

No. 711,511.

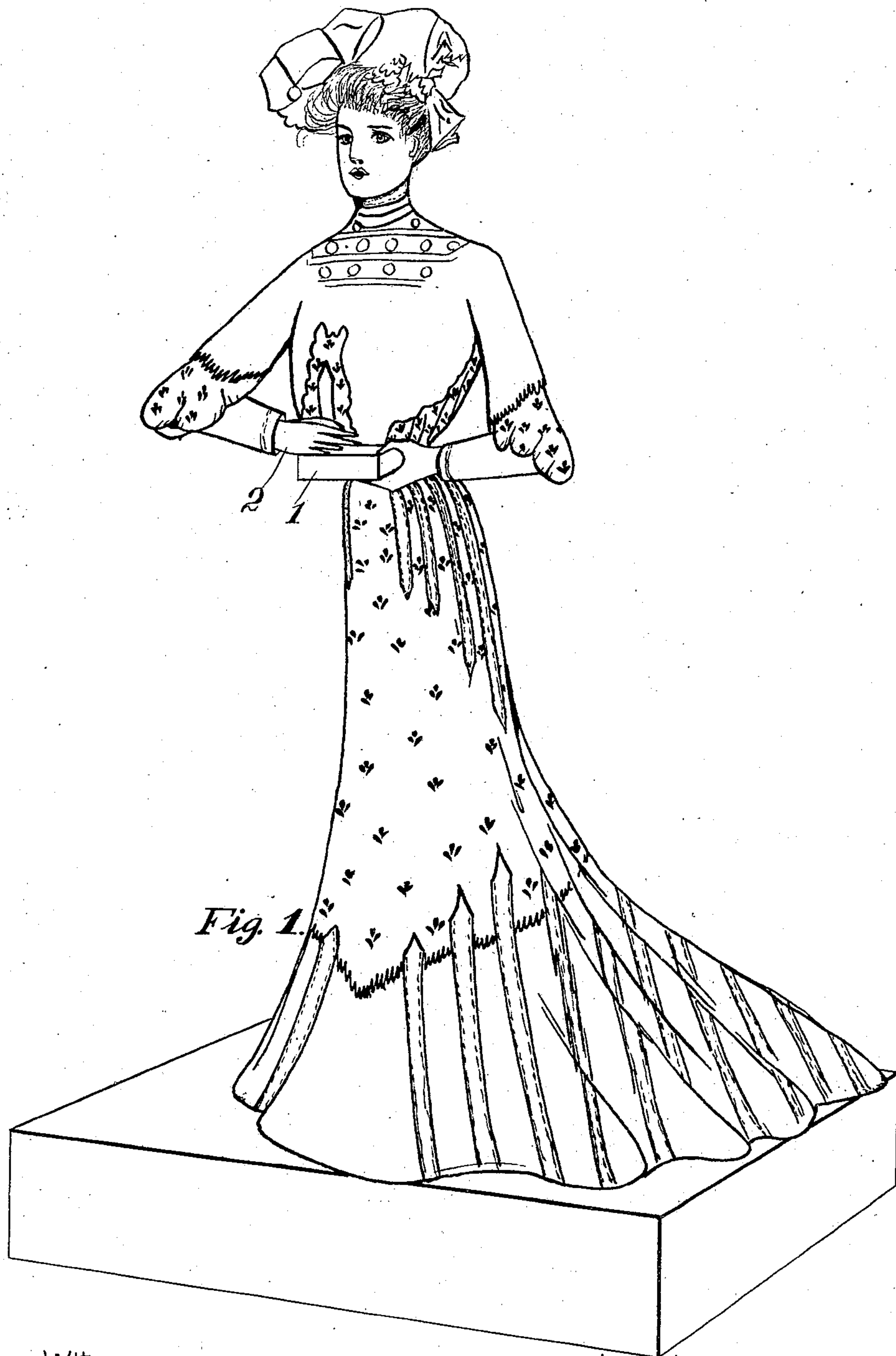
Patented Oct. 21, 1902.

R. H. LITTLE.  
AUTOMATON FIGURE.

(Application filed Apr. 28, 1902.)

(No Model.)

3 Sheets—Sheet 1.



Witnesses:  
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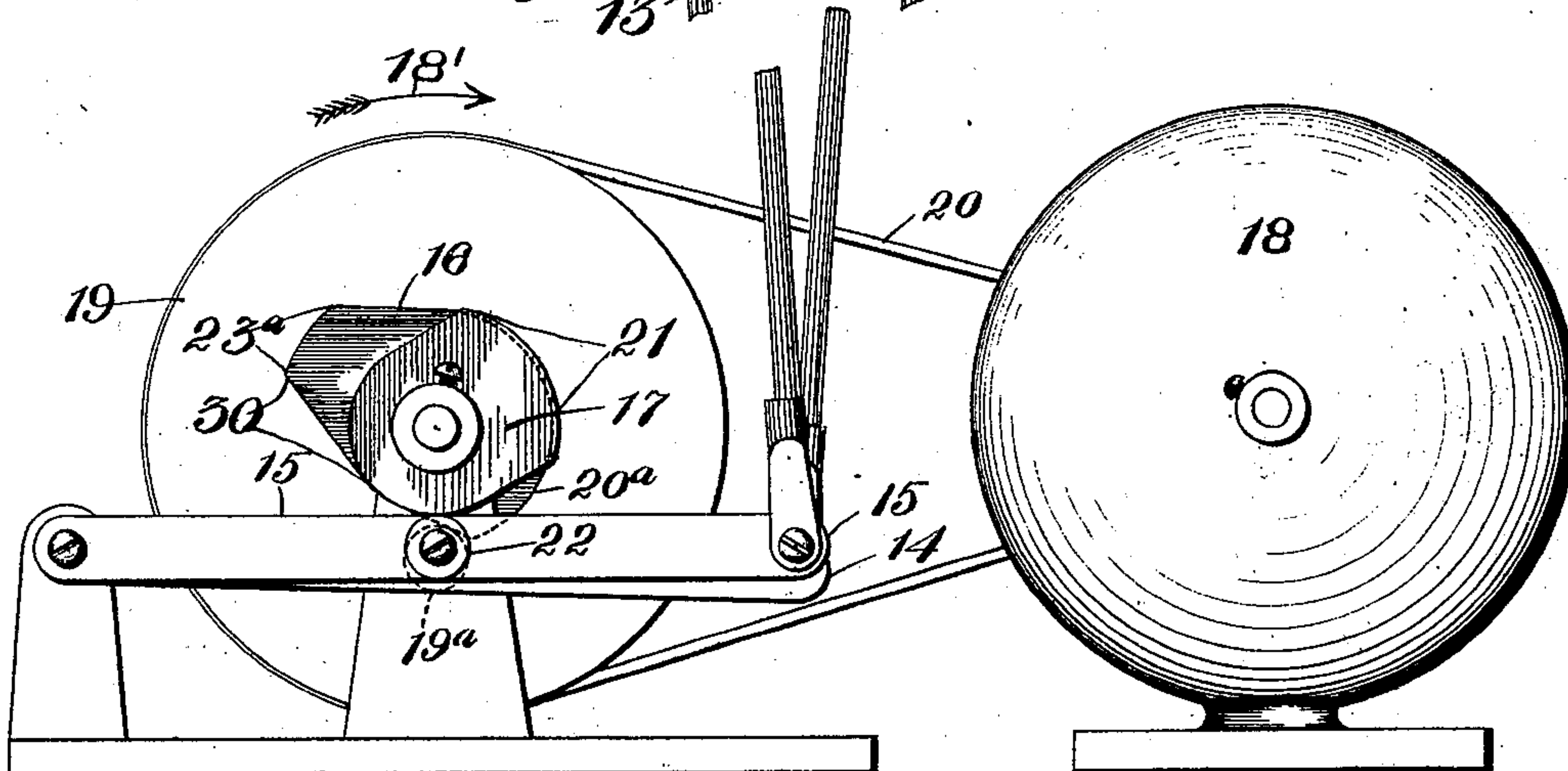
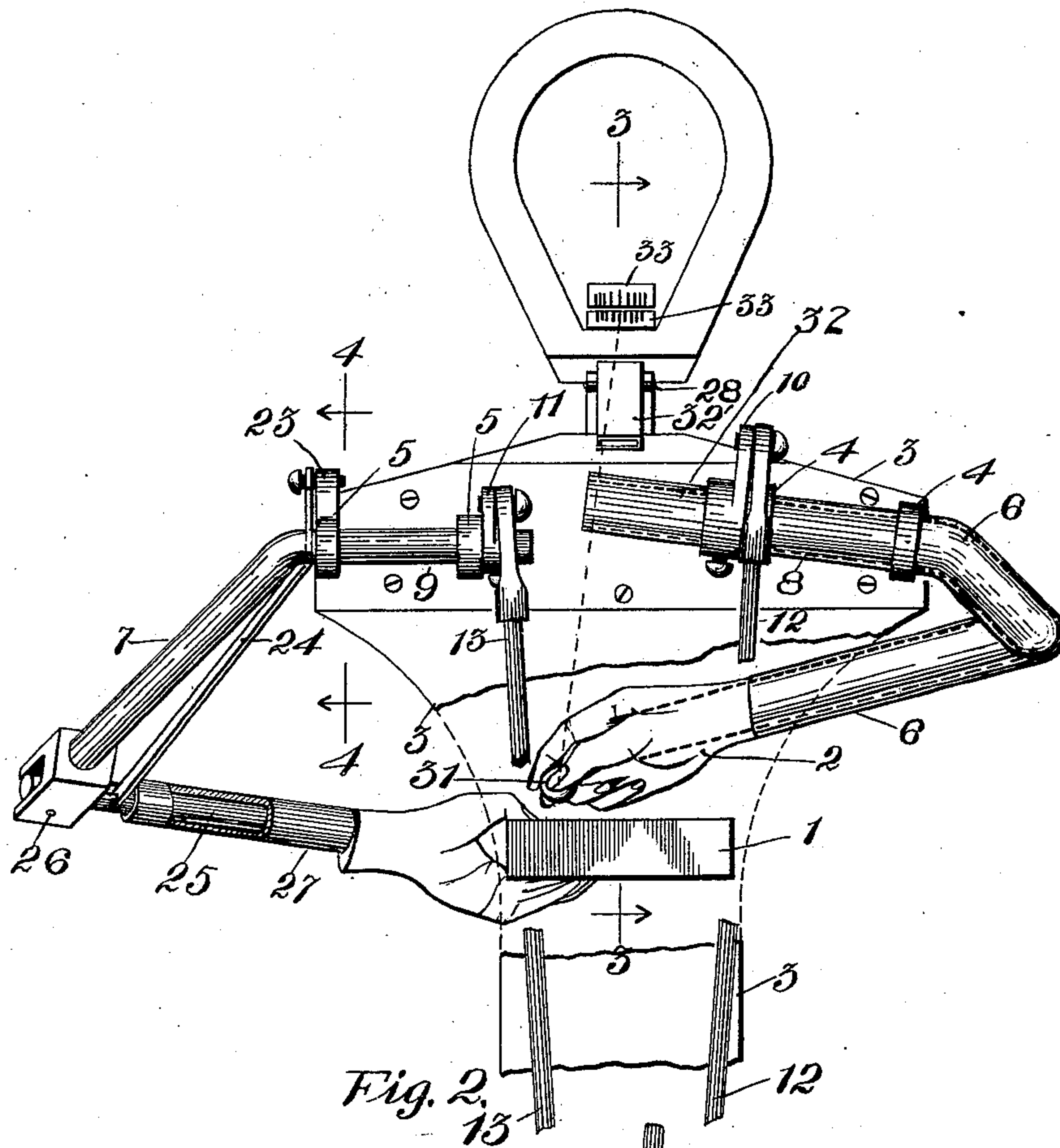
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AUTOMATON FIGURE.

(Application filed Apr. 26, 1902.)

(No Model.)

3 Sheets—Sheet 2.



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No. 711,511.

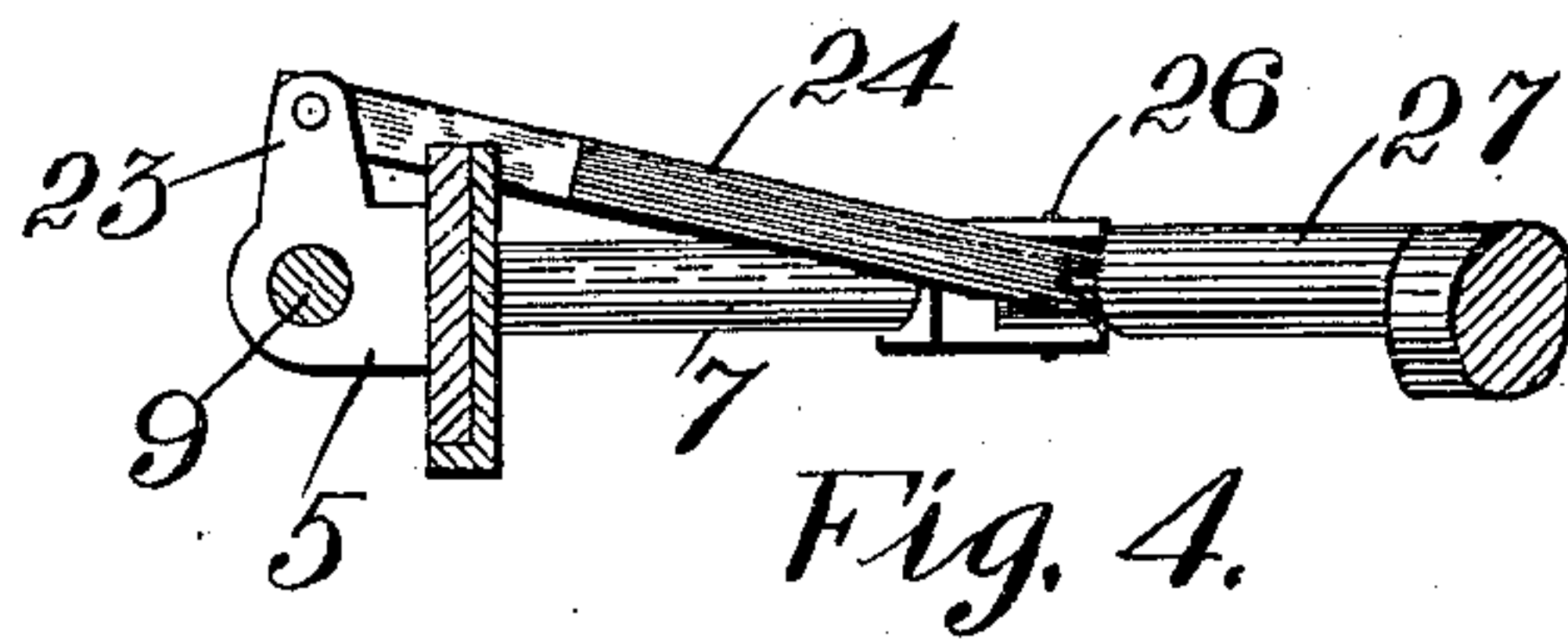
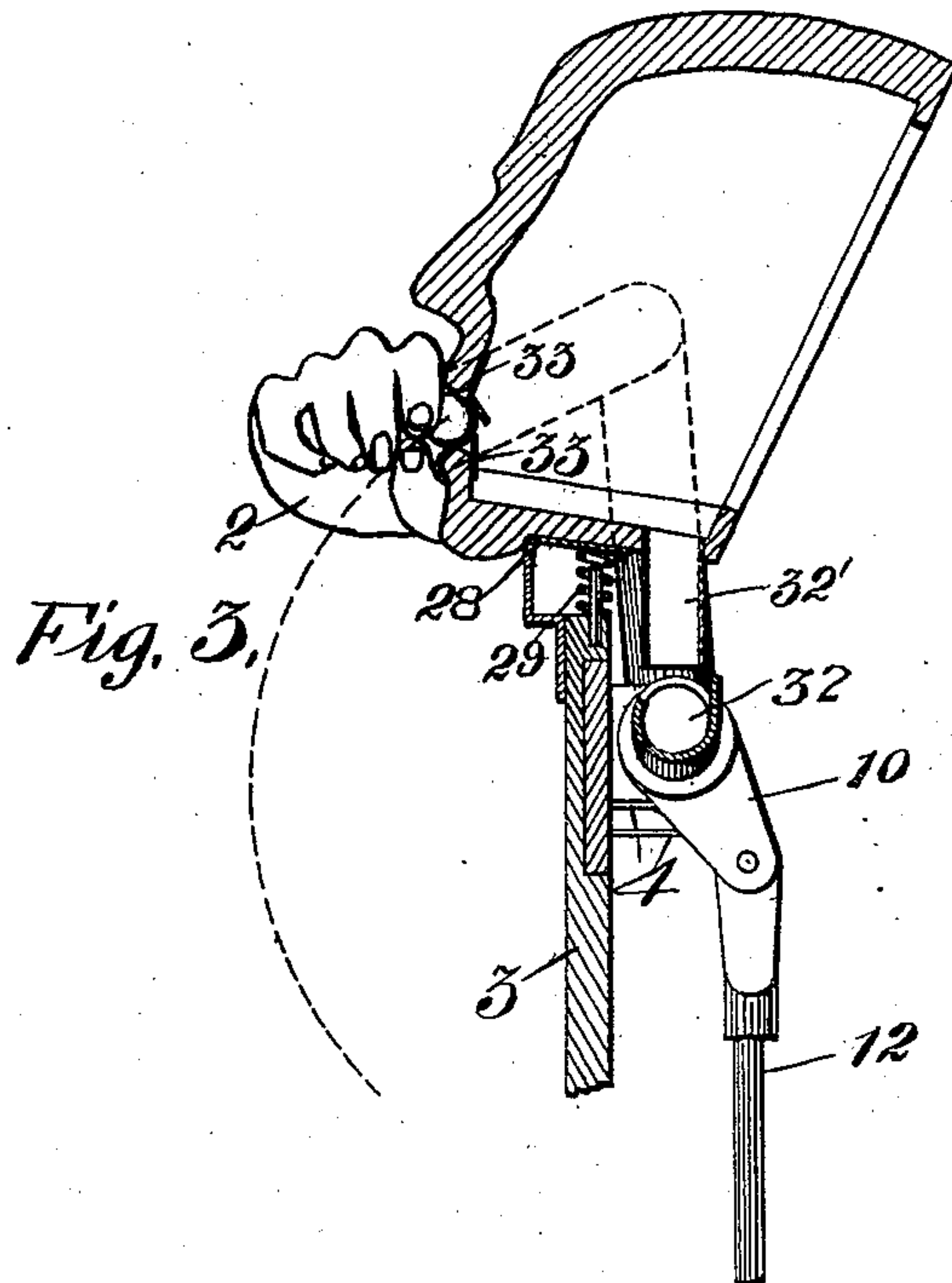
Patented Oct. 21, 1902.

R. H. LITTLE.  
AUTOMATON FIGURE.

(Application filed Apr. 26, 1902.)

(No Model.)

3 Sheets—Sheet 3.



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# UNITED STATES PATENT OFFICE.

ROBERT H. LITTLE, OF CHICAGO, ILLINOIS, ASSIGNOR TO MAURICE H. MANDELBAUM, OF CHICAGO, ILLINOIS.

## AUTOMATON FIGURE.

SPECIFICATION forming part of Letters Patent No. 711,511, dated October 21, 1902.

Application filed April 26, 1902. Serial No. 104,888. (No model.)

*To all whom it may concern:*

Be it known that I, ROBERT H. LITTLE, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a certain new and useful Improvement in Automaton Figures, (Case No. 2,) of which the following is a full, clear, concise, and exact description, reference being had to the accompanying drawings, forming a part of this specification.

My invention relates to automaton figures, and has for its object the provision of a figure of this class which will first move a hand from a receptacle to the mouth of the figure; second, extend the receptacle forward from the figure as in the act of offering a portion of its contents for another to partake of, and, third, to permit the material that may be discharged from the hand into the mouth of the figure to return to this same hand.

I will explain my invention more fully by reference to the accompanying drawings, in which—

Figure 1 is a perspective view of a figure that may embody my invention. Fig. 2 is a rear view of the mechanism of the figure, including a prime mover for operating it. Fig. 3 is a central vertical sectional view showing the manner of the application of the hand to the mouth of the figure, and Fig. 4 is a detail view of the mechanism of the arm that carries a receptacle that is to be extended as in the act of offering the contents thereof to another.

Like parts are indicated by similar characters of reference throughout the different figures.

The invention may be adapted to any form of automaton.

In Fig. 1 the figure of a lady is illustrated, holding in her left hand a box 1, which may be supposed to contain candy, for example, while the other hand, 2, is adapted for placement in the box, as in the act of removing a portion of its contents therefrom. Mechanism is provided whereby the right hand 2 is applied to the mouth of the figure in order that the mouth may receive this material, which may, for example, represent a chocolate drop. Mechanism is also preferably provided whereby after the right hand of

the figure has been partially raised from the receptacle the left hand is moved forward, as in the act of presenting the box 1 to another to partake of its contents. Mechanism is further preferably provided whereby the substance that is transferred to the mouth may find its way through the arm back to the hand, to be thereafter again returned to the mouth. To these various ends I preferably employ the mechanism illustrated in Figs. 2, 3, and 4, wherein I have disclosed a body-frame 3, carrying journals 4 4 and 5 5, in which bearings are respectively journaled the right arm 6 and the left arm 7, these arms having substantially horizontal continuations 8 and 9 at the shoulders of the figure to afford the journal-mountings therefor. Crank connections 10 and 11 are provided upon these horizontal extensions of the arms, which cranks are united by means of pitmen 12 and 13 with swinging arms 14 and 15, which latter arms are operated by cams 16 and 17, respectively, which cams in turn are operated by any suitable form of a prime mover, as an electric motor 18, which motor may, if desired, drive a pulley 19 by means of a belt 20, though I do not wish to be limited to the means by which the arms 14 and 15 are actuated. It will be observed that the cams 16 and 17 are angularly displaced, so that the arms are not similarly operated at the same time. The cams are caused to travel in the direction of the arrow 18', the cam 16 being the first to depress or otherwise operate the arm 14 to cause a slight elevation of the hand 2, a cam-roller 19<sup>a</sup> engaging a peripheral portion 20<sup>a</sup> of the cam 16 that is concentric with relation to the axis of rotation of the cams. When the cam-roller 19<sup>a</sup> is in engagement with this cam portion 20<sup>a</sup>, the hand will be retained in its slightly-elevated position, as it would naturally be after one has abstracted a portion of the contents of the box, preparing to extend the box to another. Shortly after the hand 2 has been thus slightly raised the portion 21 of the cam 17 which is concentric with relation to the axis of rotation of the cams is brought into engagement with the cam-roller 22, and as the portion 21 is further removed from the axis of rotation than any other portion of the cam 17 the arm



15 is depressed, causing a rotation of the left arm and a slight elevation thereof. As the left arm is thus rotated and elevated the left hand, containing the receptacle 1, is extended forwardly, preferably by means of the mechanism illustrated in Figs. 2 and 4, wherein I have disclosed a lug 23 somewhat in the nature of a crank, from which projects a link 24 somewhat in the nature of a pitman, which link has pivotal connection at its lower end with the forearm 25, which forearm is pivoted at 26 to the elbow. It will be apparent that as the left arm is raised, owing to the displacement between the center of rotation of the arm at its shoulder and the connection of the pitman with the crank 23, the arm will be thrust outwardly, moving the box or receptacle forward. The left hand is preferably weighted, being preferably a solid casting, whose center of gravity is below the forearm, and in order that the box may occupy a horizontal position as it is extended this hand is preferably rotatably mounted upon the forearm by being secured to a sleeve 27, which is rotatably supported upon the forearm. The box is elevated during the engagement of the cam portion 21 with the corresponding cam-roller, whereafter it is lowered, the right hand being at the same time started on its further movement toward the mouth. Just before the cam portion 23<sup>a</sup> is engaged with the cam-roller 19<sup>a</sup> the right hand has been engaged with the mouth of the figure to thrust the head thereof back upon its hinged mounting 28 and against the force of a spring 29. After the head has been completely thrust back the portion 23<sup>a</sup> of the cam is engaged with the cam-roller 19<sup>a</sup>, so that the hand may rest for a slight period at the mouth, whereafter the portion 30 of the cam 16 is brought into engagement with the cam-roller 19 to permit the head to resume its normal vertical position and to permit the hand 2 to resume its lower position by the action of gravity.

I have indicated a ball 31 in the right hand of the figure, as this may very readily be discharged into the mouth and may readily find its passage back to the hand through a duct 32, preferably formed for the greater part as indicated by dotted lines in Fig. 2 in the arm. A portion 32' of the duct between the mouth and hand is carried by the head of the figure, being separated therefrom slightly. Communication is established between the duct portions 32 and 32', as indicated most clearly in Fig. 3. After the ball has been discharged into the mouth and upon a lowering of the right hand it will return to the hand the fingers of which are so shaped and relatively disposed as to prevent the ball from falling out as it is being conveyed toward the mouth. The mouth is preferably provided with two flaps 33, cut to represent teeth, between which the ball may readily be passed and which will close after the ball has been passed between the same.

It is obvious that many changes may read-

ily be made in the device of my invention shown, without departing from the spirit of the invention, and I do not, therefore, wish to be limited to the precise embodiment of the invention set forth; but,

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

1. In an automaton figure, the combination with the head and hand portions thereof, the hand being adapted to hold material to be conveyed to the mouth, of means whereby the hand may be applied to the mouth and removed therefrom, and a duct communicating between the mouth and the hand, whereby the substance that is passed to the mouth may be directly returned to the hand, substantially as described.

2. In an automaton figure, the combination with the head and hand portions thereof, the hand being adapted to hold material to be conveyed to the mouth, of means whereby the hand may be applied to the mouth and removed therefrom, a duct communicating between the mouth and the hand, whereby the substance that is passed to the mouth may be directly returned to the hand, the head portion of the figure having a swinging connection, and a spring for supporting the head in its upright position, whereby upon the application of the hand to the mouth the head may be thrust backwardly to resume its normal position through the action of the spring when the hand is removed from the mouth, substantially as described.

3. In an automaton figure, the combination with the arm and hand portions thereof, of means whereby one of the arms may be moved forward and restored to its initial position, whereby the hand upon this arm may be extended as in the act of making an offer and restored, and means whereby the remaining hand of the figure may move from and toward the aforesaid hand as in the act of taking contents therefrom, substantially as described.

4. In an automaton figure, the combination with the arm and hand portions thereof, of means whereby one of the arms may be moved forward and restored to its initial position, whereby the hand upon this arm may be extended as in the act of making an offer and restored, means whereby the remaining hand of the figure may move from and toward the aforesaid hand as in the act of taking contents therefrom, and means whereby the said remaining hand may be brought to the mouth of the figure, substantially as described.

5. In an automaton figure, the combination with the arm and hand portions thereof, of means whereby one of the arms may be moved forward and restored to its initial position, whereby the hand upon this arm may be extended as in the act of making an offer and restored, means whereby the remaining hand of the figure may move from and toward the aforesaid hand as in the act of taking con-



tents therefrom, and means whereby the said remaining hand may be brought to the mouth of the figure, a duct being provided between the head of the figure and the said remaining hand, whereby the substance transferred to the mouth of the figure may be returned to the said remaining hand, substantially as described.

6. In an automaton figure, the combination with the arm and hand portions thereof, of means whereby one of the arms may be moved forward and restored to its initial position, whereby the hand upon this arm may be extended as in the act of making an offer and restored, and means whereby the remaining hand of the figure may move from and toward the aforesaid hand as in the act of taking contents therefrom, a receptacle or box being carried in the first aforesaid hand, from which contents may be seemingly directly taken.

7. In an automaton figure, the combination with the arm and hand portions thereof, of means whereby one of the arms may be moved forward and restored to its initial position, whereby the hand upon this arm may be extended as in the act of making an offer and restored, means whereby the remaining hand of the figure may be moved from and toward the aforesaid hand as in the act of taking contents therefrom, and means whereby the said

remaining hand may be brought to the mouth of the figure, a receptacle or box being carried in the first aforesaid hand from which contents may be seemingly directly taken, substantially as described.

8. In an automaton figure, the combination with the arm and hand portions thereof, of means whereby one of the arms may be moved forward and restored to its initial position, whereby the hand upon this arm may be extended as in the act of making an offer and restored, means whereby the remaining hand of the figure may move from and toward the aforesaid hand as in the act of taking contents therefrom, and means whereby the said remaining hand may be brought to the mouth of the figure, a duct being provided between the head of the figure and the said remaining hand, whereby the substance transferred to the mouth of the figure may be returned to the said remaining hand, and a receptacle or box being carried in the first aforesaid hand from which contents may be seemingly directly taken, substantially as described.

In witness whereof I hereunto subscribe my name this 24th day of April, A. D. 1902.

ROBERT H. LITTLE.

Witnesses:

GEORGE L. CRAGG,  
JOHN STAHR.