Oct. 6, 1964 K. R. HAUPT ETAL 3,151,334

GLOVE WITH IMPROVED THUMB

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Fig. 1

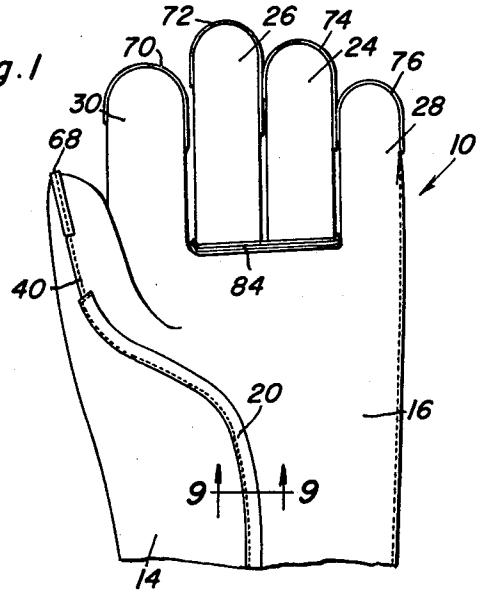


Fig. 2

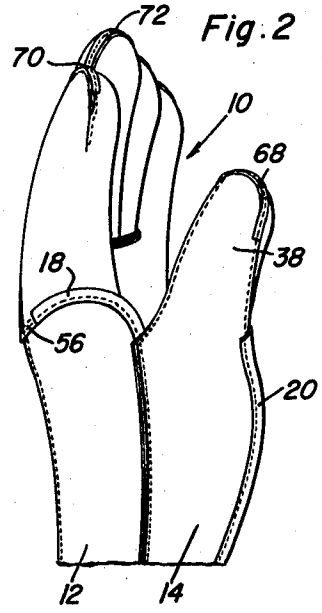


Fig. 3

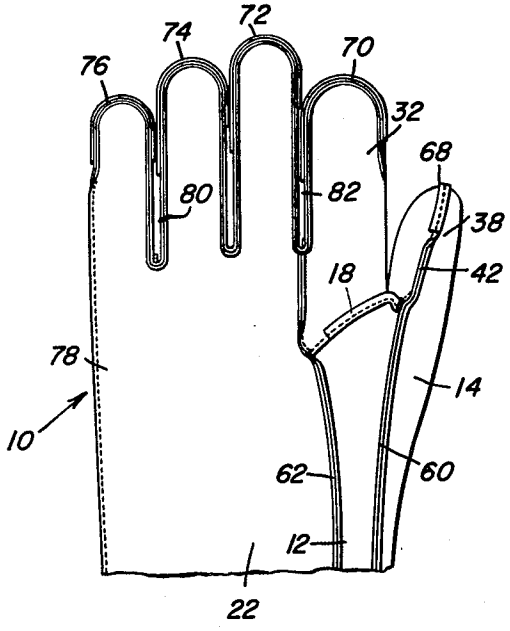
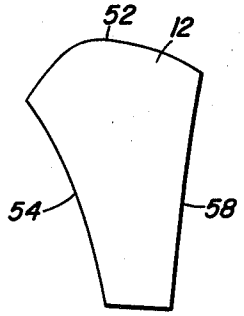


Fig. 4



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Fig. 5

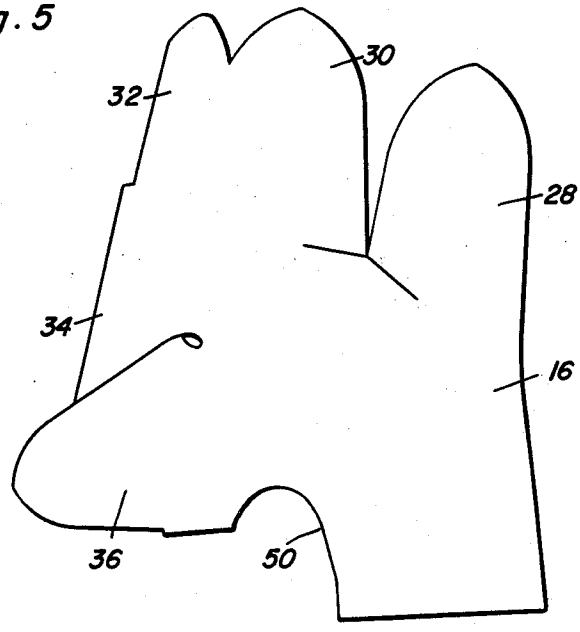


Fig. 6

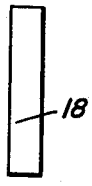


Fig. 7

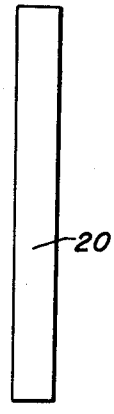


Fig. 8

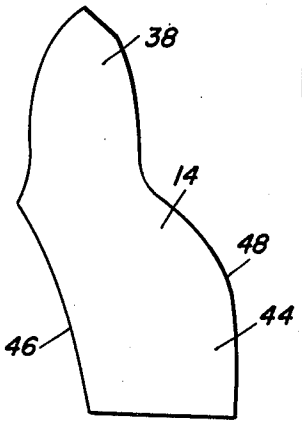
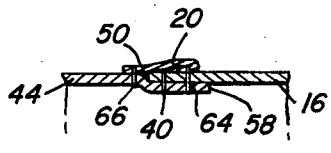


Fig. 9



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GLOVE WITH IMPROVED THUMB

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Filed Nov. 29, 1962, Ser. No. 240,840
1 Claim. (Cl. 2—169)

The present invention generally relates to a glove construction and more particularly an improved structural refinement in gloves or mitts, especially work gloves or mitts.

An object of the present invention is to provide an improved glove construction especially adapted for but not limited to incorporation in work gloves or mitts in which the novel structure provides for a substantial freedom of movement for the hand and especially the thumb without restriction and without undue bulkiness, thereby enabling tools or the like to be easily held in the glove or mitt and further enabling such tools to be manipulated with unusual dexterity.

A further important object of the present invention resides in the provision of an improved glove construction and particularly an improved construction of the thumb member together with a unique manner of attaching the thumb member to the palm member of the glove or mitt so as to result in unusual flexibility, strength and proper fitting.

Still another object of the present invention is to provide a glove construction which is extremely simple in construction, durable in use, adapted for embodiment in various sizes or types of gloves and mitts and relatively inexpensive to manufacture.

Yet another feature of the present invention is to provide a glove member having a minimal number of component parts in which reinforcing welts are used to reinforce the seams, such as the seam at the thumb crotch and at the junction of the thumb member and palm member.

These together with other objects and advantages which will become subsequently apparent reside in the details of construction and operation as more fully hereinafter described and claimed, reference being had to the accompanying drawings forming a part hereof, wherein like numerals refer to like parts throughout.

FIGURE 1 is a front plan view of a glove constructed in accordance with the present invention;

FIGURE 2 is a side elevational view of the present invention as viewed from the thumb side thereof;

FIGURE 3 is the rear wiev of the glove adapted for the left hand;

FIGURE 4 is a plan view of the second thumb member;

FIGURE 5 is a plan view of the palm member used in constructing the glove;

FIGURE 6 is a plan view of the reinforcing welt used to reinforce the seam at the thumb crotch;

FIGURE 7 is a plan view of the reinforcing welt which is used to reinforce the seam at the junction of the thumb member and palm member;

FIGURE 8 is a plan view of the first thumb member; and

FIGURE 9 is a transverse, sectional view taken substantially upon a plane passing along section line 9—9 of FIGURE 1 illustrating the particular construction of the seam between the thumb member and the palm member and illustrating the relationship of the reinforcing welt thereto.

Referring now specifically to the drawings, FIGURES 1–3 illustrate the finished glove 10 construction incorporating the present invention therein. The glove illustrated is for the left hand with it being understood that the same construction would be incorporated into the right hand glove with the structural arrangements being properly

orientated therefor. Also, the construction of a glove may be incorporated into mitts and the glove may be of any suitable construction, shape and size. Further, the construction of the present invention is primarily adapted for but not limited to use in conjunction with work gloves since the particular construction provides an extremely durable and long-lasting glove construction.

FIGURES 4–9 illustrate the component parts of the glove which include a second thumb member designated by numeral 12 and illustrated in FIGURE 4, a first thumb member designated by numeral 14 and illustrated in FIGURE 8. FIGURE 5 illustrates the palm member designated by numeral 16 and FIGURES 6 and 7 illustrate reinforcing welts 18 and 20, all of which are incorporated into the glove construction.

The developed plan view of the back member which covers the rear surface of the hand is not illustrated but is designated by numeral 22 in FIGURE 3. There is also provided the front members 24 and 26 for the third and second fingers respectively.

As illustrated in FIGURE 1 and in FIGURE 5, the palm member 16 includes a portion covering the front and the inside of the little finger designated by numeral 28. Also, the palm member includes a portion covering the front of the index finger designated by numeral 30 and also a portion which covers the rear of the index finger designated by numeral 32 and including a portion extending therefrom designated by numeral 34 which covers the inner end of the rear of the index finger including the knuckle portion thereof. Also, the palm member 16 is provided with a portion integral therewith designated by numeral 36 which covers the surface of the thumb facing the palm of the hand as clearly illustrated in FIGURE 1. Thus, the palm member 16 is of one piece construction which covers the front and inside of the little finger, the front, inside, outside and rear surface of the index finger, thus completely enclosing the index finger and the front surface and portions of the sides of the thumb.

The thumb member is completed by the two parts of the thumb member illustrated in FIGURES 4 and 8. The first thumb member 14 includes an outer end portion 38 which is disposed in overlying relation to the rear surface of the thumb and is attached to the side edges of the portion 36 of palm member 16 by seams 40 and 42. The bottom or inner end portion of the first thumb member 14 is wider than the outer end portion and is designated by numeral 44 and includes a curved edge 46 of a concave nature and a curved edge 48. The edge 48 corresponds with and is secured to the edge of the palm member 16 and the portion 36 thereof which are correspondingly curved as designated by numeral 50.

The second thumb member 12 includes a curved top edge or outer edge 52 generally convex in nature and one side edge 54 thereof is generally concave. The convex edge 52 is stitched to the inner end of the portion 34 of the palm member 16 which is disposed to the rear of the index finger and also the seam 56 which joins the second thumb member 12 to the portion 34 extends to and is joined with the seam 42 that secures the outer end portion 38 of the first thumb member 14 to the portion 36 of the palm member 16 which covers the front of the thumb. The side edge 58 of the second thumb member 12 is connected to the edge 46 of the first thumb member 14 along a seam 60 which is a continuation of the seam 42. The concave edge 54 of the second thumb member 12 is connected to the back panel 22 by a line of stitching or seam 62 with this seam also extending upwardly and connecting the bottom edge portion of the portion 34 which covers the rear of the index finger to the back panel 22 and the seam 60 extends to the crotch between the index and second finger.

The reinforcing welting 18 is disposed across the thumb crotch and extends from the juncture of the seams 42 and 60 to a point adjacent the seam 62, thus reinforcing the thumb crotch to prevent the seam 56 from being pulled apart and also reinforcing this seam and adding to the life expectancy of the seam and the glove. Also, the welting 20 is secured to the seam 40 which connects the convex edge 48 of the first thumb member 14 to the palm member 16 along the edge 50. FIGURE 9 illustrates the orientation of the welting 20 in that one edge thereof is secured to the seam 40 by a row of stitching 64 and the welting is then disposed in overlying relation to the stitching 64 and in bridging relation to the seam 40 and the free edge thereof is then stitched to the portion 44 by stitching 66. All of the welting is attached in the same manner and a similar welting 68 is provided around the tip of the thumb 68 to reinforce this area and also around the tips of each of the fingers designated by numeral 70, 72, 74 and 76. The back panel 22 is secured to the outer edge of the palm member by a seam 78 which is continuous around the tip of the little finger and then back to the crotch between the third finger and the little finger. The back panel 22 is also connected to the front members 26 and 24 covering the second and third fingers by a continuous seam 80 which merges with and becomes a part of the seam 82 which connects the edge of the index finger portion 30 of the palm member 16 to the portion 32 thereof, the seam 82 extending up over the tip of the index finger as illustrated in FIGURE 2. Also, the second and third finger front members 26 and 24 are stitched to the palm member 16 along a seam 84 which also may be provided with a reinforcing welt thereby reinforcing this area of the glove.

It is noted that the seam 56 between the portion 34 and the second thumb member illustrated in FIGURE 4 is disposed with the index finger knuckle being outwardly of the seam, thus providing a highly flexible stall for the index finger. Also, the welt reinforcement terminates on both seams which form the thumb stall in the area of the outer knuckle in the thumb thus enabling the thumb to be more readily flexed.

The particular material from which the glove is constructed may be varied and may be of any suitable wear-resistant material normally employed in work gloves, work mitts or similar type gloves.

The foregoing is considered as illustrative only of the principles of the invention. Further, since numerous modifications and changes will readily occur to those skilled in the art, it is not desired to limit the invention to the exact construction and operation shown and described, and accordingly all suitable modifications and equivalents may be resorted to, falling within the scope of the invention as claimed.

What is claimed as new is as follows:

In a glove construction, a palm member including a first portion adapted to enclose the major length of the index finger of a wearer and a second portion adapted to cover the front surface of the thumb of the wearer, a first thumb member attached to the second portion of the palm member along both sides thereof and being connected to an adjacent edge of the palm member, said first thumb member adapted to cover the rear surface of the thumb from the tip to the wrist area thereof, a second thumb member attached to the first portion of the palm member and to the edge of the first thumb member from its point of connection with said second portion of the palm member to the end of the thumb member at the wrist area, a back panel connected to the side edge of said first portion of the palm member, said back panel also being connected with the side edge of the second thumb member remote from the first thumb member, the side edge of the back panel remote from the second thumb member being connected to the side edge of the palm member remote from said first and second portions, the juncture between the second thumb member and said first portion of the palm member being arcuately curved with the concavity adapted to face the wrist area, said arcuate juncture adapted to be disposed between the first knuckle of the index finger and the wrist area, said arcuate juncture being provided with a reinforcing welt on the outer surface thereof terminating in spaced relation to the seam between the second thumb member and back panel, the juncture between the first thumb member and palm member being curved and provided with a reinforcing welt, extending from the wrist area around the tip of the finger stall formed by said first thumb member and second portion of the palm member, said reinforcing welt on the first thumb member being omitted at opposite sides of the outer knuckle of the thumb of the wearer, said second thumb member including converging side edges extending longitudinally from the arcuate juncture, said back panel including portions adapted to cover the back surface of the second, third and little fingers, a pair of front members attached to the portions of the back panel adapted to cover the second and third fingers and adapted to cover the front surface of the second and third fingers, said palm member having a finger portion adapted to cover the front of the little finger and attached to the portion of the back panel adapted to cover the back surface of the little finger.

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