A. W. Johnson,

Skate,

No. 38,829. Patented June 9, 1863.

Fig. 1.

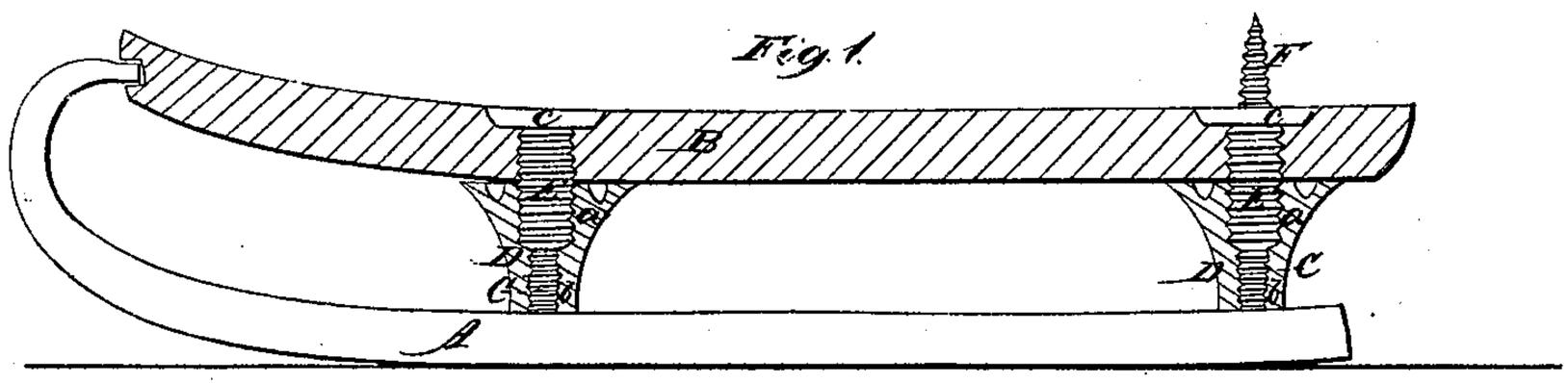


Fig. 2.

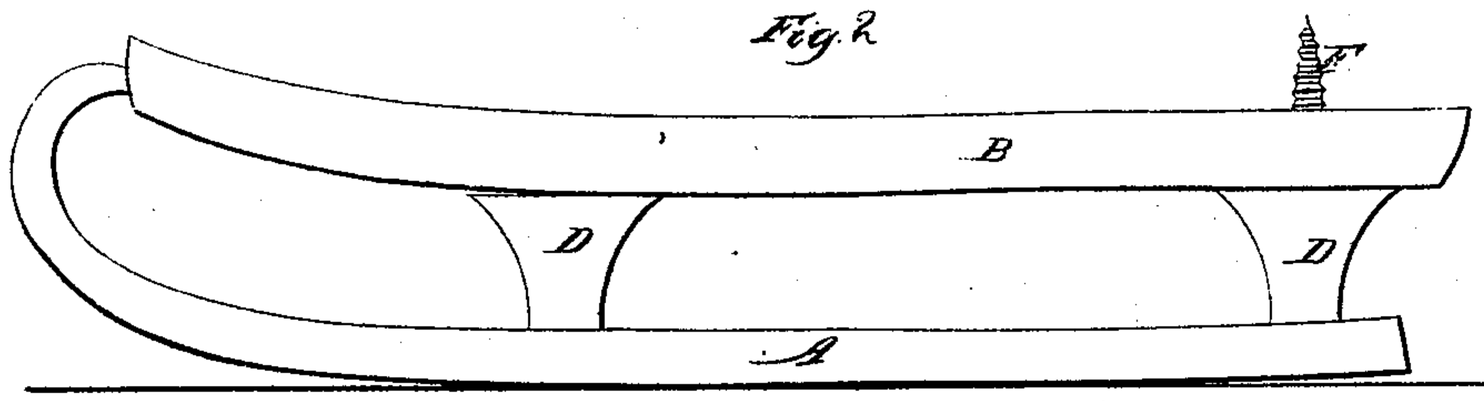
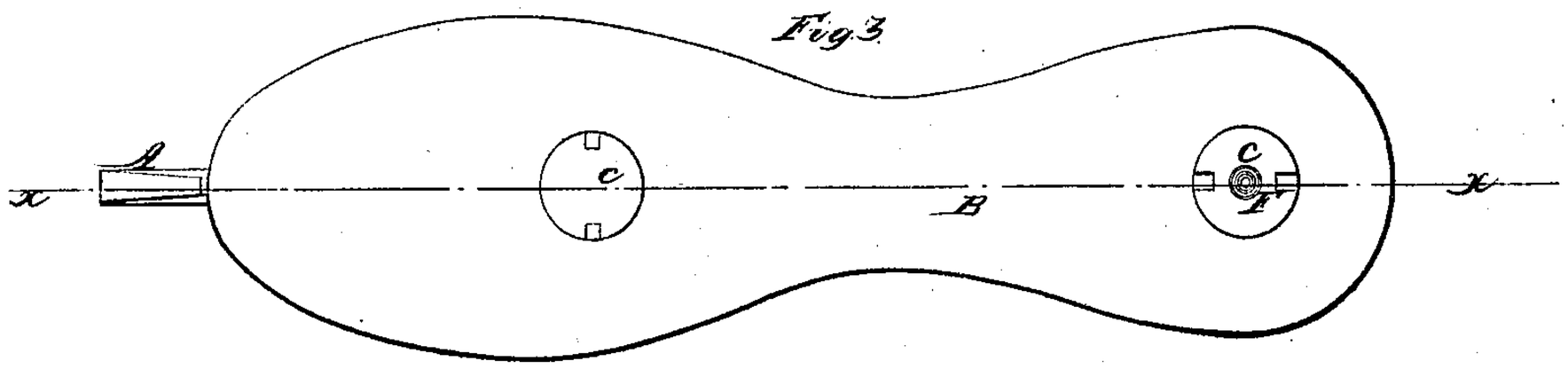


Fig. 3.



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UNITED STATES PATENT OFFICE.

A. W. JOHNSON, OF AUBURN, NEW YORK.

IMPROVED SKATE.

Specification forming part of Letters Patent No. **38,829**, dated June 9, 1863.

To all whom it may concern:

Be it known that I, A. W. JOHNSON, of Auburn, in the county of Cayuga and State of New York, have invented a new and Improved Skate; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 is a side sectional view of my invention, taken in the line *x x*, Fig. 3; Fig. 2, a side view of the same; Fig. 3, a plan or top view of the same.

Similar letters of reference indicate corresponding parts in the several figures.

This invention relates to an improved mode of attaching the runner of the skate to the foot-stand thereof; and it consists in having the upper edge of the runner, at the proper points, provided with screws, on which the posts or knees are screwed, the latter serving as supports for the foot-stand, and being firmly secured in positions by screws which pass through the foot-stand and into the posts or knees, as hereinafter fully shown and described.

The invention is designed as an improvement on the skates hitherto manufactured with posts or knees placed loosely on screws attached to the runner, a cheap mode of construction, but one which is not durable, on account of the posts or knees not being firmly secured in position.

To enable those skilled in the art to fully understand and construct my invention, I will proceed to describe it.

A represents the runner of the skate, and B the foot-stand thereof. The runner is formed of a piece of metal, of suitable dimensions, curved at its front end so that it may be fitted into the front end of the foot-stand or secured thereto in any proper way.

To the runner A, at suitable points, there are secured two screws, C C. These screws project vertically upward from the top surface of the runner, and upon them are screwed two posts or knees, D D, one on each, said posts or knees being of inverted conical form, quite small in diameter at their lower ends, so as not to greatly exceed in diameter the width of the runner A, and considerably greater in diameter at their upper ends, so as to have a good bearing-surface for the foot-stand B. (See Figs. 1 and 2.)

In the upper part of each post or knee D there is made centrally and vertically an opening, *a*, having an internal screw-thread cut in it, as shown in Fig. 1. These openings *a* are considerably larger in diameter than the openings *b*, which receive the screws C C of the runner A, but the two openings are in line with each other.

E represents screws, which are made of such diameter as to fit into the holes *a* in the posts or knees. These screws are provided with heads *c*, as shown in Figs. 1 and 3, and the screws pass through holes in the foot-stand B and into the holes *a* in the posts or knees, the upper parts of the holes in the foot-stand being enlarged or countersunk, so as to receive the heads *c* of the screws, the heads *c* being "flush" with the upper surface of the foot-stand when the screws are fully screwed into the posts or knees, as shown in Fig. 1. The head *c* of the screw E of the back post or knee, D, has a screw, F, attached to it to enter the heel of the boot or shoe of the wearer. When the posts or knees D D are screwed on the screws C C, they will be firmly attached to the runner A, equally so as if they were forged therewith or welded to it, and when the screws E E are screwed into the posts or knees through the foot-stand B, the latter will be firmly connected to the former, and the runner posts or knees, and foot-stand all firmly secured together, for it will be seen that there can be no play or movement of the posts or knees between the runner and the foot-stand, the screws C E effectually preventing such a contingency.

I am aware that skates have been constructed with posts or knees made separately from the runner and fitted on screws attached to the latter; but, so far as I am aware, the posts or knees have hitherto been fitted loosely on the screws, the former being merely secured in position or prevented from lateral movement or play by the pressure of the foot-stand and runner, a nut being fitted on the upper end of each screw and passing through the foot-stand. In this arrangement the posts or knees are quite liable to get displaced or shifted out of proper position—a contingency which is fully obviated by my invention.

I do not claim, broadly, a skate having its posts or knees made separately from the runner, and fitted on screws attached to the latter; but

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

The employment of the double-screwed knee D, made small at its lower part and enlarged at its upper part, in combination with the runner-screw C and the foot-stand screw E, as herein shown and described, so that the said knee, while it presents at its upper end a large and firm bearing surface or support for the foot-stand, will also present a large interior nut or screw surface for the reception of the foot-stand screw, while in its lower end the said knee will receive the runner-screw, and all the parts will be firmly bound together, as set forth.

A. W. JOHNSON.

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