

916,105.

2 SHEETS—SHEET 1.



Geo. W. Naylor
C. W. Fairbank

INVENTOR

Charles W. Clark

BY *Mumukshu*

ATTORNEYS.

916,105.

2 SHEETS—SHEET 2.

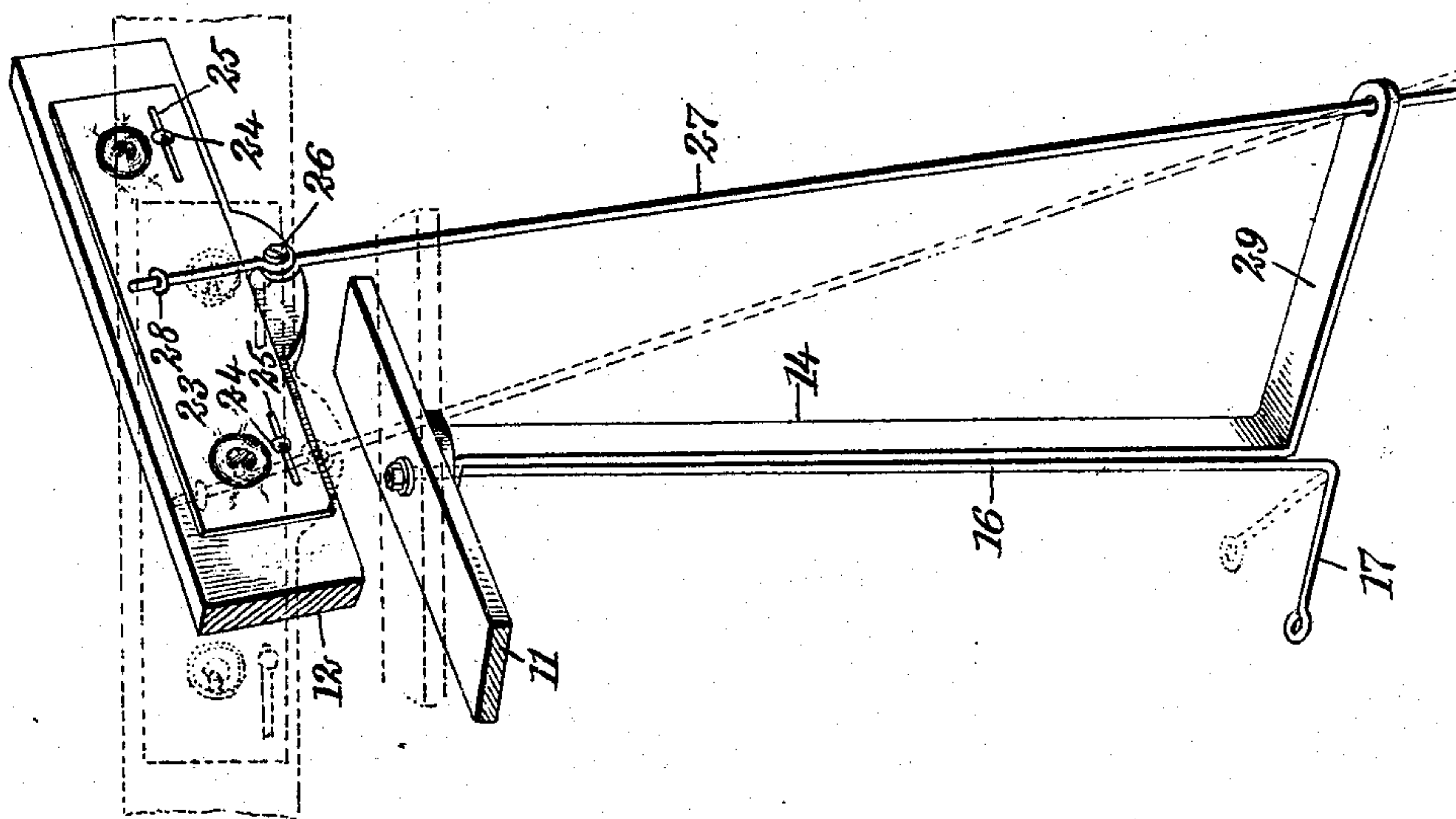


Fig. 3.

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UNITED STATES PATENT OFFICE.

CHARLES W. CLARK, OF NEW YORK, N. Y., ASSIGNOR TO E. I. HORSMAN CO., OF
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AUTOMATON.

No. 916,105.

Specification of Letters Patent.

Patented March 23, 1909.

Application filed November 9, 1908. Serial No. 461,647.

To all whom it may concern:

Be it known that I, CHARLES W. CLARK, 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 Automaton, of which the following is a full, clear, and exact description.

This invention relates to certain improvements in automatons or mechanically-operated dummy figures, and relates more particularly to the mechanism for oscillating the head and eyes of the figure.

The figure is adapted for use as an advertising medium and may be placed in store windows or in any other place where it is desired to attract the attention of passers-by. The mechanism involving my invention serves to slowly oscillate the head about a substantially vertical pivot, and, at the same time, to move the eyes in a substantially lateral direction. I am aware that automatons have been designed in which the head is moved and in which the eyes are also moved, but in my improved construction the main feature is the extremely simple and inexpensive mechanism for accomplishing the desired results.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the figures, and in which—

Figure 1 is a side elevation of the mechanism involving my invention, the head of the automaton being shown in section; Fig. 2 is a face view of the automaton, a portion thereof being broken away; and Fig. 3 is a perspective view of a portion of the eye-operating mechanism.

The head illustrated in the accompanying drawings is designed to be used in connection with the body and limbs going to make up a complete figure, but inasmuch as the only features of the figure which involve my invention reside in the head and eye-operating mechanism, I have not illustrated the body or limbs.

The head 10 may be formed of any suitable material, as, for instance, papier-mâché, stiffened cloth, or the like, but it is preferably hollow and very light in weight. Extending transversely of the head and rigidly secured to opposite sides thereof, is a bar 11, having engagement with the support for the

head, and substantially parallel to this bar is a second bar 12, serving as a support for the eyes. Both bars are preferably of wood and are secured to the wall of the head in any suitable manner, so as to be rigid in respect thereto. Within the body of the figure is any suitable form of framework which preferably includes a transverse bar 13, extending from one shoulder to the other and rigid in respect to the body, and extending upwardly from this bar and rigid in respect thereto, is a standard 14, terminating in a laterally-extending lug 15 within the head and adjacent the under surface of the transverse bar 11. The entire weight of the head is borne by this standard.

For oscillating the head, I provide a vertically-extending shaft 16, the upper end of which extends through the lug 15 and is rigidly secured to the transverse bar 11. The lower end of the shaft extends through the transverse bar 13 and is bent at right angles to form a crank arm 17. This crank arm is connected by a link 18 to a crank disk 19 of suitable clockwork within the body. The clockwork may be of any suitable character and may be designed to run at any suitable speed. The clockwork is preferably operated by a spring 20 and has a fan wheel governor 21 to limit the speed of rotation. Upon winding up the spring, the crank wheel 19 is slowly rotated and by means of the link connections 18, the shaft 16 is slowly oscillated from side to side. The standard 14 remains stationary but the transverse bar 11 and the head turn, and to reduce friction any suitable form of washer 22 may be inserted between the upper end of the standard and said transverse bar. In connection with this head-oscillating mechanism, I provide an improved eye-moving mechanism, the operation of which is dependent upon the oscillation of the head. The eyes are printed or painted on a slide 23 carried by the transverse bar 12 and adapted to move laterally in respect thereto. The bar 12 is preferably provided with two outwardly-extending studs 24, which are received within corresponding slots 25 in the eye-slide 23, so that the slide may have a limited movement in respect to the bar but cannot become accidentally separated therefrom. At the lower end of the bar 12 and intermediate its ends, is a pivot pin 26, upon which is mounted a lever 27. The up-

per end of this lever lies in engagement with the front side of the eye-slide 23 and is secured thereto by a loop or eyelet 28 intermediate the upper and lower edges of said slide. The lever is free to move within the eyelet 28, so that as the lower end of the lever is moved laterally about the pivot 26, the upper end of the lever causes the eye-slide to move lengthwise of the bar 19. The eyes are thus unattached to the head and movable in respect thereto and may be seen through suitable openings in the face. The lower end of the lever 26 extends through an opening in a forwardly-extending bracket or stationary bar 29 carried by the transverse bar 13 or by any other stationary part of the figure.

The operation of the eye-moving mechanism may be best understood from an inspection of Fig. 3. It will be noted that the standard 14 and the bracket 29 are stationary in respect to the body of the figure, and that the transverse bars 11 and 12 are rigid in respect to each other and in respect to the head of the figure. As the head oscillates by the oscillation of the shaft 16, the transverse bar 12 and the eye-slide 23 are moved therewith but the lower end of the lever 27 is held from corresponding movement by the bracket 29, so that as the bar 12 is moved in respect to the bracket 29, the lever 27 is held stationary at one end and moved at the pivot 26. This movement of the lever 27 about the pivot 26 causes the eye-slide 23 to move lengthwise of the bar 12 and in the same general direction as said bar is already moving. Thus, when the head is in the intermediate position, the eyes on the slide 23 are directly behind the eye openings, but as the head oscillates to one side, the eyes are moved in the same direction and to a still greater extent so that the range of movement of the eyes is greater than the range of movement of the head.

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

1. An automaton, including a head, a slide provided with eyes, means for oscillating said head, and means for moving said slide laterally in respect to the head during the oscillation of the latter and in the same direction.

2. An automaton having a head provided with eyes, means for oscillating said head about a substantially vertical axis, a slide within the head and having said eyes operated thereby and means for moving said

slide in respect to the head and in the same direction and through a greater range of movement.

3. In combination, a head, means for oscillating the same, laterally-movable eyes within said head, an operating lever pivoted within said head and having operative engagement with the eyes, and means independent of the head for holding a portion of said lever substantially stationary, whereby the oscillation of the head and the pivot moves said lever to shift the eyes.

4. In combination, a head, means for oscillating the same about a substantially vertical axis, an eye slide within said head and movable transversely thereof, a lever pivoted within said head and having operative connections with said slide, and means for holding a portion of said lever substantially stationary in respect to the head, whereby the oscillation of the head causes a movement of the slide in respect to the head.

5. In combination, a substantially hollow head having a transverse bar rigidly secured therein, an eye slide carried by said bar and movable laterally, a lever pivoted to said bar and having operative engagement with said slide, and means for moving said lever about said pivot.

6. In combination, a head, means for oscillating the same about a substantially vertical axis, said means including a transverse bar within said head and rigidly secured to opposite sides of the latter, a standard extending into said head and having engagement with the under side of said bar, a rock shaft substantially parallel to said standard and rigidly secured to said bar, and clockwork connected with said shaft at the lower end thereof for oscillating the latter and said head.

7. In combination, a head having two transverse bars therein, means for engagement with one of said bars for supporting the head, an eye-slide carried by the other of said bars, means in engagement with the first-mentioned bar for oscillating the head, and means in engagement with said eye-slide and controlled by the oscillation of the head for moving the eyes relatively to the latter.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

CHARLES W. CLARK.

Witnesses:

E. I. HORSMAN, Jr.,
ALFRED W. BOWIE.