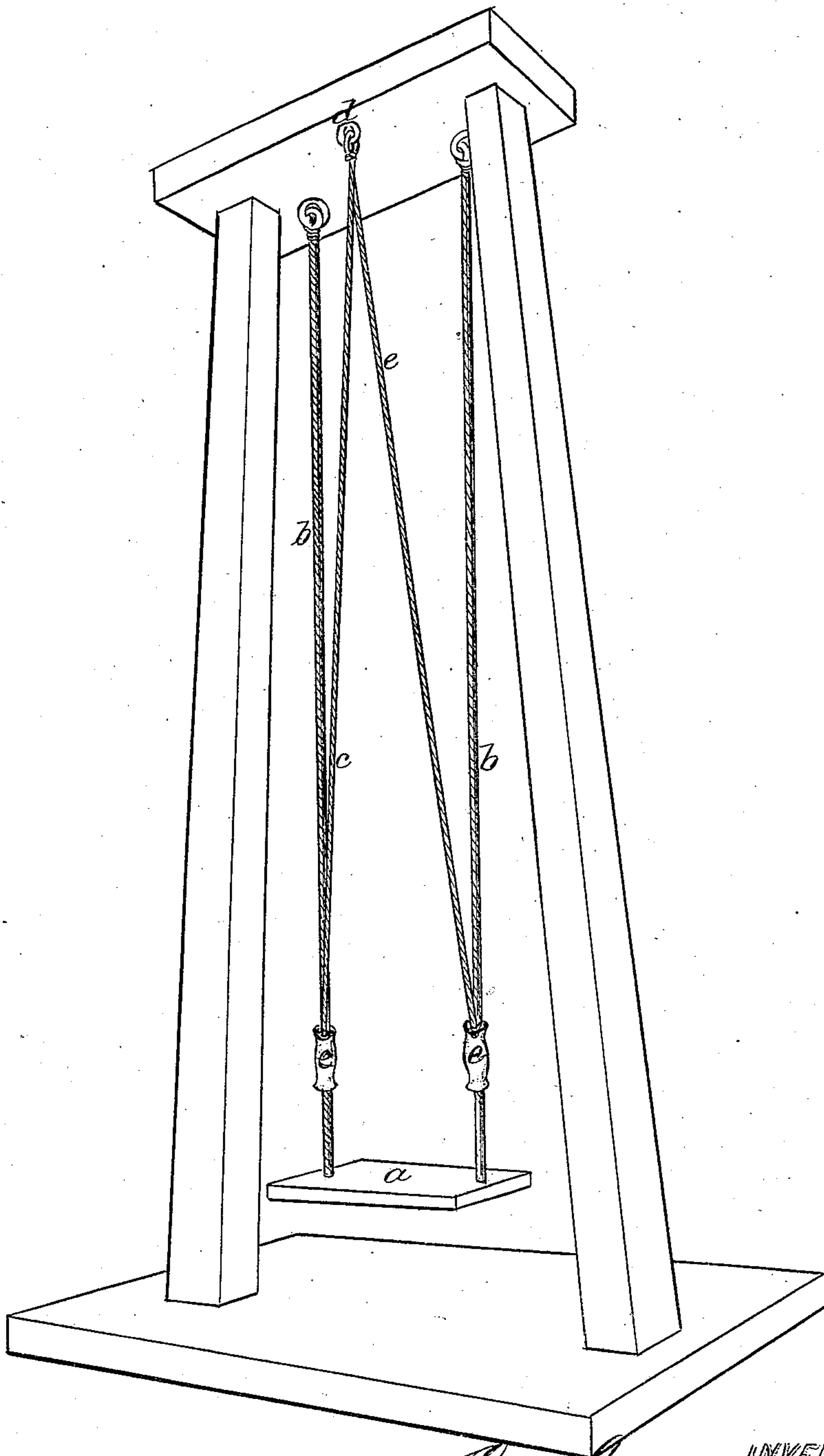


*G. A. Seaver,*

*Swing*

*No 82,998*

*Patented Oct. 13. 1868.*



*WITNESSES:*

*Mr Richard Stevenson  
Mr Lemble Hall*

*G. A. Seaver*

*INVENTOR.*

# United States Patent Office.

GEORGE A. SEAVER, OF NEW YORK, N. Y.

*Letters Patent No. 82,998, dated October 13, 1868.*

## IMPROVEMENT IN SWINGS.

The Schedule referred to in these Letters Patent and making part of the same.

*To all whom it may concern:*

Be it known that I, GEORGE A. SEAVER, of New York, in the county and State of New York, have invented a certain new and useful Improvement in Swings; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawing, making a part of this specification, and to the letters of reference marked thereon.

The object of my invention is to enable the sitter in an ordinary swing, with a single seat for the reception of one person, to operate the swing without assistance. To accomplish this object, the said invention consists of an additional rope or pair of ropes attached to the upper part of the frame, slightly in advance of the points of suspension of the swing, and communicating with the suspension-ropes, by means of sliding sockets, at points convenient for the hands of the person swinging.

To enable others skilled in the arts to which it appertains to make and use my invention, I will proceed to describe its construction and operation with reference to the drawing.

The swing-seat *a* is hung on a pair of suspension-rods or ropes, *b*, attached to the cross-piece of an upright frame in the usual manner.

The propelling-ropes *c* are attached to an eye-bolt, *d*, on the cross-piece, slightly in advance of the bolts to which the swing is hung, and they are secured by eyes, or otherwise, to cylindrical sockets, *e*, that slide loosely on the suspension-ropes *b*, which pass through them at a point convenient for the grasp of a person in occupation of the seat.

In beginning without assistance, the person who wishes to swing, pushes himself and the seat backward, and, when at the extent of the vibration, pulls downward on the handles or sockets *e*, which causes the return portion of the vibration to be made more forcibly than would have been done by the force of gravity alone, from the points of suspension, by the addition of the muscular power applied at the more effective angle of the propelling-ropes.

The greater the distance at which the propelling-ropes are hung in advance of the points of suspension, the more advantageous will be the angle at which the force of muscular energy will be exerted to increase

the return vibration due to gravity, and this distance should be that which will furnish a rise and fall of the sockets on the suspension-ropes within the convenient reach of the arms of the person for whose use the swing may be chiefly intended.

In the same manner, the force of the vibration may be increased at each return to the extreme point of the backward vibration, until the limit has been reached, the handles or sockets being forced down on the suspension-ropes in the forward swing or portion of the vibration, and being permitted to slip up on the ropes as the seat swings back.

This propelling-attachment may be used to stop the swing more quickly than can ordinarily be done, by using it in the reverse way, or bearing down upon the handles as the seat swings backward.

The enlarged size of the handles obviates one objection to a rope or rod that may be large enough to answer all the requirements of strength, and be too small to admit of a comfortable grasp.

The exercise of the arms, and the muscles called into play by their exertion, is a valuable addition to the pleasure and benefit that may be obtained from an ordinary swing.

The propelling-ropes also serve an important purpose, in the nature of a safeguard, in addition to their primary office of enabling the occupant to swing himself, for, in the event of a breakage of the suspension-ropes, or an accident to the hooks or eyes, by which the person would otherwise have been necessarily flung with more or less violence to the ground, the grasp upon the propelling-ropes would serve at least to break the force of the fall, even if the hold upon the handles were not sufficiently firm and the strength of the propelling-ropes sufficiently great to entirely obviate it.

The handles may be made in halves, so that they may be readily applied to any ordinary swing.

I claim as my invention—

The combination of the propelling-rope or ropes with the movable handles or sliding sockets, substantially as described.

G. A. SEAVER.

Witnesses:

M. RICHARD LEVERSON,  
WM. KEMBLE HALL.