

U. S. PATENT OFFICE.

No. 1,020.

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WHOLE No. 32,024.

Skates.

J. A. DE BRAME, OF NEW YORK, N. Y.,

ASSIGNOR TO BENJAMIN GURNEY, OF SAME PLACE.

Letters Patent No. 1,020, dated April 9, 1861.

SPECIFICATION.

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.

Figure 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

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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 the surface of the sole plate C, and the hook or hooks, as the case may be, are turned backwards or towards the heel part of the runner A, and not forwards, as hitherto.

Near the rear end of the runner A, another stud D and plate D' is secured by rivets or screws, and this latter plate D' is made sufficiently large to give a firm bearing for the heel of the boot which rests on it, as shown in figures 1 and 2 of the drawings; and on the rear end, and in the middle of heel plate D', a square block *b* is riveted, or this block may be cast with the heel plate. In the centre of heel plate D' is fixed a pin *e*, 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 upwards a suitable distance, and has a hooked latch-piece *e* formed on its end, the upper surface of which may be bevelled downwards 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 figure 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 the 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*.

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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 backwards towards the heel of the boot. This will allow the pin *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* outwards, and causes the latch *e* to hook into the hole *i* in the back of the heel 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 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 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, 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 tenon and groove joints hitherto used, which are objectionable 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 foot, the hook is very liable to spring out of its groove. Such a hook is, however, found 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 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 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, 1st. The hook or hooks *a*, turned backwards, as described and shown in figure 1 of the drawings, in combination with the heel spur or spurs *c*, fitting loosely into a hole made in the heel of the boot, for the purpose of retaining the hook *a* in its place, as herein set forth.

2nd. Combining, with the hook *a* and heel spur *c*, the spring latch *d e*, when the latter 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:

M. M. LEVINGSTON,
LEWIS A. TUCKER.

1866

J. A. de Roussé's Improvement in Scales.

Designed by
J. A. de Roussé of Jersey

Patented April 9, 1866.

Fig. 1.

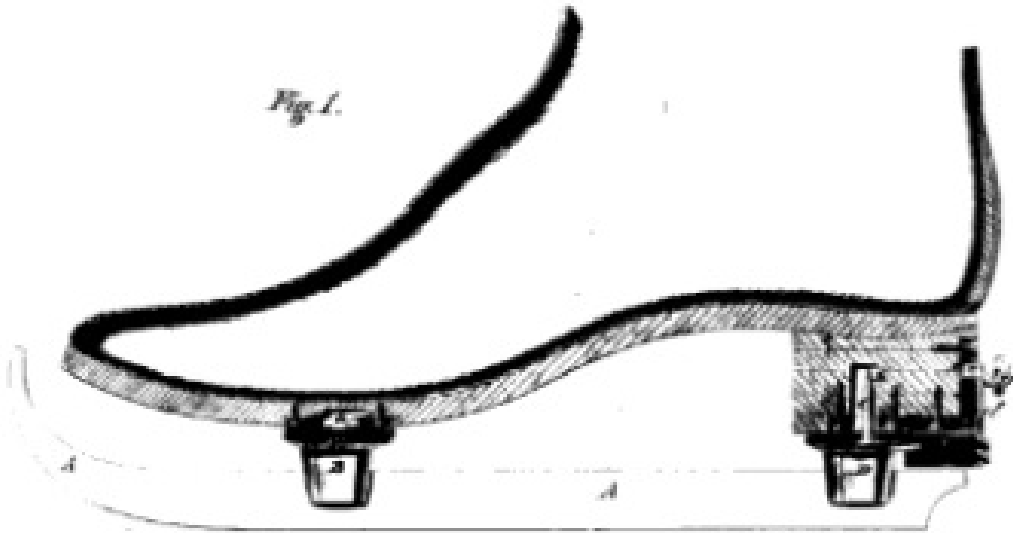
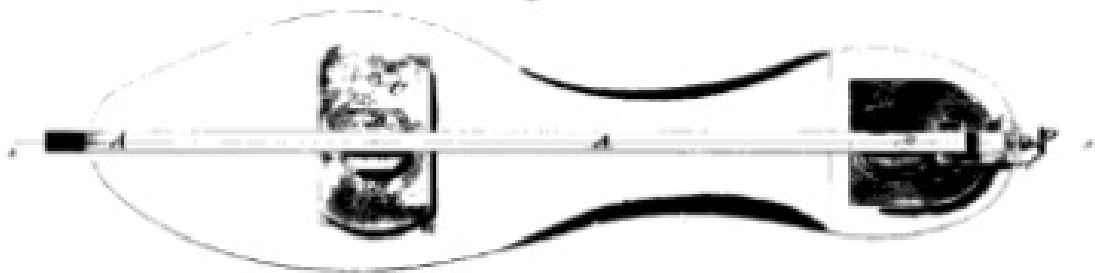


Fig. 2.



Witness

Mr. J. A. de Roussé
J. A. de Roussé

Inventor

J. A. de Roussé