

Heisel & Nadig,

Skate,

No 39,013,

Patented June 23, 1863.

Fig. 1.

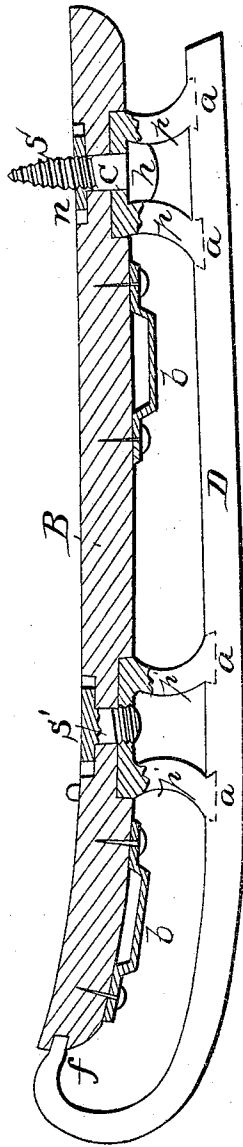
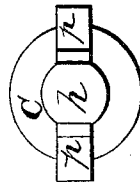


Fig. 2.



Witnesses;

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# UNITED STATES PATENT OFFICE.

MARTIN HEISEL AND MARTIN NADIG, OF ROCHESTER, NEW YORK, ASSIGNORS TO DAVID R. BARTON, OF SAME PLACE.

## IMPROVEMENT IN SKATES.

Specification forming part of Letters Patent No. 39,013, dated June 23, 1863.

*To all whom it may concern:*

Be it known that we, MARTIN HEISEL and MARTIN NADIG, of Rochester, in the county of Monroe and State of New York, have invented a new and useful Improvement in Skates; and we do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 is a vertical longitudinal section of the foot-piece B, showing the combination and relative arrangement of the several parts. Fig. 2 is a bottom view of the posts *p p* and their cap C, also the head *h* of the screw S.

This improvement relates to frame-skates; and it consists in the combination of the double posts, which are provided at the top with a rigidly-fixed broad circular cap that constitutes a substantial support for the foot piece to rest upon, with the heel-spur screw, the head of which is so fitted between the posts as to prevent it from turning while the clamping-nut is being screwed on, or when the spur is being attached to or detached from the heel of the boot, and without the necessity of making a square hole through the cap and a corresponding square shank to the screw, all together constituting a simple, cheap, and very substantial attachment for the foot-piece, and at the same time providing a removable heel-spur in this class of skates.

The posts *p p* and *p' p'* and their caps C may be made of malleable iron, and each pair of posts and their cap be cast together, and for cheap malleable-iron skates they may be cast to the runner; but in making steel skates we cut the runners from bars of the size they are desired to be, then draw one end down somewhat, and give it the desired curvature over a former, making all the runners uniform. A number of runners are then secured in a planer-bed and recesses planed in their upper face to receive the dovetail-shaped feet of the posts *p p* and *p' p'*, as shown by the dotted lines *a* in Fig. 1. The foot or lower end of the posts are then fitted into these recesses, where they are firmly secured by brazing. The rear cap, C, is then drilled, to admit the screw S, and the front one is drilled and tapped to receive the screw S', or, if desired, they may be thus prepared previous to being attached to the runner. The screw S' may be applied the

same as the screw S, if desired, it being inserted from below and a clamping nut used. The head *h* of the screw S is flattened on two sides, as seen in Fig. 2, so as to fit between the posts *p p*, to prevent it from turning while the clamping-nut *n* is being screwed on, and to prevent its turning in the skate while it is being screwed into or out of the heel of the boot. The front end of the runner is let into the toe of the foot-piece B, as seen at *f*, Fig. 1. The foot-piece may be recessed, as seen in Fig. 1, to receive the collars C, or it may be set upon them, if desired. The straps are inserted through the loops *b*.

The broad circular collars or caps C, more clearly seen in Fig. 2, constitute a very substantial lateral brace or support for the foot-piece B to rest upon, and, as practice proves, entirely and effectually prevents the latter from being split by side thrusts or strains against the runner D. These annoying accidents are of very frequent occurrence in the use of many varieties of skates heretofore manufactured.

Another source of great annoyance to skaters is the failure of the heel-spur, in which case, when it is made, as in other skates of this class, by cutting the thread upon the upper portion of the post, the latter being rigidly fixed to the runner, a new runner must be supplied simply to provide a new heel-spur, whereas in this skate, which affords all the advantages of the solid post and of the rigidly-fixed broad cap C, or support for the foot-piece, a removable heel-spur is provided, which also clamps the parts together, and which may easily be removed at any time and a new one substituted without disarranging any of the other parts.

We claim as our invention—

The combination of the removable heel-spur clamping-screw S with the collar C and the double posts *p p*, the former being cast to the latter, and they being rigidly attached to the runner by brazing or other equivalent means, all in the manner and for the purposes specified.

MARTIN HEISEL.  
MARTIN NADIG.

Witnesses:

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C. E. BARTON.