

(No Model.)

C. MACDONALD.
CUSHIONED SOLE FOR FOOTWEAR.

No. 545,705.

Patented Sept. 3, 1895.

Fig. 1.

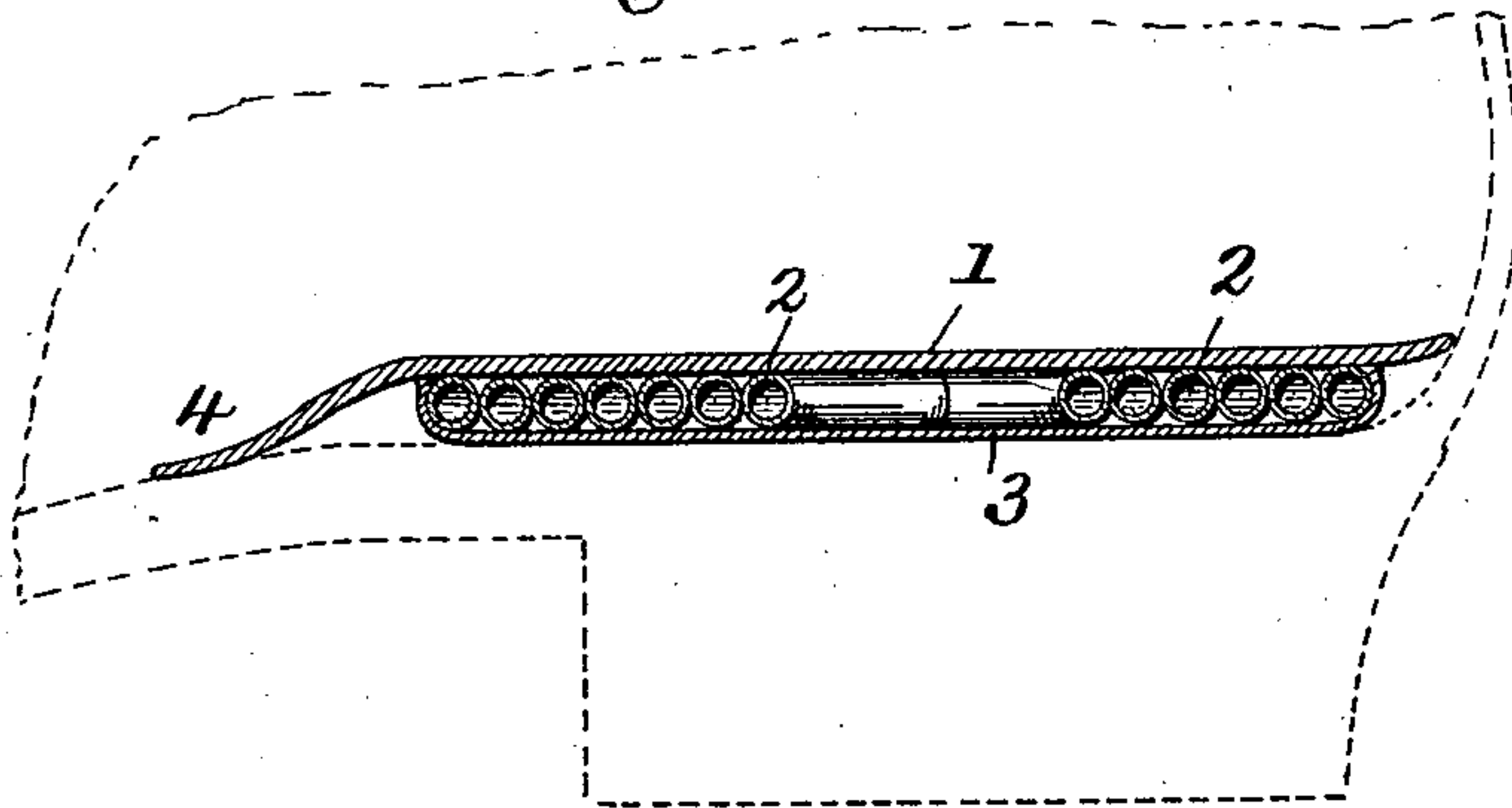


Fig. 3.

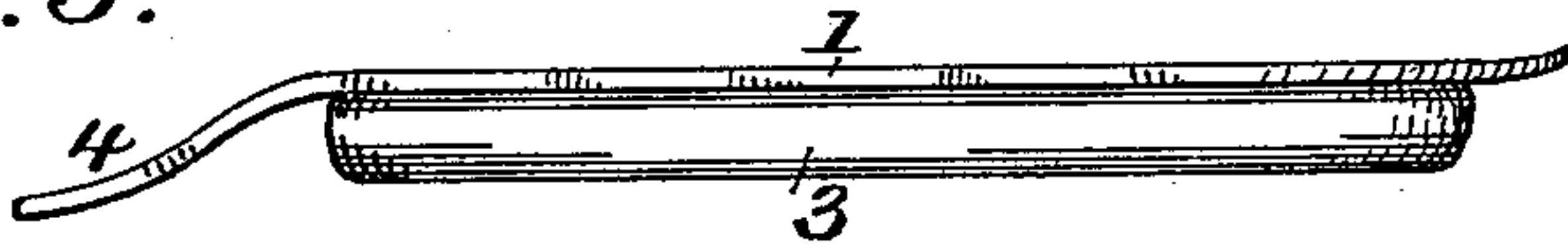
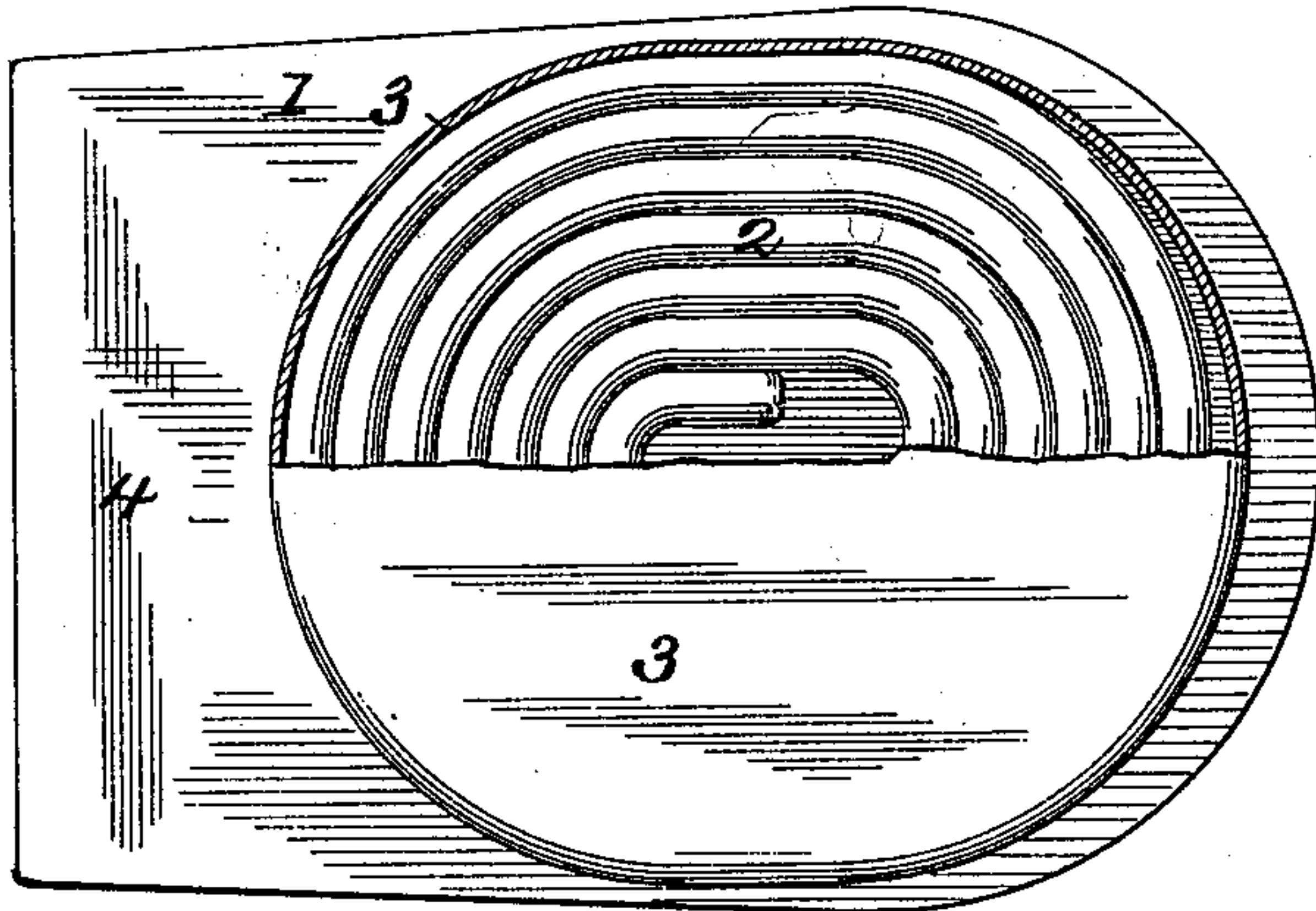


Fig. 2.



Attest:

James Lavallin.....

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by.

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UNITED STATES PATENT OFFICE.

CHARLES MACDONALD, OF CHICAGO, ILLINOIS.

CUSHIONED SOLE FOR FOOTWEAR.

SPECIFICATION forming part of Letters Patent No. 545,705, dated September 3, 1895.

Application filed November 28, 1894. Serial No. 530,225. (No model.)

To all whom it may concern:

Be it known that I, CHARLES MACDONALD, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a certain new and useful Improvement in Cushioned Soles for Footwear; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming a part of this specification.

This invention relates to inside soles or pads for shoes and other like footwear that are adapted to afford an elastic or cushioned bearing for the wearer's feet; and the object of the present improvement is to provide a simple and efficient construction and arrangement of the parts comprising the pad or sole whereby the feature of elasticity that is imparted thereto will be of a constant, uniform, and permanent nature during a continued and extended use. I attain such object by the construction of parts illustrated in the accompanying drawings, in which—

Figure 1 is a longitudinal sectional elevation of my invention when arranged as a heel pad or cushion for shoes; Fig. 2, a plan view of the under side of the same with parts broken away; Fig. 3, a side elevation of the same.

Similar numerals of reference indicate like parts in the different views.

As represented in the drawings, the present cushioned sole or pad consists of an upper bearing sheet or layer 1 of leather or other analogous material that constitutes an attaching-base for the other pad parts, which consists of a layer of pneumatic tubing 2, arranged spirally or in any other equivalent manner, and an inclosing covering 3, that is cemented or otherwise attached to the sheet or base 1, and made, preferably, of an air-tight flexible material, so as to be capable of containing air in a confined condition, so as to impart additional elasticity to the pad or sole. The pneumatic tubing 2 will also be of flexible air-tight material—such as vulcanized rubber—with its ends properly sealed and adapted to contain air in a confined condition, so as to afford the desired elasticity to the pad or sole.

It is within the scope of my present invention to make the pad of a size and shape to fit the entire sole of the foot or to make it in parts adapted to support particular portions only of the foot—as, for instance, the heel and the ball of the foot—in which case the base 1 will be extended at one or more ends to form an attaching flap 4, by which it may be securely attached to the sole of the shoe or other article of footwear.

My present invention affords a very perfect cushion or pad for footwear in that a very perfect elastic support is provided for the foot of the user, the weight of such user being distributed over the entire surface of the pad in an even and uniform manner. In consequence, the act of walking is rendered less fatiguing and quite easy, and the sudden shock or jar usual to ordinary walking or running is modified or prevented in a very perfect manner, and the present invention is accordingly of very material advantage and comfort to persons afflicted with ruptures, weak joints, or tender feet, &c.

Having thus fully described my said invention, what I claim as new, and desire to secure by Letters Patent, is—

1. A cushioned sole for footwear, comprising in combination, an upper bearing sheet 1, and a layer of pneumatic tubing 2, arranged beneath the same, substantially as set forth.

2. A cushioned sole for footwear, comprising in combination, an upper bearing sheet 1, a layer of pneumatic tubing 2, arranged beneath the same, and an inclosing covering 3 of flexible material, substantially as set forth.

3. A cushioned sole for footwear, comprising in combination, an upper bearing sheet 1, and a spirally arranged layer of pneumatic tubing 2, arranged beneath the same, substantially as set forth.

4. A cushioned sole for footwear, comprising in combination, an upper bearing sheet 1, a spirally arranged layer of pneumatic tubing 2, arranged beneath the same, and an inclosing covering 3, of flexible material, substantially as set forth.

5. A cushioned sole for footwear, comprising in combination, an upper bearing sheet 1, a layer of pneumatic tubing 2, arranged beneath the same, and an inclosing covering

3, of flexible air tight material, adapted to contain air in a confined condition, substantially as set forth.

5 6. A cushioned sole for footwear, comprising in combination, an upper bearing sheet 1, having an attaching flap 4, at one end, and a layer of pneumatic tubing arranged beneath the sheet 1, substantially as set forth.

10 7. A cushioned sole for footwear, comprising in combination, an upper bearing sheet 1,

having an attaching flap 4, at one end, a layer of pneumatic tubing arranged beneath the sheet 1, and an inclosing covering 3 of flexible material, substantially as set forth.

In testimony of said invention witness my hand this 26th day of November, 1894.

CHARLES MACDONALD.

In presence of—

ROBERT BURNS,
JAMES LAVALLIN.