

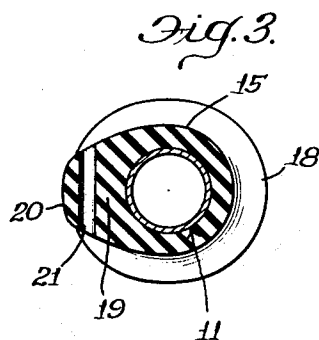
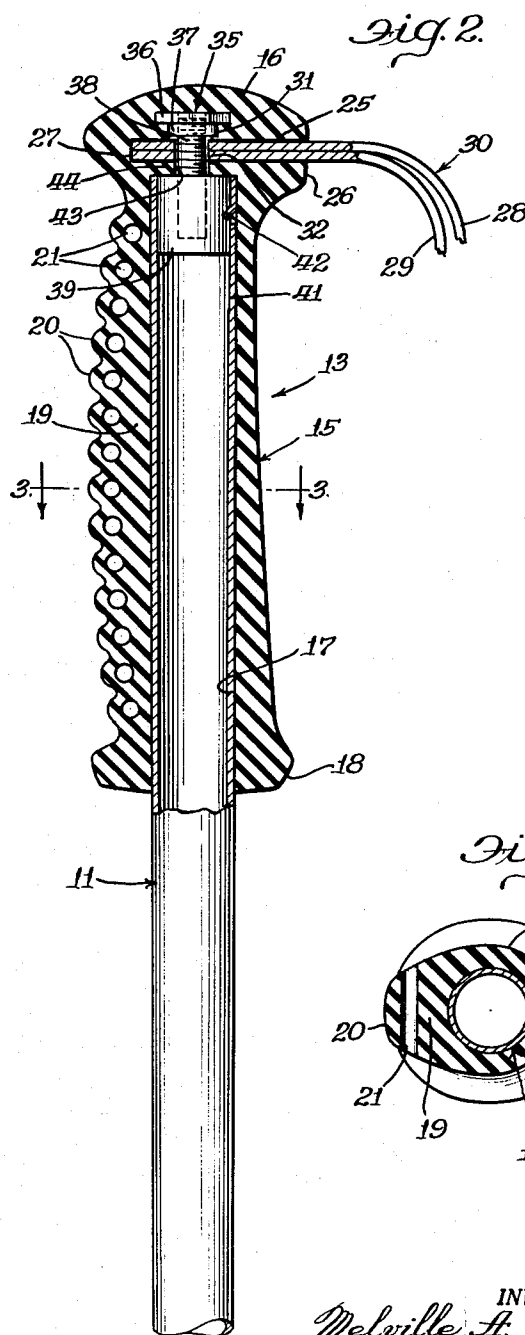
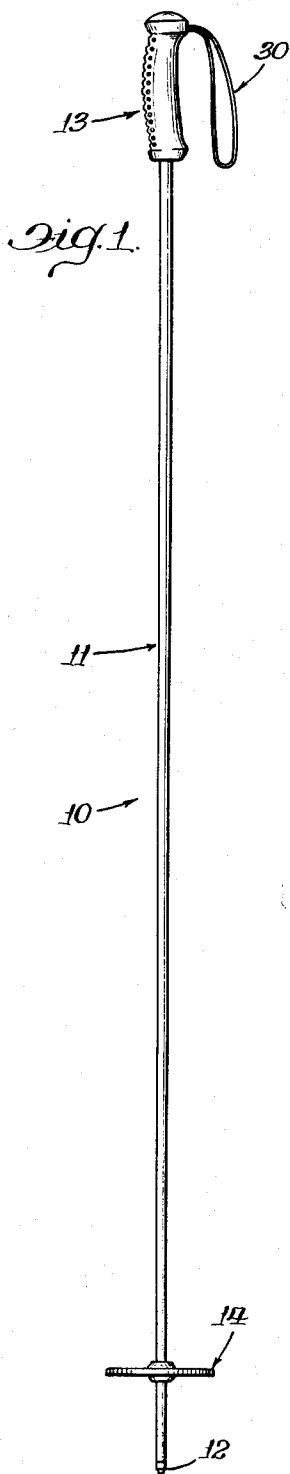
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HANDLE MEANS FOR SKI POLES

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HANDLE MEANS FOR SKI POLE
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This invention relates to handle structures and, more particularly, to improvements in handle means and hand grip means for ski poles and like items of sporting equipment.

Briefly, the present invention is directed to an improved molded hand grip or handle means adapted to be mounted over one end of a ski pole or similar rod-like member and which is distinguished by novel resilient hand grip means and concealed connective means for positively attaching the same to one end of the pole with which it is associated. More particularly, the improved handle means of this invention is distinguished by a plurality of manually engageable parallel ridges defined along one serrated margin of a resilient body portion thereof; the serrated margin being contiguous to a plurality of openings or passageways extending transversely through the handle's body portion to afford improved resiliency and cushioning to the user's grasp thereby to give a much improved gripping action and feel. Additionally, the handle means of this invention includes a greatly improved threaded connector means for positively joining the handle means to one end of the pole or other rod-like member with which it is associated; the connector means being completely concealed from view and external interference.

The main object of the present invention is to provide a new and improved handle means particularly adapted for use with ski poles and like items of sporting equipment.

A further object of this invention is to provide a new and improved handle means, as aforesaid, embodying improved hand grip means.

Still another important object of this invention is to provide a new and improved handle structure, particularly adapted for the attachment to one end of a pole, rod or like instrumentality which comprises improved concealed attachment means.

Still another object of this invention is to provide a new and improved handle means for ski poles and the like which is characterized by its simplicity of structure and improved economy of production and installation.

The above and further objects, features and advantages of this invention will be recognized by those familiar with the art from the following description of a preferred embodiment thereof illustrated in the accompanying drawings.

In the drawings:

FIGURE 1 is a side elevational view of a ski pole embodying the improved handle means of this invention;

FIGURE 2 is an enlarged partial side elevational view of the upper portion of the ski pole seen in FIGURE 1 and showing the handle means of this invention in longitudinal cross section to illustrate its features of construction and assembly with the ski pole; and

FIGURE 3 is a full cross-sectional view taken substantially from vantage line 3-3 of FIGURE 2 and looking in the direction of the arrows thereon.

Turning now to the features of the present invention, it will be seen in FIGURE 1 that the preferred embodiment therein illustrated relates to a ski pole assembly, generally designated 10 comprising an elongated tapered staff or pole member 11 having a ground-engaging pointed tip member 12 at one end thereof and an improved handle means 13 according to this invention mounted over the opposite end thereof. A snow basket 14 of generally circular disc-like formation is mounted

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intermediate the ends of the pole 11, adjacent the ground-engaging tip member 12, according to conventional and known practice.

With particular reference to FIGURES 2 and 3 of the drawings, the specific features and structural aspects of the handle means 13 will now be set forth. As seen in these figures, the improved handle means 13 of this invention comprises a unitary device, preferably molded of rubber or similar resilient material, to include a body portion 15 of generally oval-shaped cross section (see FIGURE 3) integrally merged with an enlarged head portion 16 at its upper end and provided with a central cylindrical cavity or opening 17 extending inwardly from an enlarged lower end portion 18 and reaching substantially the full length of the body portion to the latter's line of merger with the head portion 16. Such central cavity 17 conforms to and receives the upper cylindrical end portion of the pole 11 with which it is to be associated, as will be amplified in greater detail presently.

Intermediate the head portion 16 and the lower end portion 18 is a hand grip portion 19 formed along one arcuate lateral or marginal edge of the body portion 15, disposed wholly to one side of the cavity 17 as shown in FIGURE 3. Such hand grip portion is particularly distinguished by a plurality of adjacent parallel serrations or indentations, defining a plurality of spaced teeth or ridge members 20, 20 comprising semi-cylindrical formations aligned with their major or longitudinal axes generally transverse to the lengthwise axis of the handle body portion 15. Each ridge member 20 is contiguous to or backed-up by a transverse opening 21 (see FIGURE 3) extending through and across grip portion 19 between the lengthwise extending cavity 17 and the associate ridge portion, so that a line passing through the centers of all such openings 21 will be arcuate, to generally parallel the arcuate, exterior formation of the grip portion 19. It will be seen that each of the ridge members cooperates with its associated one opening 21 to afford improved resiliency of the handle under gripping pressure, productive of a more comfortable and cushioned gripping resiliency to the operator or user.

The head portion 16 of the handle means is particularly distinguished by a transverse opening 25 reaching inwardly from one marginal edge 26 thereof and extending substantially transversely to the major or longitudinal axis of the handle body portion 15. Such lateral opening is substantially rectangular in cross-section and constitutes a blind opening having a hidden end or bottom wall 27 within the interior of the head portion 16. This opening 25 is adapted to receive super-imposed layers or end portions 28 and 29 of a wrist-engaging strap 30 which is used by the skier to assist in retaining possession of the ski pole. Such strap end portions 28 and 29 are formed with openings 31 and 32, respectively, which are registering aligned in assembly with handle means 13 as will now be set out.

As seen best in FIGURE 2 of the drawings, the upper or head portion 16 of the handle means carries a fastener means 35 comprising a nut member imbedded therein disposed coaxially with the longitudinal axis of cavity 17. Such fastener means is preferably placed in operational position substantially as shown in FIGURE 2, preliminary to the molding operation for forming the molded handle means 13 so that the same is intimately imbedded in and embraced by the resilient material from which the handle means is fashioned. It will be seen also that the nut fastener means 35 has an enlarged polygonal head portion 36 which assists in anchoring the same in position and a substantially cylindrical shank portion 37 depending from the head portion thereof; the same having an internally threaded opening therethrough for threading connection with and reception of a threaded stud connector means

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38 which extends axially outwardly of the upper end of the pole element 11. Also as shown in FIGURE 2, the nut fastener means, and, more particularly, the lower end of the shank portion 37 thereof is located to lie substantially flush with or slightly above the upper wall of the strap receptive opening 25 in the head portion 16, so as to avoid interference with the insertion of the strap end portions 28 and 29.

As mentioned, the stud connector means 38 is associated with the pole element 11; such being accomplished by means of a cylindrical block or plug 39, of wood or the like, inserted into the upper end of the tubular pole element 11 and suitably anchored in position thereat as by depressing a small area of the tubular side wall 41 of the pole element to provide a clenching prong or projection, such as indicated at 42. In this latter respect, the plug member 39 may also be affixed to the upper end of the pole element by other means such as a tight press fit or by using suitable adhesive, although the clenching indentation provided by the prong means 42 is very satisfactory and simple to provide. In any event, the stud connector means 38 is mounted centrally of the plug element 39 so as to project axially beyond the upper end of the tubular pole element 11, substantially as shown in FIGURE 2. It will be noticed in this respect that in assembling the handle means 13 over the upper end of the pole element 11, the stud connector 38 passes through an opening 43 coaxially and registeringly aligned with the fastener means 35. Opening 43 is formed through an internal web wall 44 which separates the central cavity 17 from the strap receptive opening 25, substantially at the line of junction between the head and body portions of the handle means.

From the foregoing, it will be readily understood that the assembly of the handle means 13 with the pole element 11 and strap means 30 is accomplished in a simple and direct manner by inserting the pole element axially into the cavity 17 of the handle means so that the connector stud means 38 projecting axially beyond the outer end of the pole element passes through opening 43 in the web wall 44 and through the registeringly aligned openings 31 and 32 of the strap member for threaded engagement with and reception in the nut fastener means 35, which is stationarily held and imbedded in the head end of the handle means. Positive threaded interconnection of the handle, strap and pole elements is then accomplished by rotating the pole element relative to the handle means so as to effect the desired interconnection of the fastener means 35 and stud connector 38. In performing this function lubrication of the sides of cavity 17 may at times be necessary to avoid undue frictional resistance to the required threading rotation of the pole element. It will be readily appreciated that this connective means provides a simple expedient for positively interjoining the strap, handle and pole elements simultaneously while maintaining the junction and connection of such elements completely concealed from view, particularly desirable in sporting goods, such as ski poles. It will also be appreciated that replacement of the strap element 30 in the event the latter is broken, may be accomplished easily and expeditiously by unthreading movement of the pole to disengage the stud connector from the nut fastener means 35 imbedded in the handle means. When the nut and stud are uncoupled the pole is withdrawn from the central cavity 17 of the handle means, and the broken strap means 30 removed and replaced for reassembly in the manner above described.

From the foregoing it is believed that those familiar with the art will readily recognize and appreciate the unique and novel aspects of the present invention, particularly as indicated by the simple, direct, yet positive interconnection of the handle, strap and pole elements with a single connector means. It also is to be recognized that the provision of the several transverse openings 21 opposite each of the grip providing ridges 20 of the handle means affords a simple, yet very effective, means for pro-

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viding a cushion action to the user's grasp to promote a more positive and a comfortable gripping action. It is to be recognized and understood additionally that while the present invention has been described in association with an illustrated and preferred embodiment thereof, such is not necessarily limited to the particulars of the above described embodiment since the same is obviously susceptible to change, modification and substitution of equivalents without departure from the spirit of the present invention. As a consequence, it is not intended that this invention be limited by the particulars of the foregoing description and illustrated embodiment, except as may appear in the following appended claims.

I claim:

1. In combination, a pole element having a substantially cylindrical end portion, an elongated resilient unitary handle means made as a single piece molding having a central cylindrical cavity opening inwardly of one end thereof and receptive of the said end portion of said pole element, and concealed means for positively connecting said pole element to said handle means comprising threaded fastening means having an enlarged polygonal head portion immovably anchored to and inaccessibly imbedded within the upper end of said handle means during the molding formation of the latter and a depending internally threaded shank portion coaxially communicating with the upper end of said central cavity, and threaded connector means fixed to and extending coaxially outwardly of said one end portion of said pole element for threading reception and cooperating connective engagement with the said fastening means wholly within said handle means.

2. Handle means for a ski pole and the like comprising a molded, resilient, elongated body portion having a central longitudinal cylindrical cavity opening inwardly of one end of said body portion thereof and extending substantially the length thereof, an enlarged head portion formed integrally with said body portion and enclosing the opposite end of said cavity, fastening means inaccessibly concealed by and fixedly anchored within said head portion and coaxially communicating with said cavity; said fastening means being connectively receptive of cooperating connector means fixed to and projecting axially from one end of a ski pole element inserted into said cavity, and hand grip means formed along one lateral serrated marginal portion of said body portion and comprising a plurality of parallel spaced semi-cylindrical ridge portions, the longitudinal axes of which ridge portions are aligned transversely and laterally outwardly of said cavity, each of said ridge portions being contiguous to a substantially cylindrical opening formed substantially coaxially therewith and extending transversely through said body portion between said one marginal edge thereof and said cavity, the said openings cooperating with said ridge portions to provide a cushioning action to the user when manually gripping said handgrip means by affording inward collapsing movement of said ridge portions thereof.

3. The combination as set forth in claim 2, wherein said handle means is a unitary rubber molding and said fastening means is a threaded nut with an enlarged polygonal head portion intimately imbedded in and anchored to said head portion during molding formation of said handle means.

4. The combination as set forth in claim 2, in which said head portion of said handle means includes an opening extending laterally inwardly of one marginal edge thereof and disposed substantially transversely of the longitudinal axis of said cavity between the upper end of the latter and said fastener means, and wrist-engaging strap means having free end portions inserted in said lateral opening and thereby disposed within said handle means with each of said end portions thereof having an opening therethrough receptive of the said connector means associated with said pole element, whereby the interengagement of said connector and fastener means serves to anchor

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said strap means to said pole element and handle means.

5. The combination as set forth in claim 4, wherein said handle means is a unitary molded member of relatively pliable elastic material and includes an internal web wall portion traversing said cavity and separating the same from said lateral opening, said web wall portion having passageway means for said connector means.

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