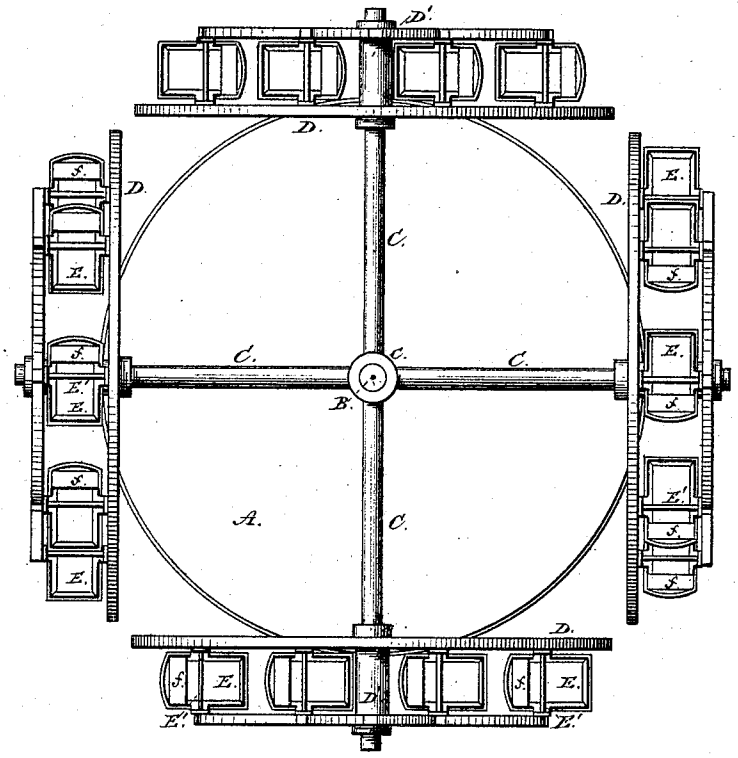
2 Sheets—Sheet 1.

I. N. FORRESTER.

ROTARY-SWING.

No. 169,797. Patented Nov. 9, 1875.

Fig. 1.



Witnesses:
E. C. Davidson.
Joseph A. Peyton.

Isaac N. Forrester Inventor.
By his Attorney
Wm D. Baldwin

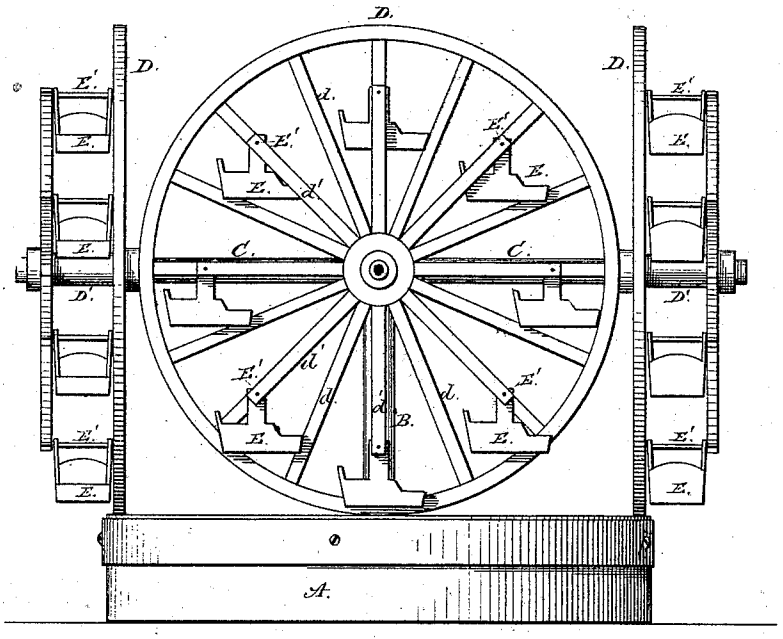
2 Sheets—Sheet 2

I. N. FORRESTER.

ROTARY-SWING.

No. 169,797. Patented Nov. 3, 1875.

Fig. 2.



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E. A. Davidson
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Isaac N. Forrester Inventor:

By his Attorney

Wm. D. Baldwin

UNITED STATES PATENT OFFICE.

ISAAC N. FORRESTER, OF BALTIMORE, MARYLAND.

IMPROVEMENT IN ROTARY SWINGS.

Specification forming part of Letters Patent No. **169,797**, dated November 9, 1875; application filed October 6, 1875.

To all whom it may concern:

Be it known that I, ISAAC N. FORRESTER, of Baltimore city, Maryland, have invented certain new and useful Improvements in Rotary Swings, of which the following is a specification:

My invention relates to swings hung or pivoted in frames which revolve both around their own axes and around a common center, the axis of which is at a right angle to the axes of the swing-frames. A swing of this class is shown in Letters Patent of the United States No. 70,985, granted me November 19, 1867.

My object is so to construct and mount the swing-frames that they may be caused to move directly upon and around a base or track, which supports their weight and causes them to revolve.

The subject-matter claimed will hereinafter specifically be set forth.

In the accompanying drawings, Figure 1 represents a plan view, and Fig. 2 a view in elevation, of my improved swing.

A base, A, upon which the swing-frames run, may be either fixed or movable, and composed of any suitable material. An upright revolving shaft, B, is mounted in a suitable bearing in the center of the base A, and carries a skeleton-frame, which rotates with it, secured to its upper end, and consisting, in this instance, of four arms, C, attached to the shaft by means of a sleeve or collar, *c*, keyed or screwed in place. The arms C, it will be seen, radiate from the central shaft, and extend out therefrom horizontally over the base A, preferably projecting at their outer ends beyond the base. The arms C of the revolving frame carry swing-frames, which are mounted upon their outer ends. Each of these swing-frames is composed of a wheel, D, having a long hub or bearing, D′, from the inner end of which spokes *d* radiate to the rim or tread, which bears and revolves upon the base A at or near its edge, and of shorter spokes *d′*, radiating from the outer end of the hub. Disks or solid wheels might be substituted for both the wheel D and the side of the frame, composed of the spokes *d′*. These spokes *d′* might be made the same length as the main spokes; but I prefer them short, for a reason hereinafter given. The number of these supplementary spokes corresponds with the number of swings used, and they are arranged, as shown, opposite to or parallel with the main spokes *d*. In this instance there is a supplementary spoke opposite every alternate main spoke. The swing-frames may, if desired, be adjusted on their supporting-arms C, toward or from the center, to increase or diminish the diameter or length of the track they traverse. Swings E are pendulously supported between the main or wheel spokes *d* and the outer ends of the supplementary spokes *d′* by rods E′, fitted at their opposite ends in the spokes, as shown. In this manner the swings always hang below the rods, and are maintained in the same upright position at all times during the revolutions of the swing-frames around their axes, which revolutions are caused, as will be seen, by the peripheries or treads of the wheels D bearing and running upon the base A in a circular track as they are rotated around the central shaft B. The base thus directly sustains the weight of the swing-frames, and relieves the rotating frame C and driving-shaft B of all strain other than that necessary to maintain the swing-frames in upright positions. The swings are provided with seats *f*, and preferably with close bottoms, as shown. By making the spokes *d′* shorter than the main or wheel spokes, and suspending the swings from rods fitted in or near the ends of the spokes *d′*, the outer sides of the swings are left unobstructed for the swingers to get in and out. I prefer to cause the wheels D to traverse the outer portion, or very near the edge of the base, so that no parts of the swings come over the base, as in this way the swings may be hung nearer the peripheries of the wheels than they could be if they lapped or hung over the base, and may, when in their lowest positions, hang below the top of the base. A circular rail-track might be secured upon the base in the path traversed by the swing-frames, and the wheels grooved or flanged to run upon the track, and it is obvious that the central shaft might be allowed very slight endwise movement, to admit of the wheels conforming to changes caused by wear or otherwise in the level of the track.

The swing is driven by steam or any suitable power, or it may be made of small or toy size, with figures or images fixed in the swings, and be driven by a spring or clock-work, or rotated by hand.

I claim as my invention—

1. The swing-frame hereinbefore described, consisting of the combination of the wheel, its long hub, the short supplementary spokes radiating from the hub parallel with the main spokes, and the rods fitted at their ends in the spokes, as set forth.

2. The combination, substantially as hereinbefore set forth, of the base, the rotating skeleton-frame, the swing-frames mounted thereon, and bearing upon and running around the base, and the swings suspended in the frames.

3. The combination, substantially as hereinbefore set forth, of the base, the shaft turning in the center thereof, the skeleton-frame turning with the central shaft, the wheels turning on the arms of the skeleton-frame and bearing upon the base, the supplementary spokes, and the suspended swings.

In testimony whereof I have hereunto subscribed my name.

I. N. FORRESTER.

Witnesses:

UPTON SCOTT,

A. ROBINSON.