

[72] Inventor **Jack R. Baker**
28 Kirkbrae Drive, Lincoln, Rhode Island
02865
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[56] **References Cited**
UNITED STATES PATENTS
1,639,198 8/1927 Pease 128/166
1,658,037 2/1928 Bromley 128/166
1,737,897 12/1929 Skoglund 128/166

Primary Examiner—Adele M. Eager
Attorney—Barlow and Barlow

[54] **ANKLE SUPPORT**
1 Claim, 4 Drawing Figs.
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128/157
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80, 156, 157, 165, 166.5, 169

ABSTRACT: An ankle supporter made from two similar pieces of elastic material which has joints at the ankle and comprises an arch member and a member encircling the Achilles' tendon with an elastic fastening means over the in-step portion whereby the entire member may be tightened around the ankle and may be used on either the right or left foot.

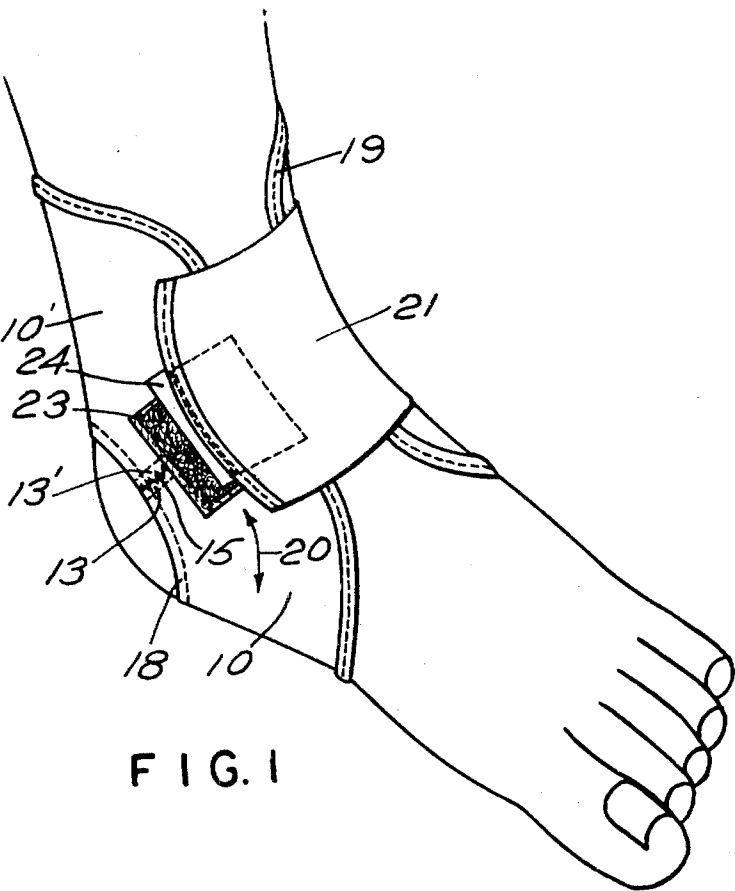
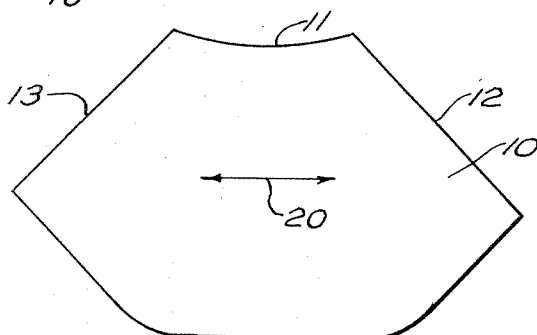
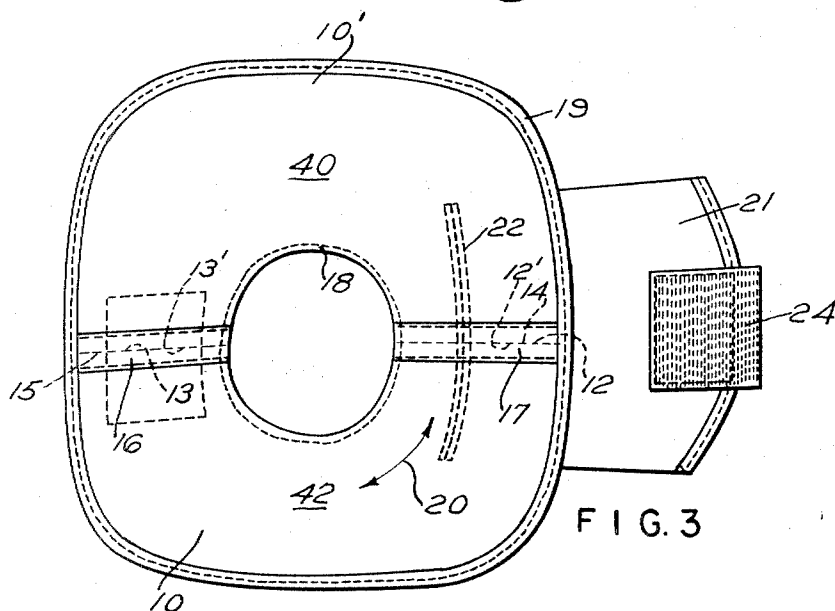
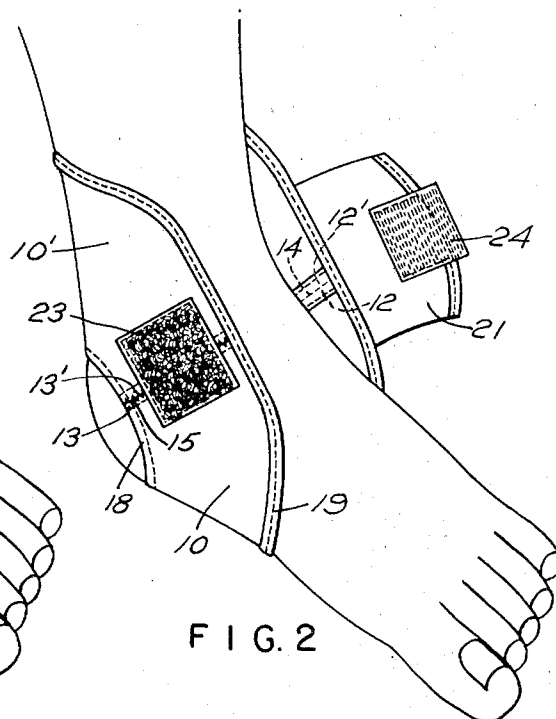
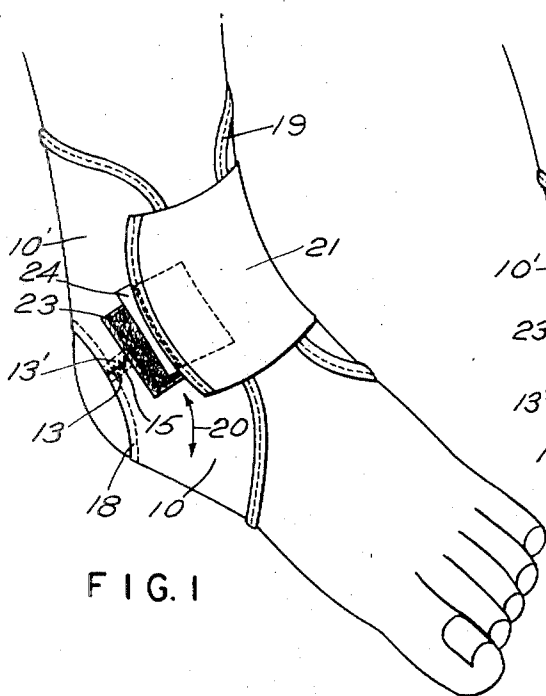


FIG. 1



INVENTOR

JACK R. BAKER

BY

T. Barlow & Barlow
ATTORNEYS

ANKLE SUPPORT

BACKGROUND OF THE INVENTION

This invention relates to ankle supporters which are designed primarily for those engaged in physical activity which activity subjects the foot to unusual stresses. It has been quite common to tape ankles of athletes, but the normal taping of ankles and the foot is sometimes objectionable in that it exerts an excessive pressure on the ankle at all times, and if it is fitted tight enough to really be effective against strains, it may be exceedingly uncomfortable. In the prior art there have been many attempts at the manufacture of suitable ankle supporters for athletes, and the usual type of support is similar to supporters such as exemplified by the Bromley patent 1,658,037. This particular patent illustrates a normal prior art type of ankle supporter with some additional functional features and is particularly characterized by having a laced-up instep. This type of ankle supporter is objectionable because of the lacing, and if laced tightly enough to be effective for its intended purpose is too inelastic to provide the necessary freedom of movement of the foot in certain competitive sports such as football, for example, where one goes into a crouching position. The instant invention solves the problems of the prior art by providing an ankle supporter which is suitable for quick application to the ankle to reinforce it for athletic activity by providing an elastic body material which is shaped to encircle the ankle of the foot and be held in position by an elastic web fastener member that passes over the instep of the foot. This arrangement provides the desired support for the ligaments of the foot and because of the elastic instep fastening means may be readily adapted to give under strain so as to be comfortable in all positions of athletic activity.

SUMMARY

The invention provides a yieldable ankle supporter of construction that offers resistance to abnormal ankle movements by virtue of a partially elastic body material and an elastic web fastening member over the instep. The ankle supporter is shaped and contoured so as to partially fit the ankle and stretch into proper glove like fitting and substantially avoid folding of the fabric over a wide range of heel and ankle sizes.

DESCRIPTION OF THE DRAWINGS

FIG. 1 is a perspective view showing the ankle supporter of this invention fully applied to a foot;

FIG. 2 is a similar view showing the supporter in partially applied position with the elastic fastening member open;

FIG. 3 is a plan view of the supporter;

FIG. 4 is a plan view showing the flat material of one piece of the body of the supporter before it has been fastened to a like piece and suitably bound.

DESCRIPTION OF THE PREFERRED EMBODIMENTS

In the drawings the ankle supporter is illustrated as comprising a pair of identical members (FIG. 4) of partially elastic material which is shaped with a heel cutout as at 11 and with two edges 12 and 13. The edges 12 and 13 are adapted to be brought into abutting relationship with similar edges 12', 13' and are stitched together to form seams 14, 15 located along the inside and outside of the foot when in use. These seams may be suitably protected on the inner side of the supporter by tapes 16, 17 respectively. To provide protection along the

edges of the body members, binding tape may be provided about the ankle cutout portion as at 18, and also a binding may be provided as at 19 about the outer edge of the device. The body members are made from a tricot net fabric that exhibits elasticity in the direction of arrows 20 with no elasticity perpendicular thereto. In this fashion the ankle support will fit a variety of sized feet. The arrows 20 in FIG. 1 illustrate the extensibility across the ankle bone and across the Achilles tendon and arch of the foot.

An elastic band or fastening member 21 is stitched to one side of the body members as at the ankle portion by stitching 22 and may be provided with suitable detachable securing means such as Velcro which comprises in combination a fabric pad 23 and a second fabric hook portion 24, the latter composed of a plurality of mono-filament hooks which when pressed against the fabric pile part 23 will engage the fabric part 23 and hold the parts together. This form of securing may be substituted for the stitching 22. It should be understood in the illustrative form, the ankle supporter is shown for the left foot. There is no difference between a left foot and a right foot configuration as the ankle supporter is symmetrical but it is easier to self-fasten an ankle supporter by pulling towards the instep. The fastened portion, therefore, should be on the outer part of the foot when fitted thereto. This is illustrated, for example, in FIG. 2 where the ankle supporter is shown partially placed on the foot with the elastic strap portion 21 being in position to be pulled across the instep of the foot. It is not limiting that the fastening means be positioned in this fashion, but it is more convenient for the user.

The device may be similarly positioned on the right foot by using the Achilles portion of FIGS. 1-3 for the arch of the right foot while the arch portion of FIGS. 1-3 will be used about the Achilles on the right foot.

Generally referring to the entire device, it will be noted when it is applied to the foot that it consists essentially of an arch-encircling portion and an Achilles' tendon portion. These areas 40 and 42 are interchangeable and are completely free of seams, the only seam occurring at the ankle bone portion which is, in turn, protected by an inner protecting tape. Support and dimensional stability is provided by the non-elastic orientation of the fabric being in line with the leg and foot and complete fit and comfort are insured by the elastic web 21 across the instep.

I claim:

1. An ankle jacket to extend about the instep and arch of the foot leaving the heel and toes exposed comprising two similar arcuate sections of fabric with their ends abutting and secured together providing a central portion to be located beneath the foot of the user and a central portion to extend about the Achilles tendon, said portions each being defined by an arcuate edge together forming an opening for the reception of a heel, an outer portion including one set of abutting ends extending from said arcuate edge to be located along the outside of the foot, an inner portion including the other set of abutting ends extending from said arcuate edge to be located along the inside of the foot of the user and spaced from the edge of the outer portion, said arcuate sections being relatively extendible in the direction of their arcs and relatively non-extendible in a direction at right angles thereto, attachable means disposed on said inner and outer portions to extend from one to the other across said spaced edges to hold the edges in adjacency, said attachable means being elastic in the direction of its length and detachably secured to one portion.