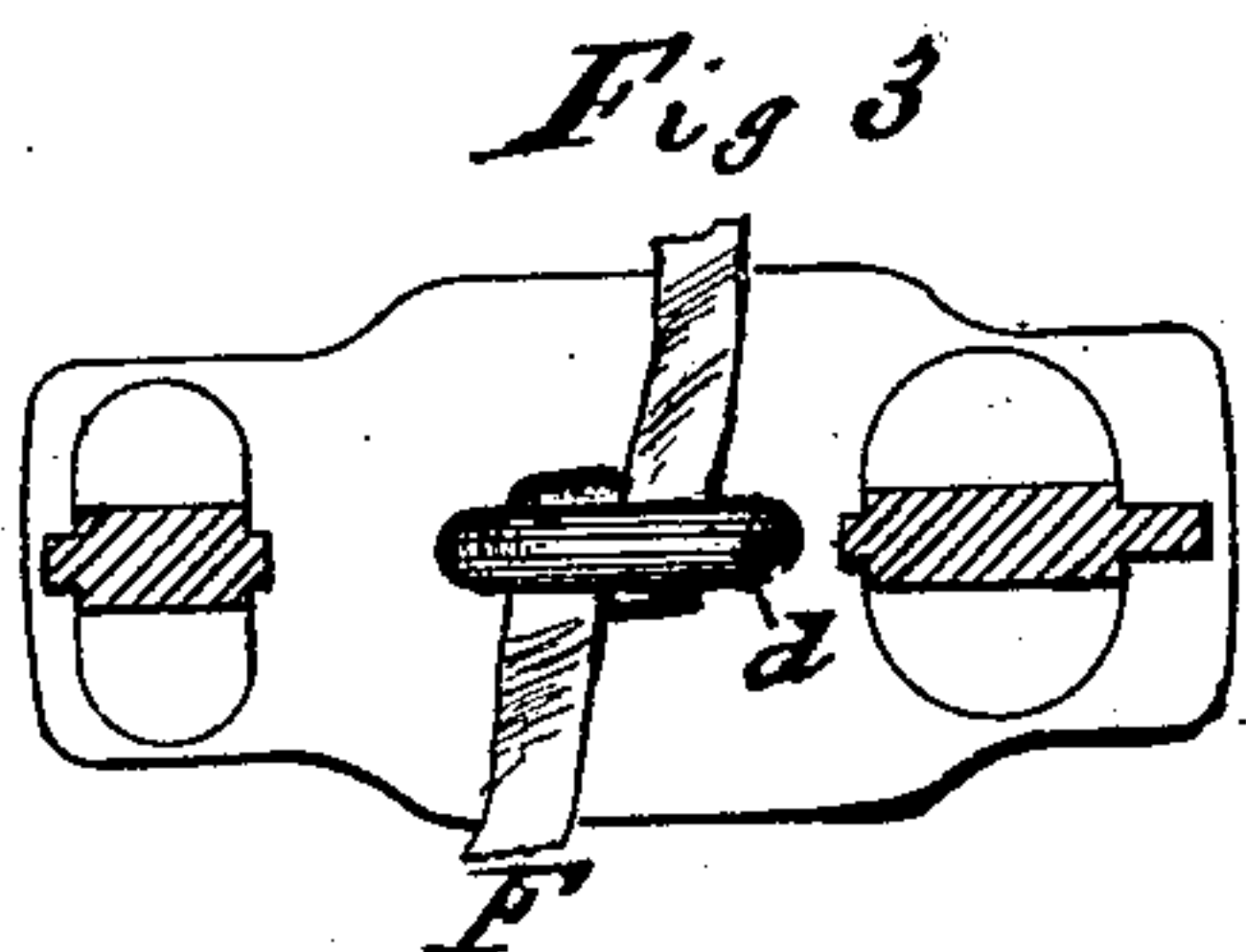
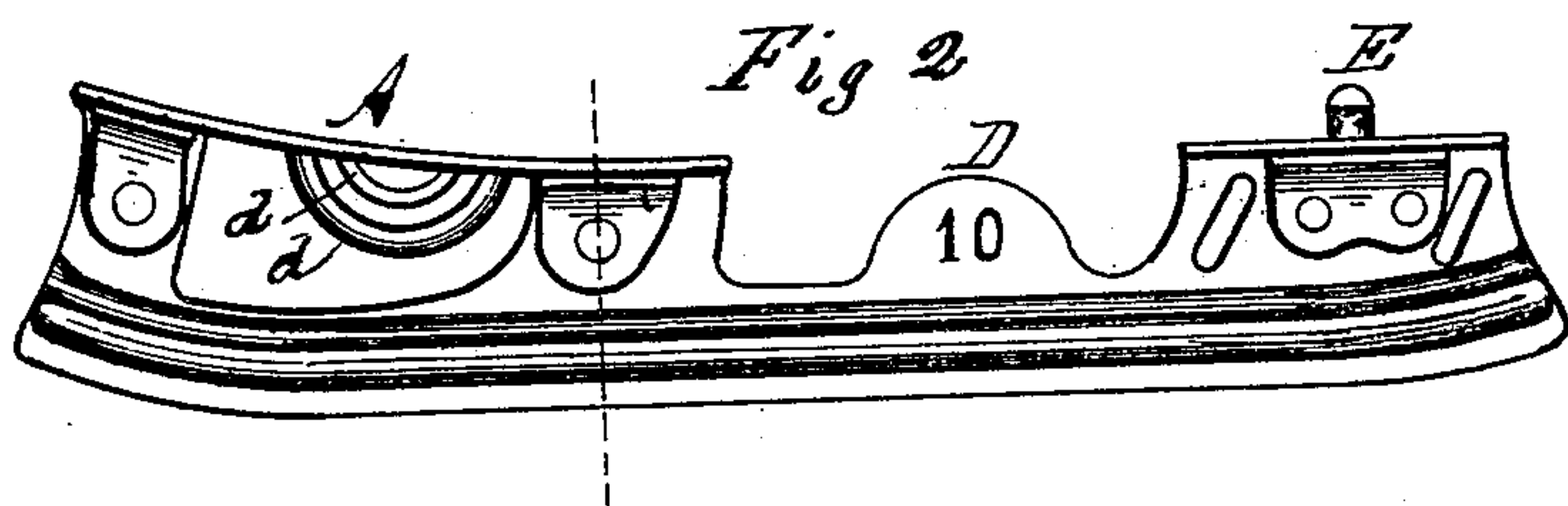
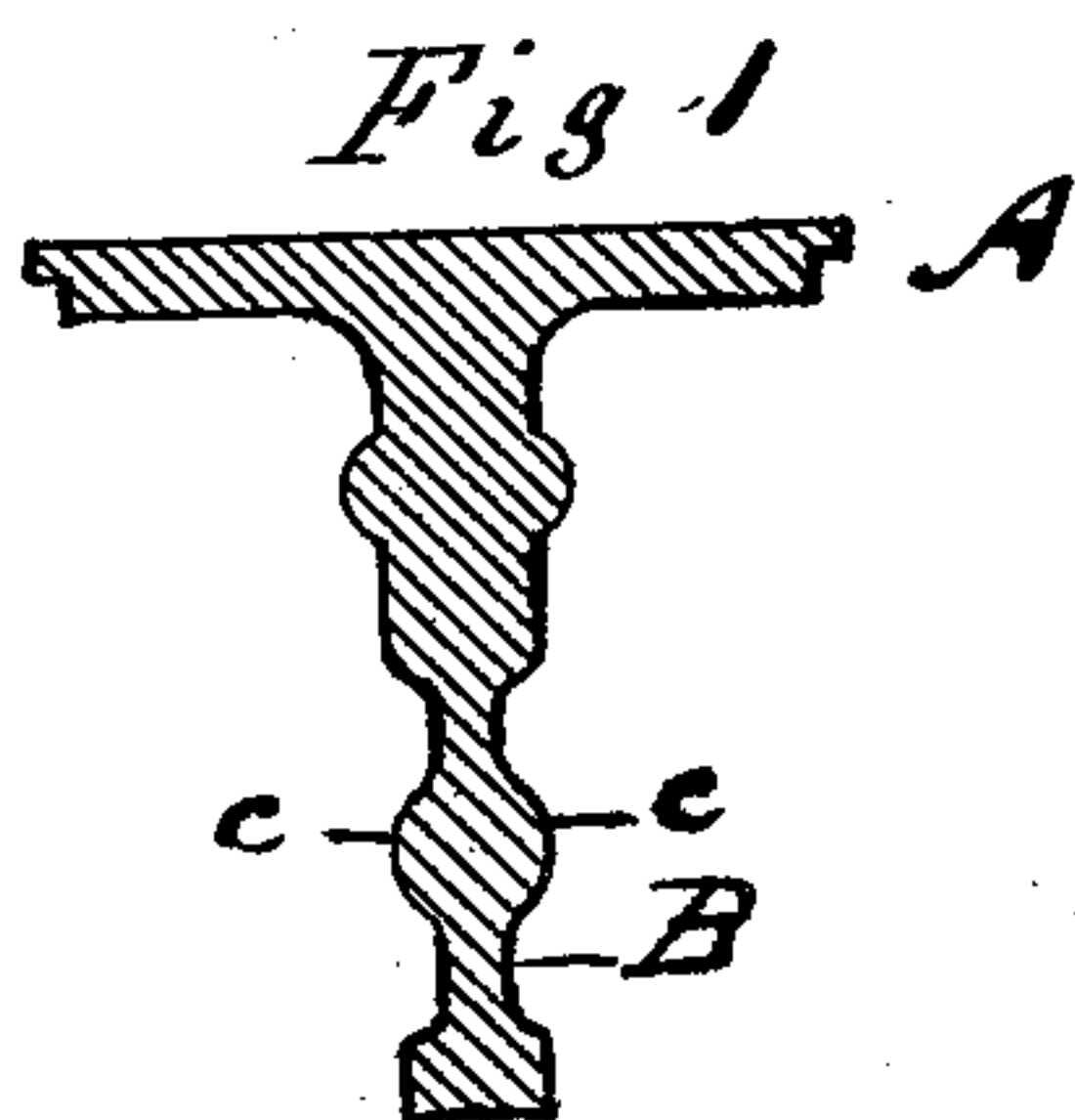


E. H. BARNEY.

Skate.

No. 206,524.

Patented July 30, 1878.



Witnesses
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UNITED STATES PATENT OFFICE.

EVERETT H. BARNEY, OF SPRINGFIELD, MASSACHUSETTS.

IMPROVEMENT IN SKATES.

Specification forming part of Letters Patent No. **206,524**, dated July 30, 1878; application filed October 19, 1877.

To all whom it may concern:

Be it known that I, EVERETT H. BARNEY, of Springfield, county of Hampden, State of Massachusetts, have invented certain new and useful Improvements in Skates, which improvements are fully set forth in the following specification and accompanying drawings.

Figure 1 is a vertical section of my improved skate at the line *x x*. Fig. 2 is a side elevation, showing the ribs re-enforcing the blade or runner, and the iron loops cast on the under side of the foot-plate, through and around which the strap is passed in such a manner as to prevent its slipping. Fig. 3 is a view of the under side of the foot-plate, showing the manner in which the strap is held by being passed through and around the iron loops.

My invention relates to skates made entirely of cast-iron and cast in one piece, making a skate cheap enough to be within the means of all, and which at the same time shall be light and durable.

In the drawings, A is the foot-plate. B is the blade or runner. *c c* are the re-enforcing ribs, running the entire length of the blade on each side of the same, parallel, or nearly so, with the bottom line of the runner. *d d* are semicircular iron loops cast on the under side of the foot-plate. D is a semicircular piece on the upper part of the blade or runner between the heel and foot plates, and into which I cast the figures or letters designating the size of the skate. E is the heel-button, having an annular locking-groove cast complete with and on the top of the heel-plate and runner; and F is a portion of the strap, showing the manner of winding it around and through the loops *d*. *h h* are oblong strap-holes, formed on an incline to the length of the runner.

In order to make the blade B as strong and light as possible I cast it with the ribs *c* on each side, and extending its entire length nearly parallel to the bottom of the runner, which allows me to make the blade quite light, and at the same time to increase its strength, and to use less iron than I would were the blade made of uniform thickness or of gradually-increasing thickness from top to bottom, and at the same time make the blade stronger to resist vertical pressure.

By the use of the semicircular loops *d d*, which are cast onto the under side of the foot-plate A, the strap is firmly attached to the

skate and not liable to be lost, and is furthermore securely held in one and the same position, so that when it is firmly buckled over the foot the skate will not slip from side to side. Also, such a strap-fastening as said loops furnish renders unnecessary the sharp-pointed pins usually placed in the foot-plate to prevent the skate slipping from side to side; and such a means of securing the strap to the foot-plate as is provided by the loops *d d* obviates the necessity of any machine-work on the skate for the purpose of providing such required fastening for said strap. Furthermore, should the heel-fastening provided for by the heel-button E, which locks into a plate set into the boot-heel in a well-known manner, prove insufficient, a strap may be inserted through either one or both of the oblong strap-holes *h h*, and be buckled tightly around the instep of the skater. This will very firmly secure the rear end of the skate to the foot.

What I claim as my invention is—

1. A cast-iron skate having its runner provided with a longitudinal strengthening-rib continuous from end to end on each side thereof, parallel, or nearly so, with the bottom line of the runner, and intermediate between the sole and heel plates and the bottom of said runner, substantially as and for the purpose set forth.

2. In combination with a cast-iron skate, the semicircular loops *d d*, cast on the under side of the foot-plate A, substantially as and for the purpose set forth.

3. In a cast-iron skate, the pin D, cast on the runner B, and bearing on its side a cast number to indicate size, substantially as set forth.

4. In a cast-iron skate, the combination of the runner B and ribs *c c* with foot-plate A, the semicircular loops *d d*, and heel-button E, substantially as and for the purpose set forth.

5. The fastenings for a cast-iron skate, consisting of the combination of the heel-button E, cast thereon, the strap F, and the semicircular loops *d d*, cast on the under side of the foot-plate, substantially as and for the purpose set forth.

EVERETT H. BARNEY.

Witnesses:

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