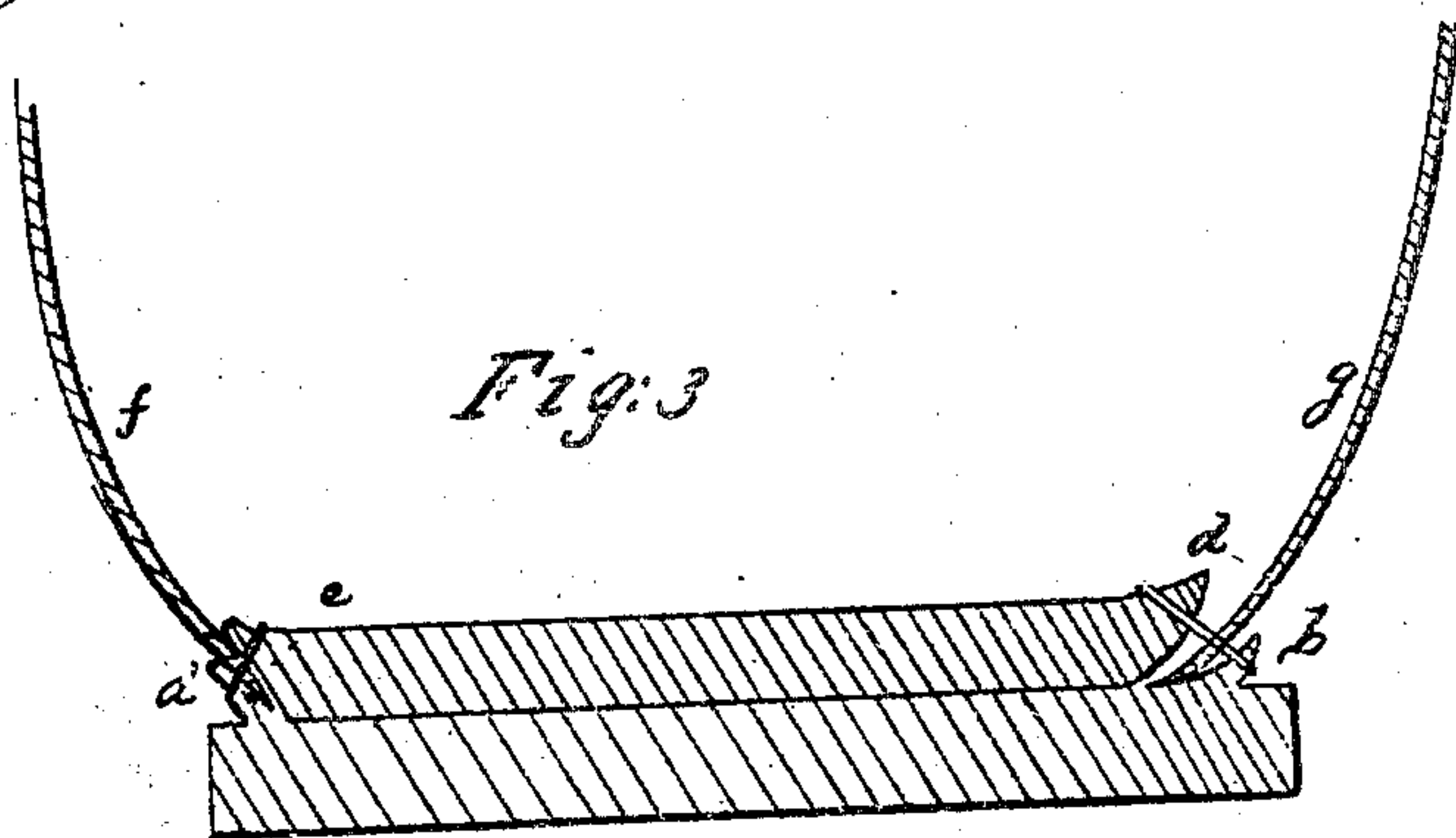
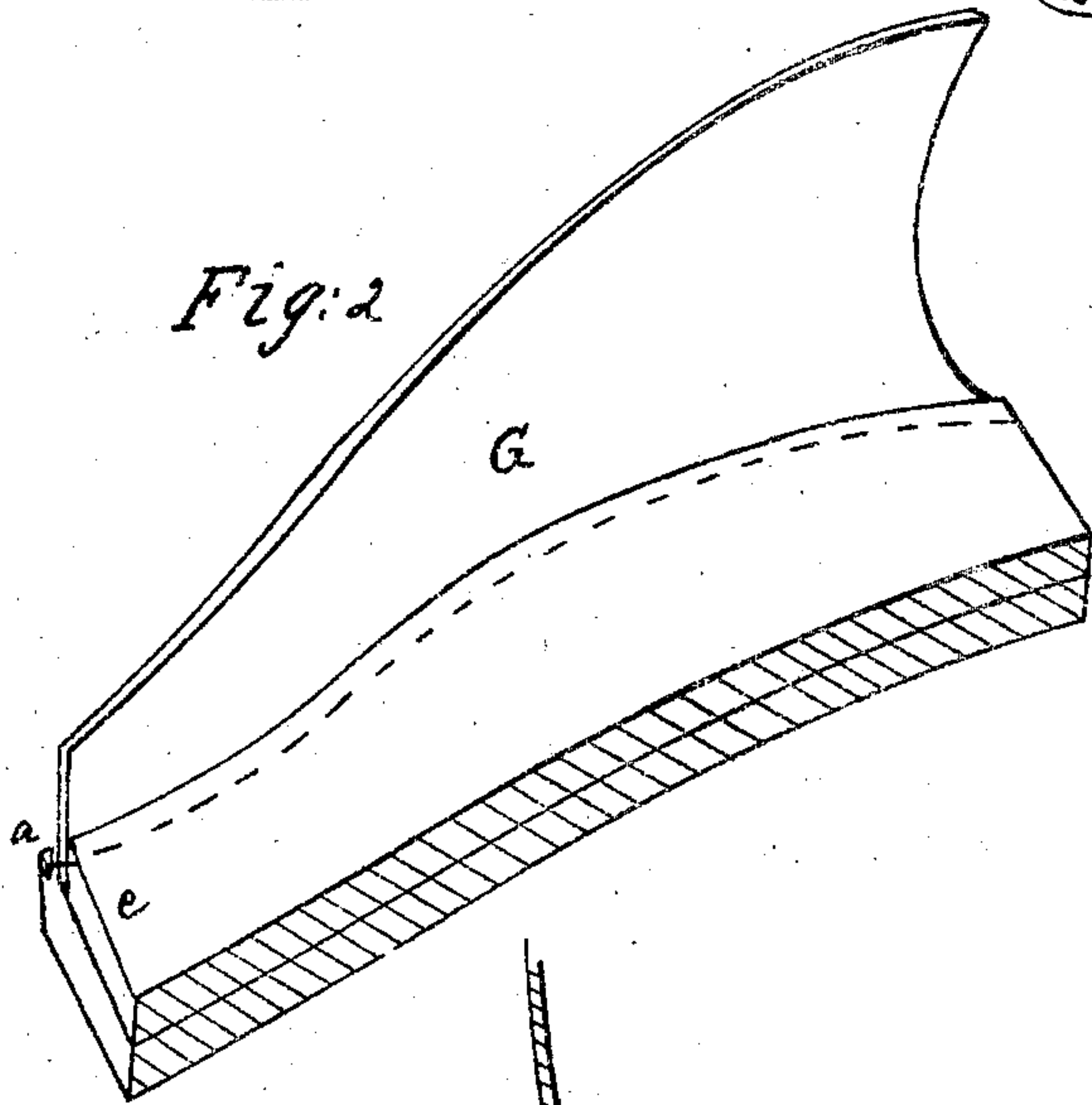
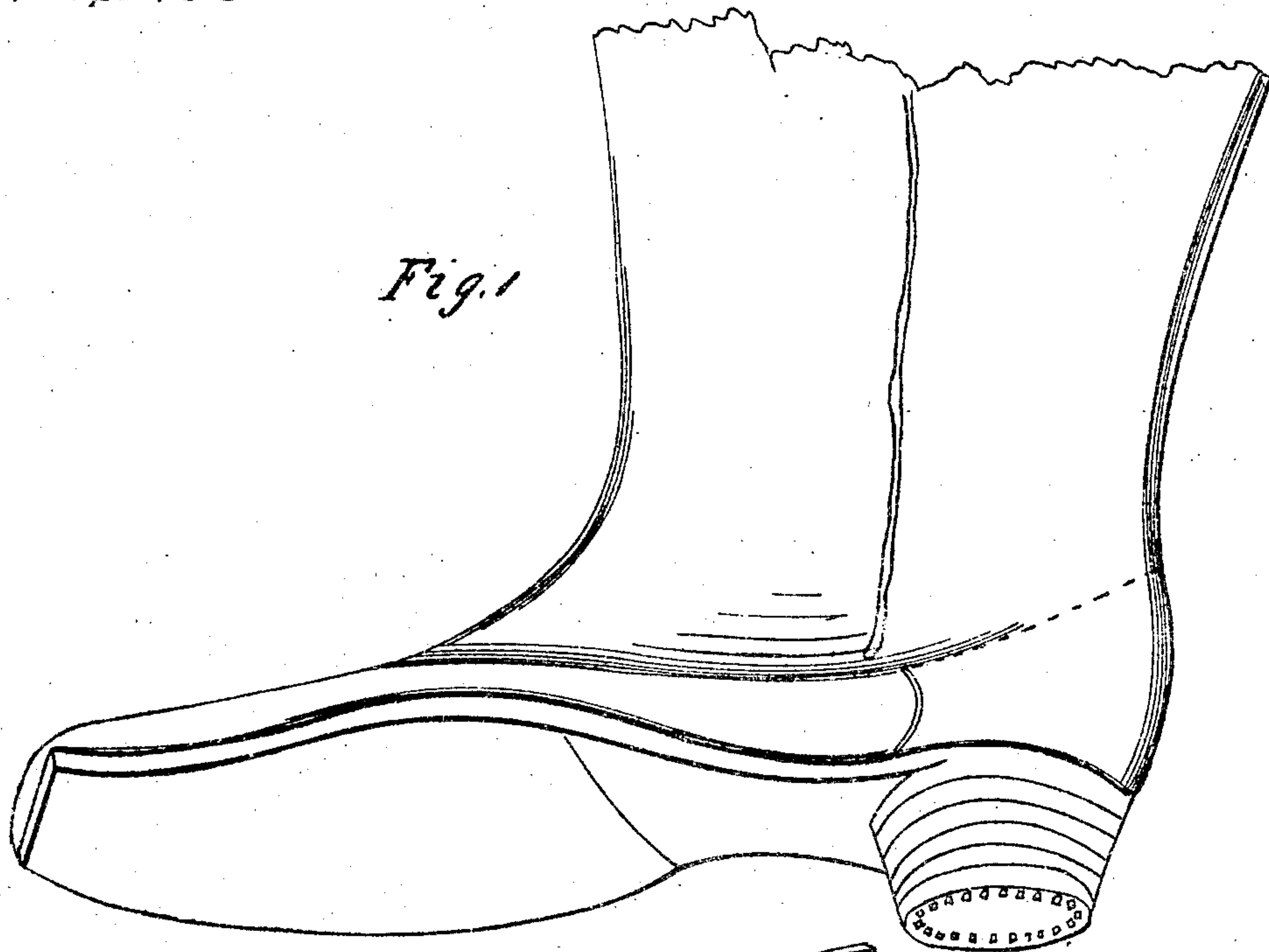


F. Closs.
Boots & Shoes.

N^o 45138.

Patented Nov. 22. 1864.



Witnesses

R. Fitzgerald
Bradley

Inventor.

F. Closs

UNITED STATES PATENT OFFICE.

FREDERICK CLOSS, OF NEW HAVEN, CONNECTICUT.

BOOTS, &c.

Specification forming part of Letters Patent No. 45,138, dated November 22, 1864.

To all whom it may concern:

Be it known that I, FREDERICK CLOSS, of the city and county of New Haven, and State of Connecticut, have invented a new and useful Improvement in Attaching the Soles to the Uppers of Boots, &c.; and I do hereby declare that the following is a full, clear, and exact description of the construction, character, and operation of the same, reference being had to the accompanying drawings, which make part of this specification, in which—

Figure 1 is a perspective view of a boot made complete, showing the whole appearance of the sole and upper, with no appearance of stitches, channeling, or similar means. Fig. 2 is a perspective view of a portion of the work as viewed from the inner side, showing the position of the stitches on the inner side of the inner sole. Fig. 3 is a cross-section of the boot enlarged, showing the stitch as closely drawn at the left-hand and as left considerably loose, to show the nature of the stitch, which is sewed from outside to inside through a small pellicle or sliver of the upper corner of the outer sole, the upper leather, and the inner sole.

My improvement consists in sewing the soles of boots or shoes (with proper machinery, which will be explained when a proper model is prepared) to the uppers from outside to inside of the article, and yet leaving the outer sole to be worn off to the last pellicle or fragment which can hang together before the wear can come in contact with the stitches which secure the outer sole to the boot, (and the same may be practiced for double soles, &c., if desired.) This obviates a prominent objection to machines, because in the common way of sewing by machinery the holes are made so large that as soon as the stitches are worn off the soles will drop off by slight jarring; but when, as in mine, the stitches cannot receive any wear, the soles must remain firmly and secure in their places until the soles are entirely worn out, as nothing can

affect them. I split up a small portion or pellicle of the upper corner of the outer sole all round the foot, as shown at *a b*, Fig. 3, and also at *a*, Fig. 2. I last the uppers over the inner sole in the ordinary way, so that when I put on the outer sole the edge of the upper will be between the inner sole and the "split-up" pellicle or sliver *a b*, the whole, as indicated in Fig. 3. When the parts (soles and uppers) are thus fitted and arranged, I put the machine in motion, when the sewing will be accomplished (by the proper functions of my machine) from the inside to the outside through the inner sole, *c d*, uppers *f g*, and through the pellet or sliver *a b*, which may first appear open, as at *b d*, Fig. 3, but which the machine will immediately close, as represented in cross-section at *a*, Fig. 3, and in perspective at *a*, Fig. 2, where one stitch, *e*, is uncovered and the same character for the inside of the whole length of Fig. 2. In the outer portion of this stitch—that is, at *a b*—the pellet or sliver is drawn up so far that no part of the thread comes down as low as the upper surface of the outer sole, as is rendered perfectly apparent at *a*, Figs. 2 and 3, and when the boot is finished no stitch will be seen about its sole.

I can in this way and by these means make as durable or serviceable a boot by machinery as can be made by hand, for neither can ever fail until after the stitches wear off, and by my method it is impossible that the stitches should wear at all until the whole of the outer sole is worn off, as before shown.

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

Sewing (by machinery) the soles to the uppers of boots and shoes, substantially as herein described.

F. CLOSS.

Witnesses:

R. FITZGERALD,
J. BRADLEY.