(No Model.)

W. J. BISHOP.

ROTARY SWING.

No. 340,193. Patented Apr. 20, 1886.

Fig 1.

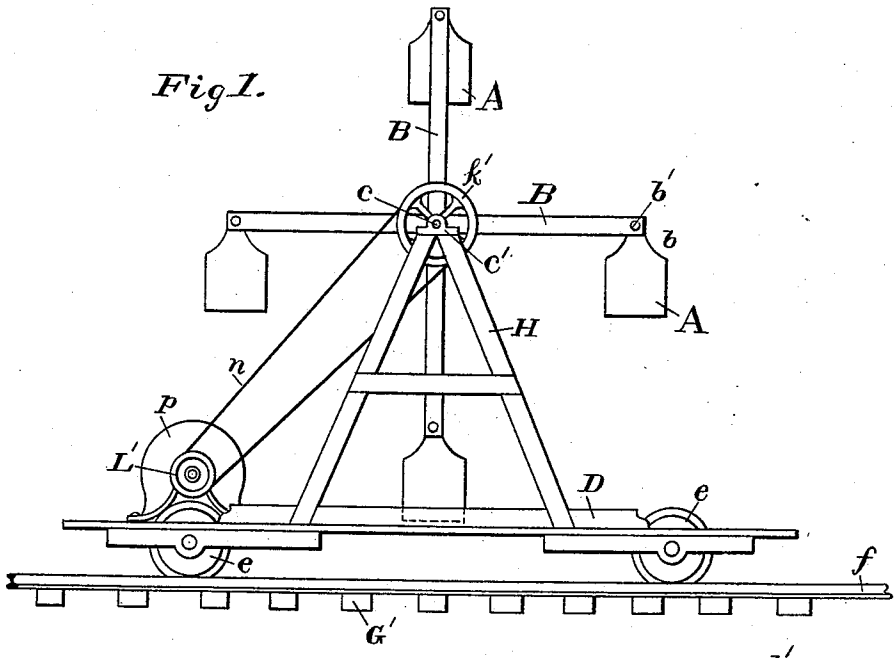


Fig. 2.

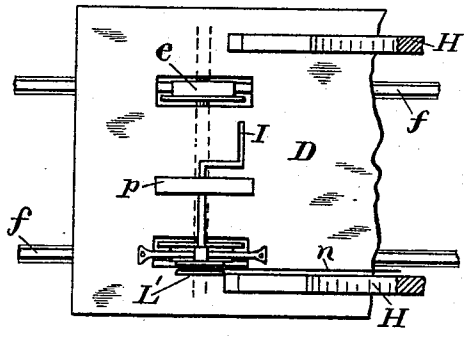
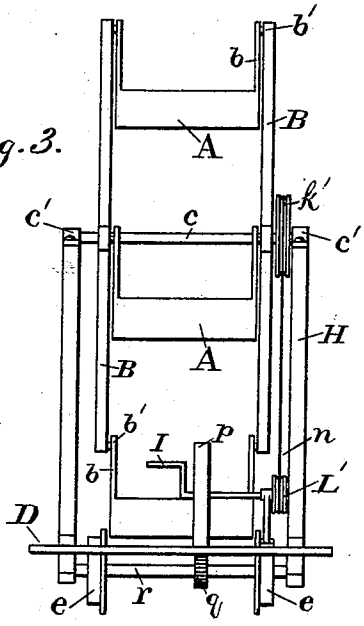


Fig. 3.



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UNITED STATES PATENT OFFICE.

WILLIAM J. BISHOP, OF BALTIMORE, MARYLAND.

ROTARY SWING.

SPECIFICATION forming part of Letters Patent No. 340,193, dated April 20, 1886.

Application filed October 7, 1884. Serial No. 144,907. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM J. BISHOP, a citizen of the United States, residing at Baltimore, in the State of Maryland, have invented certain new and useful Improvements in Rotary Swings, of which the following is a specification.

My invention relates to an improved rotary swing, the object being to provide a swing with seats pivoted on a frame that shall rotate in a vertical plane and also move bodily in a horizontal plane, both of which movements are effected by connected mechanism.

The construction whereby the desired result is accomplished will be described in connection with the accomyanying drawings, which illustrate what is deemed the best means of carrying the invention into effect.

Figure 1 is a side view of the swing and its carriage on a track laid on the ground. Fig. 2 is a top view of one end of the carriage. Fig. 3 is an end elevation of the swing and its carriage.

The letter A designates the seats of the swing, each seat having hangers *b*, which are pivoted at *b'* to the arms B of a rotary frame. Four arms are shown, but more than four, or less, may be employed. The frame is fixed on a horizontal shaft, *c*, whose ends are journaled in bearings *c'*, thereby enabling the frame and hanging seats to rotate in a vertical plane. The bearings which sustain the rotary frame are supported on standards H, mounted on a carriage, D, having wheels *e*, which traverse the rails of a track, *f*. The rotary frame will turn between the standards. This track may be elevated or may lie on sleepers G', placed on the ground. Whether the track be elevated or not, the rotary swing will move in a horizontal plane at the same time that the seats are revolving in a vertical plane. To effect these combined movements simultaneously, a single crank or equivalent driving device on the carriage is employed, and mechanism connects this driving device both with the carriage running-gear and the shaft of the rotary swing. The shaft *c* of the rotary frame has a driven pulley, *k'*, and a drive-pulley, L', is mounted on a crank-shaft, I', on the carriage D. A rope or belt, *n*, passes over these two pulleys. The shaft on which the crank or other driving device is mounted has a cog-wheel, (not seen in the drawings, because inclosed in the casing *p*,) and said cog-wheel gears with a similar wheel, *q*, on the axle *r* of the carriage-wheels *e*. It will be seen that upon turning the crank the carriage will be moved and the rotary frame turned.

Instead of a crank to be turned by hand-power, I may use an equivalent driving device—such as a pulley or cog-gearing—and I may employ steam or other power. The track may extend straight or may be laid in a circle. If straight, the carriage will pass back and forth; if in a circle, it will run continuously in one direction.

Heretofore a toy swing has been made to rotate in a vertical plane between uprights made fast to an axle, which axle was mounted on two wheels, like a cart, and the whole drawn by a tongue. A frictional connection was also made between the said two wheels and the shaft of the rotary swing, whereby upon drawing the toy by the tongue the swing would rotate. I lay no claim to such a device, my invention being distinct therefrom.

Having described my invention, I claim and desire to secure by Letters Patent of the United States—

The combination of a carriage wholly supported on wheels resting on the track, a horizontal shaft, *c*, resting in bearings on the carriage, a swing-frame supported on the horizontal shaft to rotate in a vertical plane, a pulley attached to the said shaft of the swing-frame, a crank-shaft on the carriage provided with a pulley, a cog-wheel, *q*, on the carriage-axle, gearing connecting the said crank-shaft and cog-wheel, and a drive-belt, *n*, connecting the pulley on the swing-frame shaft with that on the crank-shaft, as set forth.

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

WILLIAM J. BISHOP.

Witnesses:
WM. B. NELSON,
JOHN E. MORRIS.