July 23, 1963 M. L. SLIMOVITZ 3,098,237

DUAL FEEL GLOVE AND MITT

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Fig. 1

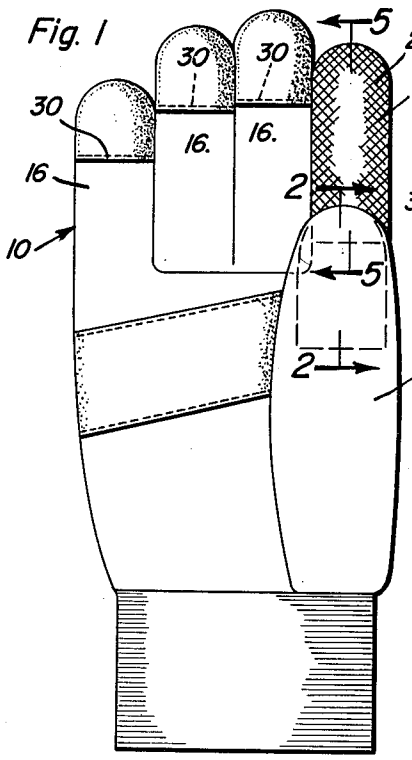


Fig. 2

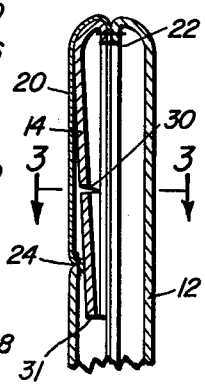


Fig. 5

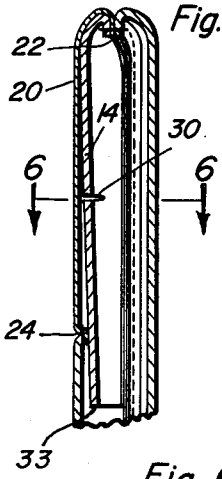


Fig. 3

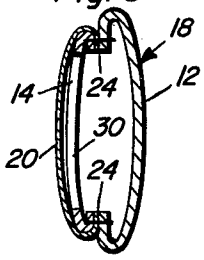


Fig. 6

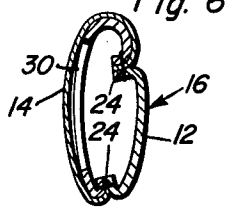


Fig. 4

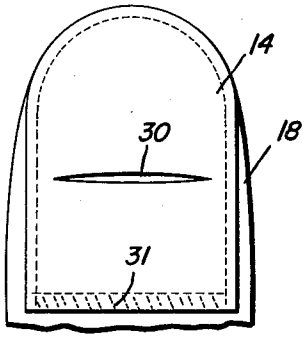


Fig. 7

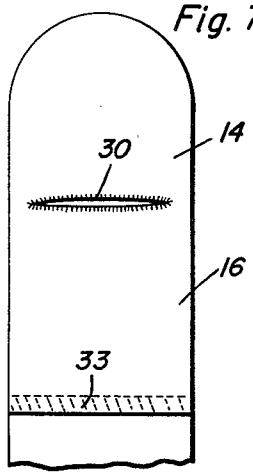


Fig. 8

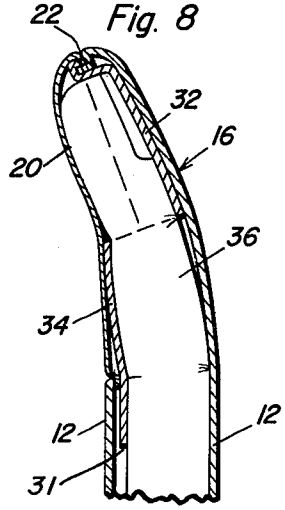
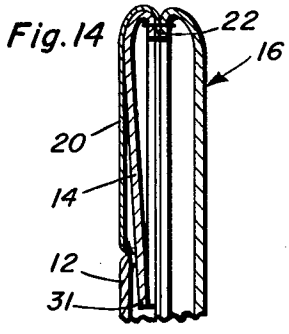


Fig. 14



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Fig. 9

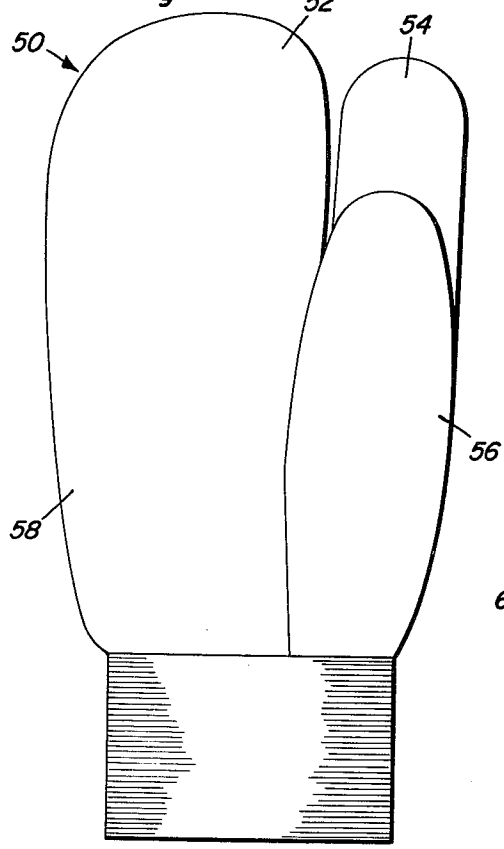


Fig. 10

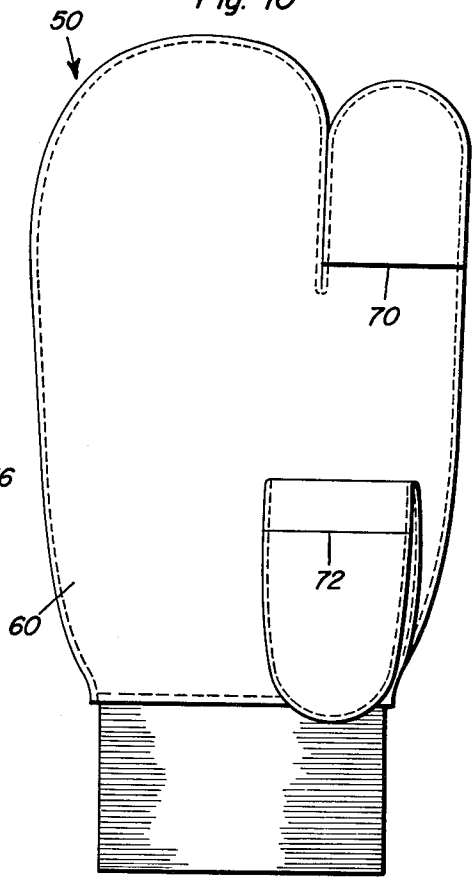


Fig. 11

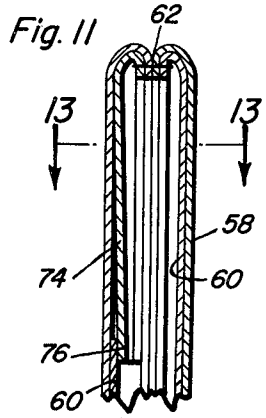


Fig. 12

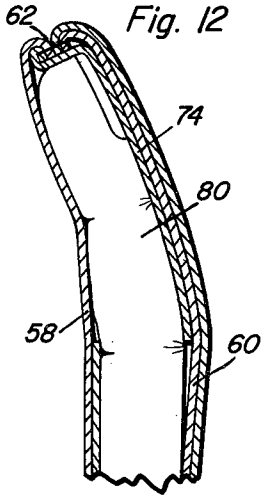
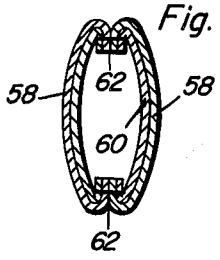


Fig. 13



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United States Patent Office 3,098,237 Patented July 23, 1963

3,098,237

DUAL FEEL GLOVE AND MITT

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Filed Aug. 8, 1961, Ser. No. 130,188
4 Claims. (Cl. 2—164)

This invention comprises a novel and useful dual feel glove and mitt and more particularly relates to a glove construction which while affording complete and continuous protection for the fingers and hand of the wearer will enable the user to obtain a much greater sensitivity of feel.

There is at present a great need and demand for gloves of various types which will afford full protection for the hand against the weather together with maximum warmth for the hand, while yet selectively enabling the user, when desired, to sacrifice a portion only of the warmth in order to obtain temporarily a greater sensitivity of feel for the hand. Numerous uses for such gloves are available such as for sportsmen, in handling sporting equipment under rigorous or inclement weather conditions; certain occupations which while requiring maximum protection against the weather also from time to time require a greater sensitivity of feel and dexterity of the hands of the user as well as for the general public which at infrequent intervals finds it desirable to have a much greater sensitivity of feel for use of the fingers without sacrificing complete protection for the hand from the weather.

In order to meet the requirements for a glove which will afford the maximum warmth and protection against the weather it is necessary to provide an outer covering of a relatively more wear resistance and less heat insulating material together with a lining having a relatively greater heat insulating value with a relatively decreased wear resistance.

There are known heretofore gloves attempting to satisfy the above mentioned conditions in which openings are provided through portions of the glove to the exterior thereof whereby a finger or fingers may be projected from the protection of the glove in order to form the desired increased dexterity and sensitivity of feel. All such instances, however, to my knowledge have necessarily exposed finger portions of the hand to the exterior of the glove thus completely sacrificing the protection which the glove affords against the weather, the cold and the like.

It is therefore the primary object of this invention to provide a glove which will normally afford the maximum weather and wear resisting properties together with a maximum warmth for the user but which may at times, as desired, sacrifice some of the heat insulating properties of the glove in order to secure a greater dexterity and sensitivity of feel of the hand while still completely enclosing and protecting the hand from its outside environment.

A further and more specific object of the invention is to provide a glove having the above characteristics and which shall be equally adaptable for use by all classes of the public and all occupations.

Yet another object of the invention is to provide a dual feel or dual purpose glove in accordance with the preceding objects which shall be relatively simple and inexpensive in construction, extremely comfortable to wear, and shall be capable of finishing in all desired styles and sizes in an attractive, acceptable and highly efficient manner.

A still further and more specific object of the invention is to provide a glove in accordance with the above mentioned objects in which the desired increased sensitivity of feel is obtained by the provision of slits disposed in suitable portions of the lining of the glove in such a manner as to selectively permit the passage of the thumb or

fingers of the user through these slits and into contact with the interior surface of the covering of the glove thereby increasing the sensitivity of feel by reducing the resistance to feel afforded by the lining of the glove and yet still maintaining a complete unbroken coverage of the hand from the elements.

A still further object of the invention is to provide a glove in accordance with the foregoing objects and particularly in accordance with the last mentioned object in which the slits thus provided have overlapping edges disposed in such a manner that the slits are normally covered thereby thus preventing accidental or unintended passage of the fingers or thumb through the slits and yet enabling the user to easily deliberately insert the fingers or thumbs through the slits as desired.

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, and in which:

FIGURE 1 is an elevational view of the palm face of a suitable form of glove to which the principles of this invention have been applied, certain concealed parts being shown in dotted lines therein;

FIGURE 2 is a detailed view taken in vertical section substantially upon the plane indicated by section line 2—2 of FIGURE 1 and showing upon an enlarged scale the internal construction of the thumb stall of a glove in accordance with this invention;

FIGURE 3 is a horizontal sectional detail view taken substantially upon the plane indicated by section line 3—3 of FIGURE 2 and showing further details of the thumb stall construction of the glove;

FIGURE 4 is an enlarged elevational view of the end of the reversed or turned inside out thumbstall of the glove of FIGURE 1;

FIGURE 5 is a detailed view taken upon an enlarged scale substantially upon the plane indicated by section line 5—5 of FIGURE 1 and showing the finger stall construction of the glove of FIGURE 1 in accordance with this invention;

FIGURE 6 is a horizontal sectional detail view taken substantially upon the plane indicated by section line 6—6 of FIGURE 5;

FIGURE 7 is an elevational view of the reversed finger stall portion of the glove lining in accordance with FIGURE 1;

FIGURE 8 is a view showing in vertical section the manner in which a finger is inserted in the finger stall as shown in FIGURE 5 and passed through the slit in the lining thereof in order to obtain maximum sensitivity of feel in the glove;

FIGURE 9 is an elevational view of the palm of a second or mitt type of glove in accordance with this invention;

FIGURE 10 is a view of the type of glove shown in FIGURE 9 turned inside out to show the lining thereof;

FIGURE 11 is a detail view in vertical section through the finger stall of the glove of FIGURE 9;

FIGURE 12 is a view similar to FIGURE 11 but showing the manner in which a finger is inserted in the finger stall and passed through the slit of the lining to obtain maximum sensitivity of feel;

FIGURE 13 is a horizontal sectional detail view taken substantially upon the plane indicated by section line 13—13 of FIGURE 11; and

FIGURE 14 is a view similar to FIGURE 2 but showing a modified construction in which the slit is omitted.

In the accompanying drawings typical applications of the principles of this invention to different types of gloves are illustrated. The principles of the invention are appli-

cable to all types of gloves whether those of normal and conventional use or those for specialized usages, it being necessary only that such gloves shall include an outer covering together with a lining therein.

Reference is now made first to FIGURES 1–8 of the drawings wherein the invention is illustrated as applied to a glove of the type having individual finger and thumb stalls. The particular glove illustrated is of a type set forth in my prior Patent No. 2,728,082 of December 27, 1955 and which upon selected portions of the thumb and forefinger is provided with a relatively more expensive but relatively thinner piece of fabric than the rest of the material of the covering of the glove and which material thus inserted has a very great thermal-insulating value. It will be understood, however, that the invention as applied in FIGURES 1–8 is equally applicable to all other types of gloves in which there are provided separate stalls for the individual fingers and for the thumb of the glove.

Referring now in greater detail to the construction shown in FIGURES 1–8, the numeral **10** designates generally a type of glove possessing a continuous unbroken outer covering **12** upon both the palm and back thereof together with a lining, a portion of which is indicated by the numeral **14**. This glove is provided with a separate stall **16** for each of the fingers and a thumb stall **18**. It is to be understood that the structure of the glove is such that it may be fabricated according to any desired pattern. It is only necessary that this type of glove shall have a continuous unbroken outer covering of a relatively greater wear resistant material than the lining **14** which latter has a relatively greater thermal insulating value. It is preferable although not essential that in gloves of this type the inner lining shall be complementary to the shape and contour of the outer lining likewise having thumb and finger stalls received within those of the covering **12** and also preferably the inner lining of the glove is co-terminus with the covering. In the particular form illustrated in FIGURE 1, one or more of the finger stalls has its front surface at the palm of the glove removed and replaced by a piece of material **20** which is seamed and secured to the covering **12** as by seams **22**, **24**, which material may be of milium which although relatively expensive compared to other materials employed for the coverings or lining of gloves has exceptionally high thermal insulating value, is relatively tough and wear resistant, and is sufficiently thin and pliable as to afford superior sensitivity of feel as compared to the rest of the glove. However, owing to its relatively great cost, it is impractical to form the entire glove of milium since the cost thereof will be prohibitive for practical purposes.

In this type of glove the same construction consisting of the cutaway portion with insert material **20** of milium, secured to the covering of the glove as by seams **22** and **24** is likewise provided for any desired number of the finger stalls and the thumb stall which will be seen by a comparison of FIGURES 2, 3 and FIGURES 5, 6.

Indicated in FIGURE 1 by the dotted lines **30** and as shown in full lines in FIGURES 2 and 5 are transverse slits constituting passage means formed in the lining **14**. These passage means may be formed at any suitable region of the glove in order to selectively permit the passage of the thumb or fingers of the hand therethrough, and although not limited thereto or illustrated as being applied to the area at the terminal digit of the fingers and thumb. As a result of this arrangement, the area of the lining in the fingers or thumb stall which is adjacent to the slits **30** but along opposite sides thereof are indicated by the numerals **32** and **34**, the former indicating the distal or terminal portion of the lining of the stall while the latter indicates the inner or palm portion of the lining. As a result of the passage means thus provided, the user may selectively and with ease insert the tips of his fingers or thumb through the lining and thus place the palm surface of the thumb and fingers against the inside surface of the covering **12**. Thus when using the hand these fingers are still completely enclosed within the glove covering so as to protect them uninterruptedly from the weather, but temporarily sacrificing the increased warmth of the lining in order to increase the sensitivity of feel by omitting the thickness of lining from between the fingers and the exterior surface of the covering.

A further important feature of this invention, in order to prevent the accidental and annoying insertion of the fingers through the slit in the lining when the gloves are put on upon the hand, resides in the provision of causing the opposite lips of the slit to overlap each other and thus form a closing lip upon the slit. Preferably, the inner portion **34** overlies the slit and overlies the adjacent edge of the distal portion **32** so that after inserting the fingers in the glove will tend to smooth this lip over the lower portion thus closing the slit. It is very easy, however, to deliberately withdraw the finger slightly and then insert it through the slit when greater sensitivity of feel is desired.

In some instances, the inner lining of the glove may be formed in the usual manner so as to provide the finger and thumb stalls, and the slit may be made therein after such formation. The sides or edges of the slit in that event, will not overlap each other to any considerable extent. However, where it is desired to obtain this overlapping for the above-mentioned reasons, the distal portion of the lining upon the palm side of the glove and which is to overlie a slit may be formed as a separate piece of material and sewed or otherwise secured in place to form its part of the lining and obtain the desired overlap at the slit.

FIGURE 8 indicates the manner in which the finger **36** of the user has been inserted into the slit and has forced the distal portion **32** of the lining towards the back side of the glove thus enabling the finger to directly engage the palm surface thereof. This palm surface as shown in FIGURE 8 is the milium insert material **20** previously mentioned although it may readily comprise merely the normal integral or attached finger or thumb stall palm side of the outer covering of the glove.

As previously set forth, insertion of the finger between the lining **14** and the outer covering or layer **12** of the glove is effected through a slit, opening or passage means **30**. This arrangement protects all of the finger within the lining except for the portion which is thus projected.

However, it is also within the purview of this invention to insert substantially all of the finger between the lining and covering. This is effected by leaving the inward edge of the finger lining, as shown at **31** in FIGURE 4 and **33** in FIGURE 7 unattached to the finger covering. This will permit the entire finger to be selectively slit at the edge **31** or **33** between the finger lining **14** and the covering **12**. Thus, in the form of the invention illustrated in FIGURES 1–8 the finger or thumb may be selectively inserted between the lining and cover- either at the slit **30** or at the inner edge **31** or **33** of the lining.

It is also possible as shown in FIGURE 14 to omit the slit completely and rely solely upon the opening at the inner edge of the lining of the thumb or finger as a passage means by which to position the finger between the lining and covering of the glove. In FIGURE 14, the same numerals are employed as in FIGURES 2 and 3 although it will be understood that this same principle is equally applicable to the thumb construction of the glove or to the mitten or clute type of glove.

Reference is made next to FIGURES 9 and 10 wherein the invention is shown applied to a mitten or similar type of glove indicated at **50**. This glove likewise may be of any of the conventional types and constructions, having a palm portion **52** which may be included in any desired number of the fingers in a single stall, or may include one or more finger stalls **54** and has a thumb stall **56**. This glove includes a covering of outer material

58 together with a lining 60. It is generally preferable although not necessary for the purpose of this invention that the lining shall be coterminus with, coextensive with and complementary in contour and shape to the outer covering, being secured thereto in any suitable manner by the use of seams as at 62 or other desired fastening means.

As in the preceding embodiment, the desired selective sensitivity to feel is provided by the provision of passage means which may consist of the transversely extending slits 70 in the palm or finger stall portions 52 or 54 and 82 in the thumb stall portion. Likewise, as in the preceding embodiment, and as will be readily apparent from FIGURES 11 and 12, the lining 60 may be provided with an insert piece of material 74 whose inward extremity will overlap the slit by an overlapping portion as at 76 in FIGURE 11 so as to completely close the strip during normal use of the glove. The overlapping may occur either upon the interior side of the lining or on the exterior side thereof as desired. The arrangement is such that as illustrated in FIGURE 12, the finger may be inserted between the insert 74 and the lining 60 to thereby force the insert against the outer covering at the backside of the hand so that the finger 80 may be directly engaged with the inside surface of the palm portion of the outer covering.

It will be appreciated, however, that in some instances, the overlapping of the edges of the slits may be omitted and the slit used without overlapping of the edges. Further, the lining and the lining containing the slit may be applied to selected portions only of the glove.

The operation of this form of the invention is identical to that previously described and a further description is therefore believed to be unnecessary.

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:

1. A glove providing increased sensitivity of feel for the wearer comprising an outer covering and a lining disposed within and secured to said outer covering, said outer covering and said lining being complementary and having corresponding finger stalls in each, said lining having an opening in a lining finger stall positioned to enable passage of a finger of the hand of the wearer therethrough into the associated covering finger stall and into the space between said lining and said covering, said covering being unbroken in an area which is adjacent and overlies said opening whereby to promote sensitivity of feel for the wearer while still completely enclosing the finger of the wearer's hand which is projected through said opening and into the space between said lining and covering.

2. The combination of claim 1 wherein said lining has the edges of said opening normally overlapping each other and closing said opening when said finger of the wearer's hand is not projected through said opening.

3. The combination of claim 1 wherein said outer covering finger stall includes a cutaway portion on its palm side in said area facing said opening, an insert of a relatively thinner wear resisting and more feel sensitive material than that of said covering secured across and closing said cutaway portion.

4. The combination of claim 3 wherein said insert is joined to the associated outer covering finger stall at the sides and ends of said stall whereby to leave completely free of seams and joints the distal end of the palm portion of said associated outer covering stall.

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