May 19, 1942. E. C. LINDFELT 2,283,561

MITTEN

Filed March 25, 1940

Fig. 1.

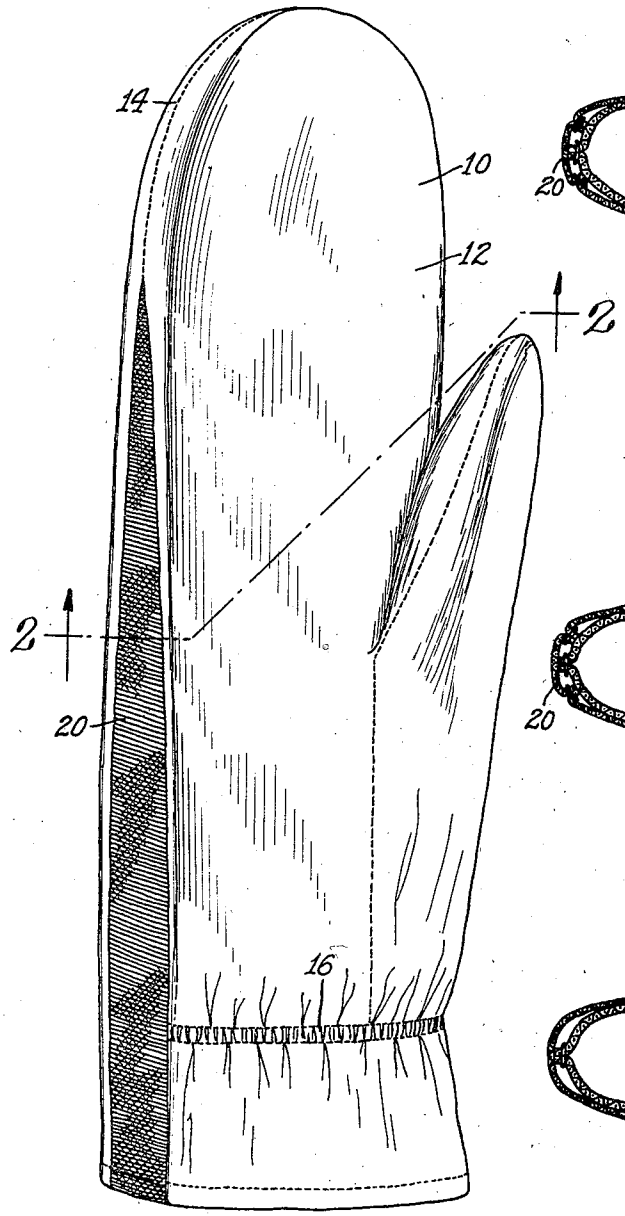


Fig. 2.

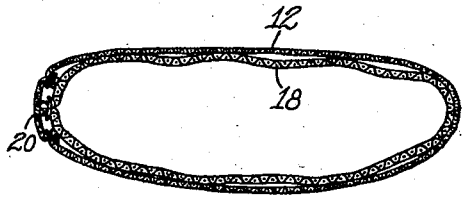


Fig. 3.

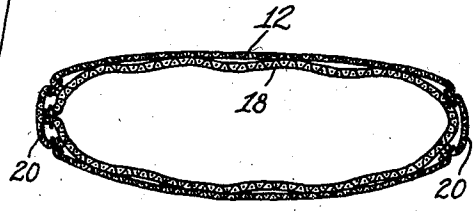
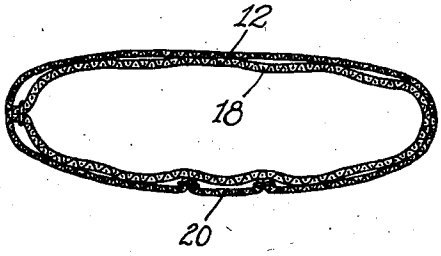


Fig. 4.



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2,283,561

MITTEN

Edward C. Lindfelt, Des Moines, Iowa

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1 Claim. (Cl. 2—158)

My invention relates to an improvement in construction for a mitten or glove, whereby a degree of flexibility is obtained which improves the fit of the mitten or glove and makes for greater comfort on the part of the wearer.

An object of this invention is to provide means whereby the principal parts of the mitten, for example, may be made of certain fabrics which have very slight stretch and which therefore would be ordinarily considered unsuitable for glove or mitten construction because they do not readily adapt themselves to the various hand shapes characteristic of different wearers. Satin is a material of this kind, and is very attractive in appearance but difficult to make into a mitten with satisfactory fit characteristics because it does not yield sufficiently to conform to the contour of the hand. There are many other materials of very attractive texture and appearance which have the same disadvantages as glove or mitten materials.

A further object is to provide a mitten construction with elements of yieldable material so placed as to relieve strains on the seams which occur when the hand is closed, or when the material of the mitten is otherwise stressed.

With these and other objects in view, my invention consists in the construction, arrangement and combination of the various parts of my device whereby the objects contemplated are attained, as hereinafter more fully set forth, pointed out in my claim and illustrated in the accompanying drawing, wherein:

Figure 1 is a perspective view of a mitten embodying my invention;

Figure 2 is a sectional view taken on the line 2—2 of Figure 1;

Figure 3 is a sectional view corresponding to Figure 2, but showing a modified form of my invention; and

Figure 4 is a similar view, showing a second modified form of my invention.

In the accompanying drawing I have used the reference numeral 10 to indicate generally a mitten formed with an outer covering 12, which may be of any suitable material. As above indicated, however, the advantages of my invention are most fully realized when the material employed for this covering is one which does not yield or stretch freely when placed under tension.

The edges of the covering 12 are joined by a seam 14, which closes the end of the mitten, and in constructions which have heretofore been common, usually extends down the side.

If desired, an elastic stitching may be provided across the wrist portion, as indicated at 16, to cause a gathering which will make for close fit about the wrist when the mitten is worn. A suitable lining 18 is provided in the well-known manner.

The significant feature of my invention consists in the provision of a gore or insert 20, extending longitudinally of the mitten from the wrist portion over a substantial part of the length of the mitten. The length of this insert is preferably sufficient, as indicated in Figure 1 of the drawing, to include the portion of the mitten which comes across the knuckles of the third joint when the hand is in closed or clenched position. In this position the width of the hand increases somewhat, and a close fitting glove or mitten may cause the wearer considerable inconvenience or discomfort if it is made of materials which do not have a yielding character.

It will also be obvious that considerable strain is placed upon the seams of the mitten under such circumstances, both upon the material of the glove itself at the juncture, and upon the thread with which the seam is sewed. In a mitten which is inseam sewn, as shown in the drawing, a split seam cannot be conveniently or neatly repaired without the practical necessity of taking the mitten apart, and consequently a construction which will avoid this misfortune and annoyance is highly desirable.

I achieve the desired result in my construction by making the insert 20 of lastex material of the variety now commonly known, which stretches freely. In the application indicated, a material with so-called one-way stretch is preferable, inasmuch as the purpose of the insert is to permit an increase in the diameter of the mitten. The stretchable material is therefore inserted in such a manner that the stretch can take place in a direction transverse to the longitudinal dimension of the insert. Where the insert material does not stretch freely in its longitudinal direction, it resists forces or stresses which would tend to cause the mitten to lose its shape by skewing the edges of covering 12 which are sewed to the insert. I have found that for this reason the one-way stretch material is much superior.

A common construction of a mitten such as shown in Figure 1 is with the seam down the side opposite the thumb. The elastic insert can conveniently be incorporated in this seam, as Figures 1 and 2 show it.

The same results can be accomplished, however, and a construction having a greater capacity for stretching can be secured, by providing

an insert along both sides of the mitten, as indicated by the typical section of such a construction shown in Figure 3.

For ornamental reasons, the insert may be made of a material having a different color or surface appearance from the material used for the balance of the mitten, and in such a case it may be desirable to provide the gore down the back or front, as suggested in Figure 4. A plurality of strips may be formed in this way, if desired. Obviously the advantageous result obtained thereby is the same as in the other constructions indicated.

In all of the constructions shown, in sectional view, it would be preferable to extend the elastic insert from the wrist portion past the point or line occupied by the knuckles of the third joint of the wearer's hand, as in Figure 1. In a case where sufficient wrist elasticity is provided by the stitching 16, the presence of additional stretchability is most important along the knuckle line described, and it would be possible to apply my invention satisfactorily by extending the insert in a direction longitudinally of the mitten, but only in the central portion of the mitten. However, for reasons of manufacturing economy, the form of Figure 1, where the elastic insert extends clear to the wrist, is preferable. In this form, also, the stretch of the insert is added to that of the stitching 16, which makes for better wrist fit and comfort.

It will be obvious that although I have shown and described my invention as applied to a mitten, it is equally applicable to a glove or other hand covering, and it is my intention to cover by my claim the use of my invention in any such hand covering wherein, when non-stretchable materials are principally used, it is a problem to make the covering conform comfortably and satisfactorily to the changes in size and shape of the wearer's hand.

A mitten or glove can be made in the manner above described, using satin or similar material that is tight, with no appreciable stretch capacity, to give a neat, comfortable fitting article, which will not strain or pull out at the seams, and which will not cramp the wearer's hand when the hand is closed or clenched.

Some changes may be made in the formation and arrangement of the parts of my glove construction without departing from the real spirit and purpose of my invention, and it is my intention to cover by my claim any modified forms of structure or use of equivalents which may be reasonably included in their scope.

I claim as my invention:

In a mitten, a tubular casing closed at one end, said casing having a back and front of relatively non-stretchable material, an elastic gathering around the open end of said casing, and a strip of material forming a connection between said back and said front of said casing, said strip being relatively stretchable in a direction circumferentially of said casing, and relatively non-stretchable in a direction longitudinally of said casing, said strip extending longitudinally of said casing from the open end thereof to a point past the part of said casing occupied by the knuckles of the third joint of the wearer's hand.

EDWARD C. LINDFELT.