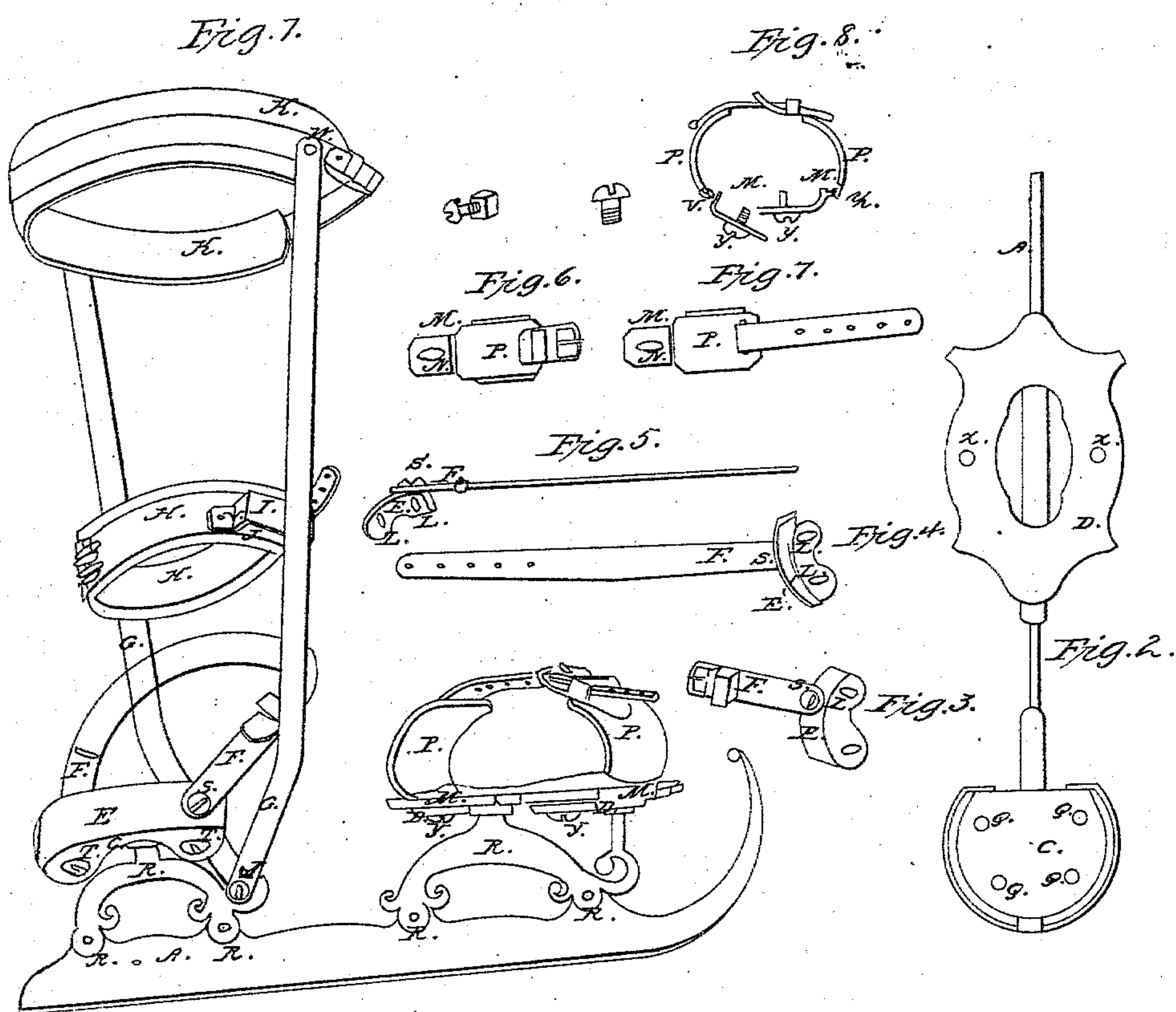


W. F. Cornell,
Skaters' Appliances,
No 84,171, Patented Nov. 17, 1868.



Witnesses:
Frank A. Smith,
Daniel G. Smith.

Inventor:
W. F. Cornell

United States Patent Office.

W. F. CORNELL, OF ADRIAN, MICHIGAN, ASSIGNOR TO HIMSELF
AND SILAS HURLBUT, OF SAME PLACE.

Letters Patent No. 84,171, dated November 17, 1868; antedated November 7, 1868.

IMPROVEMENT IN SKATES.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, W. F. CORNELL, of Adrian, in the county of Lenawee, in the State of Michigan, have invented a new and useful Improvement in Skates; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

The nature of my invention consists, first, in attaching two scroll-brackets to the runner of a skate by means of four V-shaped slots corresponding with the form of the runner, also attaching to said brackets the ball and heel-plates of a skate; second, in attaching to the ball and heel-plates adjustable supports or flanges for the edges of the heel and sole of the shoe or boot; third, in attaching an ankle-supporter provided with an adjustable band; all of which is clearly set forth in the following specification and drawings, of which—

Figure 1 is a perspective view exhibiting its several parts, viz, runner A; brackets B B; heel-plate C; ball-plate D; flanges or ball-supports M M; straps P P; straps F F; band H H; its yoke I; band K; ankle-supports G G; flange or heel-support E.

Figure 2 exhibits a top view of the runner, with all of its fixtures detached except the brackets B B, ball and heel-plates C and D, for the purpose of showing the holes Q Q and X, in which the screws go that attach the flanges E and M thereto.

Figures 3, 4, and 5 exhibit the flanges E E detached from the heel-plate C, for the purpose of showing their slotted holes L.

Figures 6 and 7 exhibit the flanges or ball-supports M M, detached from the ball-plate D, for the purpose of showing their slotted holes N.

Figure 8 is a reverse view of the same, for the purpose of showing more clearly the flanges or ball-supports M M.

The brackets B B are attached to the runner A at four different points by means of the rivets or screws R R.

The ankle-supports G G are attached to the heel-bracket B, by means of the pivot X, by which means they are free to oscillate with the different movements of the ankle. The ankle-supports G G are of sufficient length to reach one-half or one-third way to the knee, at the top of which is attached strap K by means of the rivets W.

The ankle-strap H H is attached to the middle of supports G G after the following manner: There are two yokes I, but one of which is seen in the drawings, attached to strap H by means of the rivets V, which forms a slot, J. Also, there is a yoke attached to the inside of each support G, similar in form to yoke I, neither of which is seen in the drawings, forming a slot on the inside of supports G, similar to slot J,

through which yoke I is free to slide, therefore attaching the strap H H to the supports G, by means of said yokes passing through the slots J. Thus it is clearly seen that the ankle has a right and left support, while at the same time it is free to slide back and forth the whole length of slots J, with the different motions of the ankle and leg which skating may require.

The flange or heel-supports E are attached to the heel-plate C by means of screws S passing through slotted holes L, seen in figs. 3, 4, and 5, and screws into the holes 2, in heel-plate C, seen in fig. 2.

The instep-strap F is attached to the heel-supports E by means of their pivots S, and free to play thereon, said straps being made of metal, with sufficient leather on their ends to admit of their being buckled around the instep.

The ball-supports or flanges M are attached to the ball-plate D by means of the screws Y, passing through the slotted holes N, seen in figs. 6 and 7, and screwing into the holes X in the ball-plate D, seen in fig. 2. Their metallic straps P P are attached thereto by the hinge Z, fig. 8, their opposite ends being provided with leather sufficient to admit of being buckled around the ball, thus giving the ball a more effective support than could be given with a leather strap, said straps P being provided with pads on their inner sides. Said pads are not seen in the drawings.

I will describe the manner of attaching my skate, as follows: The straps P P, F F, H H, and K K are all unbuckled and opened to admit the foot and ankle. Being placed therein, the straps K K are then buckled around the leg, the straps H H around the ankle, straps F F around the instep, and the straps P P around the ball. The ball-supports or flanges M M are free to slide on screws Y Y, by means of their slotted holes L, until they are pressed firmly against the edge of the sole of the shoe, and adjusted by means of screws Y. The heel-support or flanges E E are fastened in the same way by means of the screws T T. Thus it is clearly seen that the ankle, heel, and ball have a very effective support while in the act of skating.

After thus having described my invention,

What I claim, and desire to secure by Letters Patent, is—

A skate having the following characteristics: Arched brackets B, sliding ball-flanges M, adjustable sectional heel-flanges E, padded hinged metallic straps P F, bands H, with yokes I, hinged band K, and hinged ankle-support G, constructed, arranged, and operating as herein represented and described.

W. F. CORNELL.

Witnesses:

FRANK A. SMITH,
DANIEL O. SMITH.