ADJUSTABLE BELT FOR CARRYING SPORTING EQUIPMENT

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ABSTRACT
The present invention is directed to an adjustable belt system for carrying sporting equipment, such as skis, poles, a snowboard, and accessories. The adjustable belt system includes a first elongated strap, a second elongated strap, a first adjustable loop holding member attached to a first end of the first and second elongated straps, and a second adjustable loop holding member attached to a second end of the first and second elongated straps. The first and second elongated straps extend in parallel between the first and second holding members. A method of carrying sporting equipment is also disclosed.
ADJUSTABLE BELT FOR CARRYING SPORTING EQUIPMENT

CROSS REFERENCES TO RELATED APPLICATIONS

[0001] This is a continuation-in-part of U.S. patent application Ser. No. 11/098,537 filed on Apr. 5, 2005 in the U.S. Patent and Trademark Office, the disclosure of which is incorporated by reference and to which priority is claimed under 35 U.S.C. 120.

FIELD OF THE INVENTION

[0002] The present invention is directed to an adjustable belt system for carrying sporting equipment, such as skis, poles, a snowboard, and accessories, and a method of using the same.

BACKGROUND OF THE INVENTION

[0003] The equipment needed for many recreational sports activities can be large, heavy and awkwardly shaped. Such equipment can be cumbersome for an individual to carry. For example, a skier must carry skis, poles and accessories (such as goggles, gloves, a helmet, etc.) over slippery and irregular terrain before or after using the equipment. Transporting skiing equipment to and from a vehicle, across a parking lot, and up and down stairs can often be difficult or even treacherous. Equipment used for other sports activities, such as snowboarding, hockey, camping, etc., likewise require bulky equipment that is difficult for an individual to transport.

[0004] Various equipment carriers have been developed. Some designs include a carrier sling or waist belt having straps forming loops attached to the belt. The ends of the loops may include a D-ring for opening and closing the loop. In one such design, one loop is affixed to the belt, and a second loop is attached to the belt via a lockable sliding device. Therefore, the position of the second loop relative to the belt may be adjusted. However, such designs fail to provide for adjustment of the loop itself. When the straps are clipped together, the diameter of the resulting loop is not adjustable. The resulting loop may therefore have too much slack to properly secure some equipment, or the loop may not be big enough to fit around the equipment. Even if the straps forming the loop are clipped around a component of the equipment, the loop may not be tightened against the equipment being carried. As a result, the equipment tends to swing or twist in the loop, which may be awkward and uncomfortable for the user. In addition, if the equipment does not include a component around which the loops may be attached, it may be difficult to properly secure the equipment. The equipment may become unsecured, resulting in damage to the equipment or injury to the user. For example, if such a carrier were used to carry skis, the user could slip the loops around opposite ends of the skis. However, the skis could easily slide out of the loops when carried in an upright position. If the loops were laced through the ski bindings, the ends of the skis would swing about freely. Thus, such designs have not provided an acceptable or useful carrier for some sports equipment.

[0005] Other designs include straps which form loops, with sliding bar buckles for adjusting the loops. A belt is provided having male buckle members on opposite ends thereof. The free ends of the loops include female buckle members which releasably attach to the male buckle members. While such designs provide some loop adjustability via the bar buckles, they have not proven effective for heavier equipment, such as skis. The bar buckles tend to loosen as the weight of equipment shifts when being carried by the user. In addition, the male-female buckle members securing the loops to the belt are prone to twisting or tangling as the equipment is being secured or adjusted because the loops clip onto the belt in fixed orientation. Such twisting or tangling may render the load uncomfortable to carry, or require adjustment by the user. Alternatively, the user may attempt to carefully align the free ends of the loops with each other and with the equipment. However, this is time consuming and often difficult with awkwardly shaped equipment. Thus, such carriers do not offer an acceptable design for carrying bulky equipment.

[0006] Other designs provide for a belt with D-rings secured to opposite ends thereof. The ends are folded back so that portions of each end may be fed through the D-rings to form loops. The loops may be slipped around the equipment being carried. As the central portion of the belt is lifted, the portions proximate the ends slide through the D-rings, thereby tightening the loops. Other designs include mating clips slidably attached to fixed loops on opposite ends of a belt. The loop is folded into itself, and the clips are secured together to form a double loop, with an inner loop that thickens as the belt is lifted. The slack from the inner loop slides through the clips, thereby thickening the inner loop into the clips. Thus, such designs tighten with the operation of gravity. Unfortunately, such designs also loosen by the same principle. For example, the looped ends of such designs may be slipped around opposite ends of a pair of skis. As the user lifts the belt and skis, the loops tighten around the skis. However, if the belt is slung over the shoulder of the user so that the skis are in a vertical position relative to the ground, the skis may easily slide out of the loops, or slide toward the ground. If the skis bump the ground or some other object, the loops may inadvertently loosen, causing the skis to become unsecured. Or, the user may need to readjust the loops. Readjustment may also be required if the user sets the secured equipment down. Even if the equipment is securely maintained within the loops, the belt is often prone to twisting, particularly as the belt is being lifted and carried, or removed from the user.

[0007] Some designs provide for first and second straps having ends with relatively light weight mating buckles which form loops. A third strap may be provided with opposite ends having clasps which clip onto O-rings or the like in a fixed orientation. While such designs are useful for carrying relatively light-weight equipment, such as body boards, wake boards, or folding chairs, they are not adequate for securing relatively heavy equipment such as skis. The light-weight buckles often fail to properly secure heavy equipment such as skis. Such equipment tends to slide within the loops of such designs, which ultimately may require readjustment by the user. In addition, such designs typically provide loop portions having a relatively narrow width, which tend to tangle around awkwardly shaped equipment. Relatively long equipment, such as skis or hockey sticks, may slide against such relatively narrow loops. Furthermore, the carrier strap (i.e., third strap) connecting the two loops may tangle and twist given such designs provide for a fixed orientation attachment of the
loops to the carrier strap, particularly when the user is putting on or removing the strap, or when the equipment is being secured or adjusted. Accordingly, such designs are inappropriate for use with some sports equipment.

[0008] Other designs include a carrying strap with opposite ends that split to form first and second arms. For example, some designs provide a strap having an I-shaped configuration. The ends of the arms on each side include Velcro™ loop and hook fastener patches which cooperate to form a loop. Such fasteners are often inadequate for securing relatively heavy and/or bulky equipment. Furthermore, the carrying strap often tangles and twists during use.

[0009] Therefore, prior designs for equipment carriers suffer various drawbacks. Furthermore, many designs only accommodate specific sporting components. For example, various snowboard or wakeboard carriers are not suitable for use with other sporting equipment.

[0010] Accordingly, there is a need for an equipment carrier that solves some or all of the above-noted problems.

SUMMARY OF THE INVENTION

[0011] The present invention is directed to an adjustable belt for carrying sporting equipment, such as skis, poles and accessories. The adjustable belt includes an elongated flexible strap. First and second holding members are releasably attached to opposite ends of the strap. Each holding member includes a flexible pad having first and second ends. At least one ratcheting buckle is attached outwardly from the first end of the strap and is operable in cooperation with the ratcheting buckle to form a loop having an adjustable diameter by operation of the ratcheting buckle.

[0012] An adjustable belt for carrying sporting equipment according to an embodiment of the present invention includes an elongated flexible strap, a plurality of spaced hook attachments attached to the strap, and first and second flexible holding members releasably attached to opposite ends of the strap via swivel clasps. The swivel clasps allow each holding member to rotate 360° relative to the strap. Each holding member includes a flexible elongated pad having first and second ends. A pair of ridged belts extends outwardly from the first end. A pair of ratcheting buckles are proximate the second end. Each ridged belt is received and releasably secured within a corresponding ratcheting buckle so that the pad forms a loop having an adjustable diameter by operation of the ratcheting buckles.

[0013] The present invention also relates to a method of carrying ski equipment. First and second holding members are provided. Each holding member is releasably attached to opposite ends of a flexible strap via swivel clasps that allow each holding member to rotate 360° relative to the strap. Each holding member has a flexible elongated pad with first and second ends. A pair of ridged belts extends outwardly from the first end and a pair of ratcheting buckles are proximate the second end. The first holding member is wrapped around a front end of a pair of skis and poles until the first holding member pad encircles the back end. The first holding member ridged belts are then fed into the corresponding ratcheting buckles. The second holding member pad is tightened around the skis by operating the ratcheting buckles. The second holding member pad is tightened around the skis by operating the ratcheting buckles.

[0014] The present invention also relates to an adjustable belt for carrying sporting equipment. The adjustable belt includes at least one strap, first and second holding members disposed at opposite ends of the strap to releasably attach to opposite ends of the sporting equipment, each holding member including a pad having first and second ends, a belt extending from the first end of the pad, and a ratcheting buckle disposed on the pad between the first and second ends thereof. The belt is looped over the second end of the pad and releasably secured in the ratcheting buckle such that the pad forms a loop having a size that is adjustable based on operation of the ratcheting buckle.

[0015] The present invention also relates to an adjustable belt system, including a first elongated strap, a second elongated strap, a first adjustable loop holding member attached to a first end of the first and second elongated straps, and a second adjustable loop holding member attached to a second end of the first and second elongated straps, wherein the first and second elongated straps extend in parallel between the first and second holding members.

[0016] The present invention also relates to an adjustable loop holding member usable with a sporting equipment carrying device having an elongated flexible strap. The adjustable loop holding member includes an elongated body having first and second ends, a belt extending from the first end of the body, a guide loop disposed at the second end of the body, a ratcheting buckle disposed on the body having an input end facing the guide loop and an output end facing away from the guide loop, the input end to receive the belt from the guide loop such that the belt is secured therein by a clamping portion of the ratcheting buckle to configure the body as a loop, and a ring disposed on the body to removably connect to the elongated flexible strap.

[0017] The present invention also relates to a method of using an adjustable belt system for carrying sporting equipment. The method includes providing the adjustable belt system having at least one strap with first and second holding members disposed at opposite ends of the strap to releasably attach to opposite sides of the sporting equipment, each holding member including a pad having first and second ends, a belt extending from the first end of the pad, and a ratcheting buckle disposed on the pad between the first and second ends thereof, the belt being looped over the second end of the pad and releasably secured in the ratcheting buckle such that the pad forms a loop having a size that is adjustable based on operation of the ratcheting buckle. The method further includes coupling the first and second holding members to the opposite sides of the sporting equipment, respectively, by connecting the respective belts to the corresponding ratcheting buckles and tightening the ratcheting buckles until the sporting equipment is secured, and carrying the sporting equipment by the at least one strap.

BRIEF DESCRIPTION OF THE DRAWINGS

[0018] FIG. 1 is a top plan view of an adjustable belt system according to an embodiment of the present invention;
FIG. 2 is a bottom plan view of the system shown in FIG. 1; FIG. 3 is a top plan view of a holding member; FIG. 4 is a top plan view of the system shown in FIG. 1 with a holding member in a closed position; FIG. 5 is a top plan view of the system shown in FIG. 4 with the holding member viewed from a second orientation; FIG. 6 is a perspective view of the system shown in FIG. 1 with a pair of skis secured in the holding members; FIG. 7 is an elevational view of the system shown in FIG. 1 in a compact orientation, viewed next to a deck of standard playing cards for size comparison; FIG. 8 is a top plan view of an adjustable belt system according to another embodiment of the present invention; FIG. 9A is a top plan view of a holding member of the adjustable belt system of FIG. 8; FIG. 9B is a bottom plan view of a holding member of the adjustable belt system of FIG. 8; FIG. 10 is a perspective view of a holding member of the adjustable belt system of FIG. 8; FIG. 11 is a fragmentary top plan view of an adjustable belt system according to yet another embodiment of the present invention; FIG. 12 is a sectional view of a holding member of the adjustable belt system of FIG. 11 shown along line A-A in FIG. 11; FIG. 13 is a perspective view of a holding member of the adjustable belt system of FIG. 11; FIG. 14 is a side view of an adjustable belt system with a snowboard secured therein according to an embodiment of the present invention; and FIG. 15 is a plan view of an adjustable belt system with a snowboard secured therein according to another embodiment of the present invention.

DETAILED DESCRIPTION OF THE INVENTION

An adjustable belt system 10 for carrying sporting equipment according to the present invention is best shown in FIGS. 1, 2, 4 and 5. System 10 includes an elongated flexible strap 12 having first and second opposite ends 14, 16, and first and second holding members 18, 20 releasably attached to ends 14, 16, respectively.

As best shown in FIGS. 1-3, each holding member 18, 20 includes a flexible elongated pad 22 having first and second major surfaces 23, 25 and first and second ends 24, 26. Pad 22 may include a stiffened cotton skeleton encased in a water-excluding, sealed nylon sleeve, such as Cordura® ballistic nylon from E.I. DuPont of Wilmington, Del. Alternatively, pad 22 may be formed from a flexible polymer material. A high-density closed cell-foam may be attached to the inner surface of pad 22, so that second major surface 25 is cushioned.

Pad 22 preferably has a substantially rectangular configuration with rounded end corners C when flat. First and second ridged flexible belts 28, 30, preferably made from a suitable polymer, are attached to first major surface 23 of pad 22 proximate first end 24, and extend outwardly in spaced parallel relation from first end 24. Belts 28, 30 may be attached to pad 22 using rivets R or some other suitable fastener. Alternatively, belts 28, 30 may be adhesively bonded to pad 22. Belts 28, 30 extend a uniform distance from first end 24.

First and second ratcheting buckles 32, 34 are attached to first major surface 23 of pad 22 proximate second end 26. Ratcheting buckles 32, 34 may be attached to pad 22 using rivets R or some other suitable fastener. Alternatively, they may be adhesively bonded thereto. As best shown in FIGS. 4 and 5, ridged belts 28, 30 may be received and releasably secured within ratcheting buckles 32, 34, respectively, so that pad 22 forms a loop for encircling a piece of sports equipment. In that orientation, second major surface 25 contacts with a portion of the equipment. Such ratcheting buckles are operatively associated with a ridged strap are commercially available from M2 of Winookski, Vt. The resulting loop formed by pad 22 has a diameter that is adjustable by operation of ratcheting buckles 32, 34 and cooperating belts 28, 30.

Preferably, second major surface 25 has a surface that will not scratch the equipment being secured. Furthermore, the equipment is protected from ratcheting buckles 32, 34 and ridged belts 28, 30 because these components are disposed outwardly on first major surface 23 and do not contact and/or rub against the equipment when holding members 18, 20 are secured around the equipment. Second major surface 25 may include rubber pads or have a textured surface that grips the equipment, so that rotation or movement of the equipment when encircled by pad 22 is minimized, even if the user does not fully tighten ridged belts 28, 30 within ratcheting buckles 32, 34.

Pad 22 should have a sufficient width and length for encircling a piece of sporting equipment with which system 10 is to be used. Preferably, the width of pad 22 is greater than the width of strap 12. Pads 22, having a relatively large width compared to the width of the strap 12, provide additional support for securing the equipment. In addition, such pads 22 are less likely to slide against the equipment, which may otherwise potentially scratch the equipment or cause the equipment to become loosened therein. Pads 22 should also have a sufficient length so that pads 22 may be easily wrapped around the equipment being secured. For example, pads 22 may be sufficiently sized to encircle a pair of skis and poles S, as best shown in FIG. 6. Pad 22 of first holding member 18 is wrapped around the skis and poles S proximate a front end thereof, and pad 22 of second holding member 20 is wrapped around the skis and poles S proximate a rear end thereof. Ridged belts 28, 30 are aligned with and received in ratcheting buckles 32, 34. Belts 28, 30 are pulled into and through ratcheting buckles 32, 34 by operation of ratcheting buckles 32, 34. This decreases the diameter of the loop formed by pad 22, thereby tightening the encircled pad 22 against the equipment. Ratcheting buckles 32, 34 include a release which disengages the mechanism from the ridges on ridged belts 28, 30. Upon actuation of the release, belts 28, 30 may be slid from ratcheting buckles 32, 34. This increases the diameter of the loop formed by pad 22,
thereby loosening pad 22 from the skis and poles S. Belts 28, 30 may be completely disengaged from ratcheting buckles 32, 34 to remove holding member 18 and/or 20 from the equipment.

[0040] Holding members 18, 20 are releasably attached to ends 14, 16 via swivel clasps 36, as best shown in FIG. 3. A ring 38 is attached to pad 22, preferably intermediate belts 28, 30 and ratcheting buckles 32, 34. Swivel clasps 36 are attached to ends 14, 16 and releasably attach to rings 38. Swivel clasps 36 include two portions attached at a freely rotating attachment point which allow holding members 18, 20 to rotate 360° relative to strap 12 when attached to rings 38.

[0041] Pads 22 may be secured around skis and poles S, and thereafter holding members 18, 20 clipped to strap 12. In this way, each holding member 18 may be secured to the equipment without strap 12 and the other holding member 20 getting in the way of the user. However, even if holding members 18, 20 are attached to strap 12 when securing pads 22 around skis S, holding members 18, 20 may rotate relative to strap 12 due to swivel clasps 36. Thus, strap 12 and holding members 18, 20 do not become tangled even if one or both of holding members 18, 20 are rotated while securing pads 22 around skis S. Thus, the orientation of strap 12 may be maintained even if securing pads 22 are rotated while the user is carrying the secured equipment, or if the user rotates one or both of securing pads 22 to adjust their orientation or the orientation of the equipment. Otherwise, such rotation would cause twisting and tangling of the components.

[0042] Strap 12 preferably includes a buckle 40 for adjusting the length of strap 12. For example, buckle 40 may be a plastic or metal slider buckle. Alternatively, strap 12 could include first and second portions which are joined together by male and female members of a conventional slide release buckle, wherein the length of one or both of the portions of the strap 12 may be adjusted by the corresponding member of the slide release buckle. It should be understood that strap 12 may include any suitable buckle 40 for adjusting its length. Strap 12 may also include a shoulder cushion 42, which is preferably slidably secured to strap 12 so that a user can adjust the position of cushion 42 along strap 12. One or more snap hooks 44 may be attached to strap 12. Snap hooks 44 may be secured to strap 12 in a fixed position, or slidably secured to strap 12. Additional equipment may be clipped onto snap hooks 44. For example, skis and poles S may be secured within holding members 18, 20. The user may then attach a helmet, gloves, goggles, or other accessories to strap 12 by clipping such accessories to snap hooks 44. Thus, all of a user’s equipment may be conveniently carried by system 10.

[0043] Depending on the particularly equipment to be carried by system 10, additional holding members may be clipped onto strap 12. For example, two or more holding members may be clipped to the same swivel clasp 36 on a corresponding end 14 and/or 16. Alternatively, two or more swivel clasps 36 may be provided on each end 14, 16, with each swivel clasp 36 being releasably attached to a corresponding holding member. For example, three holding members may be clipped onto each of ends 14, 16, allowing the user to carry three pairs of skis and poles, along with other accessories via snap hooks 44.

[0044] Strap 12 and holding members 18, 20 are preferably formed from light-weight materials, so that adjustable belt system 10 is relatively light weight. System 10 is relatively compact, and may be easily fit in most jacket pockets when not in use. Strap 12 may be folded, with first holding member 18 encircling strap 12 and second holding member 20 encircling first holding member 18, thereby reducing system 10 to a size only slightly larger than a deck of standard playing cards D, as best shown in FIG. 7. Thus, system 10 may be easily collapsed and carried by the user. For example, a skier may easily carry system 10 in his or her pocket while skiing. System 10 is then readily accessible. For example, if the skier needed to walk down the mountain, the skies, poles and other accessories could be easily carried by system 10, allowing the skier to walk down the mountain ‘hands free’. Further, a skier could walk to the chair lift, lodge, etc. with his or her hands free of carrying equipment, and disengage the skis, poles and other equipment when required. As such, system 10 would reduce the amount of equipment cluttered around drop-off points at ski lodges. Thus, system 10 allows the user to easily transport sporting equipment hands free. The present invention may be particularly helpful for individuals with arthritis or other ailments of the wrists and hands, which limit their ability to carrying equipment by hand.

[0045] It will be apparent to one of ordinary skill in the art that various modifications and variations can be made in construction or configuration of the previous embodiments without departing from the scope or spirit of the invention. For example, an embodiment of holding members 18, 20 has been described wherein each holding member includes a separate pad 22 having first and second ridged belts 28, 30 and first and second ratcheting buckles 32, 34. However, pad 22 may also include only one ridged belt operatively associated with one ratcheting buckle. Alternatively, a ridged belt may be provided having a ratcheting buckle attached to one end thereof, wherein the free end of the ridged belt would be looped around and through the ratcheting buckle. In this way, pad 22 would be eliminated.

[0046] FIG. 8 is a top plan view of an adjustable belt system 100 according to another embodiment of the present invention. As can be seen in FIG. 8, the system 100 includes a pair of holding members 118 and 120 attached to opposite ends of a flexible strap 112. The flexible strap 112 may have a buckle 140 to adjust the length of the strap 112. For example, the buckle 140 may be a plastic or metal slider buckle. Strap 112 may also include a shoulder cushion 142, which may be slidably secured to strap 112 so that a user can adjust the position of cushion 142 along strap 112. The flexible strap 112 may further include at least one snap hook 144. The snap hooks 144 may be secured to the strap 112 in a fixed position, or slidably secured to strap 112. Additional equipment may be clipped onto snap hooks 144. The strap 112 may be made of a cloth material.

[0047] The system 100 further includes swivel clasps 136 by which the strap 112 is removably attached to the holding members 118 and 120. Accordingly, the holding members 118 and 120 can rotate 360 degrees with respect to the strap 12 to avoid tangling or twisting.

[0048] The holding members 118 and 120 include a pad having a top major surface 123 and a bottom major surface 125 (not illustrated in FIG. 8). A belt 151 extends from a first
end of the pad 123. The holding members 118 and 120 also include a guide loop 153 disposed at a second end of the pad (123, 125) and a ratcheting buckle 132 disposed between the swivel clasp 136 and the belt 151. The ratcheting buckle 132 includes an input end 132A that receives an end of the belt 151 and an output end 132B through which the belt 151 passes when it is secured by the ratcheting buckle 132.

[0049] The pad (123, 125) of the holding member 118 and/or 120 may be made of a cloth material. For example, the pad 123 may be a water-excluding, sealed nylon sleeve, such as Cordura® ballistic nylon from E.I. DuPont of Wilmington, Del. A stiffened cotton member is disposed in the sealed nylon sleeve to provide a stiffening characteristic.

[0050] The pad (123, 125) includes a first Velcro® fastening portion 155 (e.g., Velcro® loop fasteners or Velcro® hook fasteners) disposed on the top major surface 123 adjacent to the guide loop 153.

[0051] FIG. 9A is a top plan view of the holding member 118 and/or 120 of the adjustable belt system 100 of FIG. 8. FIG. 9B is a bottom plan view of the holding member 118 and/or 120 of the adjustable belt system 100 of FIG. 8.

[0052] As shown in FIG. 9A, the holding member 118 and/or 120 includes the pad (123, 125), the belt 151 extending from the pad (123, 125), the ratcheting buckle 132, the first Velcro® fastening portion 155, and the guide loop 153. The guide loop 153 may be a cloth loop attached to an end of the pad (123, 125) through which the belt 151 passes when the pad (123, 125) is configured as a loop by moving the belt 151 around to the input end 132A of the ratcheting buckle 132.

[0053] The holding member 118 and/or 120 further includes a ring 138 coupled to the pad (123, 125) via a cloth loop 139. The ring 138 may be a D-ring, which is coupled to the swivel clasp 136 (see FIG. 8).

[0054] Referring to FIG. 9B, the holding member 118 and/or 120 includes the bottom major surface 125 having a second Velcro® fastening portion 157 disposed adjacent to where the belt 151 extends from the bottom major surface 125. As can be seen in FIGS. 9A and 9B, the holding member 118 and/or 120 can be configured as a loop by securing the belt 151 in the ratcheting buckle 132. In particular, the bottom portion of the belt 151 is moved over the top major surface 123 of the holding member 118 and/or 120, through the guide loop 153, through the ring 138, and into the input end 132A of the ratcheting buckle 132.

[0055] The second Velcro® fastening portion 157 is fastened to the first Velcro® fastening portion 155 when the belt 151 is guided through the guide loop 153 to the ratcheting buckle 132. The first and second Velcro fastening portions 155 and 157 provide additional stability to the loop formed by the holding member 118 and/or 120.

[0056] The ratcheting buckle 132 can be used to adjust the size of the loop. Specifically, the ratcheting buckle 132 has a clamping portion that is clamped down on the belt 151 to secure the belt 151 therein. The belt 151 may be received and releasably secured within ratcheting buckle 132 so that the pad (123, 125) forms a loop for encircling a piece of sports equipment. In that orientation, the bottom major surface 125 contacts with a portion of the equipment. The resulting loop formed by pad (123, 125) has a diameter that is adjustable by operation of the ratcheting buckle 132 and the cooperating belt 151.

[0057] The belt 151 is aligned with and received in the ratcheting buckle 132. The belt 151 is pulled into and through ratcheting buckle 132 by operation thereof. This decreases the diameter of the loop formed by pad (123, 125), thereby tightening the encircled pad (123, 125) against the equipment. The ratcheting buckle 132 includes a release which disengages the mechanism from the belt 151. Upon actuation of the release, the belt 151 may be slid from ratcheting buckle 132. This increases the diameter of the loop formed by the pad (123, 125), thereby loosening the pad (123, 125) from the sporting equipment. The belt 151 may be completely disengaged from the ratcheting buckle 132 to remove the holding member 118 and/or 120 from the equipment.

[0058] FIG. 10 is a perspective view of the holding member 118 and/or 120 of the adjustable belt system 100 of FIG. 8. The holding member 118 and/or 120 illustrated in FIG. 10 is configured as a loop. In particular, a bottom portion of the belt 151 is wrapped around to the top major surface 123 of the holding member 118 and/or 120 through the ring 138 and further through the input end 132A of the ratcheting buckle 132 and out through the output end 132B of the ratcheting buckle 132.

[0059] Sporting equipment can be secured in the loop holding member 118 and/or 120 and is contacted by the bottom major surface 125 of the holding member 118 and/or 120. The sporting equipment may be skis, skis and poles, a snowboard, a surfboard, a wakeboard, etc. The adjustable belt system 100 allows a user to carry the sporting equipment on their shoulder without using their hands. As a result, the user's hands are free to carry other items.

[0060] FIG. 11 illustrates an adjustable belt system 200 according to yet another embodiment of the present invention. In FIG. 11, the adjustable belt system 200 is configured as a flexible strap 212 for illustration purposes. The adjustable belt system 200 is usable to carry sporting equipment. As best seen in FIG. 11, the adjustable belt system 200 includes holding members 218 and 220 attached to ends of a flexible strap 212 via swivel clasps 236. The swivel clasps 236 allow the holding members 218 and 220 to rotate 360 degrees with respect to the strap 212. As a result, the strap 212 does not get twisted or tangled when the sporting equipment and the holding members 218 and 220 rotate.

[0061] In FIG. 11, the holding member 218 is shown from a top view, while the holding member 220 is shown from a bottom view. Each of the holding members 218 and 220 include a body having a top major surface 223 and a bottom major surface 225. The holding members 218 and 220 also include a ring 238 coupled to the body (223, 225) by which the swivel clasps 236 of the strap 212 are removably connected to the respective holding members 218 and 220.

[0062] The holding members 218 and 220 also have a belt 228 extending from a first end thereof (i.e., downward in FIG. 11) and a guide slit 253 formed in a second end thereof opposite from the first end. The guide slit 253 guides the belt 228 around to a ratcheting buckle 232 disposed on the top major surface 223 adjacent to the guide slit 253.

[0063] The ratcheting buckle 232 includes an input end 232A which receives the belt 228 and an output end 232B
which outputs the belt 228. The ratcheting buckle 232 can secure the belt 228 therein in order to configure the body (223, 225) of the holding members 218 and 220 as a loop having an adjustable size. The size of the loop can be adjusted simply by varying the position of the belt 228 extended through the ratcheting buckle 232. Specifically, the ratcheting buckle 232 has a clamping portion that is clamped down on the belt 228 to secure the belt 228 therein.

[0064] The belt 228 may be received and releasably secured within the ratcheting buckle 232 so that the body (223, 225) forms a loop for encircling a piece of sports equipment. In that orientation, the bottom major surface 225 contacts with a portion of the equipment. Such ratcheting buckles which are operatively associated with a ridged strap are commercially available from M2 of Winsoski, Vt. The resulting loop formed by the body (223, 225) has a diameter that is adjustable by operation of the ratcheting buckle 232 and the cooperating belt 228.

[0065] The belt 228 is aligned with and received in the ratcheting buckle 232. The belt 228 is pulled into and through ratcheting buckle 232 by operation thereof. This decreases the diameter of the loop formed by the body (223, 225), thereby tightening the encircled body (223, 225) against the equipment. The ratcheting buckle 232 includes a release which disengages the mechanism from the belt 228. Upon actuation of the release, belt 228 may be slid from the ratcheting buckle 232. This increases the diameter of the loop formed by the body (223, 225), thereby loosening the holding member 218 and/or 220 from the sporting equipment. The belt 228 may be completely disengaged from the ratcheting buckle 232 to remove the holding member 118 and/or 120 from the equipment.

[0066] As can be seen in FIG. 11, the belt 228 may have ridges by which the clamping portion of the ratcheting buckle 232 grips the belt 228.

[0067] The body (223, 225) of the holding member 218 and/or 220 may have an elongated shape with a width that gradually decreases from a portion having the ring 238 and the ratcheting buckle 232 to a portion where the belt 228 is located. The body (223, 225) of the holding member 218 and/or 220 may be made of a suitable polymer (e.g., a hard flexible plastic material).

[0068] In exemplary embodiments of the invention, the body (223, 225) of the holding members 218 and 220 may be made of Hytrel® material, polyurethane material, or LapiRip® material.

[0069] The body (223, 225) of the holding member 218 and/or 220 may be formed integrally with the belt 228 and the guide slit 253. Alternatively, the belt 228 may be attached to the body (223, 225) at the first end of the holding member 218 and/or 220. In this case, the belt 228 may be attached to the body (223, 225) using a rivet, a screw, or some other suitable fastener. In another exemplary embodiment, the belt 228 may be adhesively bonded to the body (223, 225) of the holding member 218 and/or 220.

[0070] FIG. 12 is a sectional view of the holding member 218 and/or 220 of the adjustable belt system 200 of FIG. 11 shown along line A-A.

[0071] As can be seen in FIGS. 11 and 12, the holding member 218 and/or 220 may further include a soft contact pad 255 disposed on the bottom major surface 225 thereof. The soft contact pad 255 contacts the sporting equipment and prevents scratching. The soft contact pad 255 may have a high-density closed cell-foam so that the bottom major surface 225 is cushioned. The soft contact pad 255 may be made of ethylene vinyl acetate (EVA).

[0072] Additionally, the soft contact pad 255 includes a recess 257 in which a rivet 240 is accommodated. That is, the recess 257 in the soft contact pad 255 accommodates the rivet 240 used to bind the ratcheting buckle 232 to the body (223, 225) such that the rivet 240 is prevented from making contact with a surface of the sporting equipment. In other words, the soft contact pad 255 is made to have a thickness such that rivet 240 is prevented from extending beyond a surface of the soft contact pad 255.

[0073] Also as seen in FIG. 12, the ratcheting buckle 232 includes a pivoting element 234 about which the clamping portion pivots to engage the belt 228 (not illustrated in FIG. 12). The ratcheting buckle 232 may include a biasing element that biases the clamping portion about the pivoting element 234 toward a closed position.

[0074] Additionally, the body (223, 225) of the holding member 218 and/or 220 includes a notch 239 formed therein to accommodate a portion of the ring 238.

[0075] FIG. 13 is a perspective view of the holding member 218 and/or 220 of the adjustable belt system 200 of FIG. 11. As best seen in FIG. 13, the belt 228 is moved through the guide slit 253 over the top major surface 223 and through the ratcheting buckle 232 to form a loop. The ratcheting buckle 232 secures the belt 228 therein by clamping down. The size of the loop is adjustable by adjusting the position of the belt 228 in the ratcheting buckle 232.

[0076] FIG. 14 is a side view of an adjustable belt system 300 with sporting equipment 370 secured therein according to an embodiment of the present invention. As best seen in FIG. 14, the sporting equipment 370 may be a snowboard including a first binding 374 and a second binding 372 disposed thereon.

[0077] The adjustable belt system 300 includes a flexible strap 312 with a first holding member 318 and a second holding member 320 removably connected thereto via swivel clasps 336. Although the first and second holding members 318 and 320 are illustrated as being arranged outside the first and second bindings 374 and 372, respectively, it should be understood that the first and second holding members 318 and 320 may be arranged at other positions on the sporting equipment 370.

[0078] The flexible strap 312 includes one or more snap hooks 344, which can be connected to other various items (e.g., gloves, a helmet, etc.), a buckle 340 usable to adjust the length of the flexible strap 312, and a movable shoulder cushion 342.

[0079] As can be seen in FIG. 14, the sporting equipment 370 can be secured in the loop holding member 318 and/or 320. The adjustable belt system 300 allows a user to carry the sporting equipment 370 on their shoulders without using their hands. As a result, the user’s hands are free to carry other items.

[0080] FIG. 15 is a plan view of an adjustable belt system 400 with sporting equipment 470 secured therein according
to another embodiment of the present invention. As can be seen in FIG. 14, the sporting equipment 470 may be a snowboard (similar to the snowboard 370 of FIG. 13).

[0081] Here, the system 400 includes a first holding member 418 having a pair of rings 448 disposed thereon and a second holding member 420 having a pair of rings 448 disposed thereon. The rings 448 may be oriented along a lengthwise direction of the holding members 418 and 420. A first flexible strap 413 is removably connected to loops 448 on each of the first and second holding members 418 and 420. A second flexible strap 412 is removably connected to loops 448 on each of the first and second holding members 418 and 420.

[0082] The first and second flexible straps 413 and 412 are arranged in parallel with one another such that the adjustable weight system 400 with the sporting equipment 470 can be worn on a user's back, in a similar manner to a backpack. In particular, the user may place the first strap 413 over the right shoulder and the second strap 412 over the left shoulder such that the sporting equipment 470 is suspended on the user's back. A flat surface of the sporting equipment 470 (e.g., the side of the snowboard without bindings) can rest along the user's back.

[0083] Additionally, the first and second straps 413 and 412 each have buckles 440 that can adjust the lengths of the respective straps 413 and 412. In this manner, the user can adjust the system 400 to be worn comfortably according to their particular height and body shape.

[0084] The first and second straps 413 and 412 may be connected to the first and second holding members 418 and 420 via swivel clasps 446 such that the holding members 418 and 420 are rotatable 360 degrees with respect to each of the straps 413 and 412.

[0085] The holding members 418 and 420 may be similar to the holding members of any of the previous embodiments, and may be made from cloth or hard plastic.

[0086] It should be understood that although the holding members of the previous embodiments are described as being a cloth material or a hard flexible plastic, the holding members may alternatively be made of other materials. For example, the holding members may be made of an elastic material (e.g., rubber).

[0087] Although a few embodiments of the present invention have been shown and described, it will be appreciated by those skilled in the art that changes may be made in these embodiments without departing from the principles and spirit of the invention, the scope of which is defined in the appended claims and their equivalents.

I claim:

1. An adjustable belt system for carrying sporting equipment, comprising:

- at least one strap; and
- first and second holding members disposed at opposite ends of the strap to releasably attach to opposite ends of the sporting equipment, each holding member including a pad having first and second ends, a belt extending from the first end of the pad, and a ratcheting buckle disposed on the pad between the first and second ends thereof,

wherein the belt is looped over the second end of the pad and releasably secured in the ratcheting buckle such that the pad forms a loop having a size that is adjustable based on operation of the ratcheting buckle.

2. The adjustable belt system of claim 1, wherein the pad is made of a hard flexible plastic and includes a soft contact pad disposed around an inside of the loop to contact the sporting equipment.

3. The adjustable belt system of claim 2, wherein the ratcheting buckle is bound to the pad by a rivet extending through the hard plastic of the soft contact pad.

4. The adjustable belt system of claim 3, wherein the soft contact pad is recessed to accommodate a portion of the rivet extending through the hard flexible plastic such that the rivet does not extend beyond a surface of the soft contact pad.

5. The adjustable belt system of claim 3, wherein the soft contact pad is recessed to accommodate a portion of the rivet extending through the hard flexible plastic such that the portion of the rivet extending through the hard flexible plastic is prevented from contacting a surface of the sporting equipment.

6. The adjustable belt system of claim 2, wherein the soft contact pad is made of ethylene vinyl acetate.

7. The adjustable belt system of claim 1, wherein the pad of the holding member comprises a cloth material.

8. The adjustable belt system of claim 1, wherein the pad of the holding member comprises a nylon web sleeve and a cotton stiffened skeleton disposed in the sleeve to provide a stiffening characteristic to the pad.

9. The adjustable belt system of claim 1, wherein the pad of the holding member comprises a hard flexible plastic material.

10. The adjustable belt system of claim 9, wherein the hard flexible plastic material comprises one of:

- a Hytreel® material;
- a polyurethane material; and
- a Laripur® material.

11. The adjustable belt system of claim 1, wherein the pad includes a guide loop disposed at the second end of the pad through which the belt passes toward the ratcheting buckle to form the loop.

12. The adjustable belt system of claim 1, wherein the pad includes a first hook and loop fastener disposed at the second end on a top portion of the pad and a second hook and loop fastener disposed at the first end on a bottom portion of the pad to couple to the first hook and loop fastener when the pad is configured as a loop by moving a bottom portion of the belt along the top portion of the second end of the pad.

13. The adjustable belt system of claim 1, further comprising:

- at least one ring coupled to the pad of the holding member; and
- at least one clasp coupled to an end of the at least one strap to removably attach the at least one strap to the at least one ring on the holding member.

14. The adjustable belt system of claim 13, wherein the at least one strap comprises a swivel clasp making the holding member rotatable 360 degrees with respect to the at least one strap.

15. The adjustable belt system of claim 1, wherein the at least one strap comprises:
a first strap having a first end removably coupled to the first holding member and a second end removably coupled to the second holding member; and

a second strap having a first end removably coupled to the first holding member and a second end removably coupled to the second holding member, the second strap being arranged in parallel with respect to the first strap.

16. The adjustable belt system of claim 15, wherein:

the first strap includes a first clasp disposed at the first end thereof and a second clasp disposed at the second end thereof;

the second strap includes a first clasp disposed at the first end thereof and a second clasp disposed at the second end thereof;

the first holding member includes a first ring and a second ring coupled to the pad thereof, the first ring removably coupled to the first clasp of the first strap and the second ring coupled to the first clasp of the second strap; and

the second holding member includes a first ring and a second ring coupled to the pad thereof, the first ring removably coupled to the second clasp of the first strap and the second ring coupled to the second clasp of the second strap.

17. The adjustable belt system of claim 1, wherein the belt has ridges by which the ratcheting buckle engages the belt.

18. An adjustable belt system, comprising:

a first elongated strap;

a second elongated strap;

a first adjustable loop holding member attached to a first end of the first and second elongated straps; and

a second adjustable loop holding member attached to a second end of the first and second elongated straps, wherein the first and second elongated straps extend in parallel between the first and second holding members.

19. The adjustable belt system of claim 18, further comprising:

elongated sporting equipment having a first end around which the first adjustable loop holding member is disposed and a second end around which the second adjustable loop holding member is disposed.

20. The adjustable belt system of claim 19, wherein the sporting equipment is either skis or a snowboard.

21. The adjustable belt system of claim 20, wherein the sporting equipment is a snowboard having a first binding and a second binding, and the first and second adjustable loop holding members are disposed outside the first and second bindings, respectively.

22. An adjustable loop holding member usable with a sport equipment carrying device having an elongated flexible strap, the loop holding member comprising:

an elongated body having first and second ends;

a belt extending from the first end of the body;

a guide loop disposed at the second end of the body;

a ratcheting buckle disposed on the body having an input end facing the guide loop and an output end facing away from the guide loop, the input end being arranged to receive the belt from the guide loop such that the belt is secured therein by a clamping portion of the ratcheting buckle to configure the body as a loop; and

a ring disposed on the body to removably connect to the elongated flexible strap.

23. A method of using an adjustable belt system for carrying sporting equipment, the method comprising:

providing the adjustable belt system having at least one strap with first and second holding members disposed at opposite ends of the strap to releasably attach to opposite sides of the sporting equipment, each holding member including a pad having first and second ends, a belt extending from the first end of the pad, and a ratcheting buckle disposed on the pad between the first and second ends thereof, the belt being looped over the second end of the pad and releasably securable in the ratcheting buckle such that the pad forms a loop having a size that is adjustable based on operation of the ratcheting buckle;

coupling the first and second holding members to the opposite sides of the sporting equipment, respectively, by connecting the respective belts to the corresponding ratcheting buckles and tightening the ratcheting buckles until the sporting equipment is secured; and

carrying the sporting equipment by the at least one strap.

24. The method of claim 23, wherein:

the at least one strap comprises first and second parallel straps each connected between the first and second holding members; and

the carrying of the sporting equipment comprises placing a first strap over a first shoulder of a user and placing a second strap over a second shoulder of a user such that the sporting equipment is suspended comfortably along a back of the user.

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