

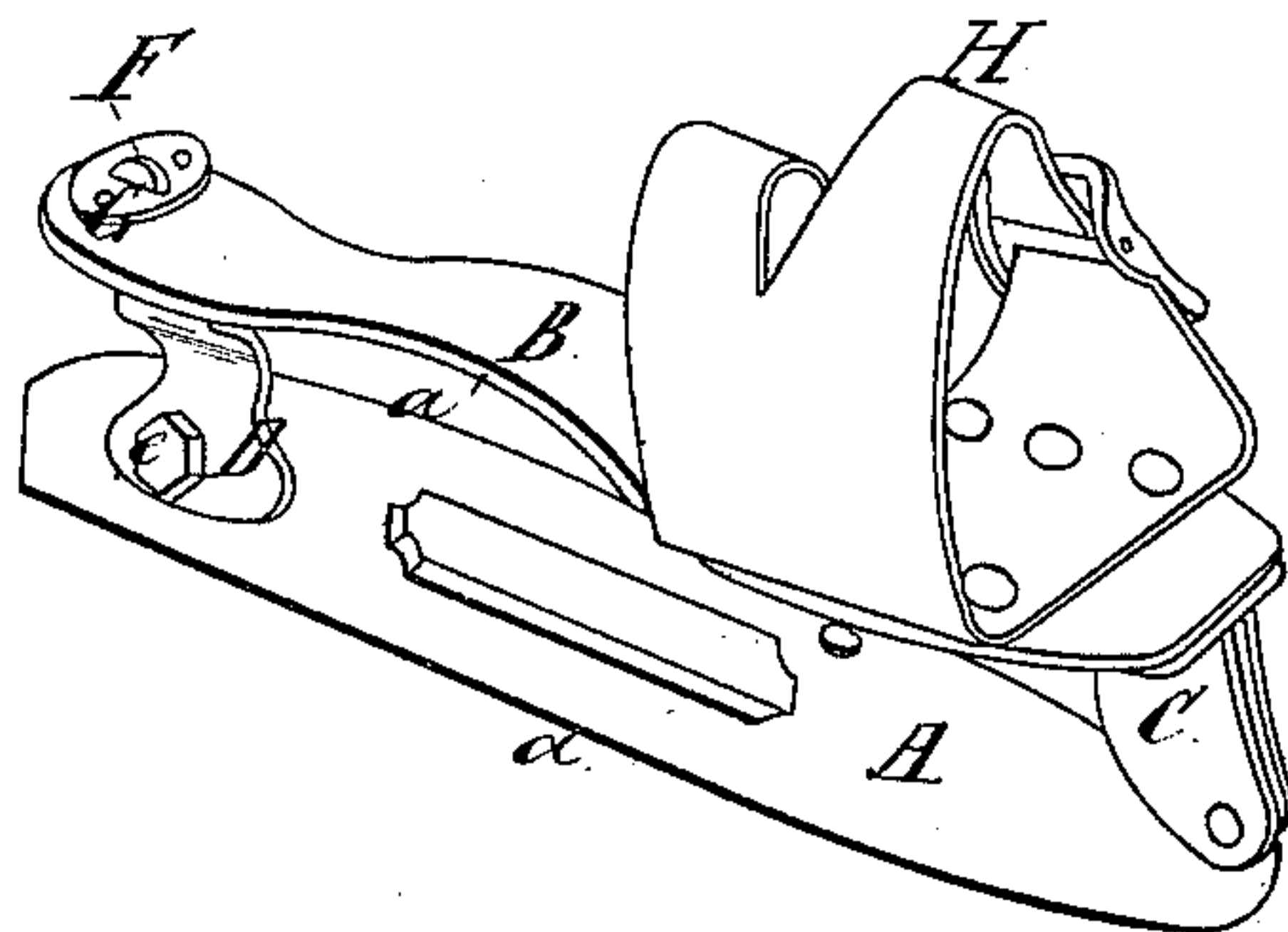
*T. T. McGrath.*

*Skate Runner.*

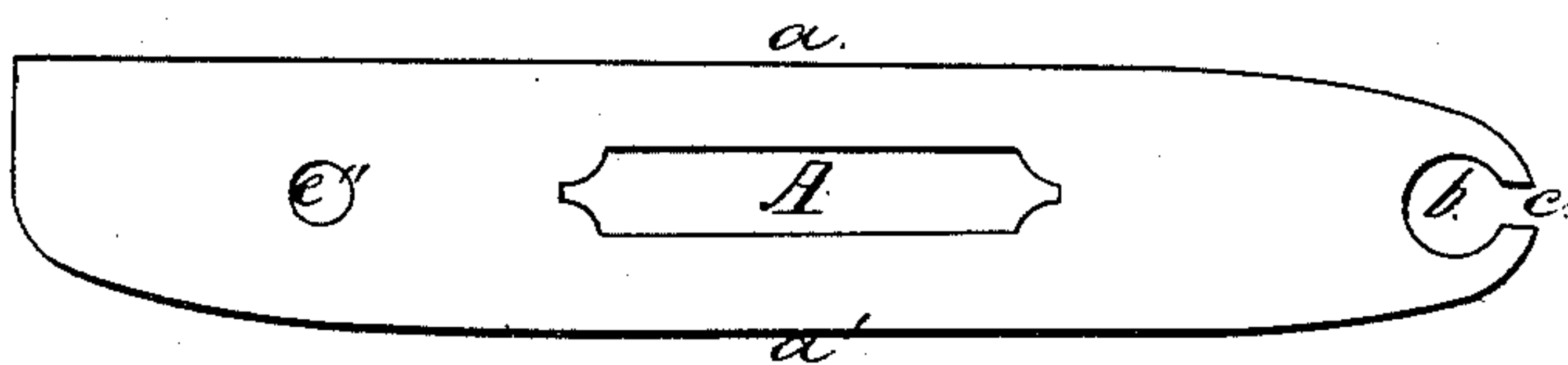
*N<sup>o</sup> 90,282.*

*Patented May 18, 1869.*

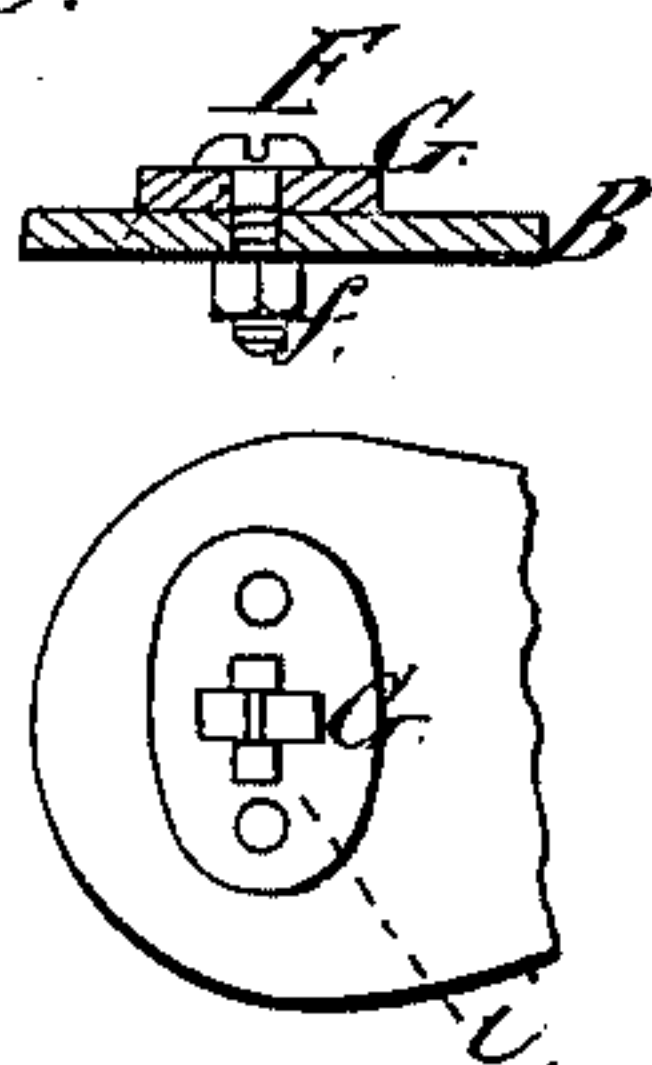
*Fig: 1.*



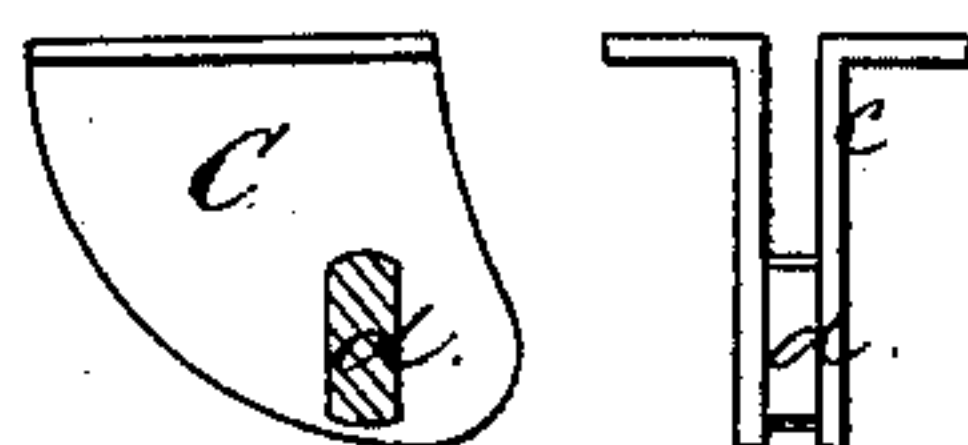
*Fig: 2.*



*Fig: 3.*



*Fig: 4.*



*Witnesses*

*Geo. Ruhland &  
H. F. Eberts.*

*Inventor*

*Theodor T m<sup>c</sup> Grath*

# United States Patent Office.

THEODORE T. McGRATH, OF DETROIT, MICHIGAN.

Letters Patent No. 90,282, dated May 18, 1869.

## REVERSIBLE SKATE-RUNNER

The Schedule referred to in these Letters Patent and making part of the same.

### To whom it may concern:

Be it known that I, THEODORE T. McGRATH, of Detroit, in the county of Wayne, and State of Michigan, have invented a new and useful Improvement in Skates; and I do declare that the following is a true and accurate description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, and being a part of this specification, in which—

Figure 1 is a perspective view of my skate;

Figure 2 is a diagram of the reversible runner;

Figure 3 is a section of the heel-bolt and heel-plate; and

Figure 4 is a section of the front clip, showing the lock-pin.

Like letters refer to like parts in each figure.

The nature of this invention relates to an improvement in the peculiar form of clips and bolts for securing the runner to the foot-plate.

A, in the drawings, represents my skate-runner, one of its edges, *a*, being straight and grooved, and the other, *a'*, being curved to the shape known as the "rocker," slightly concaved in its cross-section, from being ground across the periphery of a stone.

The forward end of the runner has a circular aperture, *b*, drilled through it, which is extended outward to and through the end by the narrow slot *c*.

B is a metallic foot-plate, to which are secured the toe-clips C and heel-clips D, between which the runner is secured when in position.

*d* is a lock-pin passing through the toe-clips, and secured thereto.

The height of said lock-pin is equal to the diameter of the aperture *b* in the runner, and its width is not greater than the slot *c*, so that when the runner is at a right angle to the foot-plate, its aperture *b* may em-

brace the lock-pin, and by bringing them parallel to each other, the toe of the runner will be firmly held in place.

*e* is a headed screw-bolt, passing through proper apertures in the heel-clips D and *e'*, in the runner, securing the heel of the runner firmly in place, a small wrench being necessary for this purpose.

F is a threaded heel-bolt, tapped through the heel of the foot-plate, under the centre of the boot-heel of the skater, and is provided with an elongated head, corresponding in shape to the slot *i* in the catch-plate G, which is secured to the heel of the skater's boot, which plate, when the head of the heel-bolt F is inserted into its slot, and turned partially around, locks the skate to his heel.

*f* is a check-nut on the heel-bolt, under the foot-plate, for preventing undue strain on the threads in the thin foot-plate.

The intention of this adjustable heel-bolt is to enable the skate to be fastened to a boot-heel which may be hollow or uneven on its surface.

H are the ordinary toe-straps, for securing the toe of the skate to the foot.

The operation of the various parts of this skate and their utility are so clearly shown, that any further explanation is deemed unnecessary.

What I claim as my invention, and desire to secure by Letters Patent, is—

The toe-clips C, provided with the lock-pin *d*, in connection with the aperture *b* and slot *c* of the runner, substantially as and for the purposes set forth.

THEODORE T. McGRATH.

Witnesses:

H. F. EBERTS,  
JAS. I. DAY.