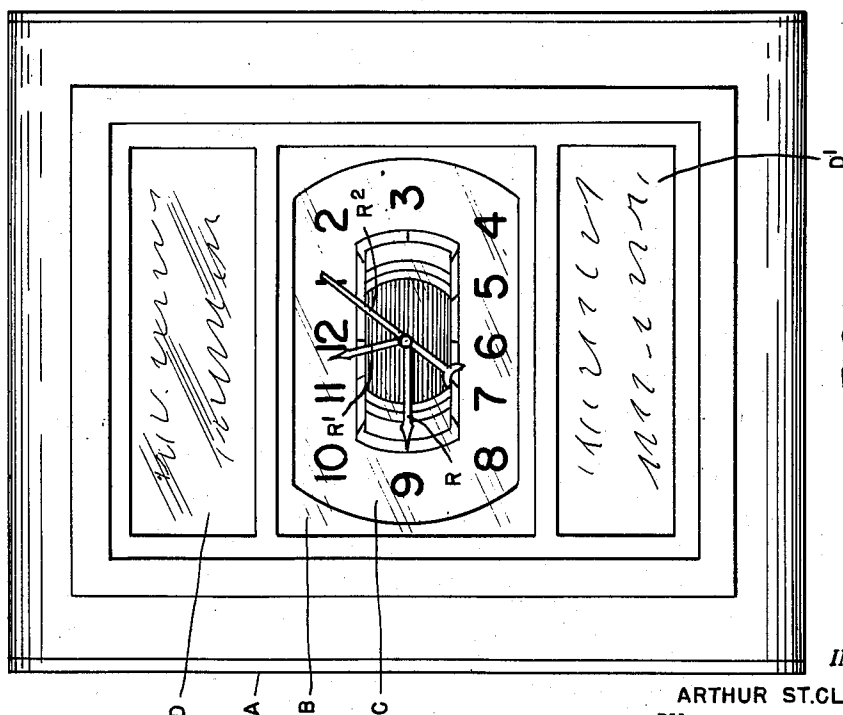


FIG. 1.

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2 Sheets-Sheet 2

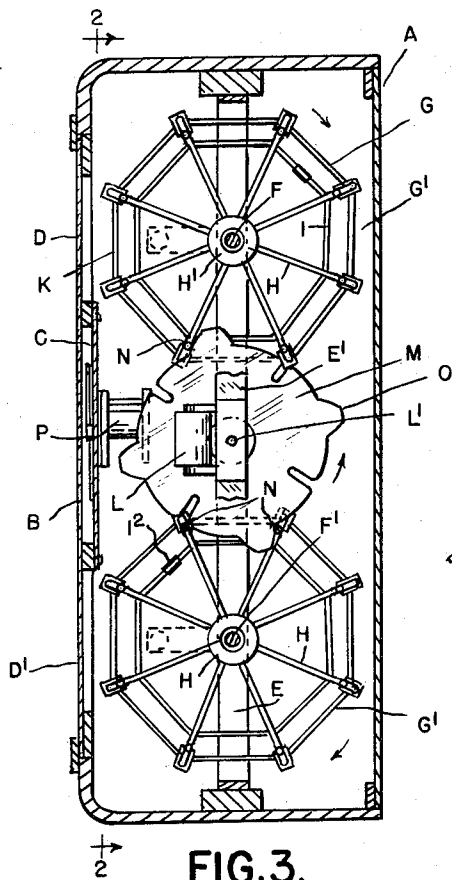


FIG. 3.

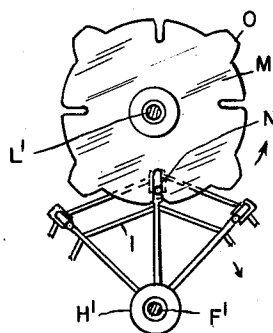


FIG. 4.

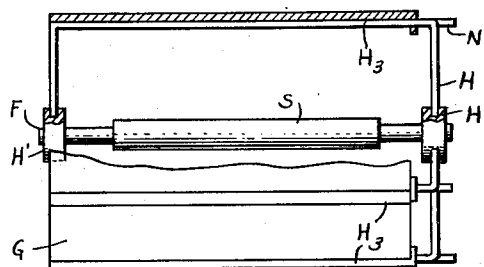


FIG. 6.

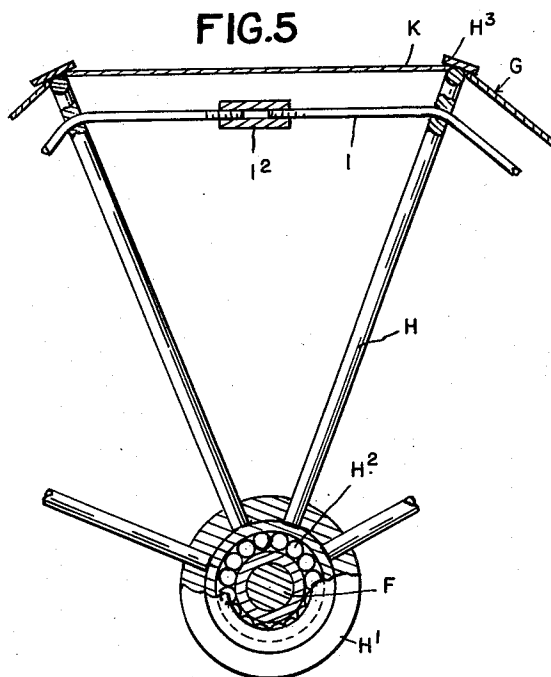


FIG. 5.

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UNITED STATES PATENT OFFICE

2,518,633

ADVERTISING DEVICE

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2 Claims. (Cl. 40—33)

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This invention relates to advertising devices of that type comprising a cabinet enclosing one or more revolving drums, each carrying a series of advertising panels which are successively displayed through a window opening in the cabinet.

It is the object of the invention to obtain a device of this character which is exceedingly simple in construction and automatic in its operation. To this end, the invention consists in the construction as hereinafter set forth.

In the drawings:

Fig. 1 is a front elevation of my improved advertising device;

Fig. 2 is a similar view with the front panel of the casing removed;

Fig. 3 is a cross section on line 3—3, Fig. 2 and

Fig. 4 is an enlarged sectional elevation illustrating the construction of one of the drums.

Fig. 5 is an enlarged sectional elevation of a portion of Fig. 4 illustrating the drum construction.

Figure 6 is an elevation of one of the drums shown partially in section.

Heretofore, advertising devices of the character above referred to have been associated with a clock enclosed in the same casing, the advertising panels being displayed through windows adjacent to the clock dial. It is also old to operate both the clock and the rotary drums by synchronous electric motors. With my improved construction, I form the clock dial of an oblong rectangular panel and with the display windows immediately adjacent this dial above and below the same.

As shown, the casing or cabinet A is of rectangular form and is provided in its front with a glass panel B covering the area of both the clock dial C and the display windows D and D'. Within the cabinet is arranged a frame including a pair of upright posts E and E' with shafts F and F' extending therebetween for respectively supporting drums G and G'. Each of these drums is preferably formed of a skeleton frame including a plurality of U-shaped rods H and hub members H' to which the ends of said rods are connected to extend radially outward therefrom at equal angles thereabout. As illustrated, there are eight of these rods which together form an octagonal frame. The U-shaped rods are further secured to each other by annular tie wires I which pass through perforations in the rods near the outer ends of radial portion thereof, and the ends of said tie wires are connected by coupling sleeves I² having a threaded engagement therewith. The hubs H' have annular portions provided with

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radial sockets for receiving the ends of the rods H. Ball bearings H² within said annular portions form an anti-friction mounting for said drums on said shafts and also limit the inward movement of said U-shaped rods when under the tension of the wires I. The panels K are preferably formed of translucent material and are secured between the outer ends of the U-shaped rods preferably by engaging grooves between the longitudinally extending portions of said rods and flat strips H³ secured thereto. Thus, the drum as a whole is octagonal in form with the translucent panels forming the sides thereof. Within each drum is arranged an illuminant preferably an electric fluorescent tube which is mounted on the stationary shafts F' or F'' and is arranged in rear of the panel opposite the window opening D or D'.

For rotating the drums G and G', I employ a synchronous electric motor such as is used in a clock mechanism. This motor L is mounted on one of the posts E' midway between the shafts F' and F'' and with its rotor shaft parallel thereto and extending inward. For use in a clock mechanism, this motor is provided with three coaxial shafts, respectively, for the second, minute and hour hands. However, for driving the drums, I use only the shaft L' for the minute hand as this rotates at 1 R. P. M. M is a disc mounted on the shaft L' inside of the post E'. This disc overlaps the ends of the drums G and G' and has an intermittent driving engagement therewith. Preferably this driving engagement is such as to impart a gradual acceleration and deceleration, or a substantially harmonic movement of sufficient amplitude to move one of the panels K out of registration with the window D or D' and the next adjacent panel into registration with said window. As shown, each of the rods H has projecting axially from the radial portion thereof a pin N the orbit of which intersects the disc M. Said disc is, however, provided with a plurality of slots extending radially inward from the periphery thereof and adapted to successively receive the pins N. Thus, while each pin is in engagement with its slot, it will be actuated as before described. To cause the pins to enter the slots, the disc is provided with a plurality of cams O projecting radially outward from the periphery thereof. The location of said cams is such that when one of said pins is in registration with one of said slots, a cam O will engage another pin to actuate the same and the drum until the first pin has entered the slot. The drum then rotates until said first pin disengages from its slot. After

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which, the drum remains stationary until another slot registers with the succeeding pin and another cam O causes the entrance of said pin into said slot. The construction is one which avoids any sudden shock on the motor for both the starting and stopping of the drum is very gradual.

As previously described, the oblong rectangular clock dial C is arranged between the windows D and D' and adjacent thereto. This dial is mounted on the cabinet A in rear of the glass panel B and slightly spaced therefrom. The synchronous clock motor P is mounted directly on the dial to extend in rear thereof, while the shafts for the hands extend through the dial. The dial is formed of translucent material and overlaps the drums G and G' without extending far enough to obstruct the windows D and D'. Inasmuch as all of the panels K of the drums are of translucent material, the light which will be diffused from the panels in rear of the dial is sufficient to illuminate this dial. The hands R, R', R² are preferably formed of translucent material but colored to distinguish them from the dial, which is white. There will be sufficient light radiated from the dial to the hands so as to illuminate the latter even where there is no light in front of the cabinet. The hands are arranged in the space between the dial C and front panel B.

With the construction as described, in operation it is merely necessary to close an electric switch, which supplies current to the motors L and P, these being preferably self-starting. The timing is such that the drums are intermittently rotated with an interval of rest between successive actuations. The rest interval is preferably only a fraction of the time that the drums are in motion, but nevertheless is advantageous, as it enables the observer to more clearly read the advertising matter. The fact that the dial is only indirectly lighted from the drums renders its illumination less than that of the displayed panels, which is advantageous. Also, the translucent hands of a color contrasting with that of the dial constitute a distinctive feature of the construction.

What I claim as my invention is:

1. An advertising device comprising a frame, a pair of spaced parallel shafts extending across said frame, rotatable polygonal drums mounted on said shafts each comprising a pair of annular hub members having a plurality of radially extending sockets therein, a plurality of U-shaped members having the legs thereof engaging the corresponding sockets in said annular hub members, panels of translucent material having advertising matter thereon, each panel being slideably engaged with a pair of said U-shaped

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members to form one of the polygonal sides of said drum, ball bearings on said shafts engaging said annular hub members and forming stops for the inner ends of said U-shaped members, a tensioning wire member extending through apertures at each of said legs to extend around said drum and to hold said U-shaped members from displacement, a synchronous electric motor mounted on said frame intermediate said drums, transmission means between said motor and each of said drums for imparting an intermittent rotary movement to the latter and a cabinet enclosing said drums provided with a window for each drum in registration with one of the sides thereof while in rest position.

2. An advertising device comprising a pair of spaced rotatable polygonal drums having the sides thereof formed of translucent material with advertising material thereon, a frame on which said drums are journaled, a synchronous electric motor mounted on said frame between said drums, a disc on the shaft of said motor overlapping the ends of said drums, said disc having a plurality of slots extending radially inward from the periphery thereof, pins projecting axially outward from each drum at points intermediate the polygonal sides thereof, said pins being positioned to pass through an orbit intersecting said disc and to successfully engage said radial slots therein and a plurality of cams extending radially outward from the periphery of said disc so located that one cam engages one of said pins when another of said pins is in registration with one of said radial slots thereby causing the latter pin to enter the slot and to be actuated by said disc through the intersecting portion of its orbit said drum then remaining stationary until in the rotation of said disc another slot registers with another pin and is engaged therewith by another cam and a cabinet enclosing said drums provided with windows in registration with one side of each drum while in rest position.

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