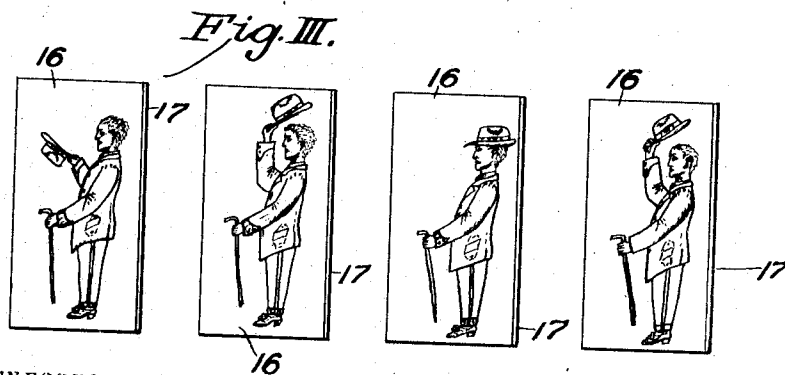
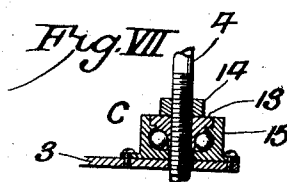
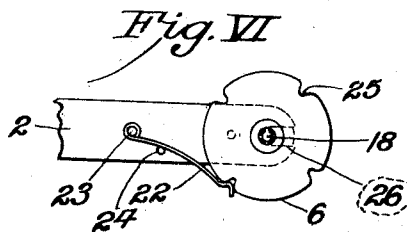
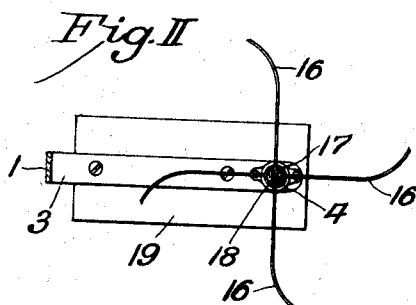


985,970.

Fig. I. Fig. IV. Fig. V. Fig. VI.



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ADVERTISING DEVICE OR TOY

985,970.

Specification of Letters Patent.

Patented Mar. 7, 1911.

Application filed December 18, 1909. Serial No. 533,902.

To all whom it may concern:

Be it known that I, WILLIS J. BERNETT, a citizen of the United States, residing at Kansas City, in the county of Jackson and State of Missouri, have invented certain new and useful Improvements in Advertising Devices or Toys; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

My invention relates to advertising devices, or toys; and has for its object to provide such a device or toy that shall produce a kinetoscopic effect by the revolution of a series of plates arranged radially upon a shaft and bearing pictures upon each, as hereinafter more fully described. Said plates are continuously exposed to observers, and are revolved by any convenient or suitable power; for example by the wind, acting directly on the plates, or by motors.

The invention consists in the elements pointed out in the appended claims, and a preferred embodiment thereof is illustrated in the accompanying drawing, in which:—

Figure I is a side elevation of an advertising device provided with a motor case, a part of said case being broken away and the pictures omitted from the plates. Fig. II is a horizontal sectional view on the line II—II of Fig. I. Fig. III represents a series of the picture-plates, detached. Fig. IV is a detail of a part of the upper bearing of the shaft. Fig. V is an enlarged cross section of the shaft and the inner portions of four plates. Fig. VI is a plan detail view of a checking device. Fig. VII is a detail view of the lower bearing.

Referring more in detail to the parts:—1 designates the frame of the device, and consists preferably of a flat bar, bent at right angles to form the upper and lower arms 2, 3. Mounted on said arms are antifriction bearings B, C for the respective ends of a shaft 4, which projects through openings in said arms to receive upon its lower end a driving wheel 5 and upon its upper end a check-wheel 6, presently described.

I prefer to employ ball-bearings of the type shown in Figs. IV and VII.

The upper bearing consists of a cup member 7, secured to arm 2, and a cone 8 on the

threaded part 9 of the shaft, the balls not being shown. The shaft 4 is cut longitudinally by a number of slots 10 which extend from the upper end of the shaft to a point 11, Fig. I. The cone 8 is unthreaded, and has an interior lug 8' projecting into one of said slots 10 to prevent rotation of the cone.

12 is a nut by which the cone may be adjusted toward and from the cup member.

The lower bearing comprises a cone 13, a lock-nut 14 for same, and a cup member 15 secured to arm 3.

16 designates the radially disposed picture plates which are carried by the shaft 4, preferably as follows: Each plate 16 has formed on one edge thereof a T flange 17; the plates being preferably sheet metal. The flanged parts of the plates are inserted in the shaft slots 10 at the top of the shaft and moved down until their lower edges rest upon the bottom of the slots. A tightening rod 18 is then inserted in the space between the flanges 17 and fits therein snugly. As shown, said flanges are curved in section so as to fit more closely the rod 18 and the interior of the shaft. By this means the plates are held rigidly in position and without the use of screws, bolts, or any visible fastening means. Further advantages are cheapness of manufacture and ease of changing the plates.

Where the shaft 4 is to be rotated by a motor, a motor case 19 is provided for housing such motor. 20 designates a motor-driven shaft, geared to shaft 4 with bevel gears 21, 5. Of course, bevel gearing is not essential. If the plates are to be revolved by wind power only, the motor and gearing are to be omitted.

Preferably, means for intermittently checking or retarding the revolution of the plates are employed. As shown, this effect is attained by a spring 22, bearing upon the periphery of a small notched wheel or disk 6 secured on shaft 4 preferably above the upper bearing. The spring 22 is secured to a stud 23 and is tensioned by a second stud 24. The notches 25 are equal in number to the number of the picture plates 16. It is immaterial whether the notches register with the plates or not, as will presently be seen.

To permit the shaft 4 to be tipped clear of the upper arm 2 when it is necessary to remove the cone 8 and nut 12, said arm 2 is formed with an open slot 26, as shown in dotted lines in Fig. VI.

The plates 16 may be either flat or partly

curved, as seen in plan. The form shown is adapted for actuation by the wind, as is well known.

My idea for the nature of the pictures is most aptly and clearly expressed by the word "kinetoscopic". The difference between adjacent or successive pictures of a series may, however, be more marked than is usual in kinetoscopes. This feature is well shown in Fig. III, in which several pictures are shown in the order in which they would appear to an observer when revolved upon the shaft 4. These pictures are printed in sets, and may represent an unlimited variety of subjects.

When the plates 16 are revolved, as aforesaid, the images will be successively perceived by any observer, no matter how stationed with respect to the apparatus. The speed of revolution will be slightly checked or retarded, during each revolution, as many times as there are pictures on the shaft. This intermittent checking (by spring 22 acting on wheel 6) causes each picture to approximate a stationary phase at each engagement of a notch 25 by the spring. This modification of the motion of the pictures materially aids the illusion of a person or other living object in action.

It is to be understood that the pressure of the spring 22 and the depth of the notches 25 are to be regulated according to the strength of the motive power employed, and that the action of said spring is never to be sufficient to bring the parts to a full stop.

The frame piece 1 may be secured to a wall or a post, either inside of a building or out of doors. By preference the shaft 4 is to be vertical, but it is evident that the device will operate with the shaft horizontally disposed. In such a case the pictures would have to be rearranged upon the plates.

Other modifications, not herein mentioned, may fall within the scope of my invention.

The device may be made in small sizes for use as a toy, and its construction may be cheapened in various ways.

Although I have used the term "radially" to describe the mode of arrangement of the picture plates, I do not wish the word to be

strictly construed, as it is obvious that the angle of the plates may vary from the true radii and without detriment to the operation and effectiveness of the device.

Having thus described my invention, what I claim as new therein and desire to secure by Letters-Patent is:—

1. In a device of the kind described, a shaft having longitudinal slots therein, and picture bearing plates adapted to be secured within said slots and extend radially therefrom.

2. In a device of the kind described, a tubular shaft having longitudinal slots therein, and picture bearing plates adapted to be secured within said slots and extend radially therefrom.

3. In a device of the kind described, a tubular shaft having longitudinal slots having open ends at one end of the shaft, and a collar detachably mounted on the shaft adjacent the open ends of said slots.

4. In a device of the kind described, a tubular shaft having longitudinal slots, and a plurality of picture bearing plates having flanges adapted to be retained within the shaft for holding the plates in position.

5. In a device of the kind described, a tubular shaft having longitudinal slots, a plurality of picture bearing plates having flanges adapted to be retained within the shaft for holding the plates in position, and a rod adapted for insertion within the shaft in the space between the flanges of the plates.

6. In a device of the kind described, a series of radially arranged plates mounted revolvably and detachably upon a slotted shaft, each plate bearing a picture, the picture on each plate being different from the pictures on immediately adjacent plates, but all of said pictures having a common subject.

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

WILLIS J. BERNETT.

Witnesses:

MYRTLE M. JACKSON,
K. M. IMBODEN.