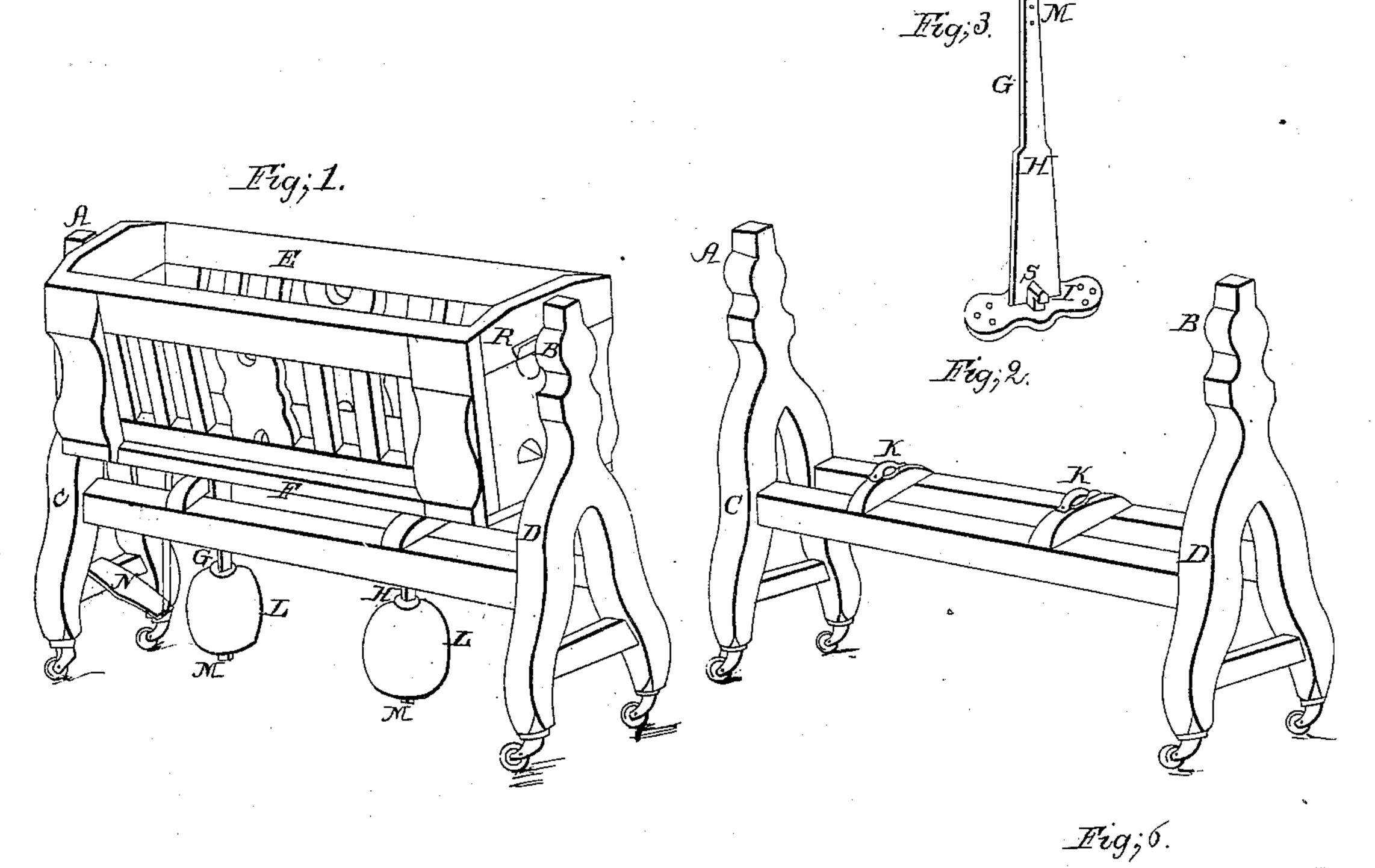
## S. M. Moules,

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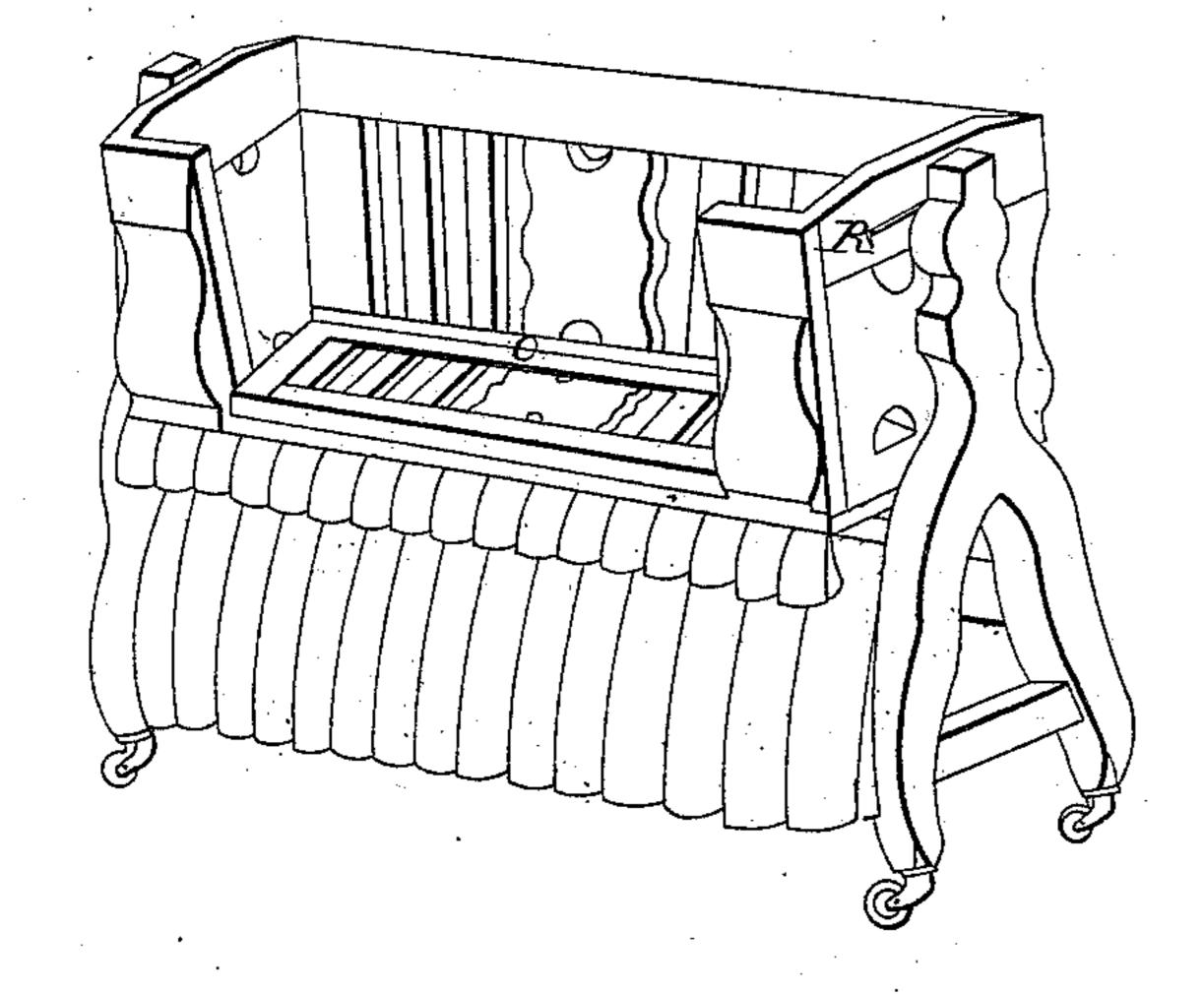
N 70 8468.

Patented Oct 28, 1851.

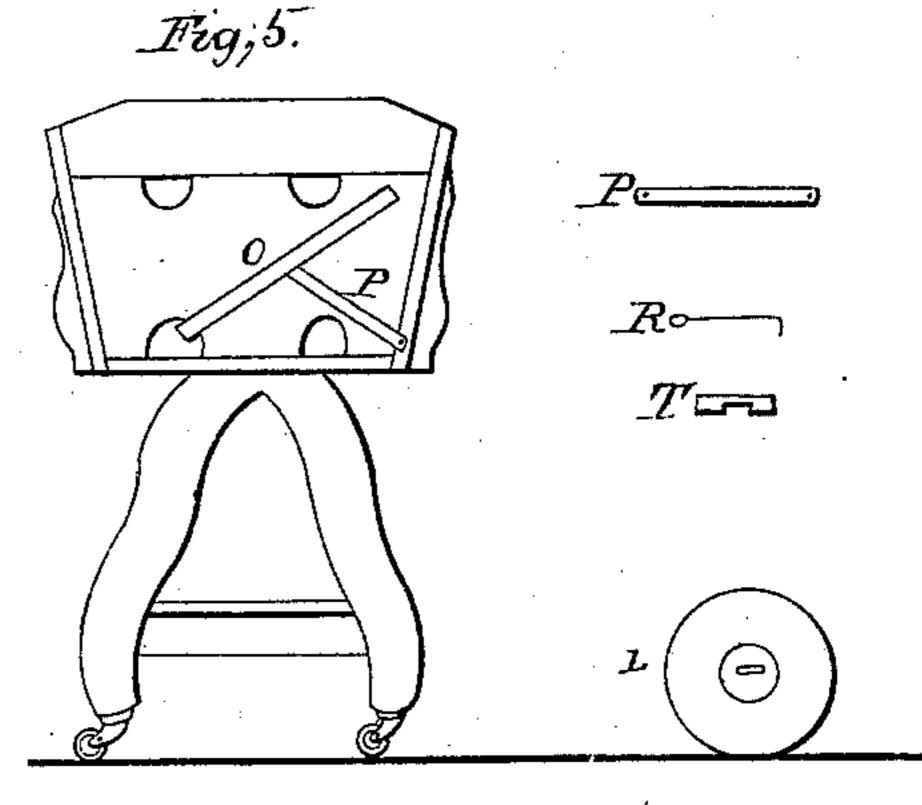
Fig. 3. M.



Fig,4



 $Q' = \square$ 



Witnesses; Sonathan Barry Mariottr. Barry

Inventor;

==**P**Q

## UNITED STATES PATENT OFFICE.

S. W. KNOWLES, OF MIDDLETOWN, CONNECTICUT.

SWINGING CRADLE.

Specification of Letters Patent No. 8,468, dated October 28, 1851.

To all whom it may concern:

Be it known that I, Selden W. Knowles, of Middletown, in the county of Middlesex and State of Connecticut, have invented a new and useful Improvement in the Article of Household Furniture known as a "Cradle," whereby the Same may be Used as a Cradle or a Crib or a Sofa; and I do hereby declare that the following is a full and exact description thereof; and I refer to the accompanying drawings and to the letters of reference marked thereon as forming a part of this my specification.

I first construct a frame A B C D, in which to suspend the cradle, and of such height that the bottom of the cradle when suspended shall be on a level with the seat

of an ordinary chair.

I construct the cradle E F, in such a man-20 ner that it may be used as a cradle, or a crib, or a sofa.

The rocking motion is communicated to the cradle by means of two iron rods or levers G, H,—which I call pendulum rods, 25 having each at the top a plate I, by which they are respectively screwed or otherwise secured to the under side of the bottom of the cradle, and hanging vertically with iron balances or weights L, at their lower extremities; the weights or balances being supported in such a manner that they may be attached or detached at pleasure by means of pins T, passing through the ends of the rods at M. The rods have, directly beneath 35 the plate I, a pivot-bearing, each, S, playing in sockets K, in the frame, so as to move freely therein. The body of the cradle and the weights or balances rest on these pivots; the movement of the rods being similar to 40 that of a pendulum, and communicating a rocking motion to the cradle.

The cradle may be moved by the hand, or, if desired, by the foot, by means of a treadle N, secured to the frame by a strapjoint or hinge-joint at one end, and at the other end by a strap fastened in any convenient manner to the under side of the bot-

tom of the cradle.

The body of the cradle is constructed, so that the bottom, the two ends and one side 50 are permanently framed together. The other side O, is separate, being attached by the joint P, and the bolts Q, when the cradle is wanted for the purposes of a cradle or a crib; and when it is wanted for the 55 purpose of a sofa, the movable side can be detached and laid over inward, thereby forming a seat for the sofa; the lower edge of the side being pressed inward, and the upper edge outward, the side falls, bringing 60 the upper edge thereof even with the outer edge of the bottom.

The frame A B C D rests on casters; the ends thereof extending to the top of the body of the cradle, and having a catch R, 65 by which the body is secured when used as a sofa. The weights or balances may be detached, when the article is used as a sofa; and several holes to receive pins may be made near the extremities of the rods, 70 whereby the weights or balances may be

elevated or depressed at pleasure.

The cradle thus constructed requires little effort or care to move it, and to keep it in motion; and its motion is noiseless, uniform, 75 and agreeable.

Figure 1, represents the article complete; Fig. 2, the frame; Fig. 3, the pendulum rod with its plate; Fig. 4, the article as a sofa; Fig. 5, an inside view of the end, represent- 80 ing the joint and falling side; Fig. 6, the falling side with its bolts.

What I claim as my invention and desire

to secure by Leters Patent is—

The combination of a cradle with pendu- 85 lum rods and balls or weights attached thereto, and set in a frame so as to swing therein, in the manner and for the purpose above set forth.

Dated at Middletown, the 27th day of 90 September, 1851.

## SELDEN W. KNOWLES.

In presence of Jonathan Barnes, Charles C. Ware.