June 12, 1928. 1,673,517

G. A. KURZ

REENFORCED HAND COVERING

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Fig. 1.

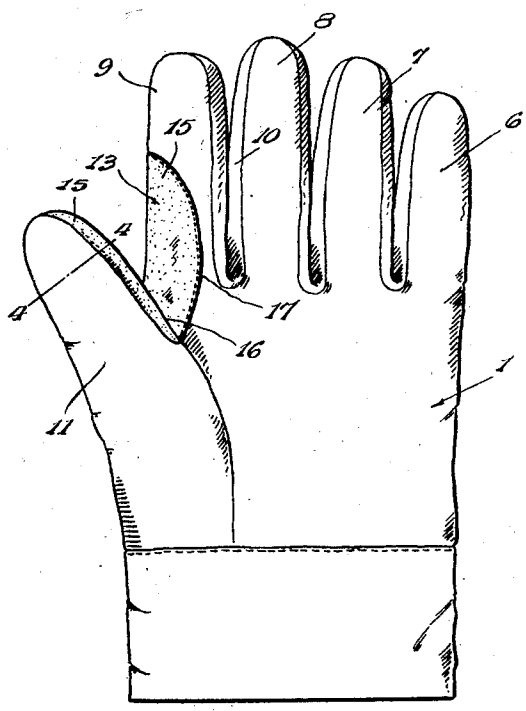


Fig. 2.

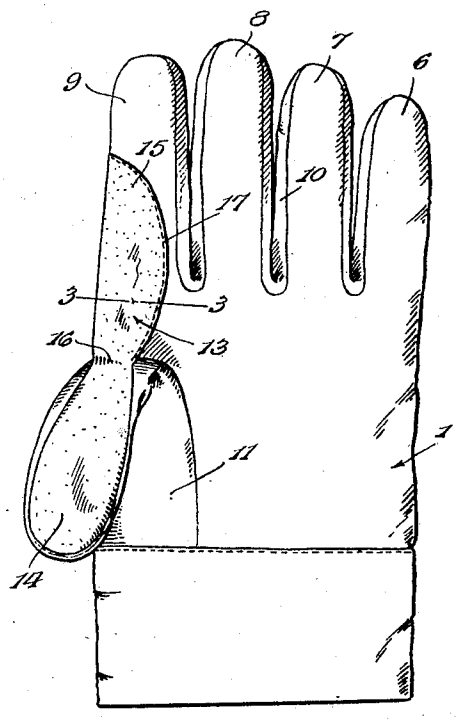


Fig. 3

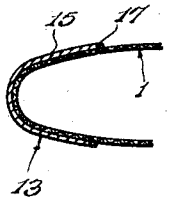
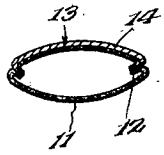


Fig. 4.



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Fig. 5.

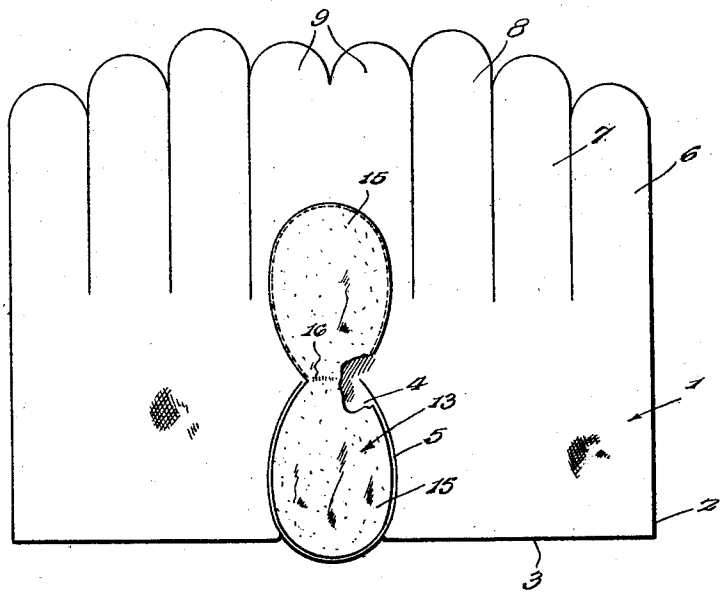


Fig. 6.

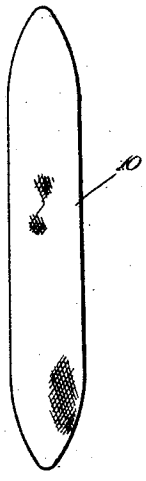
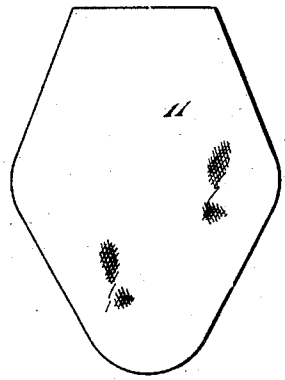


Fig. 7.



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Fig. 8.

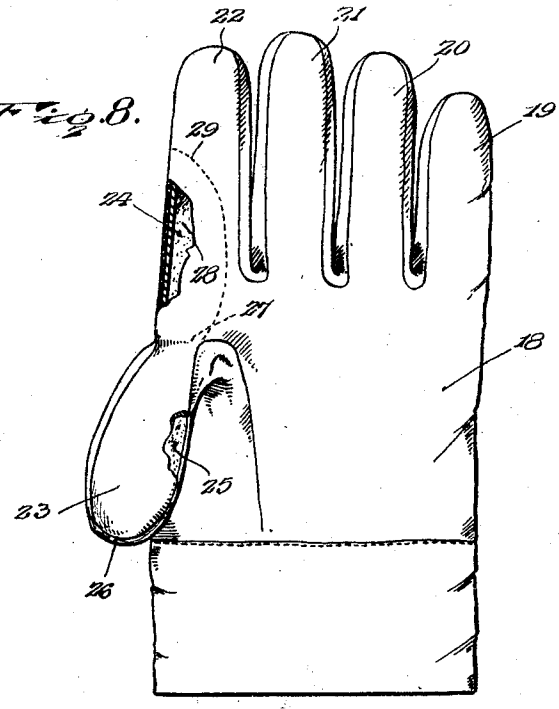
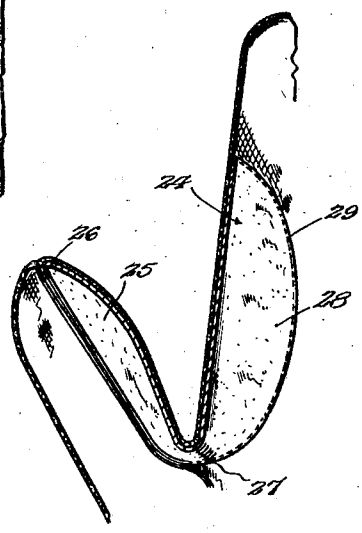


Fig. 9.



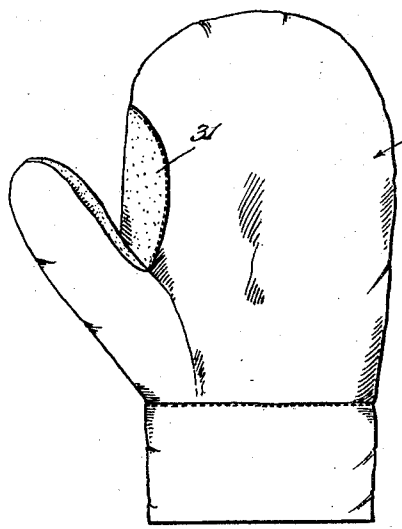


Fig. 10.

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Patented June 12, 1928. 1,673,517

UNITED STATES PATENT OFFICE.

GUSTAVE A. KURZ, OF ZANESVILLE, OHIO.

REENFORCED HAND COVERING.

Application filed July 22, 1925. Serial No. 45,351.

This invention relates to improvements in hand coverings and more particularly to hand coverings of the reversible type or, in other words, hand coverings which may be worn upon either hand, and one of the objects of the invention is to provide a novel construction of reenforcement for the thumb crotch of such a hand covering.

Hand coverings of the type referred to above are ordinarily worn for work purposes rather than for dress, and are usually made of suitable cloth material. It has been found that the greatest wear, in such a covering, occurs in the thumb crotch and along the inner side of the thumb stall and the opposing surface portion of the body of the hand covering and the outer side of the index finger stall. Inasmuch as such hand coverings are used in manual labor, it is, of course, essential that they be sufficiently flexible as not to interfere with freedom of movement of the wearer's hands. In view of the foregoing, it is, therefore, another object of the present invention, to provide, in a reversible hand covering, means which will effectually strengthen, reenforce, and protect the portions of the hand covering referred to without stiffening these portions in a manner to in any way interfere with the freedom of movement of the hands.

Another object of the invention is to provide a reenforcement which may be instantly adapted to the body blank of the hand covering and a portion of which will so match with a part of the said blank that the correspondingly shaped other portion of the reenforcement will be properly located in position overlapping another portion of said body blank, so that economy in time and labor is effected in assembling the reenforcement with the body blank, thereby reducing the cost of manufacture.

In one of its embodiments, the invention contemplates the provision of a reenforcement which will serve also as a friction element, rendering the hand covering especially desirable for use by motormen, riveters, engineers, auto truck drivers, mill workers, and others who are required to firmly grip machine parts or controlling devices and where it is essential that such parts or devices shall be held against slipping.

In the accompanying drawings:

Figure 1 is a view in elevation, of a glove embodying the invention.

Figure 2 is a similar view illustrating the thumb of the glove turned downwardly to better show the reenforcement.

Figure 3 is a sectional view taken substantially on the line 3—3 of Figure 2.

Figure 4 is a similar view taken substantially on the line 4—4 of Figure 1.

Figure 5 is a plan view of the body blank constituting a part of the glove shown in Figures 1 and 2, the view also illustrating the reenforcing blank assembled therewith.

Figure 6 is a plan view of one of the fourchettes of the glove.

Figure 7 is a plan view of the thumb stall blank of the glove.

Figure 8 is a view similar to Figure 2, partly in section, illustrating a modified form of the invention.

Figure 9 is a vertical transverse sectional view through the modified structure shown in Figure 8.

Figure 10 is a view similar to Figure 1, illustrating the embodiment of the invention in a mitten.

Where the hand covering is in the nature of a glove as in the forms of the invention illustrated in Figures 1 and 8 of the drawings, it is made up from blanks of the contour shown in Figures 5, 6 and 7 of the drawings. Figure 5 of the drawings illustrates the body blank of the hand covering, which blank is indicated in general by the numeral 1 and comprises an integral one-piece sheet of suitable cloth material having substantially parallel lateral edges 2, and a straight lower margin 3, and a thumb stall portion 4 which is provided by forming arcuate incisions 5 in the blank at the lower portion thereof, which incisions extend through the lower margin 3 of the blank, the said thumb stall portion 4 being located midway between the lateral margins 2 of the blank and constituting the inner side of the completed thumb stall. The body of the blank is provided at its upper portion with a little finger stall portion 6, third finger stall portion 7, middle finger stall portion 8, and an index finger stall portion indicated by the numeral 9, the latter being of a width equal substantially to twice the width of any of the portions 7 or 8, for example, so as to extend over the outer side of the index finger without any creases being formed along this side, the lateral margins 2 of the glove blank being, of course, stitched together to provide the usual seam along the little finger

side of the glove. It will be observed by reference to Figure 5, that the upper ends of the incisions 5 terminate opposite each other and at points equi-distantly spaced from a perpendicular line passing midway longitudinally of the index finger stall portion of the blank. Figure 6 of the drawings illustrates one of the fourchettes of the glove, which is indicated by the numeral 10, and these fourchettes are employed between the finger stall portions of the body blank in the usual manner, and are of the same material as the body blank. Figure 7 of the drawings illustrates the blank, indicated in general by the numeral 11, which, in conjunction with the thumb stall portion 4 of the body blank and curved marginal portions of said body blank which result from the formation of the incisions 5, and to which the lateral marginal portions of the blank 11 are stitched, completes the thumb stall of the glove as well as closing the glove at the thumb side of the body thereof. The hand covering thus far described does not differ materially from the ordinary reversible cloth glove, and when the several minor blanks are united by stitching to the major blank, the hand covering thus produced may be applied to either hand, due chiefly to the location of the thumb stall portion 4 midway between the lateral edges 2 of the main blank. It will be observed by reference to Figure 4 of the drawings, that in the embodiment illustrated in Figures 1 to 4 inclusive, the lateral marginal portions of the blank 11 are united by an inturned seam 12 to the margin of the portion 4 of the main blank, the said portion 4 being united to the blank 11 continuously along the margin of the said portion 4 and the portion being adapted to be folded upwardly along its line of juncture with the body portion of the blank 1 in the course of manufacture of the glove. This arrangement, of course, holds true in the manufacture of such gloves which are devoid of any reenforcement or any protecting medium.

In carrying out the invention as exemplified in Figures 1 to 7 inclusive, the glove is provided with means extending over the inner side of its thumb stall and over a corresponding area of its body portion and index finger stall for not only reenforcing and strengthening the glove at this portion, but also prolonging the durability of this portion of the glove. This means comprises a reenforcement 13 in the nature of a blank which is preferably of soft leather although some other equally durable and tenacious material may be found suitable for the purpose, and in this particular embodiment of the invention it is desirable that the material be such that it will constitute a friction surface. The reenforcing blank 13 is preferably of a double elliptical form or, in other words, has the marginal contour of two ellipses disposed with their minor ends meeting, one of the elliptical portions of the reenforcement being indicated by the numeral 14 and the other by the numeral 15, the joining portion of the reenforcement being indicated by the numeral 16. The reenforcement is secured in place by securing the margin of the portion 14 continuously within the seam 12, as best illustrated in Figures 1, 2 and 4 of the drawings, the margin of the portion 15 being secured by a line of stitching 17 to the outer side of the intermediate portion of the body blank 1 immediately above the upper ends of the incisions 5, the joining portion 16 of the reenforcement lying directly within the thumb crotch of the glove and being devoid of any seams. It will be evident that the reenforcement 13 does not appreciably detract from the flexibility of the glove and that, on the other hand, the presence of the extra thickness represented by the reenforcement is of advantage inasmuch as the reenforcement is located at the place where the greatest wear occurs, it being a well known fact that controller and other levers, automobile steering wheels, and other manually actuated mechanical controlling devices are more firmly gripped between the thumb and base of the forefinger than by any other portion of the hand. Therefore, the extra thickness serves in effect as a pad and somewhat relieves the wearer of the strain and pressure to which these portions of the hand would ordinarily have to bear. It will likewise be evident that the reenforcement constitutes a friction surface which enables the wearer of the glove to more firmly and securely grip the mechanical part or device to be manipulated.

It will be observed by reference to Figure 4 of the drawings, that the reenforcement 13 is of such contour and dimensions that its portion 14 extends over one-half the circumference of the thumb stall so that the entire inner side of the thumb stall is protected by this portion of the reenforcement. It will likewise be observed by reference to Figure 3, that the portion 15 of the reenforcement extends completely over the outer lateral half of the index finger stall 9 and a corresponding portion of the area of the body of the glove at the base of the said stall.

In the previously described embodiment of the invention, the reenforcement is located upon the outer side of the hand covering, but in the embodiment shown in Figures 8 and 9 of the drawings, the reenforcement is located upon the inner side of the hand covering. In the embodiment illustrated in Figures 8 and 9, the hand covering in itself, does not differ structurally from the hand covering shown in Figures 1 and 2, comprising a body portion 18, little finger, third finger, middle finger, and index finger stalls, indicated respectively by the numerals 19,

20, 21 and 22, and a thumb stall indicated by the numeral 23. In these figures, the reenforcement is indicated by the numeral 24 and is identical in every respect with the reenforcement 13 of the previously described form. In this instance, however, the portion 25 of the reenforcement 24 which corresponds to the portion 14 of the reenforcement 13, is united at its margin to the seam 26 of the thumb stall 23, the connecting or joining portion 27 of the reenforcement lying within the crotch between the thumb stall and the index finger stall and the portion of the body 18 of the hand covering at the base of the said index finger stall, as best shown in Figure 9 of the drawings, the reenforcement as a whole being disposed at the inner side of the hand covering rather than at the outer side thereof. The portion 28 of the reenforcement 24 which corresponds to the portion 15 of the reenforcement 13, is united at its margin by a line of stitching 29 to the inner side of the index finger stall 22 and that portion of the body of the hand covering at the base of said finger stall. It will be evident that the reenforcement 24 serves to reenforce, strengthen, and promote the durability of the hand covering, in this embodiment, precisely as in the previously described embodiment of the invention. This last described embodiment is intended for use by farmers, bricklayers, carpenters, plumbers, and other laborers in general who would prefer the reenforcement on the inner side of the hand covering where it would not be visible.

In the embodiment of the invention shown in Figure 10 of the drawings, the invention is illustrated as applied to a mitten indicated by the numeral 30, the reenforcement being indicated by the numeral 31 and being either applied as in the embodiment shown in Figures 1 and 2, or as shown in Figures 8 and 9, or, in other words, either to the exterior or to the interior of the mitten.

It will be observed that in all of the embodiments of the invention, the marginal contour of the reenforcement blank presents an advantage from a manufacturing point of view in that each of the elliptical portions of the blank is of the same marginal contour and substantially the same dimensions as the portion of the thumb stall which is integral with the main blank of the hand covering, so that the two elliptical portions of the blank being of counterpart contour, it is immaterial which portion is disposed over the said thumb stall portion of the main blank at the time of assembling the blanks and, furthermore, when either portion is disposed over the thumb stall portion of the main blank, in substantial registration with the margin thereof, the reenforcement blank will be in precisely the proper position which it should occupy for the stitching operation.

Having thus described the invention, what I claim is:

A hand covering including the usual thumb stall and a reenforcement applied to the opposing sides of the thumb stall and body of the covering, said reenforcement embodying alined elliptical end portions of like size and contour and an intermediate constricted portion disposed in the crotch formed between the thumb stall and the body of the covering.

In testimony whereof I affix my signature.

GUSTAVE A. KURZ. [L. S.]