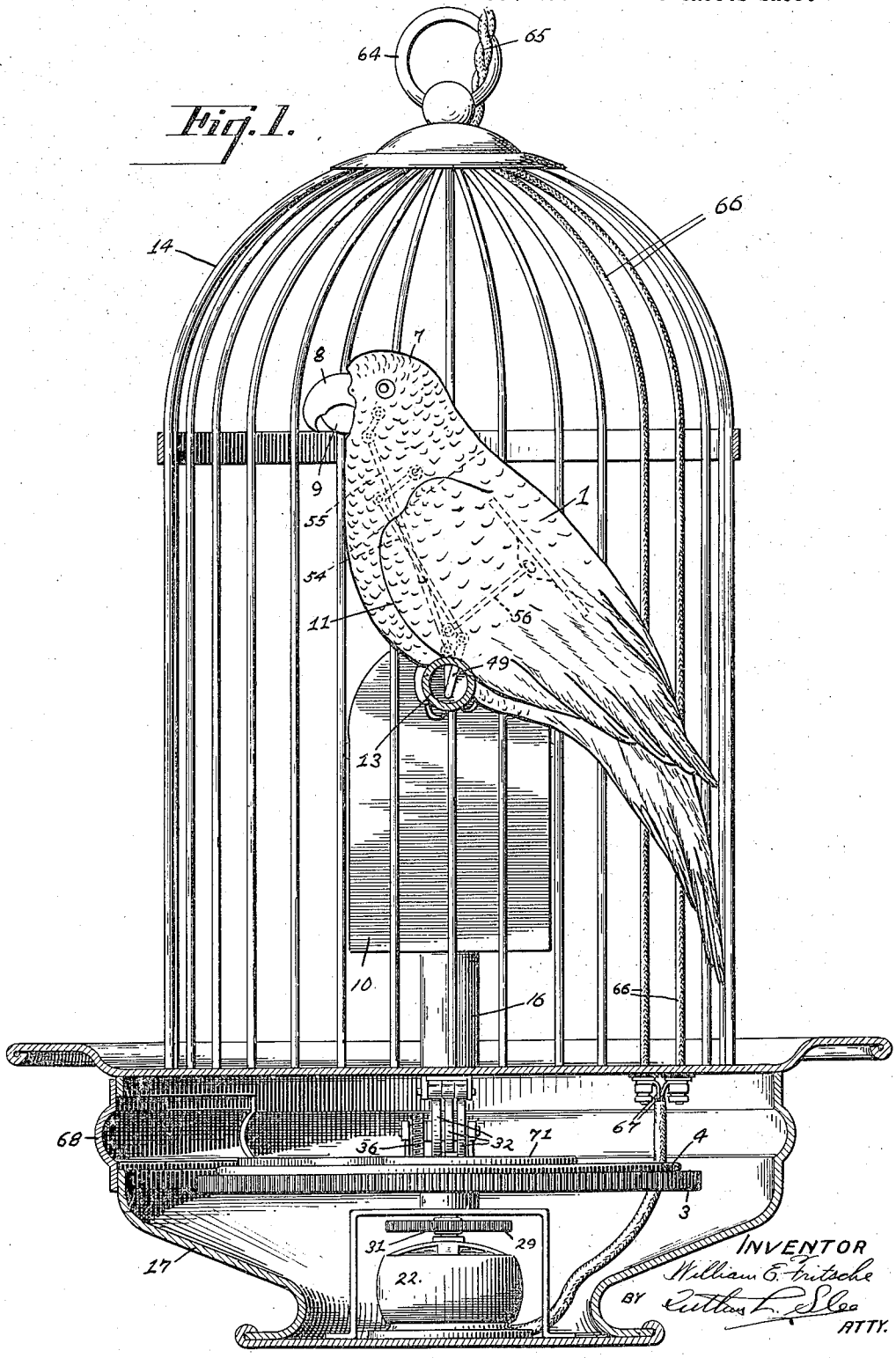
Oct. 21, 1924. 1,512,283

W. E. FRITSCHE

AUTOMATON AND TALKING APPARATUS

Filed June 19, 1923 3 Sheets-Sheet 1

Fig. 1.



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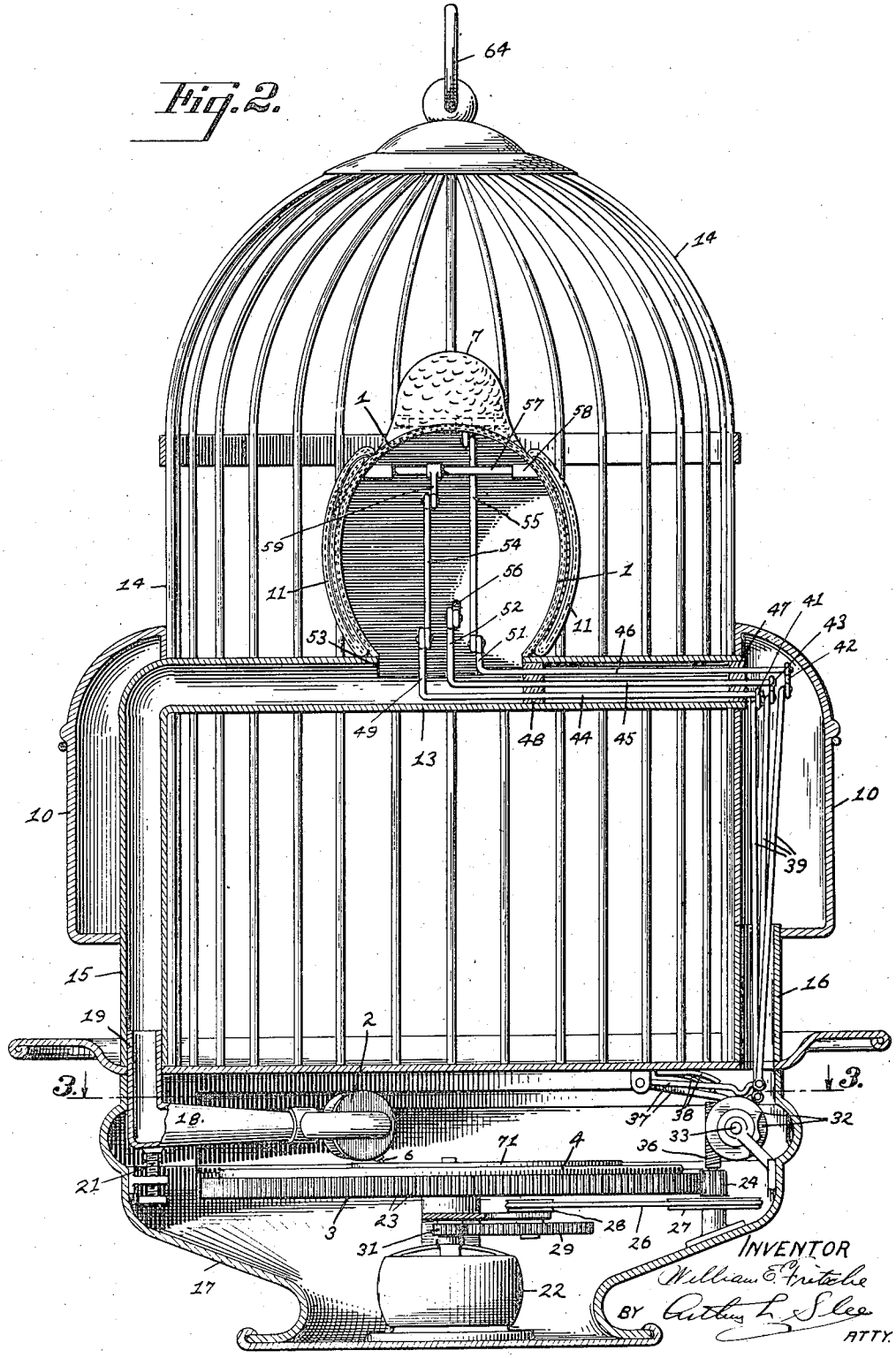
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Fig. 2.



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AUTOMATON AND TALKING APPARATUS

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Fig. 3.

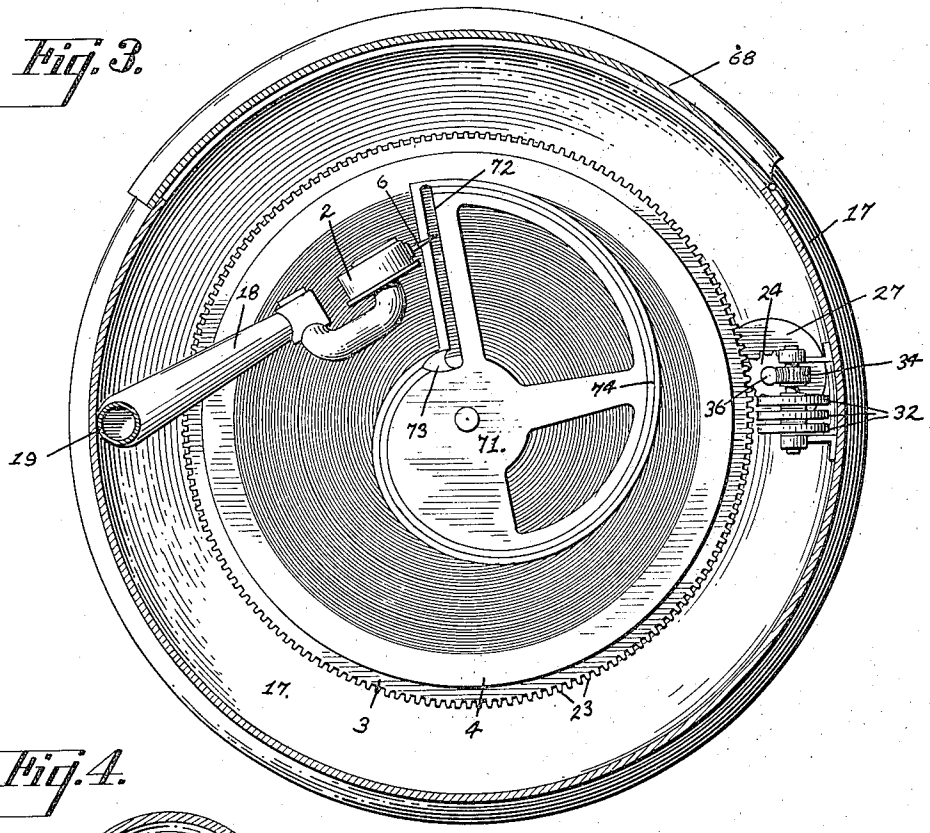


Fig. 4.

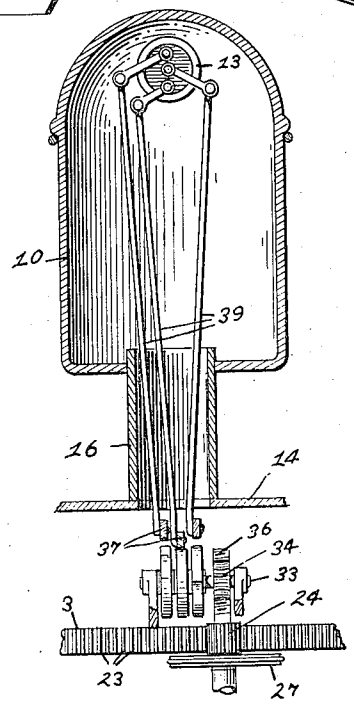
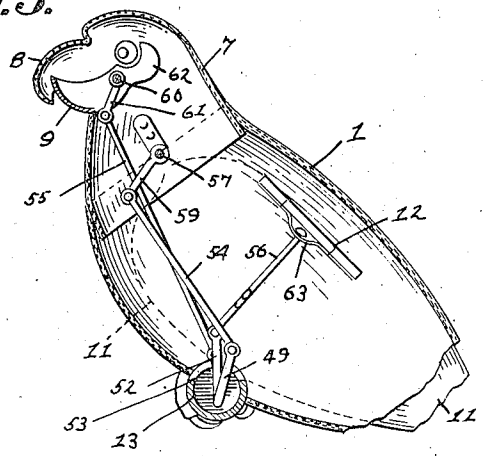


Fig. 5.



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Patented Oct. 21, 1924. 1,512,283

UNITED STATES PATENT OFFICE.

WILLIAM E. FRITSCHE, OF SAN FRANCISCO, CALIFORNIA.

AUTOMATON AND TALKING APPARATUS.

Application filed June 19, 1923. Serial No. 646,452.

To all whom it may concern:

Be it known that I, WILLIAM E. FRITSCHE, a citizen of the United States, residing in the city and county of San Francisco and State of California, have invented a new and useful Improvement in an Automaton and Talking Apparatus, of which the following is a specification.

My invention relates to improvements in talking automatons wherein the movements and articulation of an animate object are simulated in a fabricated similitude of such animate object.

The primary object of my invention is to provide an improved advertising device wherein movement and articulation is simulated in an automaton to attract and hold the attention of observers.

Another object is to provide an improved device of the character described wherein a common actuating means is utilized for simulating in an automaton the articulation and movement of an animate object.

A further object is to provide an improved device adapted to maintain an appearance of reality and in which the actuating mechanism may be effectively concealed.

Another object is to provide a device wherein a phonographic sound producing mechanism associated with an automaton is arranged to receive any of a plurality of records by which movement is imparted to the automaton without disturbing the connections whereby said automaton may be caused to deliver a desired message.

A still further object is to provide an improved construction and arrangement of parts with a view to obtaining economy in manufacture and to obtaining a life-like simulation of sound and movement.

I accomplish these and other objects by means of the device disclosed in the drawings forming a part of the present specification wherein like characters of reference are used to designate similar parts throughout said specification and drawings and in which,

Fig. 1 is a vertical section of my improved talking automaton.

Fig. 2 is a vertical section taken at right angles to the view shown in Fig. 1.

Fig. 3 is a horizontal section taken upon the line 3—3 of Fig. 2 in the direction indicated.

Fig. 4 is a vertical sectional detail showing the arrangement of the cams and the manner in which actuating connections engaging said cams are carried into the perch.

Fig. 5 is a broken vertical section of the automaton showing the arrangement of connections for independently moving various portions of the automaton.

Referring to the drawings my invention will be seen to consist essentially of an automaton, designated in general by the numeral 1, with which is associated a phonographic sound producing mechanism of the well known type wherein a sound box 2 is pivotally mounted above a rotating record table 3 arranged to receive a record 4 which is engaged by a needle 6 to cause sounds recorded upon the record to be reproduced in the well known manner.

In the preferred form of my invention illustrated in the drawings, the automaton 1 consists of a reticular body preferably fabricated from screen and covered with feathers to simulate the appearance of a parrot. The automaton is provided with a pivotally movable head 7 and a beak 8, the lower portion 9 of which is pivotally movable relative to the head and the upper portion of the beak. The body is also provided with a pair of pivotally movable wings 11 mounted upon suitable hinges 12 upon the sides of the body whereby a flapping movement may be imparted to said wings in a manner hereinafter more fully described. The body is entirely covered with feathers which are caused to overlap to conceal the juncture between the head and the body and between the wings and body thereby obtaining a close resemblance to a living parrot.

The automaton 1 is mounted upon a tubular perch 13 secured within a cage 14 made to resemble the ordinary parrot cage. The ends of the perch 13 are enclosed in hollow members 10 shaped to simulate the seed boxes commonly provided upon the sides of a cage. Tubular members 15 and 16 communicate between the hollow members 10 and a hollow base 17 provided below the cage 14.

The phonograph sound producing mechanism is mounted within the hollow base 17 of the cage, the sound box 2 being carried upon a tone arm 18 communicating with the lower end of the tubular member 15 whereby the sound is carried upwardly through said member 15 and the perch 13 into the body of

the automaton 1 as best shown in Fig. 2 of the drawings. In the preferred construction shown in the drawings the tone arm 18 is provided with a lateral extension 19 which enters the lower end of the tubular member 16 and forms a bearing within which the tone arm may be pivotally moved as the sound box 2 is moved back and forth across the record 4, the arm being supported upon a threaded pin 21.

The table 3 upon which the record 4 is supported is rotated by means of an electric motor 22 mounted within the base 17, the periphery of the table being provided with gear teeth 23 meshing with a driving pinion 24 which is actuated by the motor through suitable driving connections adapted to obtain a desired reduction of speed as by a belt 26 and pulleys 27 and 28 driven by a gear 29 meshing with a pinion 31 mounted upon the motor shaft.

Movement is imparted to the various movable parts of the automaton 1 by means of connections actuated by the motor 22 and independently connected to such movable parts. In the preferred construction disclosed in the drawing this is accomplished by means of a plurality of cams 32 secured upon a shaft 33 mounted adjacent the pinion 24. A gear 34 is secured upon the shaft 33 and arranged to be engaged by a worm gear 36 actuated in common with the pinion 24.

Actuating levers 37 are pivotally mounted above the cams 32 and are held thereagainst by means of springs 38. Connecting links 39 pivotally connected to the ends of the levers 37 extend upward through the tubular member 16 and the hollow member 10 into pivotal engagement with the ends of levers 41, 42, and 43 secured upon the ends of shafts 44, 45, and 46 rotatably mounted within the perch 13 and extending outwardly from the end thereof. The shafts 44, 45, and 46 are carried within bearing blocks 47 and 48 mounted within the perch and the inner ends of the shafts are provided with lever portions 49, 51 and 52 extending into the body of the automaton through an opening 53 communicating between the upper side of the perch 13 and the body. Connecting links 54, 55, and 56 are pivotally connected upon the inner ends of the lever portions and arranged to actuate the head 7, beak portion 9 and wings 11 respectively.

The head 7 is pivotally mounted upon the body by means of a transverse shaft 57 the ends of which are engaged within bearings 58 secured within the body. A lever 59 is secured upon the shaft and pivotally connected to the end of the link 54 whereby movement of the lever will impart a pivotal movement of the head relative to the body.

The beak portion 9 is pivotally mounted within the head 7, said beak portion 9 being carried upon a transverse shaft 60 provided with a lever arm 61 pivotally connected to the link 55. The beak portion 9 is preferably provided with inwardly disposed extensions 2 adjacent the inner sides of the head 7, said extensions being shaped to uncover eyes provided in the sides of the head when the beak is in closed position and to act as a shutter closing said eyes when the beak is moved about its axis.

The hinges 12 upon which the wings 11 are mounted are provided with inwardly disposed extensions 63 carried by the movable portions of said hinges. The connecting link 56 is bifurcated and the ends pivotally connected to the extensions 63 whereby the wings may be moved simultaneously upon the hinges 12.

The cage 14 is provided with a ring 64 mounted upon the top thereof whereby the cage may be hung in suspended position.

Electric connections 65 to the motor 22 are preferably introduced through the top of the cage, said connections being connected to insulated conductors 66 forming bars of the cage. Flexible conductors 67 are carried from the lower ends of the conductors 66 to the motor. The connection 65 is carried adjacent any supporting structure, not shown, upon which the cage may be suspended to any suitable control switch, not shown, whereby the motor may be energized and the automaton caused to operate at the will of an operator.

When it is desired to operate the automaton the circuit to the motor 22 is closed and the motor thereby caused to rotate and to impart rotation to the record table 3 and record 4 through the pinion 24 and intermediate connections above described, the rotation of the record under the needle 6 and sound box 2 causing the sounds recorded upon the record to be reproduced, the sound being carried through the tone arm 18 into the perch 13 and thence into the body of the automaton through the opening 53. The reticular character of the body of the automaton permits the sound to issue from the automaton in such manner as to effectively simulate articulation and give the impression that the sound is being actually made by the automaton.

While the record table 3 is being rotated the cams 32 will be rotated by the worm gear 36, the cams being made of irregular shape such that the levers 37, held thereagainst by the springs 38, will be raised and lowered periodically, such movement being communicated through the intermediate connection links to the head, beak and wings of the automaton. A suitable proportioning of the several levers is effective to obtain a desired amount of movement in the moving portion of the automaton for a relatively slight movement of the actuating levers 37 whereby the movements of a living parrot may be closely simulated.

From the above description it will be seen that while the motor 22 is in motion the automaton will be moved automatically to simulate the movements of an animate object and at the same time to emit sound through its body from the phonographic sound producing mechanism to simulate articulation within the automaton and give the impression that the automaton itself is talking. This impression is augmented by the fact that the connections between the automaton and the mechanical elements within the base of the cause are effectively concealed within the perch and the members 14 which apparently are only the usual seed boxes provided upon a parrot cage.

This result renders the device particularly valuable as an advertising medium as any desired message may be recorded upon the record and reproduced as though articulated by the automaton. Thus the moving automaton mounted in its cage in a conspicuous position will in itself attract attention and when the automaton is caused to articulate the words of a desired message the attention of any passerby or observer will be instantly attracted and held while the message is delivered. Thus the automaton may be made to explain the merits of a particular line of merchandise, or to announce the character and costs of certain articles of which a specialty is being made in another part of an establishment, and in innumerable other ways. The message thus articulated by the automaton will attract and hold greater attention than any ordinary announcement or placard could accomplish and for this reason is of exceptional value to advertisers.

A variety of records may of course be prepared and the record upon the table 3 replaced as frequently as desired. A door 68 is hingedly mounted upon the side of the base 17 through which access may be had to the phonographic mechanism whereby a record may be removed and another substituted without disturbing the mechanical connection by which the automaton is operated. The door likewise gives access to the sound box 2 and needle 6 whereby the needle may be replaced when necessary.

A repeating device of any suitable character is provided for moving the needle back to the starting point upon the record after the needle has completed each movement across the record. This repeating device does not form any part of the present invention as such devices are well known in the art. However, in the drawings I have illustrated a suitable device of this character wherein an eccentric disc 71 is slotted as at 72 to receive the point of the needle 6 by which it is held against rotation while the needle moved across the record by the usual spiral groove formed upon the surface thereof. The inner end of the slot is recessed and thinned down to a feather edge as at 73 so that when the inner end of the spiral groove is reached the needle will be permitted to ride up upon the disc which will then be carried around with the record. A spiral groove 74 is formed around the edge of the disc 71 to guide the needle back to the outer edge of the record, said needle dropping back off from the disc and onto the starting point of the record after one complete revolution. In this manner the motor 22 may be permitted to run indefinitely, the needle being automatically moved back to the starting point and the record repeated periodically.

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

1. In a device of the character described, a cage having a hollow base and provided with a tubular perch and tubular members communicating between the ends of the perch and the base; a similitude of a parrot mounted upon the perch; phonographic sound producing mechanism mounted within the base, said mechanism being connected with the similitude through the perch and one of the tubular members connected thereto to simulate articulation in the similitude; a motor mounted within the base to actuate the sound producing mechanism; and means connected between the similitude and the motor through the perch and the other tubular member connected thereto for imparting movement to the similitude.

2. In a device of the character described, a cage having a hollow base and provided with a tubular perch and tubular members communicating with the ends of the perch; phonographic sound producing mechanism mounted within the base and connected through one of the tubular members and the perch with the similitude to simulate articulation therein; a motor mounted within the base in connection with the sound producing mechanism for actuating the same; a plurality of cams mounted adjacent the motor and actuated thereby; a like plurality of connections engaging the cams and connected with the similitude through the other tubular member and the perch for imparting movement to said similitude.

In witness whereof I hereunto set my signature.

WILLIAM E. FRITSCHE.