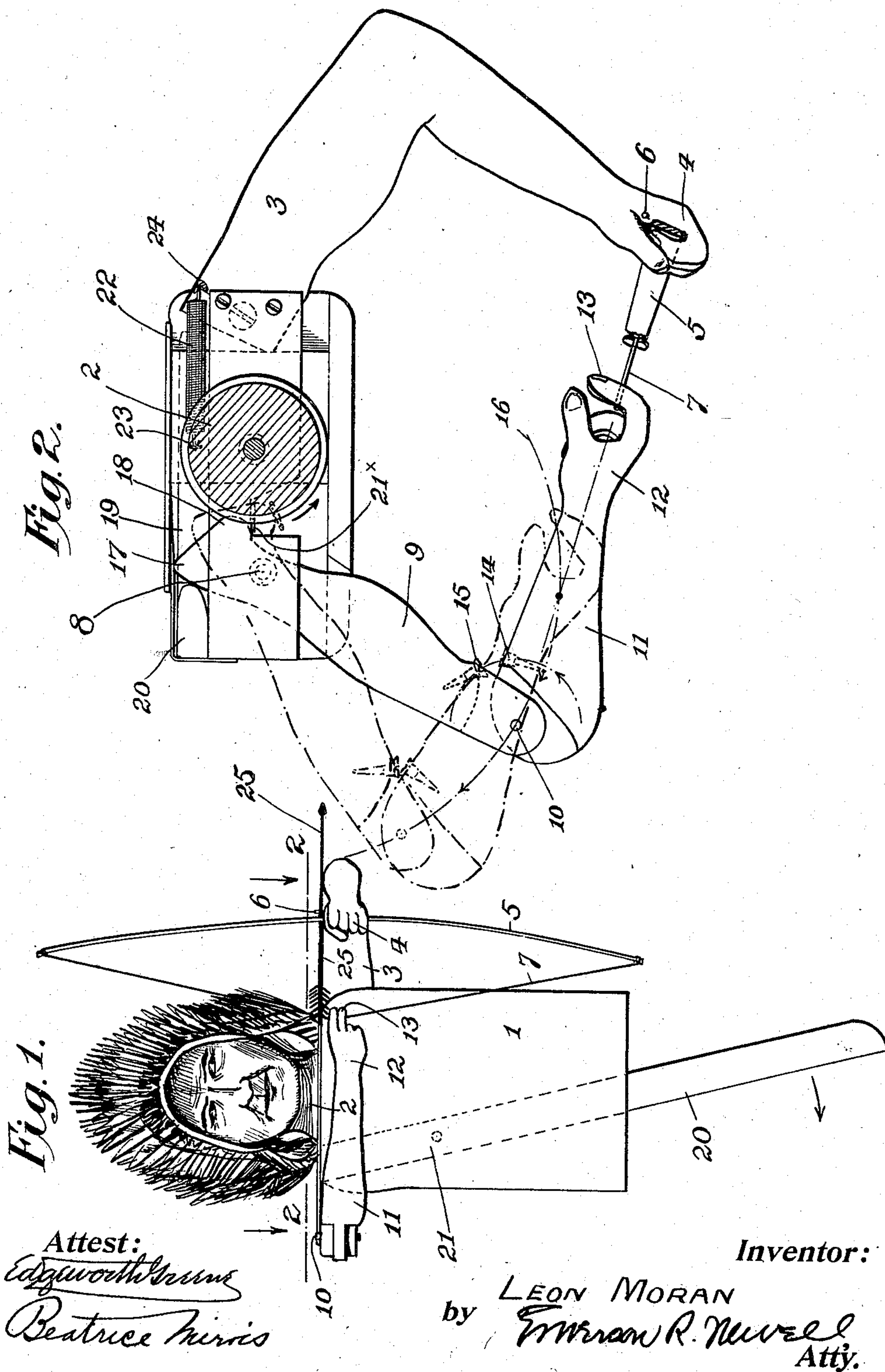


No. 840,705.

PATENTED JAN. 8, 1907.

L. MORAN.
AMUSEMENT DEVICE.
APPLICATION FILED AUG. 21, 1906.



UNITED STATES PATENT OFFICE.

LÉON MORAN, OF PLAINFIELD, NEW JERSEY.

AMUSEMENT DEVICE.

No. 840,705.

Specification of Letters Patent.

Patented Jan. 8, 1907.

Application filed August 21, 1906. Serial No. 331,544.

To all whom it may concern:

Be it known that I, LÉON MORAN, a citizen of the United States, residing at 34 Grove street, Plainfield, New Jersey, have invented certain new and useful Improvements in Amusement Devices, of which the following is a clear, full, and exact description.

The object of this invention is to provide a novel amusement device comprising a manikin which is adapted to shoot an arrow or other device by the manual control of a lever or other mechanism. It may be a portable toy or a large figure.

In carrying out my invention as shown hereinafter I have aimed to reproduce as nearly as possible and as truly as possible the action of a human being when engaged in archery. To accomplish this purpose, I prefer to provide a manikin with a rigid arm carrying a resilient bow, the arm being extended from the shoulder to grasp the bow midway between its ends. On the other shoulder I pivot or movably mount a second arm comprising a pivoted shoulder portion and a forearm pivoted to it at the elbow and having crooked fingers for the hand. I provide a suitable mechanism, such as a lever, for moving the arm upon its pivot, so that as the shoulder portion moves away from the bow if the crooked fingers are engaging the string thereof the forearm will turn loosely on its elbow-pivot and be drawn and guided substantially straight back from the bow, tensioning its string, and positioning an arrow, if said arrow has been placed in position; but it will be obvious that the crooked fingers must be caused to release the string to shoot the arrow. To accomplish this at the proper time, I automatically and additionally move the forearm. This I prefer to do by means of abutting stops so placed on the shoulder part and the forearm that they will come into play when the bow has been sufficiently tensioned to hold the pivot at the elbow against further turning, thus causing the continued movement of the shoulder portion to throw the crooked fingers out on an arc radial to the shoulder and slantwise to the line of draft of the bow-string to cause the fingers to release the bow-string, which will thereupon let fly the arrow.

It will be obvious that a manikin can be made to do other feats than shoot an arrow by the construction herein described, an arrow-shooter being my preferred construction.

In the accompanying drawings, Figure 1 is a front elevation of my improved device; and Fig. 2 is a section on line 2 2 thereof, but drawn to an enlarged scale.

As shown in the drawings, the manikin is formed of a trunk or body portion 1, on which is pivoted a head portion 2. The manikin is provided with a rigid arm 3, preferably crooked at the elbow, and having a hand 4, carrying a bow 5, and a small guide-pin 6. The bow is provided with a bow-string 7. On the opposite shoulder at 8 there is pivoted the shoulder portion 9 of a movable arm, to the elbow of which at 10 there is pivoted a forearm 11, terminating in a hand 12, having crooked fingers 13. Abutting stops 14 and 15, which may be simple adjustable screws, are located one on each portion of the arm near the elbow, so that when the arm is drawn back to the position shown in dotted lines, Fig. 2, they will abut against each other to throw the hand on the arc of the circle indicated by dot-and-dash line 16. The shoulder portion 9 is formed with two lever-like extensions 17 and 18. Extension 17 is located over a slot 19 in the back of the figure in which a lever 20 is pivoted at 21, while the lever-like projection 18 is adapted to bear upon a pin 21*, mounted in the movable head portion 2. A spring 22 tends to normally keep the parts in the position shown in Fig. 2, for which purpose it is attached at 23 to the head portion and at 24 to the shoulder.

In operation the parts are placed in the position of Fig. 2, and the arrow 25 (shown in Fig. 1) is placed between the bow 5 and the guide-pin 6, with its butt-end astride the bow-string 7. Then the lever 20 is moved in the direction of the arrow of Fig. 1 to throw the elbow of the manikin on the arc 16. In doing this the arm will be moved from the full-line position to the dotted-line position, the abutting stops 14 and 15 brought together, and the bow-string 7 tensioned. Now as the arm further travels on its pivot the forearm will not simply follow back in line with the bow, as it did at first, but will be moved as the outer end of a lever pivoted at 8, so that the fingers will be caused to move on the arc 16 and be turned aslant the line of draft of the bow-string, which will slip therefrom, release the string, and cause it to propel the arrow in whatever direction it has been pointed.

It will be obvious from the foregoing that the bow and bow-string comprise a resilient controlling means exterior to the movable

arm for guiding to some extent the forearm during the first part of its movement before the abutting stops come together and that the abutting stops act as an automatic means for independently moving the forearm after it has been given the first movement on the shoulder-pivot. The lever will obviously be one form of manual means for moving the arm of the shoulder, and the free pivoting of the forearm provides and permits that the forearm may fly back when releasing the string to an extended position nicely simulating the attitude of an archer.

I claim as my invention—

1. A manikin having an arm movable at shoulder and elbow and means for first manually moving said arm at the shoulder, in combination with means for secondly automatically moving the forearm at the elbow at a given time.

2. A manikin having an arm movable at shoulder and elbow and means for manually moving said arm at shoulder, in combination with means for automatically at a given time changing the direction of motion of the forearm.

3. A manikin having an arm movable at shoulder and elbow and means for first manually moving said arm at the shoulder, in combination with means for secondly automatically moving the forearm at the elbow at a given time, and a resilient controlling means exterior to such arm adapted to in part guide the forearm during its first movement.

4. A manikin having an arm movable at shoulder and elbow and means for first manually moving said arm at the shoulder, in combination with means for secondly automatically moving the forearm at the elbow at a given time, and a resilient controlling means exterior to such arm adapted to in part guide the forearm during its first movement, and automatic means for releasing said resilient means after the second movement of the arm.

5. A manikin having an arm movable at shoulder and elbow and means for first manually moving said arm at the shoulder, in combination with means for secondly automatically moving the forearm at the elbow at a given time, and a resilient controlling means exterior to such arm adapted to in part guide the forearm during its first movement, and automatic means for releasing said resilient means after the second movement of the arm, and means for permitting said forearm to fly back when released.

6. A manikin having an arm movable at

shoulder and elbow and means for first manually moving said arm at the shoulder, in combination with means for secondly automatically moving the forearm at the elbow at a given time, and a resilient controlling means exterior to such arm adapted to in part guide the forearm during its first movement, said exterior means comprising a rigid arm and a bow and bow-string.

7. A manikin having an arm movable at shoulder and elbow and means for first manually moving said arm at the shoulder, in combination with means for secondly automatically moving the forearm at the elbow at a given time, and a resilient controlling means exterior to such arm adapted to in part guide the forearm during its first movement, and automatic means for releasing said resilient means after the second movement, said exterior means comprising a rigid arm and a bow and bow-string.

8. A manikin having an arm movable at shoulder and elbow and means for first manually moving said arm at the shoulder, in combination with means for secondly automatically moving the forearm at the elbow at a given time, and means for turning the head simultaneously with the arm movement.

9. A manikin comprising a trunk, an arm holding a bow, an arm pivoted at the shoulder, a pivoted forearm, means to move the arm from the shoulder and means to automatically move the forearm at a given time on the shoulder-pivot as a center.

10. A manikin comprising arms, a bow held by one arm, a hand adapted to grasp the bow-string, an arrow adapted to be drawn and released by said manikin, said bow-string being adapted to pivot on the shoulder of the manikin and means for moving the forearm thereof in addition to the movement of the entire arm member.

11. A manikin comprising arms, a bow held by one arm, a hand adapted to grasp the bow-string, an arrow adapted to be drawn and released by said manikin, said bow-string being adapted to pivot on the shoulder of the manikin and means for moving the forearm thereof in addition to the movement of the entire arm member, in combination with a pivoted head operatively connected with said arm.

Signed at East Hampton, Long Island, this 18th day of July, 1906.

LÉON MORAN.

Witnesses:

HELEN A. MORAN,
MABEL B. HOOLEY.