

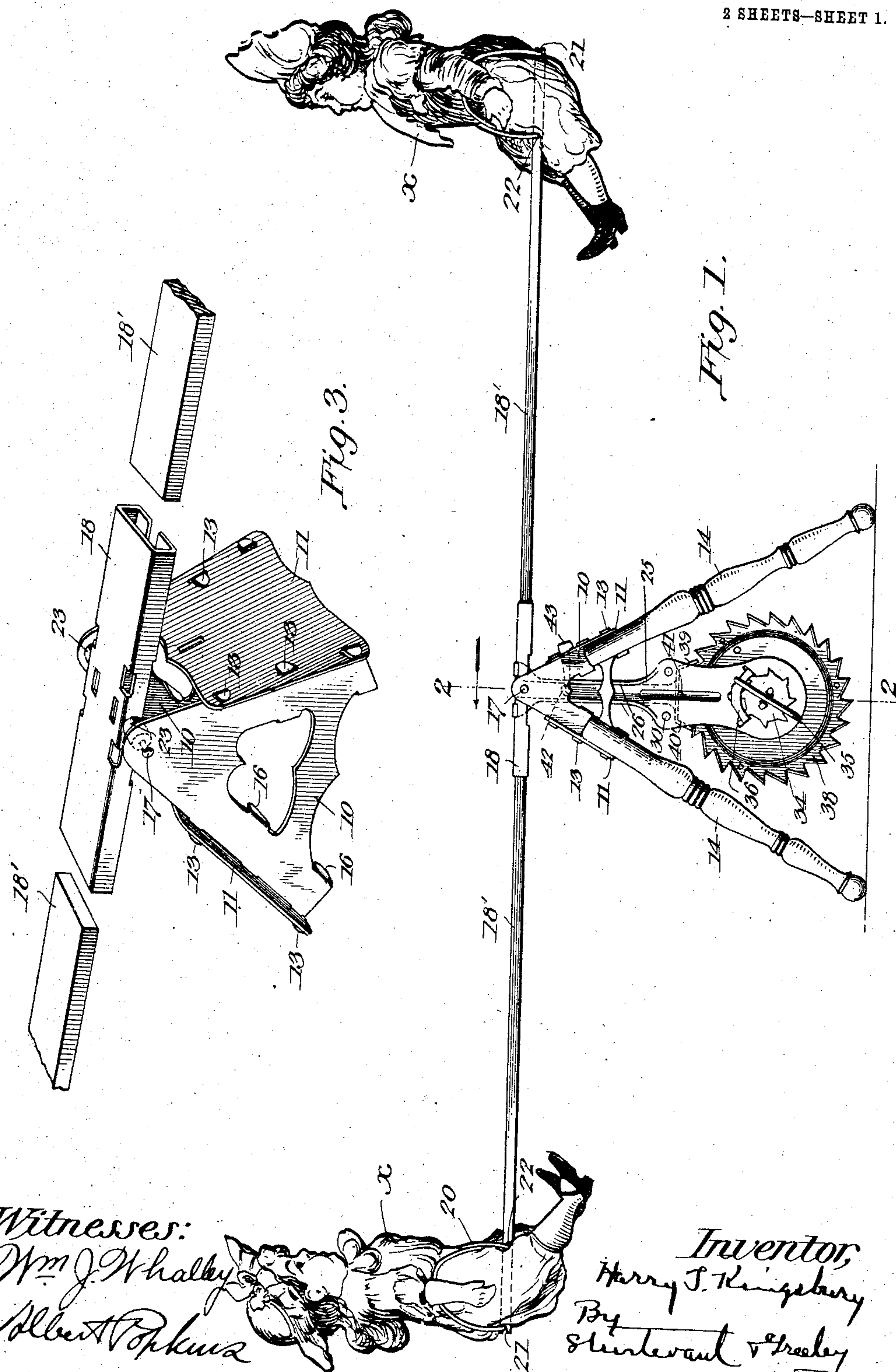
No. 834,140.

PATENTED OCT. 23, 1906.

H. T. KINGSBURY.
SEESAW.

APPLICATION FILED NOV. 21, 1905.

2 SHEETS—SHEET 1.



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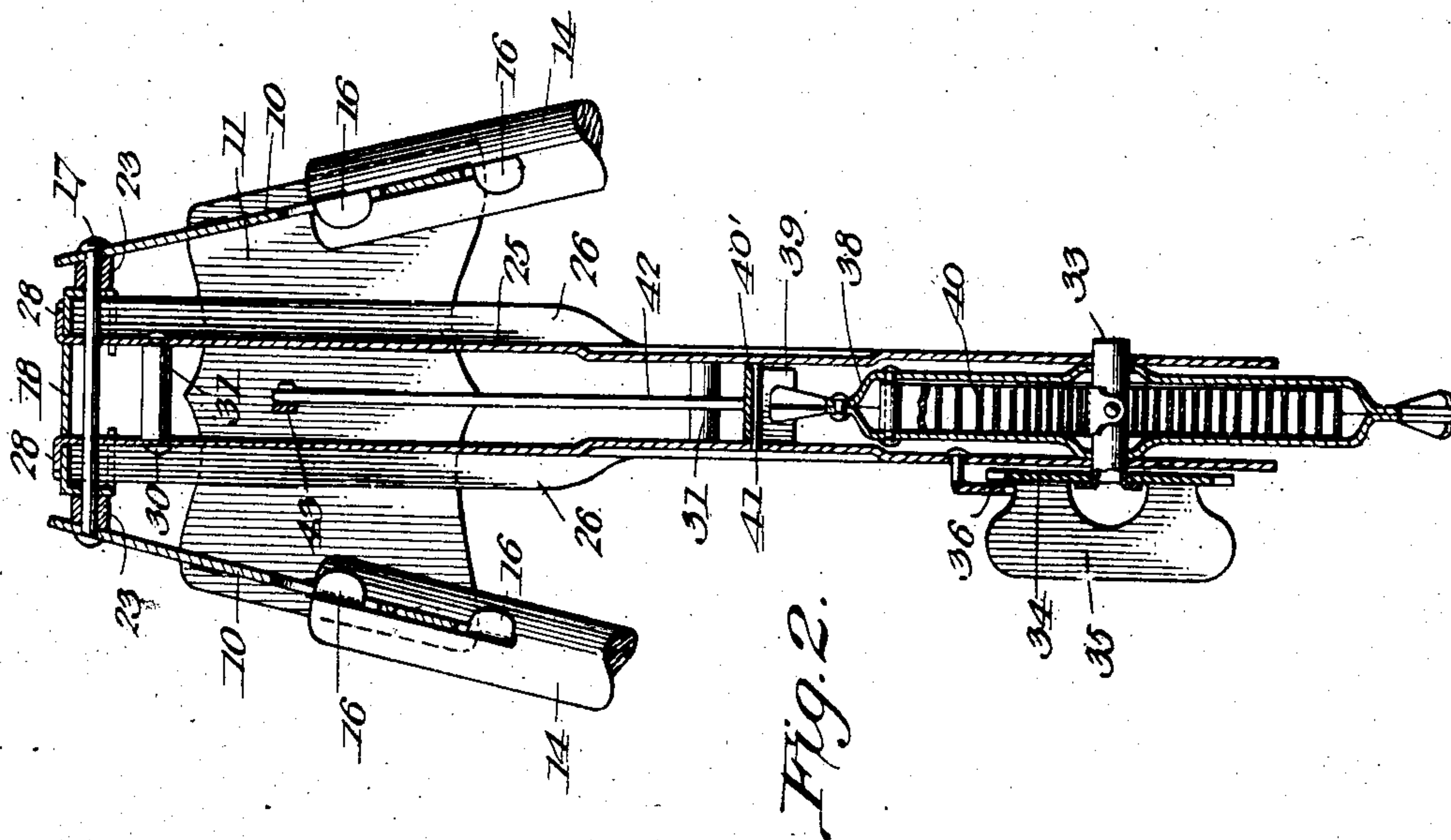
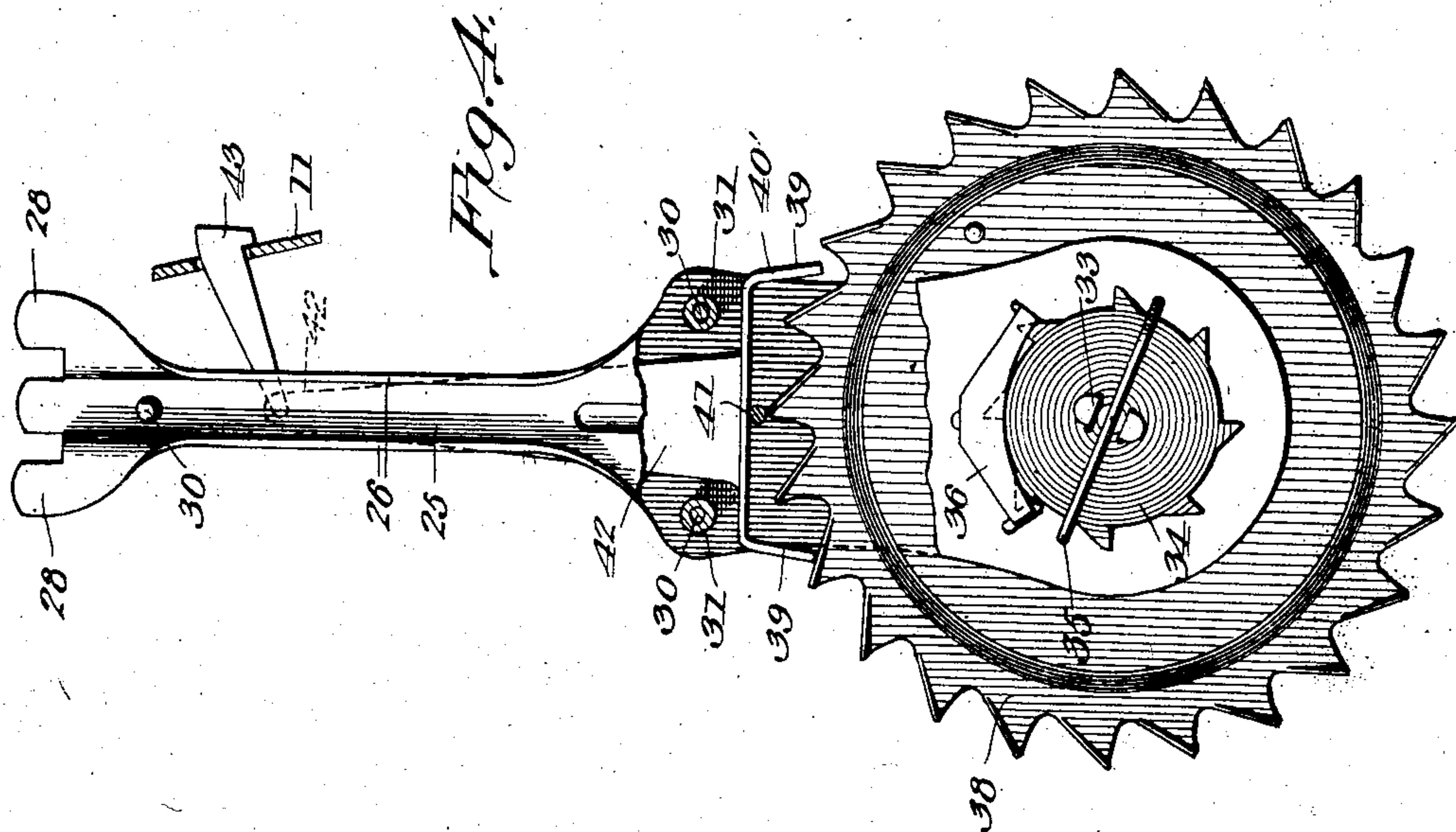
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2 SHEETS—SHEET 2.



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UNITED STATES PATENT OFFICE.

HARRY T. KINGSBURY, OF KEENE, NEW HAMPSHIRE.

SEESAW.

No. 834,140.

Specification of Letters Patent.

Patented Oct. 23, 1906.

Application filed November 21, 1905. Serial No. 288,415.

To all whom it may concern:

Be it known that I, HARRY T. KINGSBURY, a citizen of the United States, residing at Keene, in the county of Cheshire, State of New Hampshire, have invented certain new and useful Improvements in Seesaws, of which the following is a description, reference being had to the accompanying drawings and to the figures of reference marked thereon.

This invention relates to seesaws, and while intended primarily for use as a toy it may also be employed to advantage as an amusement device and constructed on a large scale in order to carry passengers.

One of the principal objects of the invention is to provide a power-driven seesaw in which the center of gravity of the seesaw-arms is arranged below the fulcrum of the latter.

A further object of the invention is to provide a seesaw in which the movable member carries the propelling mechanism.

A still further object of the invention is to provide a seesaw in which the motor mechanism is arranged below the fulcrum-point of the seesaw and is carried by a swinging pendulum that serves in part to regulate the speed of movement of the device.

A still further object of the invention is to provide a device of this character in which a swinging motor element carries an escapement-wheel, the movement of which is timed by an anchor connected to a stationary portion of the frame and arranged to release the escapement-wheel only on the completion of a full movement.

A still further object of the invention is to provide a device of this type which may be cheaply constructed and which may be knocked down and packed in small space for shipment or storage.

With these and other objects in view the invention consists in the combination of elements hereinafter described, and referred to in the appended claims.

The invention is illustrated in the accompanying drawings, in which—

Figure 1 is a side elevation of a seesaw constructed in accordance with the invention. Fig. 2 is a transverse sectional view of the same on the line 2 2 of Fig. 1. Fig. 3 is an enlarged sectional perspective view of the up-

per portion of the frame and the central member of the seesaw, and Fig. 4 is an enlarged detail view of the motor mechanism.

Similar numerals of reference indicate corresponding parts throughout the description.

The main frame of the device comprises a pair of triangular or A frames 10, which are united by transverse plates 11, the latter being provided with small slits to receive tongues 13, projecting from the edges of the plates 10, said tongues being bent out to secure the plates firmly together.

To the plates 10 are fitted inclined legs 14, which preferably are provided with simple slits for the reception of said plates and are readily removable to permit packing in the box or other shipping-receptacle. These legs are held from lateral displacement on one side by the projecting ends of the plates 11 and in the opposite side by tongues 16, bent inward from the edges of the plates.

The two plates are provided with openings for the reception of a transversely-extending shaft 17, on which is mounted a center piece 18, formed of sheet metal, the side walls of which are bent downward and thence inward to form pockets for the reception of the carrying-arms 18. These arms in a toy structure are preferably formed of wood and may be adjusted toward or from the fulcrum-point to obtain a perfect balance. On the outer ends of the arms are arranged dolls or other figures *x*, which may be held in place by wire straps 20, the central portions of which are seated in end recesses 21 in the arms, while the ends of said straps enter openings 22, formed in the sides of the arms. The center piece is held midway between the plates 10 by suitable filling-blocks or sleeves 23, and secured to and depending from said center piece is a motor-carrying frame 25.

The frame 25 is formed of two spaced pieces of sheet metal, the upper portions of which are provided with side flanges 26 for strengthening purposes, and projecting from the upper ends of these side pieces are tongues 28, which enter slits in the center piece and are bent over to secure the parts firmly together. This structure is further strengthened by a number of cross-bars 30 and spacing-collars 31 between the members of the frame. The frame members 25 are provided with bearing-openings for the reception of a shaft 33, to

one end of which is rigidly secured a ratchet-wheel 34 and a winding-handle 35. The teeth of the wheel are engaged by a pawl 36, which prevents reverse movement of said wheel.

Mounted on the shaft and free to rotate independently thereof is an escapement-wheel 38, which is formed of two die-shaped disks of metal, the central portions of which are
10 dished to form a centrally-disposed circular spring-barrel in which is arranged the motor-spring 40, one end of the spring being secured to the shaft and the other to the escapement-wheel.

15 In manufacturing the wheel the metal at one edge of each tooth is twined outward or flanged during the die-shaping of the disks, and as a result the teeth have broad bearing-surfaces for contact with the pallets 39 of the anchor. The anchor is pivoted on an
20 arbor 41, and from its upper face extends an arm 42, the upper end of which has a loose pivotal connection with an arm 43, extending inward from one of the plates 11.

25 In operation, the spring being wound, it is merely necessary to overcome the inertia of the device, and after this start the spring, acting through the escapement-wheel and anchor, will keep the movable arms and center
30 piece swinging until the spring runs down.

The device may be readily knocked down and packed in a small space for shipment or storage.

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

1. In a seesaw, a frame, a swinging member supported thereby, and a spring-motor mechanism carried by said member; substantially as described.

2. In a seesaw, a frame, a swinging member supported thereby, a motor carried by the swinging member, and a connecting means between said motor and frame; substantially as described.

3. In a seesaw, a frame, a swinging member supported thereby, a motor carried by the swinging member and including an escapement mechanism, one member of which
50 is connected to the frame; substantially as described.

4. In a seesaw, a frame, a swinging member supported thereby, a motor carried by the swinging member, an escapement-wheel forming a part of the motor, an anchor engaging the wheel, and means for connecting said anchor to the frame; substantially as described.

5. In a seesaw, a frame, a swinging member supported thereby, a motor carried by said swinging member, an escapement-wheel driven by the motor, an anchor mounted on the swinging member and engaging the wheel, and a rod extending from the anchor and con-
60

nected to the frame; substantially as described. 65

6. In a seesaw, a frame, and a swinging member fulcrumed thereto, the center of gravity of said swinging member being in a horizontal plane below the horizontal plane
70 of the fulcrum, a motor carried by the swinging member, and a connection between the motor and the frame; substantially as described.

7. In a seesaw, a frame, a swinging member pivoted thereto, and a suspended spring-motor, the weight of which brings the center of gravity of the moving part below the pivot-point; substantially as described. 75

8. In a seesaw, a frame, a swinging member pivoted thereto, a pendulum-like frame suspended from said member, and a spring-motor carried by the pendulum-frame; substantially as described. 80

9. In a seesaw, a center piece pivoted thereto and having end sockets, arms adjustably mounted in the sockets and having end recesses and detachable figure-holding straps at the outer ends of said arms, the central portions of said straps being sealed in the end
90 recesses and the ends of the straps engaging the sides of said arms; substantially as described.

10. In a toy seesaw, a frame including triangular side plates, transverse plates connecting the same, detachable legs or standards having slits for the reception of the lower edges of the plates, and a movable member pivoted to said frame; and having detachable arms and figures adapted to be secured
100 to said arms; substantially as described.

11. In a seesaw, a frame including triangular side plates, transverse plates connecting the same, detachable legs or standards having slits for the reception of the lower edges
105 of the plates, and a movable member pivoted to said frame; substantially as described.

12. In a seesaw, a frame including triangular side plates, transverse plates connecting the same, detachable legs or standards connected to said plates, a shaft or spindle carried by the frame, and a movable member mounted on said shaft; substantially as described. 110

13. In a seesaw, a frame, a center piece pivoted thereto, arms connected to said center piece, a pendulum-frame suspended from the center piece and formed of a pair of spaced plates, a shaft journaled at the lower ends of said plates, an escapement-wheel
120 mounted in said shaft, a motor-spring connecting the shaft and wheel, an anchor pivoted to the pendulum-frame, and engaging the wheel, a rod extending from the anchor and an arm carried by the frame and to
125 which said rod is connected; substantially as described.

14. In a seesaw, a frame, a movable mem-

ber pivoted thereto, a pendulum-frame sus-
pended from said member, a winding-shaft,
an escapement-wheel mounted thereon, said
wheel being formed of a pair of disks having
5 their central portions dished to form a spring-
barrel, a spring arranged therein and having
one end connected to the shaft and the other
to the wheel, and an anchor engaging the

teeth of said wheel; substantially as de-
scribed.

In testimony whereof I affix my signature
in presence of two witnesses.

HARRY T. KINGSBURY.

Witnesses:

W. L. MASON,

L. C. GREENLEAF.