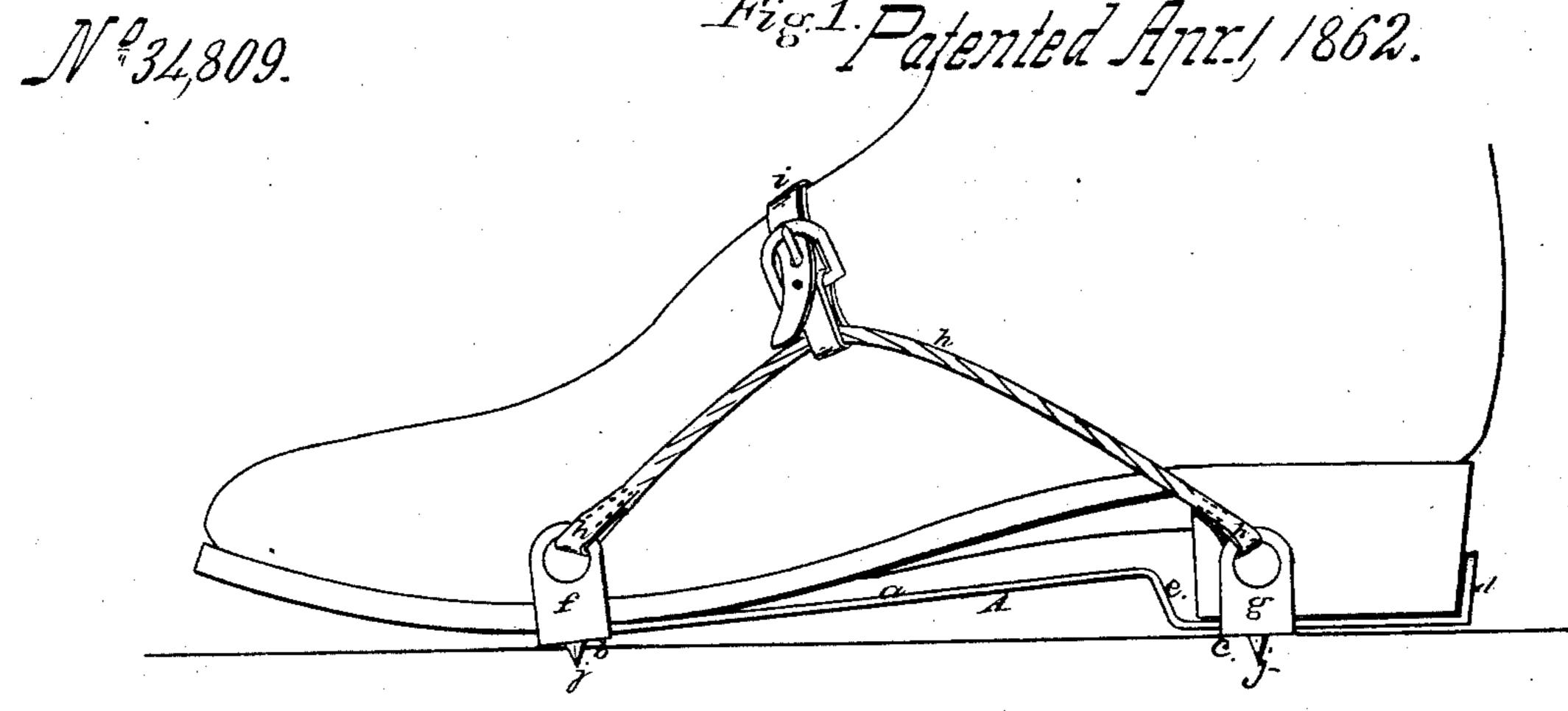
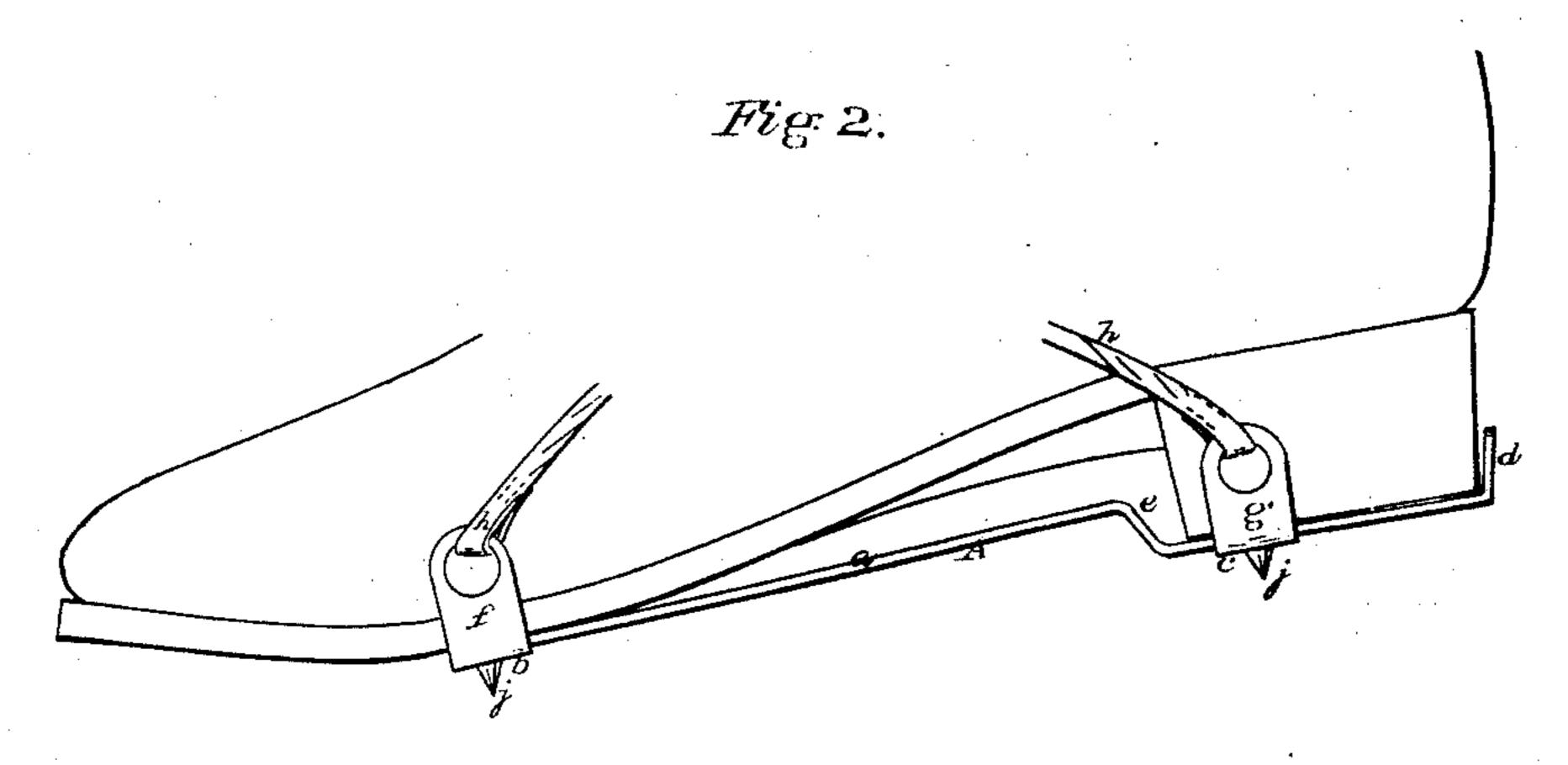
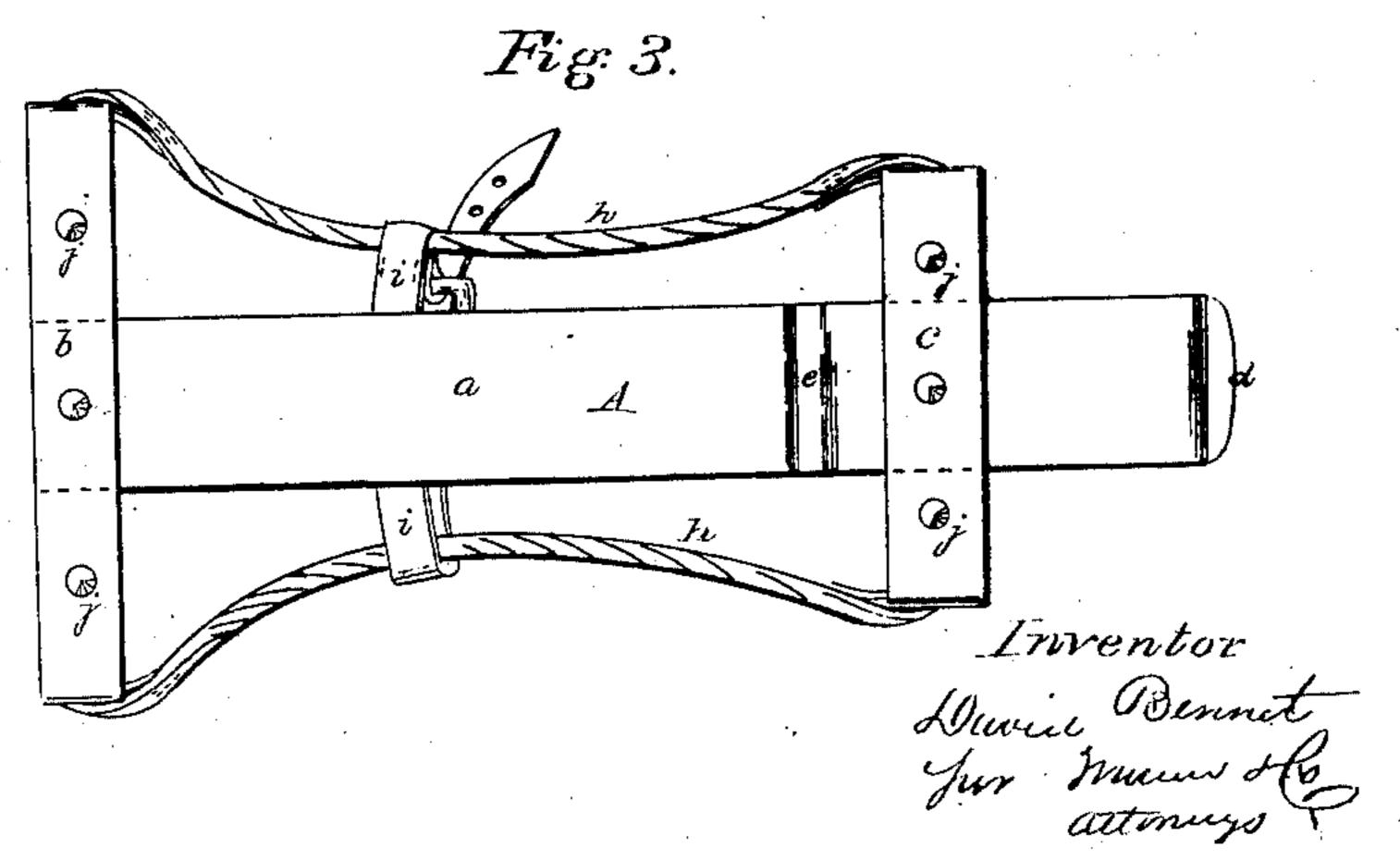
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Sce Creener.

Fig.1. Papented April, 1862.







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## UNITED STATES PATENT OFFICE.

DAVID BENNET, OF STRATFORD, CONNECTICUT.

ICE SHOE OR CALK.

Specification of Letters Patent No. 34,809, dated April 1, 1862.

To all whom it may concern:

Be it known that I, DAVID BENNET, of State of Connecticut, have invented a new 5 and useful Improvement in Ice Shoes or Calks; 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, forming a part of 0 this specification, in which—

Figure 1, is a side elevation of my improvement showing the shoe as applied to the foot of the wearer and resting squarely on the ice or ground. Fig. 2, is an eleva-15 tion showing the action of the shoe when the heel of the wearer is raised in the act of walking. Fig. 3, is a plan view of the bottom of the shoe.

Similar letters of reference indicate cor-20 responding parts in the several figures.

To enable others skilled in the art to fully understand and construct my invention I will proceed to describe it, with reference to the drawing.

A, is the shoe or calk, made of three thin, narrow bars or strips of steel a, b, c, arranged at right angles to each other, as shown in the drawings. The central bar a, is intended to be made of sufficient length to 30 extend from the heel to the ball of the wearer's foot. The rear end of the bar a, is turned up, vertically, as shown at d, so as to form a ledge against which the heel of the wearer may bear and thus prevent the 35 shoe from slipping forward. The bar a, may be also bent up at e, so as to enter the hollow of the wearer's foot in front of the heel, as shown in Figs. 1 and 2. The bars b, c, are attached by rivets, or other fasten-40 ing, to the bar a, and the said bars b, c, are arranged at right angles to the bar a. The bar c, is arranged at the rear portion of bar a, between the bent parts d, e, as shown, so that the bar c, when the shoe is applied to 45 the foot for use, will rest directly under the heel of the wearer. The bar b, is arranged across the front end of the bar a, as shown in the drawings, so that when the shoe is applied to the foot of the wearer, the bar b, 50 rests under the central part or ball of the wearer's foot. The extremities of the bars b, c, are respectively bent up vertically, as

shown at f, f, g, g, so as to form ledges to prevent any lateral movement of the shoe, Stratford, in the county of Fairfield and after it has been applied to the wearer's 55

foot.

The shoe or calk is fastened to the foot of the wearer by straps and buckle, as shown in the drawings, the ledges f, g, being perforated to receive the side straps h, h, which 60 are arranged in the manner shown in the drawings, while a cross strap i, having an attached buckle, passes from one side strap to the other, across the instep of the wearer, and thus secures the shoe or calk to the 65 wearer's foot.

The bars b, c, are respectively provided with sharp points j, j, j, j, which enter the ice or frozen surface and prevent the wearer of the shoe from slipping thereupon.

This device affords entire security against slippage in all the ordinary positions of the foot when walking or running. In wearing this shoe, by the natural movement of the foot, the heel points first enter the ice and 75 hold the foot securely until the front points enter, when the heel points are withdrawn, leaving the front points still holding in the ice while the foot is bent forward preparatory to taking a new step, as illustrated in 80 Fig. 2.

Instead of making this shoe in three parts, riveted together, it may be made in one piece, stamped or cut from a sheet of metal.

I am well aware that ice creepers secured to the foot by straps have before been made; and also that points have been secured directly to the soles of boots and shoes, in various places; I therefore make no broad 90 claim to the use of such devices; but

Having thus described my invention I claim and desire to secure by Letters Patent, as an improved article of manufacture:

An ice shoe or foot calk composed of a 95 central longitudinal connecting bar a, and two pointed rectangular cross bars b, c, united together, and otherwise constructed and operating as herein shown and described.

DAVID BENNET.

Witnesses: A. E. Beach, ISAAC BLAKEMAN.