May 2, 1939. J. REFSLAND 2,156,867

EQUIPMENT PERTAINING TO SKIS

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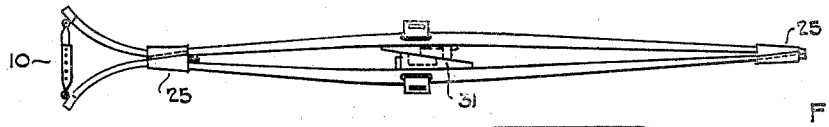


FIG. 1

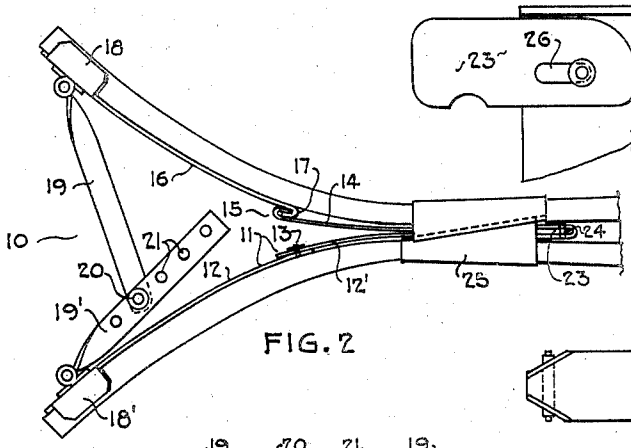


FIG. 2

FIG. 5

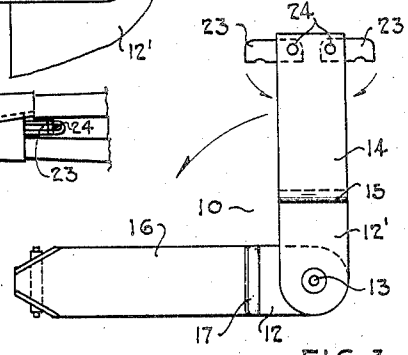


FIG. 3

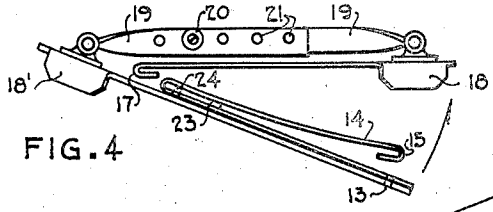


FIG. 4

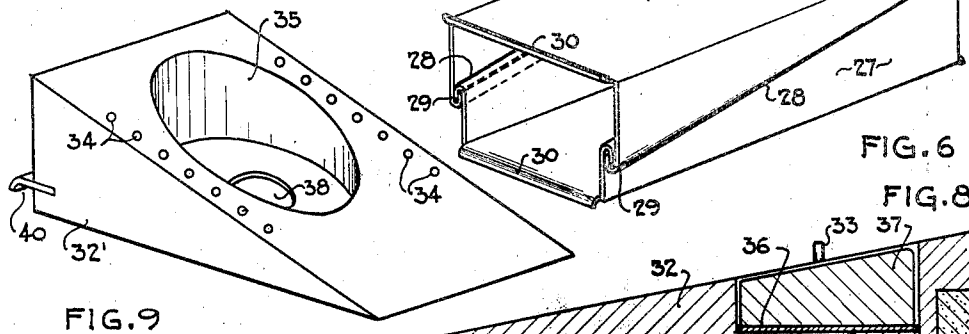


FIG. 6

FIG. 8

FIG. 9

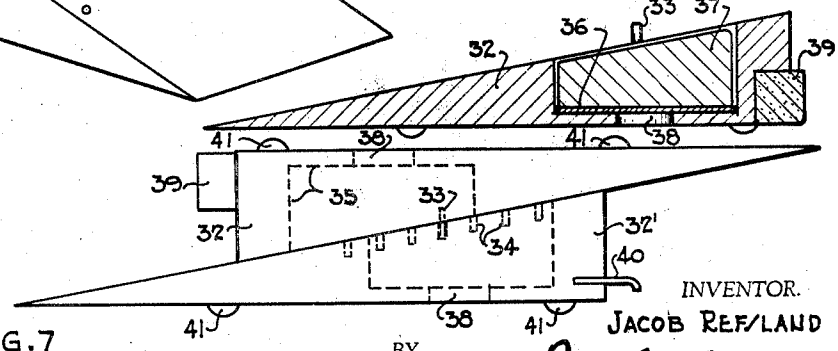


FIG. 7

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EQUIPMENT PERTAINING TO SKIS

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5 Claims. (Cl. 280—11.37)

This invention relates to new and useful improvements in devices for maintaining the proper condition as to the bends, etc., of skis, when these are not in use, and especially when these are stored away for the summer.

As each ski is made of one piece of flat wood, the curvature of the finished product is obtained in an artificial manner, and this wood thus has a tendency to go back to its natural form, especially after being used in wet snow, when the wood fibres are getting saturated; and, also, during the heat in the summer time.

It is very important to maintain the curves in the skis, as indicated in the drawing, inasmuch as the curvature of the flat portion acts as a spring assisting the skier in his movements, when using the skis, while the curved front portion is necessary in order to prevent stumbling.

A further object of the invention is to provide means, as hereinafter described, whereby a pair of skis may be properly secured together, when shipped on railroads, etc.; when these means, thus referred to, are not in use, the latter may conveniently be folded together so as to occupy a minimum of space.

A still further advantage of my invention is, that a certain part of the latter has been made with a compartment for the carrying of ski-wax, and with a handle for applying the latter.

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 this application, and in which similar characters of reference indicate corresponding parts in all views, and in which:

Figure 1 is a side elevational view, showing the different parts of my device, as applied to a pair of skis, when these are ready to be stored away.

Figure 2 is an enlarged detail side elevational view, showing the attachment of my device to the skis.

Figure 3 is a top plan view of a part of my said device, shown partly folded; while

Figure 4 is a side elevational view of the same, still further folded.

Figure 5 is a detail plan view of the part shown in Figure 3.

Figure 6 is a perspective view of a second major part of my combined device; while

Figure 7 is a side elevational view of a third major part of said combined device.

Figure 8 is a transverse sectional view of one of the two members, shown in Figure 7; while

Figure 9 is a perspective view of the other one of the two members shown in said Figure 7.

Referring more particularly to the drawing, it is desired to point out, that my device consists of three major parts, each of which parts serves a distinct purpose in connection with the two other parts, in order to keep a pair of skis in perfect shape and ready for use.

Thus, Figure 2 illustrates a collapsible and adjustable member **10**, which has for its purpose to rigidly separate the front portions of a pair of skis, when the latter are not in use, or are to be stored away.

Said member **10** consists of a longitudinal plate **11**, which latter again comprises two portions **12** and **12'**, pivotally connected by means of a bolt **13**, so that said portions **12** and **12'** may be folded upon each other. The portion **12'** is bent upon itself to form a top portion **14**, which latter terminates in a hooked portion **15**, as may be noted in the Figures 2 and 4; said hooked portion **15** is made to detachably engage another upper plate member **16** by means of a bent portion **17** formed upon the latter, as shown in Figure 2, thereby making it possible to disconnect the two upper plate members **14** and **16**, when it is desired to fold the structure **10** together.

The end portions of the members **16** and **12** terminate in bent portions **18** and **18'**, respectively, which latter portions have for their purpose to engage the end, or tip, of the front portions of the skis.

Levers **19** and **19'** are hingedly connected to the plate members **16** and **12**, opposite the aforesaid bends, **18** and **18'**, as may be seen in Figure 2. One of said levers **19'** is made with apertures **21** therein, in order to permit that the other lever **19** is secured thereto in adjusted position by means of a pin **20**, as may also be seen in Figure 2.

Both levers **19** and **19'** are made of thin metal, and each lever is bent upon itself below its hinged connection to the plate members **16** and **12**; the lever **19'**, however, to such an extent only that it can receive the counterpart **19** therein, as the bent part of said levers, when in an extended position constitute a close fitting, one portion of a lever frictionally engages the other.

Between the portions **12'** and its elongated upper part **14**, two plates **23** are connected by means of bolts **24**, said plates being adapted to engage the edges of another member **25**, as shown

in Figure 2, in order to secure the member 10 in proper position with respect to the skis.

The plates 23 may be provided with slots 26 therein, so that said plates can be adjusted upon the portion 12', as shown in Figure 5, in order to accommodate skis of different widths.

The member 25 consists, as shown in Figure 6, of two plates 27, 27, formed with slanting edge portions 28, 28, which latter portions, in turn, are made with reversely bent edges 29, 29, in order that said plates 27, 27 may securely slide upon each other, when adjusting said member 25 to the thickness of a pair of skis, as shown in Figure 2.

As shown in Figure 1, two members 25 are applied to the skis for properly securing the latter together.

The edges 30, 30 of the member 25, are, as shown in Figure 6, upwardly bent in order not to scratch the skis, when these are packed together.

The member 31, comprising two slanting, adjustable parts, 32 and 32', has for its purpose to separate the center portions of the skis, as shown in Figure 1, when these are packed together.

The part 32 is upon its inner surface formed with studs 33 adapted to engage apertures 34 formed in the inner side of the other member 32' in adjusting said members 32 and 32' to the appropriate width between the skis, when these are packed together.

The parts, or members 32 and 32' have compartments 35 therein, in which to deposit ski wax 37. At the bottom of said compartments is mounted a plate 36, as shown in Figure 8, by means of which the wax 37 is brought into useful position by pressing said plate 36 upward when a finger is applied to said plate by means of an opening 38 in the bottom of the members 32 and 32'.

Upon the end of the member 32 is arranged a cork member 39 by means of which to apply the wax to the skis. The member 32' is similarly provided with a scraper by means of which the ice may be removed from the skis. Both members 32 and 32' are provided with knobs 41, whereby to secure said members to the grooved portions in the center of the skis.

It is obvious that changes may be made in the form, construction and arrangement of the several parts, as shown, within the scope of the appended claims, without departing from the spirit of the invention, and I do not, therefore, wish to limit myself to the exact construction and arrangement shown and described herein.

What I claim, as new and desire to secure by Letters Patent of the United States, is:

1. A device of the class described, comprising adjustable means for securing a pair of skis together, adjustable means for spacing said skis apart at their center, and adjustable means for spacing said skis apart at their front, said latter means comprising a pair of plate members, another plate member bent upon itself and having one end thereof pivotally secured to one of the former two plate members, and the other end thereof formed with a hook adapted to engage a correspondingly hooked portion formed upon the inner end of the other one of the two plate members, adjustable lugs arranged within the bend of the plate member bent upon itself, and levers pivotally secured to said first two plate members and adapted to adjustably space the latter apart, substantially as and for the purpose set forth.

2. In a device, as claimed in claim 1, and wherein the two plate members are each formed with upwardly extending gripping portions adapted to engage and securely hold the skis at the very front of the latter.

3. A device of the class described, comprising adjustable means for spacing a pair of skis apart at their front, said means consisting of a pair of plate members, a second plate member bent upon itself and having one end thereof pivotally secured to one of said pair of plate members, and the other end thereof formed with a hook adapted to engage a correspondingly hooked portion formed upon the inner end of the other one of said pair of plate members, adjustable lugs arranged within the bend of the plate member bent upon itself, and levers pivotally secured to said pair of plate members and adapted to adjustably space the latter apart, substantially as and for the purpose set forth.

4. A device of the class described, comprising adjustable means for spacing a pair of skis apart, said means consisting of a pair of plate members, another plate member bent upon itself and having one end thereof pivotally secured to one of the former two plate members, and the other end thereof formed with a hook adapted to engage a correspondingly hooked portion formed upon the inner end of the other one of the two plate members, adjustable lugs arranged within the bend of the plate member bent upon itself, and levers pivotally secured to said first two plate members and adapted to adjustably space the latter apart, the several plates being adapted to be folded upon themselves, when the levers are in a locked position.

5. A device of the class described, comprising adjustable means for spacing a pair of skis apart at their front, said means consisting of a pair of plate members, bends formed upon the outer ends of said plate members and adapted to embrace the ends at the front of a pair of skis, a second plate member bent upon itself and having one end thereof pivotally secured to one of said pair of plate members, and the other end thereof formed with a hook adapted to engage a correspondingly hooked portion formed upon the end of the other one of said pair of plate members, adjustable lugs arranged within the bend of the plate member bent upon itself, and levers pivotally secured to said pair of plate members and adapted to adjustably space the latter apart, substantially as and for the purpose set forth.

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