Aug. 7, 1928. 1,679,755

A. V. WARREN

EXHIBITING APPARATUS OR AMUSEMENT DEVICE

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Fig. 1.

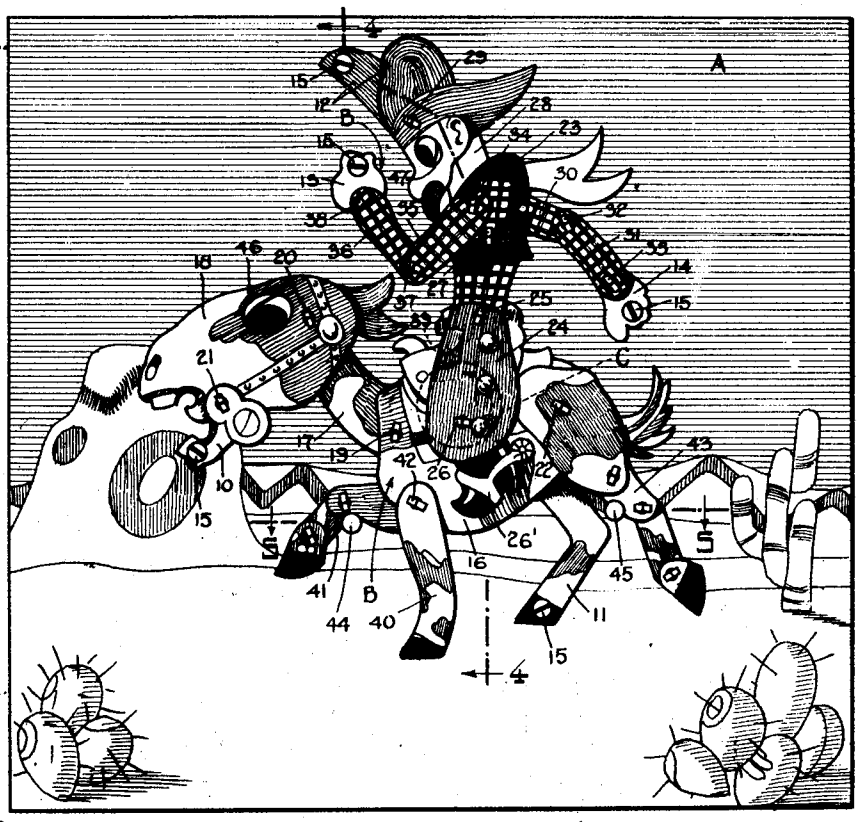
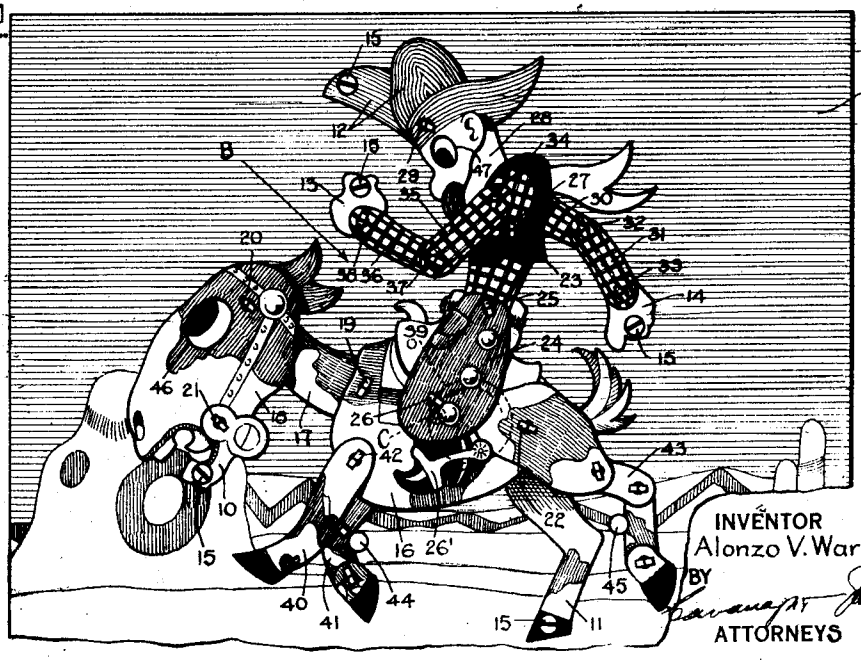



Fig. 2.




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Fig. 3.

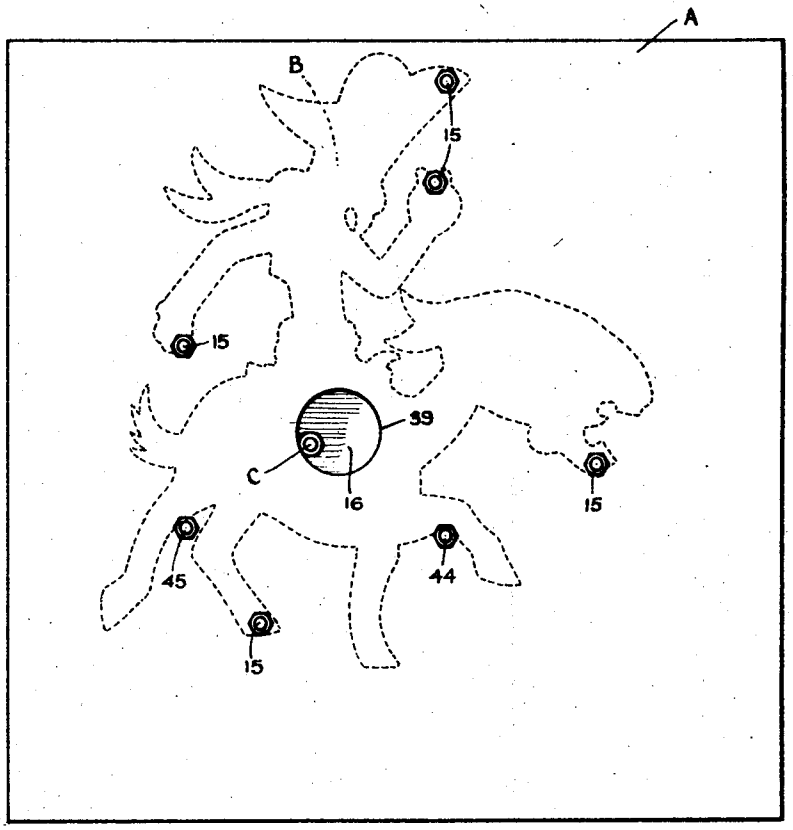



Fig. 4.

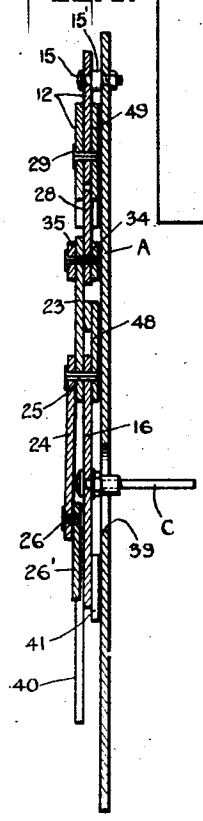
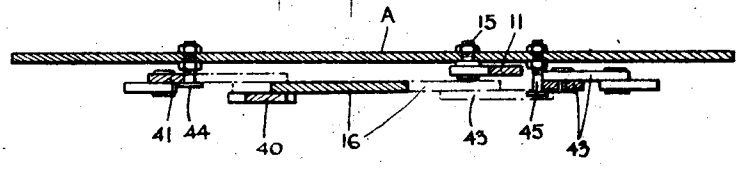



Fig. 5.




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# UNITED STATES PATENT OFFICE.

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## EXHIBITING APPARATUS OR AMUSEMENT DEVICE.

Application filed July 2, 1927. Serial No. 203,008.

This invention relates to an exhibiting apparatus or amusement device, and has special reference to the provision of an apparatus embodying movable figures which may be employed as a changeable exhibitor for advertising purposes or as an operatable figure toy for amusement purposes.

The prime object of my present invention centers about the provision of a changeable exhibiting device or operatable figure toy embodying a figure or figures made up or comprising a plurality of articulated members so organized that movement imparted to one of said members imparts a distinctive motion or operation to the other of the members and effects a characteristic operation of the figure as a whole.

A further prime object of my present invention is directed to the provision of a device utilizable as a changeable exhibitor or figure toy of the character referred to designed and constructed so that the articulated figure mounted on any suitable support may be operated by the provision of simple mechanism concealed by the figure parts with the construction such that the operation of the articulated figure serves not only to attract or to amuse, but to excite the curiosity of the observer.

While in the present application I show the embodiment of the invention as comprising the figure of an animal and a rider therefor, it will be obvious that the invention is not limited to this specific form of the embodiment disclosed herein, and that the same principle of operation and organization of parts may be applied to any figure or any type of articulated device, all as hereinafter more particularly described and sought to be defined in the claims, reference being had to the accompanying drawings which show the preferred embodiment of my invention, and in which

Fig. 1 is a front view of a construction embodying my invention showing the various articulated members of the figures in one position,

Fig. 2 is a similar view showing the articulated members of the figure in another position,

Fig. 3 is a rear view of the same,

Fig. 4 is a view taken in cross section in the plane of the line 4—4, Fig. 1, and

Fig. 5 is a view taken in cross section in the plane of the line 5—5, Fig. 1.

Referring now more in detail to the drawings wherein I show one of the forms which my invention may take, the exhibiting apparatus or amusement device comprises in one of its generic aspects a support A made preferably in the form of a base plate and an articulated or jointed figure B consisting of a plurality of articulated members, some of which are anchored at points to the support A, and others of which are free to float or move with relation to said support and with relation to said anchored members in any direction in a plane parallel to the plane of said support or base plate A. One of the free floating members is provided with a driving means generally designated as C which projects through the support A to the rear thereof, the said driving means being adapted to be operated to move the free floating member to which it is attached so that whenever any motion is imparted to said free floating driving member, a distinctive motion is transmitted to the other members by virtue of the jointed or articulated relationship therebetween, the motion imparted to all of the members being determined by the anchored points of the members, the whole cooperating to give a distinctive operation to the figure in accurate simulation or representation of life-like action.

The figure C may comprise any articulated device, figure or combination of figures; and in the embodiment shown in the drawings, the same is made to represent or simulate a horse and rider, the horse and rider figures being jointedly connected together to provide members which are anchored to the support A and other members interconnecting said anchored members to provide the free floating members. To produce the desired action in the preferred manner, terminal or end members of the jointed figure combination are selected as the anchoring members and an intermediate member of the figure combination is selected as the driving floating member. In the embodiment illustrated I select for the anchored members the lower jaw member 10 of the animal, the extremity such as the hoof of the leg member 11, the top or extremity of the rider's hat member 12 and the extremities of the hand members 13 and 14, each of these members being preferably pivotally anchored to the support A by any form of pivotal pins, the same being shown in the form of bolts or screws 15, 15. The manner

of securing the anchored members to the plate support A is clearly indicated in Fig. 4 of the drawings and as shown in this figure, the members may be suitably spaced from the plate support A by means of spacing washers 15′ on the screws or bolts 15.

The free floating members interconnect the anchored members and are pivotally mounted to each other and to said anchored members. As illustrated, the central free floating member 16 which forms the body of the animal and which as will hereinafter appear is taken as the driving member, is connected to the anchored jaw member 10 by means of the neck and head members 17 and 18 which function after the manner of interconnecting links. More specifically the neck member 17 is pivotally attached at its opposite ends to the body member 16 and the head member 18 respectively by means of any form of pivot pins, such as the eyelets or fasteners 19 and 20. The lower portion of the head 20 is in turn pivotally attached to the lower jaw member 10 by means of a similar pivot pin structure 21. Likewise, the body member 16 is affixed to the anchored leg member 11 by means of a pivot pin structure 22, which pivot pin also serves to connect the other hind leg member parts to the body 16, as will be detailed hereinafter.

The jointed members of the rider figure are similarly interconnected and jointed to the driving body member 16 of the animal figure. More particularly, the rider figure is made to comprise a waist portion 23 and a thigh portion 24 both pivotally jointed together as at 25, the said joint 25 serving for pivotally connecting both waist and thigh portions to the animal body 16 (see Fig. 4). To the thigh portion is pivotally attached by the pivot pin structure 26 a freely movable boot member 26′. The waist portion 23 is pivotally attached by the pivot pin element 27 to a neck member 28 of the figure, which neck member is in turn pivotally connected by the element 29 to the rider's hat and head member 12. The waist member 23 is also connected to the anchored hand members 13 and 14 by means of the members which comprise or make up the rider's arms. Thus, the right arm consisting of the members 30 and 31 are jointed together as at 32 and the extremities of these arms are pivotally connected to the hand 14 and waist members 23 respectively by means of the pivot pin structures 33 and 34 respectively. Similarly, the left arm comprising the members 35 and 36 are jointed together as at 37 and the extremities of these arms are pivotally connected to the hand member 13 and the waist member 23 by means of the pivot pin elements 38 and 34 respectively.

With the provision of this construction I may impart movement to any one of the free floating or anchored members to secure the desired simulated movement of animal and rider. Preferably for producing ease of motion and simplicity of operation I prefer to utilize the intermediate body member 16 as the driving element. Accordingly, the driving means C which in its simplest form comprises a rod adapted to be operated manually or by any motor mechanism is secured to the free floating body member 16 in the manner best depicted in Figs. 3 and 4 of the drawings. The base plate support A is provided with an opening 39 through which this rod projects and the wall of said opening defines a guide means for guiding the motion of the driving rod C. This motion is preferably in a closed path and may be linear, circular or of any other form. In the construction exemplified I make this opening circular so that the driving element may be operated with convenience and ease and by means of simple apparatus. When the driving element C is rotated in its circular orbit as indicated by the arrows in Figs. 1 and 2 of the drawings, the various members of the animal and rider figures are moved in natural simulation of a riding action, the anchored members guiding the parts in their movements to produce a distinctive operation of all of the members and the ensemble.

Some of the members of the articulated figures may be attached to the operated members for free motion and this is illustrated by the forelegs 40 and 41 and one of the rear legs 42 of the animal, these legs being shown made either in the form of a single member or jointed members affixed respectively to one of the free floating members of the animal. Thus, the forelegs are secured pivotally to the body member 16 by means of the pivoted pin structure 42 and the rear hind legs designated as a whole as 43 are secured to the body member 16 by means of the pivot pin 22.

In order to additionally vary the motion of some of the members and particularly in order to impart to the legs of the animal a motion simulating the movement of a running animal, the guiding devices 44 and 45 in the form of fixed pins are provided on the face of the base plate A, the said devices being so disposed that they remain in contact with the leg structures 41 and 43 of the animal during the motion of such legs. The legs being articulated in the manner shown and having free ends as shown, always rest on the guiding devices 32 and 33, and the articulated parts thereof will move with relation to each other and with relation to the base plate 10.

To add to the attractive action of the figure parts I prefer to provide a movement of the eyes of either the rider or animal or

both, this being obtained by interrelating the jointed parts so that the eyes are given a motion during the movement of the body parts of the figures. More specifically, the head 18 of the animal as well as the head member 12 of the rider are provided with eye openings 46 and 47 respectively, and the neck members 17 and 28 respectively of both animal and rider are provided with extensions having thereon representations of an eye which are disposed immediately behind the said openings 46 and 47, as will clearly be seen on consideration of Figs. 1 and 2 of the drawings. When motion is imparted to the articulated figures, the representations of the eye move with relation to the openings as will be seen by comparison of Figs. 1 and 2 of the drawings, with the result that an amusing movement of the eye is simulated.

In order to give the members of both the horse and rider figures the desired spacing and to prevent an excessive amount of friction between the parts, it may be desired to duplicate parts of the members, the same being arranged to space the other members of the ensemble. Thus, the waist member 23 of the rider is duplicated by the part 48 and the head member 12 of the rider is similarly duplicated by the part 49, this being arranged and spaced as best indicated in Fig. 4 of the drawings.

The manner of making, assembling and using the exhibiting or amusement apparatus of my present invention will, in the main, be fully apparent from the above detailed description thereof; it will be seen that the operation of the driving element C by movement of the same in a circular orbit will impart movement to all of the members of the figures with the result that a distinctive characteristic operation of the ensemble is produced. It will also be seen that the anchoring means in addition to guiding the parts of the figures to effect the desired movement of the same, also serve to fixedly attach all the articulated members firmly to the base support. The operating or driving means is also so related to the figures as to be concealed by the figure parts so that the operation of the device serves not only to attract but to excite the curiosity of the observer.

It will also be apparent that while I have shown and described my invention in the preferred form, many changes and modifications may be made in the structure disclosed without departing from the spirit of the invention, defined in the following claims.

I claim:

1. A device of the character described comprising a flat extended support, a figure formed of a plurality of articulated members, joints connecting said members, free ends of some of said members being anchored at spaced points to said flat extended support, and means for actuating one of said members so as to impart movement through the medium of said joints to the other of said members in a manner determined by the said anchored points of the members whereby a distinctive operation is imparted to the figure as a whole.

2. A device of the character described comprising a plate support, a figure formed of a plurality of articulated members, joints connecting said members, extremities of some of said members being anchored at spaced points to said plate support, such anchoring of some of said members producing intermediately positioned free floating members, and means for actuating one of said members so as to impart movement through the medium of said joints to the other of said members in a manner determined by the said anchored points of the members whereby a distinctive operation is imparted to the figure as a whole.

3. A device of the character described comprising a flat extended support, a figure formed of a plurality of articulated members, joints connecting said members, extremities of some of said members being anchored at spaced points to said flat support, such anchoring of some of said members producing intermediately positioned free floating members, and means for actuating a free floating member so as to impart movement through the medium of said joints to the other of said members in a manner determined by the said anchored points of the members whereby a distinctive operation is imparted to the figure as a whole.

4. A device of the character described comprising a plate support, a figure formed of a plurality of articulated flat-shaped members, joints connecting the said members, free ends of some of said members being anchored at spaced points to said plate support, and means for actuating one of said members so as to impart movement through the medium of said joints to the other of said members in a manner determined by the said anchored points of the members whereby a distinctive operation is imparted to the figure as a whole.

5. A device of the character described comprising a flat extended support, a figure formed of a plurality of articulated members, joints connecting said members, free ends of some of said members being anchored at spaced points over the front of said support, means for actuating one of said members so as to impart movement through the medium of said joints to the other of said members in a manner determined by the said anchored points of the members, and devices on said support for guiding the movement of the members, said

devices and means cooperating so that a distinctive operation is imparted to the figure upon operation of said means.

6. A device of the character described comprising an extended support plate having an opening therein, a figure consisting of a plurality of articulated members movable with relation to each other disposed on said plate, joints connecting said members, some of said members being pivotally anchored at spaced points to said plate, and means passing through the opening in said plate for actuating one of said members to impart movement through the medium of said joints to the other members in a manner determined by the anchored points of the members whereby a distinctive operation is imparted to the figure.

7. A device of the character described comprising a plate having an opening therein, a figure consisting of a plurality of articulated members disposed on said plate and over said opening, joints connecting said members, free ends of some of said members being anchored at spaced points to said plate, and means passing through the opening in said plate connected to one of said members for actuating said one of said members, the wall of said opening defining a guide means for said actuating means and operation of said actuating means serving to impart movement to all of the members in a manner determined by the anchored points of the members whereby a distinctive operation is imparted to the figure.

8. A device of the character described comprising a flat extended support, a figure formed of a plurality of articulated members arranged over said support, joints connecting said members, free ends of some of said members being anchored at spaced points to said flat extended support, an element connected to one of said members and extending rearwardly of said support through an opening thereof, the said element being movable cyclically in a closed path in said opening for imparting movement to said one of said members and through the medium thereof and said joints to the other of said members in a manner determined by said anchored points of the members whereby a distinctive operation is imparted to the figure as a whole.

9. A device of the character described comprising a flat extended support, a plurality of figures representing a horse and rider formed of a plurality of articulated members arranged over said support, joints connecting said members, free ends of some of said members being anchored at spaced points to said flat extended support, an element connected to an intermediate one of said members and extending rearwardly of said support through an opening thereof, the said element being movable cyclically in a closed path in said opening for imparting movement to said one of said members and through the medium thereof and said joints to the other of said members in a manner determined by said anchored points of the members whereby an operation is imparted to the said figures simulating a galloping horse and rider.

Signed at New York in the county of New York and State of New York this 25th day of June, A. D. 1927.

ALONZO V. WARREN.