Bradley & Wansbrough,

Roller Skate.

No. 103,419. Patented May 24. 1870.

Fig. 1.

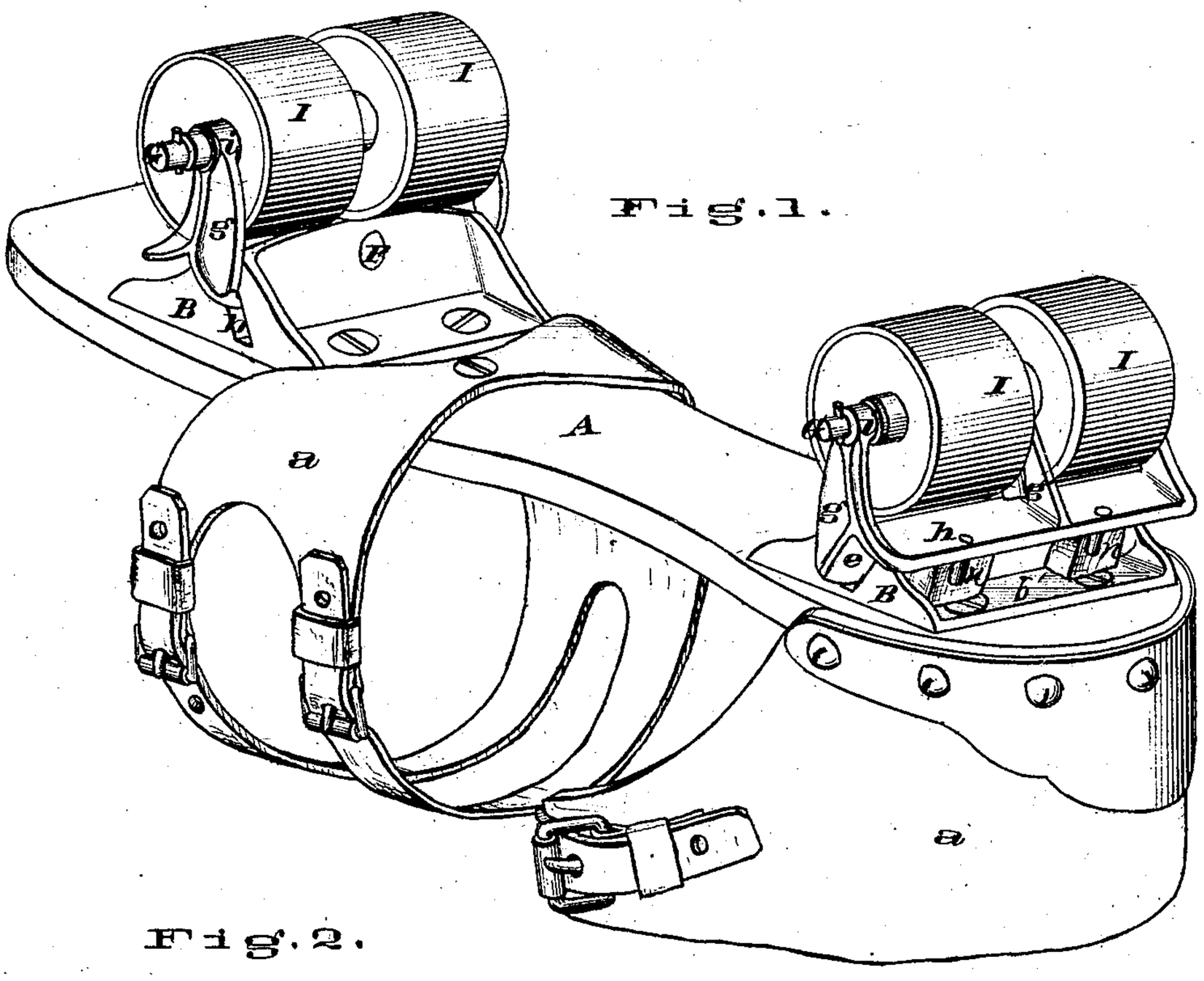
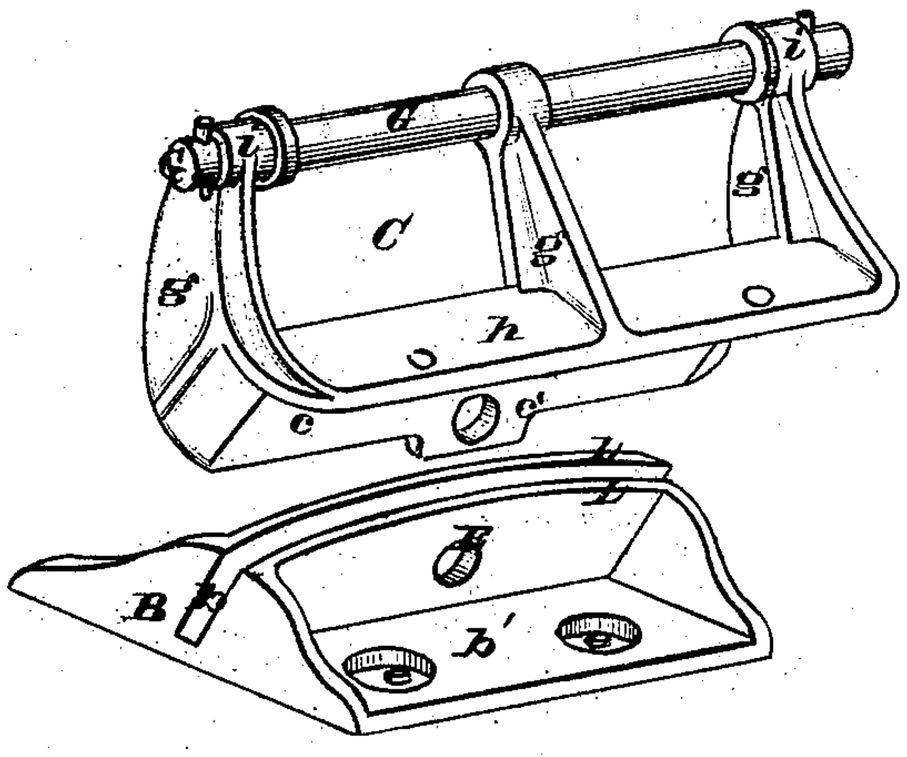


Fig. 2.



Attest.

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UNITED STATES PATENT OFFICE.

RICHARD T. BRADLEY AND HENRY W. WANSBROUGH, OF CINCINNATI, OHIO,
ASSIGNORS TO R. T. BRADLEY AND C. A. SCOTT, OF SAME PLACE.

IMPROVEMENT IN ROLLER-SKATES.

Specification forming part of Letters Patent No. **103,419,** dated May 24, 1870.

We, RICHARD T. BRADLEY and HENRY W. WANSBROUGH, of Cincinnati, Hamilton county, Ohio, have invented certain Improvements in Roller-Skates, of which the following is a specification:

Nature and Object of our Invention.

The first part of our invention relates to an improved manner of constructing a rocker or bed-frame, provided with suitable attachments to support the rocker, which is attached to the bed-frame by a pivot, the object of this part of the invention being to furnish a strong attachment of the rollers to the skates.

The second part of this invention relates to the combination of a rocker with peculiarly-constructed supports and journals for the rollers to revolve upon, and attached to the rockers, and so as to give the skate a lateral curve to right or left, enabling the operator to turn easily and gracefully without strain of the foot and with slight effort, the roller-frames being constructed so as to employ wide rollers, which require less effort for the operator to retain his equilibrium or balance; and, last, in combining rollers with improved rockers and rocker-bed frame, in such a manner as to secure a skate simple and cheap in its construction, with proper adaptation of parts to secure ease of movements and perfect control of the skates with little effort to the operator.

Description of the Accompanying Drawing.

Figure 1 is a perspective view of the skate embodying our invention. Fig. 2 is a plan of the rocker bed-frame and rocker and roller axle.

General Description.

A is the foot-board, which may be made of wood or metal, and of sufficient strength to overcome the strain exerted by the operator upon the skate. *a a* are straps provided with buckles, to secure the skate to the foot.

B B are the rocker bed-frames, which should be securely attached to the foot-board by screws or other suitable means. *b′* is a flange, with holes *e e* for screws or rivets to attach the bed-frame to the foot-board. *b* is a groove or gain made by two parallel projecting lips, L L, springing from flange *b′*. A bearing, E, for the axis F is drilled or made through the lips at a right angle with the plane of these inclined lips L L, which should be at an angle of about sixty degrees from the plane of the foot-board, as shown in Fig. 2.

C is the rocker-frame, composed of the following parts: *c* is the rocker, which extends across the foot-board, or nearly so, and is designed to fit loosely and work in the groove *b*. *c′* is the tenon, with a bearing for the pivot or axis F, corresponding to the bearing E. *h* is a flange or ledge attached to the standards *g g g*. These standards have journal-bearings *i i i*, to support the axis G, on which the rollers I I revolve. Tenon *c′* should have the same angle as the groove *b*, in which it is designed to work, and parallel with the rocker *c* the pivot or axis F passes through the bearing E of the lips L L and tenon *c′*, and forms a pivot-joint for the rocker *c*, and attaches the rocker-frame to the bed-frame.

The rocker bed-frame B and the rocker-frame C should each be made of metal and in one piece. (Malleable iron or "gun metal" is preferred.)

n n, Fig. 1, are pieces of rubber, held in position between flanges *b* and *b′* by pins, and act as springs to bring the rockers to a plane parallel with the foot when pressure is removed.

The angle of the groove *b* and rocker *c* and tenon *c′*, as they are placed, may be varied, the greater the angle from a vertical line the shorter will the skate turn when tilted.

As the foot-board is tilted, (the wheels remaining on the ground or floor,) each axis of the wheels is caused to swing in a horizontal plane, so that they no longer remain parallel, or in planes cutting the foot-support at right angles, but they lie in radii (one in one radius and the other in another) of the circle in which the skate will then move.

We deem the angle shown in Figs. 1 and 2 the proper one for general use.

Mode of Operation.

The skates should be secured to the feet sufficiently tight to prevent the foot from slipping, but not so tight as to "draw" or strain the muscles. By change of equilibrium, or by similar efforts to those practiced in the art of

ice-skating, the skater rocks or tilts the foot-board, and moves in straight or curved lines at will.

We claim as our invention—

1. The peculiar rocker bed-frame B, composed of the inclined lips L L, and groove *b*, and flange *b'*, substantially as herein set forth.

2. The rocker-frame C, when composed of the following parts: rocker *c* and inclined tenon *c'*, with inclined flange *h* and standards *g g g*, constructed and arranged as herein set forth.

3. The combination of the above-described rocker bed-frame B and rocker-frame C with the skate A and the rollers I I, substantially as herein set forth.

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Witnesses:
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