

J. Heath,

Skate,

N^o 28,984.

Patented July 3, 1860.

Fig 1.

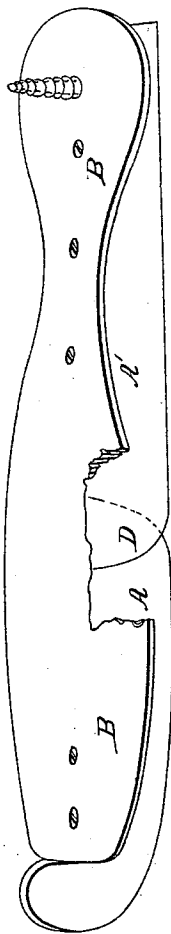
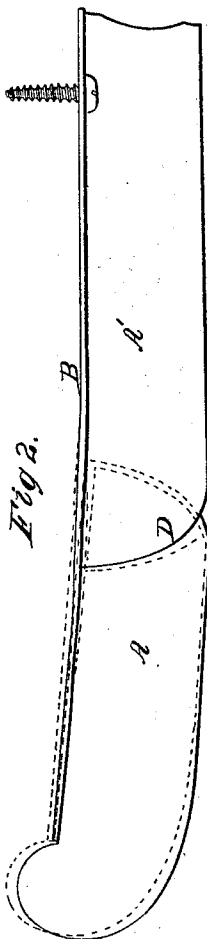


Fig 2.



Witnesses.

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JEREMIAH HEATH, OF PROVIDENCE, RHODE ISLAND.

IMPROVEMENT IN SKATES.

Specification forming part of Letters Patent No. 28,984, dated July 3, 1860.

To all whom it may concern:

Be it known that I, JEREMIAH HEATH, of Providence, in the county of Providence and State of Rhode Island, have invented a new and Improved Skate; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, forming a part of this specification, in which—

Figure 1 represents a perspective view of my improved skate; Fig. 2, a side view of the same, showing the runner and sole-plate in two positions.

Similar letters of reference indicate corresponding parts in both figures.

The object of this invention and improvement in skates is to obtain a skate which may be as securely attached to the feet as any of those of the present construction, either for shoe-skates or strap-skates, or any variety of skates in the market, and which at the same time will be comfortable and easy to the wearer. The great objection to the strapped skates is that they are generally so stiff and inflexible that the straps have to be buckled so tight that the circulation of the blood in the feet is so retarded that they soon become cold, numb, and painful, not so much so, however, on account of the tightness of the straps, but because the muscles of the feet are strained by the exertions of skating on account of the unnatural confinement of the feet to a stiff skate, and the pain will be first felt in the ankles and legs. Stiff skates must be strapped to the feet much tighter than is necessary, and for "fancy skating" they are totally inefficient. In skates where the stock has been made in two parts and hinged or attached together by a spring it is obvious that there is a constant strain upon the arch of the foot on account of this abrupt break, and these are useless unless the runner or skate-iron is made elastic and so thin that under ordinary usage they will break and will not admit of the irons being ground down for sharpening the skates. In skates where a front and toe plate of the runner have been screwed or riveted permanently to the sole of a boot the same objections equally apply, and they are very troublesome to carry about.

Therefore to effectually remedy the evils

attending the stiff skates and those having an unnatural motion, my invention consists in making the sole-plate conform to the shape of the shoe-sole and of one piece of thin steel, and fixing a runner or skate-iron to said plate of a peculiar construction—viz., having a slip-joint immediately behind the ball of the foot, for the purposes and in the manner hereinafter described.

In the drawings, A A' represent the runner or skate-iron, made of suitable thickness of metal and in two parts—viz., a heel portion and a toe portion—and jointed together by a slip-joint D, formed by curving the ends which come together to form the joint, so that they will conform to each other and shut snugly when the skate-iron is in its natural position, and with a curved tenon and mortise, as shown by the drawings, which prevent any lateral motion of the jointed ends. The lower edges of the joint may be curved or rounded off to prevent their scoring into the ice and forming an obstruction to the movement of the skates, and the runners may be ground out or filed off square to suit the fancy of the skater. The irons may be made solid or lightened by open-work, so that sufficient metal is allowed near the joint to insure strength. This runner is now secured in any convenient way to a thin steel plate B, so that the joints of fastening will not be too near the joint D. Should this not be the case, the bend would be too abrupt and thus objectionable; but these portions A A', forming the runner, are secured to the plate B, so that a gentle curve will be given to the plate when the weight of the body is thrown upon the front part of the skate, which curve will correspond with the natural curve of the shoe-sole as in walking or running. If it is desirable, the heel portion of the sole-plate B may be made quite thick; but the plate must gradually taper in thickness as it approaches the toe end, so that a sufficient degree of pliability may be obtained, at the same time sufficient elasticity to return the front portion A of the runner immediately to its original position after the exertion of striking out. Such skates may be strapped to the feet sufficiently tight without experiencing pain either in the ankles or on account of the straps, as the muscles of the feet are as free to move as in the

act of walking with comfortably-tight shoes on; or these skates may be attached to the boots or shoes after any of the improved methods and the skates will be found to be comfortable and easy to the feet.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

The runner made of two parts A A' and

united by a slip-joint, in combination with the elastic steel sole-plate B, the whole arranged and operating upon the principle set forth.

JEREMIAH HEATH.

Witnesses:

HENRY MARTIN,

BENJAMIN WHIPPLE.