Dec. 19, 1922. 1,439,640.

I. A. ROMMER.

DISPLAY DEVICE FOR WALKING FIGURES.

FILED DEC. 21, 1920.

Fig. 2.

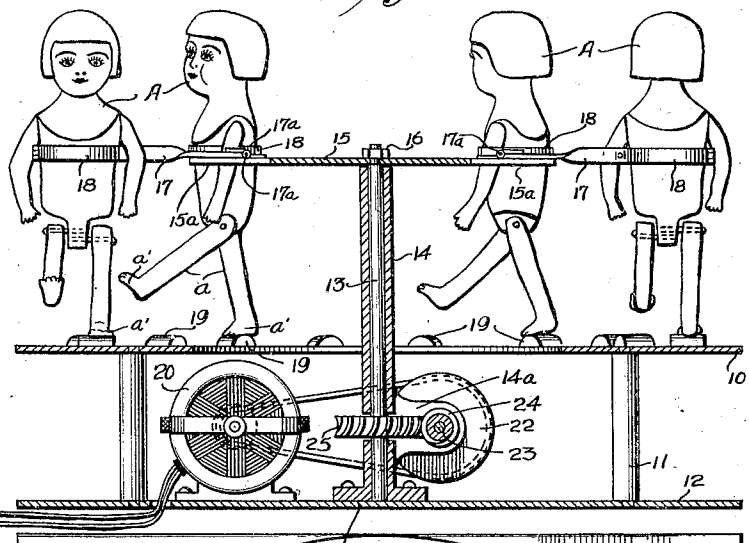
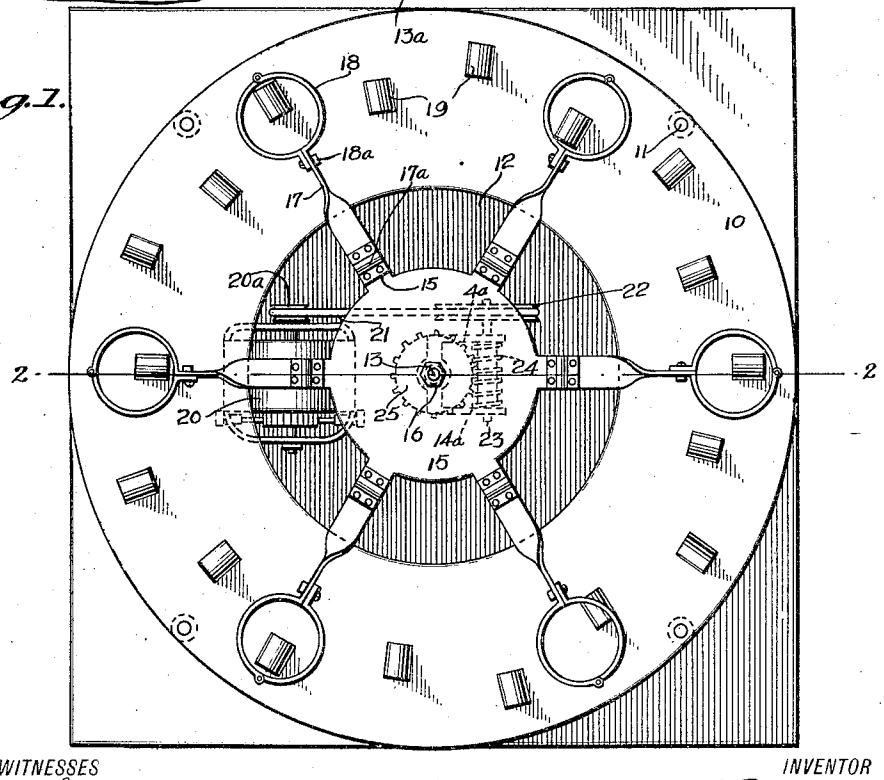


Fig. 1.



WITNESSES

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UNITED STATES PATENT OFFICE.

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DISPLAY DEVICE FOR WALKING FIGURES

Application filed December 21, 1920. Serial No. 432,283.

To all whom it may concern:

Be it known that I, ISAAC A. ROMMER, a citizen of the United States, and a resident of the city of New York, borough of Brooklyn, in the county of Kings and State of New York, have invented a new and Improved Display Device for Walking Figures, of which the following is a description.

My invention while intended more particularly for exhibiting walking dolls in a way to illustrate the movements of walking is useful for exhibiting other figures having pivotally mounted legs.

The general object of my invention is to provide a stand of simple construction with means for supporting the toy and carrying the same forwardly as well as means to be engaged by the feet of the toy for tripping or holding the same momentarily to simulate the walking movement as the toy moves forwardly.

Reference is to be had to the accompanying drawing forming part of this specification, it being understood that the drawing is merely illustrative of one example of the invention.

Figure 1 is a plan view, the figures being omitted;

Figure 2 is a vertical section of a display device embodying my invention with a series of figures mounted therein.

In carrying out my invention in accordance with the illustrated example a platform 10 is provided rigidly supported by suitable means, there being illustrated posts 11 beneath said platform and rising from a suitable base 12.

A vertical shaft 13 is centrally disposed on the base 12 which turns at its lower end in an upright bearing 13^a. The shaft is shown as passing through a sleeve 14. Said sleeve may be fixedly supported by any suitable means, it being shown as rigid with brackets 14^a in fixed relation to bearing 13^a. On the shaft 13 at the upper end is secured a revolving structure 15 which may, as shown, be in the form of a disk presenting radial arms 15^a, said disk resting on a shoulder produced by the reduced upper end of the shaft 13 and being held to said shaft by a nut 16. The dolls A or other walking figures are adapted to be carried by the arms 15, for which purpose clamps 18 are provided having shanks 17 here shown as hinged as at 17^a to the radial arms 15 inwardly from the ends thereof, so that the shanks rest on the outer ends of said arms 15. The clamps 18 securely hold a doll and in the illustrated form each clamp has a hinged side for the entrance and the removal of the doll, said side being held in clamped position as by a bolt 18^a. Thus, the dolls will be caused to travel forwardly, in this instance, in a circular path above the platform 10. At the same time the doll is free to rise by reason of the shanks 17 being hinged as at 17^a or being afforded some slight vertical play by any equivalent means.

In order, in the forward travel of the doll, that the feet may be successively engaged and the legs accordingly given movement simulating the steps of walking, I provide means associated with the structure beneath to alternately cause the feet to engage the platform or elements appurtenant thereto. In the illustrated form I provide two annular series of protuberances 19, one series being radially inward from the other series, so that the impediments are respectively positioned in the paths of the two feet and they are in staggered relation to alternately engage the respective feet of a pair as best seen in plan view, Figure 2.

With the described construction as the arms 15 are revolved and moved forwardly with the turning of the shaft 13, the corresponding forward movement of the figures A will cause the feet a' of the legs a of a figure to successively engage the protuberances 19. Thus, as one foot, say the outer one a', engages its protuberance 19, the other foot a' and its leg a will be free from the platform 10. In practice it is well known that the legs are connected so that as one moves forwardly the other moves rearwardly or is held stationary to give the relative forward and backward movement. The forward movement of the figure will finally cause the engaged foot to pass over the engaged protuberance 19 so that the foot drops to a lower position toward the platform 10. At the same time the other foot a' will have swung to a position to engage a protuberance 19 in the path thereof and the movement will be repeated as the figure moves over the platform. It will thus be seen that the protuberances 19 constitute means pertaining to the structure beneath the figures to modify the forward movement to simulate walking.

It will readily be understood that the

shaft 13 may be driven by any suitable means, there being shown for the purpose an electric motor 20 from a pulley 20^a on the shaft of which motor a belt 21 runs over a pulley 22 on a shaft 23 turning in the brackets 14^a, said shaft having a worm 24 in mesh with a worm wheel 25 on shaft 13 between the sleeve 14 and the bearing 13^a.

I would state in conclusion that while the illustrated example constitutes a practical embodiment of my invention, I do not limit myself strictly to the mechanical details herein illustrated, since manifestly the same can be considerably varied without departure from the spirit of the invention as defined in the appended claims.

Having thus described my invention, I claim:

1. A display device for walking figures, said device comprising a driven carrier having means to hold the figures to cause the same to move forwardly, and stationary means beneath the figures to cause the feet to be alternately engaged to simulate the movements of walking.

2. A display device for walking figures, said device comprising a fixed structure, a driven carrier movable relatively to the fixed structure and having means to hold the figures to cause the same to move forwardly, and stationary means presented by the fixed structure to cause the feet of a figure to alternately engage the fixed structure for simulating walking movements as the figure moves forward.

3. A device for displaying walking figures, comprising a fixed platform, means to support a figure above said platform, means to carry the supported figure forwardly, and means to cause engagement alternately of the feet of the figure with the said fixed platform to alternately retard the feet as the figure moves forwardly.

4. A display device for walking figures, said device comprising a fixed structure, a driven carrier movable relatively to the fixed structure and having means to hold the figures to cause the same to move forwardly, and means on the fixed structure to cause the feet of a figure to be alternately engaged and simulate a walking of the figures.

5. A display device for walking figures, said device comprising a driven carrier having means to hold the figures to cause the same to move forwardly, a platform beneath said carrier and over which the figures are moved by the carrier, said platform having two annular stationary series of protuberances one concentric with the other and positioned as to alternately engage the feet of the figure moving over the platform.

6. A display device for walking figures, comprising a driven carrier, means on said carrier to hold the figures, said means being capable of vertical play relatively to the carrier, a platform beneath the carrier in position to be engaged by the feet, and means to bring about an alternate engagement of the feet of a figure with said platform.

7. A display device for walking figures, comprising a driven carrier, clamps to hold the figures, said clamps being hinged to said carrier to allow vertical play of the clamps and figures, a platform below the carrier and positioned to lie beneath the figures, and two annular series of protuberances on the platform, the protuberances of the respective series being staggered and being positioned to alternately engage the feet of the figure as it is moved forwardly by the carrier.

ISAAC A. ROMMER.