Feb. 11, 1930. E. DOLAR 1,746,581

MULTIPLE REVOLVING SIGN

Filed April 11, 1929 2 Sheets-Sheet 1

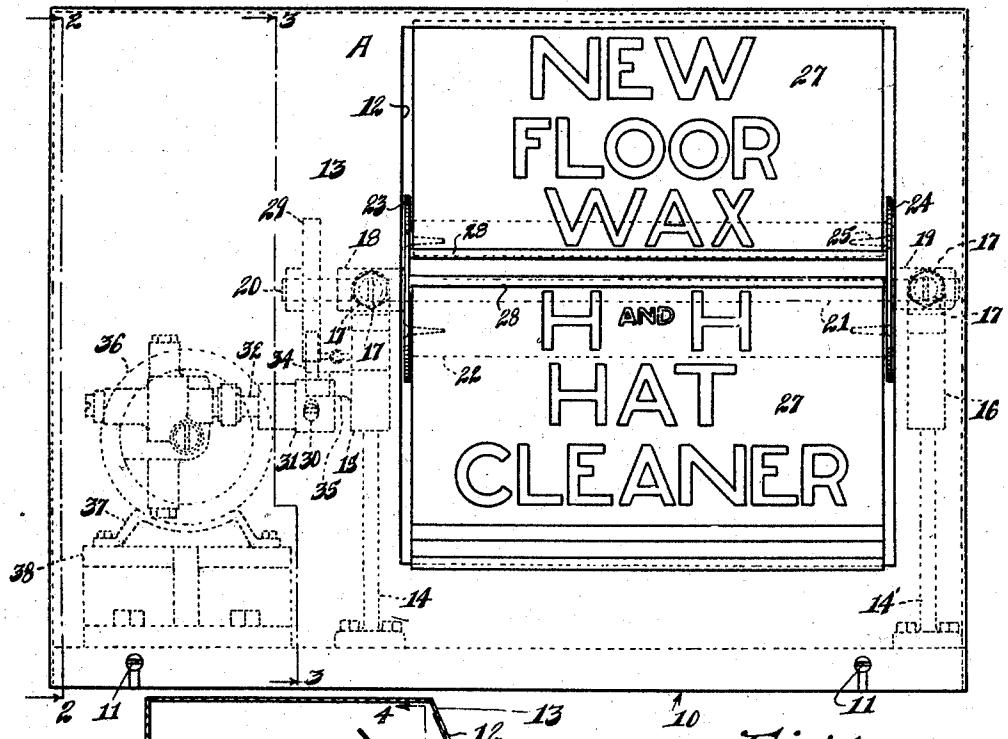


Fig. 1

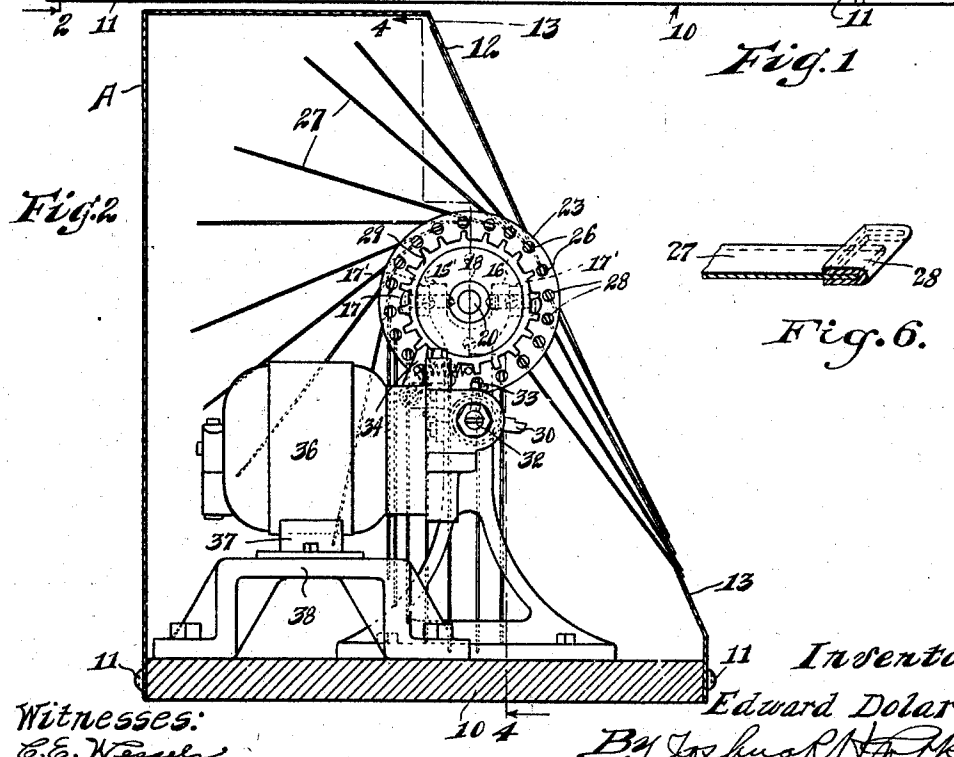


Fig. 2

Fig. 6.

Witnesses:
E. E. Wessels
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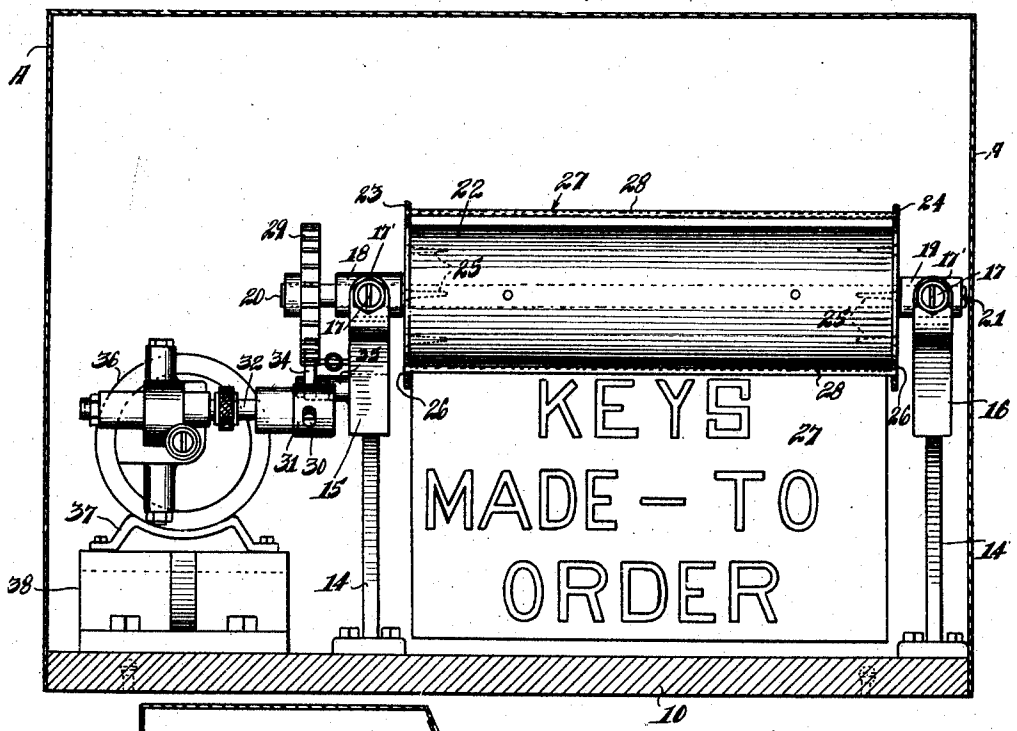


Fig. 4

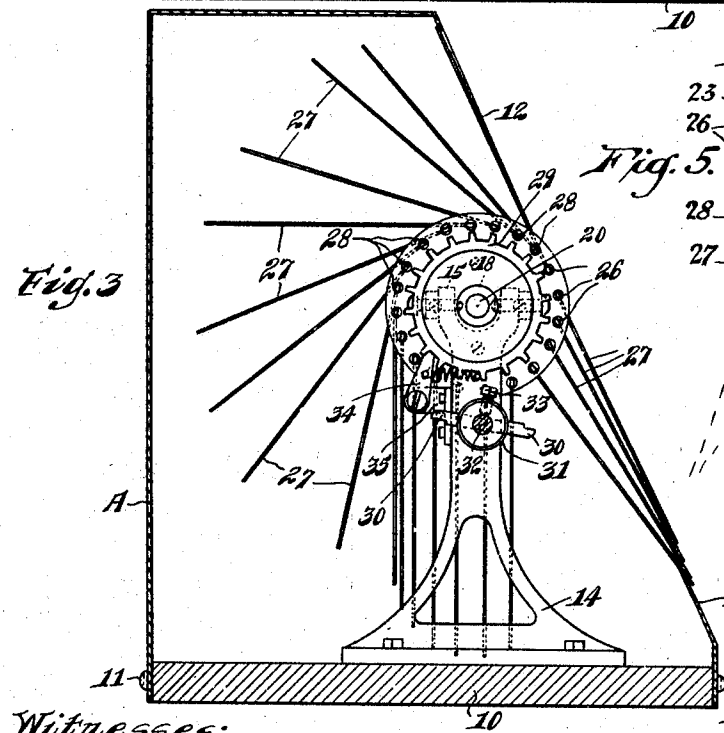


Fig. 3

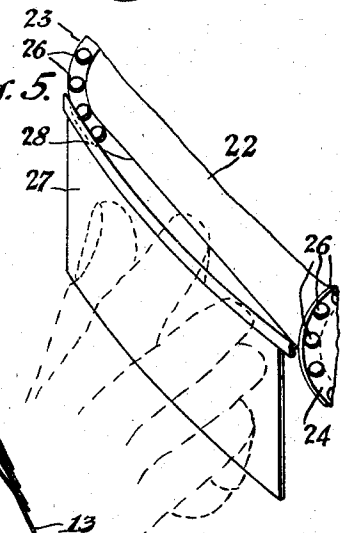


Fig. 5.

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Patented Feb. 11, 1930 1,746,581

UNITED STATES PATENT OFFICE

EDWARD DOLAR, OF CICERO, ILLINOIS

MULTIPLE REVOLVING SIGN

Application filed April 11, 1929. Serial No. 354,189.

This invention relates to revolving signs, and more particularly to a multiple revolving sign device of a type particularly adapted for the display of advertising and pictorial cards.

The object of the invention is to provide an improved revolving sign display device of comparatively simple and inexpensive construction, with means to instantly remove any desired advertising or pictorial card from an indefinite number of other cards within the device, and to immediately replace the removed card with another card.

Another object of the invention is to provide a simplified mechanism and construction in a device of the kind described for retaining and revolving a multiplicity of diverse display or advertising cards, etc.

Other objects and advantages of the method and construction herein employed will appear more fully in the details hereinafter set forth, reference being had to the accompanying drawings, in which,

Figure 1 is a front elevational view of an embodiment of my invention.

Figure 2 is a transverse sectional view taken on line 2—2 of Figure 1.

Figure 3 is a sectional view taken on line 3—3 of Figure 1, and

Figure 4 is a longitudinal view taken on line 4—4 of Figure 2.

Fig. 5 is a fragmentary perspective view of a card being removed by a hand; and

Fig. 6 is a fragmentary sectional view of a card and its resilient metal selvage.

In the drawings wherein similar characters of reference indicate corresponding parts in the several views of the preferred form of the invention, A designates a housing substantially trapezoidal shaped—enclosing certain parts hereinafter described—mounted on a base plate 10 to which the housing A is detachably secured by screws 11, threaded thereto. As best shown in Figure 1, the housing A is provided with an opening 12 formed in a front inclined wall 13 of the housing, the opening serving as a means through which the advertising cards 27 are swung and viewed. As will be seen hereinafter, the front wall 13 of the housing A plays an important part in retaining the display cards 27 until such time as the latter have been temporarily flexed or bent sufficiently to be carried through the window or opening A.

On the base plate 11 a pair of yoke members 14, 14′ are mounted with which are integrally formed journal supporting brackets 15, 16 on the spaced arms 15′, 16′, of which apertures are provided in which set screws 17 locked by nuts 17′ are threaded, the set screws securing the supporting journal sleeves 18, 19 in which stud shafts 20, 21 fastened to drum 22 are revolvably supported. Discs 23, 24 are fastened to the opposite ends of drum 22 by screws 25, these discs having a plurality of holes 26 arranged on the marginal border thereof. As forming an important part of my invention, the display cards 27 which may be of any desired type, pictorial or advertising, are clampingly secured in longitudinally folded or crimped strips of metal 28, preferably of a somewhat resilient nature for a purpose which will shortly appear, the ends of the metal strips 28 being individually inserted in opposed holes of the discs 23, 24. A gear 29 is secured to stud shaft 20, the gear 29 being intermittently engaged by a plurality of pins 30 fastened in a hub 31 detachably secured on a shaft 32 by means of the cap screw 33. Coacting with gear 27 and preventing reverse movement thereof is a detent 34 preferably of leather or fabricated material, the detent 34 being mounted on an arm 35 secured to yoke member 14. The shaft 32 is operatively connected to the armature shaft of a motor 36 through a system of reduction gearing (not shown), the reduction gearing and motor being of conventional type and not in themselves forming a part of the present invention. The motor 36 is appropriately secured to a bracket 37 which is fastened to a supporting yoke 38 affixed to the base plate 11.

Assuming the motor 36 to be connected to a source of electric energy, and the shaft 32 slowly turning through the intermediary of the motor reduction gearing, the teeth of gear 29 will be intermittently engaged by the pins 30, and the drum 22 will be swung through a portion of an arc sufficiently to tilt one of the cards 27 from its upper position against the

inner side of the upper part of the wall 13, as clearly shown in Figure 2. On further actuation of the drum through the intermediary of the gear 29, the card immediately adjacent the inner surface of the top of the wall 13 will be preliminarily bent or flexed into an arcuate shape and then flipped through the opening 12, whereupon it will be temporarily supported against the lower part of the front wall 13 immediately beneath the opening 12, where it may be viewed for a predetermined space of time. It will be possible by changing the speed in the motor, the ratio of the reduction gearing or by adding to or subtracting from the number of pins on the hub 31 to increase or decrease the time interval during which the card 13 is supported on the front wall. As illustrated I have found it sufficient to provide for the passing of twelve of the cards through the opening or window 12 per minute, thus allowing each of the series of cards 27 to be viewed five seconds. As the drum 22 is intermittently turned, the card resting on the lower part of the front wall 13 will be covered by the card next adjacent in the rear thereof. From an inspection of Figure 1 it will be seen that as the drum 22 turns, the cards 27 pivotally attached to the discs 23, 24 are swung through the opening 12, there being two or three cards beneath the uppermost, supported on the exterior bottom part of the front wall, until the discs 23, 24 have been swung through an arc sufficient to withdraw the lowermost card from the group of three or four cards positioned on the front wall 13. By inspection of the discs 23, 24, it will be seen that in proportion as these discs are made larger or smaller, a greater or lesser number of display cards may be accommodated, the present device being designed to carry and display upwards of twenty cards. I have found it desirable to form the strips 26 of a metal possessing resiliency, it being observed that any of the cards may be removed by merely flexing the strips 26 in the fingers of one hand sufficiently to withdraw the ends thereof from the opposed holes 26 in the respective discs 23, 24. When it is desired to replace the card, the same procedure is followed, one end of the strip may be inserted in one of the discs 23, and the body of the strip then flexed to permit the other end thereof to enter the opposed hole of the other disc 24 after which the strip is released and the card then assumes its proper position relatively to the other cards.

While I have described and illustrated a preferred form of my invention, it will be understood that the details as set forth are susceptible of considerable modification and change without departing from the spirit or sacrificing any of the advantages of the invention; hence, I desire to be understood that the invention is not to be confined to the precise details of construction, save to the extent these are circumscribed within the scope of the appended claims.

What I claim as new and desire to secure by Letters Patent is:

1. A device of the kind described comprising a plurality of display cards mounted on a drum rotatably supported on a supporting structure affixed to a base plate, means including a revolving member mounted on said base plate and provided with projecting pins, coactingly engaged with the gear connected to the drum to intermittently actuate said drum, and housing enclosing said drum, actuating mechanism and base plate, said housing having an opening through which said cards are viewed.

2. A device of the kind described comprising a drum revolvably supported on a pair of members secured to a base plate, means on said base plate connected to said drum for causing an intermittent actuation of the drum, a plurality of display cards attached to a corresponding plurality of flexible elements removably secured to the drum, and a housing enclosing said drum actuating mechanism and base plate, said housing having a front wall provided with an opening, said front wall temporarily retaining each of said plurality of display cards until said drum has been revolved sufficiently to flex said card through said opening against the resistance of said front wall.

3. A device of the kind described comprising a housing removably secured to a base plate, a drum revolvably supported on said base plate, means fastened to the base plate for intermittently revolving said drum, and a plurality of display cards individually secured in resilient strips of metal, the ends of said strips of metal being received in holes provided in discs affixed to said drum.

4. A device of the kind described comprising a drum supported on a plate, a pair of discs fastened to the ends of said drum, each of said discs having a plurality of apertures arranged in spaced relation, a plurality of display cards individually secured to strips of metal, the ends of each of said strips of metal being received in opposed apertures in said discs, means on the base plate to intermittently revolve said drum, and means including an enclosing housing for said drum actuating means and base plate for temporarily retarding the passage of each of said plurality of display cards through an opening provided in a front wall in said housing.

5. A device of the kind described comprising a drum, a pair of discs secured at the ends of said drum, each of said discs having a plurality of holes formed therein and arranged in spaced relation thereon, a plurality of display cards secured on said drum, each of said playing cards being individually secured in a resilient clamping element having ends received in opposed holes in said pair of discs,

means on said base plate for intermittently actuating said drum, whereby as the drum is intermittently turned, said cards will be engaged one by one against the front wall of the housing enclosing said drum, actuating means and base plate, thereby abruptly projecting said cards one by one through an opening in said front wall when the cards have been sufficiently flexed to pass therethrough, said opening providing means for inspecting said cards during a predetermined interval of time.

6. In combination a plurality of display cards secured in resilient metal strips removably mounted on an intermittently actuated revolving drum supported on a plate, said plurality of display cards coacting with a housing enclosing said drum and plate, whereby as said cards are individually pressed against a front wall of said housing while passing through an opening formed therein, said cards will be abruptly swung into a vertical position to be viewed through said opening.

7. In combination a housing having an opening formed in a front wall thereof, said housing being removably secured to a base plate on which a drum is rotatably supported, said drum having discs arranged at the end of said drums, the discs having opposed series of holes, said holes removably accommodating the ends of resilient metal strips to which display cards are secured, whereby said display cards may be individually removed by flexing said resilient strips to remove the cards thereof from said holes.

In testimony whereof I have signed my name to this specification.

EDWARD DOLAR.