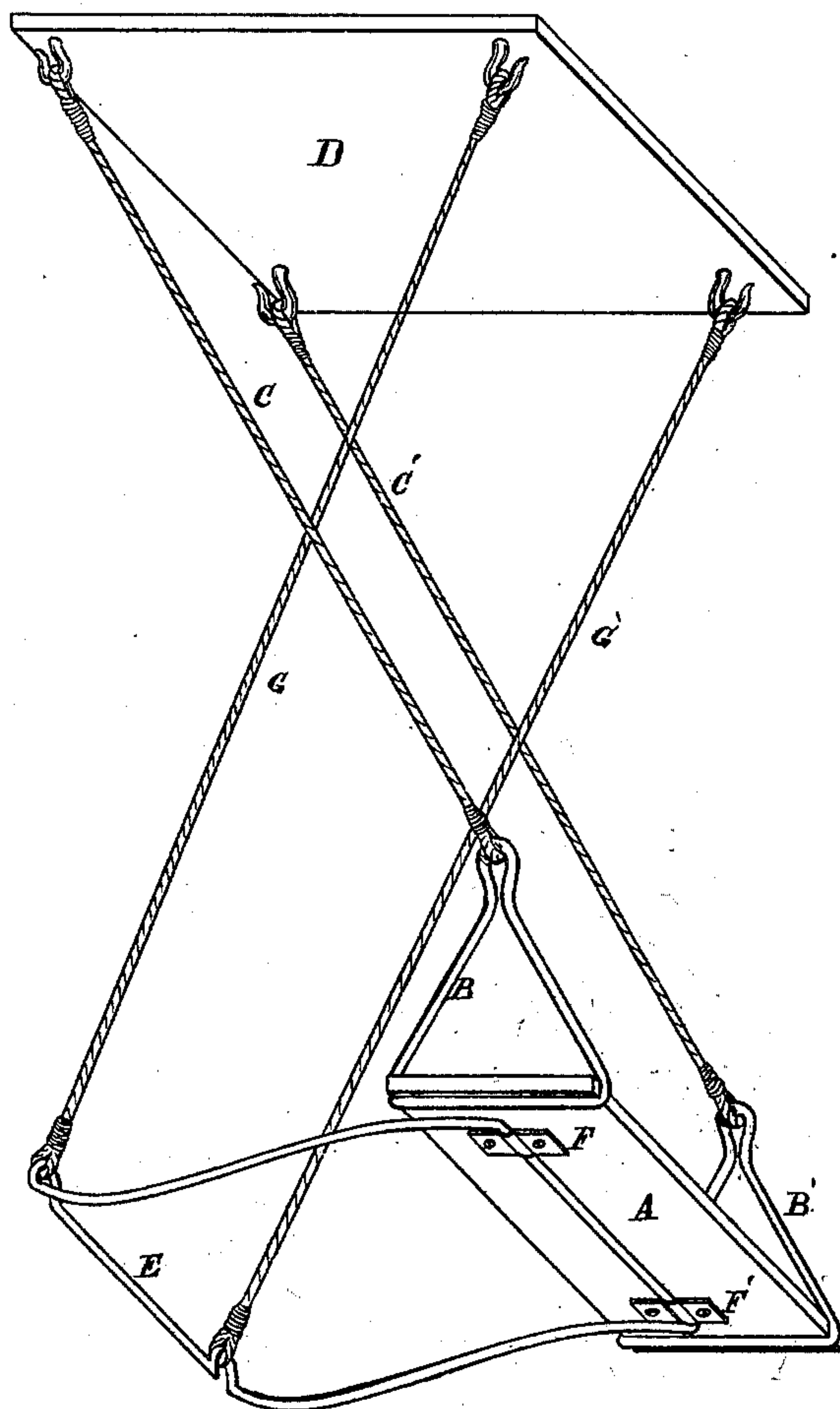


W. P. ROGERS.

SWING.

No. 170,900.

Patented Dec. 7, 1875.



Witnesses:

J. A. Kohler
S. Edgerton

Inventor:

William P. Rogers
by Humphrey & Stuart
Attys.

UNITED STATES PATENT OFFICE

WILLIAM P. ROGERS, OF AKRON, OHIO.

IMPROVEMENT IN SWINGS.

Specification forming part of Letters Patent No. **170,900**, dated December 7, 1875; application filed October 23, 1875.

To all whom it may concern:

Be it known that I, WILLIAM P. ROGERS, of the city of Akron, in the county of Summit and State of Ohio, have invented an Improved Swing, of which the following is a specification:

The object of my invention is to construct a swing, so cheap as to be within the reach of all, and so arranged that the person occupying it may, without assistance, impart motion to it by a slight movement of the body, and continue the motion as long as desired with slight physical effort, and without fatigue. I accomplish this by suspending the body of the swing by four ropes, two being attached to the front of the body and two to the back thereof, which said front and back ropes cross each other between the body of the swing and the point of suspension, so that the ropes attached to the front of the body shall be attached to the ceiling or other point of suspension back of the ropes which pass from the back of the body.

My invention will be readily understood by reference to the accompanying drawings, which is a perspective view of my improved swing looking from below the level of the seat of the swing.

The body of the swing consists of the seat A, uprights B B', and foot-rest E. The seat A is a plain board of suitable size. The uprights B B' are made of iron rod, bent in the form shown, the ends being welded together, and held in place on the board A by fitting into shallow notches on the edges near the end thereof. The foot-rest E is also of iron rod, bent in the form shown, the ends welded, and hinged to the board A by the plates F F'. This body is suspended by the ropes C C' G G' attached to the ceiling D, as shown, crossing each other and attached to the uprights B B' and foot-rest E respectively.

In operating the swing the person sits upright upon the seat A, with his feet resting on E. The weight of his body will cause the seat A to assume a position nearly under the

point of suspension of the ropes C C'. By slightly inclining his body forward, the weight on the seat A is lessened and increased on the foot-rest E, causing the seat to swing back under the point of suspension of the ropes G G', and by a succession of these motions the desired momentum will be given to the swing.

In starting, the open frame of the foot-rest permits the feet to be dropped through to push upon the floor. The foot-rest E is hinged to the under side of seat A to permit the seat to accommodate itself to the varying angle of the ropes C C' as the swing oscillates backward and forward.

The office of the uprights B B' is thus explained: In swinging, the hands naturally grasp the ropes C C'. When the ropes are attached directly to the seat A, and the swinger raises his body, the ropes yield at the point grasped by the hands, and the seat moves out of the line of the ropes instead of the body moving into that line, and thereby the effect of the motion is lost; but by means of these uprights this yielding is prevented.

I am aware that swings supported at four points, and having the supports crossing each other, are not new, but as far as I have examined, these supports have always been rigid, as wood or iron rods, and from the construction of these swings, flexible ropes could not be successfully used, as in every case upward pressure was used, as well as gravitation, to secure motion, thereby increasing the cost of the swing and rendering it cumbersome for transportation.

Having thus described my swing, I claim—

The combination of the seat A, the rigid uprights B B', and hinged foot-rest E, supported by the ropes C C' G G', arranged to cross each other, and all substantially as described and shown.

WILLIAM P. ROGERS.

Witnesses:

C. P. HUMPHREY,
E. W. STUART.