

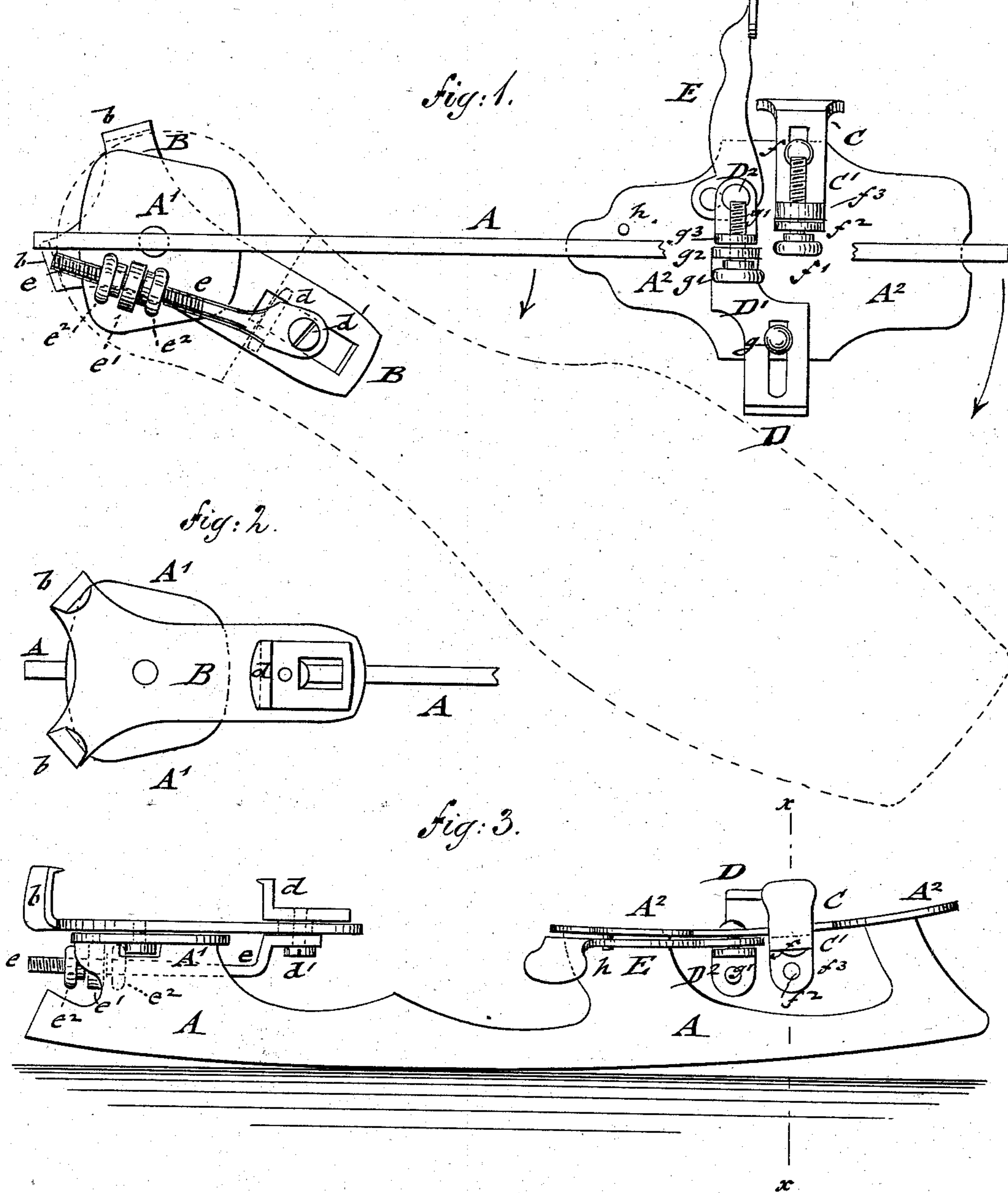
(No Model.)

W. A. SUTTON.

SKATE.

No. 249,555.

Patented Nov. 15, 1881.



WITNESSES:

Carl Kurr
for H. Rosenbaum.

INVENTOR

William A. Sutton

BY

Paul G. G. G.

ATTORNEY

UNITED STATES PATENT OFFICE.

WILLIAM A. SUTTON, OF NEW YORK, N. Y.

SKATE.

SPECIFICATION forming part of Letters Patent No. 249,555, dated November 15, 1881.

Application filed September 27, 1881. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM A. SUTTON, of the city, county, and State of New York, have invented certain new and useful Improvements in Skates, of which the following is a specification.

This invention has reference to certain improvements in skates, by which they can be clamped with great facility to the heels and soles; and the invention consists of an oscillating clamp-plate, which is pivoted to the center of a fixed heel-plate of the runner and slotted at its front end, so as to guide a movable clamp that is operated by a connecting-rod pivoted to the guide-pin of the movable clamp and secured to a pivot-lug by means of screw-nuts, so that the movable clamp may be set to the size of the heel. The heel-clamp is applied to the heel by throwing the runner in line with the foot. The sole-clamp consists of an adjustable clamp at one side and of a laterally-sliding clamp at the other side of the sole-plate, the latter being actuated by a cam-lever, and adjusted to the size of the sole by a bracket and set-screw connection with the cam-lever.

In the accompanying drawings, Figure 1 represents a bottom view of my improved skate, shown in the act of applying the heel-clamp. Fig. 2 is a top view of the heel-clamp; Fig. 3, a side view of a skate with heel and sole clamps; and Fig. 4, a vertical transverse section of the skate on line $x x$, Fig. 3, showing the sole-clamp.

Similar letters of reference indicate corresponding parts.

In the drawings, A represents the runner of my improved skate, which is provided with a fixed heel-plate, A', and a fixed sole-plate, A². To the center of the heel-plate A' is pivoted an oscillating clamp-plate, B, which is extended beyond the front edge of the heel-plate A', and provided with fixed clamps $b b$ at its rear end, and with a movable clamp, d , at its slotted front end. The movable clamp d is guided by a fixed pin, d' , in the slot of the clamp-plate A', which is pivoted by an eye to the guide-pin d' at its front end and passed through a pivot-lug, e' , at one side of the heel-plate A' to a short distance back of the lug e' . The rear end of the connecting-rod e is threaded and applied tightly to the pivot-lug e' by a screw-nut,

e^2 , at each side thereof, by the adjustment of which along the connecting-rod e the movable clamp d may be set toward or away from the face of the heel, according to the size of the same. When the movable clamp d is thus set to the proper size of the heel the skate may be readily put on the heel by placing the clamp-plate at an oblique angle to the runner as far as will be permitted by the connecting-rod e , placing then the heel upon the clamp-plate and swinging the runner toward and into line with the foot, by which motion the fixed and movable heel-clamps are firmly pressed into the sides and face of the heel.

The sole-plate A² is provided at one side with a clamp, C, that is guided by a slotted plate, C', on a fixed pin, f , of the sole-plate A², and adjusted by means of a set-screw, f' , which passes through a fixed lug, f^2 , and a lug, f^3 , at the inner end of the clamp-plate. At the other side of the sole-plate A² is arranged a second movable clamp, D, which is guided by its slotted plate, D', on a fixed guide-pin, g , with an enlarged head, and connected by a set-screw, g' , passing through a lug, g^2 , at the inner end of the clamp-plate D', with the lug g^3 of an intermediate bracket, D², that is pivoted to a cam-lever, E. The cam-lever E is eccentrically pivoted to the under side of the sole-plate A², and adapted to throw the movable clamp D toward or away from the sole, according as the cam-lever E is swung inwardly against the runner or outwardly into a position at right angles thereto, as shown in Fig. 1. The outer downwardly-bent end of the cam-lever abuts against the runner or against a stop-pin, h , at the under side of the sole-plate. As the cam-lever E is thrown beyond its center it locks the movable clamp rigidly into position on the sole-plate when the clamp has once been set to the proper size of the sole. In this manner a very simple clamping attachment for the heel and sole is obtained, which is operated by two motions, one of the runner and one of the cam-lever, provided the clamps have been set to the proper size of heel and sole. It may also be removed quickly by reversing the motions of the same parts, so that a conveniently-operated and rigidly-fastened skate is obtained.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. In a skate, the combination, with a fixed

heel-plate, of an oscillating clamp-plate having fixed rear clamps and a movable front clamp, said front clamp being actuated by a connecting-rod pivoted to the movable clamp and secured adjustably to a pivot-lug of the heel-plate sidewise of the runner, so as to throw the movable clamp against the heel by swinging the runner in line with the foot, substantially as specified.

10 2. The combination of the runner having a fixed heel-plate with an oscillating clamp-plate having fixed rear clamps and a movable front clamp, and with means whereby the movable front clamp is connected to a side pivot of the
15 fixed heel-plate, so as to be carried toward or away from the heel by swinging the runner into or out of line with the foot, substantially as set forth.

20 3. In a skate, the combination of a fixed heel-plate and oscillating clamp-plate having

fixed rear clamps and a movable front clamp with a connecting-rod pivoted to the movable clamp and secured adjustably to a pivot-lug of the heel-plate by a screw-nut at each side of the pivot-lug, substantially as set forth. 25

4. The combination of a sole-plate having an adjustable sole-clamp at one side and a movable sole-clamp arranged at the other side of the sole-plate with an eccentrically-pivoted cam-lever connected by a pivoted bracket to
30 the movable clamp, substantially as set forth.

In testimony that I claim the foregoing as my invention I have signed my name, in presence of two witnesses, this 10th day of September, 1881.

WILLIAM A. SUTTON.

Witnesses:

PAUL GOEPEL,
CARL KARP.