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A. L. WIDDIS

2,052,857

FOOT WARMING APPLIANCE

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Fig. 1.

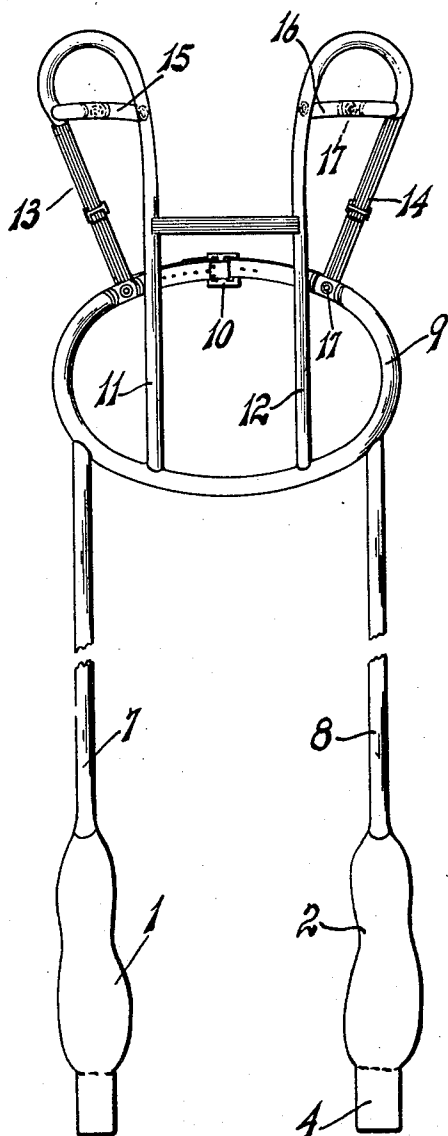


Fig. 2.

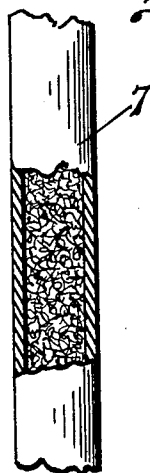


Fig. 3.

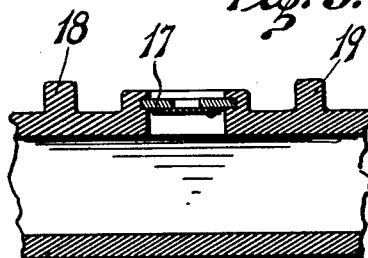
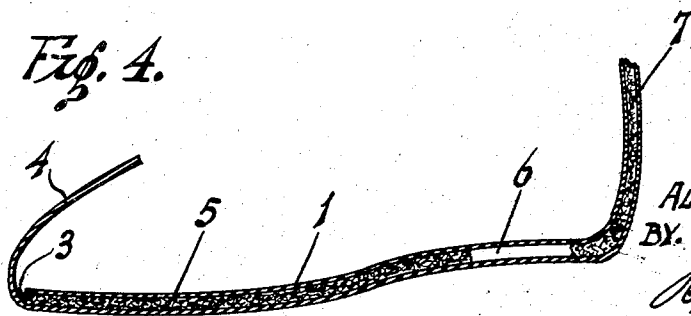


Fig. 4.



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FOOT WARMING APPLIANCE

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6 Claims. (Cl. 128-204)

This invention relates to a foot aerating appliance whereby the feet of the wearer can be either warmed or cooled, depending upon the length and position of the conduits to the foot pads.

An object of my invention is to provide a foot aerating appliance in which air is continuously forced into the shoes of the wearer, thereby adding to the wearer's comfort and good health.

A further object is to provide an appliance of the character stated, which is relatively inconspicuous, and which can be worn without discomfort.

Other objects, advantages and features of invention may appear from the accompanying drawing, the subjoined detailed description and the appended claims.

In the drawing:

Figure 1 is a perspective view of my appliance.

Figure 2 is a fragmentary sectional view of one of the conduits.

Figure 3 is a fragmentary sectional view of the waist band or arm band, showing one of the inlet valves.

Figure 4 is a longitudinal sectional view of one of the foot pads.

Referring more particularly to the drawing, the numerals 1, 2 indicate foot pads which fit under the sole of each foot. The pads are hollow so as to form conduits, and are open at the forward end, as shown at 3.

A flap 4 may be provided on each of the pads, if desired, to extend over the toes so that the wearer can more readily insert his feet into his shoes or stockings. The pads, 1, 2, as previously stated, are hollow and may be made of a resilient material, such as rubber, rubberized material, or the like, and the pads may also, if desired, be filled with a resilient padding 5, such as curled hair, cotton, felt, or the like. The purpose of this padding is to separate the upper and lower walls of the pads, and to thus insure that conduits will be provided for the air. Under the heels, the padding is eliminated, as shown at 6. Thus, in walking, the heels will move the upper and lower walls of the pads into contact, and will cause the air to move forwardly, which air will be expelled at 3 over the toes of the wearer.

Tubes 7, 8 extend into the pads 1, 2, respectively, for the purpose of conducting air thereto. These tubes extend upwardly along the legs of the wearer to a waist encircling tube 9. A buckle 10 is connected by straps to the waist tube to fasten the waist tube to the wearer.

A pair of shoulder tubes 11, 12 extend upwardly

from the waist tube 9 and over the shoulders of the wearer. The tubes 11, 12 open into the tube 9 at the rear, and at the forward end, resilient straps 13, 14 are provided similar to a suspender. Tubes 15, 16 extend into the shoulder tubes 11, 12, respectively, and the first named tubes extend under the arms of the wearer for the purpose of conducting the warmth of the arms to the air in the tubes 11, 12, and also the tubes 7, 8.

A plurality of valves are provided for the purpose of taking air into the tubes and these valves are of the one-way or check type, as shown in Fig. 3. The valves 17 are preferably on the inside of the waist encircling tube 9; also on each of the tubes 15, 16.

Ribs 18, 19 are provided on each side of each valve 17, for the purpose of spacing the valve from the body so that air can readily enter the valves.

The normal operation of walking will alternately open and close the area 6 in each foot pad, and will force entrapped air ahead of the area 6 out at the front of each pad and thence over the toes of the wearer. As the weight on the heels is eliminated, air will again move into the foot pads from the tubes 7, 8 and this incoming air will be warmed by the body, due to the waist encircling tube 9 and the shoulder tubes 11, 12. It will thus be noted that the various tubes are in heat exchange relation to the body of the wearer. By rearranging the intake valves 17 and by changing the position or number of the tubes, cooler air of the desired temperature can be taken thru the tubes and fed to each of the foot pads.

Having described my invention, I claim:

1. A foot aerating appliance comprising a foot pad, adapted to be worn under the sole of the foot and inside of a shoe, a conduit extending to said pad, a waist encircling tube, said waist encircling tube being in heat exchange relation to the body of the wearer, said conduit extending to the waist encircling tube, and an air inlet means in said tube, and means combined with said pad to pump air therethru.

2. A foot aerating appliance comprising a foot pad, adapted to be worn under the sole of the foot and inside of a shoe, a conduit extending to said pad, a waist encircling tube, said conduit extending to the waist encircling tube, a pair of shoulder tubes extending upwardly from the waist encircling tube, said shoulder tubes extending over each shoulder and under each arm, all of said tubes being in heat exchange relation to

the body of the wearer, and means combined with said pad to pump air therethru.

3. A foot aerating appliance comprising a foot pad, adapted to be worn under the sole of the foot and inside of a shoe, said pad being open to the passage of air therethru, a conduit extending to said pad, a waist encircling tube said waist-encircling tube being in heat exchange relation to the body of the wearer, said conduit extending to the waist encircling tube, and intake valves in said tubes, and means combined with said pad to pump air therethru.

4. A foot aerating appliance comprising a pair of foot pads forming a conduit, said pads being open at the forward end thereof, a resilient material in each of the pads, said resilient material being eliminated under the heels of the wearer, a conduit extending to each of the foot pads at the rear of said pads, a waist encircling tube, said last named conduits extending to and entering the waist encircling tube, and said waist encircling tube and conduits being filled with a resilient material, said waist encircling tube being in heat exchange relation to the body of the wearer and means combined with said pad to pump warm air therethru.

5. A foot aerating appliance comprising a pair

of foot pads forming a conduit, said pads being open at the forward end thereof, a resilient material in each of the pads, said resilient material being eliminated under the heels of the wearer, a conduit extending to each of the foot pads at the rear of said pads, a waist encircling tube, said last named conduits extending to and entering the waist encircling tube, said waist encircling tube and conduits being filled with a resilient material, intake valves in the waist encircling tube, a pair of shoulder tubes rising from the waist encircling tube, said shoulder tubes extending over the shoulders and under the arms of the wearer, said shoulder tubes having valves in the portion under the arms of the wearer, all of said tubes being in heat exchange relation to the body of the wearer.

6. A foot warming appliance comprising a tubular harness constructed to be worn in heat exchange relation to the upper parts of the wearer's body to receive body heat, a pair of hollow foot warming pads each having an outlet and an inlet, means combined with said pads to pump warm air therethru, tubular means for conducting warm air from the harness to the inlets of the pads, and an air inlet for the harness.

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