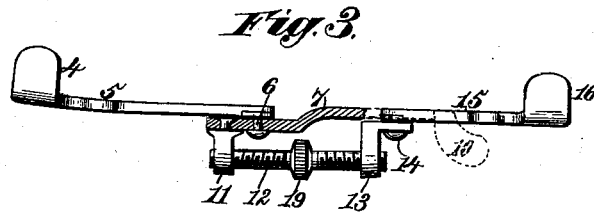
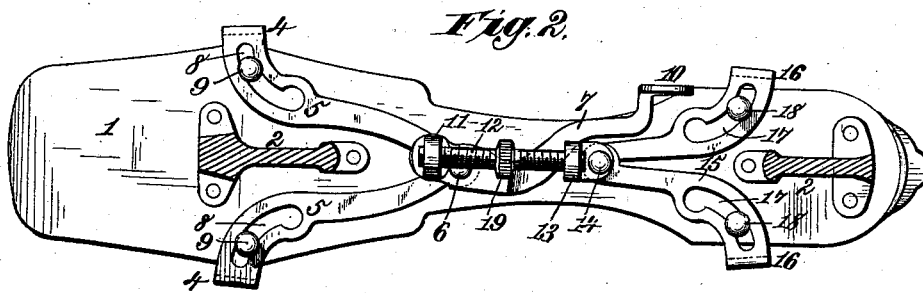
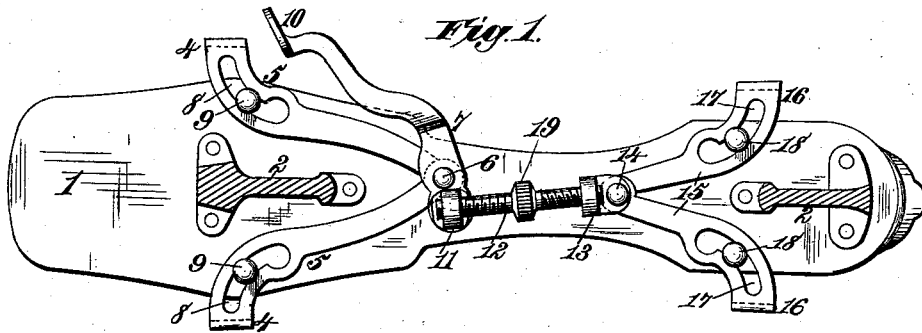


(No Model.)

S. WINSLOW.
SKATE CLAMP.

No. 324,204.

Patented Aug. 11, 1885.



Witnesses.
Robert Everett,

J. A. Rutherford,

Inventor.

Samuel Winslow.

By James L. Norris,

Atty.

UNITED STATES PATENT OFFICE.

SAMUEL WINSLOW, OF WORCESTER, MASSACHUSETTS.

SKATE-CLAMP.

SPECIFICATION forming part of Letters Patent No. 324,204, dated August 11, 1885.

Application filed January 24, 1885. (No model.)

To all whom it may concern:

Be it known that I, SAMUEL WINSLOW, a citizen of the United States, residing at Worcester, Worcester county, Massachusetts, have invented new and useful Improvements in Skates, of which the following is a specification.

The present invention has for its object to provide simple, convenient, and effective devices for securing roller and runner skates to the foot of the wearer, said devices consisting of heel and sole clamps of a peculiar form disposed on the under side of the foot-plate of the skate, and adapted to be moved in outward or inward directions therefrom to release the shoe or firmly clamp the same at the sides of the heel and edges of the sole. These heel and sole clamps are operated by means of a hand-lever, which can be thrown in an outward direction from the sole-plate to open the clamps, or can be turned under the sole-plate parallel to one of the sets of clamps for firmly holding all the clamps in a closed position.

The invention briefly outlined in the above statement will be hereinafter more fully described, and then set forth in the claims.

In the drawings, Figure 1 is a plan view showing the foot-plate of a skate and the sole and heel clamps projected beyond said foot-plate. Fig. 2 is a plan view showing the various clamps in a closed position and the operating-lever turned under the foot-plate. Fig. 3 is a detail view of the sole and heel clamps and the operating-lever, pivoted directly to a pair of said clamps, and connected with the other set of clamps by two swivel-blocks and a right and left hand screw.

The reference-numeral 1 designates the sole or tread plate of a roller or runner skate provided with any desired form of bearings or hangers 2 for the rollers or runner. At any suitable point in advance of the shank portion of the sole-plate are located laterally-sliding clamps or jaws 4, which are vertical plate-extensions of the branching arms or plates 5; or suitable clamp-plates may be attached to said plates, as is obvious. The plates or arms 5 are curved, as shown, and their rear ends are connected by a pivot pin or stud, 6, on which is also mounted a lever, 7. The arms 5 have each a slot, 8, through which extends a headed stud or rivet, 9, on the sole-plate, these slots and

studs serving to hold the arms 5 on the sole-plate and to guide the movement of the same. The slot 8 is enlarged at its end, so that the arm 5 can be slipped onto the headed stud, and by locating said enlarged portion of the guide-slot at a point beyond the limit of movement of the clamp or jaw the disengagement of the arm from the sole-plate is prevented. The lever 7, fulcrumed on the pivot-pin of the arms 5, has its longer arm curved or bent outwardly from its central portion, and such longer arm is also made with a right-angled bend at its outer end, on which is formed a vertical handle or finger-piece, 10. The short arm of the lever receives a swivel-block or post, 11, the latter having a gudgeon, which turns in an eye of said short lever-arm. The swivel-block has a screw-threaded aperture for the reception of one end of a right and left handed screw-stem, 12, the other end of said stem being fitted into a screw-threaded aperture made in a second swivel-block, 13. This block 13 is fitted on the fulcrum or connecting pin or stud 14 of a pair of arms, 15, arranged upon the heel portion of the sole or tread plate. These arms 15 are curved in a reverse direction from the arms 5, and their rear ends are bent so as to form clamp-plates 16; or, if desired, these clamps may be attached to the arms 5. Slots 17 in the arms 15, for the reception of studs 18, are duplications of the slots 8 of the arms 5. The front ends of the arms 15 overlap each other, and the pivot-pin 14 connecting the same, receives the block 13 and allows the same to turn or swivel thereon. The screw-stem has right and left hand screw-threads cut thereon, as already stated, and it also has a central milled head, 19, for turning to adjust the heel and toe clamps by bringing the front and rear ends of their arms closer together or farther apart, whereby the skate can be fitted to soles and heels of different sizes.

The operation of my improved sole and heel clamps is as follows, viz: When the lever 7 is thrown in an outward direction, or at right angles to the sole-plate, the various clamps are projected beyond the lateral edges of the sole-plate, so as to allow the foot to be placed between the clamps. By throwing the lever in an upward direction or turning it under the foot plate the clamps are closed upon the shoe

and the skate is firmly clamped in position. The curvature given to the lever 7 will permit it to lie against one of the arms 15 and bring its short arm and inner portion of the long arm under the screw-stem, the latter occupying a position corresponding to a line drawn longitudinally through the center of the foot-plate. In this manner the sole and heel clamps are firmly maintained in their closed position, and the various clamps are caused to seize the sole and heel at the sides thereof, in contradistinction to grasping the sides of the sole and back and front of the heel, as in skates heretofore devised. It is apparent that by arranging the clamps in the manner proposed by me the foot-plate is caused to occupy a position directly in the center of the foot, and all the clamps are caused to grasp the shoe uniformly, and that the clamps at each side of the skate are directly opposite to each other. In order to remove the clamps, it is only necessary to disengage the screw-stem from the swivel-blocks, when the slotted arms can be moved to bring the headed permanent rivets or studs opposite the enlargement of the slots in said arms, when the latter can be slipped off from said rivets. By providing permanent rivets and the slotted arms, as shown, I avoid cutting off rivets in order to remove the clamps.

What I claim is—

1. The combination, with the foot-plate of a skate, of a pair of laterally-movable clamps arranged under the foot-plate, at the front and rear portions thereof, and each pair of clamps pivoted together at their inner ends, a lever pivoted to the front clamps and having a short arm projecting past the pivot and carrying a swiveled screw-block, a swiveled screw-block on the pivoted ends of the rear clamps, and a right and left screw connecting the swiveled blocks, substantially as described.

2. In a skate, the sole-plate having permanent headed guide studs or rivets on its under side, and the sliding arms of the sole and heel-clamps provided with guide-slots with enlargements at their inner ends, whereby said arms can be readily attached and removed without removing the rivets or studs on the sole-plate, in combination with lever mechanism for operating the clamps, substantially as described.

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

SAMUEL WINSLOW.

Witnesses:

J. A. RUTHERFORD,
JOS. L. COOMBS.