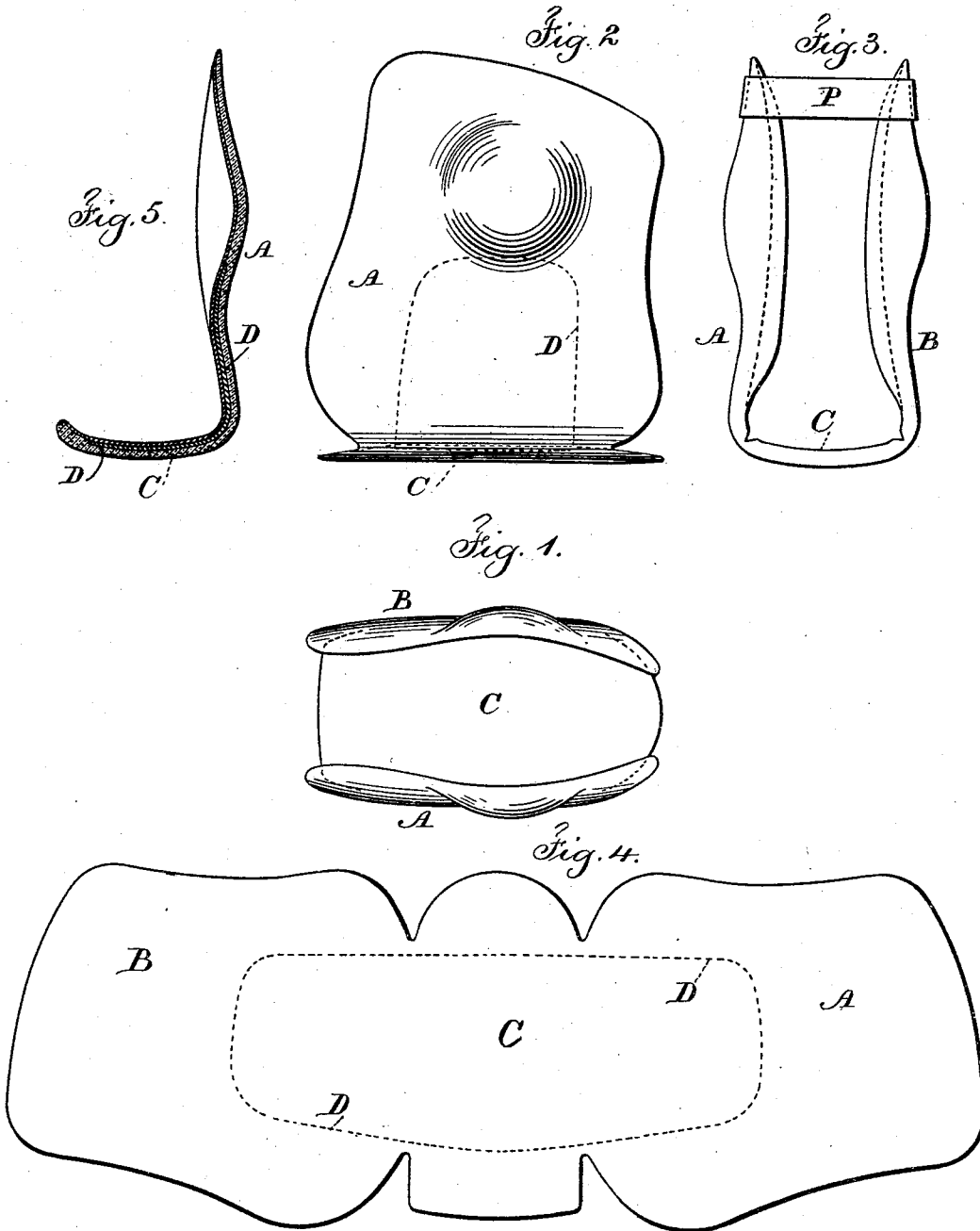


(No Model.)

J. G. PUGSLEY.
ANKLE SUPPORTER.

No. 487,492.

Patented Dec. 6, 1892.



Witnesses

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UNITED STATES PATENT OFFICE.

JOHN G. PUGSLEY, OF SOUTH NORWALK, CONNECTICUT.

ANKLE-SUPPORTER.

SPECIFICATION forming part of Letters Patent No. 487,492, dated December 6, 1892.

Application filed March 4, 1892. Serial No. 423,712. (No model.)

To all whom it may concern:

Be it known that I, JOHN G. PUGSLEY, a citizen of the United States, residing at South Norwalk, in the county of Fairfield and State of Connecticut, have invented an Improvement in Ankle-Supporters, of which the following is a specification.

Ankle-supporters have heretofore been made out of leather or similar material, and in Letters Patent Nos. 212,261, dated February 11, 1879, 216,106, dated June 3, 1879, and 346,606, dated August 3, 1886, heretofore granted to me, such ankle-supporters have been represented of a character adapted to be introduced into an ordinary shoe and to act to strengthen or sustain the ankle, in order that the ankle may not bend inwardly or outwardly under the weight of the person, and this device is especially adapted to children with weak ankles, but it may also be used for supporting ankles in those more advanced in life.

In the ankle-supporters heretofore constructed the side portions have been united to a greater or less extent at the back of the heel, and in consequence thereof several difficulties have been encountered. It is advantageous to cut out these ankle-supporters from one piece of leather, and when the supporter extends across at the back of heel it has been necessary to bend the material at the sides of the sole portion to extend up at the sides of the ankle and then the material is united behind the heel or else the piece of leather is cut out and bent around at the heel and the lower portions bent and lapped one upon the other and connected together at the sole. In both instances it has been necessary to make a joint in the leather that is liable to come apart or to become rough and uncomfortable, and in addition to this where the ankle-supporter is closed to a greater or less extent at the heel the closure interferes with the free movement of the ankle in a backward direction.

The object of the present invention is to provide a reliable support for the ankle without seam or join and to allow freedom of movement to the ankle-joint in a forward and backward direction. To accomplish this object, I make use of a sole-piece with either one or two side pieces extending above and

supporting the ankle-joint, the leather, felt, celluloid, or other single-piece material out of which the ankle-supporter is made being molded up to shape, so as to fit against the side and sole of the foot. Thereby the support is given to the ankle at the place where it is required and the movement of the ankle is not interfered with. In addition to this, the ankle-supporter being open behind the heel allows for the supporter being introduced into an ordinary shoe without it being necessary, as heretofore, to use a shoe that is larger than necessary for the foot, in consequence of the portion of the supporter that has to come behind the heel either throwing the toes forward against the shoe and interfering with the comfort or necessitating a larger shoe; and by the present improvement a still further advantage is obtained because different feet of the same length are of different widths at the heel and at the ankle-joint, and where the ankle-supporter has been made to pass around behind the heel the supporter had to be made with special reference to the width of the heel, whereas by the present improvement the supporter only coming up at the sides of the ankle allows for one size of supporter being used upon heels and ankles of different thicknesses, because the ankle-supporter will spring more or less as the foot is inserted into it.

In the drawings, Figure 1 is a plan view of the supporter. Fig. 2 is a side view, and Fig. 3 is a rear view. Fig. 4 shows the blank out of which the supporter is made, and Fig. 5 is a section of the supporter with only one side.

I prefer to employ leather of a suitable quality cut out to the proper shape, as illustrated in Fig. 4, and with the edge portions thereof beveled, so that the central portions of the leather are the thickest, and this leather is to be softened by water or otherwise and bent up to shape with the proper cavities to fit the ankle-bone, and the shape of the supporter corresponds generally to the shape of a heel at and below the ankle. When made of celluloid, stiffened felt, or similar material, it should be beveled, so as to be thin toward the edges.

This supporter is suitably stiffened. With leather this is generally done after it has been shaped, and the sides A and B of the supporter are rigid with the sole portion C. The

leather or felt may be soaked with a suitable varnish—such as shellac—and in some instances a metal, celluloid, or other plate D is used as an additional means for stiffening the supporter, such plate passing across below the heel and up at either or both sides, and the plate D is preferably embedded into the leather by pressure, so that the surface of the leather is smooth, or nearly so, and this plate D may be further attached by rivets, or the ankle-supporter may have a layer of kid or other similar material to inclose and confine the plate D. An elastic may be used around the upper ends of the sides, as seen at P, to hold the sides up against the ankle.

Where the ankle-supporter is only required at one side of the ankle the opposite side may be dispensed with, as shown in Fig. 5.

By my present improvement there are no laps or joins in the material to loosen or come apart, and there is perfect freedom for the ankle-joint in a forward and back direction and the supporter comes tightly up against the outer sides of the ankle to support the same and it is self-accommodating to ordinary differences in the sizes and shapes of feet of given ages and can be worn without inconvenience in the ordinary shoes.

I claim as my invention—

1. An ankle-supporter having a sole and side of one piece of material stiffened, the side extending up to the ankle and molded to shape

for fitting the same, and the supporter being entirely open at the rear, so as to accommodate different widths of heels and ankles and not to interfere with the forward and backward movement of the parts upon the ankle-joint, substantially as set forth.

2. An ankle-supporter having a sole and two side pieces of one piece of material molded to shape for fitting the ankle and stiffened and extending up at each side of the ankle, the supporter being open at the rear to accommodate differences in widths of heel and ankle and not to interfere with the forward and backward movement of the parts upon the ankle-joint, substantially as set forth.

3. An ankle-supporter having a sole and side of one piece of material molded to shape for fitting the ankle and stiffened by a plate permanently connected with the material and extending up at the side of the ankle, the supporter being open at the rear to accommodate differences in widths of heel and ankle and not to interfere with the forward and backward movement of the parts upon the ankle-joint, substantially as set forth.

Signed by me this 29th day of February, 1892.

JOHN G. PUGSLEY.

Witnesses:

JOHN E. PUGSLEY,
GEO. T. PINCKNEY.