March 14, 1950 H. L. PETTERSSON ET AL 2,500,564

METHOD OF MAKING SKIS

Filed Sept. 26, 1945

Fig. 1

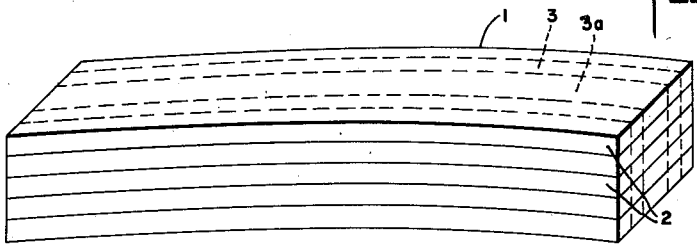


Fig. 2

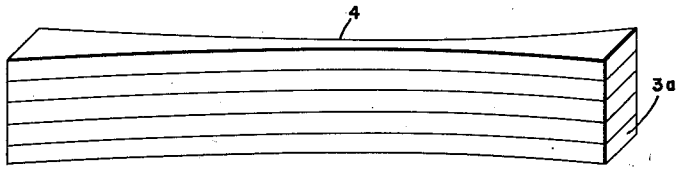


Fig. 3

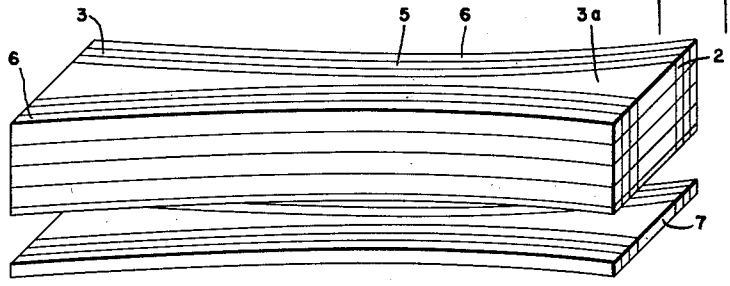


Fig. 4

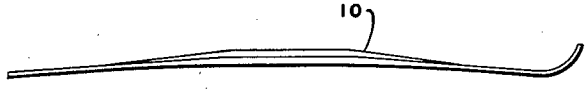


Fig. 5

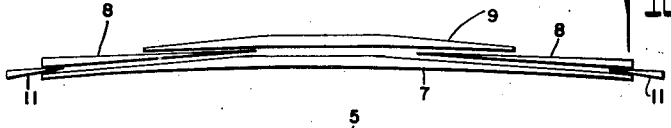
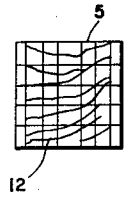


Fig. 6



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METHOD OF MAKING SKIS

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The present invention refers to a method of making skis with a tension arc as permanent as possible by the production of arcuate blocks, out of which blanks are sawn, which are then worked into a ski.

The invention is illustrated in the accompanying drawing, wherein Fig. 1 is a perspective view of a block which for the sake of clearness is shown with an exaggerated width. Fig. 2 is a perspective view of a specially formed board sawn out of said block, and the upper part of Fig. 3 is a perspective view illustrating a block obtained by working the block according to Fig. 1, and the lower part of Fig. 3 shows a board sawn out of the block, this board being intended to form a portion of a layer of a finished ski. Fig. 4 is an edgewise view of a ski, and Fig. 5 shows the various composite parts of said ski in their mutual relationship by way of diagrammatic representation. Fig. 6 is an endwise view of a blank block.

According to the invention, the block 1 is produced by placing a number of vertically bent boards 2 of the same or different species of wood on top of each other and by gluing the boards together in this position, the block thus produced having imparted thereto a longitudinal shape such as to produce the desired bottom curvature of the finished ski. The block 1 is then cut on the dashed lines in Fig. 1 at right angles to the gluing surfaces into boards 3 extending in the longitudinal direction of the block 1, the plane sides of the central board 3a being milled out in such manner that the board will be thinned, that is to say curved inwardly at the center 4 as shown in Fig. 2. The boards 3 are again glued together with the board 3a provided with two inwardly curved sides lying at the center, into a block 5, which consequently will also obtain inwardly curved sides, whereupon two boards 6 consisting of a particularly hard species of wood are glued onto the inwardly curved sides, said boards 6 having been cut out from a block constituted and formed the same as the block 1. The block 5 is cut along a curved line to form a board 7 the edges of which consist of harder species of wood than the central portion of the board, and the shape of which corresponds approximately to the lateral and longitudinal form of the finished ski.

For the construction and shaping of the ski, the board 7 is now planed in such manner that the same becomes about twice as thick at the center as at the end portions, whereupon two wedge-shaped boards 8 are sawn out from a block

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constituted and formed in the same manner as the block 1, said boards 8 being then glued onto the upper sides of the thinned end portions of the board 7 with their thinned ends turned toward the center of the board 7. Now, the board 7 and the boards 8 constitute a single board serving as a sole for a ski. Now, a board 9 arcuately bent and having thinned ends is glued onto the upper side of the sole 7, 8, said board 9 being shorter than the sole 7, 8 and having been cut out from a special block prepared in the same manner as the blank block 5. This board will form an upper layer of the finished ski 10, which consequently will consist substantially of a lower board and an upper board.

Now, wedge pieces 11 are inserted in known manner into the end portions of the ski blank to reinforce the same, whereupon it is formed into a ski.

It appears from Fig. 6 that in this manufacture of a ski the portion 12 produced in the ski blank through the annual rings extends in the transverse direction of the lower plate, which is of particularly great importance in the manufacture of a ski, inasmuch as comparatively deep grooves will, as is well known, be produced in the sliding surface of the ski after the latter has been worn for some time.

In regard to the present manufacturing method it is to be noted that upon the cutting and regluing of the blank block a better equalization of the stresses or tensions is obtained in the lateral direction of the block when, for instance, both sides of the central board 3a are inwardly curved than when only one side of said board is inwardly curved.

It will appear from Fig. 5 that, a saving of material is obtained in the construction of the ski itself, inasmuch as the upper board 9 as well as the wedge-shaped boards 7, 8 may be taken out of blocks shorter than the length of the whole ski. Finally, it appears from said figure that retention of the desired longitudinal curvature of the ski is insured by reason of the fact that the lower board is composed of the arcuately bent board 7 and of the wedge-shaped boards 8 glued onto the upper sides of the board.

What we claim is:

1. Method of manufacturing a ski with a tension arc as permanent as possible by the preparation of arcuate blocks, out of which blanks are sawn out, which are then worked into a ski, a number of vertically bent boards of the same or different species of wood being placed with their broad sides on top of each other and glued to-

gether into a block having a tension arc corresponding to the tension arc of the finished ski, said glued block being cut up at right angles to the gluing surfaces into central and side sheets in the longitudinal direction of the block and the plane sides of the central sheet only being recessed so as to make said sheet narrower at the center thereof, the side sheets being glued to the central sheet to form a blank block curved inwardly from both sides at the center thereof, from which a board having a tension arc corresponding to the tension arc of a ski and adapted, for instance, to form the lower layer of the ski is cut out arcuately, an arcuately bent sheet being then glued onto said board to form the upper layer of the ski, said sheet having been cut out from a block composed of boards.

2. A method as claimed in claim 1, wherein the board forming the lower layer is shaped, prior to being glued onto the upper layer, in a manner such as to become about twice as thick at the

center as at the end portions thereof, whereupon wedge-shaped pieces turned with their small ends toward the center of said board and adapted to reinforce the tension arc are glued onto the upper sides of the thinned end portions of the board, said wedge-shaped pieces having been cut out from a block prepared analogously to said first-mentioned block.

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