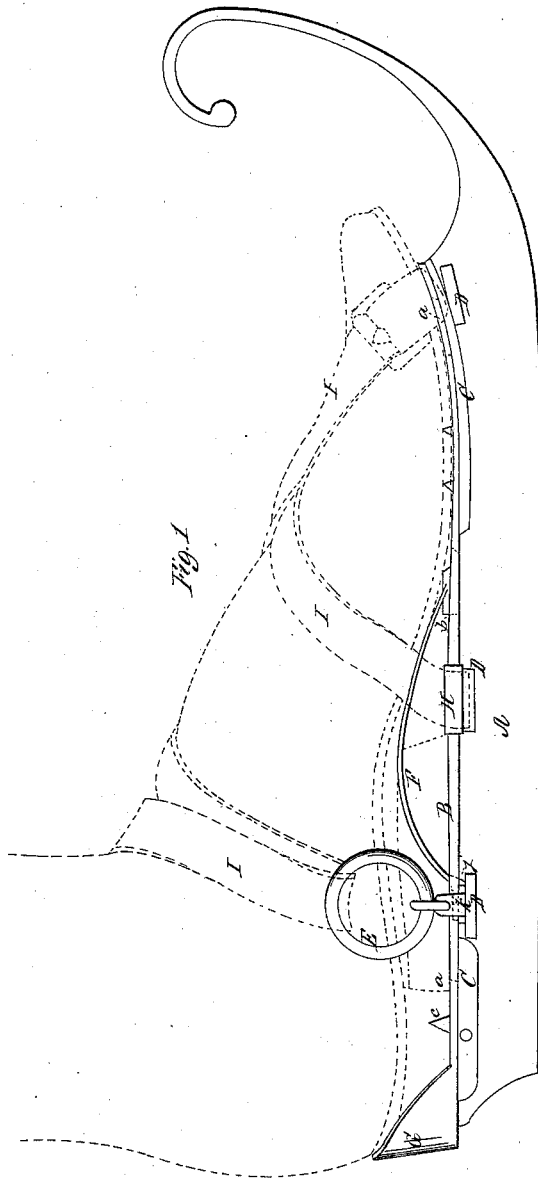


*Barclay & Bontgen,*  
*Skate,*

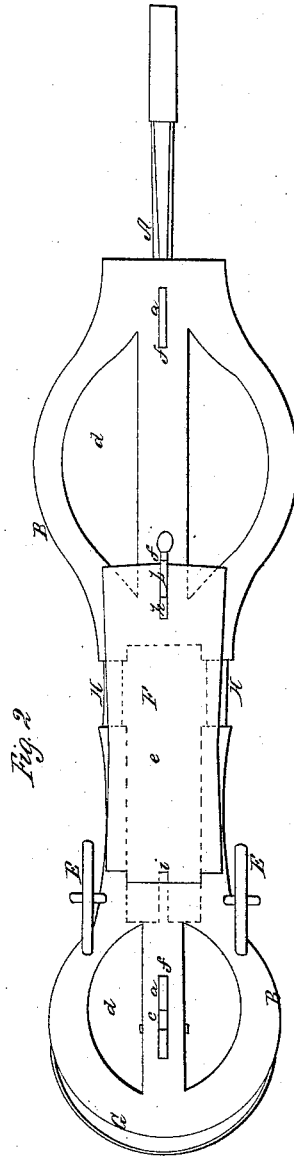
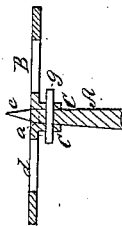
*Nº 6,330,*

*Patented Apr. 17, 1849.*



*Fig. 1*

*Fig. 3*



*Fig. 2*

# UNITED STATES PATENT OFFICE.

ALEXR. BARCLAY AND CH. W. BONTGEN, OF NEWARK, NEW JERSEY.

## SKATE.

Specification of Letters Patent No. 6,330, dated April 17, 1849.

*To all whom it may concern:*

Be it known that we, ALEXANDER BARCLAY and CHARLES W. BONTGEN, of Newark, in the county of Essex and State of New Jersey, have invented a new and useful Improvement in the Mode of Constructing Skates, which is described as follows, reference being had to the annexed drawings of the same, making part of this specification.

Figure 1, is a side elevation of the improved skate—the mode of bracing or strapping the same to the boot being represented by dotted lines. Fig. 2, is a top or bird's eye view of ditto. Fig. 3, is a vertical transverse section of ditto at the line *x x* of Fig. 2.

Similar letters in the figures refer to corresponding parts.

The nature of this invention and improvement consists in making the upper part of the skate of one or more pieces of iron (instead of wood as heretofore) of a skeleton form, raised at the heel and provided with a spring to conform with the shape of the shank and sole and heel of the boot of the wearer, and attaching the same to the runner or lower part by dovetails, rivets, or other means, and further strengthening the attachment by projections on the lower surface of the upper part; and combining other additions; in such a manner as to render the skate more strong and durable than those constructed in the ordinary mode, and to dispense with the heel strap and thus economize in this particular.

A is the runner or lower part of the skate, made of any desired form, and having on its upper edge dovetailed or straight projections *a*, *b*, at the forward and heel part of the skate, from one of which rises a prong *c* designed to enter a similar formed opening in the heel of the boot.

B is the upper part of the skate made of iron, of a skeleton form, (that is to say, with segmental spaces *d*, *d*, at the front and heel, and an oblong space *e*, at the shank or center) to correspond on its outer edge, and forward part of its upper surface, with the form of the boot of the wearer, and perforated midway between its sides with oblong slots *f* at the front and heel part, corresponding in size and form with the projections on the upper edge of the runner, which are inserted in the same.

C are projections formed on the lower surface of the upper part of the skate, at

the front and heel part of the same, in such a manner as to form grooves in which the upper edge of the runner fits, perforated with openings for the reception of bolts or rivets *g*, which pass through the same, and through similar openings in the upper part of the runner.

D are oblong slots formed in the runner near the upper edge of the same, and at the forward and heel part and near the center of the runner.

E are rings attached to projections secured to the under surface of the upper or skeleton part and near the heel of the same opposite the back oblong slot of the runner.

F is a curved steel spring, arranged on the upper part immediately under the shank of the boot, and having a slot *h*, in its forward end, in which the inside projection on the upper edge of the runner fits, and a corresponding formed slot *i*, at its opposite end, in which the upper edge of the runner fits; being reduced in size at this end so as to form shoulders, which rest on the surface of the upper part, and prevented from moving backward by projections *j*, on its lower part, resting against the projecting pieces *k*.

G is an inclined curved plate, formed at the heel of the upper part, corresponding in size and shape with the heel of the boot of the wearer.

H are friction rollers, suspended on rounded parts of the upper or skeleton part, opposite the inside slot in the runner, under which the strap passes in securing the skate to the boot.

I is the strap (represented by dotted lines) for securing the skate to the foot.

In securing the skate to the boot the heel of the same is placed against the inclined plate and the prongs are inserted in openings in the heel and sole of the same, and the strap is extended over the front part, under the roller, and through the inside oblong slot and under the friction roller on the opposite side, thence across the foot and through one of the rings and thence over the instep and through the ring on the opposite side and thence across the foot to the forward part of the same where it is secured to the buckle as represented by dotted lines in Fig. 1. In this manner the skate is secured to the foot without the aid of the usual heel strap, and the shank of the foot will be relieved by resting on the curved

spring which will yield to its pressure, and cause the skate to feel more easy and agreeable to the wearer.

What we claim as our invention and desire to secure by Letters Patent is—

Forming the upper iron part B, of the skate, with segmental spaces *d*, at the forward and heel part, and an oblong opening *e*, near the center, and providing the same with a curved spring F, near the center, for relieving the shank of the foot, and an inclined curved plate G at the heel, and rings E and rollers H, on either side, and securing the same to the runner by dovetailed or other formed projections *a, b*,

on the upper edge of said runner, entering corresponding formed slots in the upper part, and further strengthening the attachment by projections C, on the lower surface of the upper part, on either side of the runner, through which and the runner bolts or rivets *g* are inserted, in such a manner as to render the skate strong and durable, and to dispense with the usual heel strap, as herein set forth.

ALEX. BARCLAY.  
CH. W. BONTGEN.

Witnesses:

DRUSIUS S. BALDWIN,  
E. A. ALLEN.