(No Model.)

W. K. MILLER.

ADJUSTABLE SWING.

No. 442,489. Patented Dec. 9, 1890.

Fig. 1.

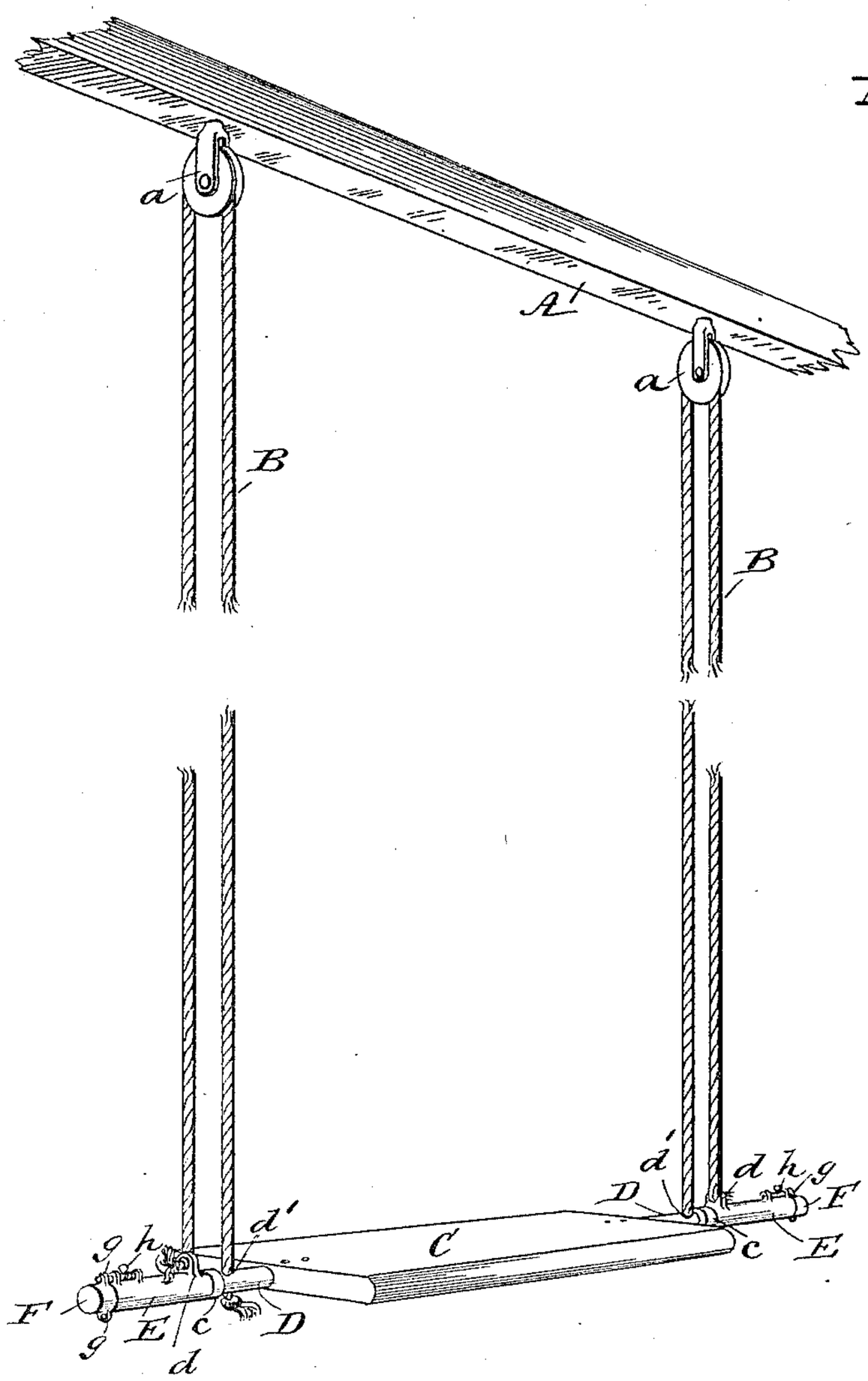

Fig. 2.

WITNESSES:

H. Walker
C. Sedgwick

INVENTOR:

W. K. Miller
BY Munn & Co
ATTORNEYS.

UNITED STATES PATENT OFFICE.

WILLIAM K. MILLER, OF TROY, KANSAS.

ADJUSTABLE SWING.

SPECIFICATION forming part of Letters Patent No. 442,489, dated December 9, 1890.

Application filed August 21, 1890. Serial No. 362,697. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM K. MILLER, of Troy, in the county of Doniphan and State of Kansas, have invented a new and useful Adjustable Swing, of which the following is a full, clear, and exact description.

This invention relates to an improvement in swings, and has for its objects to provide a convenient safe adjustable swing which may be quickly altered for height, so as to adapt the seat-board to the use of adults or children of varying stature.

To these ends my invention consists in certain features of construction and combination of parts that are hereinafter described, and indicated in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in both the figures.

Figure 1 is a perspective view of the device with the ropes broken, and Fig. 2 is an enlarged longitudinal section of one end portion of the seat-board and its attachments with rope ends secured thereto.

Upon a horizontal beam A, that is stably supported at a suitable height, the swing is sustained, preferably, by the pendent pulley-brackets *a*, which are affixed upon the lower side of the beam at a proper distance from each other. The beam A may be the transverse timber of a movable frame or be attached to a ceiling, any strong and reliable horizontal timber suitably elevated being adapted to hang the swing from. Two ropes B, of sufficient strength and equal length, are provided. Said ropes should be placed over the grooved surfaces of the sheaves of the pulley-brackets *a* and downwardly extended to engage the seat-board C, the length of the doubled ropes when connected to the board being such with regard to the ground or floor above which the device is erected that when the ropes are in normal condition or fully extended the seat-board will be near enough to the ground or floor to allow a child to assume a sitting posture on the seat-board.

The seat-board C is preferably made of hard wood that is not liable to split, and is given such a proportionate length and width as will afford a comfortable seat for the occupant.

At the transverse center of the seat-board C two similar short shafts D are secured so as to project oppositely and in alignment with each other. Preferably the ends of the shafts D are reduced in diameter where they engage the seat-board and are firmly inserted in socket-holes formed oppositely in the seat-board ends in axial alignment and at the center of width of the board, said shaft ends D′ being retained in place by the set-screws *b* or other similar means.

At a proper distance from the ends of the seat-board C radial collars *c* are formed on the projecting portions of the shafts D, which collars serve as abutments for the cylindrical sleeves E, which are mounted loosely on the extended end portions of the shafts D. The sleeves E are alike in form, and each consists of a metallic cylinder having a laterally-projecting ear *d* formed on the side near to the end which impinges upon the collar *c*.

Lateral perforations are made in the ears *d* on the sleeves E for the insertion of one end of the doubled ropes B, which rope ends are knotted or otherwise secured to prevent displacement, the other ends of the ropes being inserted through transverse perforations, as at *d′*, made in the body of the respective shafts C near to the collars *c*, wherein they are secured by knotting their ends. The sleeves E are mounted upon the shafts D and loosely secured in place by the cap-nuts F, which engage the threaded end portions *e* of the shafts D, said nuts being so proportioned in thickness that they will permit the sleeves E to rotate when said nuts are firmly seated against the terminal ends of the shafts, as shown in Fig. 2.

On the peripheral surface of the cap-nuts F, near their inner edges, laterally-projecting lugs *g* are formed, which lugs are perforated to receive the outer end portions *h′* of the slide-bolts *h*, which latter are held free to slide longitudinally on the sleeves E by a loose engagement of each bolt with a pair of perforated aligning ears h^2, that are projected from the sleeve. The slide-bolts *h* may be held normally projected toward the cap-nuts F by the encircling spiral springs *i*, that are located on the bolt-bodies between the thumb-pieces *k* and one of the ears h^2, and to insure

a proper engagement of the bolt ends *h'* with the locking-lugs *g* the cap-nuts F are secured against revoluble displacement by the set-screws *m*.

In using the swing if the height of the seat-board C is not suitably adjusted for the person desiring to occupy it the slide-bolts *h* are retracted, thereby releasing the seat-board, which is then revolved, so as to wrap the rope ends on the portions of the shafts D that lie between the collars *c* and the ends of the seat-board, which will shorten the ropes B. When a correct height is secured, the slide-bolts *h* are interlocked with the lugs *g* and the swing thus rendered safe and convenient for use. Should the next party to use the swing need a lower seat, the reversal of the operation just described will afford a correct height.

If preferred, the slide-bolt on one side of the swing may be dispensed with, as one will secure the seat and hold the ropes adjusted. The form of the slide-bolts *h* may be altered and the spiral springs be dispensed with, if preferred. Ring-eyes may also be substituted for the pulley-brackets *a* without departure from the spirit of my invention. Hence I do not restrict myself in construction to the precise forms of these details.

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

1. A seat-board for swings, consisting of a board having a shaft projected from each end, a sleeve held on each shaft, and means for locking said sleeve to the shaft, said shafts and sleeves being adapted to retain a rope end, substantially as set forth.

2. The combination, with two doubled depending ropes and an elevated support therefor, of a seat-board having oppositely-projected shafts secured thereto at its ends, to which shafts one end of each doubled rope is attached, a sleeve loosely secured on the body of each shaft, to which sleeves the other depending ends of the doubled ropes are affixed, a nut on the end of each shaft, one nut having a perforated ear, and a longitudinally-sliding bolt on one sleeve which will enter the perforation in the nut-ear, substantially as set forth.

3. The combination, with two doubled depending ropes, an elevated support therefor, and devices which depend from the rope-support and engage the bights of the ropes, of a seat-board, two shafts that align and project from opposite ends of the seat-board, to which shafts one end of each of the doubled ropes is secured, a loosely-mounted sleeve on each shaft, which are held away from the seat-board by collars on the shafts and to which the other ends of the doubled depending ropes are attached, nuts on the ends of the shafts that loosely engage the outer ends of the sleeves, one nut having a perforated ear, and a longitudinally-movable slide-bolt loosely secured on the sleeve and adapted to enter the perforation in the nut-ear, substantially as set forth.

4. The combination, with two doubled depending ropes and two bracketed grooved pulleys which are attached to an elevated stable support and engage the bights of the doubled ropes, of a seat-board, two aligning shafts projected from the ends of the seat-board, with which one end of each rope is respectively connected, two sleeves loosely mounted on the projecting bodies of the shafts and engaged by the other ends of the doubled ropes, cap-nuts on the outer terminals of the shafts, and slide-bolts located on the sleeve and adapted to interlock with locking-lugs on the cap-nuts, substantially as set forth.

WILLIAM K. MILLER.

Witnesses:
SOL. MILLER,
MARY MILLER.