J. Forbes,

Skate Fastening,

No. 40,745, Patented Dec. 1, 1863.

Fig. 1.

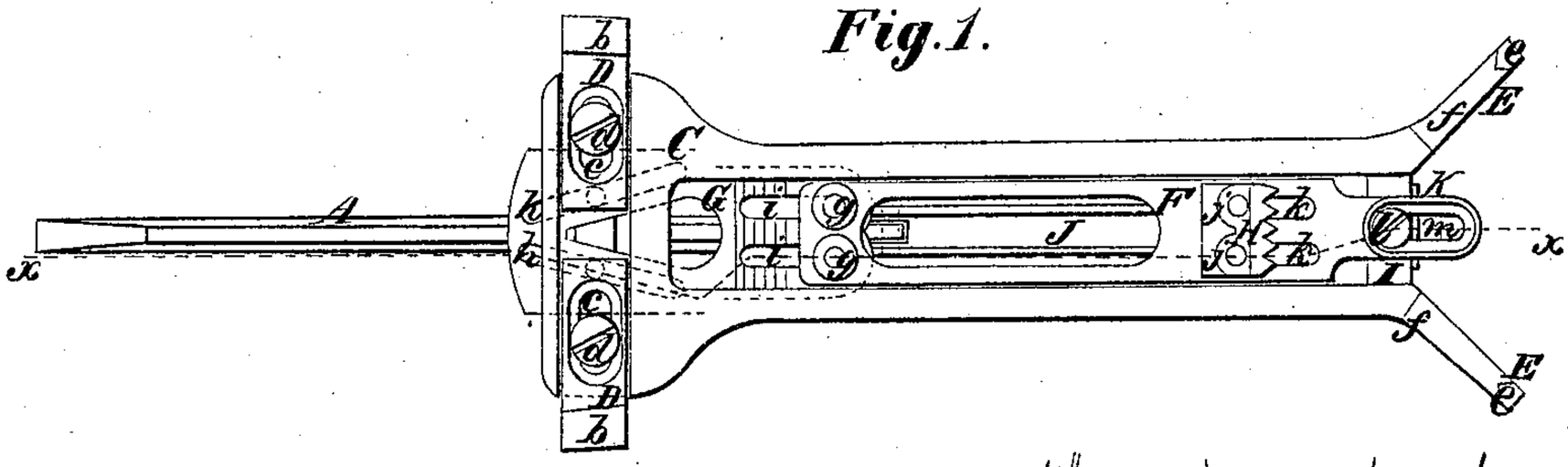
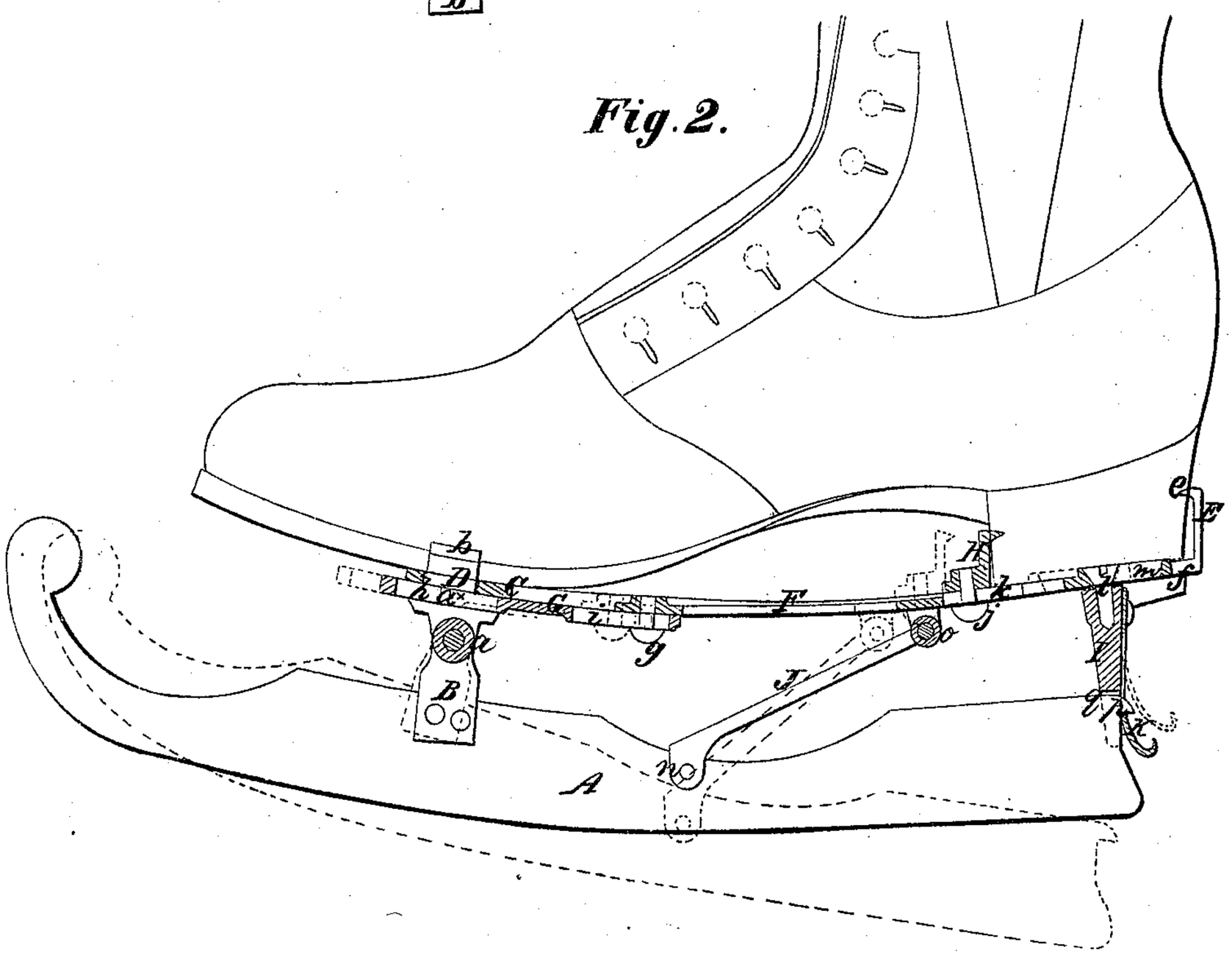


Fig. 2.



Witnesses

J. W. Coombs

Geo. W. Reed

Inventor

John Forbes

per Munn & Co

attorneys

UNITED STATES PATENT OFFICE.

JOHN FORBES, OF HALIFAX, NOVA SCOTIA.

IMPROVED MEANS FOR ATTACHING SKATES.

Specification forming part of Letters Patent No. **40,745,** dated December 1, 1863.

To all whom it may concern:

Be it known that I, JOHN FORBES, of Halifax, in the Province of Nova Scotia, have invented a new and Improved Means for Attaching Skates to the Feet; 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 plan or top view of my invention; Fig. 2, a side sectional view of the same, taken in the line *x x*, Fig. 1.

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

This invention relates to an improvement in that class of skate-fastenings or means of securing skates to the feet in which jaws or clamps are employed to grasp the heel and sole of the boot or shoe.

The object of the invention is to obtain a fastening of the kind specified which will admit of the skate being applied to and detached from the boot or shoe with far greater facility than hitherto, and at the same time form a firm and secure attachment.

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, which may be constructed in any of the usual forms; and B represents the front knee or post, which is firmly secured to the runner, and has the front part of the foot-plate C attached to its upper end by a hinge or joint, *a*. In the upper surface of the foot-plate C, at its front part, there are made grooves in which plates D D are fitted and allowed to slide freely. These plates D are curved upward at their outer end to form clamps or jaws *b b*, and said plates have each an oblong slot, *c*, made longitudinally in it and through these slot screws *d* pass into the foot-plate, said screws retaining the plates D, in proper position on the foot-plate, while the oblong slots *c* admit of the plates working a suitable distance in the grooves in the foot-plate. This will be fully understood by referring to Fig. 1.

To the back end of the foot-plate C there are attached two clamps, E E, one at each side. These clamps are formed of upright bars bent over and inward at their upper ends to form spurs *e* to enter the heel of the boot or shoe, the upright bars being at the ends of horizontal projections *f*, which extend obliquely outward from the foot-plate, as shown clearly in Fig. 1.

The foot plate C has a large oblong opening made in it, in which a sliding plate, F, is fitted, and to the front end of this plate F there is attached by screws *g g* a plate, G, which has two oblique slots, *h h*, in it, the front ends of said slots being nearer to each other than the back ends, as shown in Fig. 1. In these slots *h h* pendent pins $a^{\times}$ at the inner ends of the plates D are fitted. The plate G also has two longitudinal parallel slots, *i i*, made in it, through which the screws *g g* pass, and these slots *i* admit of the plate G being adjusted farther forward or backward, as may be required.

To the back part of the sliding plate F there is attached, by screws *j j*, a clamp, H, having a toothed or serrated edge and a transverse position on the plate F. This clamp may be adjusted farther forward or backward on the plate F in consequence of the screws *j* passing through oblong slots *k*. The back part of the plate F rests on the upper end of a pendant, I, which is at the back end of the foot-plate C, and a screw, *l*, passes through an oblong slot, *m*, in the plate F into the upper end of the pendant. The slot *m* is of sufficient length to admit of a requisite degree of longitudinal play or movement of the plate F.

J is a link the lower end of which is secured by a pivot, *n*, to the runner A. The upper end of this link is connected by a joint, *o*, to the sliding plate F. (See Fig. 2.)

At the back end of the runner A, at its upper part, there is a small projection, *p*, which, when the foot-plate C is adjusted in proper position, fits within a vertical slot or recess, *g*, in the pendant I, and is retained therein by a catch, K, which is formed of a spring having a slot made in it to admit of the projection *p* on the runner passing through it. The catch K is secured by screws to the rear or outer side of the pendant I.

From the above description it will be seen that by drawing outward the spring-catch K so as to disengage the back end of the runner A, the back part of the foot-plate C may be raised or the back end of runner A lowered,

and by this movement of either of the aforesaid parts the sliding plate F will be actuated and the clamps or jaws *b b* will be forced outward in consequence of the pendent pins $a^{\times}$ of the plates D fitting in the oblique slots *h h*. The clamp H will at the same time also be moved forward or from the clamps E E. This position of the several parts is shown in red in Fig. 2. When the several parts are in this position, the skate is adjusted to the boot or shoe, the heel fitting between the clamps E E and H and the forward part of the sole fitting between the clamps or jaws *b b*. The back part of the foot-plate is then forced down or the back part of the runner A drawn upward, which causes the clamps *b b* to approach each other and grasp the sole, while the clamp H will at the same time be forced backward so that the heel of the boot or shoe will be grasped between the clamps H E E, and when the projection *p* of the runner is caught by the catch K, the runner and the foot-plate will be firmly connected and the skate securely fastened to the boot or shoe.

By adjusting the clamp H farther forward or backward on the plate F, and adjusting the plate G farther forward or backward, the clamps *b b* H E E may be made to clamp or grasp boots or shoes of different sizes. By this arrangment the skate may be secured to the boot or shoe with the greatest facility and very expeditiously. There are no screws or shafts to turn nor any parts required to be manipulated in order to move the clamps.

I would remark that the sole-plate C may be pivoted to the runner A either at the front or back end of the former. The arrangement however, would be substantially the same in either case.

I do not claim, broadly, the employment or use of clamps applied to a skate so as to grasp the sole and heel of a boot or shoe, for that is an old device; but,

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. The foot-plate C, pivoted to the runner A, or connected to it by a hinge, and provided with a fastening formed of a projection, *p*, at the back of the runner, and a catch, K, on the foot-plate or other suitable arrangement, and also provided with a sliding plate, F, which is connected with the runner A by means of a link, J, in combination with the clamps H E E *b b'*, all arranged to operate substantially as and for the purpose herein set forth.

2. The manner of applying or arranging the clamps *b b* H so that the same may be adjusted to suit boots or shoes of different sizes—to wit, by having the plate G, in which the oblique slots *h h* are made, attached to the sliding plate F by screws *h h*, which pass through oblong slots *i i* into the plate F, and having the clamp H attached to the plate F by screws *j j* which pass through oblong slots *k k* in the plate F, as herein described.

JOHN FORBES.

Witnesses:
D. HENRY STARR,
CHARLES A. CLARKE.