(No Model.)

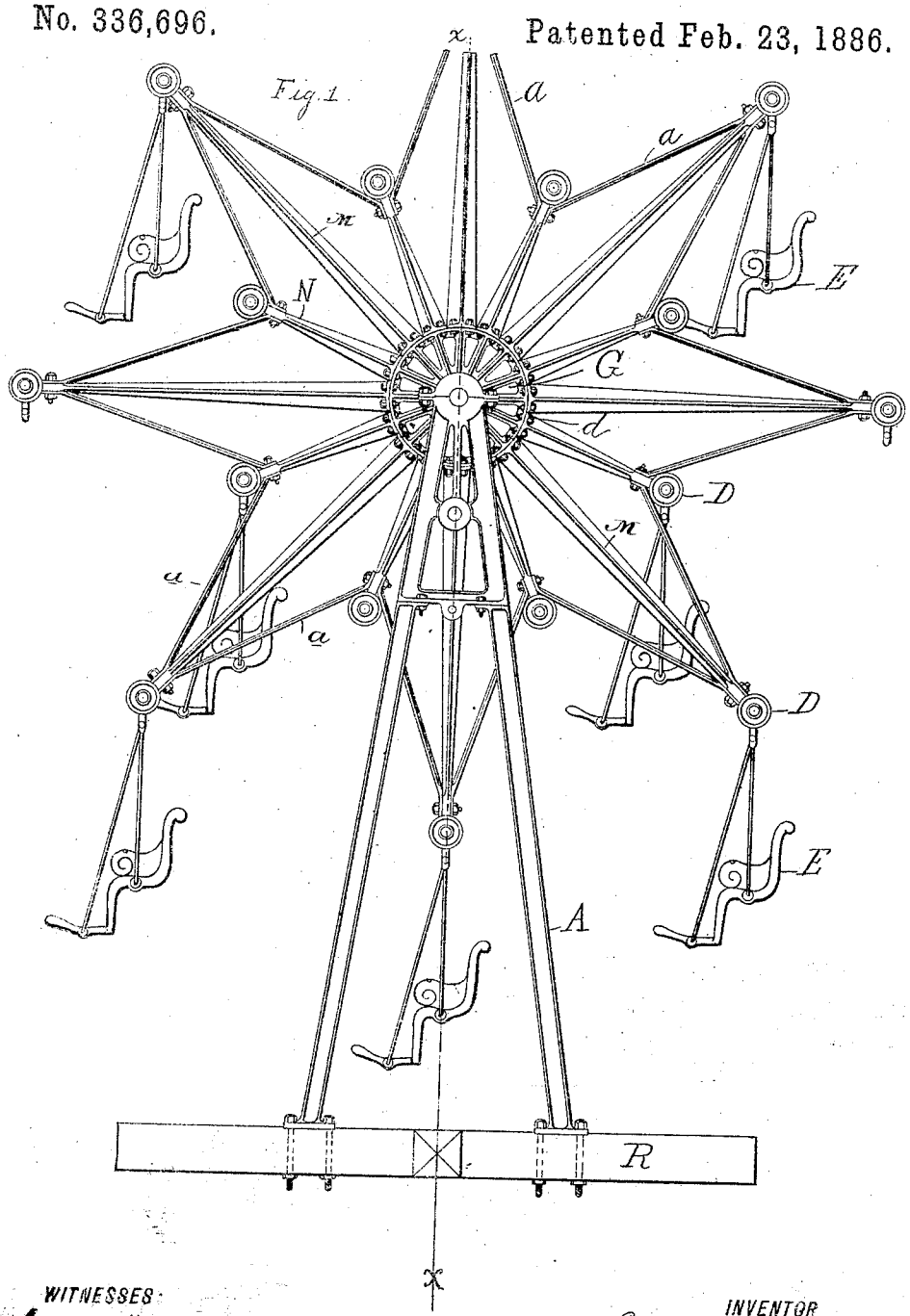
2 Sheets—Sheet 1.

L. M. CAMPI.

VERTICAL ROTARY SWING.

No. 336,696. Patented Feb. 23, 1886.

Fig. 1.



WITNESSES:

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(No Model.) 2 Sheets—Sheet 2.

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FIG. 2.

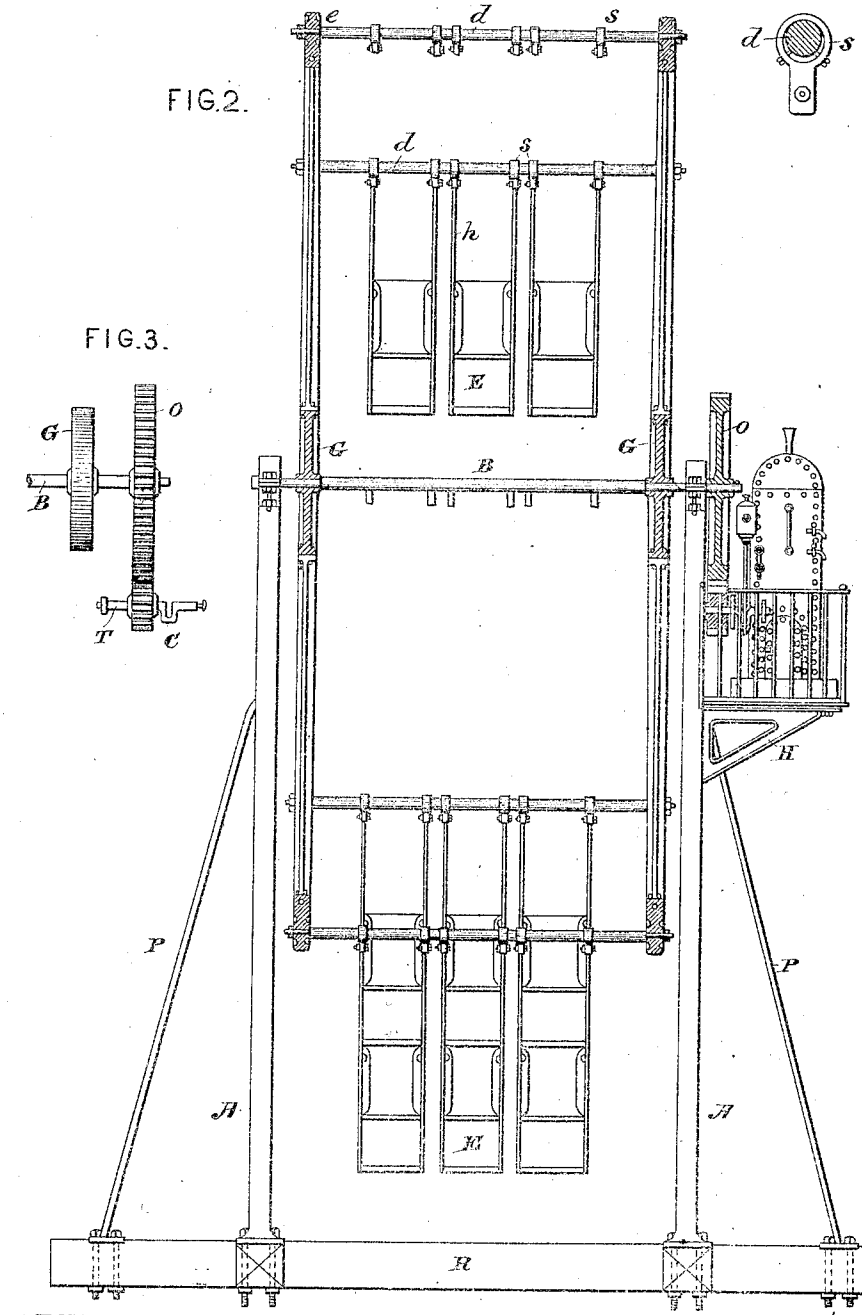

FIG. 3.

ATTEST—

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UNITED STATES PATENT OFFICE.

LUCAS M. CAMPI, OF NEW YORK, N. Y.

VERTICAL ROTARY SWING.

SPECIFICATION forming part of Letters Patent No. 336,696, dated February 23, 1886.

Application filed July 30, 1885. Serial No. 173,041. (No model.)

To all whom it may concern:

Be it known that I, LUCAS M. CAMPI, a citizen of Porto Rico, a subject of the King of Spain, residing in the city of New York and State of New York, have invented a new and useful invention—to wit, a Vertical Rotary Swing—of which the following is a specification.

This invention relates to vertical rotary swings which are adapted to be operated by steam power.

It has for its object to provide a frame-work which in side view represents a star, the said frame-work being provided with two sets of cross-bars from which are suspended seats that rotate with the swing, but which retain a vertical position at all times, as will be hereinafter explained.

My invention is fully illustrated in the accompanying drawings, which form part of this specification, and in which similar letters of reference indicate corresponding parts.

Figure 1 represents a side elevation showing the formation of the star and the manner in which the seats are suspended from the two rows of cross-bars. Fig. 2 represents a transverse vertical section through the line *x x*, Fig. 1, showing a face view of the seats E and the manner in which they are suspended from the cross-bars D; and Fig. 3 illustrates the geared driving-wheels *c* and *o* and circular foundation-piece G, which is keyed to the shaft B, and to which the arms M and N are rigidly secured, as shown at *d*, Fig. 1.

The arms M and N are provided with flanges at their foundation end, which conform to the periphery of the foundation-piece G, and this flange portion is either riveted or bolted to the foundation-piece, as illustrated. In order to support the outer ends of the arms and to form the star, the braces *a* are rigidly secured one end to the arm M and one end to the arm N. They can be either riveted or bolted, as the case may require.

To construct my swing, I use two or more of the star frames, as described, and arrange the seats to swing in between each pair of frames, as follows: Each star-frame is keyed to the shaft B the requisite distance apart. The cross-bars D are then secured to the outer ends of the arms M and N by means of the eyes *e*, which are provided on each of the arms, and the proper nuts on the ends of each cross-bar. The seats are suspended from the cross-bars by means of the hangers *h*, which are attached to small sleeves *s*, which fit loosely around the cross-bars D and permit the seat to hang in a vertical position while the swing is rotating. They also permit the user of the seat to oscillate the same at pleasure. A row of seats is provided on each of the outer cross-bars, but to the small arms N cross-bars and seats are provided only to every second pair, as the distance between each pair would not leave sufficient room for the seat to clear when the swing is being rotated. One of the supports A is provided with a platform, H, which supports the necessary engine and boiler. The supports A rest upon and are secured to the bed-piece R, as illustrated, and are provided with the stays P, which are bolted to the bed-piece and supports, as illustrated in Fig. 2.

The swing is operated as follows: The engine revolves the shaft T, which carries the small cog-wheel *c*. This cog-wheel meshes with and revolves the large geared wheel *o*, which is keyed to and rotates the main shaft B, which in turn rotates the swing.

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

The combination of the horizontal shaft B, mounted in the foundation-pieces G, said shaft being driven by a suitable motor, the long and short arms M and N, secured to said foundation-pieces G, the braces *a*, which connect the extremities of said long and short arms M and N, and the cross-bars *d*, and seats E, substantially as set forth.

In testimony that I claim the foregoing invention—to wit, a vertical rotary swing, as above described—I have hereunto set my hand this 1st day of July, 1885.

LUCAS M. CAMPI.

Witnesses:

ALEXR. MELHADO,

E. L. J. COLLIER.