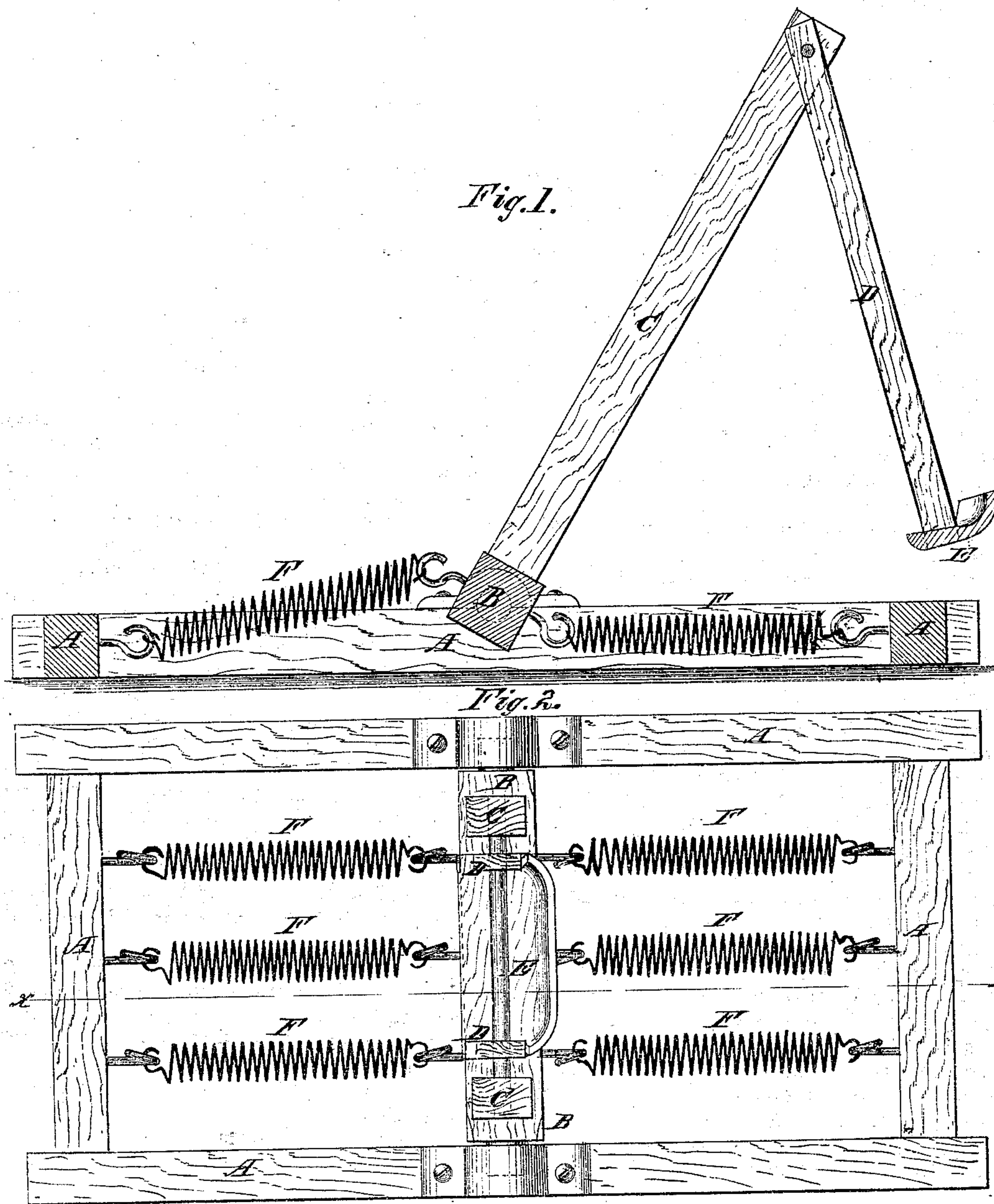


E. A. TUTTLE.
Swings.

No. 135,738.

Patented Feb. 11, 1873.



Witnesses:

P. C. Dietrich.

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Inventor:

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UNITED STATES PATENT OFFICE.

EDWARD A. TUTTLE, OF WILLIAMSBURG, NEW YORK.

IMPROVEMENT IN SWINGS.

Specification forming part of Letters Patent No. **135,738**, dated February 11, 1873.

To all whom it may concern:

Be it known that I, EDWARD A. TUTTLE, of Williamsburg, in the county of Kings and State of New York, have invented a new and useful Improvement in Swings, of which the following is a specification:

In the accompanying drawing, Figure 1 is a detail vertical section of my improved swing taken through the line *xx*, Fig. 2. Fig. 2 is a top view of the same.

Similar letters of reference indicate corresponding parts.

My invention has for its object to furnish an improved swing for children, which shall be so constructed that the seat of the swing, throughout the whole extent of its vibration, may be close to the ground, thus obviating the danger of injury from an accidental fall from the swing; and it consists in the pivoted posts, uprights or frame, and springs for supporting the pendent vibrating arms and seat, as hereinafter more fully described.

A represents the base-frame of the swing, which should be of such a size and weight as to give a firm support to the swing. To bearings attached to the frame A or to other suitable support is pivoted a cross-beam, B, to which are securely attached the lower ends of the posts C, which are placed at such a distance apart as to receive the pendent arms and seat between them. D are bars or arms, the upper ends of which are pivoted to and between the upper ends of the posts or uprights C by a rod, or by other suitable means. To the lower ends of the arms or bars D is

attached the seat E in which the person being swing sits. F are coiled wire or other suitable springs, one end of which is connected with the end bars of the base-frame A by hooks or other suitable detachable means. The other ends of the springs F are connected with the pivoted cross-bar B, or with the lower ends of the posts or uprights C, by hooks or other suitable detachable means.

By this construction, as the pendent arms or bars and seat vibrate upon their suspension pivots, the posts, uprights, or frame C will vibrate upon its pivots, so that the seat of the swing may move back and forth in nearly a horizontal line.

The strength of the springs F should be regulated, according to the weight of the person or persons using the swing, so that the seat will not come in contact with the ground.

If desired, the springs F may be replaced by equivalent weights suspended from or connected with the uprights C, so as to balance the pendant as it swings back and forth.

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

The pivoted posts, uprights, or frame C and springs F, or equivalent counter-balance, for supporting the pendent bars or arms D and seat E, substantially as herein shown and described, and for the purpose set forth.

EDWARD A. TUTTLE.

Witnesses:

JAMES T. GRAHAM,
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