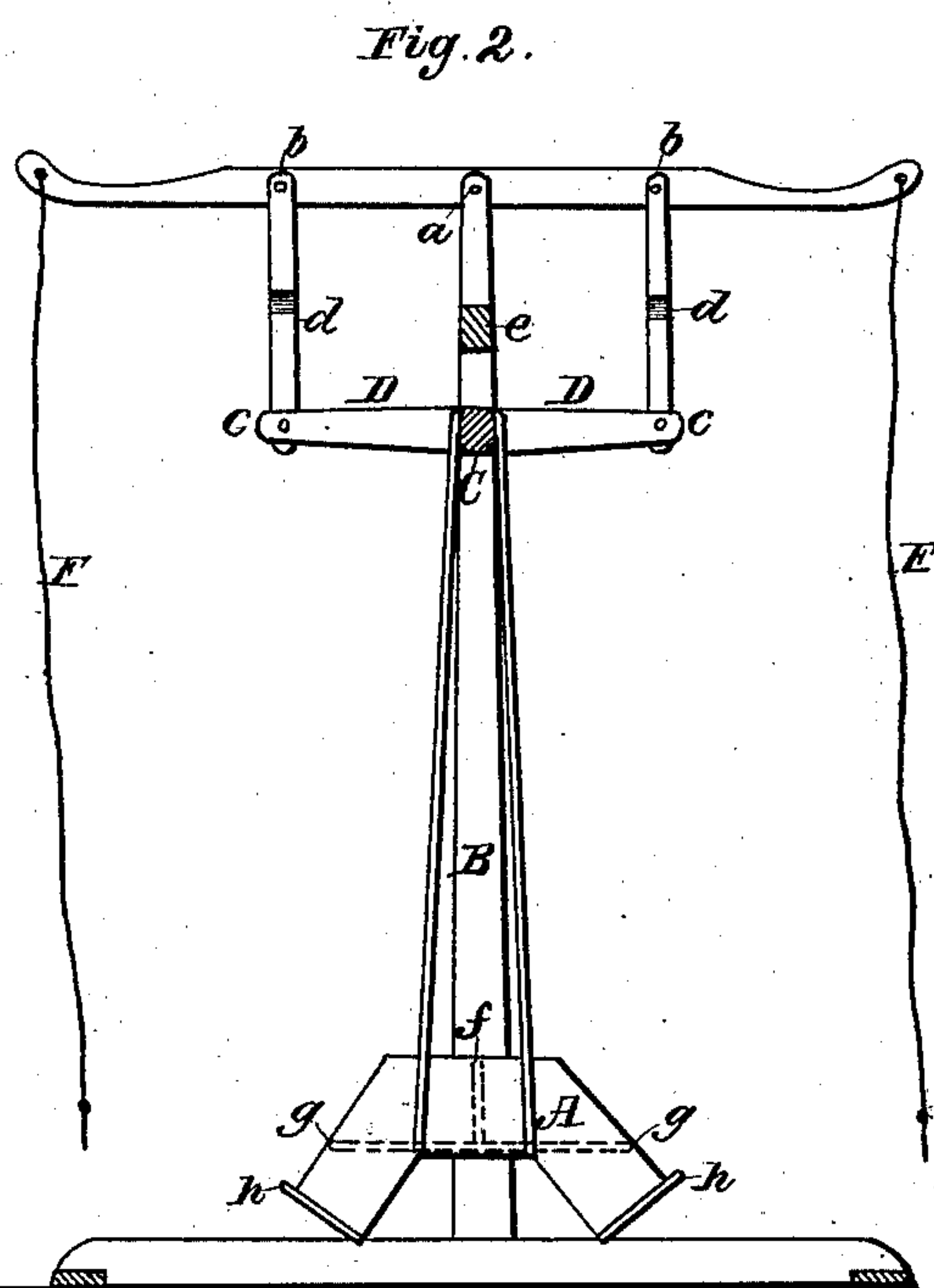
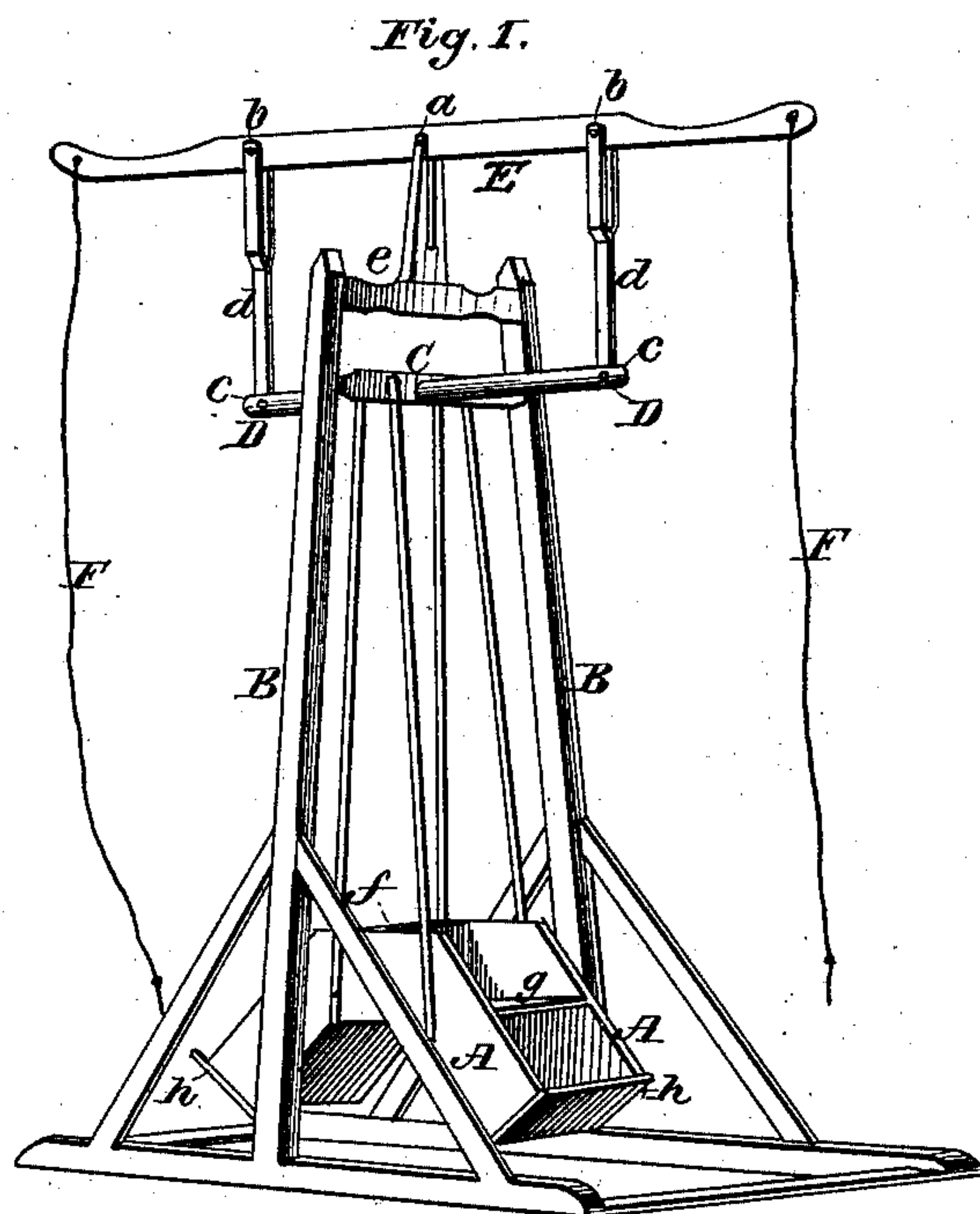


C. HARTMAN & F. A. FREESE.
Swing.

No. 198,612.

Patented Dec. 25, 1877.



Attest.

Eugene Moreau
Edward E. Osborn

Inventors.

Christian Hartman
& Fredk. A. Freese
By C. W. M. Smith
their atty.

UNITED STATES PATENT OFFICE.

CHRISTIAN HARTMAN AND FREDERICH A. FREESE, OF SAN FRANCISCO,
CALIFORNIA.

IMPROVEMENT IN SWINGS.

Specification forming part of Letters Patent No. **198,612**, dated December 25, 1877; application filed
July 5, 1877.

To all whom it may concern:

Be it known that we, CHRISTIAN HARTMAN and FREDERICH A. FREESE, both of the city and county of San Francisco, State of California, have invented a certain new and useful Improvement in Oscillating Swings, which improvement is fully set forth in the following specification and accompanying drawing, and in such a manner as to enable any person skilled in the art to construct and use the same.

In the said drawing, Figure 1 is a perspective view of our improved swing, and Fig. 2 is a side elevation.

Our invention consists in the construction and arrangement, with a double swing, of self-operating mechanism, whereby the child or person in the seat can give motion to the swing and operate it without assistance.

The seat A is suspended in the frame between the standards B from a rock-shaft, C, which turns in bearings in the uprights. From this rock-shaft two perpendicular arms, D D, project, which occupy a horizontal position when the swing is at rest, and these arms are connected with the double rocking lever E by means of the links *d d*, that are pivoted at *b* and *c*. The lever E has its fulcrum at *a*, and the cords F F, attached to its ends, afford the means for operating it.

The seat-frame is of such form that it affords a support for the back *f*, for the seat *g*, and for the foot-board *h*. A secure and safe seat for young children is thus provided, in

which they can swing themselves without danger, as no excessive oscillation can be given by them in pulling upon the cords.

We are aware of the patent granted to John F. Hartman, April 10, 1866; but as the same has but a single seat, and a lever-arm upon only one side, and is operated by a positive motion in only one direction of its oscillation, we disclaim the same. Our swing having the lever-arms D D upon each side, by the application of force to either one or both of the ropes F, a positive motion is given to each of the lever-arms, one being raised and the other depressed positively, and thereby the swing is operated with less power by a child, and the oscillation is more steady.

Having thus fully described our invention, what we claim therein as new, and desire to secure by Letters Patent, is—

In a swing, the combination, with the supporting-frame and the rock-shaft, of the arms D D, the lever E, the links *d d*, and the ropes F F, by means of which a positive motion is given to a swing in each direction of its oscillation, substantially as described.

In testimony that we claim the foregoing we have hereunto set our hands this 28th day of May, 1877.

CHRISTIAN HARTMAN.
FREDERICH A. FREESE.

Witnesses:

WILLIAM HARNEY,
HARRY COUSINS.