

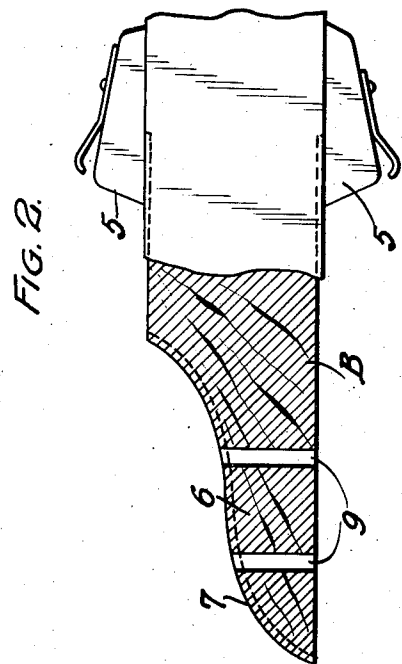
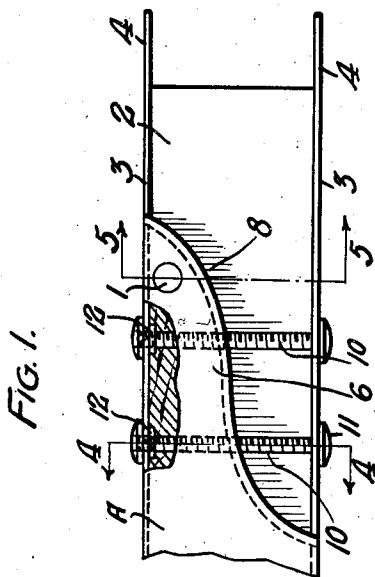
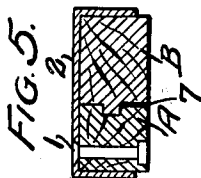
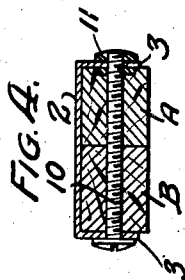
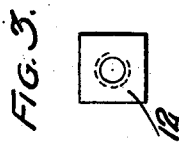
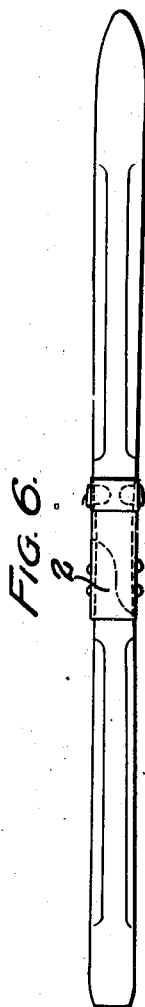
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FOLDING SKI

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FOLDING SKI

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3 Claims. (Cl. 280—11.13)

This invention relates to new and useful improvements in a folding ski, or a folding ski-runner for bob-sleighs and aircrafts, which ski or runner may be separated into two or more parts, whereby the ski or runner in separated and folded position may easily be transported by the user. Every joint or splice in the ski or runner is essentially Z-formed, in a plan view of the ski in such a manner that every one of the contiguous ends of the ski or runner parts on its one side has an extension or a tongue in the longitudinal direction of the ski, which tongue fits exactly in a corresponding recess in the end of the other contiguous ski part. Said recess is positioned at the side of the extension or tongue of the latter ski part. Every tongue has one, two or more holes in the transversal direction of the ski, and these holes are so positioned in relation to the holes of the juxtapositioned tongue, when the ski parts are in aligned operative position, that a screw-bolt or the like may be inserted through two opposite holes in both the juxtapositioned tongues. Every tongue has along the whole length of its inner border and also along its end borders suitably arranged a tongue or rebate which is adapted to fit a cut-out channel or groove in the borders of the other tongue or extension.

In the manufacture of the ski with a joint of essentially Z-form, a wood material of the whole length of the finished ski is first cut off approximately in the middle of its said length; two shorter boards or blanks for a ski corresponding to each other are then selected, whereupon the tongues or extensions are so shaped by a milling-cutter, or the like that the finished joint, seen from above has a Z-form.

By experiments for finding out the strength of the joints against bending strains in skis or runners of this kind, it has proved, especially when the skis or runners are subjected to particularly heavy strains, that the extension provided with a groove at its outer part will show a tendency to split along a plan more or less parallel with the gliding surface of the ski or runner. In order to avoid this inconvenience the extension is at its uttermost part strengthened by a rivet of any suitable metal, as for instance copper, extending from the underside or gliding surface of the ski to the upper side thereof. Further, in order that the joint of the ski with or without a copper-rivet may have still more resisting power against bending strains, the ordinary or usual foot-tread plate on the ski, which plate may consist of rustfree steel, or of any other

corrosion resisting metal, may be shaped in such a manner that it has flanges bent down over the side-surfaces of the ski and provided with holes for the screw-bolts. These side-flanges are suitably extended forward in front of the rest of the tread-plate and reach with their extensions beneath the toe fastening studs, situated on the ski and extending sideways out from the same; thus the extension substantially counteracts such bending strains at the joint of the ski, which strains are directed from below and upwards at this part of the latter. On the outside of one or the other or both side-flanges of the tread-plate suitable nuts for transversal screw-bolts are fastened by welding. On the side of the ski, which has not any such nut secured by welding on the one side-flange of tread-plate, a nut is mortised in the wood in the side of the ski concentrically with the corresponding bolt hole. As this nut will be situated inside the corresponding side-flange of the tread-plate and since the plate as for instance by screws is firmly connected to the corresponding ski-part, the outer screw-thread corresponding to the inner screw-thread of the nut will prevent the bolt from falling out of the hole in that particular ski part, which is firmly connected with the tread plate.

With the above and other objects in view, this invention consists of the novel features of construction, combination and arrangement of parts hereinafter fully described, claimed and illustrated in the accompanying drawing forming part of the specification, and in which similar characters of reference indicate corresponding parts in all views, and in which:

Figure 1 is a plan view, partly in section, showing one portion of a foldable ski (a part of the latter being broken off).

Figure 2 is a similar view as Figure 1, showing the counter-part of a foldable ski.

Figure 3 is a plan view, showing a nut with a square head portion.

Figures 4 and 5 are detail views in transverse section, particularly showing the bolt arrangement, while

Figure 6 is a top plan view, showing the ski parts assembled.

Referring more particularly to the drawing, and first to Figure 1, A shows one part of a foldable ski, and B in Figure 2 the other part thereof, said latter part carries the fastening studs 5, extending outwardly from the ski. Figures 1, 4 and 6 show nuts 12 mortised in wood, while in Figure 3 one of said nuts is illustrated

separately, to show its square head portion, which prevents in from turning in the wood. The copper-rivet 1 and tread-plate 2 with the side flanges 3, which latter have extensions 4, are connected with part A. The said extensions extend underneath the toe-fastening studs 5, when the ski is assembled for use. Along the Z-formed wall the part B has on its tongue 6 a rebate 7, which by the connection of the parts A and B enters into a corresponding groove 8 in the Z-formed bordering wall of the tongue 6 of the part A. The tongues of both parts A and B have holes 9 in the transversal direction of the ski to receive the screw-bolts 10, which may be firmly screwed in to the nuts 11, suitably fastened by welding on the outside of the one or the other side-flange 3 of the tread-plate. The nut mortised in the wood of the ski-part A is indicated by 12 and is secured to the bolt 10.

Having thus described my invention, I claim:

1. A folding-ski or ski-runner for a bob-sleigh or an aircraft, comprising two detachable parts, the contiguous end of each part having on one

side an extension or a tongue in the longitudinal direction of the ski adapted to engage a corresponding recess in the side of the extension in the end of the other contiguous ski part, whereby the ski-joint is substantially Z-formed, one extension being provided with a groove at its outer end, and strengthened at its uttermost part by a rivet, extending from underneath the ski to the upper side thereof, and a rib formed on the contiguous extension.

2. In a device as claimed in claim 1, and wherein a tread-plate is formed with flanges bending over the surfaces of the sides of the ski, said flanges extending forward in front of said tread-plate.

3. In a device, as claimed in claim 1, having toe-fastening studs laterally extending from one of said detachable parts, and a tread-plate arranged on top of said parts, the extensions of the side flanges extending underneath the toe fastening studs, whereby to impart rigidity to the ski parts, when assembled for use.

BROR WALTER SVENSSON.