

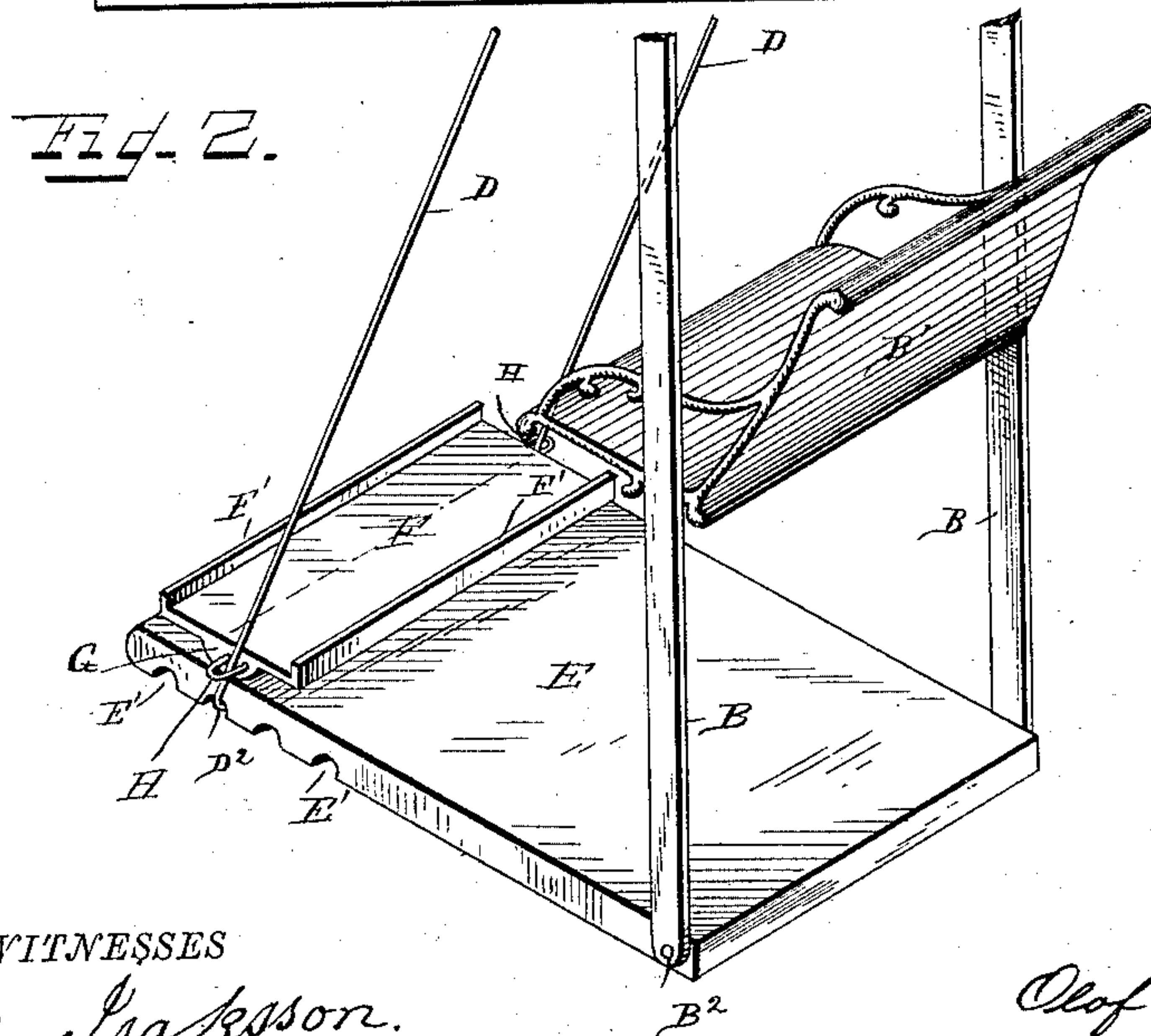
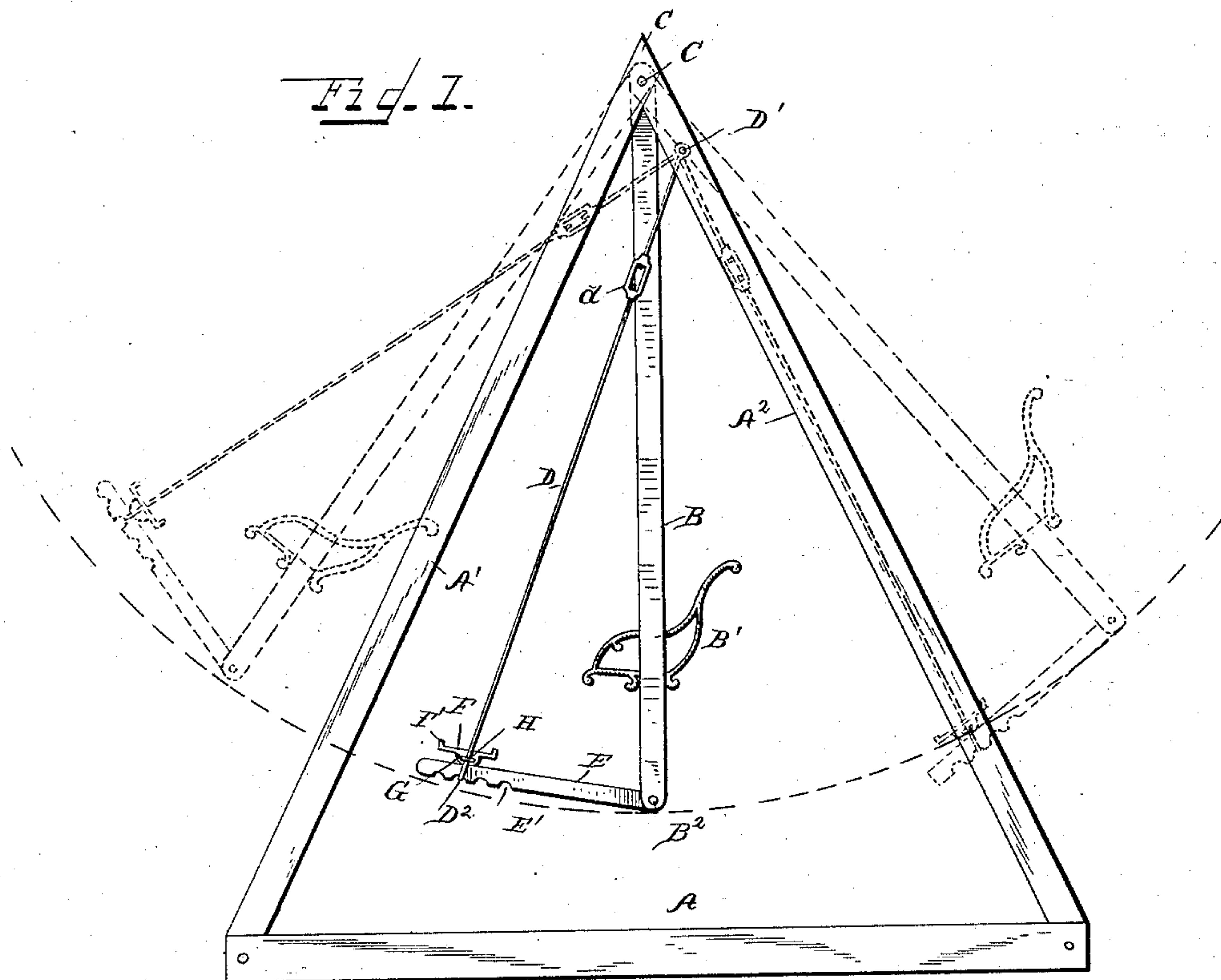
(No Model.)

O. M. AHLBERG.

SWING.

No. 327,051.

Patented Sept. 29, 1885.



WITNESSES

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# UNITED STATES PATENT OFFICE.

OLOF M. AHLBERG, OF PULLMAN, ILLINOIS.

## SWING.

SPECIFICATION forming part of Letters Patent No. 327,051, dated September 29, 1885.

Application filed September 20, 1884. (No model.)

*To all whom it may concern:*

Be it known that I, OLOF M. AHLBERG, a citizen of Sweden, residing at Pullman, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Swings, of which the following is a specification, reference being had to the accompanying drawings.

My invention relates to swings; and it consists in the parts which will be hereinafter described, and pointed out in the claim.

In the accompanying drawings, Figure 1 is a side view showing the swing at rest in its normal position in full lines. The dotted lines represent the positions of the swing while forward and back. Fig. 2 is a perspective view of the platform, foot-board, seat, and pendulum-arms.

The letters A A' A<sup>2</sup> represent one side of a rigid double triangular frame, in which the swing is mounted. B B are the two main pendulum-arms, having the seat B' secured between them. The lower ends of the arms B are pivoted at B<sup>2</sup> to the sides of the platform. C represents the end of the rod, upon which the arms B B are pivotally mounted. The rod C is secured to the apex C' of the frames. D D are rods pivoted at D' near the top of the frame-pieces A<sup>2</sup>. The bottom ends of the rods D D are united by a rod, D<sup>2</sup>, running horizontally under the platform E. Said platform is provided with a series of transverse bottom notches, E', adapted to receive the transverse rod D<sup>2</sup>.

d is a link having threaded openings in its top and bottom. The engaging ends of rods D are threaded, and are secured in said openings, whereby said rods are longitudinally adjustable, so as to raise and lower the forward end of the platform, when desired.

F represents a rocking foot-board mounted on the platform E, and provided with front and back flanges, F'. These flanges are intended to hold the feet of the operator on the foot-board. The under side of the foot-board is provided with a semicircular roller, G, rigidly fixed thereto.

H H represent two staples, one in each side of the roller G. The rods D D pass through these staples.

The operation of the swing is as follows: When a person steps upon the foot-board F,

the center of gravity is shifted by the person's weight from the normal position of the swing (shown in full lines, Fig. 1) and the swing moves backward. The operator then sits in the seat B', and the swing moves forward beyond the center of gravity. By slightly rising from the seat, and thereby throwing the weight on the foot-board F, the swing is moved backward with accelerated motion. By the operator's shift at each forward and back movement, as indicated, the sweep of the swing is increased at each stroke. By this means any desired height may be attained and easily maintained by the operator without any extraneous assistance. This is effected by having the upper end of the rods D pivoted at D', which point D' is back of the point C at which the upper ends of the arms B are pivoted. By shifting the weight of the operator from the seat to the foot-board F the center of gravity of the swing is alternately changed from the rods D to the arms B, and the position of the swing thereby changed and the swinging movement effected.

The object of securing the foot-board F to the rods D (by means of the staples H H) and providing the under side of the platform E with the notches E' is to render said foot-board adjustable on the platform, whereby it (the foot-board) may be adjusted to conform to persons of different heights. By placing the cross-piece D<sup>2</sup> of the rods D in the outer notch in the under side of the platform the distance between the foot-board and seat will be the maximum. By moving the rod D<sup>2</sup> back into the next notch the space will be lessened, and by moving the rod still farther back in the series of notches the distance between the foot-board and seat may be still lessened. By this means the foot-board is adapted to suit the convenience of any sized person. By having the foot-board rock on the platform, as shown, the soles of the feet of the operator may be kept in a substantially horizontal position at all times.

The transverse center of the foot-board E (shown in dotted lines, Fig. 2) is at all times immediately over the bottom rod, D<sup>2</sup>. By the pressure of the heel of the operator back of said line and rod the tendency is to force the swing forward, and by changing the pressure to the toe, which will be forward of the line, a

backward tendency is imparted. The foot-board rocks with the heel-and-toe movement, it being understood that the heel-pressure should be applied when the rods D D<sup>2</sup> are 5 back of the center of gravity, and the toe applied when said rods are forward of the center.

Parallelside bars may be substituted for the platform E without departing from the spirit of my invention.

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

A swing provided with a seat mounted in normally-vertical pendulum-arms pivoted to a frame, a platform having said arms pivoted 15 to the rear thereof, rods pivotally secured to

the forward end of the platform at their lower ends, and pivotally attached to the frame at a point in the rear of the top pivot of the pendulum-arms, said rods being adjustably attached to the platform and provided with a rocking 20 foot-board, said foot-board being secured to the rods and adjustable on the platform, in the manner and for the purposes specified.

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

OLOF M. AHLBERG.

Witnesses:

ROBERT PAE,

SVEN ISAKSSON.