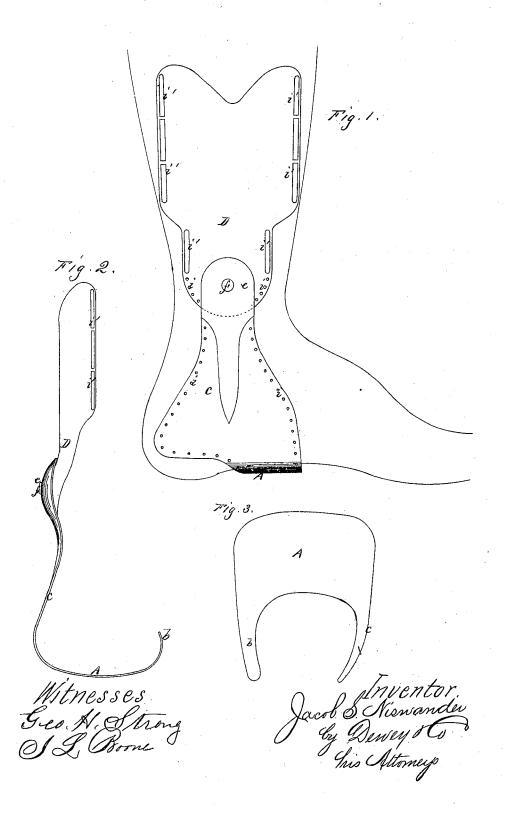
I, S. Miswander, Inhle Brace. No. 112,952, Tatented Mar. 21. 1891.



## United States Patent Office.

## JACOB S. NISWANDER, OF OAKLAND, CALIFORNIA.

Letters Patent No. 112,952, dated March 21, 1871.

## IMPROVEMENT IN ANKLE-BRACES.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, JACOB S. NISWANDER, of Oakland, county of Alameda, State of California, have invented an Improved Ankle-Brace; and I do hereby declare the following description and accompanying drawing are sufficient to enable any person skilled in the art or science to which it most nearly appertains to make and use my said invention or improvements without further invention or experiment.

My invention relates to a brace or supporter for weak, sprained, or diseased ankles, and is also applicable for the cure of club or misshapen feet; and

It consists of properly-formed metal plates, made to fit the foot, ankle, and leg, and united by a concave or cup-joint, which fits over the ankle-joint.

The instrument is to be laced upon the ankle and foot, either next to the skin or outside of the stocking, and will be completely hidden by the boot or shoe.

In order to explain my invention so that others will understand its construction and application, reference is had to the accompanying drawing forming a part of this specification, in which—

A represents a stirrup, which is made of any suitable sheet metal.

This stirrup is made to fit under the heel of the wearer, or a little forward of the heel, as most convenient, curving up on the inside of the foot, as shown at h

The portion c upon the outside of the foot extends up to the ankle-joint, where it is united to another curved plate, D, by a concave or cup-joint at e.

The plate D is properly shaped to fit the leg above the ankle, and may extend any desired distance toward the knee.

The joint is made sufficiently cup-shaped or concave to fit over the knuckle or projecting round bone on the outside of the ankle, and the two parts are united by a bolt or rivet, f, which allows the upper hollow plate P a back-and-forth movement sufficient

to permit the ankle-joint to move freely while the wearer is walking.

Holes i or slots i' are made along and around the rims of the two plates, through which the lacings can be passed in order to secure the instrument to the leg

leg.
This instrument can be either worn next to the skin or on the outside of the stocking.

The stirrup is placed under the heel or foot, and the side plates extend up the leg and are laced firmly to it.

If desired, these plates may extend up on both sides of the ankle, and be secured together by means of lacing, as above mentioned. The boot or shoe of the wearer will then entirely conceal the brace.

As an instrument for surgical assistance in reducing sprains and supporting and strengthening weak or broken ankles, this instrument will be found of great value, and, being convenient to put on, and not uncomfortable to be worn, it will be used by many persons who require such assistance, but will not use the ordinary splints on account of their ungainly appearance.

By extending the foot-plate or stirrup along the bottom and sides of the foot an excellent device will be provided for training and keeping club or reel feet in place.

Having thus described my invention,

What I claim, and desire to secure by Letters Patent, is—

The ankle-brace, constructed as described, viz., with the stirrup A, curved plate D, perforated or slotted at their edges, and united by the cup-shaped joint e.

In witness whereof I have hereunto set my hand and seal this 28th day of December, 1870.

J. S. NISWANDER. [L. s.]

Witnesses:

GEO. H. STRONG, J. L. BOONE.