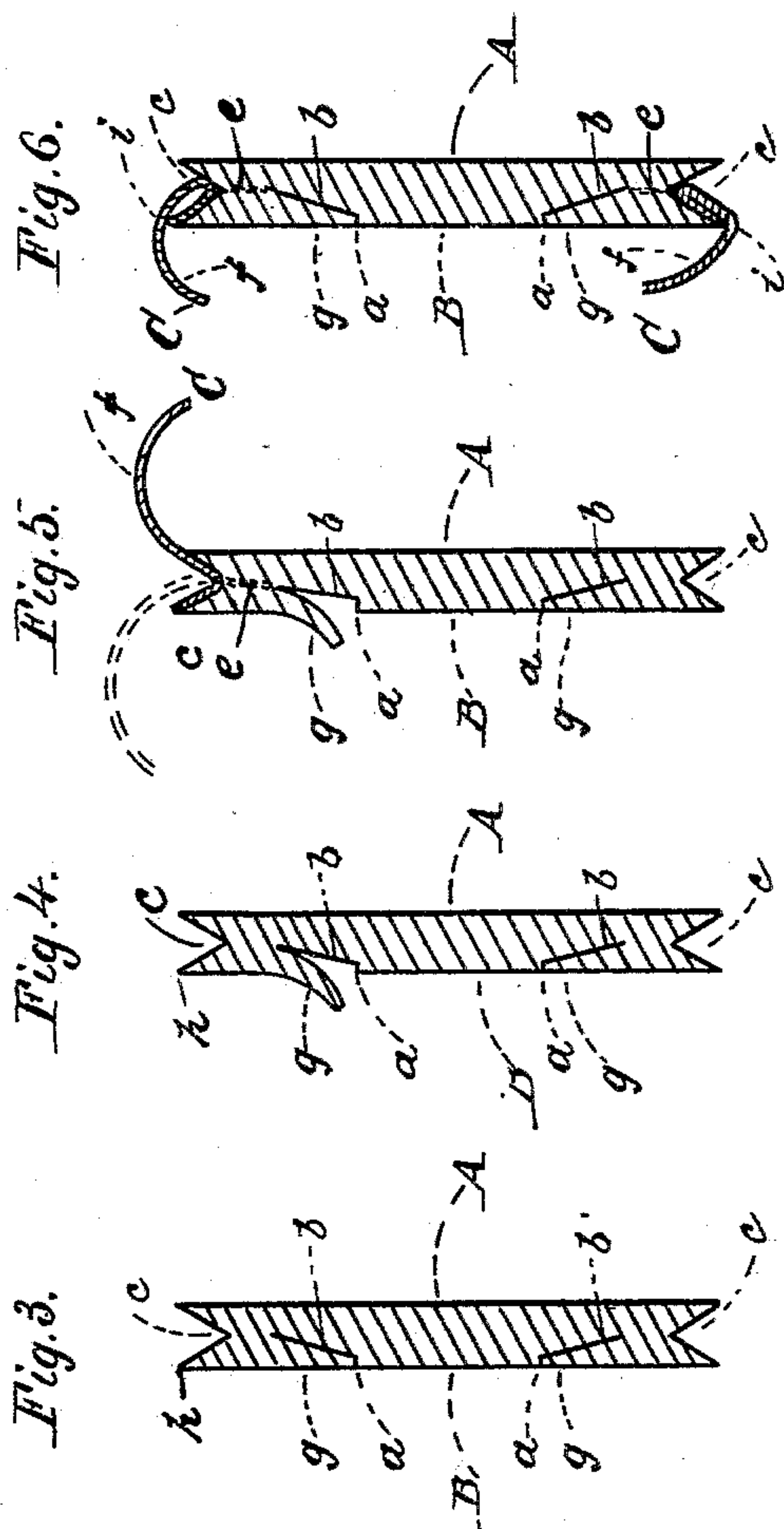
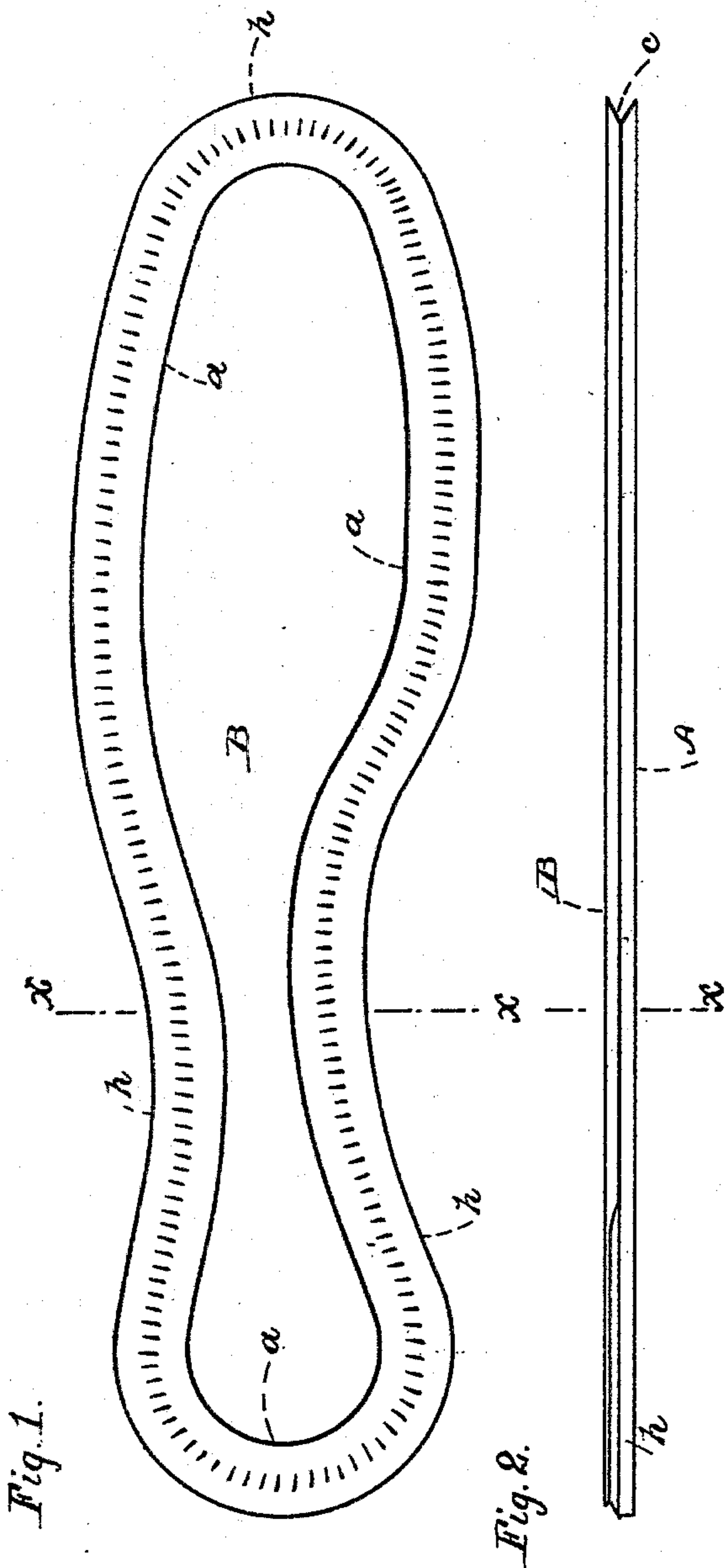


(No Model.)

G. B. WIGGIN & J. BARTLETT.
CHANNELED SHOE SOLE.

No. 401,235.

Patented Apr. 9, 1889.



Witnesses:

Wm. H. Hartouf
Alvin Bell

Inventors:

George B. Wiggin,
Jonathan Bartlett,
per *John J. Halsted & Son* Attys.

UNITED STATES PATENT OFFICE.

GEORGE B. WIGGIN, OF SOUTH NEW MARKET, AND JONATHAN BARTLETT,
OF EPPING, NEW HAMPSHIRE, ASSIGNORS OF ONE-HALF TO JOHN W.
HOARD, OF PROVIDENCE, RHODE ISLAND.

CHANNELED SHOE-SOLE.

SPECIFICATION forming part of Letters Patent No. 401,235, dated April 9, 1889.

Application filed May 7, 1888. Serial No. 273,065. (No model.)

To all whom it may concern:

Be it known that we, GEORGE B. WIGGIN, of South New Market, Rockingham county, State of New Hampshire, and JONATHAN BARTLETT, of Epping, Rockingham county, and State of New Hampshire, have invented certain new and useful Improvements in Channeled Shoe-Soles; and we do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

In preparing the sole of a shoe to be sewed upon its upper it has been customary, when a neat finished shoe is to be made, to make a cut in the sole parallel to its edge, in which the stitches are to be formed, and which will conceal them from view when the shoe is completed.

In preparing the sole to be sewed by a machine it has been customary to make an oblique cut from the outside surface of the sole near its edge downward and away from it, and sew the upper onto the sole with the stitches passing from the cut so made through the inner surface of the sole. By this means a ridge of the entire thickness of the sole is formed upon its inside around the edge, and as this ridge is so thick that the shoe could not be worn with it, even with an inside sole, it (the ridge) is cut nearly off. Even then the less of the ridge that is left above the surface of the sole the weaker is the basis for the stitches; so a portion of said ridge has to be left, which makes the shoe uncomfortable to the wearer, even when an inside sole is added to cover the ridge and stitches. When neat hand-sewed shoes are to be made, one way of preparing the sole to be sewed to the upper has been to shave off the edge from the wrong side of the sole toward the edge of its right or outer side, and to make an oblique downward and outward cut from the inner surface of the sole by hand. The stitches are then sewed through the upper and from the oblique edge cut through the sole into the inner oblique groove or cut, the purpose of which is to conceal the

stitches on the inner side of the sole; but the stitches in said oblique cut act as a wedge and spread the cut apart, so that when the shoe is "beaten out" the flap will not stay down upon the sole, as desired, and will not keep the stitches covered. When the upper is turned back so that the outside of the sole will be exposed, and during the wear of the shoe, the pull of the upper upon the sole will strain the fiber of the leather where the sole has been weakened by the oblique edge cut. Moreover, as the cut from the surface is made by hand, it is impossible to gage the depth and width of the cut to just the right degree, so as to prevent weakening the sole, and it is also impossible to have the cut as regular as it should be to make a neat job.

The object of our invention is to make a channeled or cut sole which will avoid all the above-named difficulties, to entirely conceal the stitches from either side of the sole when the upper is sewed to the same, and thus have them free from frictional wear, and also to hold the upper very firmly to the sole.

In the accompanying drawings, Figure 1 shows a top plan of the sole as channeled or cut. Fig. 2 is a side elevation or edge view of the same. Fig. 3 is an enlarged section taken on the line *xx* of Figs. 1 and 2. Fig. 4 is a similar view more clearly showing one of the thread-channels. Fig. 5 is a similar view showing how the upper is sewed to the sole. Fig. 6 is a similar view showing the position of the upper when the shoe is ready for wear.

Similar letters represent like parts in all the figures.

A represents the outer surface of the sole, or that part which is adapted to rest upon the ground, and B represents the inner surface, or that part upon which the foot is adapted to rest.

From the surface B a short distance from the edge of the sole—say half an inch—a shallow cut, *a*, is made at right angles to said surface and parallel with the edge of the sole, and from the bottom of said cut another cut, *b*, is made at an oblique or right angle to the cut *a*, and extending a short distance—say a quarter of an inch—toward the edge of the sole. The edge itself is then channeled out in the

form of an angle, with its apex inward or facing in the direction of the cuts *ab*. This edge channel is preferably made of an angular form, *c*, in cross-section, with the sides oblique to the surface of the sole, as shown in Figs. 2, 3, 4, 5, and 6, or in the form of an obtuse angle.

In sewing the upper *C* to the sole the stitches *e* pass from the wrong side *f* of the upper through it, through the apex of the edge channel *c* or *d*, and thence through the sole to the end of the cut *b*, where the stitches are locked. Then when the sewed shoe is turned inside out, so that the surface *A* of the sole will be on the outside, (see Fig. 6,) the stitches *e* will be entirely concealed from view by the flap *g* and by the upper *C* on the edge of the sole, as said upper will be folded upon itself, inclosing the stitches in the fold. (See Fig. 6.)

The thickness of the sole will be the same throughout, and the upper edge, *h*, of the groove with the fold of the upper will form a brace or back to the same and have the appearance of an inside sole, as shown at *i* in Fig. 6. When the acute-angled groove *c* is employed, the finished shoe has the appearance of having a very thin sole, as shown in

Fig. 6. When the edge groove *c* is employed, the wall *h* of the channel, at the part of the sole where the heel is to be attached, may be made thicker for that purpose, as shown in Fig. 2.

What we claim as new, and desire to secure by Letters Patent, is—

1. The described shoe-sole having in its edge an angular groove, both edges of which are in the same plane at right angles to the surfaces of the sole, and also having a flap on the surface cut outward toward such edge, and whereby the stitches may lie within the groove and be concealed under the flap.

2. A shoe-sole having a cut, one part of which extends from the surface of the sole downward at right angles to the same, and the remainder of the cut extending toward the edge of the sole, and also having a V-shaped channel in said edge, all substantially as shown, and for the purposes described.

GEORGE B. WIGGIN.

JONATHAN BARTLETT.

Witnesses:

WILLIAM H. BELKNAP,
GEORGE W. HILLIARD.