G. MASON.

ADVERTISING TOY.

APPLICATION FILED APR. 15, 1918. RENEWED MAY 10, 1919.

1,323,892.

Patented Dec. 2, 1919.

2 SHEETS—SHEET 1.

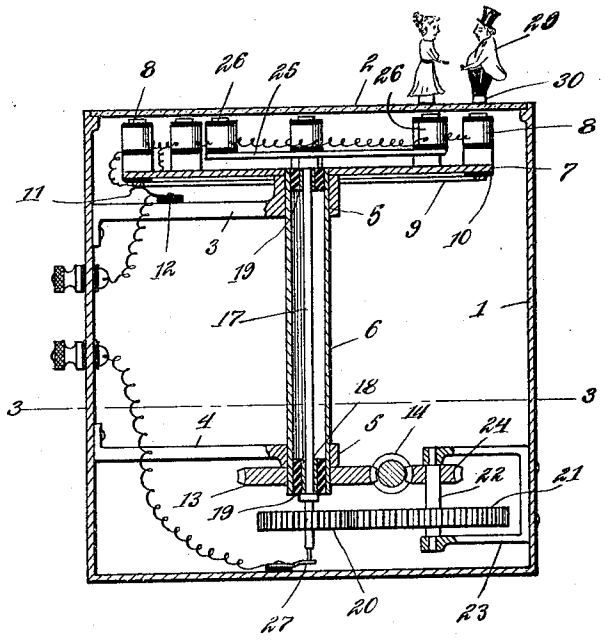


Fig. 1

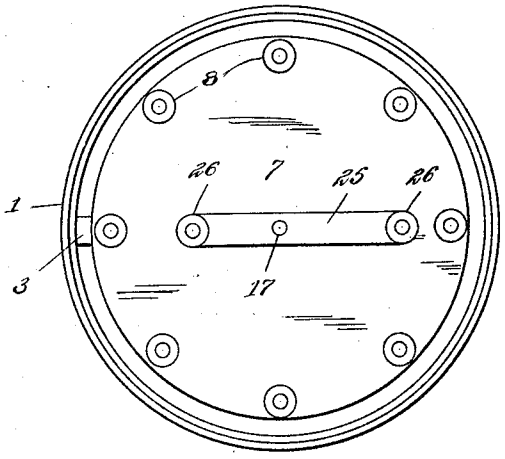


Fig. 2

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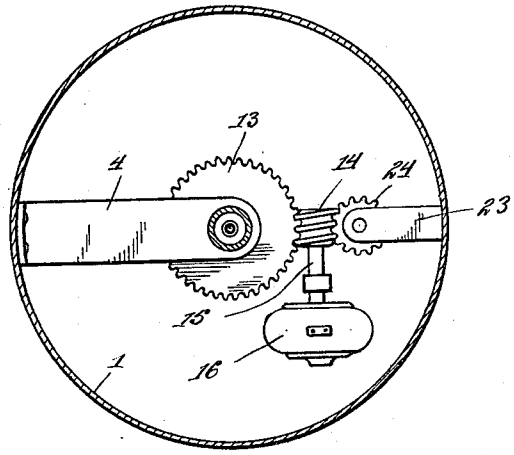


Fig. 3

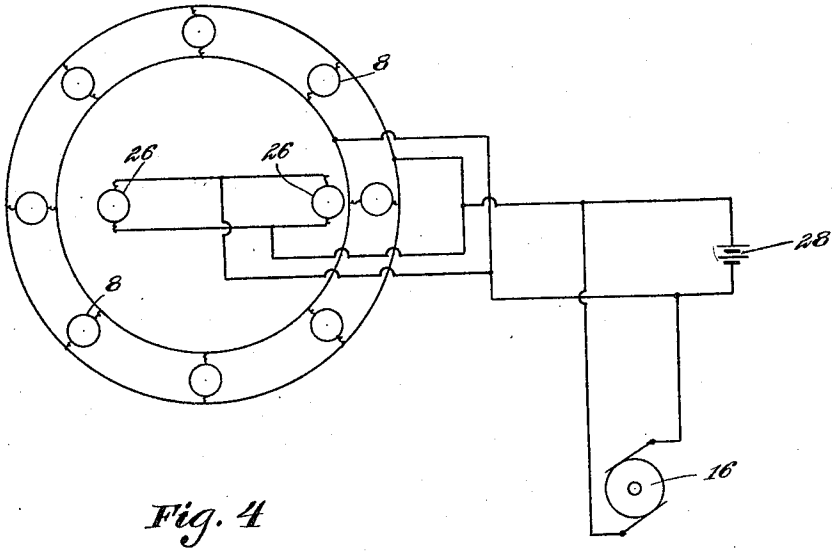


Fig. 4

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UNITED STATES PATENT OFFICE.

GERALD MASON, OF TERRE HAUTE, INDIANA.

ADVERTISING TOY.

1,323,892. Specification of Letters Patent. Patented Dec. 2, 1919.

Application filed April 15, 1918, Serial No. 228,758. Renewed May 10, 1919. Serial No. 296,105.

To all whom it may concern:

Be it known that I, GERALD MASON, a citizen of the United States, residing at Terre Haute, in the county of Vigo and State of Indiana, have invented new and useful Improvements in Advertising Toys, of which the following is a specification.

This invention relates to an improved advertising toy or device especially adapted for use in show windows, but also adapted for use on counters and in other places, to attract attention, and embodying electrically operated means for magnetically attracting figures and for causing said figures to move around on the surface of a mirror or other support and in such manner as to make it appear that the figures are moving by their own volition.

The object of the invention is to provide an improved machine of this character which is simple in construction, is efficient in operation, and which is not likely to get out of order.

With the above and other objects in view the invention consists in the construction, combination and arrangement of devices hereinafter described and claimed.

In the accompanying drawing:—

Figure 1 is a vertical central sectional view of an advertising toy or machine constructed and arranged in accordance with my invention.

Fig. 2 is a plan of the same with the mirror top removed and disclosing the revoluble electro-magnet carriers.

Fig. 3 is a horizontal sectional view of the same taken on the plane indicated by the line 3—3 of Fig. 1.

Fig. 4 is a diagram of the same and in which the electric circuits are fixed.

In the embodiment of my invention I provide a suitable frame or casing 1 which may be of any suitable construction and the top 2 of which is preferably formed by a glass mirror so as to present a highly reflecting surface. A pair of brackets 3—4 are arranged in the casing and are secured at their outer ends to one of the sides thereof. Said brackets have bearings at their inner ends in the center of the casing, as at 5. A tubular shaft 6 which is vertically arranged, is mounted for rotation in said bearings. A circular disk 7 together with the tubular shaft forms a revoluble carrier for a series of electro-magnets 8, said electro-magnets being mounted vertically on the disk in spaced relation and in a circle, concentric with the disk, and being appropriately insulated from the disk as indicated in the drawing.

On the under side of the disk 7 is a conductor ring 9 which is insulated from said disk as at 10. A brush 11 engages the conductor ring and is secured to and insulated from the upper bracket 3 as at 12. To the lower end of the tubular shaft is secured a worm wheel 13 which engages a worm 14, the said worm being secured to the shaft 15 of an electric motor 16.

A shaft 17 extends through the vertical tubular shaft and is mounted in bearings 18. The said bearings extend through insulators 19 in the ends of the tubular shaft. To the lower end of the shaft 17 is secured a worm gear 20. The said gear is engaged by a somewhat larger worm gear 21 which is secured to the lower end of a vertical shaft 22. The said shaft is mounted in bearings in a U-shaped hanger 23 which is secured to one side of the casing. Near the upper end of the shaft 22 is a worm wheel 24 which is smaller than the worm wheel 13 and which also engages the worm 14, as shown. Hence power is conveyed from the shaft of the electric motor both to the tubular shaft and to the shaft 17, so that both of said shafts are rotated in the same directions but at different rates of speed. At the upper end of the shaft 17 is a cross bar or crank 25 on the ends of which are mounted electro-magnets 26. The shaft 17, together with the cross bar or crank 25 constitute a revoluble carrier for the electro-magnets 26 and causes said electro-magnets to move in a circle within the circle formed by the electro-magnets 8. A contact spring 27 is shown engaged with the lower end of the shaft 18. In practice, the electro-motor, the electro-magnets 8 and the electro-magnets 26 are connected in parallel with a battery or generator 28 as indicated diagrammatically in Fig. 4 or in any other suitable way.

The figures 29 which are arranged to move on the surface 2 may be of any suitable design and are each provided in the base with a suitable armature 30. Hence when the device is in operation the figures are magnetically attracted by the electro-magnets which revolve under the surface 2 and hence the figures are caused to move and describe circles on the said surface and since the electro-magnets are hidden the figures appear to be moved by their own power.

While I have herein shown and described a preferred form of my invention I would have it understood that changes may be made in the form, proportion and construction of the several parts without departing from the spirit of my invention and within the scope of the appended claims.

Having thus described my invention, I claim:—

1. In a machine of the class described a plurality of concentrically arranged revoluble carriers each provided with an electromagnet, and a motor geared to said revoluble carriers.

2. In a machine of the class described, a plurality of concentrically arranged revoluble carriers, each provided with an electromagnet, and an electric motor geared to said carriers.

3. In a machine of the class described, a revolubly mounted carrier having a tubular shaft, a worm gear on said shaft, a second revolubly mounted carrier having a shaft extending through the center of the tubular shaft and provided with a gear, a countershaft having a gear engaging said gear and also provided with a worm gear, and a motor having a worm engaging both of said worm gears.

In testimony whereof I affix my signature.

GERALD MASON.