

F. RAMPICHINI.
PROCESS FOR MAKING LEATHER JOINTS.
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1,048,877.

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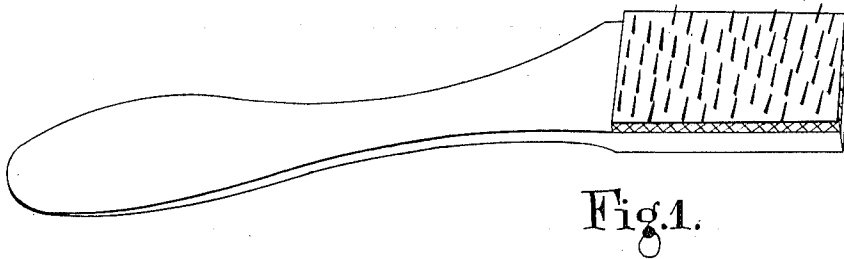
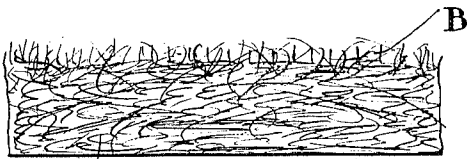


Fig. 1.



A Fig. 2.



Fig. 3.

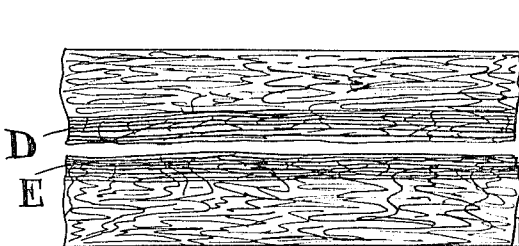


Fig. 4.

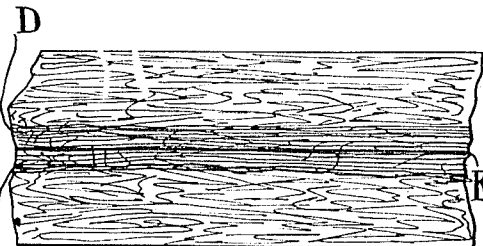


Fig. 5.

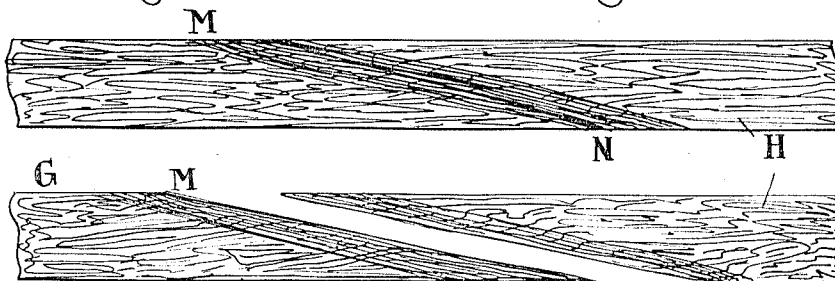


Fig. 6.

Witnesses.

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PROCESS FOR MAKING LEATHER JOINTS.

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Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, FRANCESCO RAMPICHINI, a subject of the King of Italy, and residing at Trieste, Austria-Hungary, have
5 invented a certain new and useful Process for Making Leather Joints, of which the following is a specification.

This invention relates to the pasting or
gluing together of tanned leather surfaces
10 in the manufacture of footwear and leather goods in general.

The object of the invention is an improved process for the above the principal novelty in which lies in the method of ap-
15 plying the adhesive substance which is preferably a colloidal solution of solid materials in a suitable solvent other than water.

The process consists in three distinct consecutive operations, loosening the fibers of
20 the leather surfaces to be connected, coating the said surfaces with the adhesive substance, and finally gluing or pasting the surfaces together.

The accompanying drawing shows by
25 way of example how the present invention may be carried into effect.

Figure 1 shows in perspective a tool suitable for loosening the fibers of the leather as hereinafter described. Fig. 2 is a sectional elevation showing the loosened fibers
30 on the surface of the leather. Fig. 3 is a similar view showing the coated surface. Fig. 4 shows in elevation two surfaces about to be joined. Fig. 5 is a like view of the
35 surfaces joined, and Fig. 6 shows also in elevation how two pieces may be joined together.

The first operation is performed by steel pointed hand tools for example as shown
40 in Fig. 1 or by rotary or reciprocating machines, which greatly loosen and raise up the fibers of the leather surfaces, so that they resemble fustian cloth as in Fig. 2, where
45 A shows the appearance of an untreated surface and B a surface which has been treated to raise the fibers.

The second operation consists in depositing on the surfaces treated as above a uniform layer C, Fig. 3 of the adhesive col-
50 loidal solution, that is a layer which will practically be flat and smooth on its surface when dry. This substance during the time given for drying penetrates deeply into the fibers which have been loosened by the first
55 operation.

The third operation *i. e.*, the gluing or pasting together of the parts whose connection surfaces have been prepared as in the two preceding operations, consists in applying to the now dried smooth surface D, E, 60
Fig. 4, of the layer of adhesive a small quantity of a solvent capable of dissolving the adhesive substance. The smooth surfaces D, E are then brought into contact, Fig. 5 and by a suitable pressure they are 65
held together until the adhesive force is sufficient to hold together the joined parts, so that the two coatings of dry adhesive are united into a single layer F.

In Fig. 6 is shown by way of example the 70
application of this method to the joining of two pieces of leather G and H, the two surfaces to be secured together being inclined and the piece G decreasing in thickness toward the end N, while the other piece H in- 75
creases in thickness from the end M. The pieces are shown in the lower part of said figure as being about to be brought together, and in the upper part they are shown joined.

This method may be used in the manu- 80
facture of footwear and other objects of leather, even including articles made of very greasy leather, which latter have to be freed from grease at the parts where the fibers have been loosened by the first opera- 85
tion of the process. This may be effected by the application of solvents which act energetically on fatty substances, such solvents being carbon bisulfid, benzin, petroleum ethers, alcohols, aqueous solutions of 90
chromic acid, alkali hydrates and carbonates, etc.

This process produces leather joints of such strength that by using elastic adhesive materials insoluble in water, such as solu- 95
tions of nitrocellulose, indiarubber, gutta-percha, certain resins or gum resins, footwear may be manufactured of such technical and economical qualities as to constitute an important advance in the leather manufac- 100
turing industry.

Having now described my invention what I claim as new and desire to secure by Letters Patent is:—

1. In a process for making leather joints, 105
loosening the fibers of the surfaces to be jointed so that they resemble fustian cloth, coating the said surfaces with an adhesive substance, the surface of which, when dry, will practically be smooth and flat, apply- 110

ing a solvent to the adhesive substance after the same has dried, and finally pressing the surfaces together until the joint adheres.

2. In a process for making leather joints,
5 loosening the fibers of the surfaces to be jointed so that they resemble fustian cloth, removing grease therefrom by the application of a suitable solvent, coating the said surfaces with an adhesive substance, the
10 surface of which, when dry, will practically be smooth and flat, applying a solvent to

the adhesive substance after the same has dried, and finally pressing the surfaces together until the joint adheres.

In testimony whereof I have signed my 15 name to this specification in the presence of two subscribing witnesses.

FRANCESCO RAMPICHINI.

Witnesses:

C. GUISPEDUAN,
BERNARD LEDUER.