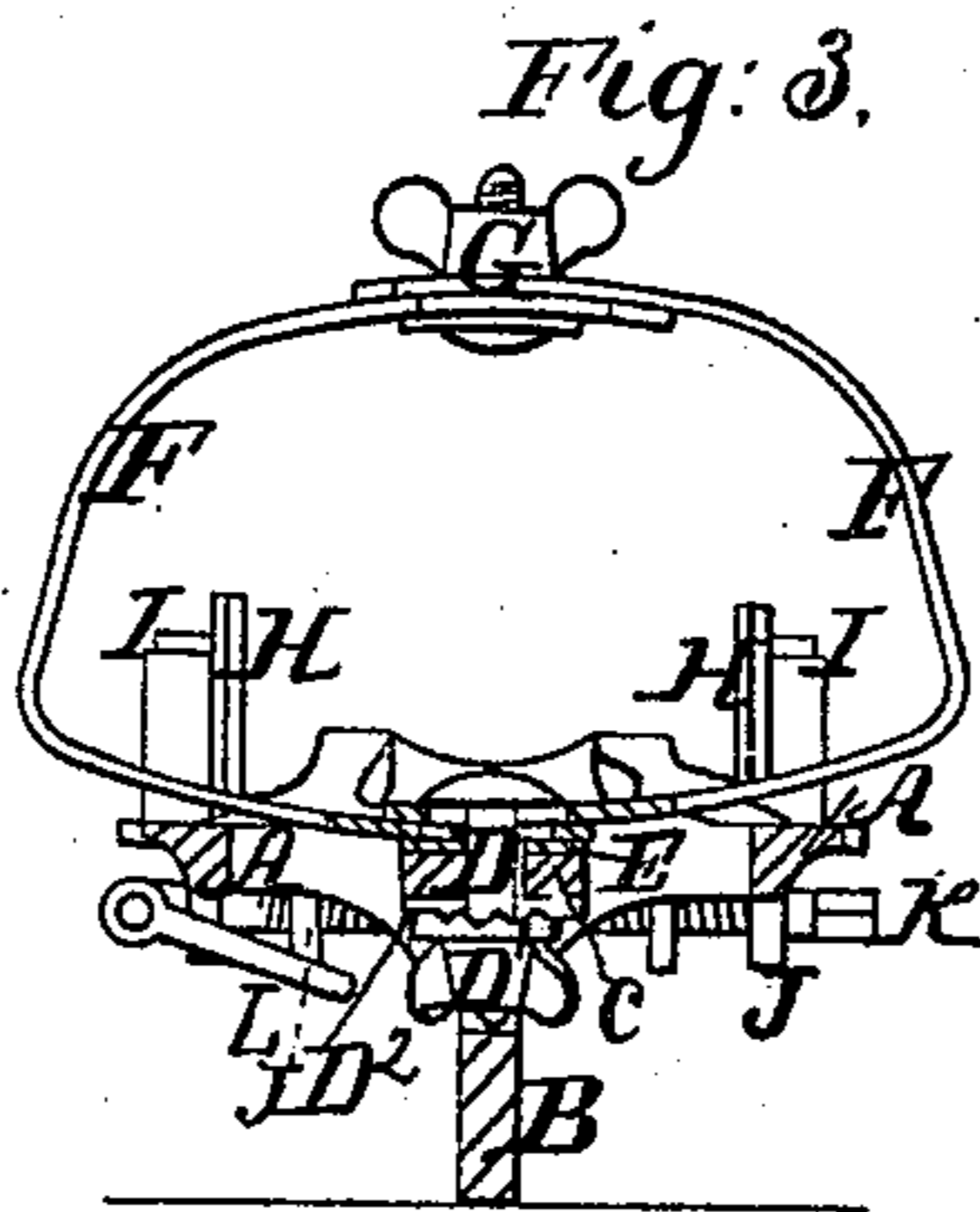
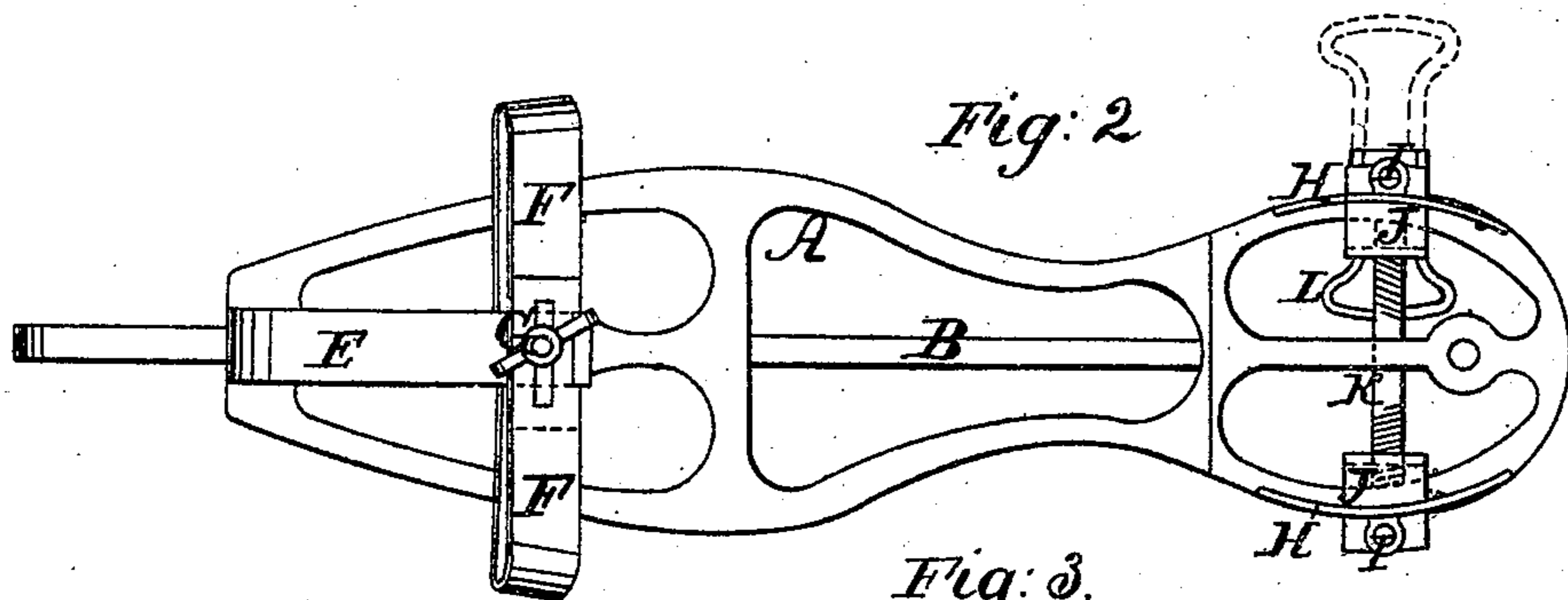
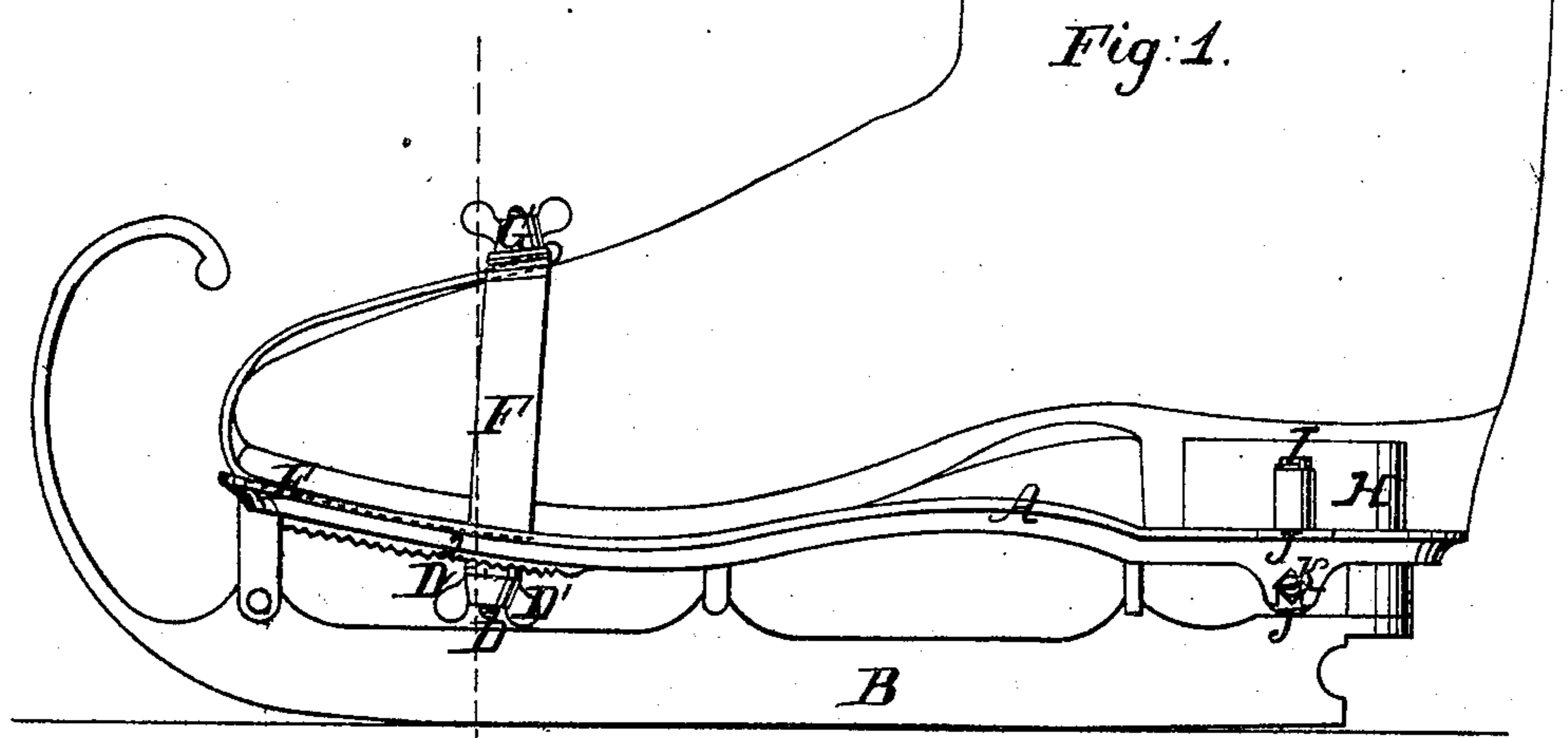


Coe & Sniffen,
Skates,
No. 23,820, Patented May 3, 1859



Witnesses
Isaac Curtis
Clandius B. Curtis.

Inventors,
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UNITED STATES PATENT OFFICE.

JNO. H. COE AND WM. B. SNIFFEN, OF STRATFORD, CONNECTICUT.

SKATE-FASTENING.

Specification of Letters Patent No. 23,826, dated May 3, 1859.

To all whom it may concern:

Be it known that we, JOHN H. COE and WILLIAM B. SNIFFEN, both of Stratford, in the county of Fairfield and State of Connecticut, have invented a new and useful Improvement in Skates; and we do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, making part of this specification.

Figure 1, is a side elevation of the improved skate, attached to a person's foot. Fig. 2, is a top view of ditto detached from the foot. Fig. 3, is a vertical transverse section of the skate, at the red line 1, 2, of Fig. 1.

Similar letters in the figures refer to corresponding parts.

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

The skeleton base or foot plate A, is secured to the runner B, in the usual or most approved manner, and is perforated at its front portion with a longitudinal slot C, through which is passed from above the square portion of the shank of a screw bolt D, which also passes through corresponding slots and a square opening in curved and slightly elastic bars E, F, arranged immediately above the same, and upon which the head of said bolt D, is made to press, as will be hereafter described. The lower portion of the bar E, which is next the base or foot plate A, extends forward over the slot C, in the same, the required distance to suit the length of foot, and is bent upward and backward in a curve corresponding with the curvature of the part of the foot it is intended to embrace, until it reaches a point immediately above its lower end, when it is bent over the edges of the transverse curved bars F. These bars F, correspond respectively with the right and left sides of the front portion of the foot they are intended to jointly surround, and their upper and lower ends, which overlap each other immediately above the upper and lower ends of the bar E, are perforated with slots at right angles to the slots C, in the base or foot plate A. The square portion of the screw bolt D, before mentioned, passes through the slots at the lower ends of these curved bars F, as well as through the square opening in the

lower end of the longitudinal curved bar E, and through the slot C, in the base or foot plate, and its rounded screw end is provided with a thumb screw nut D', between which and the lower surface of the base or foot plate A, which is notched next the slot C, is placed a corresponding notched washer D², surrounding the square portion of the bolt D, and slipping over the same, in such a manner as to either allow the three bars E, F, F, to be moved forward and back over the base or foot plate A, or the lower overlapping ends of the plates F, to be slid one over the other to suit the form of foot to be embraced between them, (their upper slotted ends moving simultaneously with the lower ends,) and to be secured firmly at any desired point. The upper ends of the bars E, F, are also provided with a screw bolt thumb nut G, and washer for securing them together when set.

The segmental clamp plates H, for grasping the heel of the boot are arranged on edge, on either side of the portion of the base plate where the hoot heel is intended to rest, and their outer portions, midway between their ends, are provided with journal boxes through which pass upright studs I, upon which they turn, secured at their lower ends to the outer ends of sliding plates J, resting and moving in depressions in the upper surface of the base or foot plate A. The opposite ends of these plates J, are bent downward at right angles and are perforated with openings in which are respectively formed female screws, through which pass the right and left handed male screws formed on a horizontal transverse screw shaft K, which also passes through openings or spaces formed in lugs projecting downward from the sides of the heel of the base or foot plate, and an opening in a corresponding lug at the center thereof, immediately above the skate runner B, on either side of which center lug, the said screw shaft K, is provided with shoulders for holding it firmly to its place.

To the flattened and rounded end of the screw shaft K, is secured a handle L, by a pin secured to the shaft, and passing loosely through corresponding openings in the similar flattened and rounded ends of the rod forming said handle L, on the surface of one of which flattened ends, is formed a triangular cog which is caused to enter a

corresponding depression in the adjoining flat surface of the rounded end of the screw shaft, so as to enable the elasticity of the rod forming the handle L, to press the said cog in the depression and hold the said handle when it is extended to a horizontal position, represented by red lines in Fig. 2, or pressed under the heel portion of the base or foot plate, out of the way of the ice, when the foot is bent over in skating, as represented in Fig. 3, and yet admit of it being moved from either position by the force of the fingers.

After the curved bars E, F, at the front have once been adjusted to the front portion of the foot and set by the thumb nuts and bolts D', G, they need not except in very particular cases be disturbed in attaching and detaching the skate therefrom. To effect this adjustment it is only necessary for the person to place his foot within the said bars E, F, after being unclamped and bring the front and heel part of the same in the proper relation to the front and heel of the skate, and then respectively draw the curved front bar E, and side bars F, over the toes and the sides of the front of the foot, and when made to embrace the foot with the required degree of tightness to firmly secure them by the thumb screw nuts D', G, and bolts. When these front bars are thus properly adjusted and secured, and the front of the foot is thrust forward between them with the required degree of pressure to cause them to firmly embrace it, the right and left screw shaft K, is turned by its handle L, and made to draw the segmental clamps H, together, and their rough surfaces are thus made to embrace the heel of the boot with the required force to firmly hold this portion of the skate to the foot. The handle L, of the screw shaft K, is then turned under the base or foot plate A, out of the way from which position it can be easily withdrawn by the finger.

Instead of forming notches on the lower surface of the foot or base plate A, next the slot C, and on the washer next the same,

these surfaces may be made smooth if desired.

We are aware that separate clamping screws have been used in connection with the heels of skates; but the shafts of such screws are generally separate, rendering it difficult to adjust the clamps so as to bring the heel of the foot in the exact center of the skate; and also rendering it inconvenient to attach the skate, owing to the fact that two screws are upon the inside and one upon the outside of the foot must be employed.

Another plan is to have a clamping screw placed at the rear of the skate and arranged to push up against the back end of the heel. We consider this method objectionable because it does not afford that lateral support to the foot which is so necessary in skating, for it imparts a tendency in the skate to wiggle and get out of place.

What we claim as new and desire to secure by Letters Patent, is—

1. The employment of the curved adjustable slotted bars E, F, at the front of the foot or base plate A, combined, arranged and adjusted in relation to each other, and secured together and to the said base or foot plate A, in position to correspond with the length of the foot and form of the front part of the same, substantially in the manner and for the purpose described.

2. We claim the combination of the right and left screw K, and clamps H, with the heel part of the skate frame so that both clamps are simultaneously moved, substantially as herein shown and described.

3. We claim the combination of a hinged handle L, with the screw which operates the clamps, so that after the skate is fastened to the foot the handle may be folded out of the way of the ice, as herein shown and described.

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Witnesses:

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