Jan. 23, 1934. H. A. GILLIAN 1,944,505

GLOVE MANUFACTURE

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FIG. 1

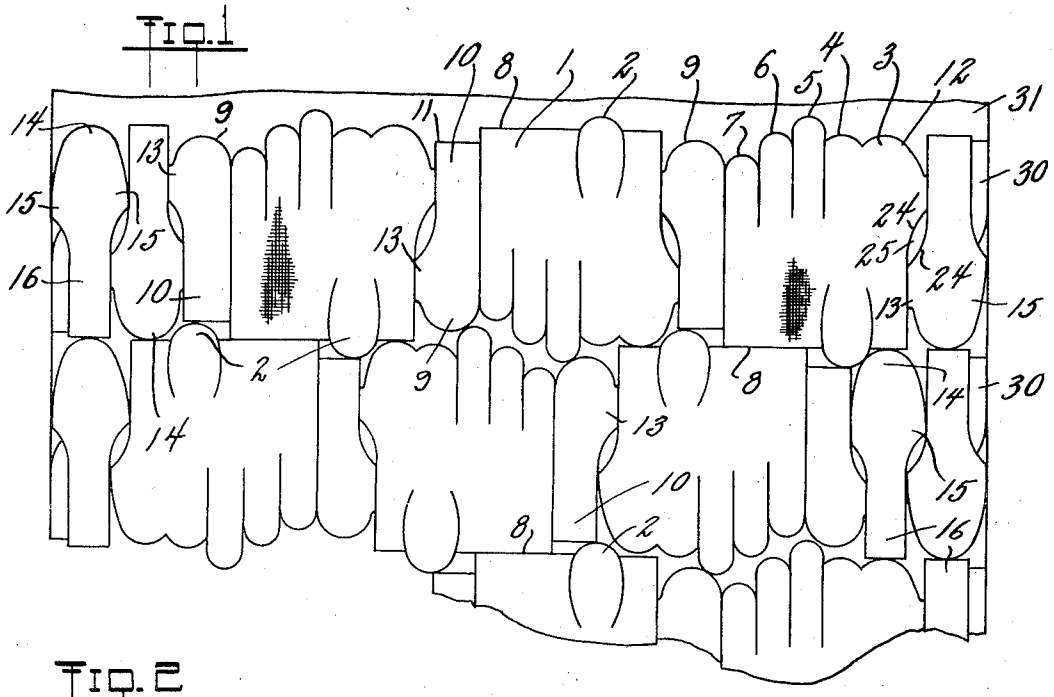
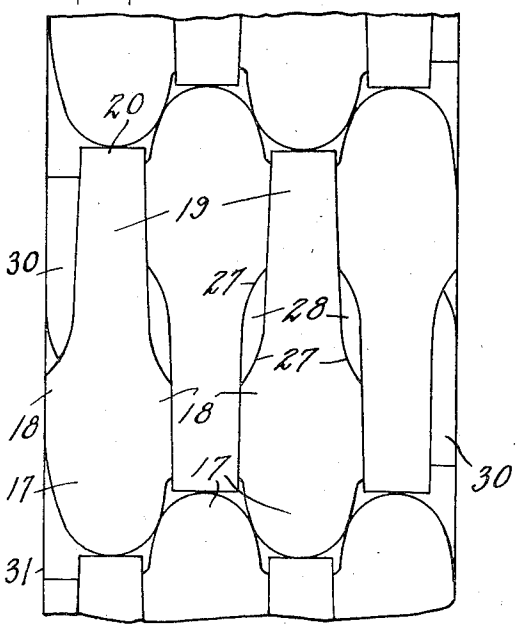


FIG. 2



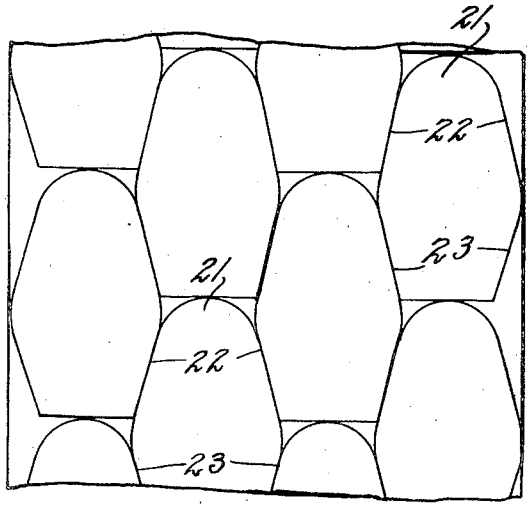


FIG. 3

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GLOVE MANUFACTURE

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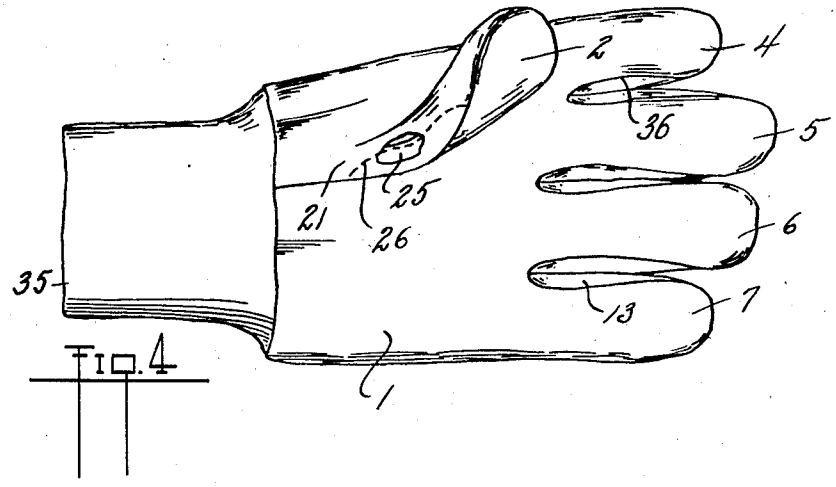


FIG. 4

FIG. 5

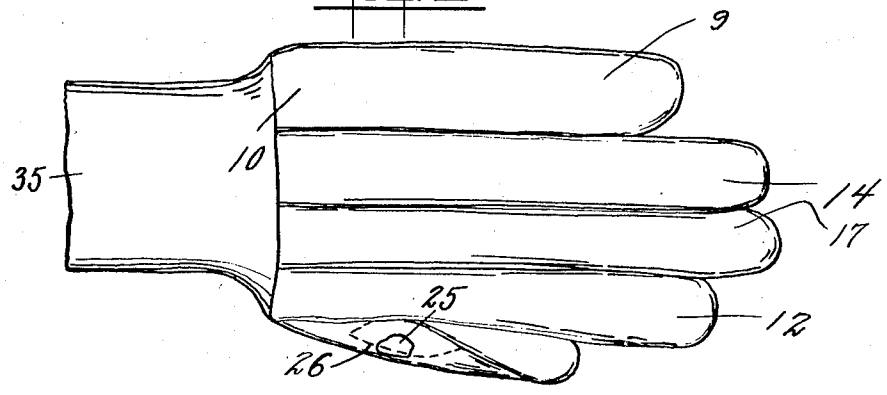


FIG. 6

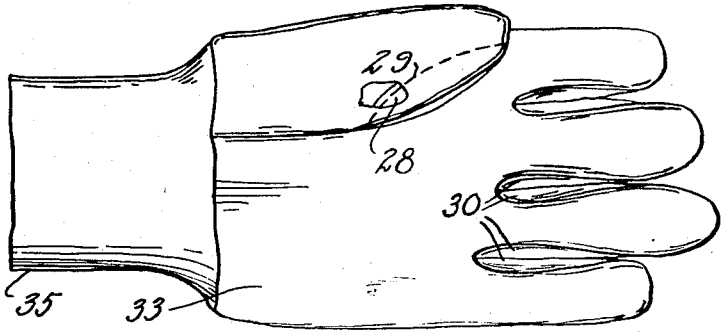
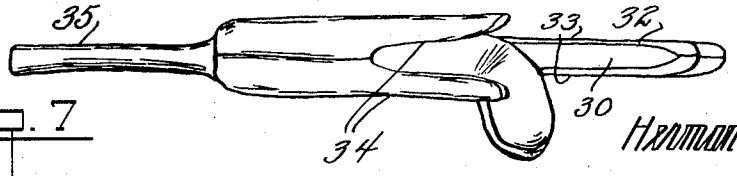


FIG. 7



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GLOVE MANUFACTURE

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3 Claims. (Cl. 2—169)

This invention relates to grouping of dies in the efficient cutting of blanks.

This invention has utility when incorporated in glove blank production, not only as to the assembly for primary cutting, but with the incidental minor or intermediate cuttings utilized as to the primary cutting conforming to full length little finger with the intermediate and terminal or incidental portions being configured for thumb reinforcements and fourchette.

Referring to the drawings:

Fig. 1 is a showing of blank groupings of the transverse series as reversely disposed in succession for economic cuttings, especially from multiple thickness or superposed strips of material, as fabric;

Fig. 2 is a grouping wherein finger backs only are involved, instead of the palms and backs of Fig. 1, with this grouping in Fig. 2 such as might be for the second and third fingers;

Fig. 3 is a grouping of thumb back blanks;

Fig. 4 is a view of the palm side of the glove, say as produced from the primary blanks of Figs. 1, 2, and 3;

Fig. 5 is a view of the back of the glove of Fig. 4;

Fig. 6 is a view of a double palm, double thumb glove; and

Fig. 7 is a side view of the glove of Fig. 6.

Blank unit is shown comprising palm 1 having integral therewith thumb inside 2, index finger back 3, index finger front 4, middle finger front 5, third finger front 6, and little finger front 7. This unit in the grouping herein is shown of full contour; that is, unmutilated as to the digit portions. The terminal digit portions are thus seen in each instance to be of symmetrical, convex contour.

In this series, the straight wrist portion terminus 8 of one is oppositely directed to the straight wrist portion 8 of the next adjacent. It is thus seen that in this transverse series, these units are adjacently, oppositely disposed. Furthermore, it is noted in this transverse series, these units are spaced from each other by blanks having finger portion 9 and wrist 10, together comprising a little finger back having its wrist terminus 11 spaced toward the finger tip from the wrist portion 8 of the unit. In the assembly of the grouping it is thus seen that the tip of the thumb 2 has clearance in this offset between the wrist portions 8, 11. This is a factor in economic cutting in the arrangement of the successive transverse series oppositely, and makes possible hand covering contour with generous cutting for the little finger 7 as to the length, as well as to the little finger back 9, 10.

With this generous or non-skimping cutting for the little finger, there is insured a working position for the glove which is natural as to the hand to be covered, and does not tend to swing the palm or thumb out of line. It is to be noted the index finger portion 3 has side portion 12 abutting a wristward portion of an adjacent finger back element.

These portions 12 from the index finger constitute an integral fourchette portion for this index finger. Lateral extension 13 of the little finger back 9, 10, is also an integral fourchette portion in the completed glove. In this grouping there may be third finger blanks having finger back portions 14, fourchette side portions 15, and wristward portions 16. These third finger back portions herein complete the transverse series as disclosed in Fig. 1. The glove blanks are accordingly short middle finger back portions 17 have integral fourchette portions 18 therewith and hand back portions 19 wristward. These mid-finger back portions also assemble for interfitting of the termini 17 and the wristward portions 19 in economic cutting with the tips offset relative to terminal portions 20 of these wristward extensions and abutting relation therebetween in the successive transverse series. Additionally, there are thumb back blanks 21 staggered and interfitting for efficient cutting with tapering sides 22, 23, reversely symmetrical.

The blanks between the fourchette portions 12, 13, 15, have clearance formed by curved sides 24 forming double convex blank 25 therebetween. This blank 25 is assembled in the glove by stitching 26 as a reinforcement inside thumb back 21 adjacent its assembly with the palm 1 and the index finger 4. The glove of Figs. 4, 5, is the general type of utility workmen's glove hereunder. However, in the cuttings as herein disclosed, there is additionally produced, at the middle finger backs between curved portions 27, double convex blank 28 slightly larger than the double convex blank 25. This blank 28 may be assembled by stitching 29 in double thumb glove of Figs. 6, 7, as a reinforcement and thus producing in this type of glove an added feature of utility at each of the thumbs therefor.

Furthermore, terminal blanks 30 between the wrist portions of the finger sections and the edge of the stock or fabric 31 form fourchette sections, which fourchette sections 30 are assembled by stitching 32 in a glove having palms 33 on opposite sides thereof and double thumbs 34. These

gloves are shown as having wrist extensions herein shown as wrist bands 35 instead of gauntlets or other types of wrist trim which may be adopted. The glove of Figs. 6, 7, is of a type meeting special favor with workmen, especially wood choppers, those who assemble wood shingles into bundles—shingle weavers, as well as by fruit packers.

It is thus seen that in the building up of workmen's gloves economically from stock hereunder, there is formed a glove which has its stitching 36 symmetrically and readily handled. In this stitching the curved contour between the finger back and finger crotch permits of continuous stitching readily and reduces the extent of cracked stitches and menders and the work of menders, in that the one conducting the stitching may do such rapidly and with a sufficient extent of the warp and woof fabric so that the stitch will hold even under the strain of operation of the manual worker.

While primarily this fabric is that of, say canton flannel, canvas, or such type of glove, they may be produced from other fabric such as knitted stock or jersey, leather and other material. However, in the instance of the disclosure hereunder, there is economy in the cutting, whether single or multiple fabric, although as herein disclosed, the multiple fabric cutting of as much as forty-eight thicknesses of cloth is usual in these gang die assemblies.

With such stock as canton flannel and the mode of cutting as disclosed hereunder, the feature of full-length little finger with interfitting thumb tip as disclosed in Fig. 1 gives it advantage for a full-sized glove as to such little finger, even for overage in size at such finger; the economy running as much as 22 yards per 100 dozen, which with the fabric at 12 cents per yard, means a saving of $2.64 on each 100 dozen, or for material as much as 7 per cent. The reinforcements 25 for the thumb, were such made from additional cuttings instead of from the waste as herein disclosed, would amount to as much as 1½ cents per dozen as against the additional saving of more than 2½ cents on the little finger feature.

Furthermore, while running this type of single palm glove of Figs. 4, 5, the reinforcements 28 for the thumb of the double thumb glove is a saving as an economy of fabric there, as well as the fourchette elements for such glove which additional or separate cutting would bring about an equivalent additional saving or economy to that of the glove in Figs. 4, 5.

What is claimed and it is desired to secure by Letters Patents is:

1. A glove blank grouping comprising similar palm, finger, and thumb inside blank units in a series with the wristward side of the little finger of one toward the finger side of an oppositely extending index finger of the next in said series, said units being in full form with symmetrical convex termini for the respective fingers and thumb portions, and a little finger back having its wristward portion spacing the index finger side of one unit from the little finger wristward portion of the adjacent unit.

2. A glove blank grouping comprising similar palm, finger fronts, index finger back, and thumb inside blank units in a series with the little finger side of one toward the index finger side of the next in said series, and a little finger back blank spacing the units, said little finger back blank being longitudinally offset transversely of said series to have the little finger back blank finger tip in the direction of the adjacent little finger tip of the unit with the tip of said little finger blank extending therebeyond.

3. A glove blank grouping comprising a double convex thumb reinforcement blank bounded on one side by a blank portion including a finger back in one direction and on the opposite side by a blank portion including a finger back extending in the opposite direction, said finger back blanks having portions broadening from the hand back portions thereof to the finger side portions in curved contour for completely bounding said double convex thumb reinforcement blank by two oppositely bowed curved lines.

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