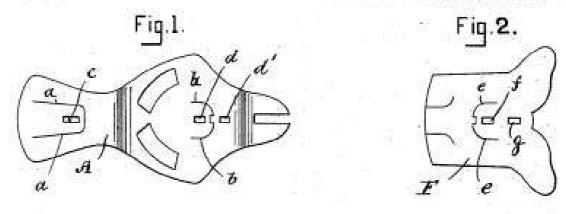
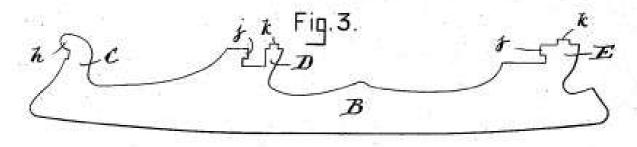
J. A. WHELPLEY.

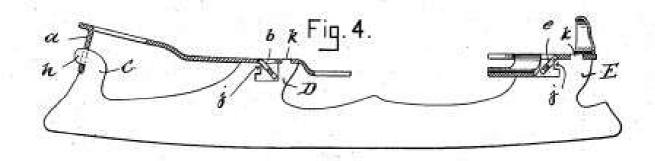
SKATE.

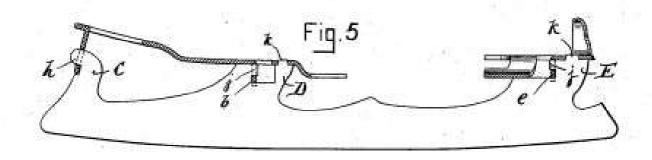
No. 377,704.

Patented Feb. 7, 1888.









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UNITED STATES PATENT OFFICE.

JAMES A. WHELPLEY, OF KEENE, NEW HAMPSHIRE, ASSIGNOR TO THE KEENE MAUFACTURING COMPANY, OF SAME PLACE.

SKATE.

SPECIFICATION forming part of Letters Patent No. 377,704, dated February 7, 1888.

Application filed March 9, 1887. Serial No. 230,305. (No model.)

To all whom it may concern:

Be it known that I, JAMES ALBERT WHELP-LEY, a citizen of Canada, residing at Keene, in the county of Cheshire and State of New 5 Hampshire, have invented a new and useful Improvement in Ice-Skates, of which the following is a specification.

My invention refers to the method or means of securing the toe and heel plates of an ice-10 skate to the runners, whereby they can be more firmly attached and at a less cost than heretofore; and the invention consists in certain details of construction, hereinafter more fully described.

Referring to the accompanying drawings, Figure 1 represents a toe-blank as it appears when it comes from the dies. Fig. 2 is a similar view of a heel-blank. Fig. 3 is a view of the runner. Fig. 4 is a view of the runner 20 with the blanks in position before they are secured. Fig. 5 is a view showing the toe and heel plates secured to the runner.

A represents the toe-blank, which is stamped out into the form shown in Fig. 1-that is, 25 nicked or cut, as shown at a b, and with holes c d d'. The heel-plate F is also nicked or cut at c, similar to the toe-plate, and is also stamped with holes f and g. The runner B is provided with projecting pieces CDE, the 30 forward projection being formed with a hookshaped projection, h. The central and beel projections, D and E, are both provided with a hook shaped projection, f, and a projecting

piece or stud, k. After the toe-piece has been stamped or cut out, as described, the portion a is bent down so as to stand at or about at an angle of ninety degrees, and the portion b is bent to an angle of about forty-five degrees, so that when the 40 toe-plate is to be secured to the runner the

hole e is first slipped over the hooked projection h. The hole d' is then passed over the projection k, and the piece b will stand in the position shown in Fig. 4, when, by means of a 45 punch or other tool, the piece b is forced down,

so that the hole d will be forced over the projection j of the runner, and the lower end of said piece will project a short distance down on each side, as shown in dotted lines in Fig. It will be seen that by this arrangement 50 the toe piece A is securely held to the runner B, little labor being required to so secure it, all that is necessary to be done being to place the toe-piece in position and then bend the piece d down, as described.

The heel-plate F, after being struck out, as described, is bent to the required form, the piece e being bent down to about an angle of forty-five degrees, and to apply it to the runner the hole g is passed over the projection k 60 on the piece E of the runner, when the portion e will stand in the position shown in Fig. It is then bent or forced so that the hole f passes over the projection j, and the lower ends of the piece e project over the sides of 65 the runner B, as shown in Fig. 5.

What I claim as my invention is- An ice skate runner provided with a projection, C, having hook - shaped projection h, and a projection, D, having a hook shaped 7c projection, j, and stud k, in combination with a toe plate provided with downwardly projecting pieces, and holes to fit and lock onto the projections C and D, substantially as shown and described.

An ice-skate runner provided with a projection, E, having a hook-shaped projection, j, and a stud, k, in combination with a heelplate having a downwardly-projecting piece, c, and holes f and g for locking the same onto 80 the projection E, substantially as shown and described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

JAMES A. WHELPLEY.

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Witnesses: CHAS. STEERE, E. PLANTA.