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(54) SEPARABLE FASTENER

(71) I, SYDNE COUSINS, of 345 West 58th Street, New York, New York, United States of America, a citizen of the United States of America, do hereby declare the invention, for which I pray that a patent may be granted to me, and the method by which it is to be performed, to be particularly described in and by the following statement:—

This invention relates to a separable fastener and, more particularly, to a separable fastener having a pair of slidably connectable members or portions. The subject fastener is applicable and suitable for a variety of uses for joining separable but adjacent areas, such as garments, jewelry, key chains, equipment or assemblies, harnesses, straps, belts, or the like, or wherever it is desired to detachably hold together two articles, separable parts or edges.

In the Complete Specification of my United Kingdom Patent No. 1,038,690 there is disclosed separable fasteners having wide utility, particularly in connection with garments, wearing apparel, jewelry, draperies, and the like, which is easily engaged and disengaged, which is constructed in a manner to give long, trouble-free service, which may be quickly and simply coupled to form a positive securement of the article to which such fastener portions are fastened, which are responsive to slight pressure of a finger for releasing the cooperating members, wherein movement or "play" when coupled is substantially precluded and which are further characterized by an absence of protuberances extending from the fastener structure.

The present invention is an improvement over my aforesaid previously patented separable fastener in that the present separable fastener is capable of being constructed so as to resist substantially higher loads while being yet easily disengaged even when fully loaded. It is also a feature of the present invention that the separable fastener is adapted, at least in preferred embodiments, for simple and easy attach-

ment to a strap or harness member and may be readily and easily adjusted relative thereto.

According to this invention I provide a separable fastener comprising, in combination, a housing member comprising a pair of spaced apart side walls and a pair of spaced apart plate-like portions extending therebetween and defining therewith a channel extending inwardly of said housing member from a generally open and unobstructed opening at one end thereof, at least one of said plate-like portions comprising a pair of ledges extending towards each other from respective side walls and a bar-like structure extending between them and defining a fenestration opening into said channel and spaced apart from the opening by the width of the bar-like structure; a male member having a projecting frame member adapted to enter the channel and at one end of the frame member a fixed shoulder larger than said opening, the frame member having a fenestration therein, and a resiliently mounted tongue having a thickness substantially the same as the thickness of the frame member and projecting from the end of the frame member remote from the shoulder back towards the shoulder and terminating in a free end portion, a surface of the said tongue defining an inclined surface extending from flush with the frame member at the said remote end to a location proud of the frame member, the said surface terminating at a shoulder of the tongue adjacent the free end portion and spaced apart from said fixed shoulder a distance substantially equal the width of said bar-like structure and defining one wall of a notch having a depth not greater than the thickness of the bar-like structure, another wall of the notch being a lip projecting from said tongue shoulder to said free end portion to underlie the bar-like structure; said frame member being receivable within the housing member by projecting said end portion of the frame member through said opening of the housing member with the tongue

[Price 25p]

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shoulder and free end portion extending into said housing fenestration and into engagement with said bar-like structure so as to substantially securely position said male member relative to said housing member with said bar-like structure engaged between said fixed shoulder and said tongue shoulder, with said frame member engaged with said side walls and said plate-like portions and said tongue member notch precluding protuberance of said tongue member outwardly of said housing beyond said fenestration, and means for attaching the male member and said housing member to related members to be removably secured together. The present invention will be better understood when consideration is given to the following details and description, which when taken in conjunction with the annexed drawings describes a preferred embodiment of the present invention.

In the drawing:

Fig. 1 is an exploded isometric view showing a separable fastener in accordance with the present invention;

Fig. 2 is a front view of the fastener of Fig. 1 in its assembled configuration;

Fig. 3 is a cross-sectional illustration taken along line 3—3 of Fig. 2;

Fig. 4 is a cross-sectional view taken along line 4—4 of Fig. 2;

Fig. 5 is a cross-sectional illustration taken along line 5—5 of Fig. 2;

Fig. 6 is an isometric view of another tongue member in accordance with the present invention;

Fig. 7 is an isometric view of the opposite side of the tongue member of Fig. 6;

Fig. 8 is an isometric illustration of another housing member in accordance with the present invention;

Fig. 9 is an isometric view of the opposite side of the housing member of Fig. 8;

Fig. 10 is a front view of a separable fastener comprising the tongue member of Figs. 6 and 7 inserted in the housing member of Figs. 8 and 9;

Fig. 11 is a cross-sectional illustration taken along line 11—11 of Fig. 10; and

Fig. 12 is a perspective illustration of a safety or anti-run-away strap for use with skis or the like in accordance with this invention.

With reference now to the drawing, particularly Figs. 1—5 thereof, there is shown and illustrated a separable fastener constructed in accordance with the principles of the present invention and designated generally by the reference character 20 comprising a male member or portion 22, a female or housing member or portion 24 and a cross bar member or portion 26.

The male member 22 may be comprised of an elongated rectangular frame member 28 forming a fenestration 30. At the forward

end of the frame member 28, integral therewith and projecting towards the rear end of the frame member, there is provided a resilient tongue member 32, said tongue member 32 being narrower than the frame member 28 so that when disposed upon the same plane as the frame member 28, the tongue member 32 is adapted to fit within the fenestration 30. Said tongue member 32 is disposed upon an oblique plane and is provided with a shoulder 34 and a lip 36 defining a notch at the free end portion thereof. At the rear of said frame member 28, there is a neck portion 38 connecting the frame member 28 with a connecting portion 40. The connecting portion 40 is of substantially rectangular eyelet configuration provided with a generally rectangular slot 42 extending there-through generally perpendicular the plane of the frame member 28 with the longitudinal axis thereof generally parallel to the shoulder 34. Accordingly, a strap member 44 defined by a free end portion 46 and a standing portion 48 may be passed through the slot 42, as shown, and the free end portion 46 thereof secured with the standing part 48 thereof, as by securing means 50 such as a rivet, or adhesive, or a line of stitching, so that the male member 22 is substantially fixedly positioned on the strap 44 although it is to be expressly pointed out that the attaching portion 40 may be of substantially any desired construction or arrangement as may be known in the fastener art such as, for example only, and without limitation, as is shown in my prior Patent No. 1,038,690. The connecting portion 40 is of greater width and depth than the plate portion 28 so as to define adjacent thereto a generally rectangular shoulder 52 extending therearound.

The housing or female member 24 is of sufficient internal width and depth to accommodate the frame member 28, and is comprised of a pair of oppositely disposed generally rectangular and parallel spaced apart side walls 54 and 56, a rear or end wall 58 perpendicularly disposed thereto at a rear end portion thereof, and a pair of generally rectangular and parallel spaced apart generally plate-like portions extending between the side walls and perpendicular thereto defined by, for example, pairs of generally parallel spaced apart inwardly projecting shoulders 60 and 62, 64 and 66, and 68 and 70, respectively, together with a forward pair of transverse bars 74 and 72 generally parallel to the transverse axis of the female housing member 24 extending generally between the shoulders 60 and 64 and 62 and 66, respectively, at one end portion thereof and with a pair of intermediate transverse bars 76 and 78 in generally spaced apart parallel

relationship generally intermediate the housing member 24. Accordingly, four fenestrations, 80, 82, 84 and 86 are defined in the plate-like portions by the shoulders and transverse bars with the fenestrations 80 and 82 being in general axial alignment with one another and the fenestrations 84 and 86 being similarly in general axial alignment with each other, the fenestrations 80 and 82 being disposed at one end portion of the housing member 24 and the fenestrations 84 and 86 being disposed at the other end portion thereof. Further, a transverse or forward opening or aperture 88 is formed at one end portion of the housing member 24 of generally rectangular configuration defined by the forward transverse bars 72 and 74 and the forward end portion of the side walls 54 and 56. Further, the side walls 54 and 56, together with the end wall 58 and with the shoulders 60, 62, 64 and 66 define a channel extending inwardly of the housing 24 from the transverse aperture 88 extending past the fenestrations 80, 82, 84 and 86.

The cross bar 26 is adapted to be inserted into the housing 24 through the transverse aperture 88 until disposed extending across the fenestrations 84 and 86 and, when so positioned, the free end portion 90 of a strap 92 may be passed through the fenestration 84, between the cross bar 26 and the intermediate transverse bars 76 and 78 of the housing 24, through the fenestration 86, back through the fenestration 84 and past the cross bar 26 between the cross bar 26 and the end wall 58 so that, upon tension being applied to the strap member 92 the cross bar 26 would be urged towards the end wall 58 to clamp the strap 92 generally between the shoulders 68 and 70 and the cross bar 26. On the other hand, when no such tension is applied, it may be seen that the strap member 92 may be readily passed by the cross bar 26 so as to provide an adjustable attachment therebetween.

In inserting the male member 22 through aperture 88 of the female housing member 24, the frame member 28 is restrained from any lateral movement by the walls 54 and 56 and restrained in its forward movement by the engagement of the generally rectangular angular wall or shoulder 52 against the forward end of the housing member 24. The frame member 28 is restrained against any rotation relative to the female or housing member 24 by means of the shoulders 60, 62, 64 and 66 engaging the male member 22. As the frame member 28 is introduced into the cooperating female or housing member 24, the tongue 32 is depressed by the forward transverse bar 74 until the shoulder 34 abuts the transverse bar 74 and partially projects upwardly into the

fenestration 82. Then, the frame member 28 will be securely contained and held against relative movement within the female or housing member 24. It will be noted that any reverse pull upon male member 22 will not effect removal of the frame member 28 until pressure is applied to the tongue 32 to depress it sufficiently to allow the shoulder 34 to clear the forward transverse bar 74 and hence allow removal of the frame member 28 from the female or housing member 24.

The tongue member 32 is biased, through the resilience of the plastic forming the male member 22 generally outwardly of the fenestration 30 and into the respective fenestration of the female or housing member 24 and is retained therein by means of engagement of the lip 36 against the inner surface of the transverse bar 74. The depth of the notch defined by the shoulder 34 and lip 36 is less than that thickness of the bar 74.

In order to provide an aid to the user in depressing the tongue member 32, the surface thereof may be provided with slip reducing means, such as a plurality of generally transverse ridges 94. Further, in order to enable the tongue member 32 to more readily pivot about its base line connection with the frame member 28, there may be provided relief means, such as a generally transversely extending curvilinear groove 96 extending entirely transversely across the tongue member 32 at the intersection thereof with the frame member 28. Such groove 96 enables the tongue member 32 readily to bend thereabout while yet not adversely affecting the strength of the tongue member 32 so that the tongue member 32 may yet be of sufficient thickness as to prevent buckling during the application of tension to the fastener 20.

The cross bar member 26 may be provided with means, such as a plurality of teeth or ridges 98 extending therealong to provide increased resistance toward inadvertent movement of the web 92 relative thereto when the web or strap 92 is pulled thereagainst.

As a further aid in providing a secure adjustment of the web or strap 92 relative to the female housing member 24, the edges of the cross bar 26 may, as shown, be similarly and oppositely curved so as to provide an increased wedging action against the housing or frame member 24. The curved edge facing the end wall 58 extends from closer to the end wall at its ends to further therefrom at its middle, the channel of the housing member extending into its end wall a distance at least equal to the depth of the curve. Further, the cross bar member 26 may be constructed and arranged so as to be restrained against move-

ment within the female or housing member 24 in other than a direction generally parallel the longitudinal axis thereof.

For example, the shoulders 60 and 64 may be provided with generally longitudinally extending grooves 102 and 104, respectively, and the cross bar 26 may be provided with cooperating tenons or ribs 106 and 108, respectively, engageable within the grooves 102 and 104 so as to restrain the bar member 26 against twisting or rotation within the female or housing member 24. As shown, such grooves may be provided only in the walls 60 and 64, or, if desired, similar grooves may be provided in the shoulders 62 and 66. Similarly, the cross bar 26 may have such tenons or ribs extending in only one direction therefrom or the cross bar 26 may be symmetric and of generally I-shaped cross-sectional configuration having such ribs extending in both directions. Similarly, although the female or housing member 24 has been shown, illustrated and described as having two opposed fenestrations 80 and 82, enabling the male member 22 to be inserted therein in either of two positions, one side of the female or housing member 24 may be solid and the respective fenestrations eliminated. Where, however, and as shown, the fenestrations 80, 82, 84 and 86 are each provided, the housing or female member 24 and the male member 22 may be coupled either in the position shown or rotated 180 degrees relative one another so that the orientation therebetween at the time of coupling is not critical so as to preclude insertion of the tongue member 22 into the housing or female member 24 in a non-latching relationship.

Referring now to Figs. 6—11, inclusive, there is shown and illustrated another embodiment or modification of separable fasteners constructed in accordance with the principles of the present invention.

With reference to Figs. 6—11, like reference characters will be utilized for the respective parts thereof, with the exception that the reference characters are primed, it being expressly understood that the embodiment or modification shown therein is substantially the same as the embodiment of Figs. 1—5 and the parts thereof are the same except where specifically set forth as being different.

The male member 22¹ is provided with a tongue portion 32¹ which on its inclined surface is provided with a generally oblong rounded and dimpled depression 94¹ as an aid in preventing slippage of an operator in depressing the tongue portion 32¹. The relieved portion or recess 96¹ on the rear of the tongue member 32¹ is of generally curvilinear configuration but is further provided with a plurality of reinforcing ribs

97¹ extending generally laterally across the recess to provide the desired degree of rigidity and strength thereto. Alternatively, there may be only one such rib. The rib or ribs need not extend completely across the recess, in which case the rigidity of the member 32¹ increases after a certain deflection.

The female or housing member 24 is provided with a pair of relief grooves 110 and 112 extending generally longitudinally thereof extending towards the inner surface of the shoulders 60, 62, 64 and 66 so as to provide narrow shoulders 114, 116, 118 and 120 for engaging the tongue portion 28 or 28¹ generally only along the edges thereof to thereby reduce the friction between the male member 22 and the female or housing member 24 and, further, to reduce binding or improper operation due to warpage, dimensional changes, or the presence of dead or any foreign matter therebetween.

Further, the housing member 24 has the shoulders 60 and 64 extending so as to form a back panel 63 completely subjacent the fenestration 82 so as to provide a smooth and uninterrupted surface permitting the male member 22¹ to be retained therein in only one orientation. Further, the end wall 58¹ is provided with an elongate slot 59 (narrower than the channel of the housing member) through which the strap 92 may extend so as to extend outwardly of the housing or female portion 24¹ generally intermediate thereof and to provide a generally straight line pull thereagainst, as shown more fully particularly in Figs. 10 and 11. In addition to providing a generally straight line pull on the strap member 92, this construction has the additional difference relative the construction of the housing member 24 in that the adjustment of the strap member 92 on the female housing member 24 may be readily and easily accomplished although the adjustment, once made, is not as secure in the absence of tension on the strap 92 while in the housing structure 24¹, the adjustment is less easily made but the adjustment, once made, is more positive even in the absence of tension on the strap 92. The housing structure 24¹, therefore, has particular utility where tension is not normally applied to the strap 92, as, for example, in connecting the ends of a runaway strap as used in skiing to retain the ski to prevent the loss of a ski upon release of safety bindings. Such a strap is shown in Fig. 12. The strap 92¹ is attached at its end regions to the male member and the housing member respectively. A rivet 124 secures one end whilst the other end 90¹ is attached adjustably as described above. A further rivet 122 secures two spaced apart intermediate portions of the strap member together to define

a loop 126 spaced between the end portions of said strap adapted to be connected with a ski binding to enable the end portions to be passed about a skier's leg and connected together to form a run-away or safety strap.

As heretofore pointed out, the separable fasteners of the present invention may be molded of a plastic material and it has been found that a very high carrying capacity may be provided by the use of a fibreglas reinforced nylon.

For example, separable fasteners have been made in accordance with the present invention molded from fibreglas reinforced nylon with the male member having a width of approximately $1\frac{3}{16}$ inches, and a thickness of approximately $\frac{1}{8}$ inch to the frame member with the tongue member 32 having a width of approximately $\frac{3}{4}$ inches, and the shoulder 34 being approximately $\frac{3}{32}$ inches high for insertion in a housing member wherein the forward bar 74 is also of approximately $\frac{1}{8}$ inch width which, after annealing at 140 degrees have held in excess of 400 pounds tension. Clasps or separable fasteners of these dimensions have been found, as set forth above, particularly useful for use in connection with sporting and other outdoor equipment in that their dimensions are such that they can be readily and easily engaged and disengaged even under adverse conditions and under adverse weather, even when wearing gloves and mittens.

Bearing in mind the foregoing, it may be seen how in this embodiment of the present invention I provide a separable fastener which may be quickly, easily and simply coupled and uncoupled while being yet secure in its coupled configuration, and which may be quickly and easily securely coupled in any of a plurality of relative orientations to preclude any possibility of misassembly and enable assembly with a minimum of concentration and even hastily, as in emergency situations.

The separable fastener forms a positive and secure assembly substantially preventing movement or play once the cooperating members thereof are coupled, and is capable of sustaining high loads.

It is constructed so as to be substantially immune to effects of moisture, cleaning fluids, and moderate temperatures, both elevated and depressed, and to this end this embodiment of the separable fastener is moulded entirely of glass reinforced nylon.

This separable fastener is comparatively simple and inexpensive to manufacture while being compact and of sturdy construction, as well as attractive in appearance.

It is substantially lacking in protuber-

ances and is substantially immune to inadvertent release or uncoupling.

It may be readily and easily secured with and adjusted relative to a strap member or harness, and has particular utility in the provision of safety or anti-runaway straps for skis and the like.

WHAT I CLAIM IS:—

1. Separable fastener comprising, in combination, a housing member comprising a pair of spaced apart side walls and a pair of spaced apart plate-like portions extending therebetween and defining therewith a channel extending inwardly of said housing member from a generally open and unobstructed opening at one end thereof, at least one of said plate-like portions comprising a pair of ledges extending towards each other from respective side walls and a bar-like structure extending between them and defining a fenestration opening into said channel and spaced apart from the opening by the width of the bar-like structure; a male member having a projecting frame member adapted to enter the channel and at one end of the frame member a fixed shoulder larger than said opening, the frame member having a fenestration therein, and a resiliently mounted tongue having a thickness substantially the same as the thickness of the frame member and projecting from the end of the frame member remote from the shoulder back towards the shoulder and terminating in a free end portion, a surface of the said tongue defining an inclined surface extending from flush with the frame member at the said remote end to a location proud of the frame member, the said surface terminating at a shoulder of the tongue adjacent the free end portion and spaced apart from said fixed shoulder a distance substantially equal the width of said bar-like structure and defining one wall of a notch having a depth not greater than the thickness of the bar-like structure, another wall of the notch being a lip projecting from said tongue shoulder to said free end portion to underlie the bar-like structure; said frame member being receivable within the housing member by projecting said end portion of the frame member through said opening of the housing member with the tongue shoulder and free end portion extending into said housing fenestration and into engagement with said bar-like structure so as substantially securely to position said male member relative to said housing member with said bar-like structure engaged between said fixed shoulder and said tongue shoulder, with said frame member engaged with said side walls and said plate-like portions and said tongue member notch precluding protuber-

a loop 126 spaced between the end portions of said strap adapted to be connected with a ski binding to enable the end portions to be passed about a skier's leg and connected together to form a run-away or safety strap.

As heretofore pointed out, the separable fasteners of the present invention may be molded of a plastic material and it has been found that a very high carrying capacity may be provided by the use of a fibreglas reinforced nylon.

For example, separable fasteners have been made in accordance with the present invention molded from fibreglas reinforced nylon with the male member having a width of approximately $1\frac{5}{16}$ inches, and a thickness of approximately $\frac{1}{8}$ inch to the frame member with the tongue member 32 having a width of approximately $\frac{3}{4}$ inches, and the shoulder 34 being approximately $\frac{3}{32}$ inches high for insertion in a housing member wherein the forward bar 74 is also of approximately $\frac{1}{8}$ inch width which, after annealing at 140 degrees have held in excess of 400 pounds tension. Clasps or separable fasteners of these dimensions have been found, as set forth above, particularly useful for use in connection with sporting and other outdoor equipment in that their dimensions are such that they can be readily and easily engaged and disengaged even under adverse conditions and under adverse weather, even when wearing gloves and mittens.

Bearing in mind the foregoing, it may be seen how in this embodiment of the present invention I provide a separable fastener which may be quickly, easily and simply coupled and uncoupled while being yet secure in its coupled configuration, and which may be quickly and easily securely coupled in any of a plurality of relative orientations to preclude any possibility of misassembly and enable assembly with a minimum of concentration and even hastily, as in emergency situations.

The separable fastener forms a positive and secure assembly substantially preventing movement or play once the cooperating members thereof are coupled, and is capable of sustaining high loads.

It is constructed so as to be substantially immune to effects of moisture, cleaning fluids, and moderate temperatures, both elevated and depressed, and to this end this embodiment of the separable fastener is moulded entirely of glass reinforced nylon.

This separable fastener is comparatively simple and inexpensive to manufacture while being compact and of sturdy construction, as well as attractive in appearance.

It is substantially lacking in protuber-

ances and is substantially immune to inadvertent release or uncoupling.

It may be readily and easily secured with and adjusted relative to a strap member or harness, and has particular utility in the provision of safety or anti-runaway straps for skis and the like.

WHAT I CLAIM IS:—

1. Separable fastener comprising, in combination, a housing member comprising a pair of spaced apart side walls and a pair of spaced apart plate-like portions extending therebetween and defining therein a channel extending inwardly of said housing member from a generally open and unobstructed opening at one end thereof, at least one of said plate-like portions comprising a pair of ledges extending towards each other from respective side walls and a bar-like structure extending between them and defining a fenestration opening into said channel and spaced apart from the opening by the width of the bar-like structure; a male member having a projecting frame member adapted to enter the channel and at one end of the frame member a fixed shoulder larger than said opening, the frame member having a fenestration therein, and a resiliently mounted tongue having a thickness substantially the same as the thickness of the frame member and projecting from the end of the frame member remote from the shoulder back towards the shoulder and terminating in a free end portion, a surface of the said tongue defining an inclined surface extending from flush with the frame member at the said remote end to a location proud of the frame member, the said surface terminating at a shoulder of the tongue adjacent the free end portion and spaced apart from said fixed shoulder a distance substantially equal the width of said bar-like structure and defining one wall of a notch having a depth not greater than the thickness of the bar-like structure, another wall of the notch being a lip projecting from said tongue shoulder to said free end portion to underlie the bar-like structure; said frame member being receivable within the housing member by projecting said end portion of the frame member through said opening of the housing member with the tongue shoulder and free end portion extending into said housing fenestration and into engagement with said bar-like structure so as substantially securely to position said male member relative to said housing member with said bar-like structure engaged between said fixed shoulder and said tongue shoulder, with said frame member engaged with said side walls and said plate-like portions and said tongue member notch precluding protuber-





* C L M S *

ance of said tongue member outwardly of said housing beyond said fenestration, and means for attaching the male member and said housing member to related members to be removably secured together.

2. Separable fastener defined in Claim 1 wherein said side walls are generally rectangular and generally parallel to one another and said plate-like portions are generally rectangular and generally perpendicular to said side walls.

3. Separate fastener defined in Claim 1 or Claim 2 wherein the other of said plate-like members comprises a pair of generally parallel spaced apart ledges extending oppositely from said side walls toward each other and bar-like structure dimensioned similarly to said bar-like structure of said one side wall extending therebetween defining a second fenestration dimensioned similarly to said first-mentioned fenestration in alignment therewith enabling said male member to be inserted to engage said tongue member in either of said fenestrations.

4. Separable fastener defined in Claim 1, Claim 2 or Claim 3 fabricated of glass-filled nylon wherein said remote end of said tongue is provided with a recess of generally curvilinear cross-section extending thereacross to enable flexure of said tongue member thereabout without substantial loss of resistance of said tongue member to compressive loading.

5. Separable fastener defined in Claim 4 further comprising means on the inclined surface of said tongue adjacent said free end portion for increasing friction therealong to aid in operator depressing of said tongue member for disengaging said fastener.

6. Separable fastener defined in Claim 4 or Claim 5 further comprising at least one reinforcing rib extending at least partially generally laterally across said recess to control the flexure of said tongue.

7. Separable fastener defined in any one of the preceding Claims wherein said housing member attaching means comprises an attaching bar slidably engaged within said channel generally perpendicular to said side walls and an end wall extending generally across said housing member between said side walls in generally parallel spaced apart relationship to said bar-like structure to enable a strap-like member to pass around said attaching bar and between said attaching bar and said end wall to be clamped therebetween upon the application of tension to such strap-like member.

8. Separable fasteners defined in Claim 7 wherein said male member attaching means comprises an elongate eye extending through said attaching portion generally perpendicular to said frame member with the

longitudinal axis thereof generally parallel to said shoulders enabling a strap-like member to be passed therethrough.

9. Separable fastener defined in Claim 1 or Claim 8 together with a strap member, one end of which is connected with said male member, the other end of which is connected with said housing member and means securing two spaced apart intermediate portions of the strap member together to define a loop spaced between the end portions of said strap adapted to be connected with a ski binding to enable the end portions to be passed about a skier's leg and connected together to form a run-away or safety strap.

10. Separable fastener defined in Claim 7, Claim 8 or Claim 9 wherein the edge of said attaching bar adjacent said end wall is of generally curvilinear configuration extending from generally closer said end wall at the end portion and farther apart therefrom at the central portion, said channel extending into said end wall a distance at least equal the depth of such curve.

11. Separable fastener defined in Claim 10 wherein the opposite edge of said attaching bar is similarly but oppositely curved.

12. Separable fastener defined in Claim 10 or Claim 11 further comprising teeth or serrations extending along said curvilinear edges.

13. Separable fastener defined in any one of Claims 7 to 12 further comprising a pair of fenestrations extending through said plate-like members in general alignment with one another between said bar-like structure and said end wall and through which the intermediate portion of said attachment bar is exposed, enabling such strap-like member to be passed through said pair of fenestrations between said attachment bar and said bar-like structure, around said attachment bar and back through said pair of fenestrations between said attachment bar and said end wall so as movably to secure such strap-like member with said housing member.

14. Separable fastener defined in Claim 13 further comprising a slot through said end wall narrower than said channel and in general alignment with said attachment bar enabling such strap to be extended therethrough on either side of said attachment bar to enable tension to be applied to said housing member thereby in general alignment with the plate-like portions thereof.

15. Separable fastener defined in any one of Claims 7 to 14 further comprising a pair of grooves extending into at least one of said shoulders along at least one side of said channel and a mating tenon on at

least one edge portion of said attachment
bar generally perpendicular to the longi-
tudinal extent thereof to maintain align-
ment of said attachment bar generally per-
pendicular to said side walls and generally
5 parallel to said end wall.
16. Separable fastener defined in any
one of the preceding Claims further com-
prising a relief extending inwardly of at
least one of said plate-like members inter-

mediate said side walls longitudinally
throughout said channel.

17. Separable fasteners substantially as
herein described with reference to and as
illustrated in the accompanying drawings. 15

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