Sept. 16, 1958 G. HOWARD 2,851,712

COMBINED WAX APPLICATOR, SPREADER, AND CAMBER BLOCK FOR SKIS

Filed Feb. 28, 1952

Fig. 1.

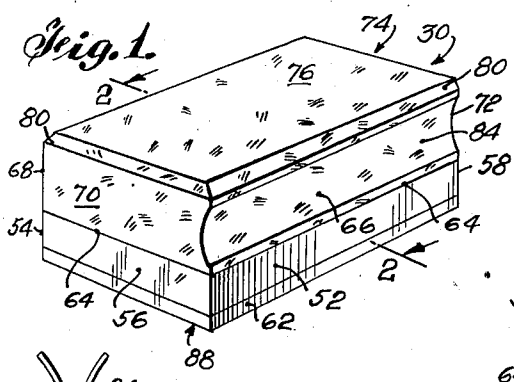


Fig. 2.

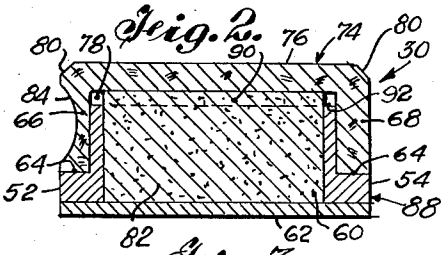


Fig. 3.

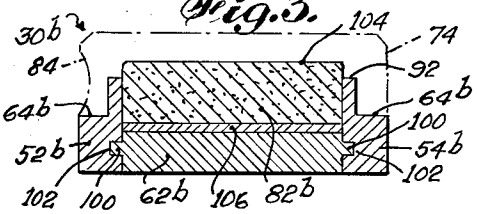


Fig. 4.

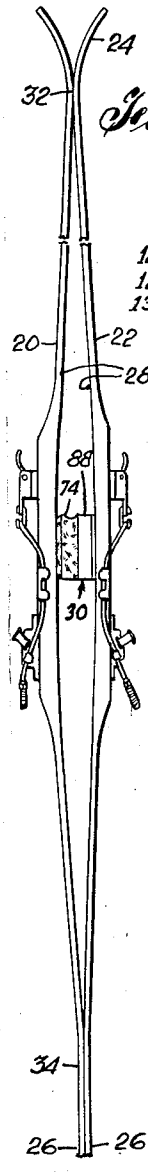


Fig. 5.

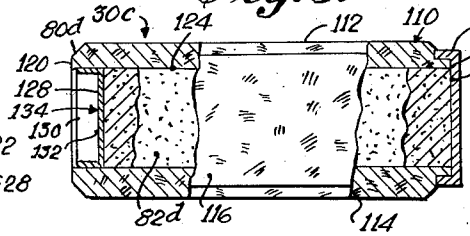


Fig. 6.

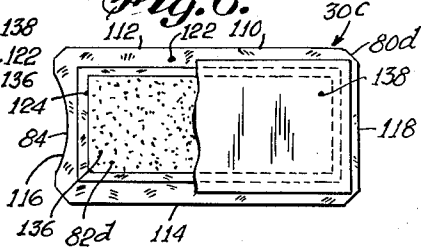


Fig. 7.

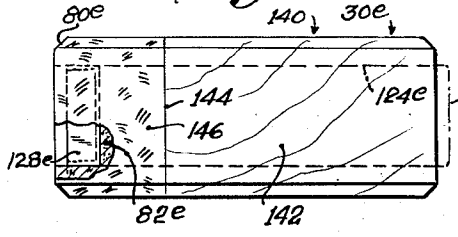


Fig. 8.

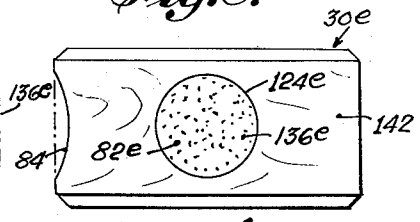


Fig. 9.

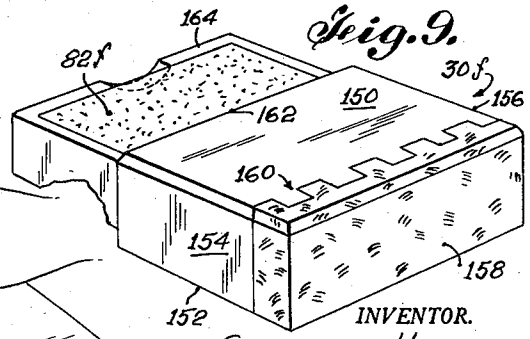
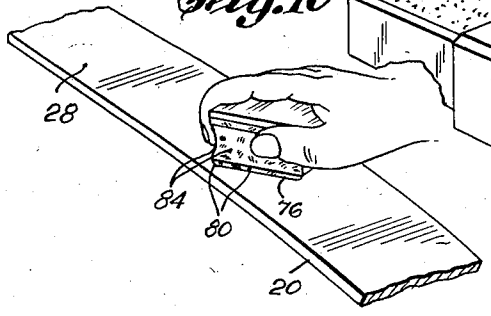


Fig. 10



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COMBINED WAX APPLICATOR, SPREADER, AND CAMBER BLOCK FOR SKIS

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1 Claim. (Cl. 15—105)

This invention relates to skiing articles, implements, accessories and the like.

An object of the invention is to provide a novel and improved device which combines in one unitary cooperative assembly, a skiing camber block, ski wax compartment and supply means, and wax application and spreading means.

Another object of the invention is to provide a novel and improved skiing implement and accessory of the character described, whereby, while the skier remains fully equipped with those implements which he or she needs, nevertheless, by means of the novel construction according to the invention, the utmost in compactness and portability thereof is attained.

A further object of the invention is to provide a novel and improved skiing implement and accessory of the character described, in which the ski wax is disposed inside a unitary housing incorporating a wax spreading and applicator means, the entire assembly and housing forming, when in assembled form, the camber block of the skis, so that, since the camber block must be carried along by the skier anyway, there is no added bulk, but rather a high degree of compactness.

Still another object of the invention is to provide a novel and improved skiing implement and accessory of the character described, in which there is a main housing corresponding substantially in cubic content and dimensions to the usual camber block which is commonly employed for spacing the central portions of the two skis to maintain their curvature or camber, and in which the main housing has elements which perform all the functions normally performed by the camber block, the skiing wax, the compartment for the wax, and the wax spreading and distributing means.

Still a further object of the invention is to provide a novel and improved skiing implement and accessory in which there is a main housing defining a chamber in which a supply of ski wax is disposed, and in which there is closure means for closing said main housing chamber, the closure means itself being formed of cork or cork-like material and shaped to permit and facilitate its use in spreading the ski wax over the surface of the ski and in working it into the ski, the entire assembly being interfitted cooperatively to form a camber block for maintaining the desired camber or curved separation of the skis when not actually in use, and adapted for being inserted between the central portions of opposed skis of a pair of skis, for this purpose.

Another object of the invention is to provide a novel and improved ski accessory and implement of the character described, which is simple in design, inexpensive to manufacture, very compact in dimensions, convenient to handle and to carry, and highly effective for its intended purposes.

These and other objects and advantages of the invention will become apparent from the following description of a preferred embodiment thereof, as illustrated in the

accompanying drawings, forming a part hereof, and in which,

Figure 1 is a perspective view showing a preferred form of the combined camber block, wax container and waxing applicator device, in assembled relation.

Figure 2 is a sectional elevational view taken substantially on plane 2—2 of Figure 1.

Figure 3 is a sectional elevational view taken on the same plane as Figure 2, but showing the closure member and wax spreader removed, and modified means for bringing the wax itself into application position, the view showing a shim inserted for this purpose.

Figure 4 is a side or edge elevational view showing a pair of skis in mutually opposed disposition, with a combination ski accessory of the type described, occupying the usual position of the camber block therebetween.

Figure 5 is a partly sectioned side elevational view showing another modified form of the device.

Figure 6 is a right end elevational view of the device shown in Figure 5, the view being partly broken out to illustrate the construction.

Figure 7 is a partly broken out side elevational view showing another modified form of the device, an extended position for the wax being indicated in broken lines.

Figure 8 is a right end elevational view of the device shown in Figure 7.

Figure 9 is a perspective view showing another modified form of the device, and including a drawer assembly, the drawer being partly extended for illustrative purposes.

Figure 10 is a perspective view showing a ski and one mode of application of the device to the ski itself.

Modern skis may be made of various materials, such as wood, laminated wood or plywood, plastics, and other materials, or combinations of materials, each having certain advantages from the viewpoint of the skier, the manufacturer, or both. In any event, however, since the skis are actually two runners having relatively broad surfaces of considerable length, which, while bearing the weight of the skier, are brought into contact with the surface of the snow or ice forming the skiing slope, it is important that the undersurface of the ski maintain optimum efficiency of sliding engagement with the surface upon which the skiing takes place. For this purpose, various forms and compositions of waxes, wax-like materials, or compositions of other materials having the desired coating qualities have been employed by the skier for coating the undersurfaces of his or her skis.

The average skier thus usually takes with him or her a supply of ski wax or composition intended for the same purpose, and it has been found advantageous to spread the wax or composition over the undersurface of the ski with the aid of a waxing spreader, usually in the form of a block of cork, the cork being used to spread the wax over the ski, and then to work it well into the surface for the best results. The skier hence must carry with him or her, not only the wax, but also the spreading cork or block.

A further accessory which the skier carries with him or her is the camber block, the purpose of which is to maintain the curvature which is molded into each ski to give it uniform flexibility and flexure while in use. When not in use, the two skis of a pair are placed with their undersurfaces facing each other, being thus oppositely bowed as a result of the camber or curvature of the skis, and to maintain this midsection separation, a camber block is normally placed between the skis at the midsection portion.

The present invention provides for the utmost convenience of the skier in the transportation of these items, and embodies them all in a unitary assembly, each por-

tion or element of the assembly cooperating effectively as intended. The skier thus carries as a compact unit, no larger overall than the usual camber block, a new device which affords him the use of a camber block, waxing composition, wax applicator and spreader, and a container therefor.

In order to understand clearly the nature of the invention and the best means for carrying it out, reference may now be had to the drawings, in which like numerals denote similar parts throughout the several views.

As seen in Figure 4, there is a pair of skis 20 and 22, each of which is an elongated runner normally as long as the total height of the skier with his or her hands extended vertically above his or her head. The skis have forward or toe portions 24 normally somewhat upturned smoothly as shown, and also rearward or heel portions at 26. When placed in juxtaposed positions, as seen in Figure 4, with their sliding surfaces 28 facing each other, their mutual bowing or camber becomes quite evident, and a camber block 30 or combination device as described herein, may be disposed between the skis as shown, to maintain their camber when not in use. Clamps, not shown in the illustration, are commonly fastened around the portions 32 and 34 of the pair of skis, to bind them together when not in use, so that a certain degree of compression is exerted on the camber block or device 30, spreading the skis to the desired camber, and maintaining the block 30 in its position as shown.

Referring now to Figures 1 and 2, it is seen that I provide a combination device generally indicated at 30, and having two opposite lower side walls 52 and 54, secured at their edges to two opposite lower end walls 56 and 58, to define an inner chamber 60. The chamber 60 is closed by the bottom wall or floor member 62, which is secured to the lower edges of the side and end walls by any suitable means, such as nails, screws, adhesive, or otherwise. As seen best in Figures 1 and 2, the outer surfaces of the side and end walls 52, 54, 56 and 58, are recessed as shown at 64, for engagement with the depending four side and end walls 66, 68, 70 and 72 of the top or closure member 74, which has a top wall 76 secured to or integral with the walls 66, 68, 70 and 72, to define the downwardly open upper housing chamber 78. I prefer to make the lower housing walls 52, 54, 56, 58 and 62 of wood, and the upper housing 74 of cork, but do not desire to be restricted to such materials, as other materials, including plastics, may be employed if desired.

The upper housing portion 74 may be formed with one or more beveled edges or surfaces 80, formed at the intersections of its top wall 76 with its side and end walls, to assist in applying and spreading the waxing composition 82 over the surface 28 of the skis. As an aid in grasping the device with the fingers of the hand, as in Figure 10, during the application of the waxing composition 82 to the skis, I prefer to form in one or more sides of the cork upper housing 74, a curved groove or recess 84, to receive the finger tips and/or thumb of the hand, making for greater ease and security in grasping the device, and in moving it over the surface of the ski.

The ski wax composition 82 is disposed inside the compartment 60, with a portion thereof projecting upwardly as at 90 beyond the upper edges 92 of the lower housing walls, and hence available for application to the ski surface 28 upon removal of the cork upper housing, by rubbing the wax thereover. When the wax has been applied to the ski surface 28, the user when spreads the wax smoothly over the ski surface and works it into the surface with the aid of the upper cork housing 74, the edges 80 of which are brought into contact with the ski in the manner of Figure 10, and moved therealong for such purpose.

Waxing will wear down the upper surface of the block of wax 82, and when this occurs, the wax may be removed from the compartment 60 and a suitable shim inserted between the upper surface of the floor 62 and the wax, so as to elevate it again to the position shown in Figure 2. Figure 3 shows a modified form of the device of Figures 1 and 2, which is the same as Figure 2, except that instead of fastening the bottom member 62 over the lower edges of the side and end walls such as 52, 54, etc. of the lower housing, I provide the bottom member 62*b* with ribs 100 extending out of two of its side edges, for engagement in sliding fashion in matching slide grooves 102 formed on the inner surfaces of the side walls 52*b* and 54*b* of the lower housing. The bottom wall 62*b* is thus narrower than the wall 62 of Figure 2 because it fits between the walls 52*b* and 54*b*, and, when the upper surface 104 of the wax block 82*b* is worn down to the edges 92 of the lower compartment, it is a simple matter to merely slide the bottom wall 62*b* out in a direction perpendicular to the plane of the drawing in Figure 3, exposing the bottom of the wax block 82*b*, and insert a shim 106 in the form of a thickness of cardboard or other sheet material, thereunder, pressing the wax upwardly to its original position as shown in Figure 3, and slide the bottom wall 62*b* back in again.

Figures 5 and 6 show another modified form of the combination device. Here the combination camber block, wax container, and waxing applicator and spreader 30*c* is formed of a major body 110, which may be molded or formed of cork, cork-like material, granulated and bonded cork, or other suitable material, and has top and bottom edges 112 and 114 interconnecting right and left side edges 116 and 118, and end edges 120 and 122. A substantially rectangular in cross section opening or passageway 124 is formed right through the block 30*c* from end edges 120 to 122, and a block of waxing composition or wax 82*d* is disposed snugly inside the opening 124. At the left end 120, as seen best in Figure 5, I place a pusher cup 128 inside the opening 124, the cup 128 being substantially in the form of a hollow box open at one end 130, to allow insertion of the finger to press against its web 132 in the direction of the arrow 134, to push the wax toward the right as seen in Figure 5, bringing its right end surface 136 out beyond the level of the end edge 122 so that it can be applied to the ski surfaces 28. I also provide an end cap 138 in the form of a rectangular leftwardly open box as seen in Figure 5, which fits over the reduced right end of the housing 30*c*, so as to snap snugly thereover when the wax is not being applied. It is also seen that the cap 138 permits pushing back the protruding end of the wax block inside the opening 124 when the waxing operation is finished, conserving the wax and making for neatness also. The block 110 may have beveled edges as at 80*d*, and may have finger receiving grooves 84 formed in one or more of its side surfaces for the purposes mentioned above.

Figures 7 and 8 show another modified form of the device, which has some similarity to Figures 5 and 6, but also important differences. Here the device 30*e* is formed of a major body 140, having the same general dimensions overall as the devices shown in Figures 1 to 6, all approximately of which correspond to the dimensions of camber blocks used with skis, and as seen the major body 140 is formed with its rightward portion 142 of wood, whereas on the other side of the dividing plane 144, the balance of the block 140, as seen at 146, is formed of cork, granulated compressed cork, or cork-like material. Aside from the formation of the block 140 of cork and wood, bonded along plane 144 by any suitable means, as by adhesives, pins, nails, or otherwise, the dimensions of the block 140 are substantially the same as those of the device 110 shown in Figures 5 and 6. Instead of forming the opening in rectangular cross section as at 124 in Figure 6, according to another modification of the invention, the opening 124*e* in Figures 7 and 8 may be cylindrical, to receive a cylindrical block 82*e* of waxing composition or wax. A pressure cup 128*e* is inserted inside the left end of the cylindrical opening 124*e* as

seen in Figure 7, the cup being cylindrical also to fit snugly therein to receive finger pressure to force the right end of the wax to protrude from the right end of the opening as in Figure 7 in broken lines at **136***e* when desired to rub it over the ski, and it may be pushed back inside the opening when finished, with the hands, to protect it from dirt and loss. The device shown in Figures 7 and 8 may also have finger grooves **84** if desired, and as mentioned above, its cork end **146** is preferably employed in spreading and working in the wax on the ski surface, and may be beveled as shown for such purpose, as at **80***e*.

Figure 9 shows another modified form of the device. Here there is a major housing **30***f* of the same overall dimensions as shown in Figures 1 to 8, and formed with top and bottom walls **150** and **152** spaced by and secured to side walls **154** and **156**, with an end wall **158** formed of cork, granulated compressed cork or corklike material, as mentioned hereinabove, and secured to the ends of the top and bottom walls in any suitable manner, as by nailing, adhesively, or by dovetailing as shown at **160** and with adhesive means. This defines a chamber inside the housing, which opens along the edge **162**, and I dispose a sliding drawer **164** inside the chamber, the drawer being upwardly open as shown, and having a compartment thus formed to receive a block of wax or waxing composition **82***f* for waxing the skis. For use, the block of wax **82***f* may be removed from the drawer and applied to the ski surface **28** and then replaced in the drawer which is then closed. The skier may then employ the cork end portion **158** in the manner of Figure 10, to spread the wax over the ski and work it in.

It is also understood that, while in Figure 4 I have shown the combination device **30** in the position of the usual camber block, with its narrowest dimension or thickness spacing the skis, it may also be turned clockwise through ninety degrees to increase the spacing between the skis, and hence the camber desired, or turned to bring the full length of the device **30** into the spacing position, giving maximum camber, depending upon the length of the skis, their stiffness, and the desires of the skier.

Although I have described my invention in specific terms, it will be understood that various changes may be made in size, shape, materials and arrangement without departing from the spirit and scope of the invention as claimed.

Referring to Figures 7 and 8, it is to be understood that the pressure cup **128***e* may be inserted on the right end

of the opening **124***e* as seen in Figure 7, pushing the left end of the waxing composition **82***e* partly leftwardly out of the cork-ended portion **146** of the block and the opening at that left end. This arrangement has the advantage that when the skier has pushed the wax out of the left end of the opening, and rubbed it over the ski surface, she has only to press down on the block **140** to bring its cork end **146** into contact with the ski surface, which forces the wax back inside the opening **124***e*.

I claim:

In combination, a first major body formed with a bottom wall and upstanding side walls defining an upwardly open chamber, non-liquid waxing composition disposed in said chamber, with portions of said waxing composition projecting normally above said chamber, a second major body made of cork material and formed with a top wall and depending side walls defining a downwardly open recess in removable engagement with said first major body to close its said open chamber, said second major body having a finger receiving groove formed in an outer side surface thereof and being constructed and arranged, upon removal from said closing engagement and application of said waxing composition to a ski surface, for being grasped in the hand of the user, with fingers engaging said finger receiving groove and with surfaces of said second major body applied firmly against the surface of said ski for reciprocating motion to spread and rub in said waxing composition.

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