

B. MATHEWS.  
Improvement in Tilting-Machines.  
No. 126,975. Patented May 21, 1872.

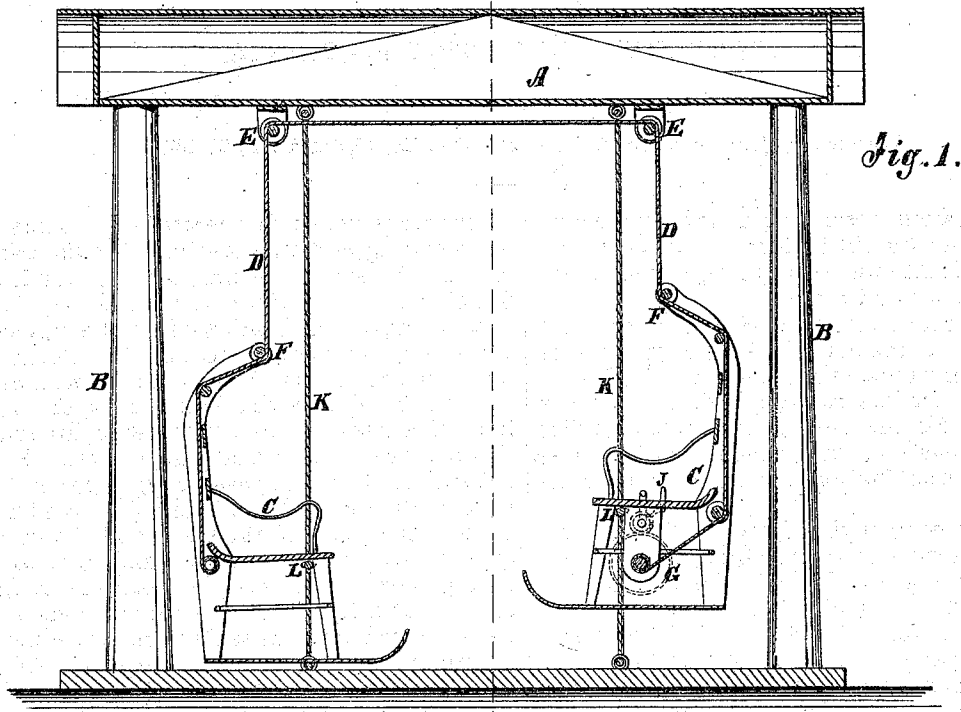


Fig. 1.

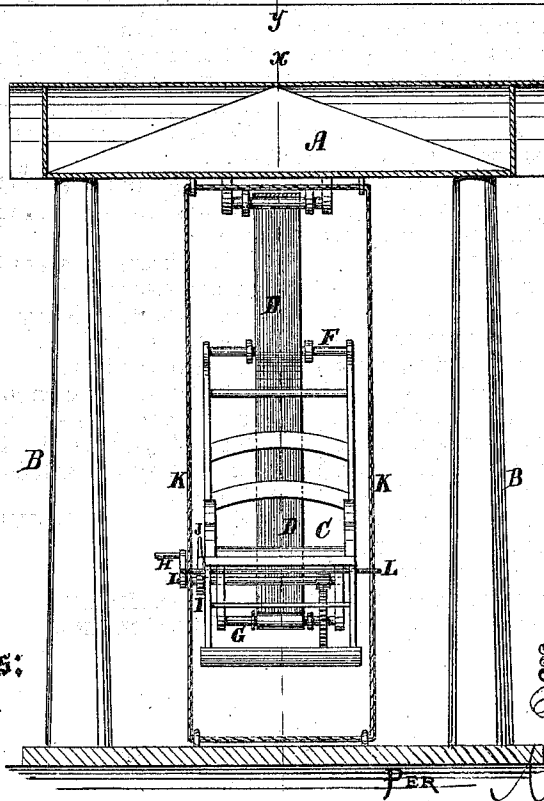


Fig. 2.

Witnesses:

A Bennekenhof.  
Geo M. Mabee

Inventor:

B. Mathews

Attorneys.

# UNITED STATES PATENT OFFICE.

BOWEN MATHEWS, OF KEYPORT, NEW JERSEY.

## IMPROVEMENT IN TILTING-MACHINES.

Specification forming part of Letters Patent No. 126,975, dated May 21, 1872.

Specification describing a new and useful Improvement in Tilting-Machines, invented by BOWEN MATHEWS, of Keyport, in the county of Monmouth and State of New Jersey.

The object of this invention is to furnish a machine for the amusement or exercise of children, invalids, and others, designed as a substitute for the rotating swing and other machines for the amusement of the public; and it consists in the construction, arrangement, and combination of parts hereinafter described.

In the accompanying drawing, Figure 1 is a vertical section of the machine taken on the line *x x* of Fig. 2. Fig. 2 is a vertical section taken on the line *y y* of Fig. 1.

Similar letters of reference indicate corresponding parts.

This apparatus consists in one or more chairs or seats suspended from any elevated point, as, for instance, the roof or upper timbers or ceiling of a building, or branch of a tree, or similar fixture, so that such chair or seat or seats will tilt or rise and fall at the option of the occupants.

In this example of my invention I show two seats, so arranged that one will balance the other; but a single chair or seat may be so arranged, with a weight to balance a chair or seat and its occupant or occupants.

A represents the ceiling or suspending-timber supported by the pillars B. C C are two chairs or seats for accommodating one or more occupants each, which are connected together by the band D. This band passes over the fixed rollers E E, and is so connected with the seats and their backs that such seats or chairs are supported in the proper position for the occupants. In this case the backs are curved forward, and the band is attached beneath or back of the seats, and carried up and under rounds F F at the tops of the backs, as seen in the drawing. The band D is adjusted as to length by means of a windlass, G, under one

of the seats, which is operated by means of spur-gearing, seen in dotted lines, and the crank H. On the end of the pinion-shaft, outside of the seat, is a ratchet-wheel, I. J is a spring-pawl lever, which bears against the ratchet-wheel with a constant pressure, but which is under the control of the occupant at all times, as is the crank H, so that he can raise or lower himself at pleasure, and increase or diminish the distance the seat shall rise and fall. K K are stay-cords, which pass through eyes on the ends of the rods L L. These rods L are fixed to the under sides of the seats, and the cords serve to keep the seats steady and from oscillating. Vertical rods may be arranged through the eyes of L L. Either the cords or rods may be connected with the seats in any other manner for the same or a similar purpose. These cords being at the right and left hands of the occupant, they serve as a hold for the hands, and enable him to support a portion of his weight thereby, for the purpose of equalizing the weight in the two seats.

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

1. The chairs or seats C C, connecting-band D, and windlass G, arranged substantially as specified.
2. The chairs or seats C C, constructed as shown and described.
3. The windlass G, crank H, ratchet I, and spring-pawl lever J, in combination with the seat C, as described.
4. The band D, in combination with the seats C, (one or more,) as shown and described.
5. The stay-cords K K, arranged to pass through the eyes L attached to the chairs C, as set forth.

BOWEN MATHEWS.

Witnesses:

JAMES BEALE,  
JOEL COLLINS.