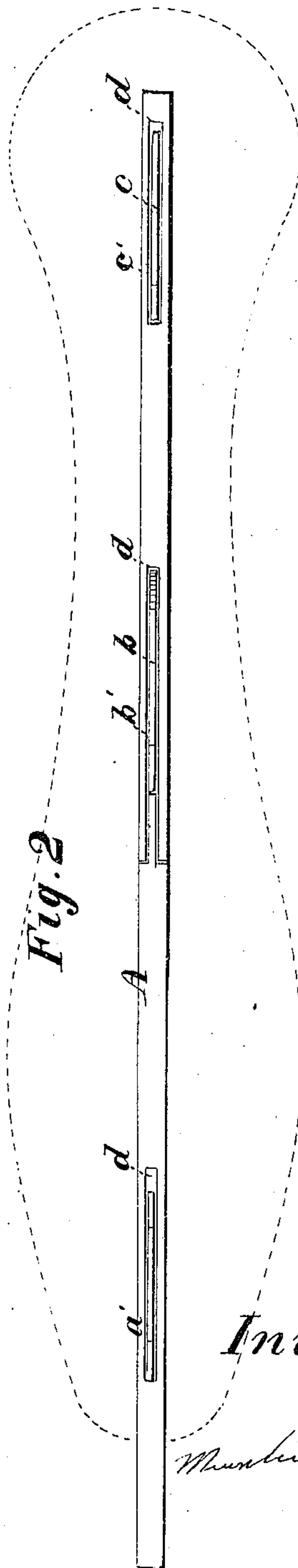
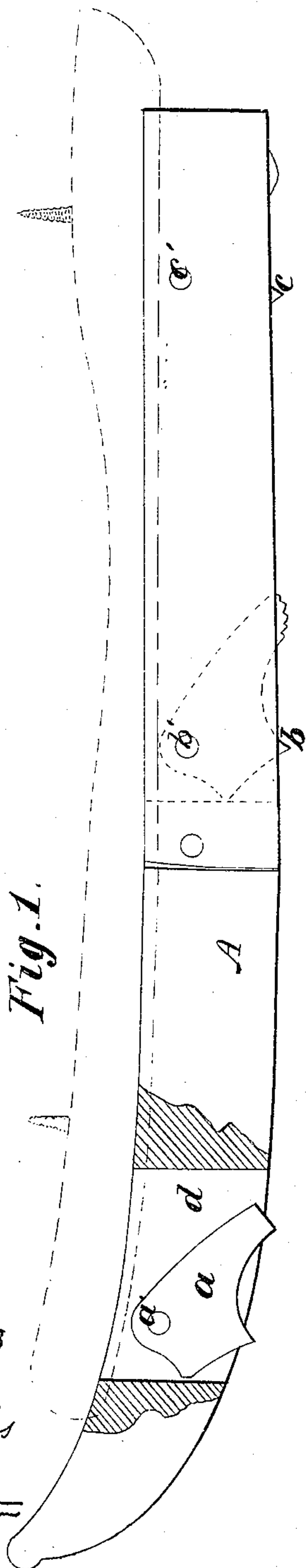


M. Feurstein,

Skate,

N^o 40,921.

Patented Dec. 15, 1863.



Witnesses

J. W. Combs
M. Livingston

Inventor

Munster & Co. N.Y.

UNITED STATES PATENT OFFICE.

MARTIN FEURSTEIN, OF WILLIAMSBURG, NEW YORK.

IMPROVEMENT IN SKATES.

Specification forming part of Letters Patent No. 40,921, dated December 15, 1863.

To all whom it may concern:

Be it known that I, MARTIN FEURSTEIN, of Williamsburg, in the county of Kings and State of New York, have invented a new and useful Improvement in Skates; 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 represents a sectional side elevation of my invention Fig. 2 is an inverted plan of the same.

Similar letters of reference in both views indicate corresponding parts.

The object of this invention is to enable unpracticed skaters to strike out on their skates without the liability of slipping backward or in a lateral direction, whereby they are caused to lose their balance and to fall. The attempts heretofore made to effect this purpose by the application of a pawl or holdfast at the back end of the runner or foot stand of a skate have proved unsuccessful, in the first place, because in striking out with the skate the skater lifts the heel or back part of the skate from the ice and bears down with the toes only, and in the second place because a pawl attached to the back part without protection is liable to come off after a short time. These difficulties I have overcome by the application of two or more pawls under the foot-stand—one under the toes, one under the middle, and one under the heel of the foot—in such a manner that the slipping of the skate is prevented whatever part of the runner may be brought to bear on the ice. I have also inserted the pawls in slots of the skate-iron, whereby they are fully protected and strengthened against lateral strains.

To enable those skilled in the art to make and use my invention, I will proceed to describe it.

A represents the runner of a skate, which may be made of steel or iron in the ordinary shape or manner, and which may be hinged in the center to enable it to adapt itself to the motions of the foot. This runner is provided with two or more pawls or dogs, *a b c* which

are connected to the same by means of pivots *a' b' c'*, as clearly shown in Fig. 1 of the drawings. Said dogs are furnished with sharp teeth, and they are hung in such a manner that said teeth bite into the ice if the runner is pushed back, and by these means a backward motion of the runner is prevented; but in moving the runner forward the teeth turn up, so that they do not interfere in the least with the forward motion of said runner. By having a dog under the toes, under the middle part of the foot, and under the heel, slipping in a backward direction is effectually prevented, no matter what the position of the foot. Generally in striking out with the skate the toe part of the runner is pressed down upon the ice and the heel part is raised, and in this case the dog *a* under the toes will bite in the ice and prevent the slipping of the runner. The dogs *b c* in this case are superfluous, and in fact they would be entirely useless if it did not happen in some cases that the foot is put down flat in striking out with the skate, so that the middle or rear part of the runner touches the ice.

By using two or more dogs the slipping of the runner on the ice is effectually prevented, no matter how the foot may be set down.

In order to protect the dogs against lateral strain, I have inserted them into slots *d* in the runner, as clearly shown in Fig. 2. By this arrangement the position of the dogs is considerably strengthened, and they are not liable to come off by the lateral strain to which they will necessarily be subjected during the action of skating.

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

1. A skate-iron, *A*, provided with two or more hinged dogs, *a b c*, as and for the purpose described.

2. Inserting the dog or dogs in slots *d*, as and for the purpose specified.

MARTIN FEURSTEIN.

Witnesses:

W. HAUFF,

M. M. LIVINGSTON.