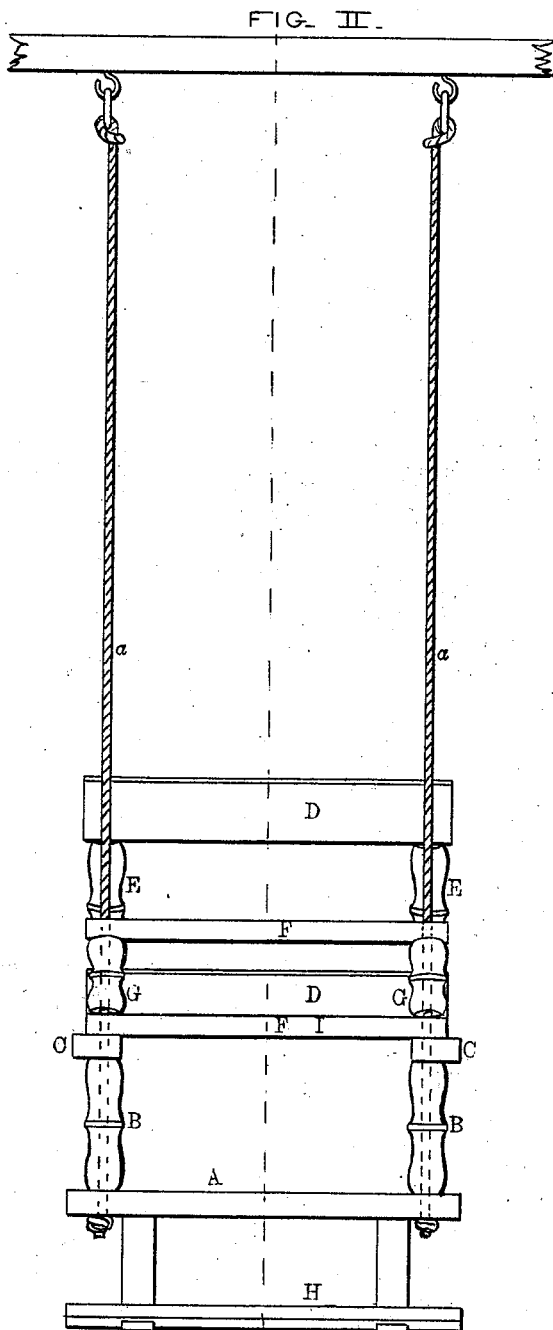
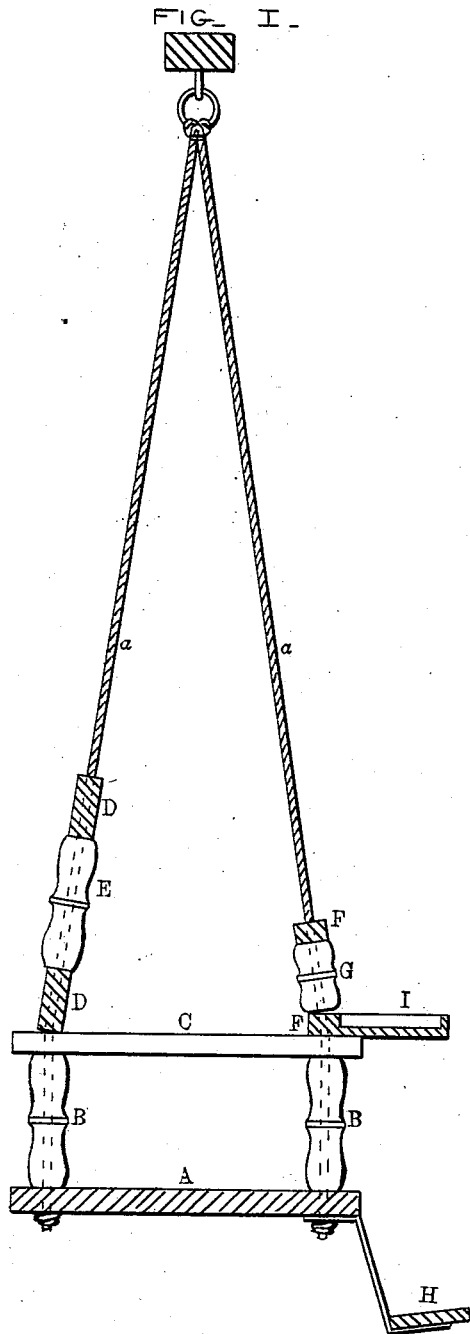


J. RYAN.  
Swing.

No. 212,514.

Patented Feb. 18, 1879.



—WITNESSES—

*R. K. Evans*

*W. P. Chaffee*

—INVENTOR—

*Joseph Ryan*  
by *G. H. M. J. H. M. J.*  
*Attys.*

# UNITED STATES PATENT OFFICE.

JOSEPH RYAN, OF MOUNT WINANS, MARYLAND.

## IMPROVEMENT IN SWINGS.

Specification forming part of Letters Patent No. **212,514**, dated February 18, 1879; application filed January 11, 1879.

*To all whom it may concern:*

Be it known that I, JOSEPH RYAN, of Mount Winans, in the county of Baltimore and State of Maryland, have invented certain Improvements in Swings, of which the following is a specification; and I do hereby declare that in the same is contained a full, clear, and exact description of my said invention, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

This invention relates to a flexible swing-chair provided with a foot-board, the back of said chair being constructed to admit of the constant change of the center of gravity of the occupant, whereby the oscillatory motion of the swing is obtained.

The foot-board enables the occupant of the swing-chair to obtain the necessary mechanical hold or rest, whereby the leverage is applied to the back of the chair. In order to produce this result the back of the chair is carried considerably above the rest of the chair, and made of uprights and cross-pieces strung upon the rear swing-ropes, the back, when at rest, standing at an angle, against which the back of the occupant is forced in a manner which, as the angle is changed and the center of gravity of the occupant moves, gives motion to the swing.

In the description of the invention which follows reference is made to the accompanying drawings, forming a part hereof, and in which—

Figure 1 is a vertical section of the swing, and Fig. 2 an exterior front view of the same.

Similar letters of reference indicate similar parts in both views.

A is the seat of the chair, suspended by means of ropes *a* from a movable frame, or from any stationary object. B B are standards, strung upon the ropes *a*, and located between the seat A and the arms C, through which also the ropes *a* pass.

The back of the chair is formed of two cross-pieces, D D, and intervening uprights E E,

which are also strung on the ropes, and the chair is provided with two front bars, F F, separated by standards G, which are held in position in a similar manner to the back.

The seat is provided with a foot-board, H, and one of the front bars is fitted with a shelf or table, I, as shown.

The parts of the chair described are the essential ones. Others may, however, be added to make a more elaborate design without affecting the invention.

It will be seen that the pressure exerted against the upper cross-piece D of the back tends to throw it in a vertical line with the rear standards, B, and that this has the effect of carrying forward the chair as the center of gravity of the occupant is shifted.

It will be understood that the chair may be easily taken apart and packed for shipment, thus effecting great economy in space.

One advantage of this construction is that the chair fits closely around and conforms somewhat to the shape of the occupant, thus giving comfortable support.

Having thus described my invention, what I claim as new, and wish to secure by Letters Patent of the United States, is—

A swing-chair provided with a foot-board, and also having its back carried above the body of the chair, and composed of uprights and cross-pieces strung upon the rear swing-ropes, the said back constituting a lever, whereby, when the weight of the occupant is brought against the back, it yields, and, by carrying the center of gravity of the occupant rearward, imparts motion to the swing, as specified.

In testimony whereof I have hereunto subscribed my name this 2d day of January, A. D. 1879.

JOSEPH RYAN.

Witnesses:

WM. T. HOWARD,  
THOS. MURDOCH.