

J. A. De Brame,

Skate.

N^o 32,024.

Patented Apr. 9, 1861.

Fig 1.

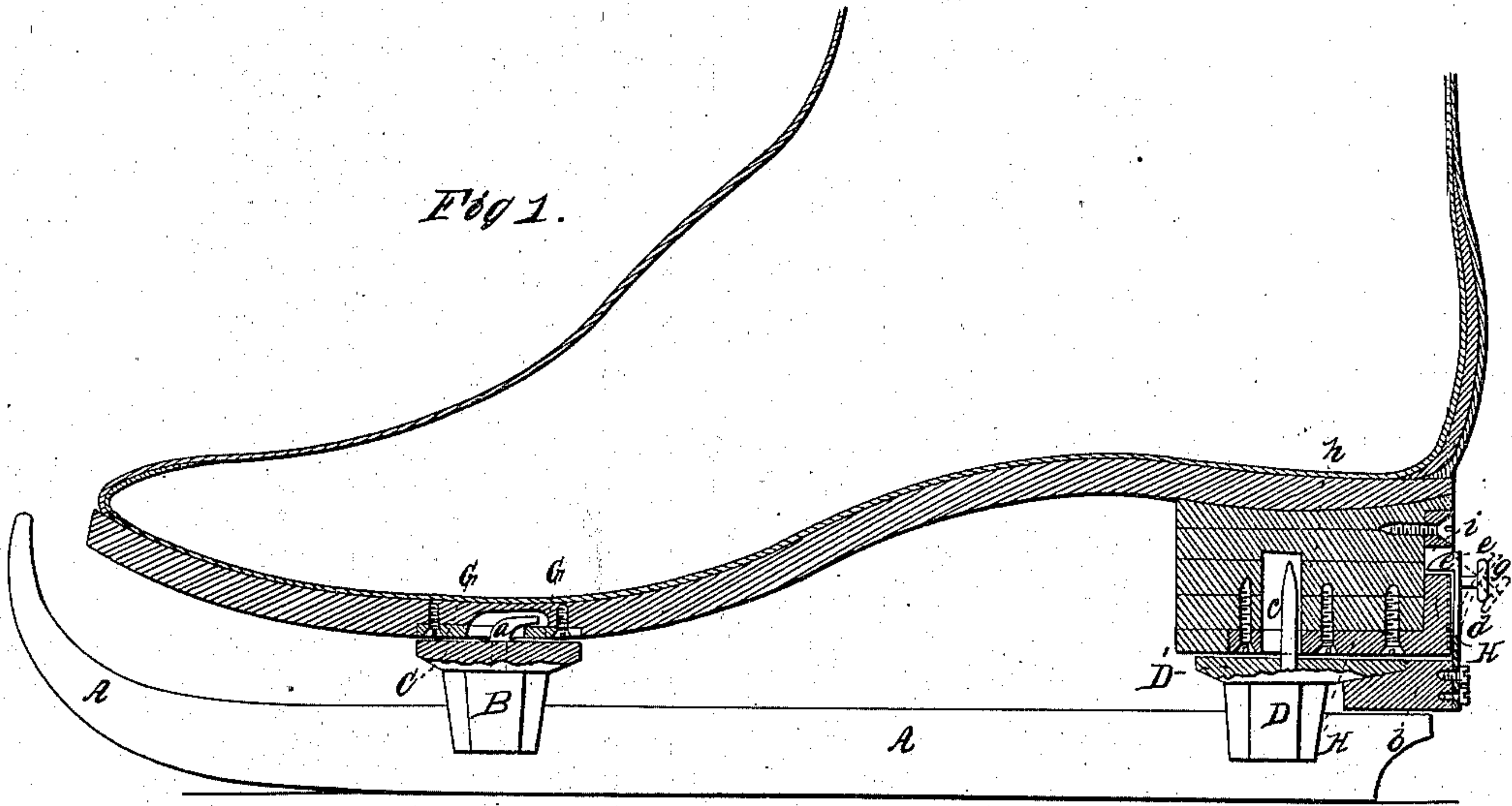
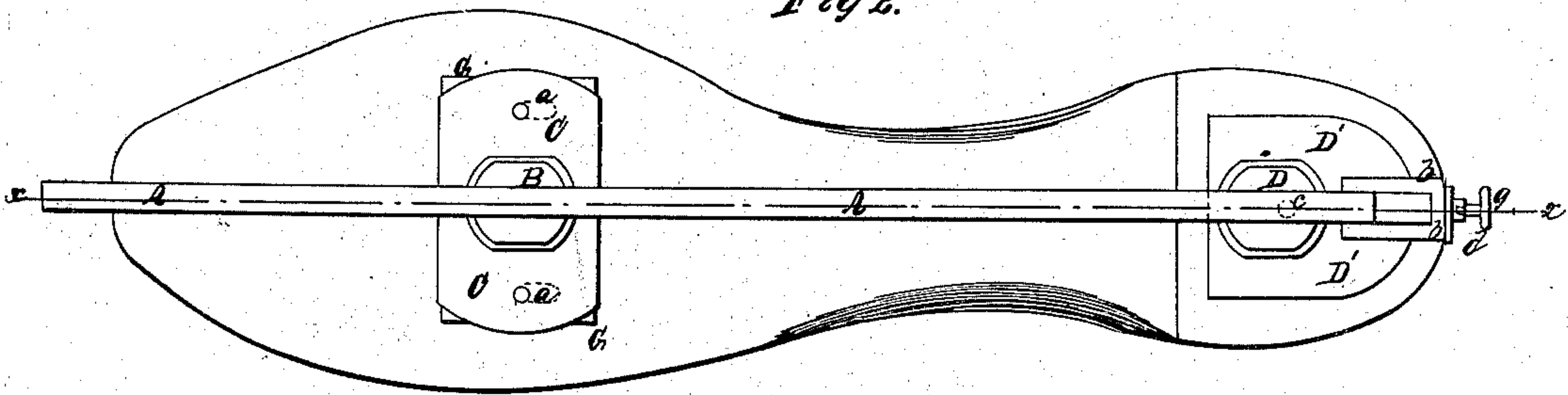


Fig 2.



Witnesses.

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UNITED STATES PATENT OFFICE.

J. A. DE BRAME, OF NEW YORK, N. Y., ASSIGNOR TO HIMSELF AND BENJ. GURNEY.

SKATE.

Specification of Letters Patent No. 32,024, dated April 9, 1861.

To all whom it may concern:

Be it known that I, J. A. DE BRAME, of 707 Broadway, in the city and county of New York and State of New York, have invented a new and Improved Method of Attaching Skate-Irons to the Soles of Boots and Shoes; and I 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 longitudinal vertical section through a boot, and also through the skate iron fastenings of my improved skate. Fig. 2, is a bottom view of the sole of a boot having my improved skate attached to it.

Similar letters of reference indicate corresponding parts in both figures.

This invention relates to a novel means for attaching (and detaching) skate irons directly, to the soles of boots, whereby straps, and the objections attending their use are obviated, the skates are made much lighter and more compact and portable and can be readily put on and taken off.

The object of my invention and improvement in skates is principally to obviate the necessity of cutting away the leather of the boots, and thus impairing them as is done with skates which have hitherto been applied directly to the soles of the boots; and also to obtain a firmer attachment of the skate iron at the heel of the boot as well as at the sole thereof, than hitherto, at the same time to prevent the liability of tearing off the heel of the boot, and the straining of the feet in using the skates.

To enable those skilled in the art to make and use my invention I will proceed to describe its construction and operation.

In the accompanying drawings A, represents the skate iron or runner of the skate, which may be made of any desirable shape, B, is a strong metal stud which is secured to the iron A, by screws or rivets, and C, is a horizontal plate which forms a part of the stud B. This plate C, is the bearing portion for the ball or front part of the foot, and it may be made as wide or as narrow as desirable. One or more strong hooks *a*, are cast with or properly secured to the top surface of the sole plate C, and the hook, or hooks, as the case may be are turned backward or toward the heel part of the runner A, and not forward as hitherto. Near the rear end of the runner A, another stud D, and

plate D¹, is secured by rivets or screws and this latter plate D¹ is made sufficiently large to give a firm bearing for the heel of the boot which rests on it as shown in Figs. 1 and 2 of the drawings; and on the rear end and in the middle of heel plate D¹, a square block *b*, is riveted, or this block may be cast with the heel plate. In the center of heel plate D¹, is fixed a pin *c*, which projects up perpendicularly from this heel plate some distance, and if desirable its upper end may be pointed. To the flat surface of the block, or enlarged heel portion *b*, the lower end of a strong spring plate *d*, is riveted. This spring *d*, projects upward a suitable distance and has a hooked latch piece *e*, formed on its end, the upper surface of which may be beveled downward like the nose of a door latch; on the opposite side or outside of this spring *d*, a small knob or thumb piece *g*, is secured. This gives a description of the skate iron and the parts which are secured to the skate iron, which parts—there being only three—can be made strong and light, and at the same time finished up very handsomely with little labor, as the castings C, and D, are very plain and have no joints or parts which require to be fitted nicely together, and if metal foot pieces are objectionable the parts may be made of good solid wood.

A thin metal plate G, having slots cut through it to receive the hook, or hooks, *a*, on the plate C, is secured to the sole of the boot at a suitable point under the ball of the foot. This slotted plate G, may be let into the sole of the boot flush with the surface thereof, or it may be screwed on the outside of the sole and surrounded with a piece of leather to protect it from rapid wear, if the boots are used for walking purposes. The slot, or slots in plate G, are made in a direction with the length of the boot, and large enough to admit the hook, or hooks *a*, as shown in Fig. 1 of the drawings, so that the hooks will catch on the upper side of the front edge of the slot.

A plate or narrow piece of metal H, is screwed to the bottom of the heel of the boot. This piece H, is carried up the back part of the heel of the boot as well as under the heel. It may be a very thin piece of metal as it is used to protect the leather as well as to strengthen the heel. At a suitable point in that portion of plate H, which is under the heel of the boot, a hole *h*, is made through the plate H, and into the heel of the boot

some distance, to receive the vertical heel spur C; another hole *i*, is made in the back part of the heel plate H, for receiving the latch pin *e*, on spring plate *d*.

5 The operation of my invention is as follows: The hooks *a*, are inserted into the slots in plate G, and secured therein by drawing the skate iron backward toward the heel of the boot. This will allow the pin
10 *c*, to be introduced into the hole *h*; now the skate iron can be secured by simply stamping the foot, which operation forces the spring *d*, outward, and causes the latch *e*, to hook into the hole *i*, in the back of the heel
15 of the boot. The skate iron will now be attached firmly to the boot, as the hook *a*, will prevent a backward as well as a lateral motion at the ball of the foot, the heel pin *c*, will prevent any lateral or any forward
20 movement of the skate iron at the heel of the boot and the spring latch *d*, *e*, will keep the heel of the skate up to the heel of the boot, the hooks *a*, heel spur *c*, and spring latch *d*, *e*, will conjointly prevent any loose movement
25 of the skate iron on the boot, and form a rigid fastening which will not be liable to strain the leather.

The advantages obtained in the combination of the spur *c*, with the hooks *a*, is that
30 while the spur prevents strain on the lowermost part of the heel of the boot, it serves to keep the hooks *a*, in place in their slots, and then again the use of the spur *c*, in conjunction with the hook fastening, obviates the
35 tenon and groove joints hitherto used, which are objectional on account of their filling up with ice, dirt etc., and wearing loose when used several times.

The downward pressure of the arch of the

foot on the sole of the boot in skating
spreads, or lengthens the foot and where a
hook is used which hooks forward or in a
direction with this longitudinal spreading of
the boot, the hook is very liable to spring out
of its groove, such a hook is however found
45 to be insecure from this cause, as it is constantly working loose, but where the hook is turned in the opposite direction the spreading out of the foot is in a great measure prevented, and the foot is therefore well supported and not liable to be strained, and the
50 person will feel no unpleasant sensation from using the skates.

I am aware that hooked fastenings for the front parts of skates have been used in combination with tongue and groove and latch
55 fastenings for the heel parts of skates as in the Patent No. 26,540, and I do not claim such as my invention, but,

What I do claim as new and desire to secure by Letters Patent, is, 60

1. The hook, or hooks *a*, turned backward as described and shown in Fig. 1 of the drawings, in combination with the heel spur or spurs *c*, fitting loosely into a hole made in
65 the heel of the boot, for the purpose of retaining the hook *a* in its plate, as herein set forth.

2. Combining with the hook *a*, and heel spur *c*, the spring latch *d*, *e*, when the latter
70 is arranged on the back part of the heel of the boot and catches into a recess in said heel as herein set forth.

J. A. DE BRAME.

Witnesses:

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