

D. S. Brigham,

Skate.

N^o 47,185.

Patented Apr. 11, 1865.

Fig: 1.

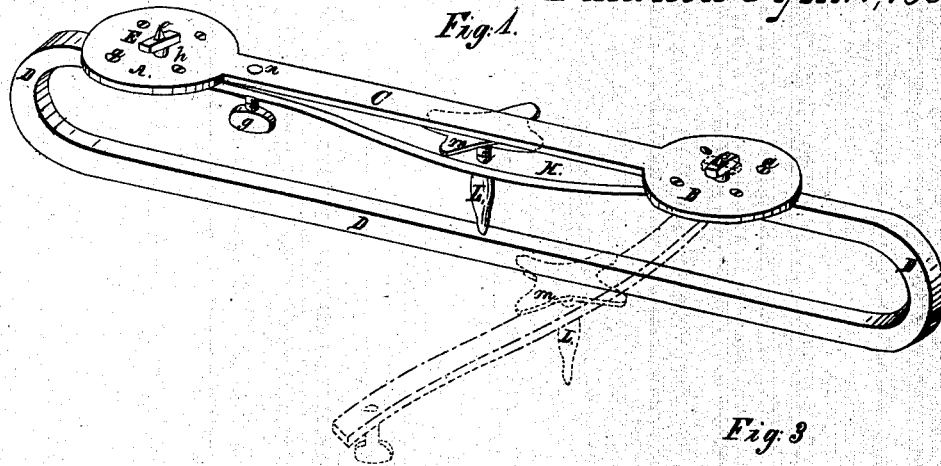


Fig. 3

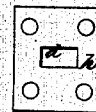
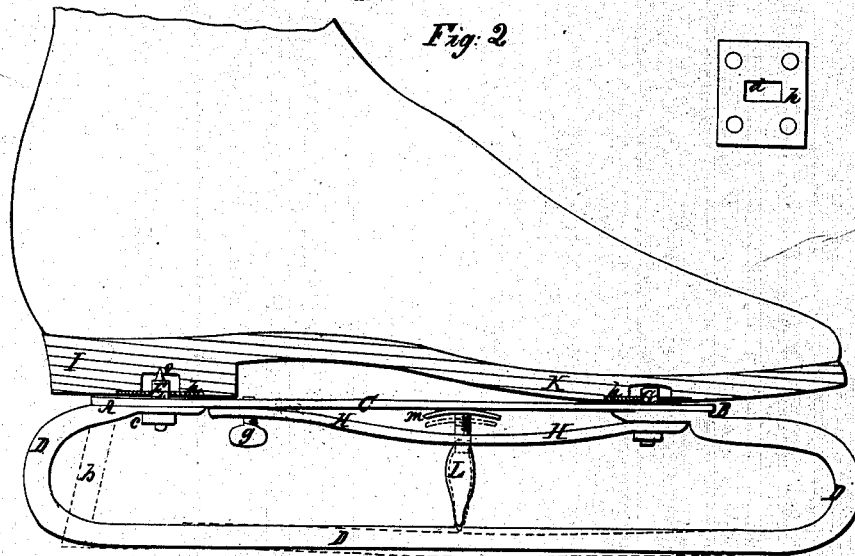


Fig: 2



Witnesses:

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att

UNITED STATES PATENT OFFICE.

DANIEL S. BRIGHAM, OF WORCESTER, MASSACHUSETTS.

IMPROVED SKATE.

Specification forming part of Letters Patent No. 47,185, dated April 11, 1855.

To all whom it may concern:

Be it known that I, DANIEL S. BRIGHAM, of the city and county of Worcester, and State of Massachusetts, have invented certain new and useful Improvements in Skates; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the accompanying drawings, in which—

Figure 1 represents a perspective view of said skate. Fig. 2 represents a side view of the same, showing the manner in which the skate is secured to the boot. Fig. 3 represents a detached view, hereinafter to be referred to.

To enable others skilled in the art to make and use my invention, I will proceed to describe its construction and operation.

A and B represent two plates on which the heel and sole of the foot rest. They are connected by a longitudinal piece, C.

D represents the runner, which is secured to the plates A B by means of the screws *a* or otherwise. The shape of the runner is shown on the drawings; but its form may be modified and its heel may be made angular instead of round, as shown by the red lines at *b* in Fig. 2. The formation of the runner as shown makes the bottom part thereof to a certain degree elastic, for purposes hereinafter to be described.

E represents a clamping-bolt, which is rigidly secured to the heel-plate A by means of a screw-nut, *c*; and G represents a similar clamping-bolt, which is rigidly secured to the clamping-lever H, but which turns loosely within the plate B. Each of the clamping-bolts is provided with flanges 2, which, when inserted into the oblong slots *d*, Fig. 3, of the plates *h*, attached to the sole K and heel I of the boot, can be secured to said plates by turning them an angle of ninety degrees or a quarter of a revolution, the flanges 2 catching the inner edges of the plates *h* within the slot *d*. This construction of the skate presents great facilities in securing it to the boot or shoe in a firm and rigid manner without using any straps whatsoever, which are so annoying to the skater, as they not only check the circulation of the blood and pain the feet, but also stretch and become loose.

In applying my skate to the boot or shoe,

the latter has only to be provided at the heel and sole with the plates *h*, which are secured thereon in such a manner that the positions of the slots *d* correspond in distance from each other with that of the clamping-bolts E G. The heel-bolt E is then inserted into the heel-plate *h* by holding the skate at right angles with the sole of the boot, and becomes firmly locked by turning the skate so as to come right under the sole of the boot. The clamping-lever H, being in the position indicated in red lines on Fig. 1, the clamping-bolt G will enter the slot in plate *h* of the sole, and by turning the lever H to the position represented in black lines in Fig. 1 the skate becomes firmly and rigidly secured to the boot or shoe. The lever H in this position may be secured by means of the thumb-screw *g*, which enters a hole, *n*, in the piece C, or by means of a spring properly applied. To prevent any longitudinal movement of the skate by reason of the slipping of the heads of the clamping-bolts within the cavities in the sole or heel, I provide the heel-bolt E with a point, *o*, which, as the skate is secured to the boot, is forced into the leather of the heel, as represented at Fig. 2, and thus prevents any longitudinal motion of the skate.

L represents an adjusting-screw, which works in the clamp-lever H, and whose stem extends to the bottom part of the runner D, and can enter a small cavity therein to keep it in its vertical position. By turning its head *m* the bottom part, D, of the runner is forced outward so as to be made crowning, as represented in red lines at Fig. 2, and when in that position the runner is in contact with the ice at its center part only, and will thus enable the skater to turn very short curves, thereby adding much to the pleasure of skating. When the screw L is turned upward, the bottom part of the runner becomes straight again, and is in contact with the ice nearly through its entire length.

The clamping-lever H may be applied to the heel-bolt E instead of to the bolt G, and in that case the latter must be rigidly secured to its plate.

Having thus fully described the nature of my invention, what I claim herein as new, and desire to secure by Letters Patent, is—

1. In combination with the supporting-plates A B, the clamp-bolts E G, clamp-lever

H, and lock-plates *h* of the heel and sole, substantially as and for the purposes described.

2. Providing one or both of the catch-bolts E G with a point which enters the leather of the sole or heel to prevent any longitudinal motion of the skate, substantially as herein described.

3. The application to a yielding or elastic runner of the adjusting-screw L, for the purpose of making the bottom part of the run-

ner flat or crowning, substantially in the manner described.

4. The combination, with the supporting-plates A B, of the clamp-bolts E G, clamp-lever H, elastic runner D, and adjusting-screw L, when constructed and operated substantially as and for the purposes described.

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