G. H. SCHANCK.

ADVERTISING DEVICE.

APPLICATION FILED SEPT. 13, 1912.

1,066,850.

Patented July 8, 1913.

2 SHEETS—SHEET 1.

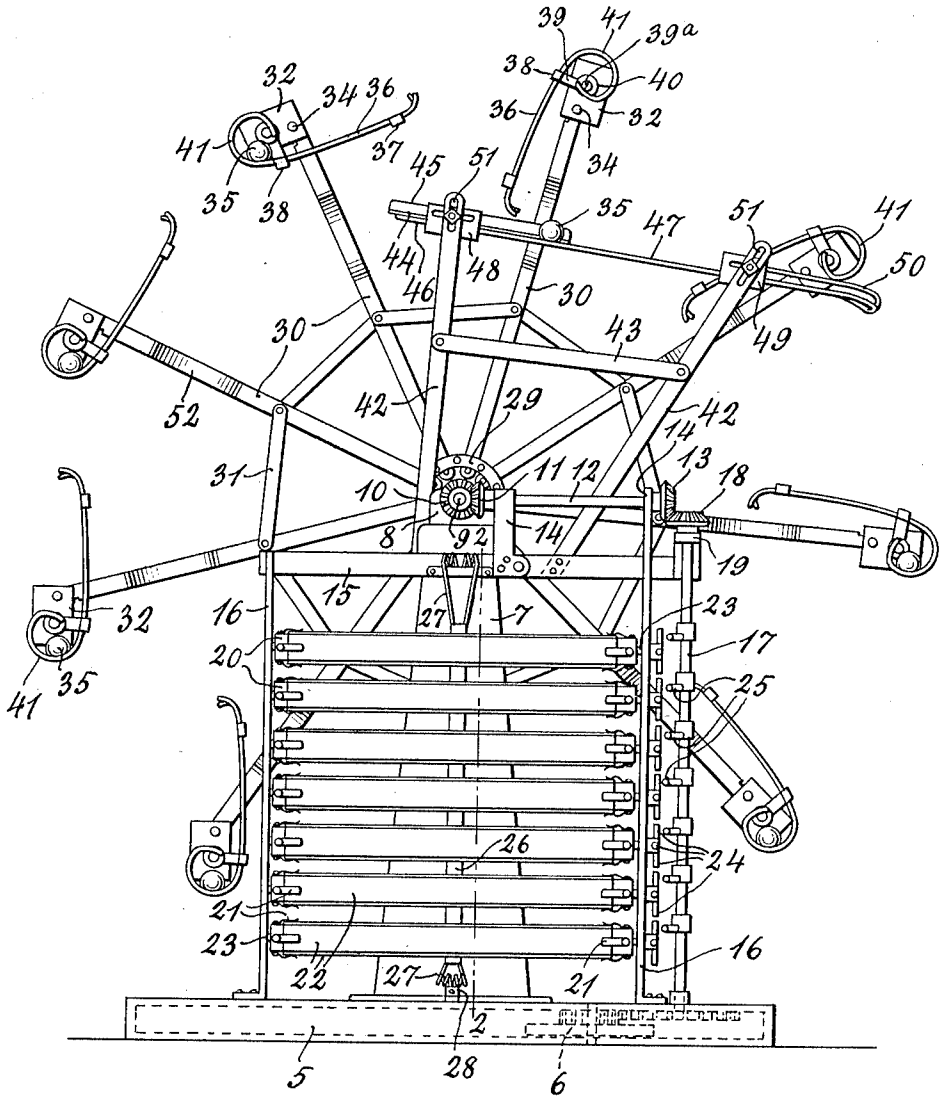


Fig. 1.

Witnesses

Einar Larson

M. A. Schmidt

Inventor

George H. Schanck.

By Eugene [illegible]

Attorney

COLUMBIA PLANOGRAPH CO., WASHINGTON, D. C.

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2 SHEETS—SHEET 2.

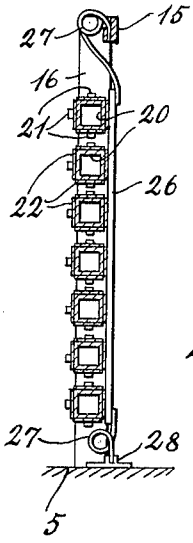


Fig. 2.

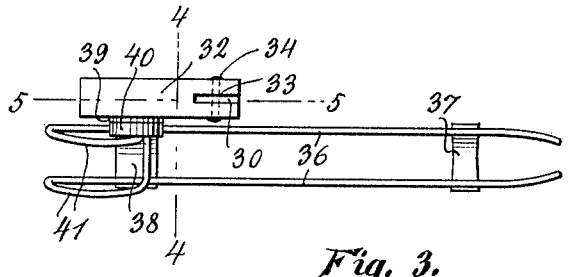


Fig. 3.

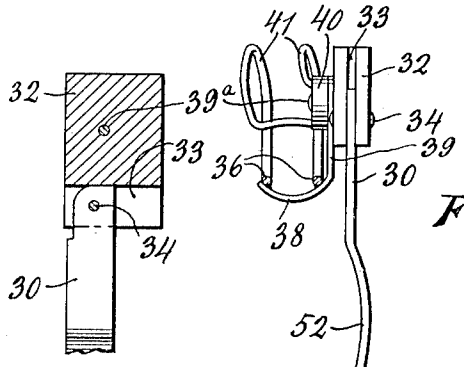


Fig. 4.

Fig. 5.

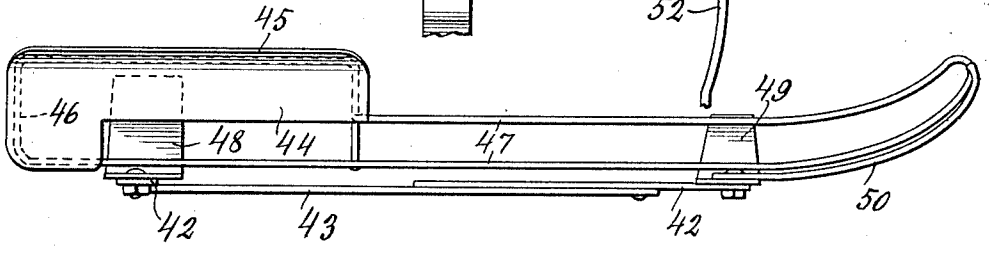


Fig. 6.

Witnesses

Einar Larson

M. P. Schmidt

Inventor

George H. Schanck.

By Eugene D. Thomas

Attorney

COLUMBIA PLANOGRAPH CO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

GEORGE H. SCHANCK, OF LIBERTYVILLE, ILLINOIS.

ADVERTISING DEVICE.

1,066,850. Specification of Letters Patent. Patented July 8, 1913.

Application filed September 13, 1912. Serial No. 720,220.

To all whom it may concern:

Be it known that I, GEORGE H. SCHANCK, a citizen of the United States, residing at Libertyville, in the county of Lake and State of Illinois, have invented certain new and useful Improvements in Advertising Devices, of which the following is a specification.

The advertising device which is the subject of the present invention is designed to simulate a perpetual motion machine, a number of signs being provided which are rotated to successively bring the same into view, the motion being apparently generated by the machine itself without the aid of an external force, but which is in reality generated by a motor out of sight of the observer.

It is the object of the present invention to provide a device of the kind stated consisting of a novel combination and arrangement of parts by which the illusion is greatly enhanced with a view of exciting the curiosity of the observers and directing their attention to the advertising matter displayed on the signs.

In order that the invention may be better understood, reference is had to the accompanying drawings forming a part of this specification, in which drawings—

Figure 1 is a front elevation of the device. Fig. 2 is a vertical section on the line 2—2 of Fig. 1. Fig. 3 is a plan view of one of the ball carriers. Fig. 4 is a transverse section on the line 4—4 of Fig. 3. Fig. 5 is a section on the line 5—5 of Fig. 3. Fig 6 is a plan view of the runway, to be hereinafter described.

Referring specifically to the drawing, 5 denotes a base on which the mechanism is mounted. The base is a flat casing which incloses a spring or other motor of any suitable construction shown by dotted lines at 6 in Fig. 1. The casing is shallow so that it will have the appearance of a base board. On the base are mounted standards 7 having bearings 8 at the top, in which bearings is mounted a shaft 9 on which is fast a bevel pinion 10 which is in mesh with a similar pinion 11 on one end of a horizontal shaft 12 carrying at its other end a bevel pinion 13. The shaft 12 is supported in bearings 14 carried by a cross bar 15 at the top of a frame which carries the signs to be presently described, said frame comprising spaced uprights 16 which rise from and are mounted on top of the base 5. Alongside one of the uprights 15 is located a vertical shaft 17 having at its upper end a bevel pinion 18 which is in mesh with the pinion 13. The cross bar 15 also carries a bearing 19 which supports the upper end of the shaft 17, the lower end of said shaft passing into the base through an opening in the top thereof and being suitably geared to the motor 6.

The signs extend transversely between the uprights 16 and comprise square rolls 20 on each of the faces of which is held, by means of clips or other devices 21, a suitably inscribed card 22 which is the sign proper. The rolls are rotatable so that the cards are successively brought into display position. At the ends of the rolls are trunnions 23 which are journaled in the uprights 16, and the trunnions on one end of the rolls have radially extending fingers 24 which are in the path of tappets 25 carried by the shaft 17.

It will be evident from the foregoing that when the shaft 17 is in motion, the several rolls 20 will be given a step-by-step rotary movement, whereby the cards 22 are brought into display position one after the other. As the rolls are square, four fingers 24 are provided and the rolls are therefore given a quarter revolution each step. For different shaped rolls, the fingers 24 will be arranged accordingly.

The rolls 20 are made very light, and to the rear thereof is mounted a vertical glass strip 26 which has its ends connected to springs 27. The top spring is secured to the cross-bar 15, and the bottom spring is fastened by a clip 28 to the base 5. The several rolls 20 are in vertical alinement, and the strip 26 is in contact therewith for the purpose of alining the same and keeping their faces parallel. The motion received by the rolls is slow and may not leave the same with their faces parallel to a vertical or horizontal plane. Hence, when the rolls commence to turn the strip 26 is forced outward, and after the rolls have made almost a quarter turn, the strip springs back and alines the rolls.

The pseudo perpetual motion mechanism comprises the following parts: On the shaft 9 is made fast a hub 29 from which radiate spokes or arms 30 connected intermediate their ends by braces 31. The outer end of each arm 30 carries a weight 32 which is pivoted to the arm so that it may rock when

the latter is in motion. The weight has a slot 33 into which the extremity of the arm extends, and by means of a pin 34 passing therethrough the pivotal connection between the weight and the arm is had. The pivot is near one end of the weight, and the connection is such that the weight can swing back and forth through an arc of ninety degrees only.

The weight 32 supports a carrier for a ball 35, said carrier comprising two pieces 36 of wire which are connected in spaced relation by cross strips 37 and 38, respectively. The wires are spaced apart such a distance that the ball may roll along the same without dropping therebetween. The brace 38 has a bend 39 which is fastened to the weight by a screw 39ª, a washer 40 being placed against the former through which washer the screw also passes. The wires extend forward beyond the pivot 34 and at their opposite ends they are curved upward as indicated at 41 to form a pocket, and their extremities are bent inward toward the washer 40. The brace 38 is rigidly secured to the weight so that there is no relative movement of the latter and the carrier, the connection being at the opposite end of the weight from the pivot 34. The forward ends of the wires have an upward bend and are also bent slightly inward toward one another.

To the cross bar 15 are secured two upwardly extending arms 42 connected by a cross brace 43. These arms support an inclined runway on which the ball 35 drops from the carrier 36 and runs down the same into the pocket 41 of the next carrier. The runway comprises a plate 44 having an upturned edge 45 on one side, and being wire-reinforced at the bottom as indicated at 46. The wires forming the reinforcement extend outward from the plate in spaced parallel relation, as indicated at 47, the space between the wires being such that the ball may run along the same without dropping through. The outer ends of the wires are bent sidewise so as to extend into close proximity to the carrier 36.

To the under side of the plate 44 and one of the wires 46 is soldered or otherwise secured a strip 48. This strip has an upward curve and is located in front of the spot where the ball drops, and serves to guide the latter onto the portion 47 of the runway. The strip 48 is secured to one of the arms 42. To the other arm 42 is secured a strip 49 which is fastened to the corresponding portion of the runway, and the latter is also provided with a side-guard wire 50, said wire being fastened to the outer end of the portion 47 of the runway and extending to the strip 49. The arms 42 are slotted as indicated at 51 to permit adjustment of the runway.

The operation of the mechanism is as follows: When the shaft 17 is in motion and rotating the signs as already described, the arms 30 are revolved through the gears 18, 13, 11 and 10, whereby the ball-carriers 36 are carried around with the parts to which they are attached. The runway 47 is inclined in the direction the carriers travel. As each carrier reaches the upper end of the runway, the ball 35 tilts the weight 32 and the carrier, and drops on the runway and rolls down the same. By the time the ball reaches the lower end of the runway, an empty carrier is passing the same and the ball then rolls into the pocket 41 thereof, it being guided thereto by the sidewise bent extremity of the runway. The ball is then carried around in the pocket until it again reaches the upper end of the runway and is dropped thereinto. The pivoted weights 32 hold the pockets in such a position that the balls cannot roll out of the same as they are traveling toward the runway. A sufficient number of ball-carriers will be provided, and the parts will be so adjusted that a carrier is always at the end of the runway by the time the ball reaches the same.

The mechanism is attractive and excites the interest of the observer, thus bringing his attention to the signs.

The preferred embodiment of the invention has been shown but it will be evident that many changes in the structural details shown may be made without a departure from the spirit and scope of the invention.

I claim:

1. In a display device, a driven shaft, radial arms carried by the shaft, ball carriers mounted on the arms, and means for transferring the balls from one carrier to another which is empty.

2. In a display device, a driven shaft, radial arms carried by the shaft, ball carriers mounted on the arms, and means for producing an automatic transfer of the balls from one carrier to another which is empty.

3. In a display device, a driven shaft, radial arms carried by the shaft, pivoted carriers on the extremities of the arms adapted to support a ball, and an inclined runway past the respective ends of which the carriers travel, each carrier tilting at the upper end of the runway and depositing its ball thereonto, and the runway depositing the ball onto an empty carrier as it passes the lower end of the runway.

4. In a display device, a driven shaft, radial arms carried by the shaft, weights pivoted to the arms, carriers supported by the weights and adapted to hold a ball, and an inclined runway past the respective ends of which the carriers travel, each carrier tilting at the upper end of the runway and depositing its ball thereonto, and the runway depositing the ball onto an empty car-

rier as it passes the lower end of the runway.

5. In a display device, a driven shaft, radial arms carried by the shaft, weights pivoted to the arms, ball carriers supported by the weights, said carriers comprising laterally spaced members having bends at one end to form pockets, and an inclined runway past the respective ends of which the carriers travel, each carrier tilting at the upper end of the runway and depositing its ball thereonto, and the runway depositing the ball onto an empty carrier as it passes the lower end of the runway.

In testimony whereof I affix my signature in presence of two witnesses.

GEORGE H. SCHANCK.

Witnesses:
S. J. LEHRER,
H. G. BATCHELOR.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."