

[54] **PROTECTIVE SHOE**

[76] Inventor: **Jhoon Goo Rhee**, 2525 N. Ridgeview Rd., Arlington, Va. 22207

[22] Filed: **May 10, 1972**

[21] Appl. No.: **252,089**

2,541,738	2/1951	Bassichis.....	36/8.1
2,814,887	12/1957	Hockley.....	36/2.5 A
3,104,479	9/1963	D'Amico.....	2/DIG. 6

Primary Examiner—Patrick D. Lawson

Attorney—I. William Millen et al.

[52] U.S. Cl..... **36/2 R**

[51] Int. Cl..... **A41d 17/00**

[58] Field of Search..... 36/1, 1.5, 2 R, 2 A,
36/2 B, 2.5 R, 2.5 A, 8.1

[56] **References Cited**

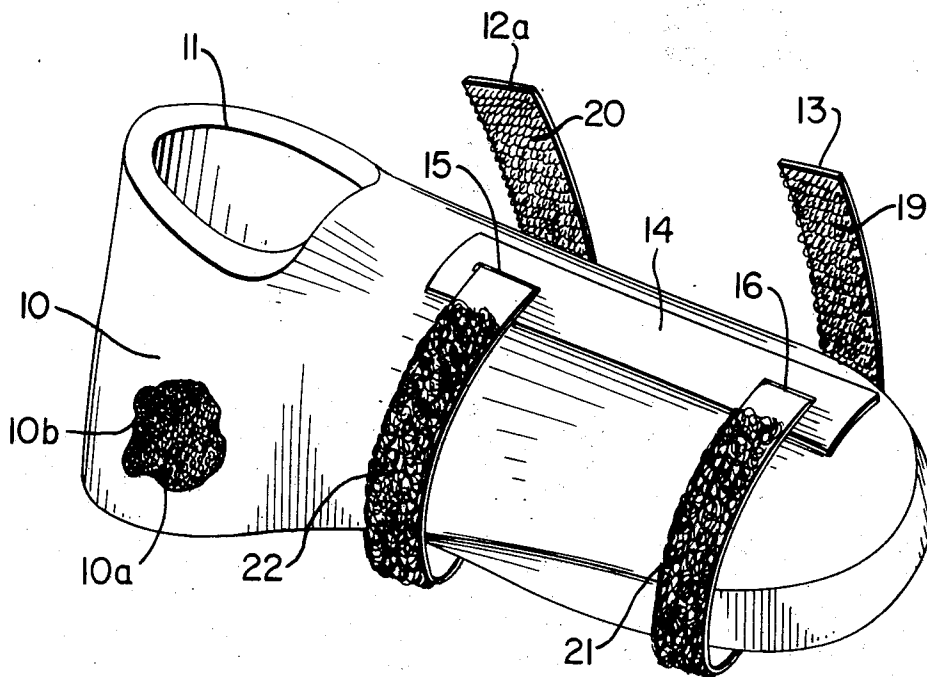
UNITED STATES PATENTS

2,657,477 11/1953 Winslow..... 36/2 R

[57] **ABSTRACT**

The invention relates to a protective shoe adapted to protect the foot of the wearer thereof practicing the arts of karate, etc. The shoe comprises a casing of soft resilient material open at the bottom, and is provided with straps for retaining the shoe on the foot.

7 Claims, 6 Drawing Figures



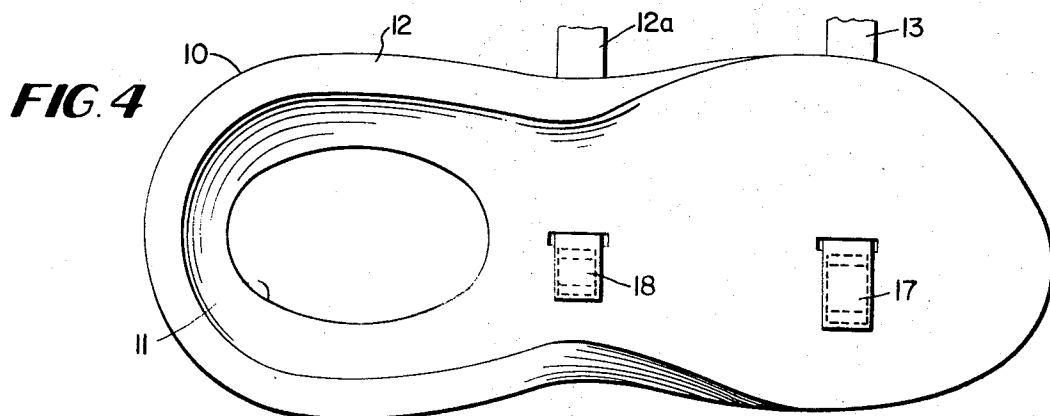
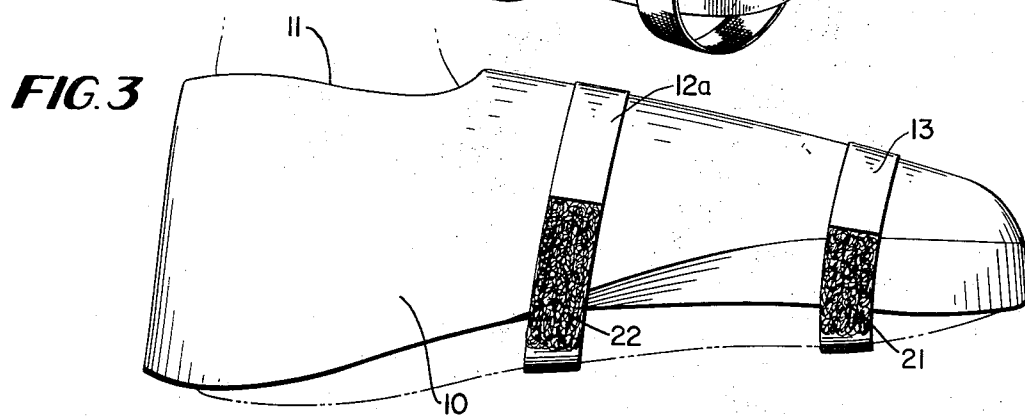
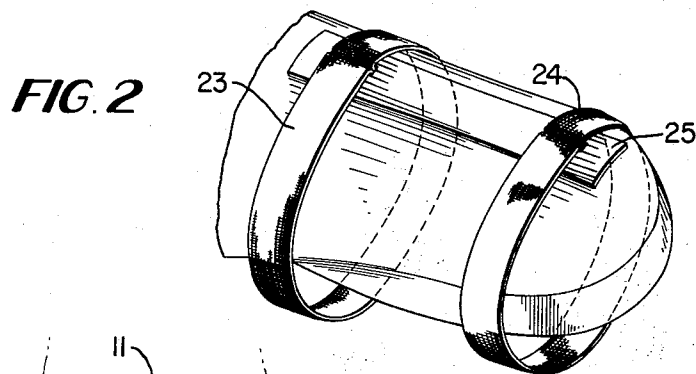
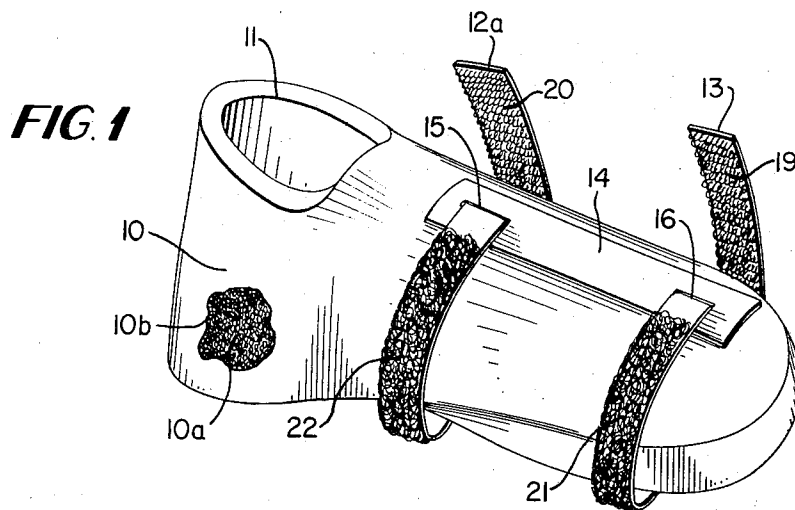


FIG. 5

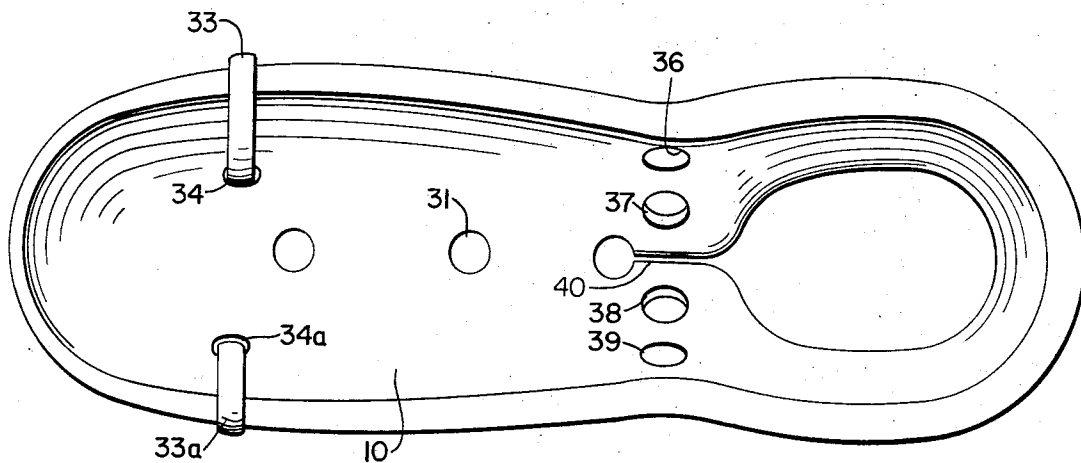
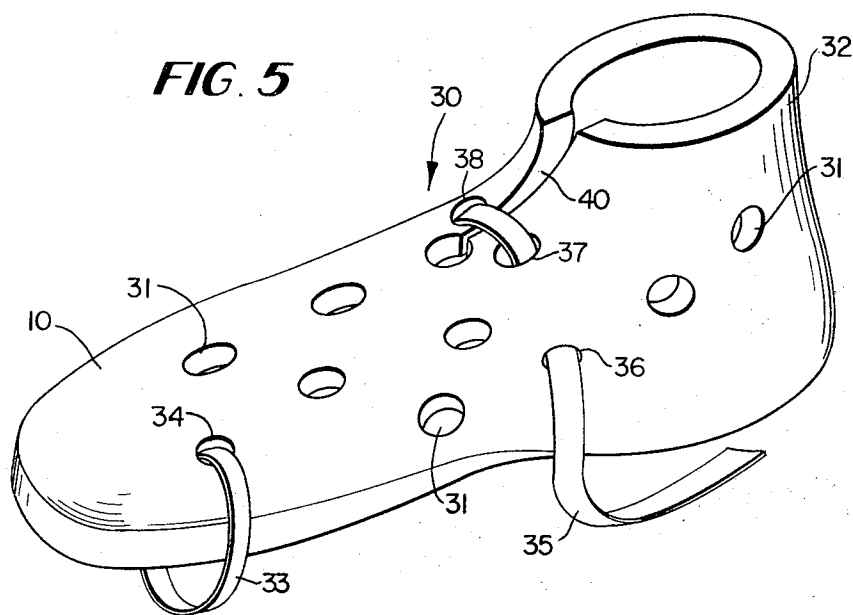


FIG. 6

PROTECTIVE SHOE

BACKGROUND OF THE INVENTION

This invention relates to a protective shoe adapted to be worn on the foot in the arts and sports of karate, tae kwon do, kong fu, kick boxing, etc.

The art of karate, in particular, is a method developed in Japan for defending oneself without the use of weapons by striking sensitive areas on an attacker's body with the hands, elbows, knees or feet. During training in the art and in organized competition, the use of the feet can become badly bruised from extensive use thereof. The present invention provides a novel shoe adapted to prevent injury to the foot and to other persons engaging in the art.

SUMMARY OF THE INVENTION

It is an object of this invention to provide a novel protective shoe for use in the above sports, which is designed to protect the foot of the wearer and which can be easily slipped on or off the wearer's foot.

Another object of this invention is to provide a novel protective shoe of simplified construction, relatively inexpensive and which will obviate injuries to the foot of the wearer and to other persons while engaging in the various sports mentioned.

Generally, the protective shoe of the invention comprises an open soled casing of soft resilient material shaped to conform generally to the foot. Straps are provided for retaining the shoe on the foot.

Other features and advantages of the invention will become apparent from the following description of a specific embodiment of the protective shoe taken in connection with the drawings.

DESCRIPTION OF THE DRAWINGS

FIG. 1 is a perspective view of one embodiment of the protective shoe of the invention;

FIG. 2 is a partial perspective view of the shoe of FIG. 1 showing permanent-type straps for retaining the shoe on the wearer's foot;

FIG. 3 is a plan side view of the protective shoe of FIG. 1 being worn on a wearer's foot;

FIG. 4 is a bottom view of the protective shoe;

FIG. 5 is a perspective view of a second embodiment of the protective shoe of the invention; and

FIG. 6 is a bottom view of the shoe shown in FIG. 5.

DETAILED DESCRIPTION OF THE INVENTION

The protective shoe embodied in FIGS. 1-4 of the drawings comprises a device 10 generally conforming in shape to the upper part of a foot. The device is molded as one piece from a soft resilient material 10a such as a plastic or rubber foam. During the molding of the device, surface 10b of the foam material is heated thereby fusing the surface to produce a tough surface or casing. This provides a continuous outer tough casing which prevents tearing of the foam during use. Alternatively, the surface can be toughened by dipping or applying a coating of a suitable plastic material to provide the outer casing. The device has an opening 11 into which the foot of the wearer can be inserted to permit wearing of the shoe. The bottom 12 of the shoe is open and thereby the sole of the foot of the wearer of the shoe contacts the floor or ground. This is in keeping with the various sports mentioned whereby the foot is used in the contact sports.

The shoe is retained on the foot of the wearer by means of straps 12a and 13. As shown, the straps provided are permanently connected to the shoe by passing the ends through a strip of material 14 secured to the top of the casing. The strip 14 has slitted holes 15 and 16 which extend through the casing. The ends 17 and 18 of the straps are passed through the slits and are secured to the underside of the top of the casing. One purpose of the strip 14 is to prevent tearing of the casing from tension of the straps.

The straps 12a and 13 are provided with means for detachably securing the shoe on the foot. As shown, velcro material 19 and 20 can be provided on the free ends of the straps. A felt material 21 and 22 is provided on the straps along the portion which crosses the top of the casing. When the shoe is put on the foot, the strap ends 19 and 20 can be brought in contact with surfaces 21 and 22 which retain the strap ends. Adjustment of the straps to the comfort of the wearer is therefore provided.

Although, straps have been shown using velcro material, it is understood that other strap arrangements can be used. The straps can be provided with snaps, laces, and the like for securing the shoe on the wearer's foot. Thus, as shown in FIG 2, elastic straps 23 and 24 can be provided which are permanently secured to a strip material 25 secured to the casing.

The casing 10 comprising the soft resilient material can be used as such. However, as previously stated, to provide a greater permanence to the casing, the surface thereof can be treated by various means to toughen it without lessening the resilient character of the casing. The casing can also be covered with a fabric material stitched around the surfaces of the casing.

FIGS. 5 and 6 illustrates another embodiment of the protective shoe of the invention. The shoe indicated generally by the numeral 30 comprises an open bottomed casing 10 similar in construction and material as the one shown in FIGS. 1-4. The casing is provided with a plurality of holes 31 for the purpose of providing ventilation. The casing also is designed to have a portion 32 thereof extend upwardly for the purpose of covering and protecting the ankle of the wearer of the shoe.

The shoe is worn on the foot and retained thereon by passing the big toe through a round strap 33 retained in a hole 34. A second round strap 33a in hole 34a is provided through which the little toe can be inserted. A strap 35 is provided which passes through a series of holes 36, 37, 38 and 39 and is adapted to pass around the bottom of the foot. When the shoe 30 is on the foot, the ends of strap 35 can be adjusted and tied together to fit the comfort of the wearer. Casing 10 is provided with a slitted portion 40 which permits flexibility of the casing to fit larger or smaller feet.

Although strap 35 is shown as one that can be tied, it is within the concept of the invention that elastic straps and straps with velcro material, as previously described, can be used in place thereof.

In use, the protective shoe permits the use of the foot as a weapon in the sports mentioned, without bruising the foot, or causing serious harm to other persons engaging in the sports.

Although the shoe has been particularly described for use in the art of karate, it is also contemplated that the shoe can be worn by contestants in many types of sports such as kick boxing, etc., wherein it is not in-

tended to injure the contestants, and wherein injury to the foot is prevented.

From the foregoing description, one skilled in the art can easily ascertain the essential characteristics of this invention, and without departing from the spirit and scope thereof, can make various changes and modifications of the invention to adapt it to various usages and conditions.

What is claimed is:

1. A protective shoe for use in the art of karate and the like comprising a unitary casing means adapted to fit over the top of the foot and around the heel generally conforming in shape to the upper part of the foot, an opening in the top rear portion of the casing into which the foot of the wearer can be inserted, said casing being entirely open at the bottom, resilient foam means within said casing means, and strap means at-

tached to said casing adapted to encircle the bottom of said casing to retain the shoe on the foot.

2. The shoe of claim 1 wherein said casing is provided with hole means for ventilation purposes.

3. The shoe of claim 1 wherein said strap means are elastic.

4. The shoe of claim 1 wherein portions of said strap means are secured to the casing and detachably securable together.

5. The shoe of claim 1 wherein said casing comprises an upper section adapted to fit around the ankle.

6. The shoe of claim 1 wherein said casing includes strap means adapted to engage toes of the foot.

7. The shoe of claim 1 wherein said casing comprises a plastic material.

* * * * *

20

25

30

35

40

45

50

55

60

65

UNITED STATES PATENT OFFICE
CERTIFICATE OF CORRECTION

Patent No. 3,769,722 Dated November 6, 1973

Inventor(s) JHOON GOO RHEE

It is certified that error appears in the above-identified patent and that said Letters Patent are hereby corrected as shown below:

Column 2, lines 13, 21 and 58 change "velcro" to read --"Velcro"--

Column 3, line 2 after "prevented." add the following sentence.
--The term "Velcro" appearing herein is a registered trademark of the American Velcro, Inc.--

Claim 4, line 2 change "detachabley" to read --detachably--.

Signed and sealed this 5th day of November 1974.

(SEAL)
Attest:

McCOY M. GIBSON JR.
Attesting Officer

C. MARSHALL DANN
Commissioner of Patents