

(No Model.)

J. E. MARTIN.
SKATE.

No. 578,064.

Patented Mar. 2, 1897.

Fig. 1.

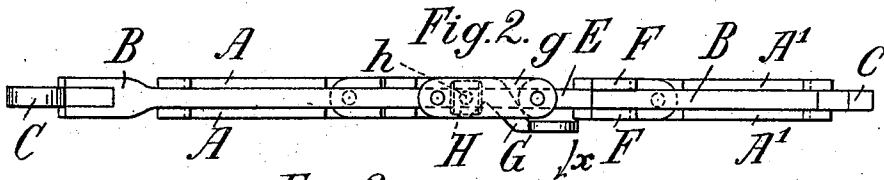
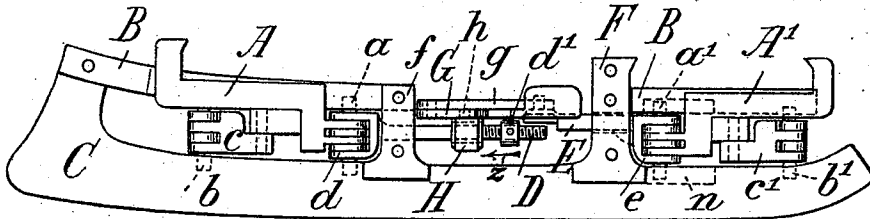


Fig. 3.

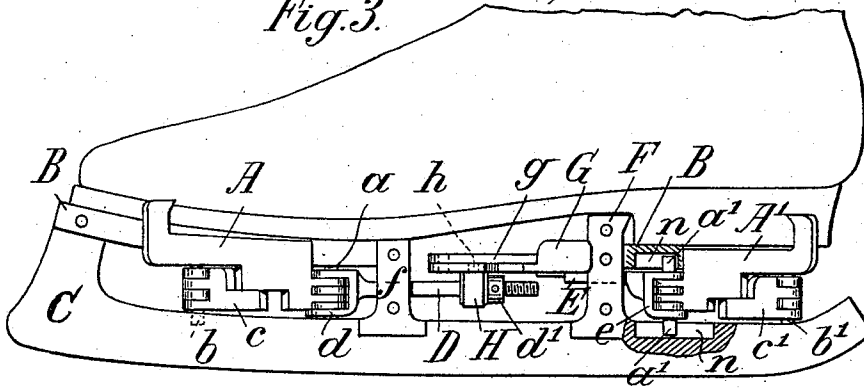
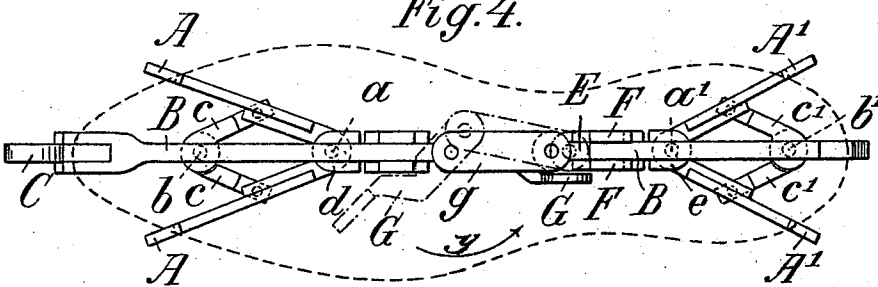


Fig. 4.



Witnesses:

C. J. Ober,
[Signature]

Inventor:
John Edward Martin

By [Signature]

UNITED STATES PATENT OFFICE.

JOHN EDWARD MARTIN, OF HAIDA, AUSTRIA-HUNGARY.

SKATE.

SPECIFICATION forming part of Letters Patent No. 578,064, dated March 2, 1897.

Application filed December 1, 1896. Serial No. 614,063. (No model.)

To all whom it may concern:

Be it known that I, JOHN EDWARD MARTIN, a citizen of the United States of America, residing at Haida, in the Province of Bohemia, in the Empire of Austria-Hungary, have invented certain new and useful Improvements in Skates; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

The distinguishing characteristic of a skate according to this invention, and what constitutes its special advantage over skates of all known constructions, is that it is adapted to be folded quite flat, so as to be capable of being carried in the pocket, while when ready for use a single movement of the hand is sufficient to fasten the skate to the boot, and, moreover, the skate is also adapted to be adjusted to fit boots of different widths, as required. The toe-clips and the heel-clips can by means of a lever and radius-rod connection be moved relatively to the foot-plate and the blade and folded together and opened out, according to the sense of this movement.

Figures 1 and 2 of the accompanying drawings are a side elevation and a plan, respectively, representing a skate of this kind in its folded or collapsed state, while Figs. 3 and 4 are similar views showing the skate in position for use and fixed to a boot.

As shown, the toe-clips A and the heel-clips A' are movable in pairs about pins *a* and *a'*, respectively, which are provided between the divided foot-plate B and the blade C and are capable of movement in grooves *n* in those parts lengthwise of the said parts.

Between the foot-plate B and the blade C there are further arranged pins *b* and *b'*, which are fixed in these two parts and are connected by means of pairs of radius-rods *c* and *c'* with the toe-clips and the heel-clips, respectively.

The movable pivot *a* of the clips A is connected to the forked end *d* of a horizontally-movable screw-spindle D, while the pivot *a'* of the rear clips A' passes through the forked end *e* of a sliding piece E, which is capable of movement in the heel-clip F. To the piece

E there is jointed an arm *g*, to which is pivoted a hand-lever G, that has its pivot *h* on a block H, which is freely movable along the screw-spindle D. On the spindle D there is screwed, behind the block H, a nut *d'*, which serves for adjusting the clips to suit boots of different widths and which is for this purpose made capable of being screwed backward and forward.

On turning outward the hand-lever G, which is situated in the plane of the blade when the skate is in its folded or collapsed condition, the movement of the said lever in the direction of the arrow *x*, Fig. 2, first, by means of the rearwardly-moved arm *g* and the sliding piece E, causes the pivot *a'* of the heel-clips to move back and consequently the clips A', together with their radius-rods *c'*, which move in a rotary manner on the fixed pin *b'*, to open out. By further rotary movements of the hand-lever the block H is advanced along the spindle D until it strikes against the support *f* of the foot-plate. The lever G then occupies the position indicated by dot-and-dash lines in Fig. 4. The screw-spindle D is then pushed forward by hand in the direction of the arrow *z* until the lock-nut *d'* strikes against the block H, whereby the pivot *a* is moved nearer to the fixed pin *b* of the front clips A, and the latter are opened out to the width of the boot to which the skate must be suited. The skate having thus been brought into a suitable condition, the boot is placed thereon so that the front surface of the heel of the boot bears against the clip F and the sole of the boot rests on the foot-plate B and the toe-clips A.

In order to fasten the skate to the boot, all that is necessary is to move the handle-lever G backward in the direction of the arrow *y*, Fig. 4, whereby the spindle D is drawn back by the block H, which presses on the nut *d'*, until the toe-clips A, which are thus being folded together, bear tightly against the sole and hold it firmly, whereupon the motion of the lever is transferred to the heel-clips A', and they by folding together press the heel against the stationary heel-clip F, and thereby fix it.

By screwing the adjusting-nut *d'* backward or forward the extent of the movement of the spindle D on fastening on the skate

can be increased or reduced, and the latter consequently easily adjusted to a greater or less breadth of sole.

I claim—

5 1. A skate comprising a runner, a foot-plate secured thereto and of a width substantially equal to the thickness of said runner, a pair of toe-clips and a pair of heel-clips foldable against the said foot-plate, for the purpose
10 set forth.

2. A skate comprising a runner, a foot-plate secured thereto and of a width substantially equal to the thickness of the runner, a pair of toe-clips, a pair of heel-clips foldable against
15 the sides of the foot-plate, and a locking device to lock said clips against folding, for the purpose set forth.

3. A skate comprising a runner, a foot-plate secured thereto and of a width substantially
20 equal to the thickness of such runner, a pair of toe-clips, and a pair of heel-clips pivotally connected to and between said foot-plate and runner and constructed to assist in supporting the foot and to fold against the sides of
25 the plate, in combination with locking devices to lock said clips against folding, for the purpose set forth.

4. A skate comprising a runner, a foot-plate secured thereto and of a width substantially
30 equal to the thickness of the runner, a pair of toe-clips, and a pair of heel-clips movable on pivots arranged between said plate and runner to and from the plate and constructed to assist in supporting the foot; in combination with mechanism for limiting the move-
35 ment of said clips from the plate, and locking devices for locking said clips against movement toward such plate, for the purpose set forth.

5. In a skate, the combination with the runner, the foot-plate secured thereto and of a width substantially equal to the thickness of said runner, toe-clips, a fixed pivot therefor, heel-clips, a shiftable pivot therefor, said pivots having their bearing in said foot-plate
45 and runner, and a pair of radius-rods pivotally connecting the toe and heel clips in pairs; of a link connected with the heel-clip bearings, a sliding rod connected with the toe-plate bearings, and a lever connected with
50 said link and rod to impart to the same a reciprocal movement lengthwise of the foot-plate and runner, substantially as and for the purpose set forth.

6. In a skate, the combination with the runner, the foot-plate secured thereto and of a width substantially equal to the thickness of said runner, toe-clips, a fixed pivot therefor, heel-clips, a shiftable pivot therefor, said
55 pivots having their bearing in said foot-plate and runner, and a pair of radius-rods pivotally connecting the toe and heel clips in pairs; of a link connected with the heel-clip bearings, a sliding rod having its inner end screw-
60 threaded and its outer end connected with the toe-plate bearings, a nut adjustable on said rod, and a lever connected with said link and rod to impart to the same a reciprocal
65 movement lengthwise of the foot-plate and runner, substantially as and for the purpose
70 set forth.

In testimony whereof I affix my signature in presence of two witnesses.

JOHN EDWARD MARTIN.

Witnesses:

LYDIA S. MARTIN,
A. SCHLESSING.