No. 858,452.

PATENTED JULY 2, 1907.

C. D. HARDING.

ADVERTISING MACHINE.

APPLICATION FILED JUNE 28, 1906.

3 SHEETS—SHEET 1.

Fig. 1.

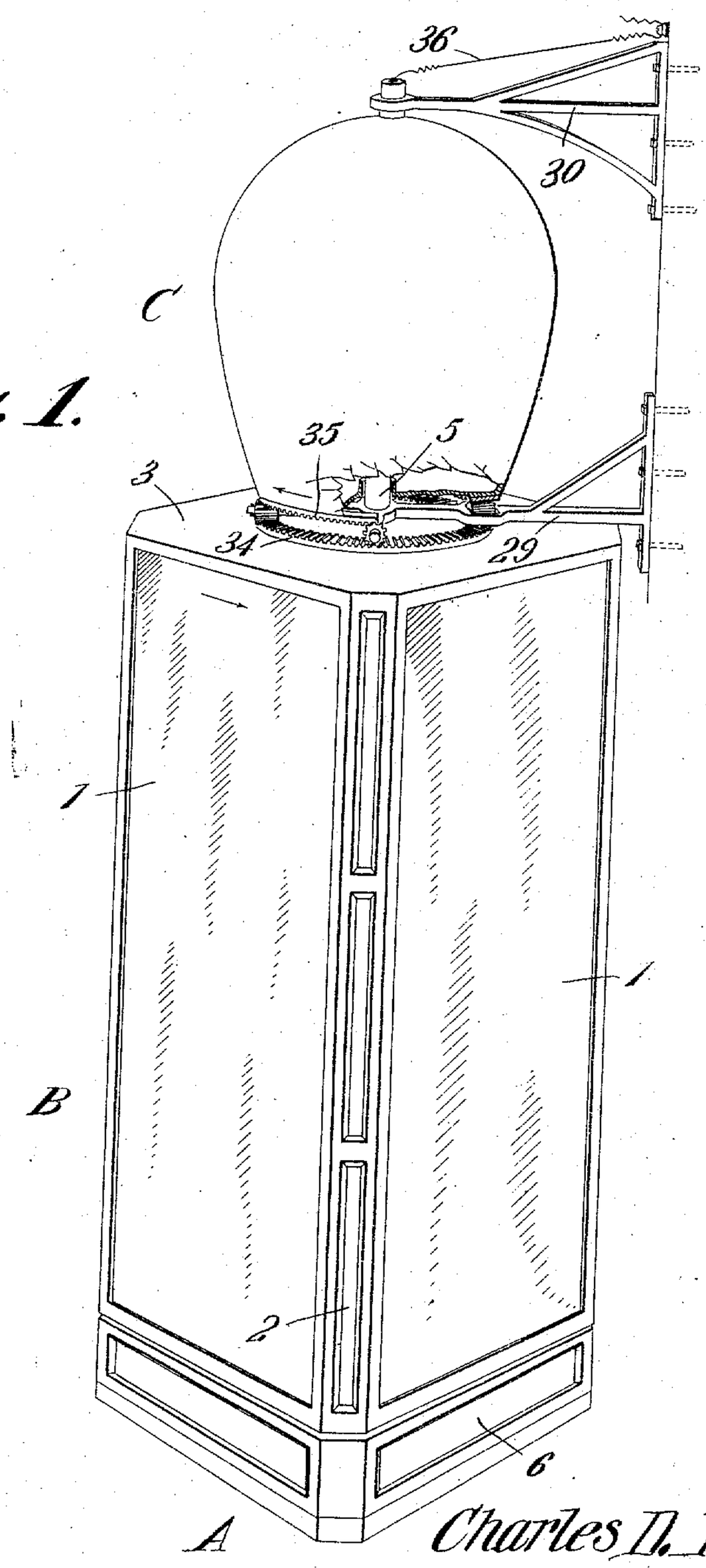

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Fig. 2.

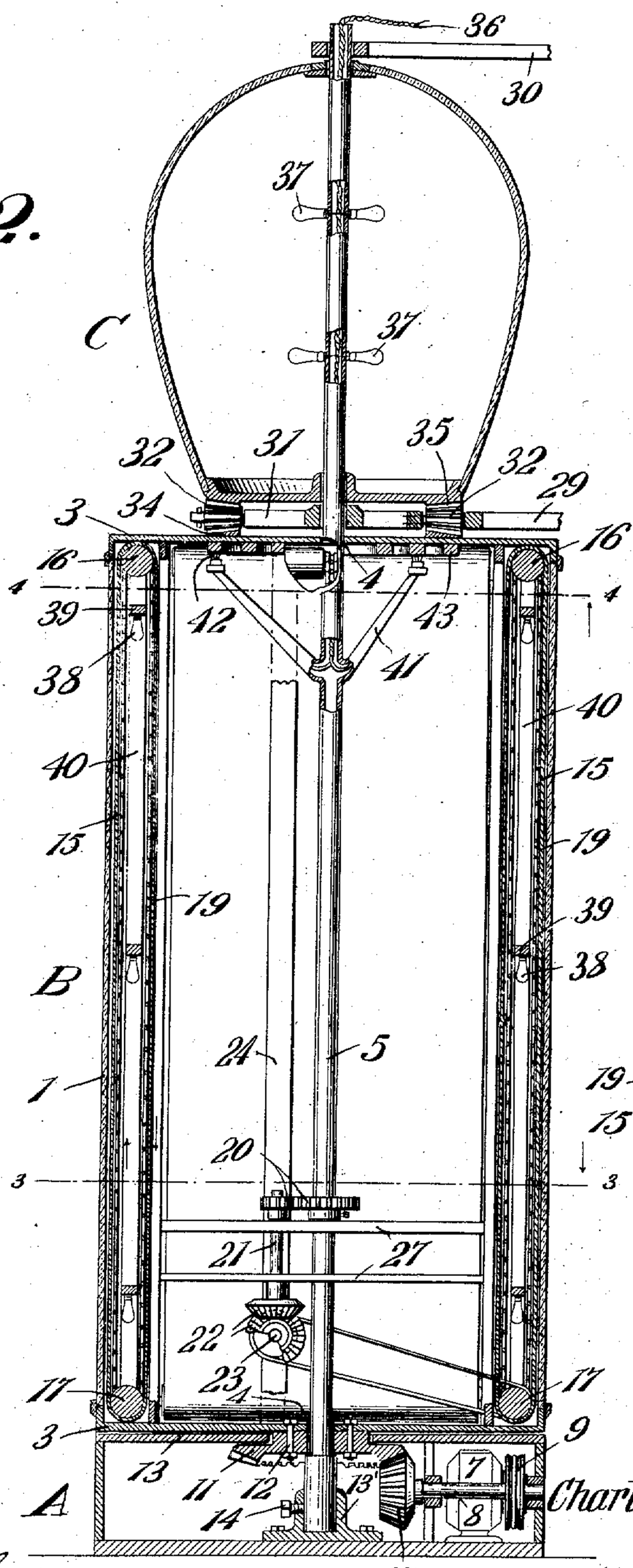
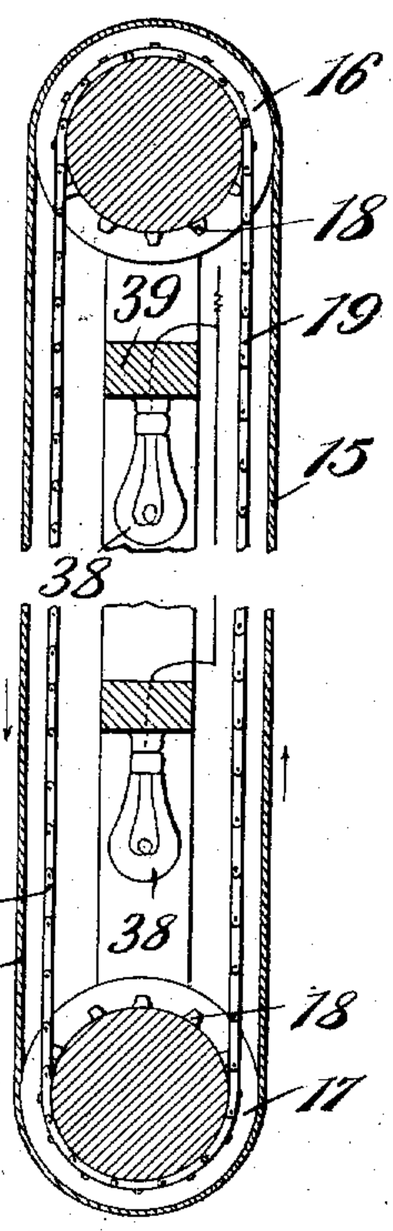


Fig. 6.



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3 SHEETS—SHEET 3.

Fig. 3.

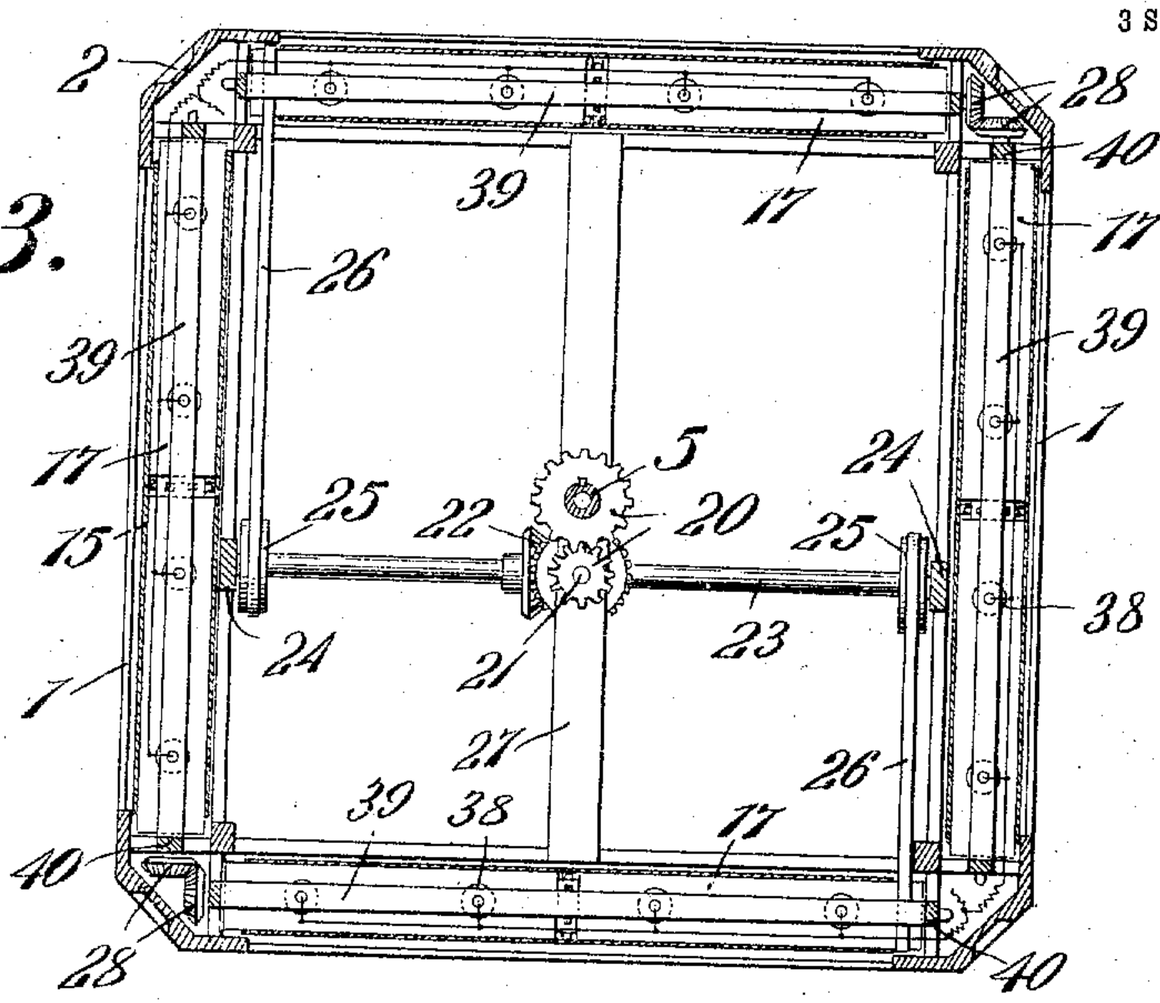


Fig. 4.

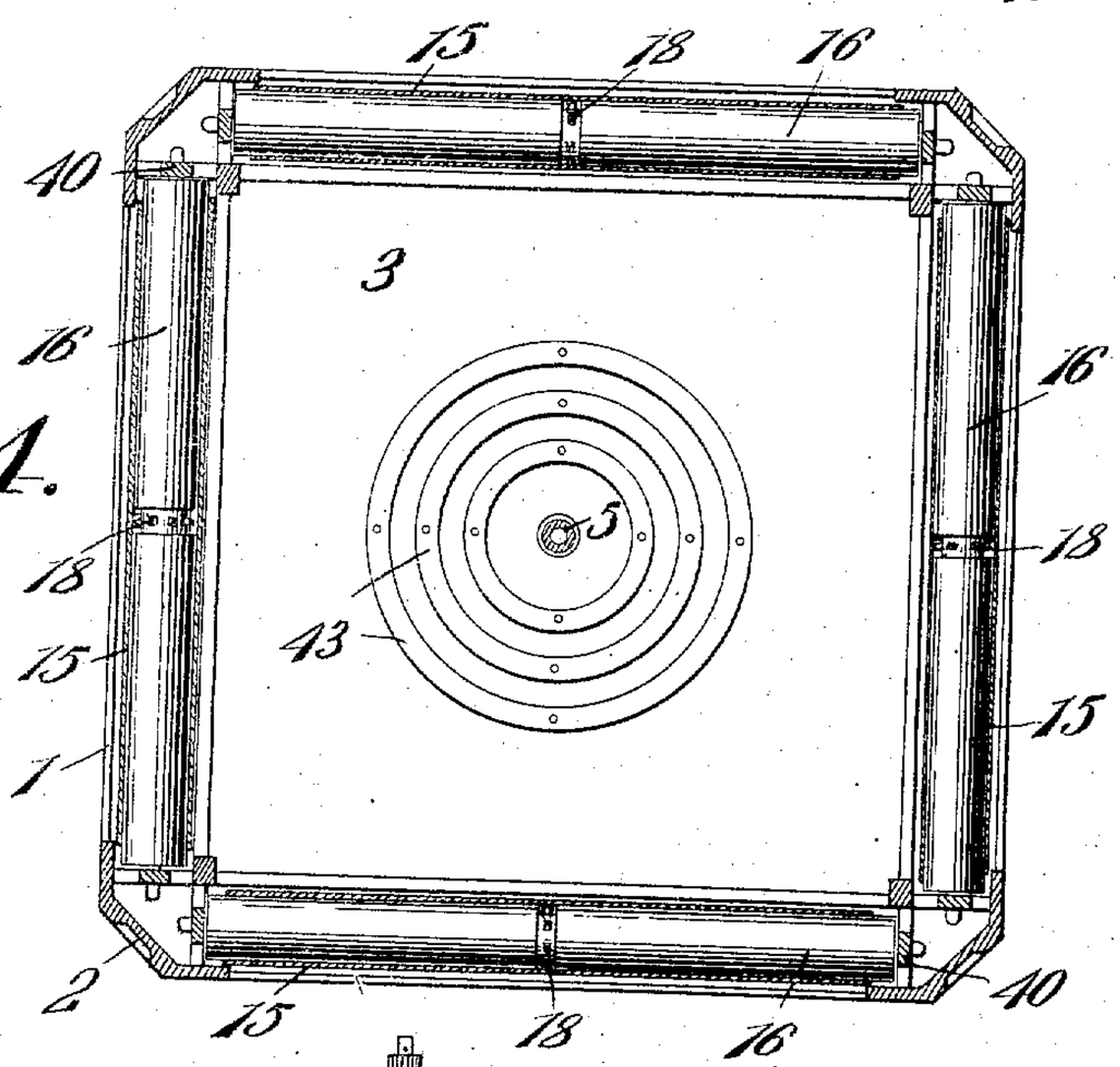
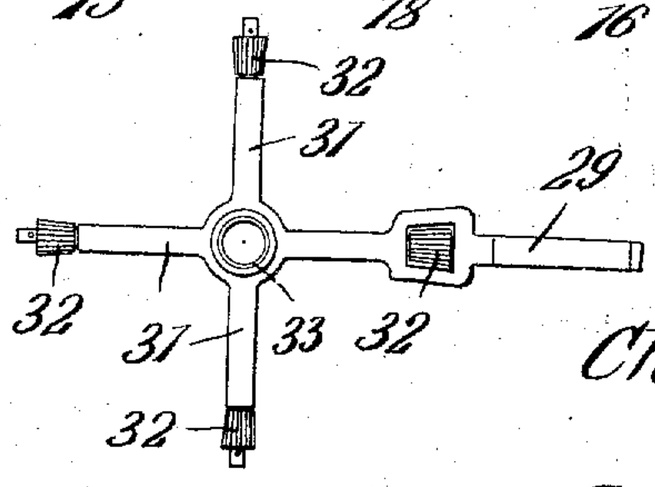


Fig. 5.



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UNITED STATES PATENT OFFICE.

CHARLES D. HARDING, OF SALT LAKE CITY, UTAH.

ADVERTISING-MACHINE.

No. 858,452. Specification of Letters Patent. Patented July 2, 1907.

Application filed June 28, 1906. Serial No. 323,791.

To all whom it may concern:

Be it known that I, CHARLES D. HARDING, a citizen of the United States, residing at Salt Lake City, in the county of Salt Lake and State of Utah, have invented a new and useful Advertising-Machine, of which the following is a specification.

This invention relates to an advertising machine of that character adapted to be arranged on a building, post or other means above a side-walk or other convenient place, where it will attract attention, and relates more particularly to a machine wherein a plurality of rotatable illuminated advertising devices are employed, at least one of which being provided with moving curtains exposing advertising matter.

The invention has for one of its objects to provide an apparatus of the character specified which is of simple and inexpensive construction, and comprises comparatively few operating parts so that the operation is reliable and the cost of repair and maintenance trivial.

A further object of the invention is the employment of a number of advertising devices arranged in superimposed relation and adapted to be simultaneously rotated.

Another object of the invention is to provide a single motor mechanism for simultaneously rotating the advertising devices and driving the curtains of one of the latter.

Another object of the invention is the provision of a novel arrangement of lamps within the several advertising devices so as to illuminate the same for evening display.

With the above objects in view and others as will appear as the nature of the invention is better understood, the invention comprises the various novel features of construction and arrangement of parts more fully described hereinafter and set forth with particularity in the claims appended hereto.

In the accompanying drawings which illustrate one of the embodiments of the invention: Figure 1 is a perspective view of the advertising machine, a portion of one of the devices being broken away to show the gearing mechanism between them. Fig. 2 is a central vertical section of the machine. Figs. 3 and 4 are horizontal sections taken respectively on lines 3—3 and 4—4, Fig. 2. Fig. 5 is a detail plan view of one of the members of the gearing intermediate the advertising devices. Fig. 6 is a vertical section of one of the advertising curtains and roller mechanism therefor, drawn on an enlarged scale and having an intermediate portion broken away.

Corresponding parts in the several figures are indicated throughout by similar characters of reference.

Referring to the drawings A designates the base of a machine and B and C the advertising devices thereof which are respectively in the nature of a cabinet and a globe arranged axially and in superimposed relation to each other and to the base A. The cabinet B is a rectangular structure or casing preferably of square horizontal cross section and of a height two or more times the width. The sides of the cabinet are glazed with panes of glass 1 so as to expose to view curtains arranged within the cabinet and containing suitable advertising matter. The corner edges of the cabinet are beveled and paneled as indicated at 2 so as to add to the attractiveness of the device. The top and bottom of the cabinet are closed by end plates 3, each having a central opening 4, Fig. 2, through which extends an upright supporting shaft 5 on which the cabinet is adapted to rotate.

The base A is a box-like structure having its sides 6 paneled or otherwise suitably ornamented. The base is made hollow so as to form a convenient inclosure for the motor mechanism and the bearing for the shaft 5. Any suitable motor may be employed for rotating the advertising device or devices, as for instance, an electric motor indicated at 7, Fig. 2, supported on the bottom of the base A and rotating a horizontally mounted shaft 8 through a speed-reducing pulley and belt driving connection 9. On the inner end of the driving shaft 8 is a miter gear 10 that meshes with a gear 11 disposed around the shaft 5 and secured to the bottom plate 3 of the cabinet as by bolts 12, the top 13 of the base being apertured to permit the hub of the miter gear 11 to pass through the same. Arranged centrally of the bottom of the base is a step bearing 13′ for the lower end of the shaft 5, the latter being held stationary in the bearing by means of the binding screw 14. By this arrangement the cabinet B is rotated around the stationary shaft 5, the base A being, of course, secured in a stationary position.

On the inside of the cabinet just behind each of the glass panes thereof are curtains 15 made of celluloid film or other suitable material upon which advertising matter can be depicted. These curtains are preferably in the form of endless belts or aprons and are arranged to pass around top and bottom rollers 16 and 17 disposed with their axes horizontal and adjacent the top and bottom edges of the cabinet. As shown more clearly in Figs. 4 and 6, the rollers are each reduced at a medial point and provided with sprocket teeth 18 and a sprocket chain 19 engages the sprocket teeth of each set of top and bottom rollers. By this means the rollers may be positively driven so that the strain in driving the curtains will be more evenly distributed. The curtains are adapted to be driven so that the outside half of each will move in an upward direction as indicated by the arrows, Figs. 2 and 6, this being preferable, although not obligatory. For this purpose a planetary gearing 20 is provided between the shaft 5 and a parallel shaft 21 arranged within the cabinet, and driving through the miter gears 22 the horizontal shaft 23, Figs. 2 and 3. The horizontal shaft 23 is journaled at its ends in upright posts 24 adjacent which

are pulleys 25 for transmitting rotation to the bottom rollers of two diametrically opposite curtains by means of belts 26. By this arrangement the shaft 21, which is journaled in two parallel cross bars 27, is rotated through the rotation of the cabinet by reason of the planetary gearing 20, and the rotation of the shaft 21 causes the curtains to be actuated. By reference to Fig. 3 it will be seen that only two pulley and belt transmissions are provided for directly actuating two opposite curtains. The other pair of curtains are actuated through the belt driven rollers by means of the miter gears 28, the gears being arranged at two diagonally opposite corners adjacent the bottom of the cabinet. By the employment of the miter gears 28 the number of pulley transmissions is reduced and each pair of curtains will be moved simultaneously in the same direction.

The shaft 5 extends beyond the top of the cabinet and through the advertising device C, brackets 29 and 30 being arranged to support or steady the machine at a point intermediate the advertising devices B and C and at the upper end of the shaft. The end of the bracket 29 is cross shaped in form and the arms 31 thereof are provided with rotatably mounted pinions 32 disposed at an equal distance around a central opening 33 in the bracket through which the shaft 5 passes. These pinions mesh with circular racks 34 and 35 at the top and bottom respectively of the cabinet B and globe C so that the rotation of the cabinet causes the globe to rotate in an opposite direction, the directions of rotation being indicated by the arrows, Fig. 1. The globe C may be made of glass or any other suitable material capable of transmitting light, and on the same is adapted to be depicted some suitable advertising matter.

Any approved system of illumination for the advertising devices may be employed, as desired. In the present instance, a plurality of incandescent lamps are provided both for the cabinet and globe. The shaft 5 is preferably hollow and the conducting wires 36 are passed through the same and tapped at suitable points along the shaft for connection with the lamps 37 in the globe. For better illuminating the curtains of the cabinet the lamps 38 are arranged between the lengths of each curtain at a number of points depending upon the dimensions of the curtain and the intensity of illumination desired. The lamps 38 are supported on socket containing bars 39 arranged transversely along the sides of the cabinet and supported at their ends in the corners of the latter on the roller supporting posts 40, Figs. 2 and 3, or by any other suitable means. Since the shaft 5 is stationary it is obvious that the wires 36 will not be subject to abrasion and hence become short circuited. The circuit connections for the various lamps of the cabinet are of no particular importance as far as the present invention is concerned, since a large variety of circuits may be employed. To transmit the current from the shaft to the lamps of the cabinet, brush carrying arms 41 are arranged on the shaft 5 at the upper end of the cabinet, the arms having brushes 42 at their outer ends arranged to bear on the contact rings 43 to which the terminals of the conductors leading to the lamps may be connected in any suitable manner. When the lamps are connected up in multiple arc in the usual manner, but two rings 43 and two arms 41 with their brushes 42 are necessary; but when the lamps are connected up in a three-wire system, or in other ways than in simple multiple arc in a two-wire system, three rings with an appropriate number of arms 41 may be used.

From the foregoing description taken in connection with the accompanying drawings, the advantages of the construction and of the method of operation will be readily appreciated by those skilled in the art to which the invention appertains. To operate the device all that is necessary is to close the circuit of the electric motor 7, whereupon the advertising devices will be rotated in opposite directions and the curtains of the cabinet will be actuated simultaneously so that the different sides of the cabinet and portions of the globe will be exposed to persons observing the advertiser. By reason of the curtains and cabinet being each actuated at the same time new portions of the curtains will be presented to the observer every time the same side of the cabinet is brought to view. It will thus be seen that a large amount of advertising matter can be displayed by a single device in a novel and attractive manner.

I have described the principle of operation of the invention together with the apparatus which I now consider to be the best embodiment thereof, but I desire to have it understood that the apparatus shown is merely illustrative, and that various changes may be made when desired as are within the scope of the appended claims.

What is claimed is:—

1. In a device of the class described, the combination of superimposed advertising devices, a shaft extending through the devices, a stationary support for the lower end of the shaft, means for rotating the lower device, a bracket arranged between the devices and forming a bearing for the upper portion of the shaft, opposed circular racks on the devices, and a plurality of spaced pinions mounted on the bracket and meshing with the racks for rotating the upper by the lower device.

2. The combination of superimposed advertising devices, a wall bracket disposed at the top and bottom of the upper device, a cruciform structure on the lower bracket, a shaft extending through the devices and supported by the brackets, means for rotating the lower device, circular racks on the adjacent ends of the devices, and pinions mounted on the arms of the said cruciform structure and meshing with the racks.

3. In a device of the class described, the combination of a stationary supporting base, an advertising device revolubly mounted thereon, means within the base for revolving the advertising device, curtains mounted within the device, means for actuating the curtains by the rotation of the advertising device, a shaft extending through the device and secured in the base, a wall bracket disposed at the upper end of the device to serve as a bearing for the shaft, a second advertising device rotatably mounted on the shaft at a point above the bracket and gearing between the two advertising devices for imparting rotative movement from the first to the second advertising device.

In testimony that I claim the foregoing as my own, I have hereto affixed by signature in the presence of two witnesses.

CHARLES D. HARDING.

Witnesses:
BENJAMIN T. LLOYD.
A. S. KIENKE.