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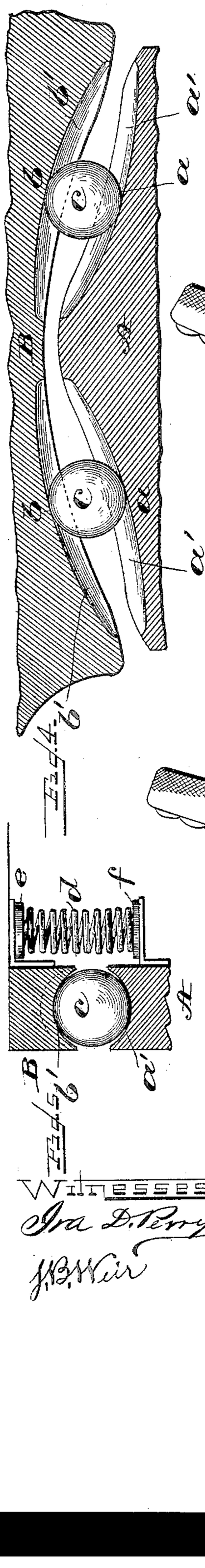
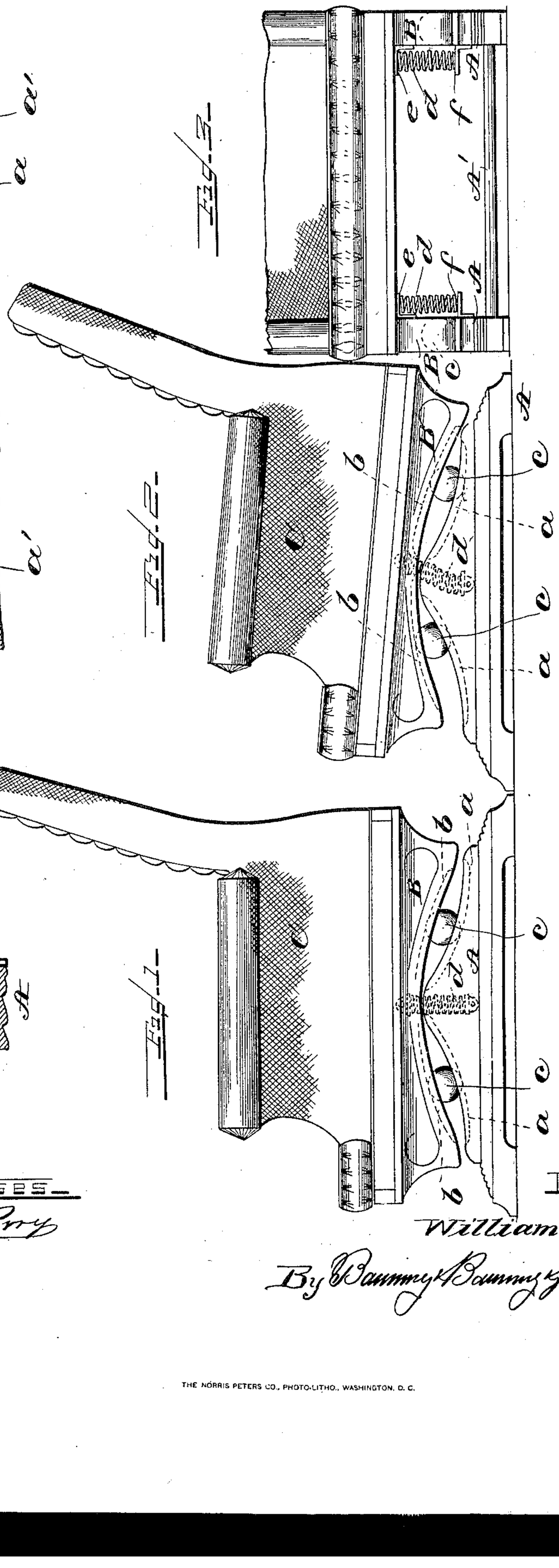
W. I. BUNKER.

PLATFORM OR BASE ROCKER.

(Application filed Jan. 29, 1900.)

(No Model.)





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UNITED STATES PATENT OFFICE.

WILLIAM I. BUNKER, OF LA GRANGE, ILLINOIS.

PLATFORM OR BASE ROCKER.

SPECIFICATION forming part of Letters Patent No. 667,967, dated February 12, 1901.

Application filed January 29, 1900. Serial No. 3,148. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM I. BUNKER, a citizen of the United States, residing at La Grange, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Platform or Base Rockers, of which the following is a specification.

Platform or base rockers in order to be comfortable should have the same easy rolling or rocking movement found in floor-rockers, and numerous attempts have been made to secure this result in the construction of platform or base rockers by the employment of springs of varying construction and arrangement, but without attaining practically a rocker of the platform or base type with an easy and regular rocking movement.

The object of my invention is to construct a platform or base rocker having therein the rolling or rocking movement of an ordinary floor-rocker and without any of the objectionable features found where springs are employed to secure a rocking movement; and the invention consists in the features of construction and combination of parts hereinafter described and claimed.

In the drawings illustrating my improvement, Figure 1 is a side elevation showing the seat and body of the chair and the rolling or rocking contacts or bearings on which the parts are supported in normal position; Fig. 2, a side elevation showing the parts in the position they occupy when the chair is rocked or tipped backward; Fig. 3, a front elevation with the back of the chair-body broken away, showing the parts in the position of Fig. 1; Fig. 4, a detail in longitudinal section through the side rail of the base and the side rail of the seat-frame with the rolling contacts or bearings in elevation, and Fig. 5 a detail in section taken on line 5 of Fig. 4.

In carrying out my invention in one form of construction I provide a base having side rails or heads A, united by a cross-piece A′. Each side rail or head is inclined from its central point downward on each side, so as to form a contact or bearing face *a*, and each bearing-face has therein a groove or race *a*′, furnishing a traveling-surface. The seat-frame is provided on each side with a rail or head B to aline with its companion rail or head A of the base, and in the form shown each side rail or head of the frame is of a concave shape on its under side, forming on each side of its center a contact or bearing face *b*, and each bearing-face has therein a groove or race *b*′, forming a traveling-surface to coact with the traveling-surface of the base rail or head. The grooves or races in the side rails or heads are located on each side of the center of motion of the chair, and between the side rails or heads in each groove or race is located or interposed between the two parts composing the chair rocking or rolling contacts or bearings on which the frame of the chair and the body C thereof are supported and travel. The preferred form of rolling contact or bearing is in the shape of a round ball *c*, preferably of rubber, and for use with such form of rolling contact or bearing the grooves or races have a shape in cross-section to fit the exterior of the ball, as shown in Fig. 5. Instead of a rolling contact or bearing in the shape of a ball such contact or bearing may be of a cylindrical form and in the shape of a solid body or a tube, and its bearing-face may be plain or straight or otherwise formed so long as the surface presented is one which will give the required support and roll or rock for the easy travel of the body in its rocking movements, and instead of rubber these rolling contacts or bearings may be of wood, metal, or other material suitable for the purpose. It will be understood that the groove or race is to conform as to shape in cross-section with the form of the exterior face of the rolling contact or bearing.

The preferred shape of the bottom or bearing face of the groove or race *a*′ is shown in Fig. 5, as is also the preferred form of the bottom or bearing face of the groove or race *b*′. It will be noticed that when the parts are in normal position the race formed is farthest apart at the center and nearest together at the ends, giving a concave or dish-shaped bearing-face longitudinally for both the base and chair on each side of the center of motion. This form of construction for the race gives the required traveling-surface for the rolling contacts or bearings, by which an easy movement is had in rocking, as the contacts or bearings roll to and fro between the contact or bearing faces of the side rails or heads.

The chair-body may be connected with its

base in any suitable manner. As shown, such connection is furnished by a spring *d*, one end of which is connected with a bracket *e*, secured to the side rail or head of the seat-frame, and the other end of which is connected with a bracket *f*, secured to the side rail or head of the base, and a spring is provided for each side of the chair. These springs do not in any manner control the rocking movement, which is controlled solely and wholly by the travel of the rolling contacts or bearings. The springs are merely for the purpose of holding the chair-body to the base, and instead of coil-springs rubber straps or other form of connection can be applied and used for the purpose, so long as the connection is one that will permit of perfect flexibility between the parts of the chair for the rocking or rolling movement.

The rolling or rocking contacts or bearings furnish a traveling support between the base side rails or heads and the frame side rails or heads, on which the chair-body is mounted and carried and by which a perfectly free and easy rocking movement is secured, and such movement is had from the travel of the rolling contacts or bearings on the traveling-surfaces furnished by the grooves or races in which they are located and the conformation of such grooves or races, by which an easy gradual rock is produced without any jerk, jar, or connection.

I claim—

1. In a platform or base rocker, the combination of a base and a seat separated from each other and each having an elongated bearing-face, with the two bearing-faces in vertical alinement and having an upward inclination in the direction of the center of motion of the seat to the base, and roller-bearings located between and held in place by engaging the bearing-faces of the base and seat and having an opposite travel on the bearing-faces in relation to each other toward and from the center of motion, substantially as described.

2. The combination in a rocker, of a base having on its upper surface a bearing-face, a seat having on its under surface a bearing-face, the two bearing-faces being in vertical alinement with each other and each having an upward inclination in the direction of the center of motion of the seat to the base, and rolling bearings interposed between the bearing-faces and held in place by the action of such faces between the two parts of the chair and having an opposite travel in relation to each other toward and from the center of motion permitting the seat to rock backward and forward, substantially as described.

3. In a platform or base rocker, a frame and base both provided on each side of the center of motion with a depressed bearing-face, each face having an upward inclination in the direction of the center of motion of the seat to the base, in combination with a rolling contact or bearing on each side of the center of motion interposed between and common to the two opposite faces and held in place by the engagement of the faces, the contacts or bearings having an opposite travel in relation to each other toward and from the center of motion and furnishing a support for and on which the seat rocks, substantially as described.

4. In a platform or base rocker, the combination of a base having side rails or heads, each provided with inclined supporting-faces and each face having a retaining and traveling groove, a rocker-frame having side rails or heads, each provided with inclined supporting-faces and each face having a retaining and traveling groove, and an interposed rolling contact or bearing traveling in the grooves between the rails or heads on each side of the center of motion and held in place by engagement with the faces of the grooves, substantially as described.

5. In a chair, the combination of a rocker and a base having their adjacent faces in vertical alinement and separated from each other and each face having an upward inclination in the direction of the center of motion of the seat to the base, individual carriers on each side of the center of motion interposed between and in direct contact with the faces on both the rocker and the base and held in place thereby, each carrier having an opposite travel in relation one to the other toward and from the center of motion, and means for controlling the motion of the rocker on the base, substantially as described.

6. In a chair, the combination of a rocker and a base, having their adjacent faces in vertical alinement and of an elongated dish shape and separated from each other, each face having an upward inclination in the direction of the center of motion of the seat to the base, individual carriers on each side of the center of motion interposed between and in direct contact with the elongated dish-shaped faces of both the rocker and base, each carrier having an opposite travel one to the other toward and from the center of motion, and means for controlling the motion of the rocker on the base, substantially as described.

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