

R. C. SIMMONS.
METHOD OF MAKING LASTS.

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1,059,082.

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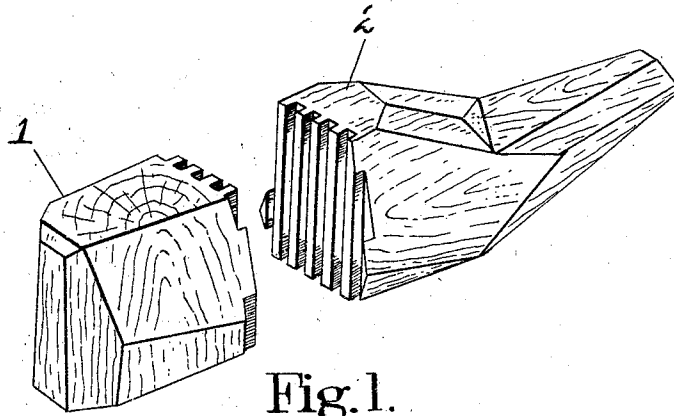


Fig. 1.

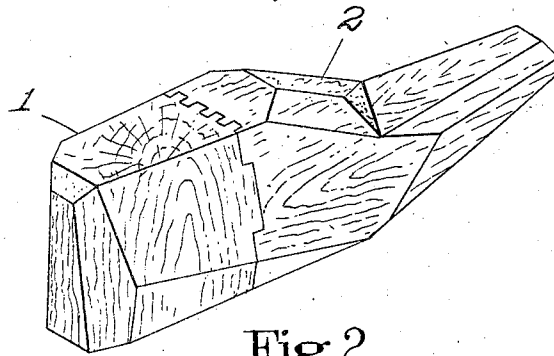


Fig. 2.

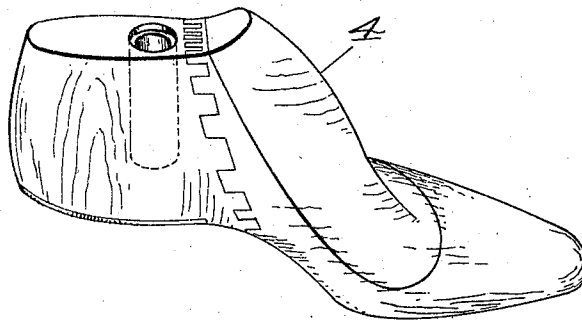


Fig. 3.

WITNESSES.

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METHOD OF MAKING LASTS.

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To all whom it may concern:

Be it known that I, RALPH C. SIMMONS, a citizen of the United States, residing at Beverly, in the county of Essex and Commonwealth of Massachusetts, have invented certain Improvements in Methods of Making Lasts, of which the following description, in connection with the accompanying drawings, is a specification, like reference characters on the drawings indicating like parts in the several figures.

This invention relates to methods of making lasts and is herein described more particularly as a method of producing a last covered by an application filed contemporaneously herewith. It will be understood, however, that the method herein disclosed may be practised in making lasts other than that described in said application.

According to the present invention, a last is made from a plurality of blocks which may possess, if desired, different characteristics. The last herein shown is so constructed that the fiber of the wood in the heel part extends in the direction of the height of the last, while in the forepart it extends longitudinally of the last. The method herein disclosed may be also used to advantage in forming a last having sections differing in other ways. For example, the sections may differ in the kind of wood used, the forepart being of maple and the heel part of a tougher kind of wood, such as lignum vitæ. The practice of the present method is particularly advantageous in that it permits a last to be made from small blocks of wood which would otherwise not be suitable for use for this purpose.

In practising the present invention, the sections which are to compose the completed last are united before the foot-shape contour is produced. By uniting the sections before forming the foot-shape contour, the production of this contour is much simplified and rendered capable of being effected considerably more cheaply than would be possible if the sections were separately turned and thereafter united. Furthermore in practising the present invention an exact registry of the sections is insured regardless of slight variations in the manner in which the sections have been united before the turning operation. If the sections were separately turned it would require great care to insure

that they would fit accurately together at the point of union. The surface in which the sections meet preferably extends from side to side of the completed last and lies in advance of the heel at the shank portion of the last. The connection between the sections is preferably a permanent one. After the sections have been united, the block thus formed is turned in a last turning lathe to the desired foot-shape contour. Thereafter the last is divided in the usual way to place it in the form desired, either by severing therefrom an instep block, or, if it is to be a hinged last, by dividing it at the shank in the manner customary in producing lasts of this kind.

Other features and advantages of the invention will be hereinafter pointed out.

In the drawings, which show a last in various stages of manufacture according to a method embodying the present invention,— Figure 1 is a view in perspective illustrating the last sections before they are united and after their meeting surfaces have been prepared to be joined together; Fig. 2 is a perspective view showing the last sections united; Fig. 3 is a perspective view showing a completed last.

Referring to the drawings, the reference numeral 1 indicates the rear section of the last which, together with a forepart section 2, forms a last block from which a complete last may be turned. In the particular construction shown, the meeting surfaces of the sections 1 and 2 are mortised in order to provide a strong connection between these parts. The meeting surfaces are also preferably glued. As indicated upon the drawings, the heel section 1 is so constructed that the fiber of the wood extends in the direction of the height of the last while in the forepart section 2 the fiber extends longitudinally of the last. After the sections 1 and 2 have been firmly united, as indicated in Fig. 2, the last block is placed in a last turning lathe and turned to a desired contour. It will be seen that the mortise and tenon connection between the heel section and forepart section is of advantage in preventing these sections from being displaced relatively by the twisting force which is applied to them in the last turning lathe. As will be obvious this force would be liable to break the glued joint between the sections if the

glue alone were dependent upon to resist relative displacement of the sections. Furthermore by uniting the sections by an interlocking joint, the extent of glued surface which resists breaking of the joint is made considerably greater than would be the case if the meeting surfaces were flat. After the last has been turned it may be prepared for use in the manner now customary in the manufacture of lasts.

The last shown is provided with a removable instep block 4, severed in the usual way from the forepart of the last.

The union between the two sections of the last is preferably located at the shank portion of the last. This allows the entire heel portion to be constructed to resist vertical compression in the desired manner and also insures that the union will be sufficiently removed from the toe to give the meeting surfaces sufficient area to produce a strong joint. A strong union between the sections is required not only in the operation of turning the block to a foot-shape contour, but, as will be obvious, is necessary to give the last sufficient strength to resist the stresses which it must undergo in the manufacture of boots and shoes, particularly in the sole leveling operation.

While the present method is particularly of advantage in permitting a last to be manufactured from blocks of wood which would otherwise be too small to use for this purpose, it will be understood that the invention may be advantageously used in other ways. For example, the last blocks which constitute the ordinary raw material of the last maker may be divided to produce the sections to be joined. An advantage incident to this manner of making lasts consists in the fact that the checks or small cracks

which occur at the heel end of the last block may be placed in such a position that they will not appear in the finished last.

Having described my invention, what I claim as new and desire to secure by Letters Patent of the United States is:—

1. The method of making a last which consists in permanently and rigidly uniting two sections to form a last block in such manner that the surface of union extends transversely from side to side of the block at the shank portion of the completed last and so that the fiber of the wood in the heel section lies approximately at right angles to the longitudinal axis of the block and the fiber of the wood in the other section extends in the direction of said axis, and thereafter turning the block to a foot shape contour.

2. The method of making a last from separate sections which consists in permanently and rigidly uniting said sections in such manner as to form longitudinally successive portions of a last block by a union formed by interlocking the meeting surfaces of the sections and thereafter turning the block to a foot shape contour.

3. The method of making a last which consists in permanently and rigidly uniting a plurality of wooden sections to form longitudinally successive portions of a last block with the fiber of the wood in one section extending at substantially right angles to the fiber in another section and thereafter turning the block to a foot shape contour.

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

RALPH C. SIMMONS.

Witnesses:

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ALLAN H. BARROWS.