No. 889,576. PATENTED JUNE 2, 1908.

A. P. BOYER.

SWING.

APPLICATION FILED MAY 21, 1906.

2 SHEETS—SHEET 1.

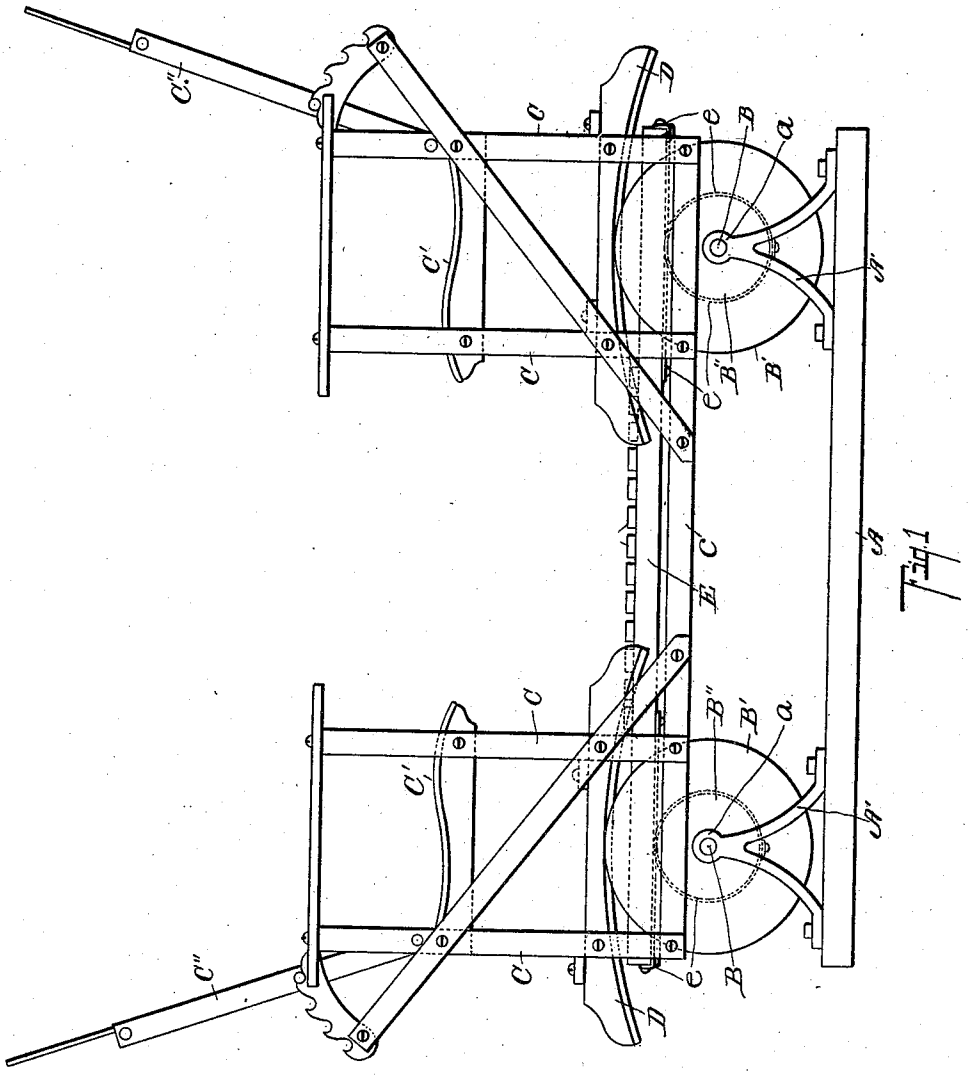


Fig. 1

Witnesses:
Lulu G. Greenfield
Clara E. Braden

Inventor,
Allen Philip Boyer
By Chappell & Earl
Att'ys.

THE NORRIS PETERS CO., WASHINGTON, D. C.

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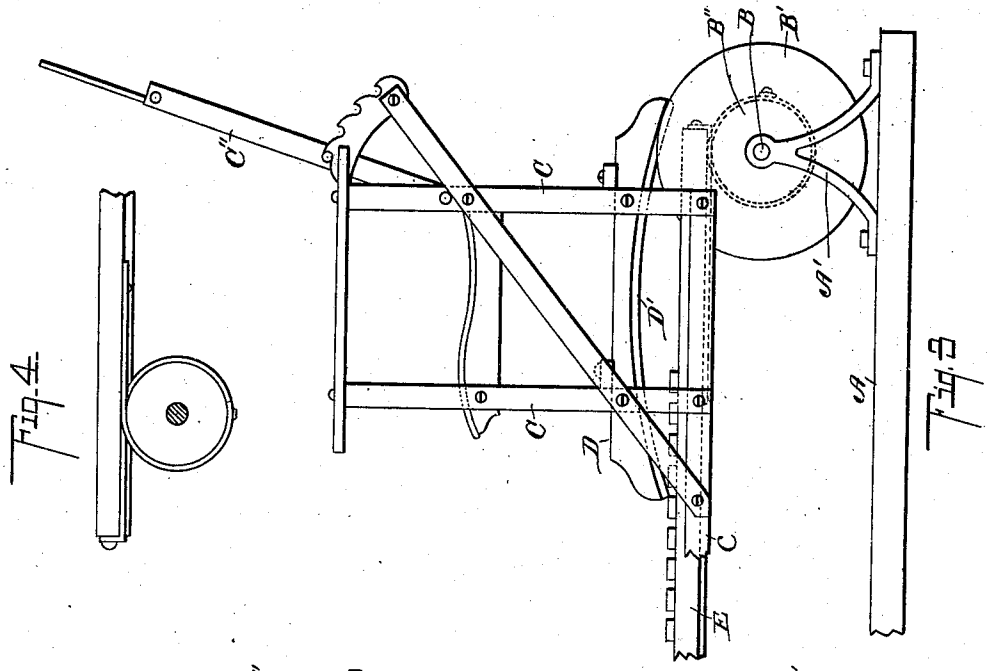


Fig. 3

Fig. 4

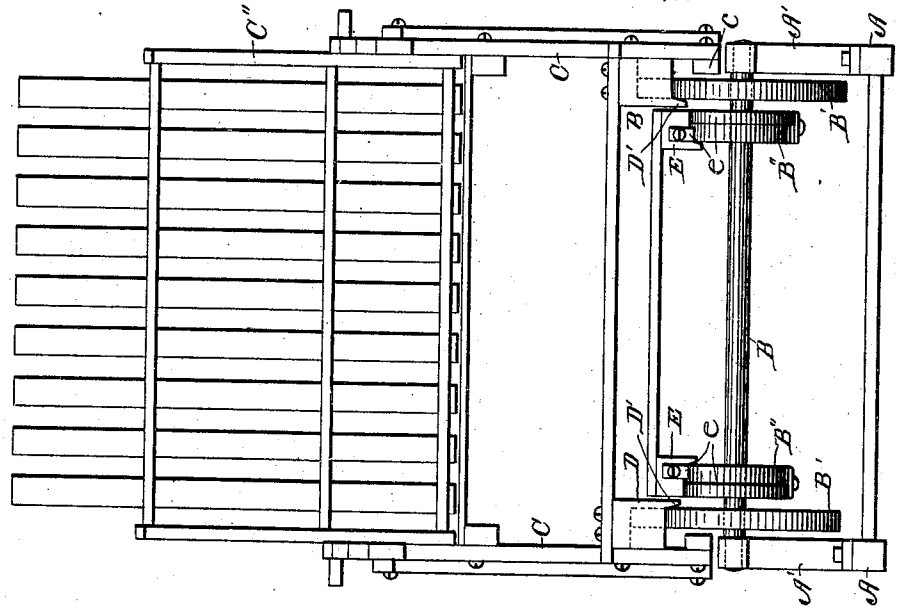


Fig. 2

Witnesses:

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UNITED STATES PATENT OFFICE.

ALLEN PHILIP BOYER, OF GOSHEN, INDIANA.

SWING.

No. 889,576. Specification of Letters Patent. Patented June 2, 1908.

Application filed May 21, 1906. Serial No. 317,955.

To all whom it may concern:

Be it known that I, ALLEN PHILIP BOYER, a citizen of the United States, residing at Goshen, in the county of Elkhart and State of Indiana, have invented certain new and useful Improvements in Swings, of which the following is a specification.

This invention relates to improvements in swings.

It relates particularly to improvements in swings which in use move back and forth without being suspended, such as are illustrated and described in United States Letters Patent No. 769,298, issued to me on the 6th day of September, 1904.

The objects of this invention are, first, to provide an improved swing of the class described, which is very easy to operate and has a smooth and even motion. Second, to provide an improved swing of the class described, which is very simple and economical in structure, and one which is durable in use and not likely to get out of repair.

Further objects, and objects relating to structural details, will definitely appear from the detailed description to follow.

I accomplish the objects of my invention by the devices and means described in the following specification.

The invention is clearly defined and pointed out in the claims.

A structure embodying the features of my invention is clearly illustrated in the accompanying drawings forming a part of this specification, in which—

Figure 1 is a side elevation of my improved swing. Fig. 2 is an end elevation thereof. Fig. 3 is a detail side elevation showing the swing at one end of its movement. Fig. 4 is a detail showing the arrangement of the connecting straps for the foot rest and carrying wheels therefor.

In the drawings similar letters of reference refer to similar parts throughout the several views.

Referring to the drawing, A is a platform or base on which are standards A′ having bearings *a* thereon for the axles B. On the axles B are carrying wheels B′, the same being arranged in pairs. The seat carrying frame is carried by these wheels, the frame being provided with tracks D arranged thereon. The seat carrying frame preferably consists of side rails *c* having standards or uprights C thereon by which the seats C′ are carried. Suitable backs, as C″, are provided for the seats, the same being preferably adjustably supported, as is illustrated.

The foot rest E is arranged between the side rails of the seat carrying frame and is carried by the rollers or wheels B″ which are secured upon the axles B. The foot rest E is connected to the carrying wheels B′ by means of straps *e* which are arranged in pairs and secured to the wheels B″, the same being passed around the wheels in opposite directions. By this arrangement the movement of the foot rest in either direction is imparted to the axle and from it through the carrying wheels B′ to the seat carrying frame, causing the same to reciprocate back and forth.

The tracks D are preferably curved so that the tendency of the seat carrying frame is to return to its center or initial position, and the load assists in so doing.

The straps *e*, in addition to driving the axles B, serve as stops to limit the movement of the parts. The tracks D are preferably provided with flanges D′ on the inside for guiding the seat carrying frame on the carrying wheels.

By arranging the parts as I have illustrated and described, I secure a swing which is very simple in construction and economical to produce, and one which is at the same time durable and not likely to get out of repair. The same may be driven readily by the user exerting pressure on the foot rest. The power required to operate the same is comparatively slight and the movement is uniform and agreeable.

I have illustrated and described my improved swing in the form preferred by me on account of structural simplicity and economy; I am aware, however, that it is capable of considerable variation in structural details without departing from my invention.

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

1. The combination of a suitable base; a seat carrying frame; shafts or axles; carrying wheels for said seat carrying frame, secured to said axles; downwardly curved tracks or ways on said seat carrying frame, arranged on said carrying wheels; a foot rest; wheels or rollers by which said foot rest is carried, secured on said shafts or axles; and straps arranged in pairs connected to said foot rest and to said carrying wheels

therefor, said straps being passed around said wheels from opposite directions, for the purpose specified.

2. The combination of a suitable base; a seat carrying frame; shafts or axles; carrying wheels for said seat carrying frame secured to said axles; tracks or ways on said seat carrying frame, arranged on said carrying wheels; a foot rest; wheels or rollers by which said foot rest is carried, secured on said shafts or axles; and straps arranged in pairs connected to said foot rest and to said carrying wheels therefor, said straps being passed around said wheels from opposite directions, for the purpose specified.

3. The combination of a suitable base; a seat carrying frame; shafts or axles; stationary bearings for said axles carrying wheels for said seat carrying frame secured to said axles; a foot rest; wheels or rollers by which said foot rest is carried, secured on said shafts or axles; and straps arranged in pairs connected to said foot rest and to said carrying wheels therefor, said straps being passed around said wheels from opposite directions, for the purpose specified.

4. The combination of a suitable base; a seat carrying frame; shafts or axles; stationary bearings for said axles; carrying wheels for said seat carrying frame secured to said axles; downwardly curved tracks or ways on said seat carrying frame, arranged on said carrying wheels; a foot rest; wheels or rollers by which said foot rest is carried, secured on said shafts or axles; and driving connections for said foot rest to said axles, for the purpose specified.

5. The combination of a suitable base; a seat carrying frame; shafts or axles; carrying wheels for said seat carrying frame secured to said axles; tracks or ways on said seat carrying frame, arranged on said carrying wheels; a foot rest; wheels or rollers by which said foot rest is carried, secured on said shafts or axles; and driving connections for said foot rest to said axles, for the purpose specified.

6. The combination of a suitable base; a seat carrying frame; shafts or axles; stationary bearings for said axles; carrying wheels for said seat carrying frame secured to said axles; a foot rest; wheels or rollers by which said foot rest is carried, secured on said shafts or axles; and driving connections for said foot rest to said axles, for the purpose specified.

7. The combination of a suitable base; a seat carrying frame; shafts or axles; carrying wheels for said seat carrying frame secured to said axles; downwardly curved tracks or ways on said seat carrying frame, arranged on said carrying wheels; a foot rest; and wheels or rollers by which said foot rest is carried, secured on said shafts or axles, for the purpose specified.

8. The combination of a suitable base; a seat carrying frame; shafts or axles; stationary bearings for said axles; carrying wheels for said seat carrying frame secured to said axles; a foot rest; and wheels or rollers by which said foot rest is carried, secured to said shafts or axles, for the purpose specified.

In witness whereof, I have hereunto set my hand and seal in the presence of two witnesses.

ALLEN PHILIP BOYER. [L. S.]

Witnesses:
E. E. MUMMERT,
GEO. M. RICHARDSON.