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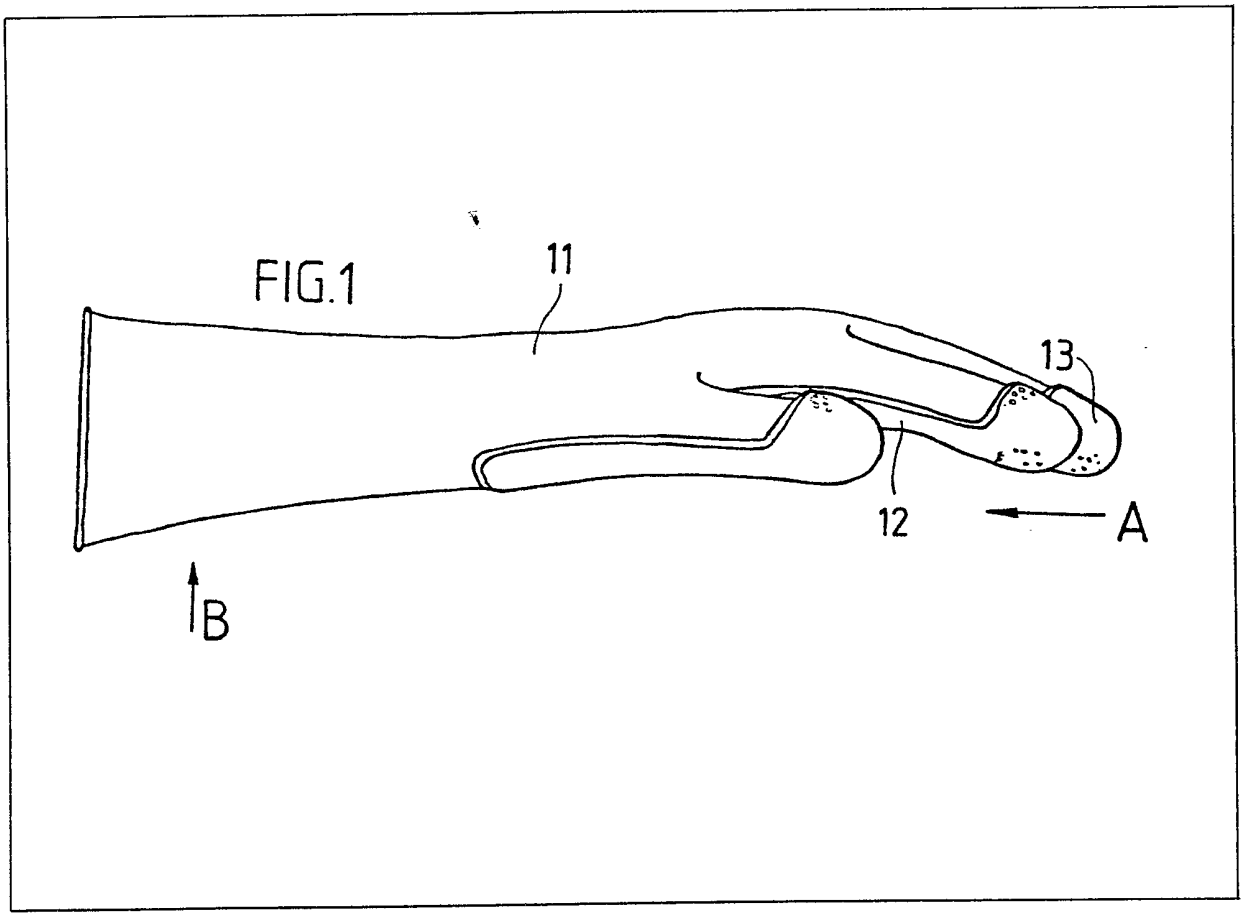
(54) Multi-purpose glove

(57) A glove of resilient or fabric material (11) is provided with additional sponge components such as a sponge facing (12) having finger end caps (13). This sponge material may additionally be abrasive at least over part of its surface area.

In an alternative embodiment the glove is in the form of a mitten with a substantially enclosing sponge coating again provided optionally with abrasive areas.



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The drawings originally filed were informal and the print here reproduced is taken from a later filed formal copy.

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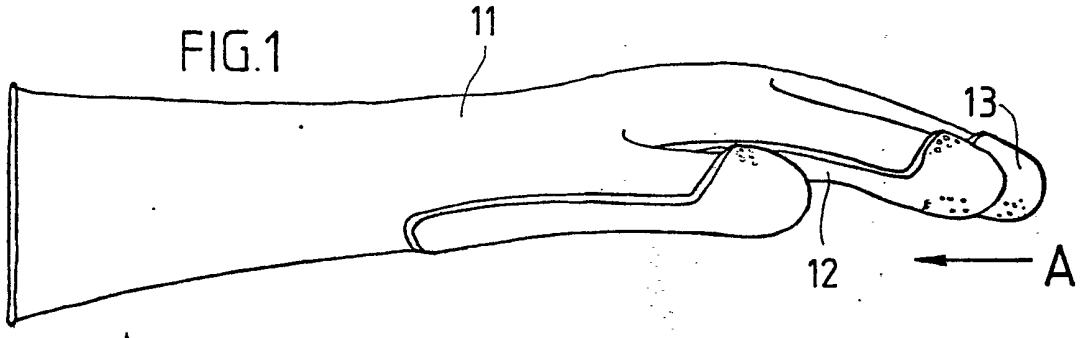
FIG.1



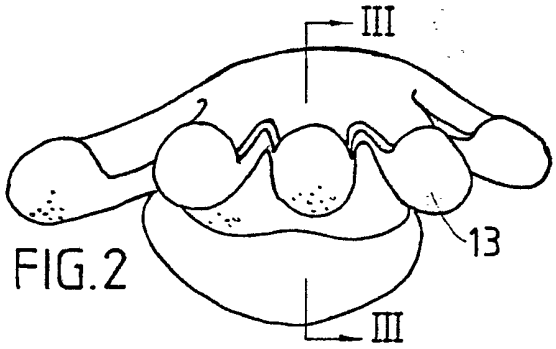


FIG.2

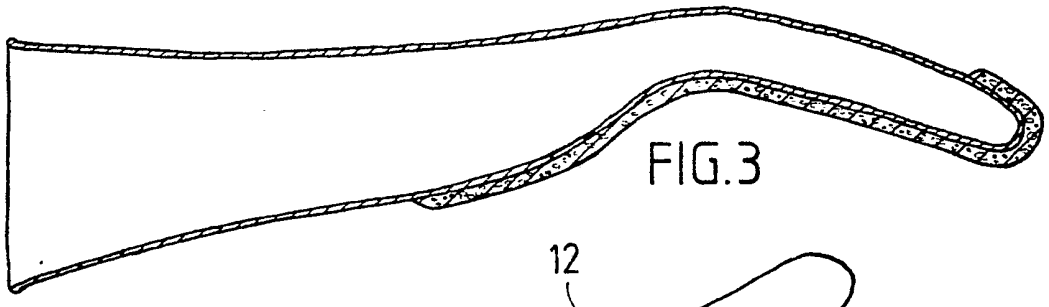


FIG.3

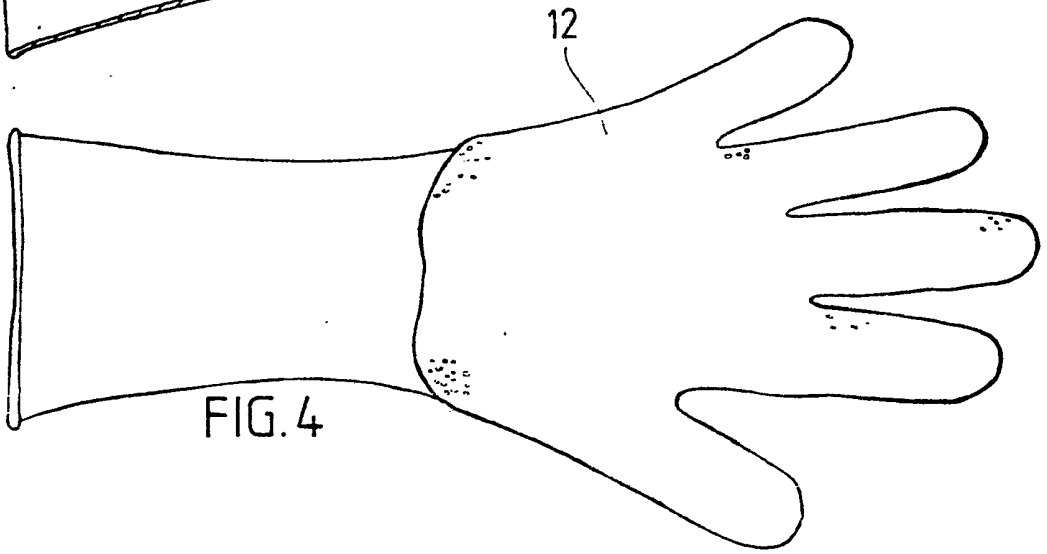
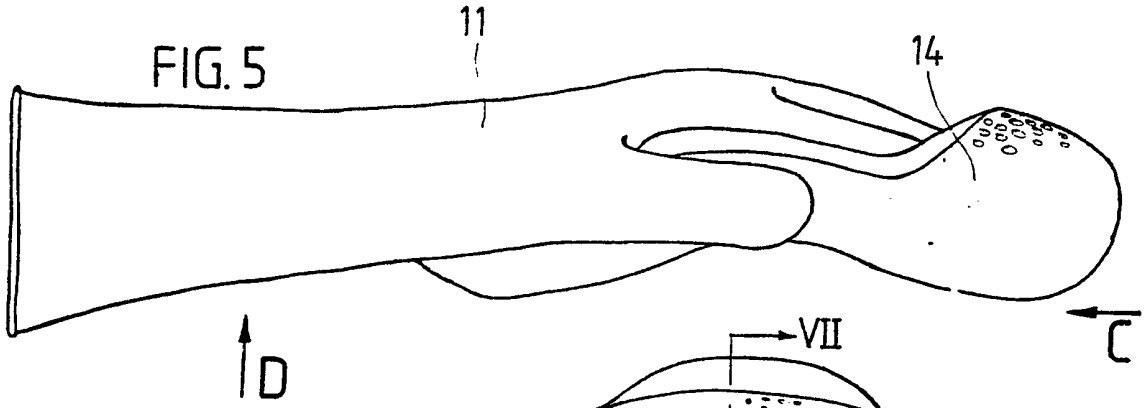


FIG.4

FIG. 5



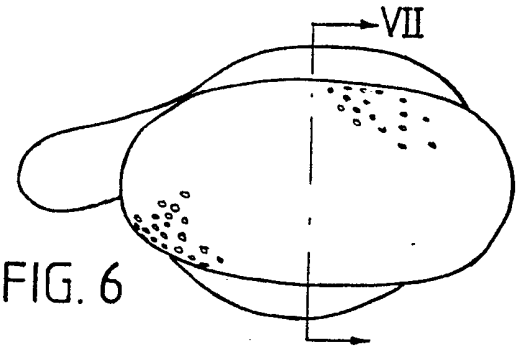


FIG. 6

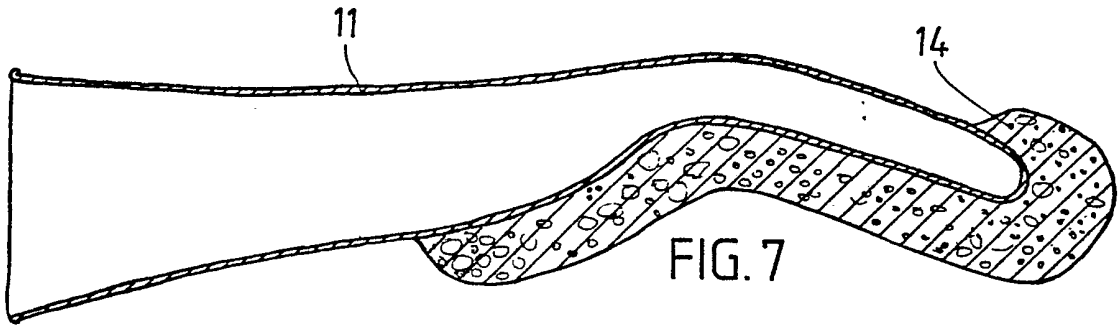


FIG. 7

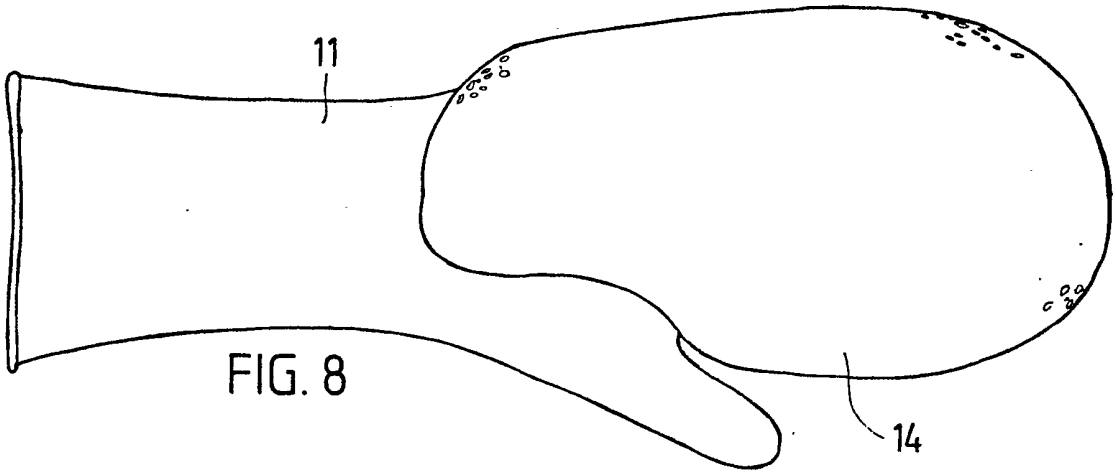


FIG. 8

SPECIFICATION

Multi-purpose glove

The present invention relates to a glove adapted to fit over the hand of a user. As used in this specification the term "glove" is intended to cover both a hand-covering element incorporating individual pockets for each finger of the user's hand as well as those which have pockets for two or more fingers and/or which incorporate within them a grip by means of which the user may retain the element in position.

There are many domestic and industrial situations where it is desirable or necessary to wear protective or waterproof hand-covering elements. For most such situations the operator also handles a tool or other equipment such as a sponge, scourer or the like. In particular, many situations where protection for the user's hand is required involve operations in which liquids are being handled and the protection for the user's hand is required against caustic or acidic properties of the liquid.

In a domestic situation impermeable resilient gloves are frequently used for washing-up where the constant immersion in hot detergent would result in harmful effects on the skin.

The present invention seeks to provide a glove as hereinbefore defined which is specifically adapted so as to serve as a tool or piece of equipment for performing tasks conventionally performed whilst wearing protective gloves by separate tools or items of equipment.

According to one aspect of the present invention a glove comprises a hand-covering element shaped to fit over the hand of the user and provided with elements of flexible cellular and/or abrasive material over at least a part of the surface area thereof for use in performing washing or like operations.

If elements of cellular material are provided, and the glove is one having separate pockets for receiving individual fingers, washing and/or drying operations can be performed without requiring any other equipment. The cellular elements may be impregnated with detergent or soap or other cleaning material such that, upon immersion in water, the glove can be used for cleaning operations simply by the user working his or her hand over the surface to be cleaned passing the cellular elements over the surface.

In one embodiment of the invention the flexible cellular and/or abrasive elements are removable for replacement by similar such elements if they become worn or too soiled for further use. Various different methods of attachment may be employed. For example attachments of the type sold under the Trade Mark Velcro may be used, or alternatively a suitable adhesive which will not form a permanent bond, such as a latex rubber of light adhesion may be used. Alternatively, however, the elements may be secured permanently in position, such as by adhesive or by being formed integrally with the membrane constituting the covering element. Indeed, if a synthetic cellular material is employed the membrane constituting the glove may be formed as a skin on or within a cavity in the element.

Embodiments of the present invention will now be more particularly described, by way of example, with reference to the accompanying drawings, in which:

Figure 1 is a side view of a first embodiment of the present invention;

Figure 2 is an end view seen in the direction of the arrow A of Figure 1;

Figure 3 is a longitudinal section taken on the line III—III of Figure 2;

Figure 4 is a plan view seen in the direction of the arrow B of Figure 1;

Figure 5 is a side view of a second embodiment of the present invention;

Figure 6 is an end view taken in the direction of the arrow C of Figure 5;

Figure 7 is a sectional view taken on the line VII—VII of Figure 6; and

Figure 8 is a plan view seen in the direction of the arrow D of Figure 5.

Referring now to the drawings the embodiment illustrated in Figures 1—4 comprises a glove made of resilient flexible material such as a rubber or synthetic material having a conventional shape to fit over the hand, fingers and thumb of a user. The glove membrane is indicated with the reference numeral 11.

A resilient cellular material element 12 is secured to the glove membrane 11 by a contact adhesive (not shown). The cellular element covers the palm of the glove membrane and extends along those surfaces of the fingers on the corresponding side thereof, that is the "inner" sides of the fingers with respect to a closed fist, and terminate in end caps 13 covering all of the tip of each finger and the thumb.

In use the glove is fitted over the user's hand and, having been moistened, is rubbed over the surfaces to be cleaned. Because the tips 13 of the cellular elements 12 are secured firmly to the fingers these can be used to clean the internal corners of the items being washed without requiring separate tools or equipment. By squeezing the hand, moisture can be expelled from the cellular elements which can then be used for at least partly drying the items being washed. Although not illustrated in the drawings, abrasive pads or sections may be incorporated in the cellular element 12, for example over a portion of the palm, or separate abrasive elements may be bonded over the glove membrane 11, for example over the knuckles of the fingers of the outer sides so that scrubbing actions can be performed utilising such abrasive elements. One or more of the end caps 13 of the fingers, particularly the index finger may likewise be provided with sections or segments of abrasive material for scouring purposes.

In the embodiment of Figures 5—8 the glove membrane 11 is substantially identical to that in the embodiment of Figures 1—4 but instead of being provided with individual finger-covering

cellular elements a common pad 14 covering both the palm and the tips of the fingers, over a region extending at least to the first knuckle, and possibly to the second knuckle is provided in the form of a "mit". The thumb, however, is left uncovered by the cellular material 14 so that it can be used for gripping or holding the items being washed.

Again, abrasive elements may be inserted or added to the cellular element 14 for assistance with scouring and a flock or other material lining may be provided inside the glove membrane 11 to afford a degree of thermal insulation allowing the gloves to be used where temperatures higher or lower than those normally comfortable for the human hand are best suited for the operation being performed.

It is also to be noted that the cellular elements offer protection against impacts when being used, for example, for cleaning a car or other large rigid object, and unlike a conventional sponge, the cellular elements covering the glove membrane 11 will not fall to the ground and become contaminated with dirt and grit if the grip is relaxed.

CLAIMS

1. A hand-covering element shaped to fit over the hand of a user and provided with elements of flexible cellular and/or abrasive material over at least a part of the surface area for use in washing or like operations.

2. A hand-covering element as claimed in Claim 1, in which the covering element is provided with fingers for receiving individual fingers of a user's hand.

3. A hand-covering element as claimed in Claim 2, in which each finger has an individual element of flexible cellular and/or abrasive material thereon.

4. A hand-covering element as claimed in Claim 1, Claim 2 or Claim 3 in which the flexible cellular and/or abrasive elements are removable.

5. A hand-covering element as claimed in any of Claims 1 to 3, in which the flexible cellular and/or abrasive elements are attached or otherwise secured permanently in position, such as by adhesive.

6. A hand-covering element as claimed in any of Claims 1, 2, or 3, in which the flexible cellular and/or abrasive elements are formed integrally with a membrane constituting the covering element.

7. A hand-covering element as claimed in any of Claims 1 and 3 to 6, in which the body of the element is formed with a common compartment to receive all the fingers of the hand of a user and an individual compartment for receiving the thumb.

8. A hand-covering element as claimed in any preceding Claim, in which the covering element is an impervious, resilient and flexible membrane.

9. A hand-covering element as claimed in any preceding Claim, in which the cellular material element covers both the fingers and the palm of the hand.

10. A hand-covering element as claimed in any preceding Claim, in which the cellular material elements substantially surround the tips of the fingers so that the finger tips are wholly enclosed thereby.

11. A hand-covering element substantially as hereinbefore described with reference to the accompanying drawings.

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