May 24, 1960 J. H. MACKAY ET AL 2,937,379

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Filed March 3, 1959 2 Sheets-Sheet 1

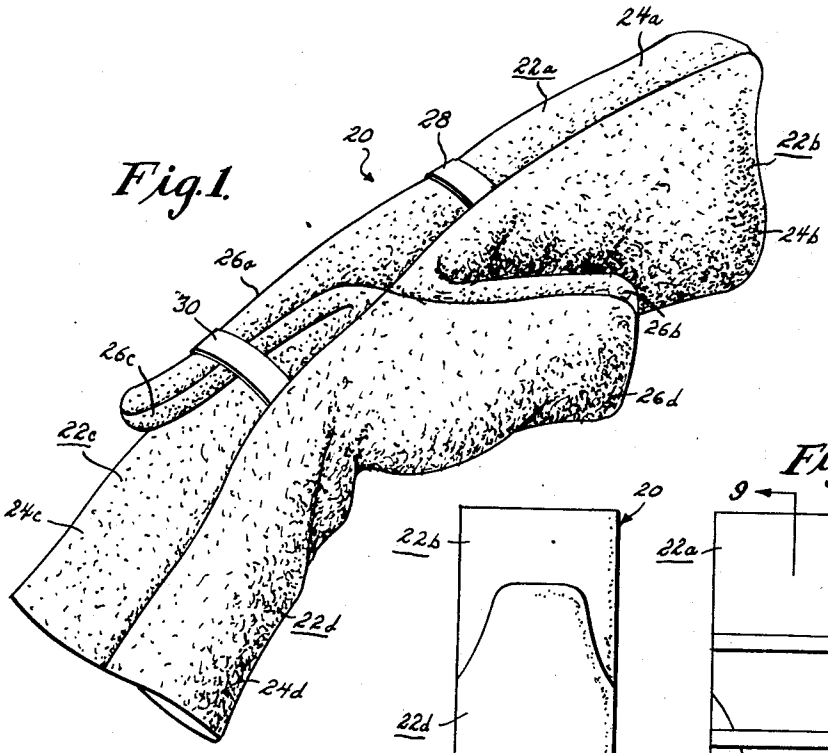


Fig. 1.

Fig. 2.

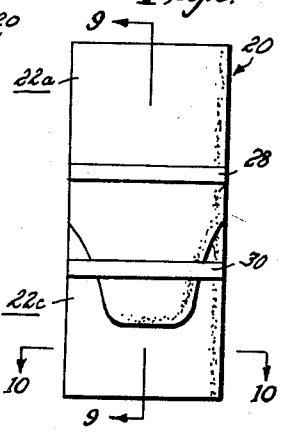


Fig. 3.

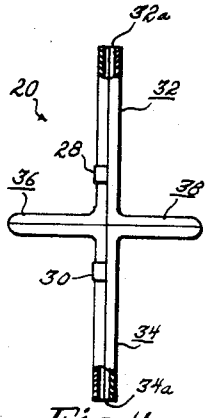


Fig. 4.

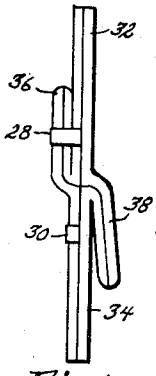


Fig. 5.

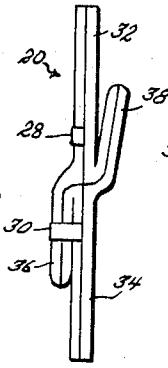


Fig. 6.

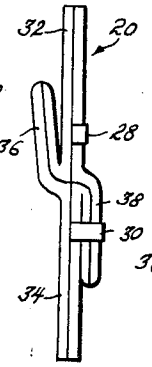


Fig. 7.

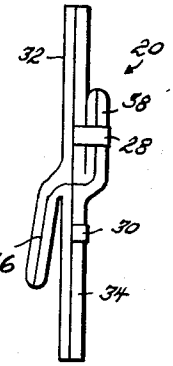


Fig. 8.

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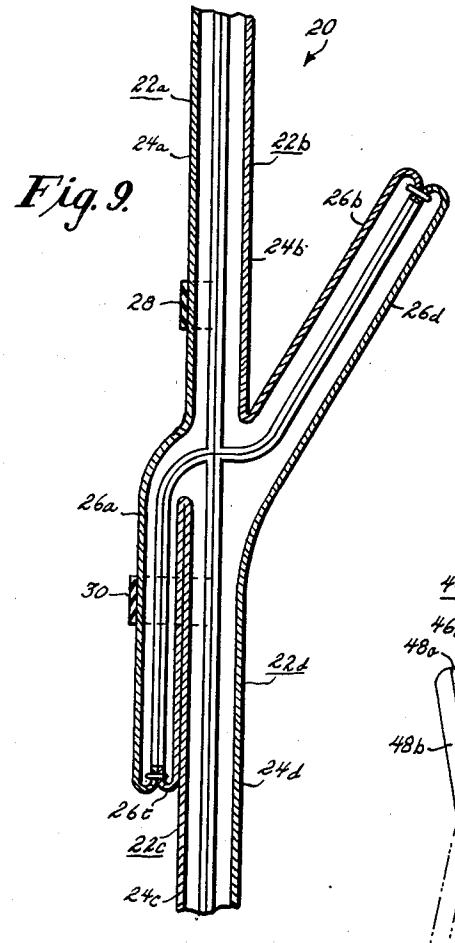


Fig. 9.

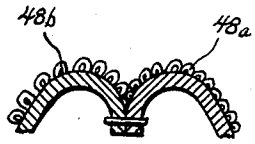


Fig. 13.



Fig. 14.

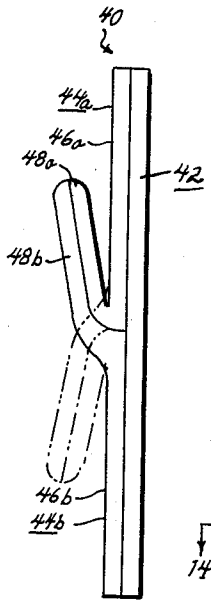


Fig. 11.

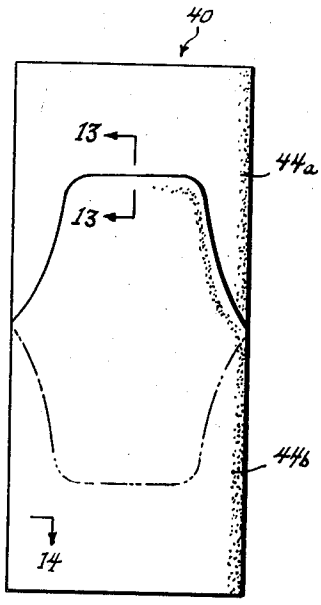
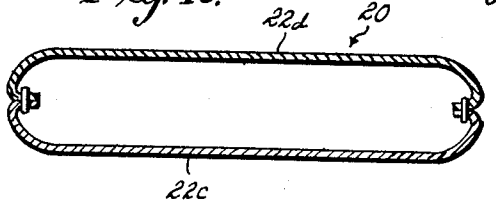


Fig. 12.

Fig. 10.



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MITTEN

John H. Mackay, Jenkintown, and Dean K. Schleicher, Plumsteadville, Pa., assignors of twenty-five percent to Naomi C. May and twenty-five percent to Joseph A. Sutton, both of Philadelphia, Pa., twenty-five percent to said John H. Mackay and twenty-five percent to said Dean K. Schleicher

Filed Mar. 3, 1959, Ser. No. 796,861

15 Claims. (Cl. 2—158)

The present invention relates to a mitten, and more particularly to a work mitten which facilitates the carrying and handling of articles.

For ease of carrying and handling articles, it is desirable to provide a pocket between the thumb and the other fingers of the hand which has a wide surface area to facilitate grasping and holding the article. Conventional gloves have the thumb receiving portion along one edge of the glove. Thus, the pocket provided between the thumb receiving portion of the conventional glove, and the other finger receiving portions of the glove is narrow. Furthermore, such conventional gloves can only be worn on one hand, so that the gloves must be provided in pairs, one glove for the right hand, and one glove for the left hand. Thus, if one glove of the pair becomes worn out before the other glove, or one glove is lost or mislaid, the remaining glove cannot be used, but must be replaced with a new pair of gloves.

Another problem with regard to work gloves used for carrying and handling articles is that the gloves become worn out relatively quickly. Heretofore, the only manner of improving the usable life of a pair of gloves was by improving the durability of the material from which the gloves were made. However, improving the durability of the material of the gloves also increased the cost of the gloves considerably. Therefore, it is desirable to have a glove which can be made from a relatively inexpensive material, but which will have a longer usable life.

It is an object of the present invention to provide a novel mitten.

It is another object of the present invention to provide a work mitten having a pocket of wide surface area between the thumb receiving portion and the finger receiving portion.

It is still another object of the present invention to provide a mitten which can be worn on either hand.

It is a further object of the present invention to provide a mitten having a longer usable life.

Other objects will appear hereinafter.

For the purpose of illustrating the invention there is shown in the drawings forms which are presently preferred; it being understood, however, that this invention is not limited to the precise arrangements and instrumentalities shown.

Referring to the drawings in which similar character references refer to similar parts therethroughout:

Figure 1 is a perspective view of the mitten of the present invention.

Figure 2 is a plan view of one side of the mitten of the present invention.

Figure 3 is a plan view of the other side of the mitten of the present invention.

Figure 4 is an end view of the mitten of the present invention.

Figures 5 through 8 are views similar to Figure 4 illustrating various arrangements of the thumb receiving portions of the mitten of the present invention.

Figure 9 is a sectional view taken along line 9—9 of Figure 3.

Figure 10 is a sectional view taken along line 10—10 of Figure 3.

Figure 11 is an end view of a modification of the mitten of the present invention.

Figure 12 is a plan view of the front of the mitten shown in Figure 11.

Figure 13 is a sectional view taken along line 13—13 of Figure 12.

Figure 14 is a sectional view taken along line 14—14 of Figure 12.

Referring initially to Figures 1–3, the mitten of the present invention is generally designated as **20**.

Mitten **20** comprises four identical panels **22***a*, **22***b*, **22***c*, and **22***d*. Each of the panels **22***a*–**22***d* comprises a substantially rectangular body portion **24***a*–**24***d* respectively, and a relatively truncated thumb portion **26***a*–**26***d* respectively extending from one end of the body portion **24***a*–**24***d*. The panels **22***a*–**22***d* are preferably made of a circular knit terry cloth which has great abrasive and cutting resistance, and which is relatively inexpensive. However, the panels **22***a*–**22***d* can also be made of asbestos, leather, or any other durable material. The body portions **24***a*–**24***d* of the panels **22***a*–**22***d* are all of the same width and length, and the thumb portions **26***a*–**26***d* are all of the same size and shape. The base of each of the thumb portions **26***a*–**26***d* extends across the entire width of its respective base portion **24***a*–**24***d*.

The body portions **24***a* and **24***b* of panels **22***a* and **22***b* are sewn together along separate seams which extend along the sides of the body portions **24***a* and **24***b*, with the thumb portions **26***a* and **26***b* of the panels **22***a* and **22***b* extending in the same direction. The body portions **24***c* and **24***d* of panels **22***c* and **22***d* are sewn together along separate seams which extend along the sides of the body portions **24***c* and **24***d*, with the thumb portions **26***c* and **26***d* of the panels **22***c* and **22***d* extending in the same direction. The thumb portions **26***a* and **26***c* of panels **22***a* and **22***c* are sewn together along a continuous seam which extends along the sides and end of the thumb portions **26***a* and **26***c*. The thumb portions **26***b* and **26***d* of panels **22***b* and **22***d* are sewn together along a continuous seam which extends along the sides and end of the thumb portions **26***b* and **26***d*. The thumb portions **26***b* and **26***d* of the panels **22***c* and **22***d* are sewn to the thumb portions **26***a* and **26***b* respectively of the panels **22***a* and **22***b* so that the seams joining the sides of the body portions **24***c* and **24***d* form colinear extensions of the seams joining the sides of the body portions **24***a* and **24***b*. As shown in Figures 9 and 10, the seams joining the various panels **24***a*–**24***d* are formed by folding under the edges of the panels **24***a*–**24***d*, and sewing together the mating folded-under edges by lines of stitching which are inside the mitten **20**. Since the lines of stitching joining the panels **22***a*–**22***d* of the mitten **20** are inside the mitten **20**, the stitching is protected from being worn or damaged during the use of the mitten **20**.

An elastic band **28** extends across the body portion **24***a* of the panel **22***a* spaced from the base of the finger portion **26***a*. The ends of the elastic band **28** are sewn into the seams joining the body portions **24***a* and **24***b* of the panels **22***a* and **22***b*. An elastic band **30** extends across the body portion **24***c* of panel **22***c* spaced from the base of the thumb portion **26***c*. The ends of the elastic band **30** are sewn into the seams joining the body portions **24***c* and **24***d* of the panels **22***c* and **22***d*.

Thus, as shown in Figure 4, the mitten 20 of the present invention has a pair of colinear body portions, generally designated as 32 and 34, the outer ends 32*a* and 34*a* of which are open, and two separate thumb receiving portions, generally designated as 36 and 38, intermediate the outer open ends 32*a* and 34*a* of the body portions 32 and 34. The body portion 32 of mitten 20 is formed by the body portions 24*a* and 24*b* of the panels 22*a* and 22*b*, and the body portion 34 is formed by the body portions 24*c* and 24*d* of the panels 22*c* and 22*d*. The thumb receiving portion 36 extends along one side of the mitten 20 and is formed by the thumb portions 26*a* and 26*c* of the panels 22*a* and 22*c*. The thumb receiving portion 38 extends along the other side of the mitten 20, and is formed by the thumb portions 26*b* and 26*d* of the panels 22*b* and 22*d*.

Referring to Figure 5, there is shown one arrangement of the thumb receiving portions 36 and 38 of the mitten 20 in which the mitten 20 can be used. The thumb receiving portion 36 is laid flat against the body portion 32, and is tucked under the elastic band 28. The thumb receiving portion 38 is folded to extend along the body portion 34. The user inserts his hand into the open end 32*a* of the body portion 32, and places his thumb receiving portion 38, and his other fingers into the body portion 34. Since the thumb receiving portion 38 is relatively wide, and extends across the side of the body portion 34, the user can place either hand in the mitten 20. Also, since the base of the thumb receiving portion 38 extends across the entire width of the body portion 34, there is provided a pocket between the thumb receiving portion 38 and the body portion 34, which receives the other fingers of the hand, which has a wide surface area to facilitate grasping and holding an article. When using the mitten 20 arranged in the manner shown in Figure 5, the panel 22*d* of the mitten 20 provides the working surface of the mitten 20. When the panel 22*d* becomes worn out through long continuous use, the thumb receiving portions 36 and 38 of the mitten 20 can be rearranged to the position shown in Figure 6 to permit further use of the mitten 20.

Referring to Figure 6, the mitten 20 is rearranged to permit further use of the mitten 20 by removing the thumb receiving portion 36 from under the elastic band 38, and pivoting the thumb receiving portion 36 until the thumb receiving portion 36 extends along the body portion 34. The thumb receiving portion 36 is then tucked under the elastic band 30. The thumb receiving portion 38 is pivoted until it extends along the body portion 32. The user then inserts his hand into the open end 34*a* of body portion 34, and positions his thumb in the thumb receiving portion 38, and his other fingers in the body portion 32. In this arrangement of the mitten 20, the panel 22*b* of the mitten 20 provides the working surface of the mitten 20. When the panel 22*b* of the mitten 20 also becomes worn out through long continuous use, the thumb receiving portions 36 and 38 can be further rearranged to the position shown in Figure 7 to permit still further use of the mitten 20.

Referring to Figure 7, the mitten 20 is further rearranged by removing the thumb receiving portion 36 from under the elastic band 30, and pivoting the thumb receiving portion 36 until it extends along the body portion 32. Elastic band 28 is pulled around the outer end of the body portion 32 until the elastic band 28 extends across the other side of the body portion 32. The elastic band 30 is pulled around the outer end of the body portion 34 until the elastic band 30 extends across the other side of the body portion 34. Thumb receiving portion 38 is pivoted until it extends along the body portion 34, and is tucked under the elastic band 30. The user can then insert his hand into the open end 34*a* of the body portion 34, and place his thumb in the thumb receiving portion 36, and his other fingers in the body portion 32. In this arrangement of the mitten 20, the panel

22*a* provides the working surface of the mitten 20. When the panel 22*a* also becomes worn out through long continuous use, the thumb portions 36 and 38 of the mitten 20 can be still further rearranged to the position shown in Figure 8 to permit still further use of the mitten 20.

Referring to Figure 8, the final arrangement of the mitten 20 is obtained by removing the thumb receiving portion 38 from under the elastic band 30, and pivoting the thumb receiving portion 38 until it extends along the body portion 32. The thumb receiving portion 38 is then tucked under the elastic band 28. The thumb receiving portion 36 is pivoted until it extends along the body portion 34. The user can then insert his hand into the open end 32*a* of body portion 32, and place his thumb in the thumb receiving portion 36, and his other fingers in the body portion 34. In this arrangement of the mitten 20, the panel 22*c* provides the working surface of the mitten.

Since the mitten 20 of the present invention has two thumb receiving portions and two openings into which the user's hand can be inserted, the mitten 20 provides four separate working surfaces. Thus, the mitten 20 of the present invention has a usable life four times the life of a conventional glove made of the same material. Since both of the thumb receiving portions 36 and 38 are relatively wide and extend across the faces of the body portions 32 and 34, the mitten 20 can be used on either hand in all four arrangements of the mitten 20. Also, since the bases of the thumb receiving portions 36 and 38 extend across the entire width of the body portions 32 and 34, there is provided a pocket of wide surface area between the thumb receiving portion and the body portion, which receives the other fingers of the hand, in all four arrangements of the mitten 20 to facilitate grasping and holding an article.

Figures 11–14 show a modification of the mitten of the present invention, generally designated as 40. Mitten 40 comprises a substantially rectangular back panel 42, and a pair of identical front panels 44*a* and 44b.

Each of the front panels 44*a* and 44*b* comprises a substantially rectangular body portion 46*a* and 46*b* respectively, and a substantially truncated thumb portion 48*a* and 48*b* extending from one end of the body portions 46*a* and 46*b* respectively. The body portions 46*a* and 46*b* of the front panels 44*a* and 44*b* are of the same width as the back panel 42, and the thumb portions 48*a* and 48*b* are of the same size and shape. The base of each of the thumb portions 48*a* and 48*b* extend along the entire width of the respective body portions 46*a* and 46*b*.

The thumb portions 48*a* and 48*b* of the front panels 44*a* and 44*b* are sewn together along a continuous seam which extends along the sides and end of the thumb portions 48*a* and 48*b*. The body portions 46*a* and 46*b* of the front panels 44*a* and 44*b* are sewn to the back panel 42 along separate seams which extend along the sides of the body portions 46*a* and 46*b* and the back panel 42. The seams joining the body portion 46*a* of front panel 44*a* to the back panel 42 are colinear with the seams joining the body portion 46*b* of front panel 44*b* to the back panel 42. As shown in Figures 13 and 14, the seams joining the panels 42, 44*a*, and 44*b* are formed by turning over the edges of the panels, and sewing together the mating turned-over edges by lines of stitching which are within the mitten 40. Since the lines of stitching joining the panels 42, 44*a* and 44*b* are within the mitten 40, the lines of stitching are protected against being worn or damaged during the use of the mitten 40. Thus, the mitten 40 has two colinear body portions, the outer ends of which are open, and a thumb receiving portion intermediate the outer open ends of the body portions, which thumb receiving portion extends along the front side of the mitten 40.

The panels 42, 44*a*, and 44*b* are made of the same material. However, since the front panels 44*a* and 44*b* pro-

vide the working surfaces of the mitten 40, the front panels 44*a* and 44*b* are made of a thicker and heavier quality of the material (see Figure 14). The panels 42, 44*a*, and 44*b* are preferably made of a circular knit terry cloth which has great abrasive and cutting resistance, and which is relatively inexpensive. However, the panels can also be made of asbestos, leather, or any other durable material.

In the use of the mitten 40, the thumb receiving portion is pivoted to extend along the body portion 46*a* of front panel 44*a*. The user inserts his hand into the open end of the body portion formed by the body portion 46*b* of the front panel 44*b* and the back panel 42, and places his thumb in the thumb receiving portion and his other fingers in the body portion formed by the body portion 46*a* of front panel 44*a* and the back panel 42. Since the thumb receiving portion is relatively wide and extends across the body portion 46*a* of front panel 44*a*, the user can place either hand in the mitten 40. Also, since the base of the thumb receiving portion extends across the entire width of the body portion, there is provided a pocket between the thumb receiving portion and the body portion which contains the other fingers of the hand which has a wide surface area to facilitate grasping and holding an article.

When using the mitten 40 arranged in the manner shown in solid lines in Figures 11 and 12, the front panel 44*a* provides the working surface of the mitten 40. When the front panel 44*a* becomes worn out through long continuous use, the mitten 40 can be rearranged to use the front panel 44*b* as the working surface of the mitten 40. As shown in dotted lines in Figures 11 and 12, the mitten 40 is so rearranged by pivoting the thumb receiving portion until it extends along the body portion 46*b* of front panel 44*b*. The user can then insert his hand into the open end of the body portion of the mitten 40 formed by the body portion 46*a* of front panel 44*a* and the back panel 42, and place his thumb in the thumb receiving portion and his other fingers in the body portion of the mitten 40 formed by the body portion 46*b* of the front panel 44*b* and the back panel 42. Thus, the mitten 40 has two separate working surfaces, so that the mitten 40 has a usable life twice the life of a conventional glove made of the same material.

The present invention may be embodied in other specific forms without departing from the spirit or essential attributes thereof and, accordingly, reference should be made to the appended claims, rather than to the foregoing specification as indicating the scope of the invention

We claim:

1. A mitten comprising a pair of colinear substantially tubular body portions joined at their inner ends and having open outer ends, and a thumb receiving portion integral with and extending across one side of said body portions intermediate the outer open ends of the body portions, said thumb receiving portion being pivotable to extend along either of said body portions.

2. A mitten in accordance with claim 1 in which the base of the thumb receiving portion extends across the entire width of said body portions.

3 A mitten comprising a pair of colinear substantially tubular body portions joined at their inner ends and having open outer ends, and a pair of thumb receiving portions integral with said body portions intermediate the outer ends of said body portions, one of said thumb receiving portions extending across one side of said body portions, and the other thumb receiving portion extending across the other side of the body portions.

4. A mitten in accordance with claim 3 in which the base of each of the thumb receiving portions extends across the entire width of said body portions.

5. A mitten in accordance with claim 4 including an elastic band secured to one of said body portions and extending across one side of said one body portion, and a second elastic band secured to the other of said body portions and extending across one side of said other body portion.

6. A mitten comprising a first pair of identical panels, each of said panels having a body portion and a thumb portion extending from one end of the body portion, the body portions of said first pair of panels being sewn together along the sides of the body portions with the thumb portions of said first pair of panels extending in the same direction, a second pair of identical panels, each of the panels of said second pair having a body portion and a thumb portion extending from one end of the body portion, the body portions of said second pair of panels being sewn together along the sides of the body portions with the thumb portions of said second pair of panels extending in the same direction, and the thumb portion of each of the panels of said first pair of panels being sewn to a separate one of the thumb portions of the panels of the second pair along the sides and end of the thumb portions to provide two separate thumb receiving portions intermediate the outer ends of the body portions.

7. A mitten in accordance with claim 6 in which the body portions of each of said panels are of the same width, and the thumb portions of each of said panels are substantially truncated and are of the same size and shape.

8. A mitten in accordance with claim 7 in which the base of the thumb portion of each of said panels extends across the entire width of the body portions of the panels.

9. A mitten in accordance with claim 6 in which the joined edges of each of said panels are folded under, and the mating folded-under edges of the panels are sewn together by lines of stitching which are inside the mitten.

10. A mitten in accordance with claim 6 including a first elastic band extending across the body portion of one of the panels of said first pair of panels with the ends of said elastic band being sewn into the seams joining the sides of the body portions of said first pair of panels, and a second elastic band extending across the body portion of one of the panels of said second pair of panels with the ends of said second elastic band being sewn into the seams joining the sides of the body portions of said second pair of panels.

11. A mitten comprising a substantially rectangular back panel and a pair of identical front panels, each of said front panels having a substantially rectangular body portion and a thumb portion extending from one end of the body portion, the thumb portions of said front panels being sewn together along the edges of said thumb portions to form a thumb receiving portion, and each of the body portions of said front panels being sewn to the back panel along the sides of said body portions and back panel to form a pair of colinear substantially tubular portions having open outer ends with the thumb receiving portion being intermediate the outer ends of the tubular portions.

12. A mitten in accordance with claim 11 in which the body portion of each of said front panels is of the same width as the back panel, and the thumb portions of each of the front panels are substantially truncated and of the same size and shape.

13. A mitten in accordance with claim 12 in which the base of each of the thumb portions of the front panels extends across the entire width of the body portions of the front panels.

14. A mitten in accordance with claim 11 in which the joined edges of each of said panels are folded under, and the mating folded-under edges of the panels are sewn together by lines of stitching which are inside the mitten.

15. A mitten in accordance with claim 11 in which the front panels are of a heavier material than the material of the back panel.

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