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C. F. BERGER ET AL

2,540,234

MITTEN

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FIG. 1.

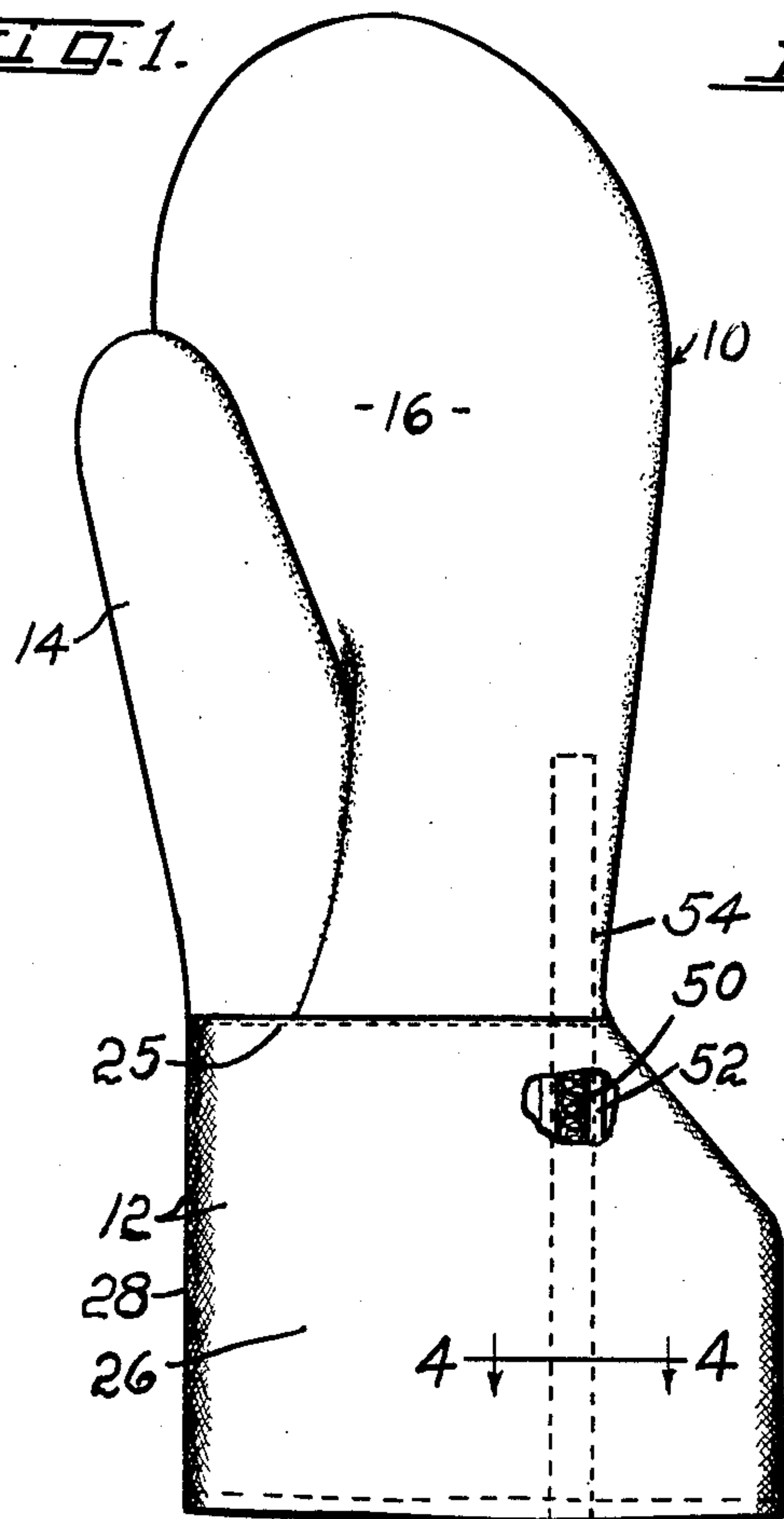


FIG. 2.

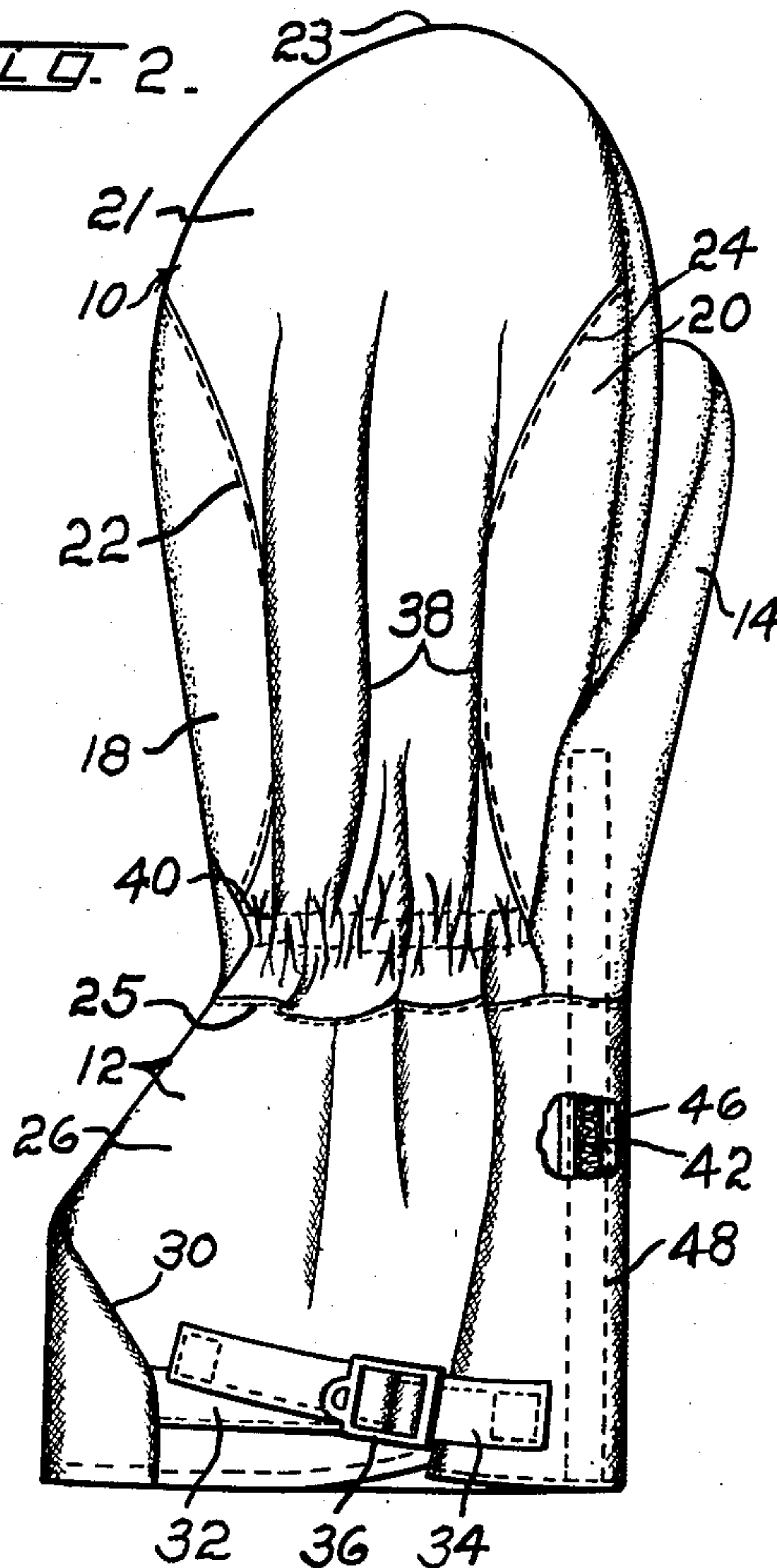


FIG. 3.

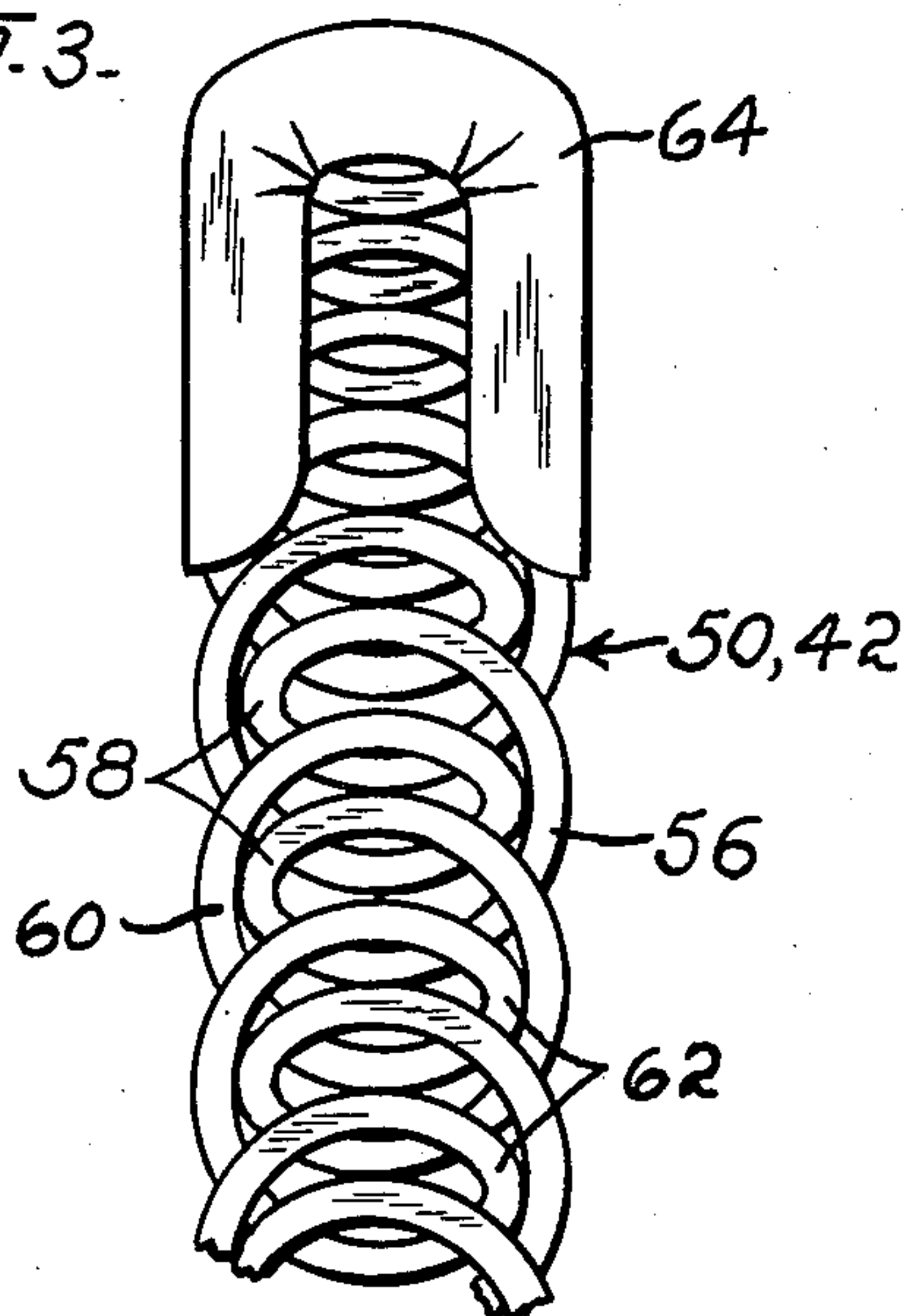
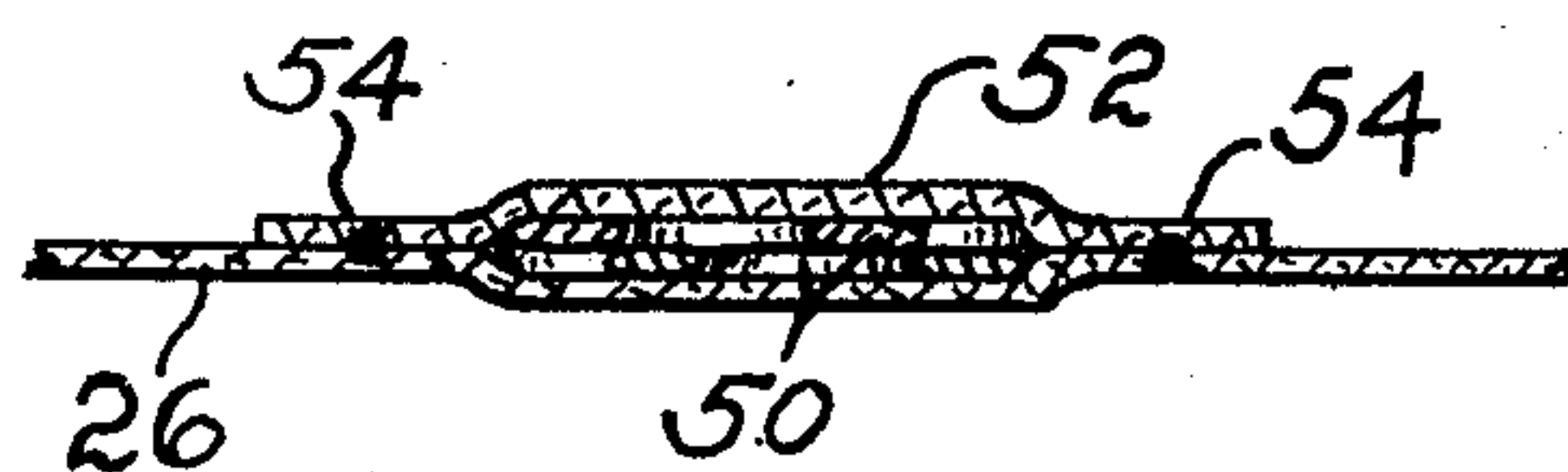


FIG. 4.



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## UNITED STATES PATENT OFFICE

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MITTEN

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3 Claims. (Cl. 2—158)

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This invention relates to a mitten and more particularly to a gauntlet mitten for sports wear, as for skiing and the like.

In gauntlet mittens of the type described, it is desirable to stiffen the gauntlet by suitable means to permit the use of relatively tight weave flexible fabric. However, the use of ribs of one form or another, such as flat ribs, are generally unsafe, due to their unyielding tendency when positioned in stitching in a gauntlet, and also because of their resistance to bending in the plane of the ribs. The wearer is subject to accident, may be subjected to injury because of the unyielding characteristics of such ribs.

It is accordingly an object of the present invention to provide a mitten, having a flexible gauntlet in which one or more stays are employed that resiliently resist buckling but which have a high degree of flexibility in all directions.

Another object of the invention is the provision of a gauntlet mitten in which provision is made to resiliently resist rolling back of the gauntlet, but in which the gauntlet has complete flexibility.

Another object of the invention is the provision of a gauntlet mitten having stiffeners, flexible in all directions, with the stiffeners extending the length of the gauntlet, and a substantial part of the length of the mitten.

The above and other novel features of the invention will appear more fully hereinafter from the following detailed description when taken in conjunction with the accompanying drawings. It is expressly understood that the drawings are employed for purposes of illustration only and are not designed as a definition of the limits of the invention, reference being had for this purpose to the appended claims.

In the drawings, in which like reference characters indicate like parts:

Figure 1 is a front plan view of the mittens and gauntlet with a fragmentary showing of a stiffener;

Figure 2 is a rear plan view of the mitten and gauntlet with a fragmentary showing of a stiffener;

Figure 3 is an enlarged view of a stiffening element suitable for use in the mitten; and

Figure 4 is a section, enlarged, taken on the line 4—4 of Figure 1 through a stiffener and the gauntlet carried pocket therefor.

Referring to the drawings, and more particularly to Figures 1 and 2, there is shown a mitten having a hand-receiving portion 10, a gauntlet portion 12, and a thumb-receiving portion 14. In practice, the palm 16 of the hand portion 10

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may be made from soft pliant leather joined to flank crescent-shaped portions or inserts 18 and 20 stitched along the side. The thumb portion may likewise be formed of soft pliant leather and stitched to the palm and the flank portion 20. The back 21 of the hand portion may be completed by tightly woven water-repellent fabric extending to the tip 23 of the mitten and secured by suitable stitching as at 25 to the flank portions 18 and 20 as at 22 and 24.

The gauntlet portion is secured by stitching 25 to the hand and thumb portions, at approximately the base of the latter, and as shown, is comprised of a piece of fabric 26 folded as at 28, and stitched together along the sloping or flaring seam 30. Across the back of the gauntlet, and adjacent the open end of the gauntlet, there is provided a flexible strap composed of elements 32 and 34 stitched to the gauntlet adjacent the flanks thereof, and adapted to be adjustably joined by a buckle 36. The wrist end of the hand portion, at the back thereof, is adapted to be gathered as at 38, there being provided an elastic element 40 for the purpose, stitched transversely across the back of the palm immediately adjacent to the gauntlet. Thus the gauntlet is preferably continuous about the forearm of the wearer and adapted to embrace or telescope the sleeve of a wearer. At the same time, suitable slack take-up is provided.

In order to render the gauntlet relatively stiff and self-sustaining, although composed of fabric, a pair of stiffeners are provided each of which extends into the hand or thumb portion of the glove a substantial distance. The stiffener 42, for example, is suitably rooted in the thumb portion, and extends to the open end of the cuff. The stiffener, which may be of the type shown in Figure 3, is held in place, preferably upon the inside surface of the leather thumb and fabric gauntlet, by a strip of cloth 46 stitched to the thumb as at 48. The stiffener 50 is similarly held in position by a strip of cloth 52 stitched to the gauntlet and palm as at 54. The construction thereof, as well as that of the stiffener 42, is illustrated in greater detail in Figure 4. It will be seen that the stiffeners each extend lengthwise of the glove, that is with respect to the general longitudinal length of the mitten, and that the stiffener 50 does not generally follow the slope or flare of the seam previously referred to, so that the presence of the stiffeners does not interfere with adjustment of the strap elements 32 and 34, as the stiffeners in effect are located in the front face of the gauntlet or the thumb flank thereof.



A stiffener found to be admirably suitable for providing the requisite stiffness and yet affording resilient flexibility in all directions, and consequent safety to the wearer, may be constructed in the manner shown in enlarged detail in Figure 3. Such stiffener comprises a pair of wires suitably coated to prevent corrosion, each formed in a plurality of e's interlocking with one another. For example, the wire 56 is composed of a plurality of loops 58 interlacing with the wire 60 and its loops 62. The ends of the wires are suitably bound with a flattened metal cap 64. The wires may be reversely formed coils which are subsequently positioned with their turns interleaved, following which the coils are flattened and ironed out, under pressure sufficient to permanently upset the metal, and indent and flatten the crossing turns of the wires with respect to one another.

It will be appreciated that such a construction affords flexibility in any direction, while resisting any change in length, and provides a desired stiffness to the gauntlet without incidental danger, as is present in stiffeners having resiliency limited to a single plane. In addition, the location of the stiffeners is such as to interfere the least with the drawing up of the gauntlet over the sleeve of the wearer, and the taking up of whatever slack seems desirable by the buckle; and additionally, the stiffeners are rooted in the hand portion of the mitten.

Although a single embodiment of the invention has been illustrated and described, it is to be understood that the invention is not limited thereto. As various changes in the construction and arrangement may be made without departing from the spirit of the invention, as will be apparent to those skilled in the art, reference will be had to the appended claims for a definition of the limits of the invention.

What is claimed is:

1. In a gauntlet mitten, a hand-receiving part, a thumb-receiving part, a continuous gauntlet part secured thereto, said gauntlet part having a flare in the flank opposite the thumb flank for receiving and overlapping a sleeve or the like, and a pair of resilient stiffeners extending from the thumb part and hand-receiving parts respectively, each of said stiffeners being metallic flat members being resilient in all directions, and hav-

ing a substantial length thereof rooted therein whereby said rooted length is held in a relatively fixed position, and the remaining length of said stiffeners extending substantially parallel to one another and substantially to the open end of said gauntlet and resiliently holding said gauntlet portion in extended position.

2. In a gauntlet mitten, a hand-receiving part, a gauntlet part having a substantial flare for receiving and overlapping a sleeve or the like, a pair of stiffeners flanking the edges of said hand-receiving part for a substantial distance and anchored in said part and extending to the open end of the gauntlet part, each of said stiffeners being metallic flat members resilient in all directions, the anchored portion thereof extending for a sufficient length to hold said anchored portion in a relatively fixed position, and thereby resiliently support the free ends to retain the gauntlet in normal position.

3. In a gauntlet mitten, a hand-receiving part, a gauntlet part having a substantial flare for receiving and overlapping a sleeve or the like, a pair of stiffeners flanking the edges of said hand-receiving part for a substantial distance and anchored in said part and extending to the open end of the gauntlet part, said stiffeners being received in inside pockets extending along their entire length, each of said stiffeners being metallic flat members resilient in all directions, the anchored portion thereof extending for a sufficient length to hold said anchored portion in a relatively fixed position, and thereby resiliently support the free ends to retain the gauntlet in normal position.

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