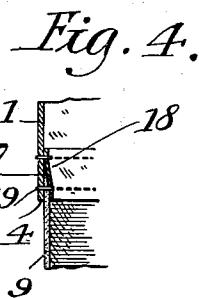
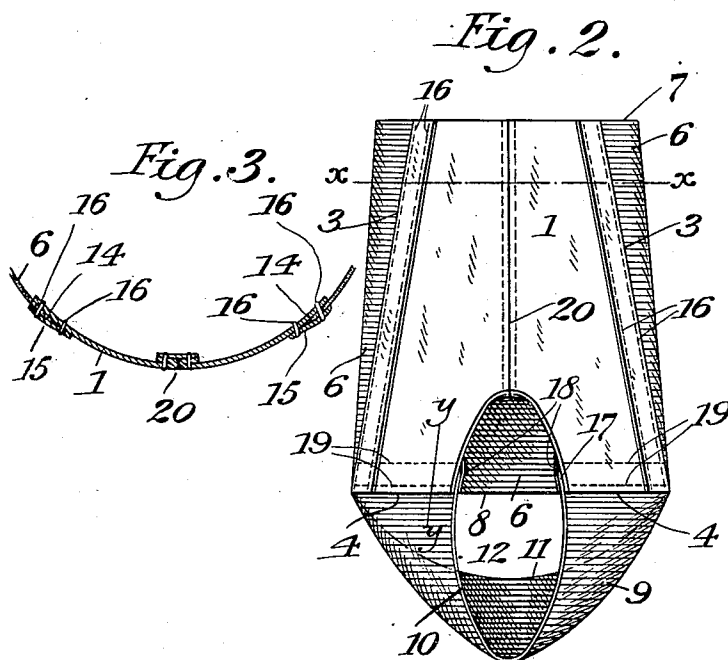
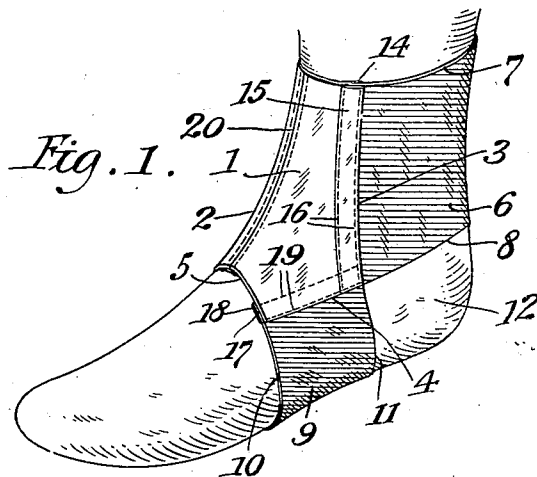


H. J. COLLIS.
ANKLE SUPPORT AND PROTECTOR.
APPLICATION FILED APR. 27, 1910.

991,831.

Patented May 9, 1911.



WITNESSES:

A. R. Appleman
Berrie Costigan

BY

INVENTOR
Henry James Collis,
Jas. H. Little,
ATTORNEY.

UNITED STATES PATENT OFFICE.

HENRY JAMES COLLIS, OF TAUNTON, MASSACHUSETTS.

ANKLE SUPPORT AND PROTECTOR.

991,831.

Specification of Letters Patent.

Patented May 9, 1911.

Application filed April 27, 1910. Serial No. 558,070.

To all whom it may concern:

Be it known that I, HENRY JAMES COLLIS, a citizen of the United States, and resident of Taunton, in the county of Bristol and State of Massachusetts, have invented certain new and useful Improvements in Ankle Supports and Protectors, of which the following is a specification.

This invention relates to devices for supporting and protecting ankles, and it has special relation to an improved device of this class which is adapted for use in athletic sports and under all other conditions and circumstances where a protection and support is desired for the ankle.

The object of my present invention and improvements is to provide a simple and improved ankle support and protector which will readily conform to the shape of the ankle and yieldingly bear upon the same at all parts, thus affording particular adaptability, comfort and effectiveness in use, and which will furthermore be exceedingly simple and inexpensive in construction and more convenient and efficient than the devices of this character which have been heretofore employed.

My present invention and improvements are particularly designed to provide an improved ankle support and protector of the class above set forth which will present a smooth and pliable body-portion at the front of the ankle and over the instep, and eliminate the employment of fastening means or projecting parts at the front portion, whereby perfect ease and comfort will exist at the front body-portion of the device and any injury to the tender part of the foot at that point by fastening means will be obviated and the device will fit in smooth and adaptable condition and without excess thickness of material at the front body-portion and will be particularly adapted for convenient and comfortable wear inside the shoe.

In the drawings—Figure 1 is a perspective view illustrating the appearance of the device when in use. Fig. 2 is a front view of the device. Fig. 3 is a detail cross-section, taken on the line $x-x$, Fig. 2. Fig. 4 is a detail cross-section, taken on the line $y-y$, Fig. 2.

Corresponding parts in all the figures are denoted by the same reference characters.

Referring to the drawings, 1 designates the front member of the device, which is

constructed of soft pliable non-elastic material, such as leather or a suitable fabric. This front member 1 constitutes the front portion of the body of the device and is undivided and forms a single front body-member in one structural piece without fastening means or securing devices. The single front body-member 1 substantially conforms to the front portion of the foot above the instep and in front of the ankle, its central part being curved to the required contour, as at 2, and it constitutes the retaining portion of the device by which the elastic members are secured and carried. The rear edges, 3, of the front body-member 1 are preferably on a straight plane from top to bottom, while the bottom edges, 4, are preferably on a straight plane from front to rear and at right angles to the rear edges 3, and the lower portion of the curved central part 2 of said body-member 1 has its edge, 5, bowed or curved upwardly to fit over the instep portion of the foot. Said single body-member 1 thus constitutes a soft and pliable but non-elastic front portion of the body of the device, and this single non-elastic portion constitutes the means by which the elastic members of the remaining portion of the body of the device are relatively mounted and retained in position.

The main body, 6, of the device consists of an elastic strip, preferably formed of elastic webbing or other suitable material, in band or ribbon shape and extending between the rear edges 3 of the non-elastic front body-member 1. This elastic body band 6 is adapted to pass around the ankle of the wearer and conform thereto when the device is in use and bind at the sides and rear of the ankle, while the soft and pliable front retaining member 1 conforms to and binds at the front portion of the ankle, and the elastic body band 6 and pliable but non-elastic front body-member 1 thus conjointly effectively support and protect all parts of the ankle and operate to maintain the device in position without the employment of fastening means at the front. The main body band 6 preferably corresponds in width, from top to bottom, to the dimensions of the front retaining body-member 1 from top to bottom, and has straight top and bottom edges, as at 7 and 8.

A supplementary elastic strip, 9, forms the bottom portion of the device and constitutes an additional securing means adapted

to pass under the instep of the wearer on a plane directly beneath the front retaining member 1. This elastic bottom strip 9 is preferably constructed of elastic webbing or other suitable material, and is in band or ribbon shape corresponding to the main elastic body strip 6. Said strip 9 extends between the bottom edges 4 of the front body-member 1 and preferably corresponds in width, from front to rear, to the width of the bottom portion of the front member 1, extending from front to rear from the front curved edge 5 thereof to approximately the rear edge 3, and said strip 9 preferably has straight front and rear edges, as at 10 and 11. The elastic bands 6 and 9 are thus at right angles to each other, forming an elastic body for the complete device, held and retained in operative position by the single front pliable but non-elastic retaining body-member 1, and the relative construction and arrangement provides an open space, as at 12, between the bottom of the main body band 6 and the rear of the bottom instep band 9, through which projects the heel of the wearer, though it will be understood that under some circumstances of use the bands 6 and 9 may be constructed in a single piece or to form a closed heel portion.

The front pliable body-member 1 may consist of a single thickness of material, and the elastic body bands 6 and 9 may be secured thereto in any suitable or adapted manner, for instance, by stitching, or the member 1 may under some circumstances be constituted by two thicknesses of material forming an outer and inner strip suitably secured together by stitching or otherwise and the elastic bands 6 and 7 may have their edges inserted and secured between the outer and inner strips of the member 1 by stitching or otherwise. In the preferred construction, as herein shown, the front body-member 1 consists of a single thickness of non-elastic material, and the front edges, 14, of the band 6 are secured between the outer surface of the strip constituting the member 1 and a supplementary outer strip of pliable non-elastic material, as at 15, extending from top to bottom at the rear edge 3 of the member 1, the strips 1, 6 and 15 being secured together by a suitable stitching, as at 16, and the top edges, 17, of the elastic bottom band 9 are secured between the inner face of the strip 1 and a supplementary strip of pliable non-elastic material, as at 18, extending from front to rear at the bottom edge 4 of the member 1, the strips 1, 9 and 18 being secured together by a suitable stitching, as at 19.

If it is desired, for purposes of economy in manufacture, to construct the single front retaining body-member 1 of a plurality of pieces of leather or other pliable non-elastic material, said body-member may have its

pieces connected by a central seam, as at 20, extending from the top edge of said body-member downwardly to the curved front edge 5 thereof, but said retaining body-member may if preferred be formed of a single piece of leather or other pliable non-elastic material, by crimping the material into the requisite curved shape or form to fit over the front portion of the foot above the instep, thus eliminating any seams in the body-member 1, as will be readily understood. This latter construction is especially adapted for conditions where the front retaining body-member 1 is formed of a suitable soft and pliable but non-elastic fabric, in lieu of leather. The pliable non-elastic material of which the retaining front body-member is formed may have such characteristics as will adapt it to be readily washed or laundered, and as the elastic fabric of the body bands 6 and 9 is adapted to be washed or laundered in luke warm water the conditions just stated would produce a complete composite ankle support or protector which in its entirety is adapted to be readily washed or laundered.

It will be noted that the relationship of the elastic body members 6 and 9 and the single front retaining body-member 1, as above described, is such that the main body strip 6, which surrounds the ankle and is located with relation to the long rear edge 3 of the body-member 1, is considerably wider than the bottom strip 9 which passes under the instep and is located with relation to the short bottom edge 4 of the body member 1.

Inasmuch as ankle supports of the class to which my present improvements especially relate are usually worn inside the shoe, the smooth and pliable single retaining member 1 wholly of flexible or pliable and non-elastic material without projective fastening means, as comprised in the construction hereinbefore described, is of particular importance and advantage. The retaining front member comes immediately beneath the lacing or fastening means of the shoe, and when this front member is constituted by two strips connected by projective fastening means, as in the constructions hereinbefore referred to, a double thickness of fastening means exists at the tender front portion of the foot just over the instep. In my improved construction the single soft and pliable front retaining member 1 not only provides a smooth retaining member without projective devices, which will fit plially beneath the shoe lacing or fastening and conform in glove-fashion to the tender front portion of the foot, but it also produces a very simple and glove-fitting ankle support of the class employing a pliable front retaining member carrying the elastic body and instep bands, and enables the em-

ployment of the elastic members cut from continuous strips of elastic fabric in ribbon form in lieu of the expensive hand-woven type of elastic bandages which are required in similar devices where no pliable means are provided for retaining and carrying the elastic portions for surrounding the ankle and instep.

Having thus described my invention, I claim and desire to secure by Letters Patent:

An improved ankle support and protector of the class described, comprising a single front body-member constituting the retaining means for carrying the elastic members and consisting wholly of flexible or pliable and non-elastic material, said single front body-member being permanently closed throughout its area and adapted to fit over the front portion of the instep and conform thereto and having its rear edges at each side extending on a line from top to bottom and its bottom edges at each side extending

on a line from front to rear, a main body-member consisting of a strip of elastic fabric or webbing and extending from edge to edge of said single front body-member and connected at its ends with said rear edges at each side of the front body-member and adapted to surround the ankle, and a bottom body-member consisting of a strip of elastic fabric or webbing and extending from edge to edge of the sides of said single front body-member at the bottom and having its ends connected with said front to rear bottom edges of the front body-member and adapted to pass under the instep.

In testimony whereof I have signed my name in the presence of the subscribing witnesses.

HENRY JAMES COLLIS.

Witnesses:

KATE A. GALLIGAN,
JOHN H. ELDRIDGE.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."
