THERMAL ATHLETIC GLOVE

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ABSTRACT

A thermal athletic glove which comprises a back side portion that has an inner layer to provide comfort to a hand and fingers of a person, an intermediate layer to lock heat in, and an outer layer to keep the heat in. A palm side portion has an inner layer to provide comfort to the hand and the fingers of the person, an intermediate layer to lock the heat in, and an outer layer to provide an optimal grip while allowing maximum flexibility for the fingers and the hand of the person.
THERMAL ATHLETIC GLOVE

BACKGROUND OF THE INVENTION

[0001] 1. Field of the Invention

[0002] The present invention relates to a glove, and more particularly, a thermal athletic glove.

[0003] 2. Description of the Prior Art

[0004] Numerous innovations for multi-phy gloves have been provided in the prior art that will be described. Even though these innovations may be suitable for the specific individual purposes to which they address, however, they differ from the present invention.

[0005] A FIRST EXAMPLE, U.S. Pat. No. 3,096,523, issued on Jul. 9, 1963, to Bruchas teaches a football glove comprising a wriststrap, a palm portion, individual finger and thumb stalls, the backs of the finger stalls extending from the tips thereof to a wristband between the first and second joints of the wearer’s fingers and each having an elastic portion in the zone adapted to grip and retain the fingers in the stalls, the remaining part of the back of the glove being open, the glove having patches of tactile gripping material secured at the balls of the thumb and finger stalls, the glove otherwise being of less tactile gripping material than the patches.

[0006] A SECOND EXAMPLE, U.S. Pat. No. 4,662,006, issued on May 5, 1987, to Ross teaches a multi-phy glove or mitt construction having a multi-phy shell and a multi-phy selectively removable liner is provided with interengaging contacting surfaces. The shell is formed by an outer water repellant layer and an inner heat insulating layer, between which is sandwiched a relatively waterproof breathable layer. A slide layer is formed on the inner surface of the inner heat insulating layer. The insulating layer of the shell is preferably formed of a lofting material such as down, DACRON or THINSULATE fiber, or the like natural or synthetic fibrous materials lending themselves to lofting. The slide layer faces the interior of the glove and is formed of a material providing a shiny surface by means of a non-brushed knit or woven synthetic such as nylon and/or similar sheet synthetic. The interior removable liner is formed of relatively porous moisture absorbent material such as a pile fabric, or woven, knitted, or felted fabric of natural or synthetic fiber, or encased lofting material having a preferably coarse outer surface layer, and relatively smoother inner surface layer. The interior of the shell and the exterior of the liner are provided preferably adjacent their cuffs with interengaging means, preferably in the form of VELCRO.

[0007] A THIRD EXAMPLE, U.S. Pat. No. 4,723,324, issued on Feb. 9, 1988, to Lassiter teaches a thermal and/or protective glove construction which increases tactile sensitivity. In each of the thumb and fingertip portions of the glove there is provided a finger contact pad and a relatively stiff transmission system for transmitting detected vibrations from external stimuli to the wearer's fingertips. The finger contact pads may be Velcro™ fastener material and the transmission system may comprise a plurality of rigid plastic prongs embedded in the relatively thick insulated material used in thermal gloves. Additional response surface pads, which also may be of Velcro™ fastener material, may be applied to the external side of the transmission material.

[0008] A FOURTH EXAMPLE, U.S. Pat. No. 4,881,276, issued on Nov. 21, 1989, to Swan teaches a cold weather sports glove including at least one of the fingers or thumb having an area of low coefficient of friction and at least one opposing finger or thumb having an area of high coefficient of friction. The glove is formed with a layer of compressible neoprene foam rubber which forms the outer surface of the glove having a high coefficient of friction. Nylon pads are coupled to the outer surface of the foam rubber layer at the distal ends of preselected fingers or thumb. The area of low friction, formed by the nylon pads, permits the user to perform activities requiring a relative slipping motion between the user's finger or thumb and the device being used. The area of high friction, formed by the foam rubber layer, permits the user to grasp and release objects with more sensitivity and precision due to its compressibility. In fishing, preferably the thumb and index finger of the glove have areas of low coefficient of friction. In hunting, preferably the index finger of the glove is covered with an area of low coefficient of friction on both its palm and backhand sides. In archery, preferably the index finger, the middle finger and the pinky have areas of low coefficients of friction on their palm side to permit the bowstring to slide thereon when released. In a snowmobile mitt, preferably the index finger has an area of low coefficient of friction, while the thumb and the mitt portions are covered with areas of high coefficients of friction.

[0009] A FIFTH EXAMPLE, U.S. Pat. No. 5,117,509, issued on Jun. 2, 1992, to Bowers teaches an improved athletic glove having superior gripping properties generally comprising a palm piece and a back piece joined together to fit the human hand. The palm piece is made of a sheet of leather material prepared by a chrome tanning process or synthetic leather material having a substantially continuous layer of silicone sealant covering the palm side thereof. The layer of sealant is bonded to the palm side and does not penetrate through the palm side to the hand of a wearer.

[0010] A SIXTH EXAMPLE, U.S. Pat. No. 5,829,061, issued on Nov. 3, 1998, to Visigil et al. teaches a molded work glove for providing protection to the hand and fingers of a wearer against cold and abrasion. A hand portion is made of a sheet foam material having a thickness between 1 mm and 5 mm. A hand cavity is disposed in the hand portion and is defined by the sheet foam material. Finger portions are mounted to the periphery of the hand portion and extend outwardly. The finger portions have a palm side and a back side and a tip located distal to the hand portion. The finger portions are made of a sheet foam material having a thickness between 1 mm and 5 mm. Finger cavities are disposed in the finger portions and are defined by the sheet foam material. The sheet foam material is an elastic, nonabsorbent, insulating material. The finger cavity at the tip is sized to loosely fit the finger of the wearer such that a gap is formed between the finger of the wearer and the sheet foam material. At least one aperture is disposed in the palm side at the tip of at least three finger portions. The aperture is sized to allow the fingers of the wearer to selectively pass through the apertures and be seated in the apertures in a snug fit.

[0011] A SEVENTH EXAMPLE, WIPO Document No. WO/1999/030584, issued on Jun. 24, 1999, to Kang teaches an athletic glove having consistent gripping ability in various moisture conditions generally comprising a palm piece and a back piece joined together to fit the human hand. A palm piece is made of impregnated polyurethane artificial leather having a silicone printing on it. In this case, printed silicone elastomeric sealant preferably done by silk-printing on the impregnated polyurethane artificial leather in repeated patterns of lines of narrow width, tiny dots, small letters, various tiny shapes, the combination of the above, or etc. with a considerable bare leather fabric surface not having silicone printing,
makes the gloves not only have more improved gripping ability than bare impregnated polyurethane leather, but also have consistent gripping ability in various moisture conditions without losing its original good, soft and supple feel, finger motion, tactile response of original impregnated polyurethane artificial leather, when the silicone elastomeric sealant is penetrated properly into and bonded firmly with the fibers of the polyurethane artificial leather as to not to be emboosed but to be a plain impregnated surface after curing. Even the flowing water on the surface of this plain silicone printing is expelled easily as to prevent thin water film effects because water contents on the silicone surface are squeezed and absorbed easily by the capillary absorption phenomenon of the bare artificial leather fibers adjacent to the silicone surface at the same level. In order to embody the present invention, on the impregnated polyurethane artificial leather, the silicone elastomeric sealant is silk-printed preferably with two type silicone elastomeric sealant which requires more than a day to cure at room temperature, but cures in a minute or two at 130-170° C. and provides consistent and improved gripping ability which does not vary in different moisture conditions.

[0012] AN EIGHTH EXAMPLE, U.S. Pat. No. 5,926,847, issued on Jul. 27, 1999, to Elbert teaches exemplary golf gloves and methods for their use. In an exemplary embodiment, a flexible golf glove is provided having a glove S body having a palmar side and a dorsal side. A plurality of finger portions and a thumb portion each having a palmar side and a dorsal side are operably attached to the glove body. The glove further comprises at least one resilient pad comprising silicone foam operably attached to the palm side of the glove body.

[0013] A NINTH EXAMPLE, U.S. Pat. No. 7,086,093, issued on Aug. 8, 2006, to Carey et al. teaches a glove having a heat insulating barrier. The heat insulating barrier is removably inserted into a zipper pocket or a weblike pouch, the pocket or pouch being positioned proximate the back of a user’s hand. The heat insulating barrier acts to selectively reduce heat conduction from the back side of the hand, thereby allowing the user’s hand or hands to remain warm in cold environments. The ability to stack a varying number of heat insulating layers in the pouch or pocket further allows the user to selectively control the warmth of the hand as the ambient temperature fluctuates during use.

[0014] It is apparent now that numerous innovations for multi- ply gloves have been provided in the prior art that are adequate for various purposes. Furthermore, even though these innovations may be suitable for the specific individual purposes to which they address, accordingly, they would not be suitable for the purposes of the present invention as here-tofore described.

SUMMARY OF THE INVENTION

[0015] AN OBJECT of the present invention is to provide a thermal athletic glove that avoids the disadvantages of the prior art.

[0016] ANOTHER OBJECT of the present invention is to provide a thermal athletic glove that is simple and inexpensive to manufacture.

[0017] STILL ANOTHER OBJECT of the present invention is to provide a thermal athletic glove that is simple to use.

[0018] BRIEFLY STATED, STILL YET ANOTHER OBJECT of the present invention is to provide a thermal athletic glove which comprises a back side portion that has an inner layer to provide comfort to a hand and fingers of a person, an intermediate layer to lock heat in, and an outer layer to keep the heat in. A palm side portion has an inner layer to provide comfort to the hand and the fingers of the person, an intermediate layer to lock the heat in, and an outer layer to provide an optimal grip while allowing maximum flexibility for the fingers and the hand of the person.

[0019] The novel features which are considered characteristic of the present invention are set forth in the appended claims. The invention itself, however, both as to its construction and its method of operation, together with additional objects and advantages thereof, will be best understood from the following description of the specific embodiments when read and understood in connection with the accompanying drawing.

BRIEF DESCRIPTION OF THE DRAWING

[0020] The figures of the drawings are briefly described as follows:

[0021] FIG. 1 is a diagrammatic perspective view of an embodiment of the present invention;

[0022] FIG. 2 is an enlarged diagrammatic cross-sectional view taken on line 2-2 in FIG. 1;

[0023] FIG. 3 is a further enlarged diagrammatic cross-sectional view, taken in the area enclosed in the dotted circle indicated by arrow 3 in FIG. 2, showing the particular materials which are incorporated in the back side portion of the present invention in greater detail;

[0024] FIG. 4 is a further enlarged diagrammatic cross-sectional view, taken in the area enclosed in the dotted circle indicated by arrow 4 in FIG. 2, showing the particular materials which are incorporated in the palm side portion of a first embodiment of the present invention in greater detail; and

[0025] FIG. 5 is a further enlarged diagrammatic cross-sectional view, taken in the area enclosed in the dotted circle indicated by arrow 5 in FIG. 2, showing the particular materials which are incorporated in the palm side portion of a second embodiment of the present invention in greater detail.

A MARSHALING OF REFERENCE NUMERALS UTILIZED IN THE DRAWING

[0026] 10 thermal athletic glove
[0027] 12 back side portion of thermal athletic glove 10
[0028] 14 inner layer of back side portion 12
[0029] 16 hand of person 20
[0030] 18 finger of person 20
[0031] 20 person
[0032] 22 intermediate layer of back side portion 12
[0033] 24 outer layer of back side portion 12
[0034] 26 palm side portion of thermal athletic glove 10
[0035] 28 inner layer of palm side portion 26
[0036] 30 intermediate layer of palm side portion 26
[0037] 32 outer layer of palm side portion 26
[0038] 34 fleece material for inner layer 14
[0039] 36 polyethylene material for intermediate layer 22
[0040] 38 neoprene material for outer layer 24
[0041] 40 fleece material for inner layer 28
[0042] 42 polyethylene material for intermediate layer 30
[0043] 44 leather material for outer layer 32
[0044] 46 silicone impregnated tactile material for outer layer 32
[0045] 48 elastic wrist band of thermal athletic glove 10
[0046] 50 VELCRO closure of elastic wrist band 48
DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENT

[0049] Referring now to the figures, in which like numerals indicate like parts, and particularly to FIGS. 1 through 5, which are a diagrammatic perspective view of an embodiment of the present invention; an enlarged diagrammatic cross-sectional view taken on line 2-2 in FIG. 1; a further enlarged diagrammatic cross-sectional view, taken in the area enclosed in the dotted circle indicated by arrow 3 in FIG. 2, showing the particular materials which are incorporated in the back side portion of the present invention in greater detail; a further enlarged diagrammatic cross-sectional view, taken in the area enclosed in the dotted circle indicated by arrow 4 in FIG. 2, showing the particular materials which are incorporated in the palm side portion of a first embodiment of the present invention in greater detail; and a further enclosed diagrammatic cross-sectional view, taken in the area enclosed in the dotted circle indicated by arrow 5 in FIG. 2, showing the particular materials which are incorporated in the palm side portion of a second embodiment of the present invention in greater detail, and as such, will be discussed with reference thereto.

[0050] The present invention is a thermal athletic glove 10 which comprises a back side portion 12 that has an inner layer 14 to provide comfort to a hand 16 and fingers 18 of a person 20, an intermediate layer 22 to lock heat in, and an outer layer 24 to keep the heat in. A palm side portion 26 has an inner layer 28 to provide comfort to the hand 16 and the fingers 18 of the person 20, an intermediate layer 30 to lock the heat in and an outer layer 32 to provide an optimal grip while allowing maximum flexibility for the fingers 18 and the hand 16 of the person 20.

[0051] The inner layer 14 of the back side portion 12 is comprised out of a fleece material 34. The intermediate layer 22 of the back side portion 12 is comprised out of a polyethylene material 36. The outer layer 24 of the back side portion 22 is comprised out of a neoprene material 38.

[0052] The inner layer 28 of the palm side portion 26 is comprised out of a fleece material 40. The intermediate layer 30 of the palm side portion 26 is comprised out of a polyethylene material 42. As shown in FIG. 4, the outer layer 32 of the palm side portion 26 is comprised out of a leather material 44. As shown in FIG. 5, the outer layer 32 in the palm side portion 26 is comprised out of a silicone impregnated tactile material 46.

[0053] The thermal athletic glove 10, further comprises an elastic wrist band 48 having a VELCRO closure 50. The thermal athletic glove further comprises a mechanism 52 for securing the back side portion 12 to said palm side portion 26. The securing mechanism 52 comprises thread stitching 54 through the perimeter of the back side portion 12 and the palm side portion 26.

[0054] It will be understood that each of the elements described above, or two or more together, may also find a useful application in other types of constructions differing from the types described above.

[0055] While the invention has been illustrated and described as embodiments of a thermal athletic glove, accordingly it is not limited to the details shown, since it will be understood that various omissions, modifications, substitutions and changes in the forms and details of the device illustrated and its operation can be made by those skilled in the art without departing in any way from the spirit of the present invention.

[0056] Without further analysis, the foregoing will so fully reveal the gist of the present invention that others can, by applying current knowledge, readily adapt it for various applications without omitting features that, from the standpoint of prior art, fairly constitute characteristics of the generic or specific aspects of this invention.

1. A thermal athletic glove which comprises:
   a) a back side portion having an inner layer to provide comfort to a hand and fingers of a person, an intermediate layer to lock heat in, and an outer layer to keep the heat in; and
   b) a palm side portion having an inner layer to provide comfort to the hand and the fingers of the person, an intermediate layer to lock the heat in, and an outer layer to provide an optimal grip while allowing maximum flexibility for the fingers and the hand of the person.

2. The thermal athletic glove as recited in claim 1, wherein said inner layer of said back side portion is comprised out of a fleece material.

3. The thermal athletic glove as recited in claim 1, wherein said intermediate layer of said back side portion is comprised out of a polyethylene material.

4. The thermal athletic glove as recited in claim 1, wherein said outer layer of said back side portion is comprised out of a neoprene material.

5. The thermal athletic glove as recited in claim 1, wherein said inner layer of said palm side portion is comprised out of a fleece material.

6. The thermal athletic glove as recited in claim 1, wherein said intermediate layer of said palm side portion is comprised out of a polyethylene material.

7. The thermal athletic glove as recited in claim 1, wherein said outer layer of said palm side portion is comprised out of a leather material.

8. The thermal athletic glove as recited in claim 1, wherein said outer layer of said palm side portion is comprised out of a silicone impregnated material.

9. The thermal athletic glove as recited in claim 1, further comprising an elastic wrist band having a VELCRO closure.

10. The thermal athletic glove as recited in claim 1, further comprising means for securing said back side portion to said palm side portion.

11. The thermal athletic glove as recited in claim 10, wherein said securing means comprises thread stitching through the perimeter of said back side portion and said palm side portion.

12. A thermal athletic glove which comprises:
   a) a back side portion having an inner layer to provide comfort to a hand and fingers of a person, an intermediate layer to lock heat in, and an outer layer to keep the heat in; and
   b) a palm side portion having an inner layer to provide comfort to the hand and the fingers of the person, an intermediate layer to lock the heat in, and an outer layer to provide an optimal grip while allowing maximum flexibility for the fingers and the hand of the person; wherein said inner layer of said back side portion is comprised out of a fleece material; wherein said intermediate layer of said back side portion is comprised out of a polyethylene material;
wherein said outer layer of said back side portion is comprised out of a neoprene material; wherein said inner layer of said palm side portion is comprised out of a fleece material; wherein said intermediate layer of said palm side portion is comprised out of a polyethylene material; wherein said outer layer of said palm side portion is comprised out of the group selected from a leather material and a silicone impregnated material.

13. The thermal athletic glove as recited in claim 12, further comprising an elastic wrist band having a VELCRO closure.

14. The thermal athletic glove as recited in claim 12, further comprising means for securing said back side portion to said palm side portion.

15. The thermal athletic glove as recited in claim 14, wherein said securing means comprises thread stitching through the perimeter of said back side portion and said palm side portion.