April 24, 1951 R. J. FICK 2,550,461

ELBOW PROTECTOR

Filed June 30, 1948

Fig. 1.

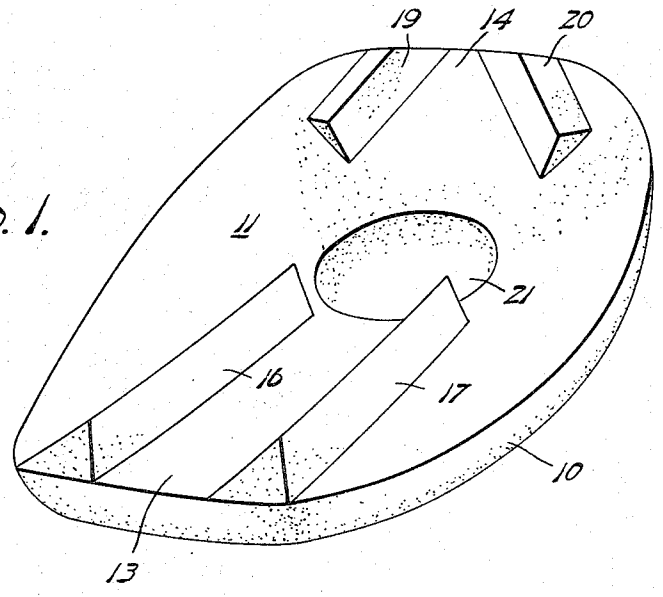
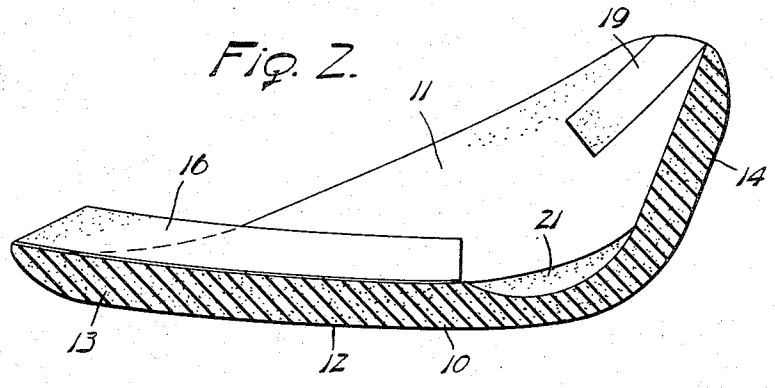


Fig. 2.



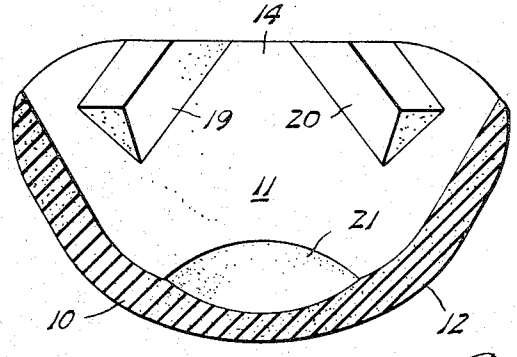


Fig. 3.

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Patented Apr. 24, 1951 2,550,461

UNITED STATES PATENT OFFICE

2,550,461

ELBOW PROTECTOR

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Application June 30, 1948, Serial No. 36,136

9 Claims. (Cl. 2—16)

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This invention relates to elbow protectors.

The device of the present invention comprises a yieldable pad or body member molded or otherwise shaped or fabricated to a particular conformation for application interchangeably to either the right or left elbow of a user.

The present invention provides an elbow protecting pad of relatively simple conformation but one which is scientifically designed to engage the elbow joint in such manner as to give a maximum of protection to the several bony prominences of the elbow joint and at the same time permit a maximum degree of freedom of movement of the joint.

The present elbow protector is intended, among other uses, for use by persons engaged in sporting and athletic activities or contests, either to protect an injured elbow against further injury or to protect a sound elbow against injury. For this reason the factor of freedom of movement of the elbow joint when the protecting pad is in position is an important consideration.

A further important advantage resulting from the present invention is the interchangeability from left to right, so that different left and right-hand protectors are not necessary.

The elbow protecting pad of the present invention may be held in position by any desired bandage or strap arrangement but the preferred manner of application is to wind relatively wide adhesive type about the arm of the user with the protector in proper position against the elbow joint.

The specific example of the elbow protector illustrated in the accompanying drawing and described in detail in the following specification may be subject to certain modifications without departing from the principles of the present invention. In any event, the spirit and scope of the present invention are to be considered as limited only as defined in the appended claims.

In the drawings:

Fig. 1 is a perspective view looking generally at the inner surface of one form of the elbow protector of the present invention;

Fig. 2 is a central longitudinal cross-sectional view; and

Fig. 3 is a transverse cross-sectional view.

In the several figures of the drawing like characters of reference denote like parts and the form of the device there illustrated by way of example comprises a body portion 10 of moderately firm foam rubber or other material having approximately the same physical properties. Body portion 10 has a generally concave inner surface 11 and a generally convex outer surface 12.

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As viewed in Fig. 2 the body portion 10 has a relatively long horizontal portion 13 for association with the forearm of a wearer and a relatively short generally upstanding portion 14 for association with the upper arm. A pair of parallel longitdinal ribs 16 and 17 of triangular cross-section extend along the inner concave surface 11 of the horizontal portion 13 of body portion 10.

A second pair of ribs 19 and 20, likewise triangular in cross-section, extend divergently from the upper edge of upstanding portion 14, as appears clearly in Figs. 1 and 3. The inner concave surface 11 of body portion 10 intermediately of ribs 16 and 17 and ribs 19 and 20, is formed with a well or recess 21 of greater concavity than the body portion generally.

The entire device is symmetrical about its longitudinal center line and is used interchangeably for either the right or left arm.

When the elbow protector of the present invention is in proper position against the elbow of a wearer, being held securely by adhesive tape or any other bandaging or wrapping, the humerus or upper arm bone is cradled between the upper ribs 19 and 20, the flaring disposition of ribs 19 and 20 corresponding generally to the outwardly flaring conformation of the lower portion of the humerus.

The position of the device in use will be described, by way of example, with reference to the left arm of a wearer, the position relative to the right arm being merely the reverse of the following description.

Referring to the left forearm, rib 16 lies along the internal surface of the ulna and rib 17 lies between the ulna and the radius, the inner surface of rib 17 lying against the dorsal surface of the ulna and the outer surface lying against the dorsal surface of the radius.

The well or depression 21 receives the olecranon of the ulna and the internal epicondyle of the humerus lies between the adjacent ends of ribs 19 and 16, while the external epicondyle of the humerus lies between the adjacent ends of ribs 20 and 17.

The entire device is preferably molded unitarily but any other satisfactory mode of fabrication may be employed and various materials, natural or synthetic, and various compositions, may be employed, as long as they have the desired degree of resiliency and other physical properties.

What is claimed is:

1. An elbow protector comprising an elongate

resilient body having one surface thereof formed to provide a concave elbow-receiving pocket and having at one portion of the periphery of said pocket a continuous outward extension for engagement against the forearm of a user, a pair of generally parallel spaced ridges formed along said extension for engagement with said forearm at opposite sides of the ulna thereof, and a pair of ridges at the opposite side of said pocket from the outward extension, said second pair of ridges being spaced from each other at the edge of the pocket and extending divergently inwardly from said edge for engagement with the elbow between the epicondyles of the humerus and the olecranon of the ulna.

2. An elbow protector comprising an elongate resilient body having one surface thereof formed to provide a concave elbow-receiving pocket and having at one portion of the periphery of said pocket a continuous outward extension for engagement against the forearm of a user, a pair of generally parallel spaced ridges formed along said extension for engagement with said forearm at opposite sides of the ulna thereof, and a pair of raised portions at the opposite side of said pocket from the outward extension, said raised portions having facing surfaces disposed divergently from the edge of the protector inwardly for engagement with the elbow between the epicondyles of the humerus and the olecranon of the ulna.

3. An elbow protector comprising an elongate resilient body having one surface thereof disposable against the elbow of a wearer and having one end portion thereof disposed against the wearer's forearm, a pair of generally parallel spaced ridges formed along said one end portion of said surface for engagement with said forearm at opposite sides of the ulna thereof, and a pair of ridges on said surface at the opposite end of said body, said second pair of ridges being spaced from each other at said other end of said body and extending divergently inwardly from said end for engagement with the elbow between the epicondyles of the humerus and the olecranon of the ulna.

4. An elbow protector comprising an elongate resilient body having one surface thereof disposable against the elbow of a wearer and having one end portion thereof disposed against the wearer's forearm, a pair of generally parallel spaced ridges formed along said one end portion of said surface for engagement with said forearm at opposite sides of the ulna thereof, and a pair of ridges on said surface at the opposite end of said body, said second pair of ridges being spaced from each other at said other end of said body and extending divergently inwardly from said end for engagement with the elbow between the epicondyles of the humerus and the olecranon of the ulna, there being a space between the adjacent ends of the two pairs of ridges and a concave depression in said surface at said space.

5. An elbow protector comprising an elongate resilient body having one surface thereof disposable against the elbow of a wearer and having one end portion thereof disposed against the wearer's forearm, a pair of generally parallel spaced ridges formed along said one end portion of said surface for engagement with said forearm at opposite sides of the ulna thereof, and a pair of raised portions on said surface at the opposite end of said body, said raised portions having facing surfaces disposed divergently from the edge of the protector inwardly for engagement between the epicondyles of the humerus and the olecranon of the ulna.

6. An elbow protector comprising an elongate resilient body portion having a generally concave surface, the concavity at one end thereof being more acute than at the remainder of the body portion, a pair of parallel longitudinal ridges beginning at the other end of said surface and extending to a point short of said more acute concavity, and a second pair of spaced ridges beginning at said one end of the concave surface extending divergently inwardly from said one end generally toward the parallel ridges but terminating short thereof to provide an elbow receiving pocket.

7. An elbow protector comprising an elongate resilient body portion having a generally concave surface, the concavity at one end thereof being more acute than at the remainder of the body portion, a pair of parallel longitudinal ridges beginning at the other end of said surface and extending to a point short of said more acute concavity, a second pair of spaced ridges beginning at said one end of the concave surface extending divergently inwardly from said one end generally toward the parallel ridges but terminating short thereof to provide an elbow receiving pocket, said pocket having a concave depression formed therein.

8. An elbow protector comprising an elongate resilient concavo-convex body portion, the curvature at one end thereof being more acute than at the remainder of the body portion, a pair of parallel longitudinal ridges beginning at the other end of the inner concave surface of the body portion and extending to a point short of said more acute curvature, and a second pair of spaced ridges beginning at said one end of the inner concave surface and extending divergently inwardly from said one end generally toward the parallel ridges but terminating short thereof to provide an elbow receiving pocket.

9. An elbow protector comprising an elongate resilient concavo-convex body portion, the curvature at one end thereof being more acute than at the remainder of the body portion, a pair of parallel longitudinal ridges beginning at the other end of the inner concave surface of the body portion and extending to a point short of said more acute curvature, a second pair of spaced ridges beginning at said one end of the inner concave surface and extending divergently inwardly from said one end generally toward the parallel ridges but terminating short thereof to provide an elbow receiving pocket, said pocket having a concave depression formed therein.

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