

(No Model.)

E. H. BARNEY.
CLAMPING MECHANISM FOR SKATES.

No. 565,715.

Patented Aug. 11, 1896.

Fig. 1.

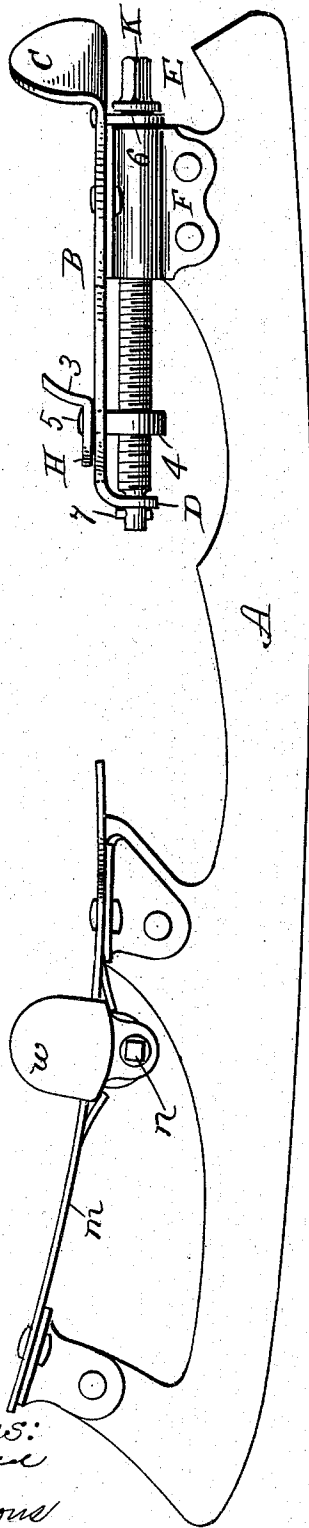


Fig. 2.

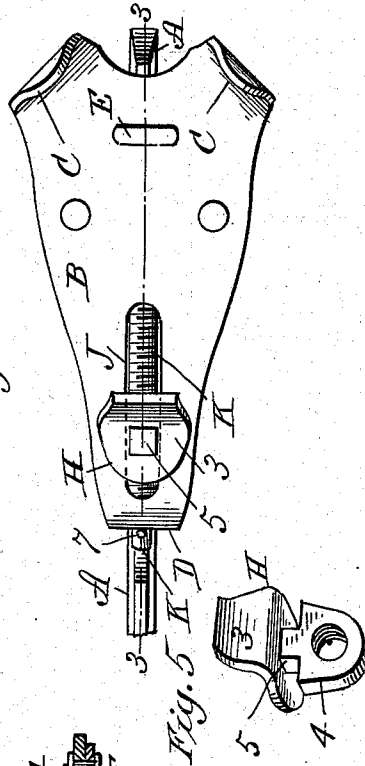


Fig. 3.

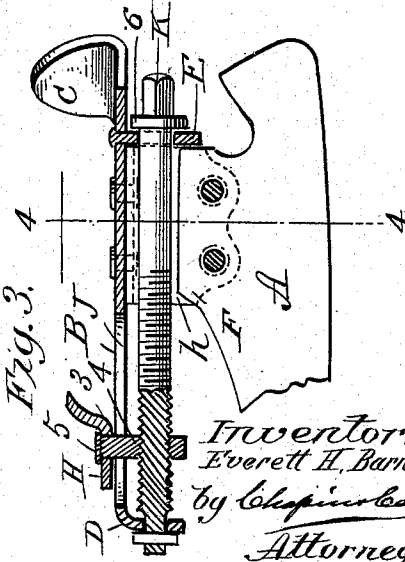


Fig. 4.

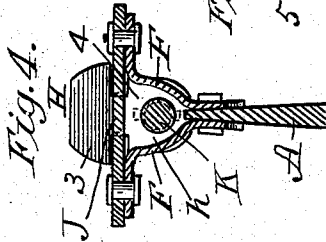
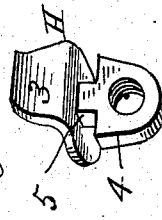


Fig. 5.



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UNITED STATES PATENT OFFICE.

EVERETT H. BARNEY, OF SPRINGFIELD, MASSACHUSETTS.

CLAMPING MECHANISM FOR SKATES.

SPECIFICATION forming part of Letters Patent No. 565,715, dated August 11, 1896.

Application filed March 2, 1896. Serial No. 581,560. (No model.)

To all whom it may concern:

Be it known that I, EVERETT H. BARNEY, a citizen of the United States, residing at Springfield, in the county of Hampden and State of Massachusetts, have invented new and useful Improvements in Heel-Clamping Mechanism for Skates, of which the following is a specification.

This invention relates to skates, the object being to provide improved heel-clamping mechanism therefor; and the invention consists in the peculiar construction and arrangement of the several elements of said mechanism, all as hereinafter fully described, and more particularly pointed out in the claim.

In the drawings forming part of this specification, Figure 1 is a side elevation of a skate having heel-clamping mechanism applied thereto embodying my improvements. Fig. 2 is a plan view, and Fig. 3 is a longitudinal sectional view, of the heel-plate of the skate and of portions of the said heel-clamping mechanism on line 3 3, Fig. 2. Fig. 4 is a section on line 4 4, Fig. 4. Fig. 5 is a perspective view of the movable heel-clamp.

In the drawings, A is the skate-runner, and B is the heel-plate therefor, on the rear end of which are the rear fixed heel-clamps C C, preferably integral with the heel-plate. Said heel-plate B has its forward extremity turned downward at right angles to the plane of the surface thereof, and the same is perforated to receive and to constitute a hanger-bearing D for one end of a heel-clamp-operating rod below described. Said heel-plate B has a hanger or bearing E rigidly fixed thereto in a depending position thereunder near its rear end. Said hanger E is located opposite said hanger D, under the heel-plate, and like the latter is perforated to receive and support one end of said heel-clamp rod. The said heel-plate is supported on the runner A by the oppositely-arranged bracket-sections F F, which are rigidly riveted to said runner and heel-plate, as shown, and between the inner walls of which, under the heel-plate, is a chamber *h*. The said rear hanger-bearing E lies closely against the rear ends of the said two bracket-sections F F, and by the latter is rigidly supported against any deflection which might otherwise be caused by the ac-

tion of said clamp-operating rod, as below set forth.

The movable heel-clamp H consists of the clamp-jaw 3 and its nut 4, which parts are made separately, as shown. Said nut has a post 5 thereon, passing through a clamp-guiding slot J in said heel-plate, and after so placing said post 5 the clamp-jaw 3 is placed thereon and the extremity of said post is riveted against said jaw, thereby firmly uniting the said two parts and permanently attaching the clamp so formed to the heel-plate, on which it has a free longitudinal movement engaging the borders of said slot and governed by said heel-clamp rod, as below set forth. The said revoluble heel-clamp rod K has a squared rear end for the application thereto of a suitable key for rotating the same and a collar 6 thereon, adjoining said squared end, and is screw-threaded for about one-half of its length from near its forward extremity rearwardly, and its said forward extremity is of somewhat reduced diameter and is perforated transversely to receive a stop-pin. The said heel-clamp H having been connected to the heel-plate, as above described, the said clamp-rod is passed through the rear hanger E and the chamber *h*, between the heel-bracket sections F F, and is screwed through the nut 4 of the heel-clamp. The forward extremity of said rod is then passed through the arm D on the heel-plate, and thereto secured by the pin 7, which serves to retain said rod in engagement with the heel-plate.

The heel-clamping devices of the skate are now in operative positions.

In securing the skate to the heel of a boot the movable clamp H is, by turning clamp-rod K, adjusted to such position as permits said heel to freely enter between the rear, fixed heel-clamp C C and the movable clamp H. The clamp-rod K is then turned to draw said clamp H against the front edge of the boot-heel, and in so operating said last-named clamp the collar 6 on said rod is forcibly drawn against the rear side of the hanger E, but owing to the said proximity of the rear ends of the said bracket-sections to said hanger the latter is rigidly held against any deflection resulting from the clamping strain

to which said rod is subjected, and hence the entire clamping action of the devices is rigid and permanent.

The two sole-clamps (only one, *w*, of which is shown) are of well-known construction, and have movements on the sole-plate *m* toward and from the opposite borders of said sole-plate by means of a rotatable screw-rod *n*, engaging with said sole-clamp.

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

In a skate, a slotted heel-plate having its front end turned downward, and a vertical

bearing-plate secured to the rear end of the heel-plate, combined with the screw, journaled in the downwardly-turned end of the heel-plate and the vertical bearing-plate, and a clamp operated by the screw to catch against the front of the heel; the rear edge of the heel-plate being turned up to form projections for the heel to bear against, substantially as shown. 15 20

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