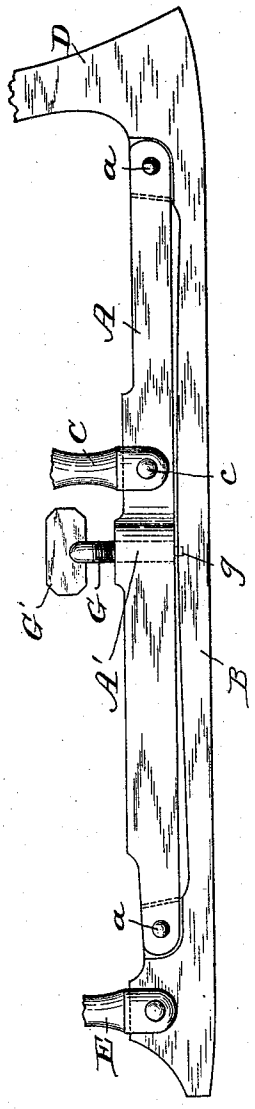
(No Model.)

R. E. KRAUSE.

SKATE.

No. 455,751. Patented July 14, 1891.



Witnesses:
E. B. Bolton
N. G. Thompson.

Inventor:
Richard Emil Krause
By Richards & Co
his Attorneys.

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

RICHARD EMIL KRAUSE, OF GOTHENBERG, SWEDEN.

SKATE.

SPECIFICATION forming part of Letters Patent No. 455,751, dated July 14, 1891.

Original application filed December 3, 1889, Serial No. 332,457. Divided and this application filed January 31, 1891. Serial No. 379,784. (No model.) Patented in Sweden January 30, 1889, No. 1,936; in Germany February 20, 1889, No. 49,690, and in England August 13, 1889, No. 12,774.

To all whom it may concern:

Be it known that I, RICHARD EMIL KRAUSE, a subject of the King of Sweden, residing at Gothenberg, Sodra Haumgatan 33, in the Kingdom of Sweden, have invented certain Improvements in Skates, (patented in Sweden January 30, 1889, No. 1,936; in Germany February 20, 1889, No. 49,690, and in England August 13, 1889, No. 12,774,) of which the following is a specification, this application being a division of that originally filed by me in the United States December 3, 1889, on which Patent No. 439,161 was granted on the 28th day of October, 1890.

In skating it is important that the bottom edge of the runner of the skate which comes in contact with the ice shall have a proper curve; and the object of this present invention is to provide an improved, easily-operated, and effective means whereby a skater can at will regulate such curve. This improvement, while effective for the purpose, is also of simple and cheap construction and does not add materially to the cost of manufacture.

In the accompanying drawing I have shown in side elevation so much of a skate-runner and contiguous parts as is necessary to an understanding of the improvement.

In said drawing, B indicates the runner proper, which is of sufficiently small dimensions vertically to be bent or curved by pressure to the desired degree.

D and E indicate the front and rear posts, supported upon the ends of the runner and upon which would be carried the sole and heel plates. (Not shown.)

A is a rigid bar mounted above the runner and secured at *a* to its front and rear ends or to the bases of said posts.

C is an intermediate post adapted for the support of the rear end of the sole-plate and mounted at *c* upon the bar A.

G is a screw operating between the said parts A and B to separate them and increase the curvature of the runner or to permit them to approach and lessen the degree of such curvature. This action is effected by making the screw to engage a thread in the one part and to bear against the other part, or to engage right and left threads, respectively, in the two parts. In the construction shown the screw engages a threaded bearing A′ in the rigid bar A and bears against the top surface of the runner B at or near its middle. Preferably the screw has a small journal *g*, which enters a corresponding socket or bearing in the runner and stiffens the runner laterally.

G′ is a flat or squared head or handle by which the skater may readily turn the screw.

What I claim is—

In a skate, the combination, with the flexible runner, of a rigid bar or frame piece carried by said runner and loosely connected at *a a* to the same, and a screw situated transversely to the runner and engaging said bar and runner to determine the degree of curvature of the latter, substantially as set forth.

In witness whereof I have hereunto signed my name in the presence of two subscribing witnesses.

RICHARD EMIL KRAUSE.

Witnesses:

E. H. BRUHN,

ERNST SVANQVIST.