

V. FREY.
MANUFACTURE OF BOOT OR SHOE CAPS.
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976,451.

Patented Nov. 22, 1910.

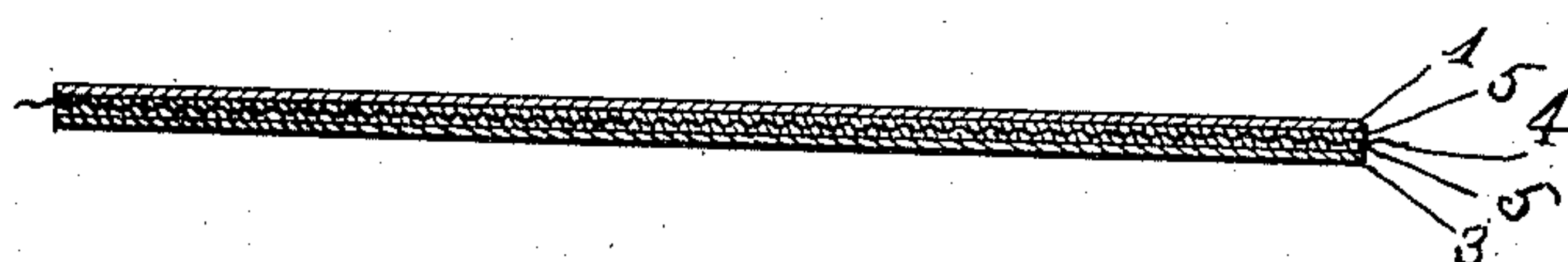
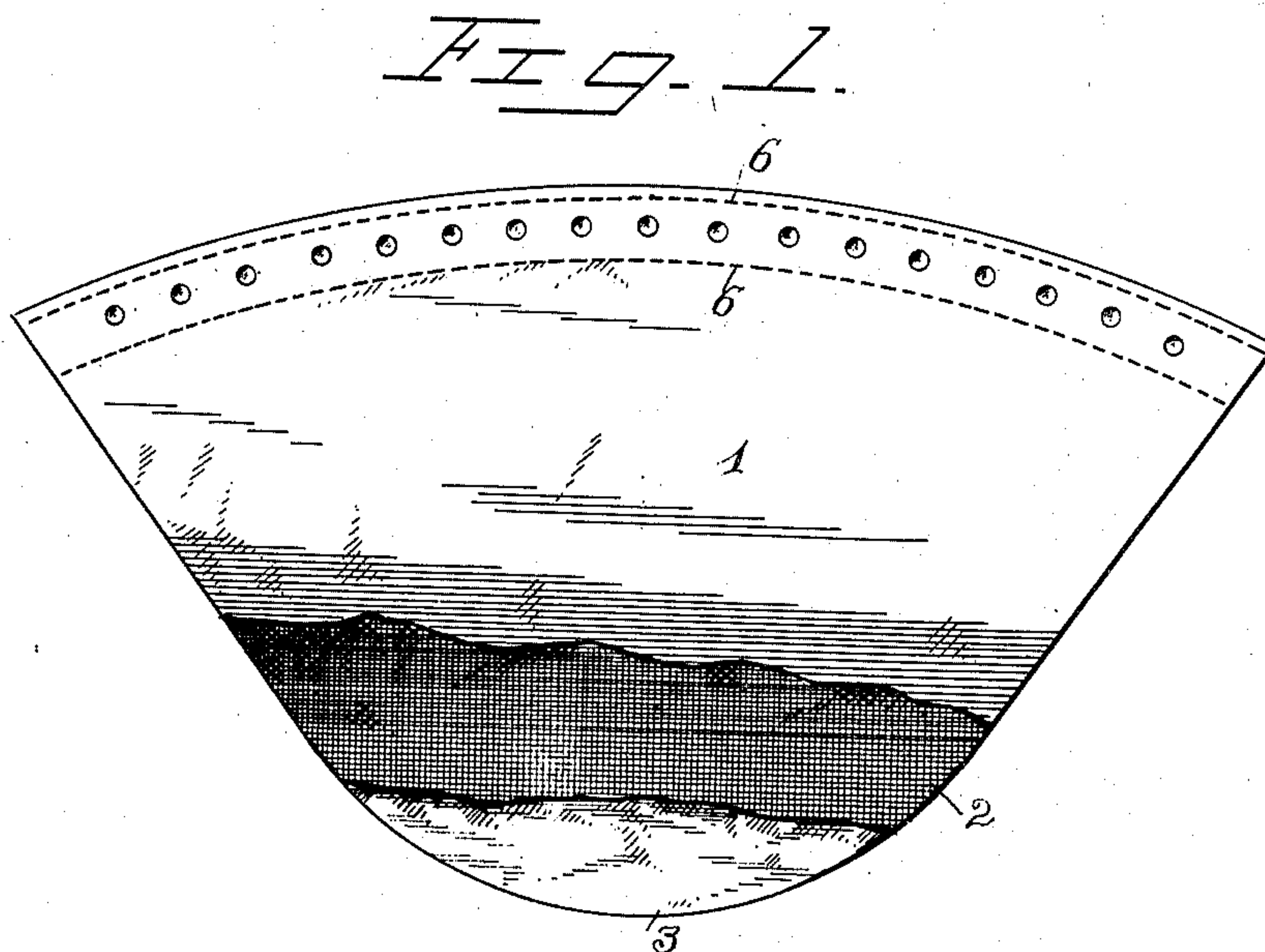


Fig. 2.

Witnesses
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UNITED STATES PATENT OFFICE.

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MANUFACTURE OF BOOT OR SHOE CAPS.

976,451.

Specification of Letters Patent.

Patented Nov. 22, 1910.

Application filed April 13, 1908. Serial No. 426,887.

To all whom it may concern:

Be it known that I, VICTOR FREY, a subject of the German Emperor, residing at Bonndorf, Germany, have invented certain new and useful Improvements in the Manufacture of Boot or Shoe Caps, of which the following is a specification.

The present invention relates to improvements in the manufacture of boot or shoe caps.

A well known step in the art consists in coating or saturating the stiffening, *i. e.* the piece of fabric to be interposed between the vamp and the lining of shoe and boot caps, with a solution of celluloid, and to then unite the three parts while still wet. This procedure has the great disadvantage that each stiffening must be treated individually on either side with the celluloid, which requires on the one hand careful, and for that reason somewhat cumbersome and time-consuming handling, and on the other hand carries with it a considerable waste of celluloid.

The object of this invention is to do away with this disadvantage.

In carrying out my invention, I spread a thin film or layer of celluloid over either side of a relatively large piece of fabric. I then allow the solvent to evaporate, or if applied in heated state, I allow the coating to cool off, and then stamp out of the stiffened fabric the parabolic-segmental shaped cap pieces. Next, the vamp, lining and stiffening are united along one edge, preferably by sewing in the well known manner. In order to finally unite the parts by making use of the adhesive properties of the celluloid developed upon changing from the liquid into the solid state, the stiffening is dipped for a few moments into, or in some other manner treated with, one of the well known solvents, for instance amyl acetate, after the vamp and the lining have previously been folded back to expose both sides of the stiffening. As a result, only the surface of the celluloid coating is softened and becomes sufficiently sticky to unite under slight pressure with the vamp and the lining to an exceedingly resistful whole. This procedure enables the workman to work very rapidly and cleanly, without danger of spattering the vamp with

celluloid. The evaporation varying greatly with the solvents used, it is an easy matter to adapt certain solutions to the quickness required for the operation, or to that attained by a certain operator.

I have illustrated my invention as far as possible in the accompanying drawing, in which—

Figure 1 represents a plan view of a shoe cap made in accordance with my invention, prior to attachment to the shoe, portions of the intermediate and outer layer being broken away. Fig. 2 represents an exaggerated sectional view to show the relative positions of the several layers.

Referring to the drawing by reference characters, 1 indicates the outer layer of leather, 2 the interposed layer which constitutes the stiffening, composed, as hereinbefore described, of a piece of fabric treated with celluloid in the manner described, and 3 indicates the lining of any ordinary or approved material.

In the exaggerated sectional view in Fig. 2, the wave line 4 is intended to represent the piece of fabric in the intermediate layer or stiffening which, by means of the process described, is treated with celluloid, saturating it and forming a coating on either side, as at 5—5. The three layers are cut to a proper shape to form the toe cap and secured together by stitching as at 6 in Fig. 1.

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

1. The herein described process of manufacturing boot and shoe caps, comprising coating the stiffening on either side with celluloid, partly uniting the stiffening thus coated with the vamp and the lining, exposing the sides of the stiffening to a solvent and then wholly uniting the parts, substantially as described.

2. The herein described process for the manufacture of boot or shoe caps, comprising coating the stiffening on either side with celluloid, drying and cooling the stiffening, partly uniting the vamp, the stiffening and the lining, then rendering the celluloid surfaces sticky, and finally uniting the said three parts, substantially as described.

3. The herein described process for the

manufacture of boot or shoe caps, comprising coating stiffening fabric with celluloid, allowing it to dry and cool, stamping out suitably shaped cap pieces, partly uniting
5 the latter with the vamp and the lining, exposing both sides of said stiffening, rendering the surfaces thereof sticky by causing a suitable solvent to act on them, and then

uniting the parts in suitable manner, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

VICTOR FREY:

Witnesses:

EUGEN TREIBER,
ARTUR GROSCUP.