(No Model.)

A. BETTES.

SWING.

No. 383,553. Patented May 29, 1888.

Fig. 1.

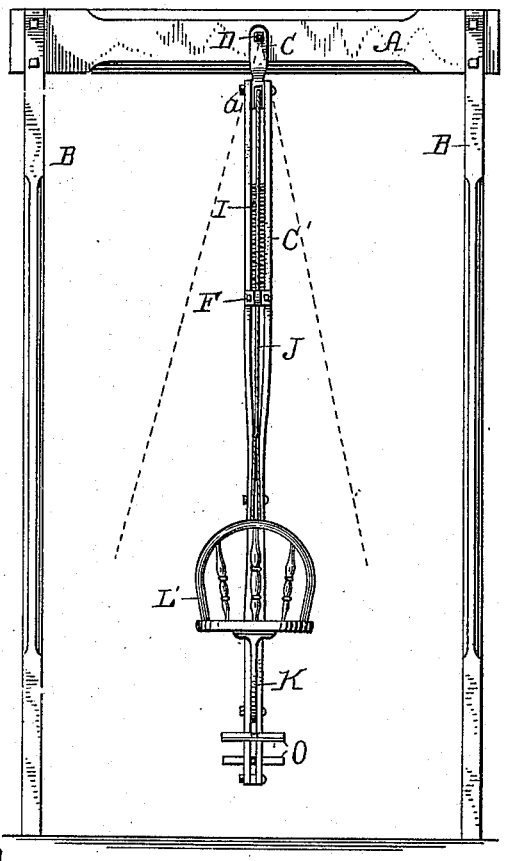
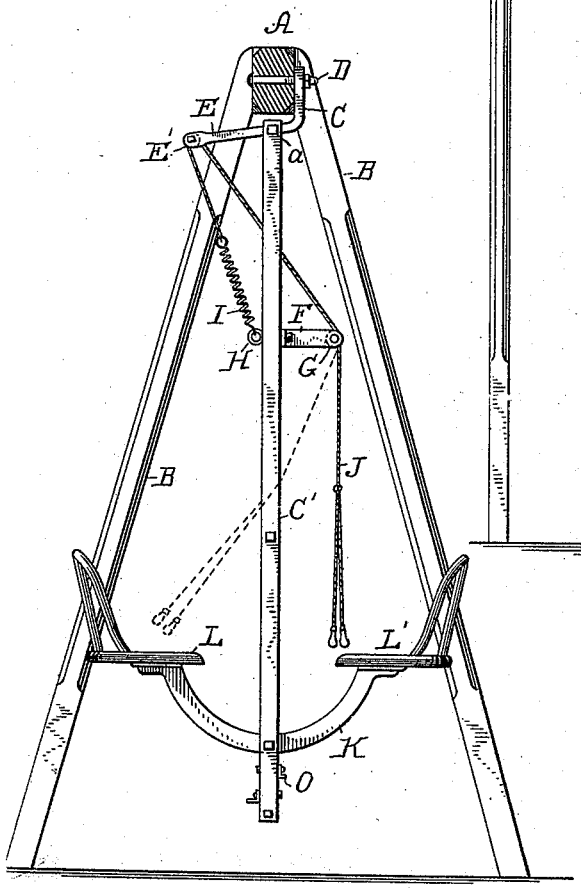


Fig. 2.



WITNESSES:

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ALEXANDER BETTES, OF KANSAS CITY, MISSOURI.

SWING.

SPECIFICATION forming part of Letters Patent No. 383,553, dated May 29, 1888.

Application filed November 7, 1887. Serial No. 254,518. (No model.)

To all whom it may concern:

Be it known that I, ALEXANDER BETTES, of Kansas City, Jackson county, Missouri, have invented certain new and useful Improvements in Swings, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part hereof.

This invention relates to swings having a single suspending bar; and it may be said to consist in the devices and the peculiar combination and arrangement of devices hereinafter set forth, and pointed out in the claims.

In the drawings, which illustrate the manner of carrying out my invention, Figure 1 is a front elevation of a swing embodying my invention, and Fig. 2 is a side elevation of the same.

A B represents a suitable frame in which the swing is suspended, and which may be moved around from place to place, as may be required, the swing being especially designed for use in gymnasiums as a means of exercising, the construction being such as to give substantially the same motion to the arms of the operator as he would make with them in using dumb-bells. I would say, however, that the swing may be suspended from the ceiling or any other suitable support. The single hanger C is pivoted by means of bolt D to the support A, so that the suspending-bar C′ and the hanger may be swung sidewise, as indicated by dotted lines in Fig. 1, this construction preventing the possible breakage of said hanger or the upper end of bar C′, as would occur were said hangers not pivoted to the support A.

Formed integral with the lower portion of hanger C, and extended beneath the support A, and a considerable distance to one side thereof, is an arm, E, which carries a roller or sheave, E′, at its outer end.

The upper end of suspending-bar C′ is pivoted at *a* to arm E at a point that is immediately beneath support A, and a horizontal bar, K, carrying seats L L′, is secured to the lower end of said bar at right angles thereto.

Two foot-rests, O, consisting of a short bar of wood or metal, are bolted or otherwise secured to the lower portion of bar C′ in different planes one above the other, so there will be a foot-rest for the occupant of each seat.

The suspending-bar C′ can be made of a single piece of material, or it can be made in two pieces, as here shown. If so desired, I may omit one seat from the swing, and its operation will be substantially the same as with two seats. About two feet from the pivotal point *a*, I locate a bracket, F, on bar C′, so as to project at a right angle thereto, and provide said bracket with a roller, G, at its outer end. Operating rope or cord J has its upper end attached to a spiral spring, I, and said spring is connected to the side of bar C′ at a point that is about opposite the location of bracket F. Any suitable device—such as an eyebolt, H, or a hook—can be used for securing the lower end of spring I to the bar C′. One end of the operating-cord J is connected to the upper end of spring I and then passed over roller E′, carried by an arm, E, and thence down over roller G, carried by the outer end of bracket F, and its outer end hangs low enough to be conveniently reached by the operator of either seat.

In some cases I may dispense with the use of spring I and attach rope J directly to eyebolt H, its function being mainly to take up the slack of the rope which occurs between each stroke of the operator's arm, and to raise the operator's hands as high as possible in order to give them a similar motion to that which they would make in exercising with dumb-bells, as I have found such to be very beneficial and desirable.

The operation of the swing is as follows: When a downward pull is exerted on the lower end of rope J, the bar C′ is drawn toward the left-hand in Fig. 2, and as soon as the tension upon the rope is released the weight of the swing causes it to move forward again, and so on. At each pull upon the rope the spring I is distended, and when the operator desires to release the tension he must raise his hands considerably higher than he would were the spring not made use of.

Having thus described my invention, what I claim is—

1. The combination of a suitable support, a single hanger secured thereto, a suspending-bar carrying a seat or seats at its lower end, and the upper end of which is pivoted to said hanger, a bracket located on said bar intermediate of the seats and its pivotal point, a roller

carried by said bracket, an arm projecting from said hanger on the opposite side of said bar to that upon which said bracket is located, and a cord or rope connected to the said suspending-bar at a point intermediate of the seats and its upper end and passed over a roller carried by the outer end of said arm, and also over the roller carried by the bracket, substantially as set forth.

2. In a swing, the hanger C, pivoted to support A, and having arm E formed integral therewith, roller E′, located in the outer end of said arm, in combination with suspending-bar C′, the upper end of which is pivoted to said hanger, bracket F, projected from one side of said bar, roller G, carried by the outer end of said bracket, spring I, having one end connected to said bar, and cord J, connected to the other end of said spring and passed over said rollers, substantially as set forth.

In testimony whereof I affix my signature in presence of two witnesses.

ALEXANDER BETTES.

Witnesses:
S. S. MOREHOUSE,
F. G. FISCHER.