Sept. 6, 1932. E. SILVESTRI 1,875,512

SKI

Filed May 7, 1931

Fig. 1

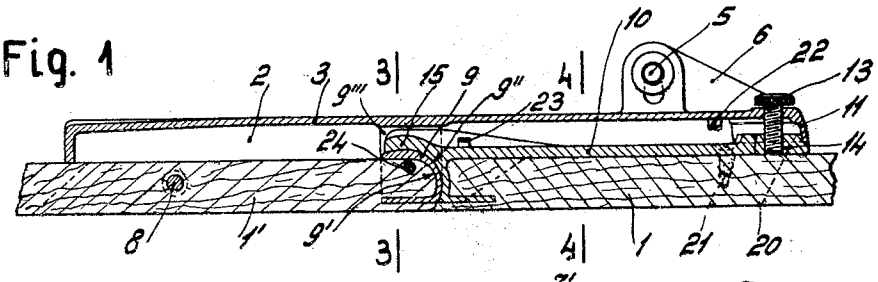


Fig. 2

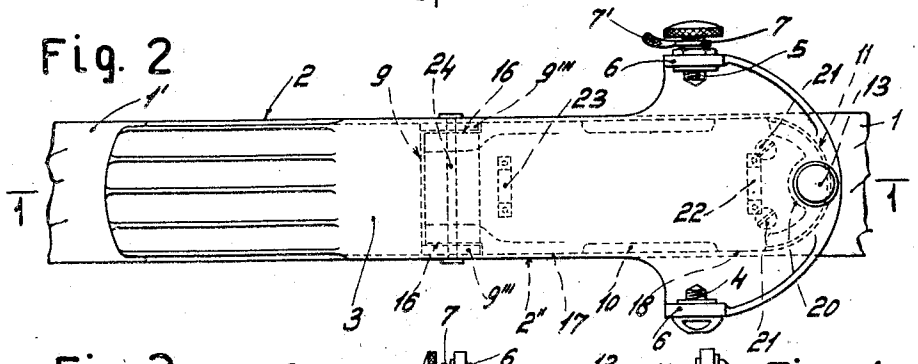


Fig. 3

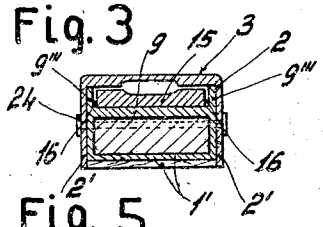


Fig. 4

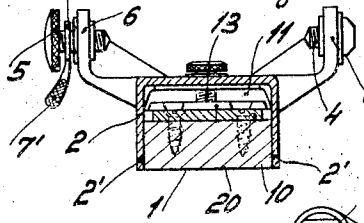


Fig. 5

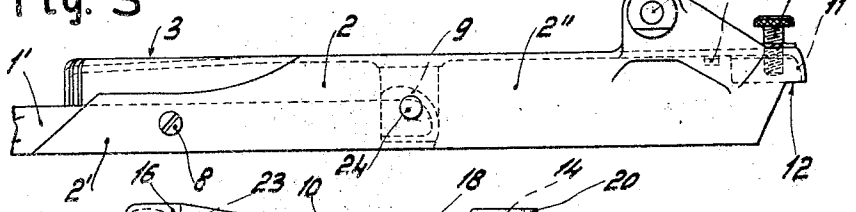


Fig. 6

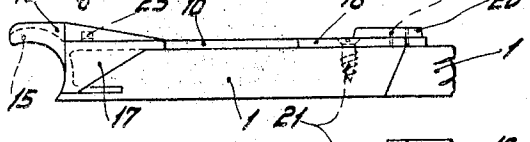
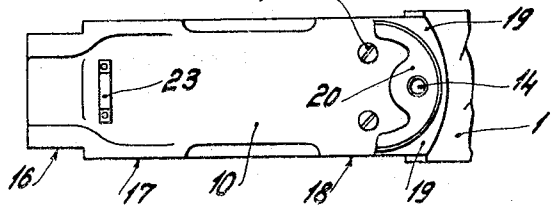


Fig. 7



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UNITED STATES PATENT OFFICE

ENRICO SILVESTRI, OF MILAN, ITALY

SKI

Application filed May 7, 1931, Serial No. 535,752, and in Italy May 12, 1930.

This invention relates to folding skis comprising two wooden ski-sections and a coupling for interconnecting and rigidly fastening them in aligned operative position, and has for its object improvements in said couplings.

On the annexed drawing an embodiment of this invention is illustrated by way of example and

Figure 1 is a fragmentary vertical longitudinal section on line 1—1 of Figure 2, of the central portion of a ski in conditions for use;

Figure 2 is a fragmentary plan view of the same;

Figure 3 is a transverse section on line 3—3 of Fig. 1;

Figure 4 is a transverse section on line 4—4 of Fig. 1;

Figure 5 is a side view of a coupling box having a wooden ski-section connected therewith;

Figure 6 is a side view of the end portion of the second wooden ski-section with its metal connecting member;

Figure 7 is a plan view of Figure 6.

As shown on the drawing a folding ski according to this invention comprises two wood-end sections 1 and 1′ which may be located in folded condition when the ski is out of use and in aligned and extended position when the ski is to be used.

Said sections 1 and 1′ are interconnected by a coupling comprising a metal box 2 which preferably is obtained by casting and which provides a tread 3 where the bearer's shoe is located and bound by means of two screwthreaded studs 4 and 5 mounted in side wings 6 of box 2, one of said studs as 5 having a lock nut 7 provided with a manipulating finger piece 7′. Said box 2 provides two side ribs 2′ which extend down to embrace the bottom corners of the ski-sections 1, 1′, the bearing surface of the ski being thus provided in the intermediate portion of the ski with metal linings which improve the operation.

Box 2 is fastened on the ski-section 1′ by means of side screws 8 and of a transverse frame or bridge 9 which provides a part separate from the box 2 and is secured therein by means of a riveted bolt 24. This transverse frame is machined to provide a recess 9′ entered by the end of ski-section 1′ and an outer rounded portion 9″ encircled by side members 9‴ of said frame and adapted for engagement by a metal head 10 lining the end of other ski-section 1 and fastened thereon by screws 21, as hereinafter described. The portion 2″ of box 2 extending beyond transverse member 4 provides smooth faces inside its side walls 2′ and at its end it provides on its internal horizontal surface a seat confined by frustroconical surfaces 11 and a horizontal abutment 12. A clamping screw 13 is located in the end portion of box 2, it being engaged in a bore of the wall of box 2 and engaging a screwthreaded bore 14 of head 10 of ski-section 1.

Said metal head 10 provides a nose 15 with flat side surfaces 16 adapted to fit over the rounded portion 9″ and between side members 9‴ of bridge 9 (Fig. 3) and also flat side extensions 17 and 18 by means of which it may fit in the recess of box extension 2″.

On the top face of head 10 and adjacent the bore 14 for the clamping screw 13 a flat surface 19 is provided from which rises a projection 20 having a tapering outer surface intended to engage respectively flat facet 12 and seat 11 of the cooperating end of box 2.

Owing to the described construction when the head 10 of the ski-section 1 is inserted in the hollow of box 2 fastened on the end of other section 1′, said head 10 fits home therein by nose 15 and surfaces 16, 17, 18 and projection 20; by screwing down screw 13 whose stud engages bore 14, said head 10 is forced against the bottom surface of the box 2 until its facet 19 abuts on box edge 12 and at the same time the contacting surfaces of nose 15 and bridge 9 and projection 20 and seat 11, respectively, are forced on each other to firmly interengage the ski-sections.

The interengaging action is improved by the fact that when tapering seat 11 is forced by screw 13 against tapering projection 20,

the head 10 is forced with its nose 15 against opposite surface 9'' of bridge 9.

As it is apparent, after the screw 13 has been screwed down, the head 10 is firmly engaged in box 2 and any respective motion is prevented in vertical direction by screw 13 and in any horizontal direction because of the extensive and spaced contact surfaces provided on the box 2 and head 10. Thus the ski while consisting of two separate sections 1, 1' is made entirely stiff and therefore a folding ski according to this invention has all useful features of a usual integral ski when it is in operative conditions.

At the same time it is quite easy to fold down and extend the ski sections, being only required to manipulate screw 13.

The two ski-sections 1, 1' may be interconnected by means of a chain or strap (not shown) attached to an eye 22 of box 2 (Figure 1) and to an eye 23 of head 10 (Figure 2) said eyes and the strap connecting them being enclosed in the box 2 when ski is in extended condition.

The provision of coupling for the ski sections consisting of a cast metal box having machined seats and fastened on one of the ski-sections and of a head fastened on the other section and also made of cast metal with means for fitting in the said box, ensures a long and safe life of the ski and secures a true interchangeability of ski-sections.

What I claim as my invention and desire to secure by United States Letters Patent is:—

1. A folding ski comprising a ski section, a metal box fastened on one end of said ski section, a second ski section, a metal head fastened on one end of said second ski section and fitting in said box, a transverse member in said box having a curve surface, a nose on said head having a curve surface to mate with and engage said curve surface of said transverse member, cooperating tapering surfaces on said box and head, and screw means interconnecting said box and head to force said tapering surfaces and said nose and transverse member on each other.

2. A folding ski comprising a ski section, a metal box fastened on one end of said ski section, a second ski section, a metal head fastened on one end of said second ski section and entering said box, a transverse member in said box and a nose on said head engaging said transverse member, cooperating abutting surfaces on said box and head, and means for forcing said nose and abutting surfaces of said nose and said transverse member and abutting surfaces of said box on each other.

3. A folding ski comprising a ski section, a metal box fastened on one end of said ski section and extending therefrom the side walls of said box reaching the level of the bottom edge of said ski section, means on said box for binding the wearer's shoe thereon, a member in said box providing a seat and a transverse part, a tapering edge on said box facing said transverse part and an abutment on said box parallel with said ski section bottom edge, a second ski section, a metal head fastened on said second ski section and entering said extending portion of said box said head providing a seat engaging said transverse part, a nose on said head fitting in said seat of said member, abutments on said head fitting in the side walls of said box, a tapering projection in said head engaging said box tapering edge, and a screw interengaging said box and head projection to clamp said box and head together.

4. A folding ski comprising a ski section, a metal box fastened on one end of said ski section, a second ski section, a metal head fastened on one end of said second ski section and fitting in said box, a transverse member in said box, a nose on said head to abut on and engage said transverse member, cooperating surfaces on said box and head for their abutment in a direction opposite that of the abutment between said transverse member and nose, and screw means for interconnecting said box and head.

5. A folding ski comprising a ski section, a metal box fastened on one end of said ski section, a second ski section, a metal head fastened on one end of said second ski section and fitting in said box, a transverse member in said box, a nose on said head to abut on and engage said transverse member, cooperating tapering surfaces on said box and head for their abutment in a direction opposite that of the abutment between said transverse member and nose, and screw means for interconnecting said box and head and forcing said tapering surfaces and said transverse member and nose against each other.

6. A folding ski comprising a ski section, a metal box fastened on one end of said ski section, a second ski section, a metal head fastened on one end of said second ski section and fitting in said box, a transverse member in said box, a nose on said head to engage said transverse member, a curve tapering surface on said box, said surface having its concavity facing said transverse member, a tapering surface on said head for cooperation with said box curve tapering surface, and screw means interconnecting said box and head and forcing said tapering surfaces and said nose and transverse member against each other.

7. A folding ski comprising a ski section, a metal box fastened on one end of said ski section, a second ski section, a metal head fastened on one end of said second ski section and fitting in said box, a member fastened in transverse position within said box, said member having a surface profiled according to an arc of a circle and carrying projecting

wings with flat internal surfaces, a nose on said head having a profiled surface to abut on and engage said profiled surface of said transverse member, cooperating surfaces on said box and head for their abutment in a direction opposite that of the abutment of said transverse member and nose, and screw means for interconnecting said box and head.

8. A folding ski comprising a ski section, a metal box fastened on one end of said ski section, a second ski section, a metal head fastened on one end of said second ski section and entering said box, mating machined surfaces in the interior of said box and on said head forming abutments in upward direction in both transverse directions and in both longitudinal directions and screw means for interconnecting said box and head.

9. A folding ski comprising a ski section, a metal box fastened on one end of said ski section, a second ski section, a metal head fastened on one end of said second ski section and entering said box, mating machined surfaces in the interior of said box and on said head forming abutments in upward direction in both transverse directions and in both longitudinal directions and screw means for interconnecting said box and head and forcing against each other said surfaces forming abutments in the longitudinal direction.

In testimony whereof I have signed my name to this specification.

ENRICO SILVESTRI.