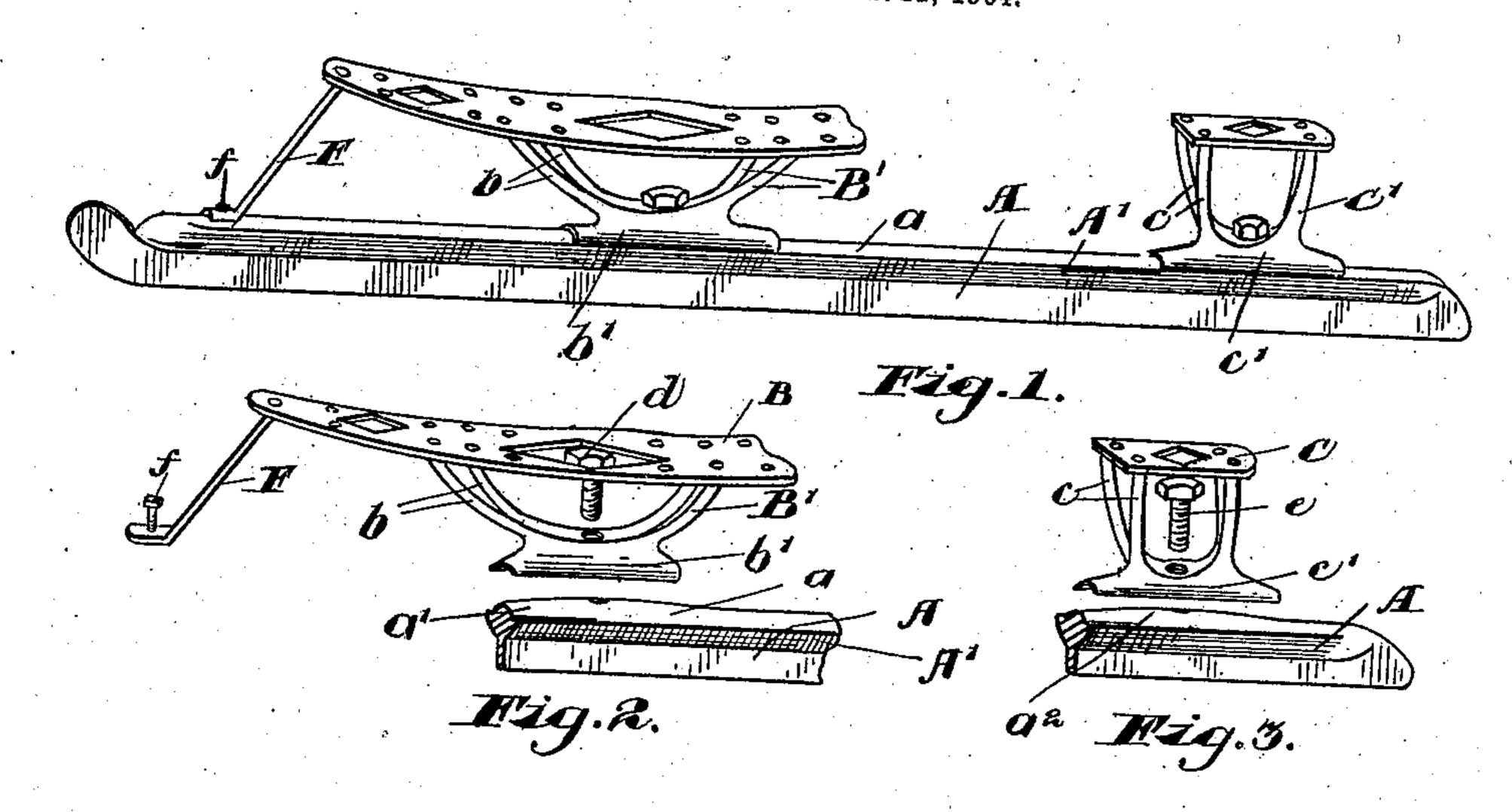
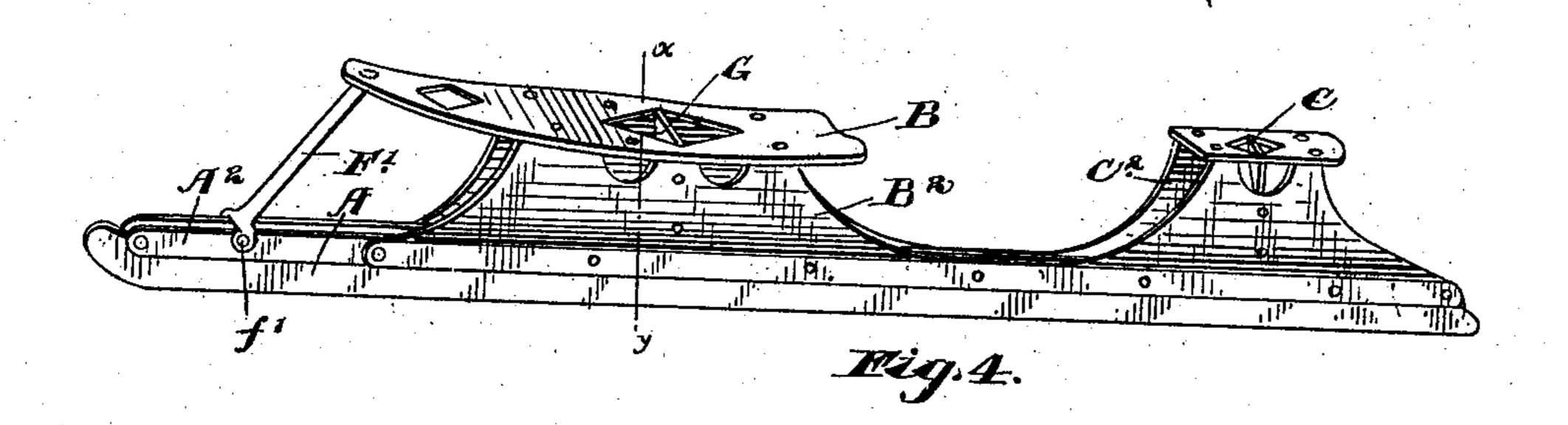
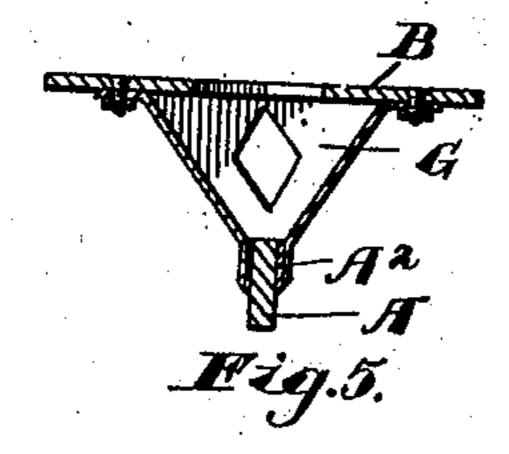
## S. A. WILLIS.

### SKATE.

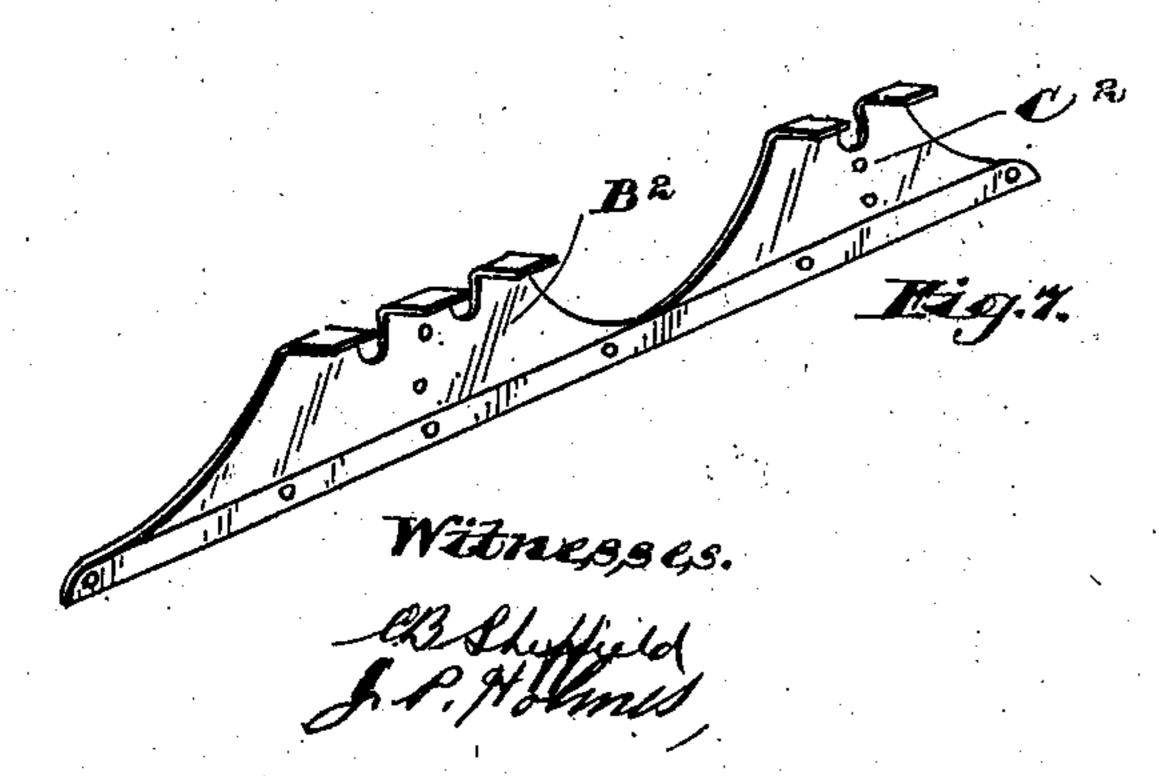
APPLICATION FILED SEPT. 21, 1904.











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# UNITED STATES PATENT OFFICE

SAMUEL ARLAND WILLIS, OF PARRY SOUND, CANADA.

#### SKATE.

No. 814,819.

Specification of Letters Patent.

Patented March 13, 1906.

Application filed September 21, 1904. Serial No. 225,373.

To all whom it may concern:

Be it known that I, Samuel Arland Willis, of the town of Parry Sound, in the district of Parry Sound, in the Province of Ontario, Canada, have invented certain new and useful Improvements in Skates, of which the

following is a specification.

My invention relates to improvements in skates; and the object of the invention is to 10 devise a connection between the blade and skate which will not only be secure, rigid, and durable, but be readily detachable, so that the skate may be used for a racing-skate or a pleasure-skate by changing the blades suit-15 able for either racing or pleasure; and it consists, essentially, of connecting-standards for both heel and toe portions detachably secured to the plates and extending down in substantially cross-sectional triangular form to the 20 stiffening-rib attached to or forming part of the top edge of the blade to which the bottoms of the standards are secured, the parts being arranged and constructed in detail as hereinafter more particularly explained.

Figure 1 is a perspective view of a skate constructed in accordance with my invention. Fig. 2 is a perspective detail of the front portion of the skate, the parts being separated. Fig. 3 is a perspective detail of the rear portion of the skate with the parts separated. Fig. 4 is a detail of an alternative form. Fig. 5 is a cross-section of the skate through the line xy, Fig. 4. Fig. 6 is a detail of the stiffening-plate for the body. Fig. 7 is a detail of one of the sides of the

standard.

In the drawings like letters of reference indicate corresponding parts in each figure.

In Fig. 1, A is the blade of the skate, which is made with a stiffening-rib A', suitably attached to it throughout its length and provided with a rounded upper portion a, having the humps a' and a², as indicated in Figs. 2 and 3. B and C are the toe and heel plates, which have secured to them standards B' and C', which are in the form of side braces b and c, which extend to and are suitably riveted in the plates B and C, respectively, and are attached to or form part of the bases b' and c', respectively. The bases b' and c' are provided with longitudinal grooves corresponding in contour to the rounded top of the rib A', attached to or forming part of the blade,

and recesses in such grooves made to fit the humps a' and  $a^2$ . The bases b' and c' are secured on the humps a' and  $a^2$  by the screws d and e, respectively. The front end of the blade is provided with a guard F, which is riveted in the front of the toe-plate B and is provided with an offset which is secured by a 60 suitable screw f to the front of the rib A'.

In Fig. 4 the upper portion of the blade is strengthened by the side ribs A2, which are suitably screwed or otherwise fastened at each side of the top edge of the blade, so as to 65 stiffen it. F' is a guard which is suitably riveted in the front of the toe-plate and has two offsets at the lower end, whereby it is suitably secured to the front end of the skate by suitable screws f'. The bracing-support 70 or standards B<sup>2</sup> C<sup>2</sup>, formed for the toe and heel. plates, are, as shown in Fig. 4 and subsequent figures, connected to the sides of the ribs A2 and flare outwardly similarly to the arms b and c shown in Figs. 1, 2, and 3, being suit- 75 ably riveted in the toe and heel plates. To further stiffen the skate between the toe and heel plates and standards B<sup>2</sup> C<sup>2</sup>, respectively, I provide substantially triangular plates G, which are provided with flanges g, 80 which are suitably riveted to the sides of the standards B<sup>2</sup> C<sup>2</sup>.

It will thus be seen from this description that by my construction I have provided a light skate of a maximum strength and dura- 85 bility.

What I claim as my invention is—

1. In a skate the combination with the blade, a solid rounded rib formed integral with the upper edge thereof, of the toe and heel 90 plates having a concave bottom adapted to fit the rounded rib and means for detachably securing the said plates to the rib.

2. In a skate, the combination with the blade, a solid rounded rib formed integral 95 with the upper edge of the same, said rib having enlarged portions, of the toe and heel plates having their bottoms concave so as to fit the rounded enlarged portions of the rib and means for detachably securing said plates 100 to said portions.

#### SAMUEL ARLAND WILLIS.

Witnesses:

N. N. RAY, EDMUND LABRASH.