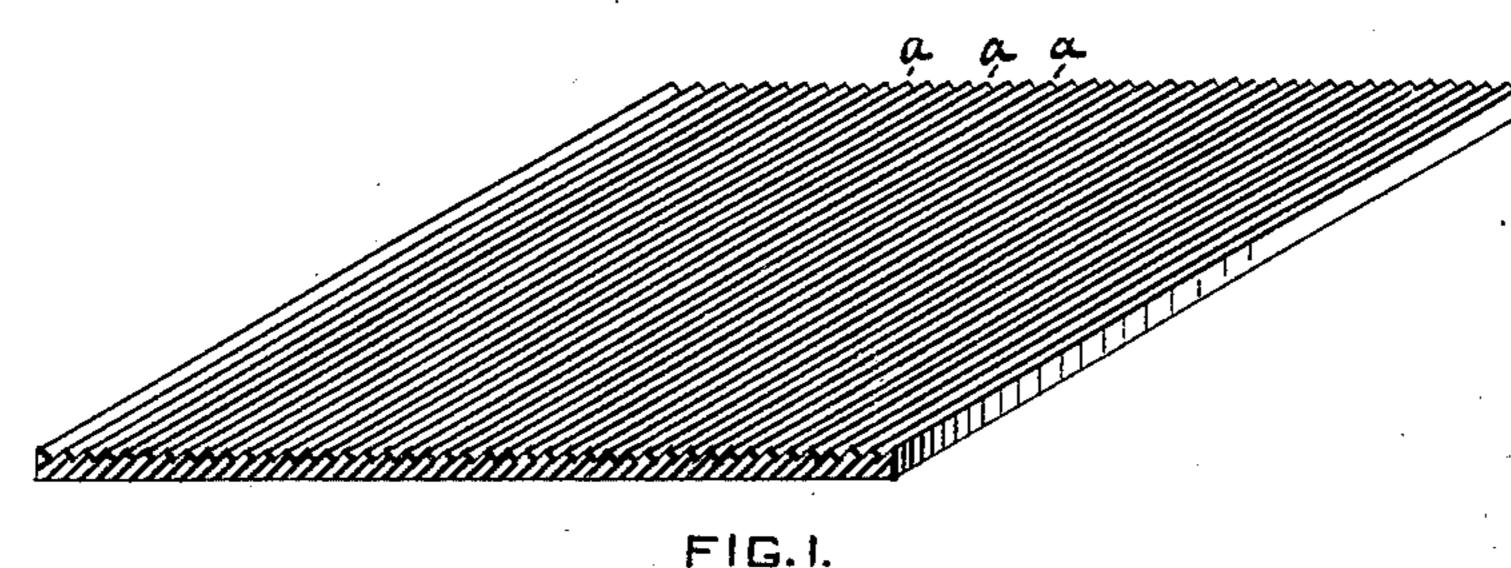
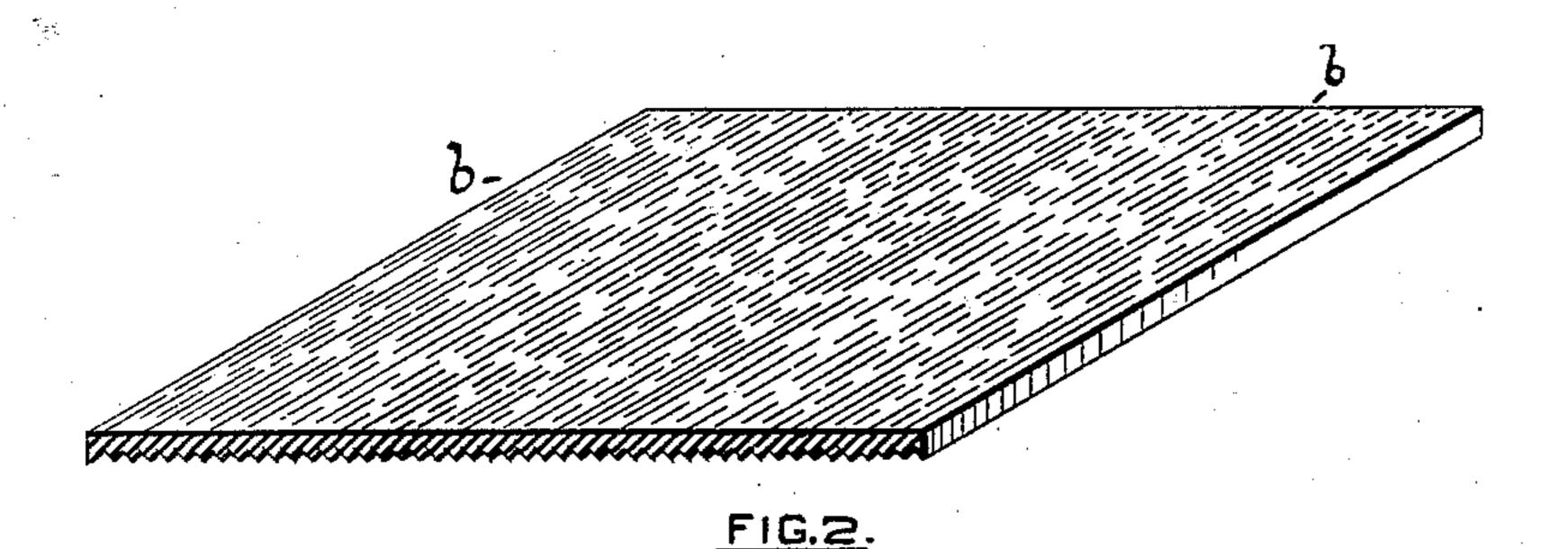
W. E. JOSLIN. Stock for Metallic-Tips for Lacings.

No. 223,289.

Patented Jan. 6, 1880.





INVENTOR.

## United States Patent Office.

WILLIAM E. JOSLIN, OF SCITUATE, RHODE ISLAND.

## STOCK FOR METALLIC TIPS FOR LACINGS.

SPECIFICATION forming part of Letters Patent No. 223,289, dated January 6, 1880.

Application filed August 22, 1879.

To all whom it may concern:

Be it known that I, WILLIAM E. JOSLIN, of Scituate, in the county of Providence, in the State of Rhode Island, have invented a new and useful Improvement in Stock for Metallic Tips for Lacings; and I declare the following to be a specification thereof, reference being had to the accompanying drawings.

Figures 1 and 2 represent the two surfaces, respectively, of the sheet metal prepared by

my improved process.

This invention relates to an improvement in metallic stock for making tips for shoestrings and other lacings, in which one surface of the stock is corrugated in parallel ridges and the other roughened in any suitable manner, for the twofold purpose, first, that when the metal is folded over and upon the lacing the sharp serrations or corrugations upon the inner surface lying next to the lacing may sink into and engage with the fabric, so that the tip cannot be displaced; and, secondly, to afford a more favorable exterior surface of the tip to receive a japan finish.

It is a common difficulty in the use of lacings upon which the tips are fastened in the usual manner that the tip soon is detached 30 and is pulled off, leaving the end of the lacing exposed, which, being unbraided by wear, renders the lacing unfit for further use. The tips are usually attached to the lacing by puncturing them longitudinally at several places, thus causing small points of the broken metal to enter into and between the fibers; but this method is imperfect and insufficient, and is found practically to hold the tip in position but for a short time. Any unusual 40 strain readily bends these minute points of broken metal and withdraws the tip from the lacing.

My invention obviates this difficulty. I corrugate the surface of the metal which is to lie next to the string, and cut the sheet metal so that these corrugations shall lie, not longitudinally, but transversely, with the string.

The tip is made in the usual form and manner, and folded, as hitherto, over and upon the lacing, but embraces it firmly, the whole series of serrations or corrugations serving to hold the inclosed string securely against all power to draw off the tip. Each corrugation, compressed into and sinking down into the

body of the lacing, bites firmly the inclosed 55 string and prevents any displacement of the tip.

My invention may be applied to zinc, brass, iron, or any sheet metal suitable to be made into lacing-tips.

The drawings show, Fig. 1, the series of ridges or corrugations a a. These corrugations may be made by rolling the stock between properly-cut rollers.

Fig. 2 shows the reverse side or surface of 65 the sheet metal, furnished with a rough surface, b. This side of the metal is to be finished in ions.

in japan.

In the use of all smooth or polished metallic surfaces, and especially of zinc or brass, 70 which are most commonly used for making lacing-tips, the japan does not adhere, but soon scales off, leaving the metal exposed. By breaking up this surface and providing a number of minute points, ridges, or other 75 roughness of surface, the japan can hold to the metal.

The roughening b of the surface is accomplished by rolling the stock between properly-cut rollers. In preparing the stock with both 80 kinds of surface upon both sides, respectively, the one roller may form the series of corrugations and the other the roughening of the reverse surface simultaneously as the stock passes between them.

Instead of a series of corrugations, other indentations or projections of the surface may be formed for the purpose of biting into the inclosed lacing; but such modification of form will be equally within my invention, as any 90 roughening or indenting of the surface of the metal which is less than a puncture or perforation is the essential characteristic of my improvement in the manufacture of stock for metallic lacing-tips.

I claim as a novel and useful invention and desire to secure by Letters Patent—

As a new article of manufacture, the stock for lacing-tips herein described, made of sheet metal, having corrugations or solid parallel 100 ridges a a upon one surface thereof, and the other surface roughened, as at b, as and for the purpose specified.

WILLIAM E. JOSLIN.

Witnesses:
WM. B. W. HALLETT,
JOHN N. SHAY.