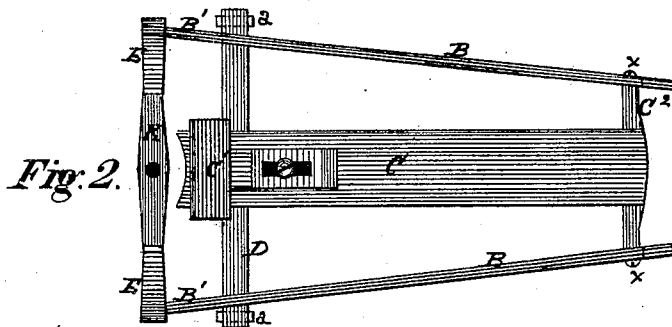
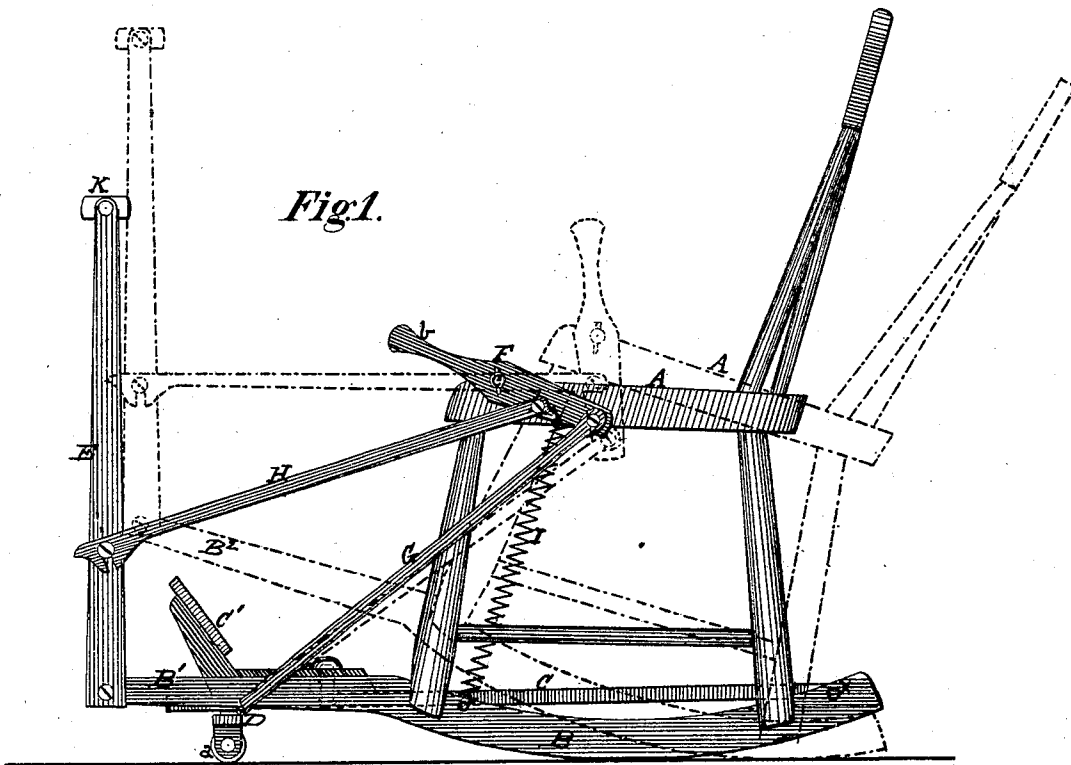


Mechanical Powers.

No. 141,741.

Patented August 12, 1873.



WITNESSES.

Thos. Selkirk
Willis Nash

Cornelius Van Vorst
Inventor.

UNITED STATES PATENT OFFICE.

CORNELIUS VAN DERZEE, OF ALBANY, NEW YORK, ASSIGNOR OF TWO-THIRDS HIS RIGHT TO DAVID DOREMUS AND DAVID H. MATHIAS, OF SAME PLACE.

IMPROVEMENT IN MECHANICAL POWERS.

Specification forming part of Letters Patent No. **141,741**, dated August 12, 1873; application filed July 23, 1873.

To all whom it may concern:

Be it known that I, CORNELIUS VAN DERZEE, of the city and county of Albany, State of New York, have invented certain new and useful Improvements in Mechanical Powers; and I do hereby declare that the following is a description thereof, reference being had to the accompanying drawings, in which—

Figure 1 represents a side elevation of the invention. Fig. 2 is a vertical view of the same.

My invention relates to a mechanical power operated by the oscillations of a rocking-chair, in which the operator sits; and consists, in one part, of the extended ends of the rockers, vertical standards, a gallows, and a foot-lever, connected by a roller-bar with the said rockers, in combination with the rocking-chair, by which the said extended ends of the said rockers will effect the vertical raising of the gallows or bars, while the foot-lever will be made to aid the operator to throw the said chair back on its rockers. It further consists in the combination of a handled lever and pitman with the chair and the foot-lever, whereby the operator will be capable of using his hands to throw the chair back and elevate the rockers in front. It also consists in a connecting-bar and a lever, with the chair and the vertical bars or gallows, whereby the said gallows will be maintained in a vertical position; also, in the combination of supporting-rollers with the foot-lever and the rockers of the chair, whereby the front of the said foot-lever will be properly supported, and be permitted to vary its relative position on the floor with the chair when being operated; also, in the combination of a spring with the lever and the rockers of the chair, whereby the said spring will be made to operate with the chair to elevate the front of the same.

To enable others skilled in art to make and use my invention, I will proceed to describe it in reference to the drawings and the letters of reference marked thereon, the same letters indicating like parts.

In the drawing, A represents a chair of any suitable construction. B is the rocker, made

with the extended end B¹, which, when the chair is thrown back, as shown by dotted lines, will be elevated, as shown by dotted lines B². C is a foot-lever located beneath the chair, and extending forward, as shown, and provided with the foot-piece C¹, which may be made adjustable to adapt its distance from the chair to suit the length of the legs of the operator. The rear end of the said foot-lever is attached to a roller-bar, C², working between the rear ends of the rockers, and capable of rolling the same from the pintles X. Secured beneath the said foot-lever is the supporting-bar D, supported by rollers or wheels *a a*, which will permit the foot-lever to slightly draw back without any friction when the chair is thrown back. Pivoted to the extended ends of the rockers are the vertical bars or gallows E, which will be elevated vertically when the chair is thrown back by the raising of the extended ends of the rockers. To each side of the chair is secured, in a movable manner, the hand-lever F, pivoted at *c*. Pivoted to the lower end of the said lever is the pitman G, which is hinged to the supporting-bar D, as shown, so that when the handle *b* of the said lever is pulled back, it will cause the lower end to throw down, and through the pitman G, connected with the supporting-bar D and pressing against the same, the operator can throw the chair back without any exertion by his feet against the foot-lever. This arrangement is intended to be an auxiliary device to operate with the foot-lever, or independent of the same, as may be desired. Pivoted to the hand-lever F, between the pivot *c* and pitman G, is a connecting-bar, H, which connects in a loose manner with the gallows E, as shown, and operates to sustain the said gallows in an upright position in all the operations of the apparatus. A spring, I, is attached to the rocker below and to the hand-lever F above, as shown, which tends to ease the operation by drawing on the said lever to cause the pitman to press against the supporting-bar D, and thereby tend to throw the chair back.

The manner in which the several parts op-

erate is as follows: The operator sitting in the chair will plant one or both feet against the foot-piece C¹, and pressing against the same will throw the chair back so as to stand on the back of the rockers, as shown by dotted lines, when the extended ends B¹ of the rockers will be elevated, and will raise the gallows E and carry up the dasher of a churn or other device to a certain point, and when the operator permits the chair to throw forward, as in full lines, the said gallows will be lowered, and by the repeated operations a reciprocating movement of the gallows will be effected, which will operate a churn, or a crank or wheel, which may be connected with the cross-bar K.

When the operator operates the handled lever F in a reciprocating manner the pitman G will, in operating with the supporting-bar D, cause the chair to rock, and alternately raise and depress the extended end of the rocker, and consequently the gallows, and in this the operator will be aided by the spring I connected with the handled lever and the rocker. The connecting-bar H will also operate to preserve the gallows in an upright position.

This apparatus can be successfully used as a mechanical power to produce a reciprocating motion, and impart the same to a churn or a fly-wheel through a crank and a movable

pitman in an easy manner, the gravity of the operator and the operation of his legs and feet, with or without the use of his hands with the hand-lever, to give the required alternate rising and falling motion to the extended ends of rocker to effect the results desired.

Having described my invention, what I claim, and desire to secure by Letters Patent, is—

1. The combination of the extended ends B of the rocker, vertical standards or gallows E, and foot-lever C with the chair A, substantially as and for the purpose set forth.
2. The handled lever F and pitman G, in combination with the supporting-bar D and foot-lever F, substantially as and for the purpose set forth.
3. The connecting-bar H, in combination with the lever F, chair A, and the gallows E, substantially as and for the purpose set forth.
4. The combination of the rollers a with the supporting-bar D, foot-lever C, and chair A, substantially as and for the purpose set forth.
5. The combination of the spring I with the lever F and the rocker B, substantially as and for the purpose set forth.

CORNELIUS VAN DERZEE.

Witnesses:

ALEX. SELKIRK,
WILLIS G. NASH.