(No Model.)

G. W. BAKER.

SKATE.

No. 330,543. Patented Nov. 17, 1885.

Fig. 1.

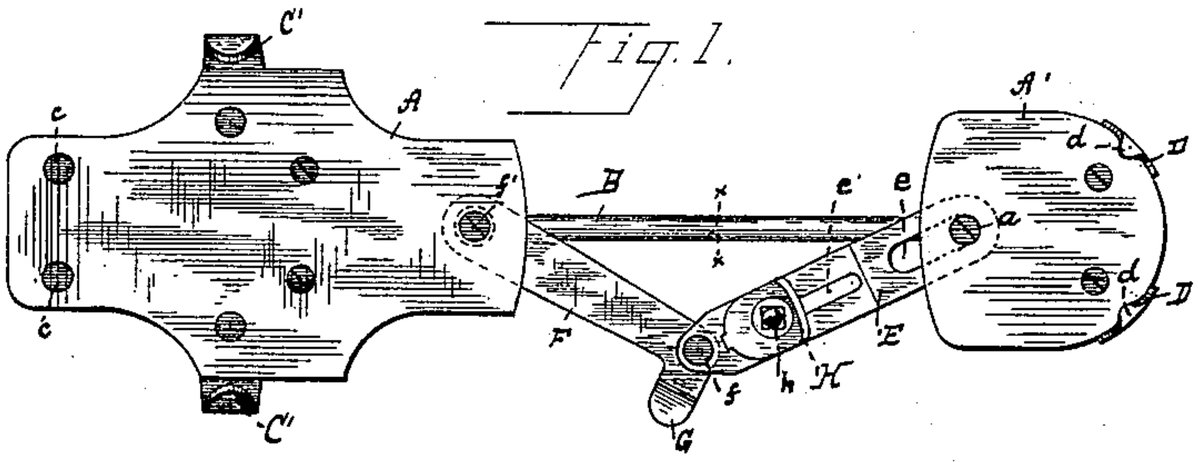


Fig. 2.

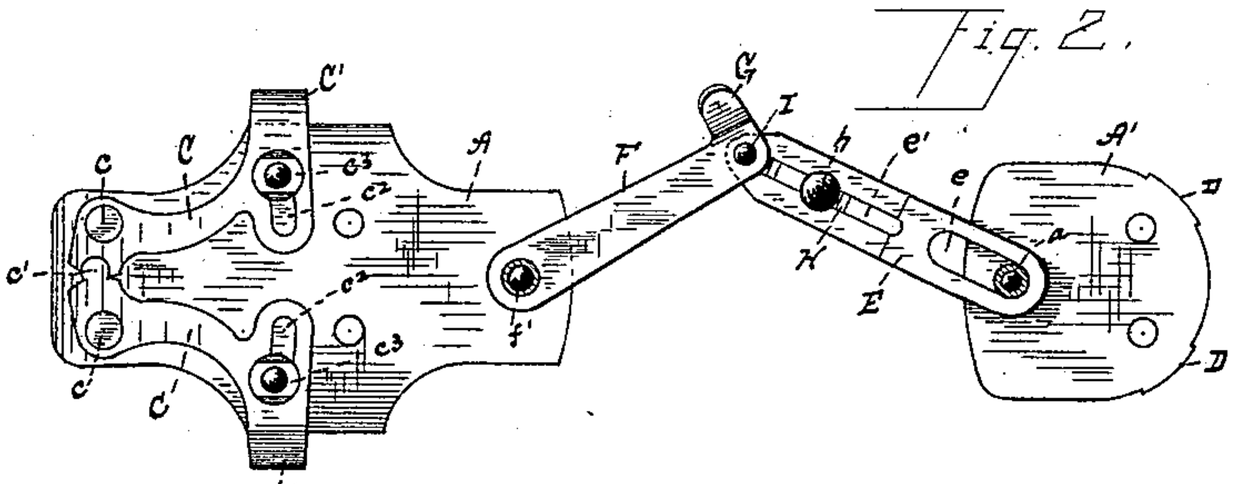


Fig. 3.

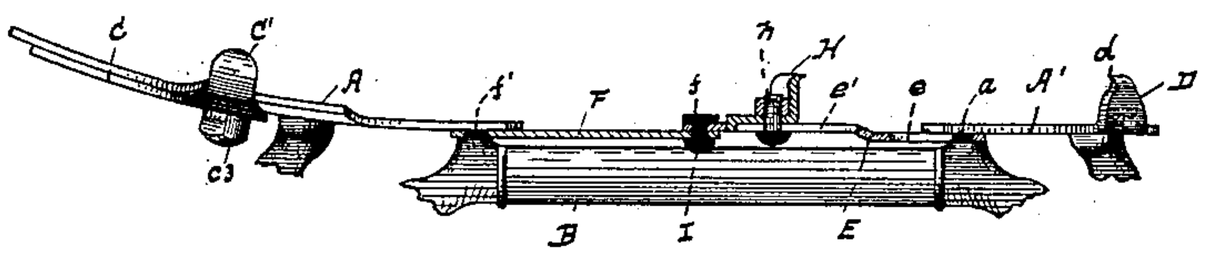
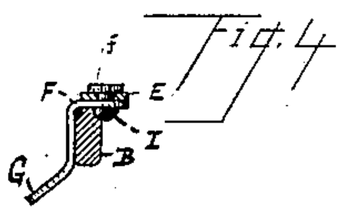


Fig. 4.



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UNITED STATES PATENT OFFICE.

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SKATE.

SPECIFICATION forming part of Letters Patent No. 330,543, dated November 17, 1885.

Application filed August 12, 1885. Serial No. 174,186. (No model.)

To all whom it may concern:

Be it known that I, GEORGE W. BAKER, of Cleveland, in the county of Cuyahoga and State of Ohio, have invented certain new and useful Improvements in Skates; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use the same.

My invention relates to improvements in skate attachments for securing the skate to the foot; and it consists in certain features of construction, and in combination of parts, hereinafter described, and pointed out in the claims.

In the accompanying drawings, Figure 1 is a plan view of a skate embodying my invention. Fig. 2 is a plan of the under side of the foot-rest, showing my improvements attached. Fig. 3 is a side elevation of the upper portion of the skate. Fig. 4 is an elevation in transverse section on the line of *x x*, Fig. 1.

A represents the foot-rest for the forward part of the foot, and A′ the rest for the heel, both rests being secured to the skate proper, B, in the usual manner.

C are levers, of the bell-crank variety, that are pivoted to the under side of the foot-rest at *c*, with the short or lateral arms of the levers made male and female to engage each other, as shown at *c′*, by means of which the two levers are made to move in unison. The long arms of the levers C bend outward and curve up over the foot-rest and terminate in hook ends or jaws C′, for clamping the sole of the shoe, and these jaws, by means of the engagement aforesaid of the male and female ends, are made to move simultaneously outward or inward equal distances, so that the foot-rest is always in a central position between the jaws. The longer arms have elongated holes c^2, through which pass bolts c^3, for rigidly holding the levers against the foot-rest. When these bolts are loosened, the jaws C′ are adjusted to hook over and grasp the edges of the sole of the shoe, after which the bolts c^3 are tightened and no further adjustment of the jaws is required so long as the same shoe is to be secured to the skate.

D are small flanges extending upward from the rear end of the heel-plate A′. Said flanges have small thin points or dogs *d*, extending inward toward the heel of the shoe, for engaging the latter.

E and F are light metal plates or arms that are pivoted to each other and to a thumb-piece, G, at *f*. The arm F at the other end is pivoted at *f′* to and underneath the rear portion of the plate A. The arm E has elongated holes *e* and *e′*, and through the former passes a stud, *a*, that holds the arm F against the under side of the plate A′, the plate E being in condition to slide endwise on the stud *a*. Through the hole *e′* passes a bolt, *h*, that secures the dog H to the plate E, and by means of which the dog is adjustable lengthwise of the skate and arm E, so as to engage the front part of the shoe-heel when the rear portion of the heel engages the dogs *d*. The arms E and F form a toggle-joint, and when these arms are turned outward, as shown in Figs. 1 and 2, the dog H is of course drawn farther away from the dogs *d*, in which position of parts the shoe of the operator is thrust forward between the jaws C′, after which the heel is pressed down in front of the dogs *d*. Next the arms E and F are swung into line, by means of which the dog H is made to engage the forward part of the heel. The head I of the rivet on which the arms E and F are pivoted together protrudes below, and as the toggle-joint approaches a straight line the rivet-head engages and rides over the top of the skate-iron B and holds the toggle-joint in line, the thumb-piece G forming a stop for engaging the other side of the skate-iron, and prevents the toggle-joint from moving too far, or beyond a straight line. In removing the skate the thumb-piece is pressed upward to raise the rivet-head I above the skate-iron, after which the toggle-joint, by means of the thumb-piece, is drawn outward to the position shown in Figs. 1 and 2, thereby releasing the heel of the shoe. Next the heel is raised above the dogs *d*, after which the foot is drawn rearward from between the jaws C′.

The device is equally well adapted to roller-skates or to ice-skates. As the heel-clamps are independent of the forward clamps, the foot is not held so rigidly as when the two sets of clamps are connected. The heel-clamps hold the heel as in a vise, so that the heel cannot rise from the heel-plate, which being the case,

the forward clamps need not be very tight, and the latter being usually located at or near the broadest part of the sole of the boot or shoe, the sole may move a trifle endwise between the jaws of the forward clamps, just enough to relieve the foot from the cramped position in which it is held when the two sets of clamps are connected, and the grasp of the heel-clamps depends in a measure on the rigidity with which the forward clamps grasp the shoe.

What I claim is—

1. In skate attachments, levers of the bell-crank variety pivoted to and underneath the foot-rest, said levers terminating in jaws extending above the foot-rest, for engaging the sole of the shoe, the lateral arms of the levers made male and female for engaging each other, and so arranged that the foot-rest is kept in a central position between the jaws, said levers having elongated holes and set-screws for securing the jaws in the desired position, substantially as set forth.

2. In skate attachments, the combination, with dogs connected with the rear of the heel-rest for engaging the heel, of a dog adjustably secured to the arm of a toggle-joint, said toggle-joint having stops, the one to ride over and the other to abut against the skate-iron, to hold the toggle-joint in a straight line and in position, causing the dogs to grasp the heel, substantially as set forth.

In testimony whereof I sign this specification, in the presence of two witnesses, this 30th day of July, 1885.

GEORGE W. BAKER.

Witnesses:
N. S. AMSTUTZ,
GEORGE TAUSCH.