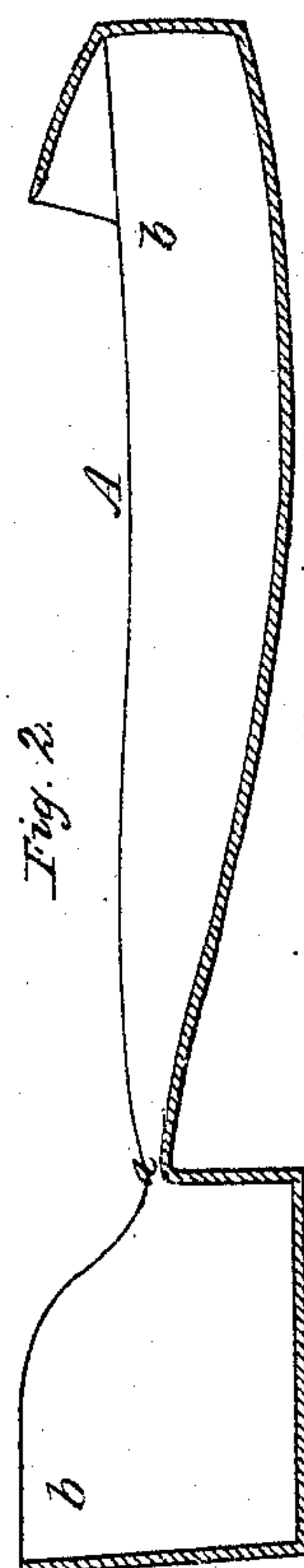
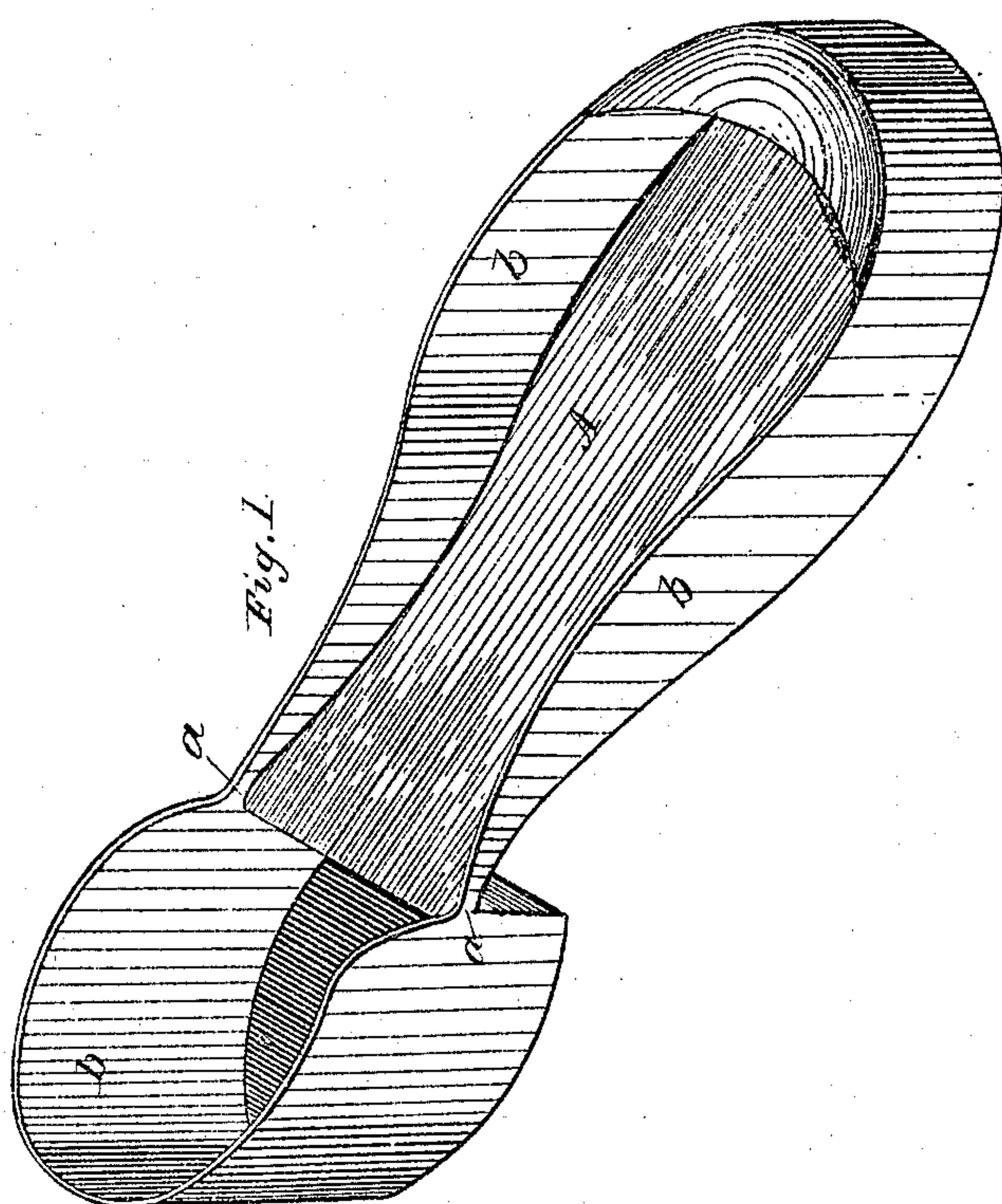


No. 42,187.

PATENTED APR. 5, 1864.

G. W. GRISWOLD.
METALLIC BOOT, SHOE, OR SANDAL.



Witnesses.
E. H. Patten
A. Moore } *George W. Griswold.*
By *Atty. A. B. Houghton.*

in this paper
in print.

UNITED STATES PATENT OFFICE.

GEORGE W. GRISWOLD, OF ABINGTON, PENNSYLVANIA.

METALLIC BOOT, SHOE, OR SANDAL.

Specification forming part of Letters Patent No. 42,187, da'ed April 5, 1864.

To all whom it may concern:

Be it known that I, GEORGE W. GRISWOLD, of Abington, in the county of Luzerne and State of Pennsylvania, have invented a new and useful improvement in shoes for miners and other persons engaged in such-like rough employments; and I do hereby declare the following to be a full, clear and exact description of the same, reference being had to the accompanying drawings, which represent one of the shoes in question.

Figure 1 is a perspective, and Fig. 2 a sectional, view of the same.

I am aware that out of the diversity of material of which boots and shoes have been made it has been essayed to make them with leather uppers and a cast-iron sole. I am also aware that metal in various ways has been applied to leather and other boots and shoes to protect them from wearing at various parts thereof.

My invention consists in making the whole shoe or sandal of metal, or at least the sole and so much of the upper as shall protect the foot or hold the shoe or sandal to the foot.

To enable others skilled in the art to make and use my invention, I will proceed to describe the same with reference to the drawings.

The cheapest shoe of this kind, and as shown at A, is one of cast metal entirely, which I propose to make for miners' use. Such a shoe will weigh less than the present miners' shoes or boots of leather, the soles and heels of which are filled with nails, while its durability will be much greater, and the first cost much cheaper than any other known serviceable shoe of which I have knowledge. But it is not necessary to cast the shoe in one

piece, which, of course, would make it stiff and rigid. A joint can be made at *a* that would allow the shoe or sandal to yield to the foot in walking, and then the shoe or sandal could be made in two pieces, or the upper portions, *b b*, may be struck or bent up so as to fit on and be fastened to a cast or wrought sole by riveting, soldering, or seaming.

To prevent the iron sole from slipping, it may be roughened in any of the usual known ways, or any soft metal—such as lead, tin, zinc—or any alloy of metal may be used as a coating for the bottom of the sole for this purpose, when used on slate or other smooth stone or on frozen ground or ice.

The shoe or sandal may be worn as an ordinary boot or shoe is, or it may be worn over an ordinary boot or shoe, so as to be removed from the foot at pleasure, and when worn without an ordinary boot or shoe a pad, or insole or lining of any ordinary kind may be used to make it comfortable to the foot. The heel portion, particularly, may be padded to support the foot when used without an inner boot or shoe and protect it from injury or chafing.

The shoe or sandal need not necessarily be of any particular form or shape, as that may be varied to suit the circumstances of the case.

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

A shoe or sandal made of metal, substantially as and for the purpose herein described.

G. W. GRISWOLD.

Witnesses:

WM. A. MCKIBBIN,
L. A. GRISWOLD.