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REINFORCED GLOVES AND PADS

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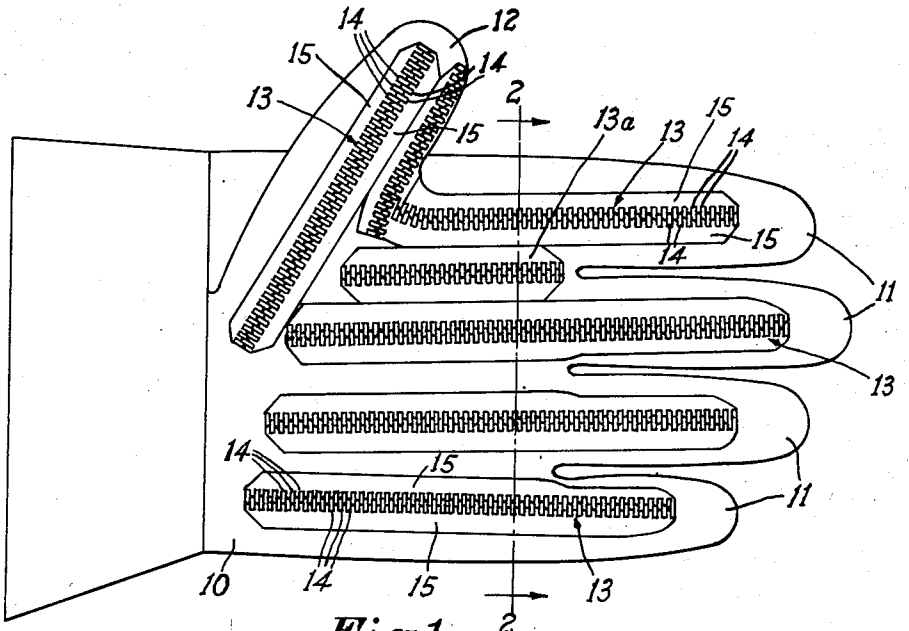


Fig. 1

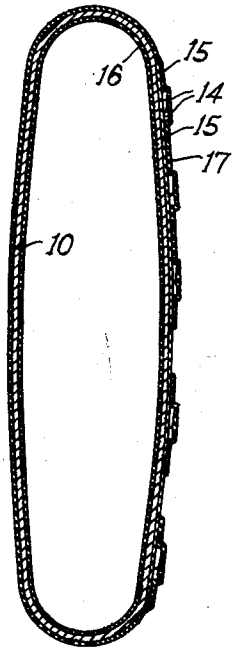


Fig. 2

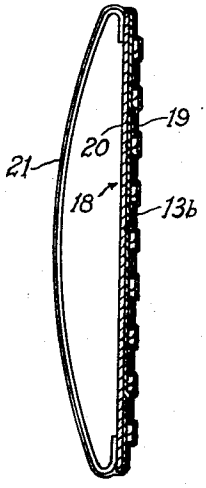


Fig. 4

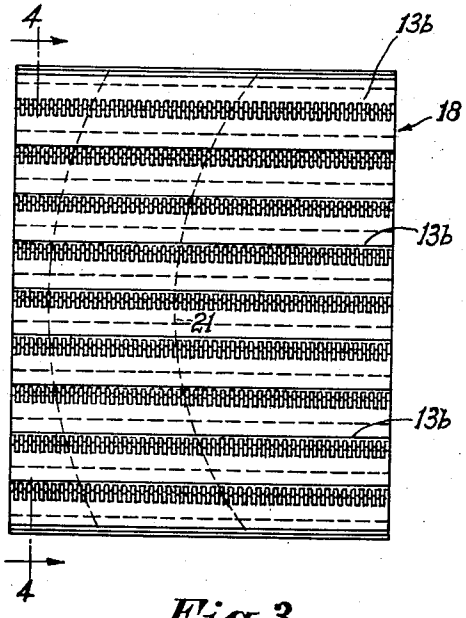


Fig. 3

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REINFORCED GLOVES AND PADS

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6 Claims. (Cl. 2—161)

The invention relates to gloves, pads and the like reinforced with metal to protect workers handling sheet steel, tin plate, metal stampings and other articles having sharp edges.

Under present practice leather gloves reinforced with metal staples have been provided for such use, but such gloves have not been entirely satisfactory as they are very stiff and bulky and workers often refuse to use them.

Furthermore, the leather gloves will cut easily when they become worn and it sometimes happens that a sharp edge of a metal sheet or the like will cut through the glove, between the staples, cutting the worker's hand.

The object of the present invention is to provide a glove, pad or the like provided with a flexible metal reinforcement which does not render the glove or pad stiff or bulky and which is so constructed that the sharp edges of metal sheets or the like can not cut therethrough and contact the wearer's hand.

Another object is to provide such a device which is reinforced by strips of hookless fasteners of the type commonly known as zippers.

A further object is to provide a device of this character comprising a glove or pad formed of canvas, or similar fabric material, having a plurality of strips of closed hookless fasteners or zippers sewed, cemented or otherwise attached to the surface in such position as to completely protect the hand or other portion of the body of the worker.

A still further object is to provide a device of this character reinforced in the manner referred to, and coated inside and out with rubber, vinyl or synthetic rubber, preferably neoprene, or an oil resistant synthetic.

The above objects together with others which will be apparent from the drawing and following description, or which may be later referred to, may be attained by constructing the improved reinforced glove and pad in the manner hereinafter described in detail and illustrated in the accompanying drawing, in which;

Fig. 1 is a front elevation of a reinforced glove constructed in accordance with the invention;

Fig. 2 an enlarged, transverse, sectional view through the glove taken as on the line 2—2, Fig. 1;

Fig. 3 a front elevation of a reinforced pad constructed in accordance with the invention; and,

Fig. 4 a transverse, sectional view through the pad taken as on the line 4—4, Fig. 3.

Referring first to the reinforced glove shown in Figs. 1 and 2, the same comprises a glove 10 formed of canvas, or other suitable fabric, having the usual fingers 11 and thumb stall 12.

For the purpose of reinforcing this glove to provide a completely flexible and pliable structure which will easily conform to natural movements of the hand and at the same time effect complete protection, a plurality of strips of closed hookless fasteners or zippers, as indicated generally at 13, are attached to the glove.

These reinforcing strips may be attached to the palm

of the glove and the front sides of the fingers 11 and thumb stall 12, as shown in Fig. 1, where the glove is to be used for handling metal sheets, stampings and the like having sharp edges, or these reinforcing strips may be attached to the back of the glove and the backs of the fingers and thumb stall thereof or protect the back of the wearer's hand when used for such purpose as cutting sugar cane or the like.

These hookless fasteners or zippers comprise two series of interlocking metal prongs 14 attached to fabric strips 15. In order to use these fasteners for reinforcing the glove they are first placed in the closed or locked position, in usual and well known manner, interlocking the two series of metal prongs 14 with each other.

The fabric strips 15 carrying these metal prongs are then sewed, cemented or otherwise firmly attached to the desired portions of the surface of the glove. In the glove shown in Fig. 1, where the reinforcing is desired upon the front surface thereof, it will be seen that one reinforcing strip is attached to the front of each finger and extends down across the palm of the glove to the wrist.

One or more additional strips may be attached to the palm of the glove between the strips 13, as indicated at 13*a* in Fig. 1, and one or more strips are attached to the surface of the thumb stall 12.

To attach the zipper strips to the glove, the fabric portions 15 thereof may be stitched to the glove, or they may be attached by means of any suitable cement.

The glove, with the reinforcing strips attached thereto, may then be coated both inside and out, as indicated at 16 and 17 respectively, with rubber, vinyl or synthetic rubber, preferably neoprene, or an oil resistant synthetic, producing a pliable and flexible glove which is waterproof and oil resistant.

The interlocking metal members 14 of the zipper strips provide an unbroken metal surface completely protecting the hand so that there is no possibility of sharp edges of metal cutting through the same at any point.

In the same manner protective pads or patches may be produced for hands, knees, seats of garments and the like. Such a pad is shown in Figs. 3 and 4, being indicated generally at 18, and being formed of any suitable fabric or the like.

The surface of the pad is substantially covered with a plurality of zipper strips, indicated at 13*b*, located close together and stitched or cemented to the surface of the pad. The outer and inner surfaces of the pad, with the zipper strips thereon, may then be coated with rubber, vinyl, or synthetic rubber, preferably neoprene, or an oil resistant synthetic, as indicated at 19 and 20, producing a pliable, oil resistant and waterproof, metal reinforced pad or patch.

If the pad is to be used for protecting the hand, knee or the like, a band 21 of fabric, or other suitable material, is attached at opposite ends to the back of the pad so that it may easily be slipped on or off.

Such reinforced pads may be worn over the palms of the hands for handling sharp or rough material, or may be worn upon the back of the hand for use in cutting cane or for similar uses. The pad may also be slipped over the knee to be worn as a removable knee pad, or may be applied in any suitable manner to the seat of a garment.

It will be seen that such a glove or pad provides flexibility in any direction, as the zipper strips may be flexed forwardly, backwardly or laterally, at all times maintaining a complete protection against cutting of the glove or pad by sharp edges of metal, as is possible in the case of the staple reinforced gloves and pads now in use where the edge of a metal sheet or the like frequently cuts through the glove or pad between adjacent staples.

It should be understood that the invention is applicable

not only to gloves or pads as illustrated, but to reinforced mittens for use in handling various materials having sharp edges or corners.

It has been found by experience that gloves, mittens or pads reinforced with strips of closed zippers not only provide complete protection to the hands or other portions of the body protected by the same, but that being flexible in all directions these zipper strips provide a gripping action which assists the wearer in handling such materials.

In the foregoing description, certain terms have been used for brevity, clearness and understanding, but no unnecessary limitations are to be implied therefrom beyond the requirements of the prior art, because such words are used for descriptive purposes herein and are intended to be broadly construed.

Moreover, the embodiments of the improved construction illustrated and described herein are by way of example, and the scope of the present invention is not limited to the exact details of construction.

Having now described the invention or discovery, the construction, the operation, and use of preferred embodiments thereof, and the advantageous new and useful results obtained thereby; the new and useful constructions, and reasonable mechanical equivalents thereof obvious to those skilled in the art, are set forth in the appended claims.

I claim:

1. A reinforced protective device comprising a body member of pliable material and a plurality of substantially parallel reinforcing strips of premanently closed hookless fasteners of the zipper type attached to and extending over substantially the entire area of a surface of the body member, each reinforcing strip comprising two series of interlocked metal prongs attached to strips of flexible material, and a coating of rubber like material upon said surface of the body member and said reinforcing strips.

2. A reinforced protective device comprising a body member of pliable material and a plurality of substantially parallel reinforcing strips of permanently closed hookless fasteners of the zipper type attached to and extending over substantially the entire area of a surface of the body member, each reinforcing strip comprising two series of interlocked metal prongs attached to strips of flexible material, and a coating of rubber like material upon the inner and outer surfaces of said body member and said reinforcing strips.

3. A reinforced glove formed of pliable material having fingers and a thumb stall thereon, and a plurality of reinforcing strips of closed hookless fasteners of the zipper type attached to a surface of the glove, each reinforcing strip comprising two series of interlocked metal prongs attached to strips of flexible material, certain of said reinforcing strips extending substantially from the ends of the fingers and thumb stall to the wrist portion of the glove.

4. A reinforced glove formed of pliable fabric material having fingers and a thumb stall thereon, and a plurality of reinforcing strips of closed hookless fasteners of the zipper type attached to a surface of the glove, each reinforcing strip comprising two series of interlocked metal prongs attached to strips of flexible material, certain of said reinforcing strips extending substantially from the ends of the fingers and thumb stall to the wrist portion of the glove.

5. A reinforced glove formed of pliable material having fingers and a thumb stall thereon, and a plurality of reinforcing strips of closed hookless fasteners of the zipper type attached to a surface of the glove, each reinforcing strip comprising two series of interlocked metal prongs attached to strips of flexible material, certain of said reinforcing strips extending substantially from the ends of the fingers and thumb stall to the wrist portion of the glove, and a coating of rubber like material upon said glove and reinforcing strips.

6. A reinforced glove formed of pliable fabric material having fingers and a thumb stall thereon, and a plurality of reinforcing strips of closed hookless fasteners of the zipper type attached to a surface of the glove, each reinforcing strip comprising two series of interlocked metal prongs attached to strips of flexible material, certain of said reinforcing strips extending substantially from the ends of the fingers and thumb stall to the wrist portion of the glove, and a coating of rubber like material upon said glove and reinforcing strips.

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