
D. D. GOLDSTEIN

FOOTWEAR AND METHOD OF ITS MANUFACTURE

Filed Nov. 16, 1943

Fig. 1

Fig. 2

Fig. 3

Fig. 4

Fig. 5

Fig. 6

Fig. 7

DAVID D. GOLDSTEIN
INVENTOR

© BY JOHN P. MILLER
ATTORNEY
My invention relates to footwear and methods of its manufacture, and has particular reference to footwear and similar articles made of vegetable fibers, particularly of fibers of raffia.

I have found that fibers of raffia, which is a tropical plant, when treated with water or steam, can be formed into tight braids, and that these braids can be used for making shoes, bags, and similar articles.

The raffia braids possess great strength and remarkable wearing qualities, comparing favorably with leather. For this reason I provide shoes, made in accordance with my invention, with the soles also made of raffia braids of relatively greater thickness.

For making shoes, bags, or similar articles, the braids are wound or placed side by side, temporarily fastened to a mold, last or similar form, and then the edges of the adjacent braids are stitched or otherwise joined together.

The braids may be dyed, lacquered, or impregnated with suitable compounds before being used for making the articles.

My invention is more fully described in the accompanying specification and drawing in which:

Fig. 1 is an elevational view of a shoe made in accordance with my invention;

Fig. 2 is a sectional view of the shoe, showing also the method of stitching the braids together;

Fig. 3 shows another type of a shoe or sandal of my invention;

Figs. 4 and 5 are views of a piece of braid used for making shoes;

Fig. 6 is a bottom view of my shoe;

Fig. 7 is a view of a handbag.

Shoes and similar articles are made of natural raffia fibers, softened by water or steam and made into flat braids. The braids for the upper portions are relatively thin and narrow, while the braids for the sole of the shoe are relatively wide and thick.

The shoe is made by winding, more or less spirally, a long piece of raffia braid over an ordinary wooden last, temporarily nailing the successive turns of the braid to the last. The sole of the shoe is formed in a similar manner, winding a relatively thick braid 2 in the form of an elongated spiral (Fig. 7) over the sole portion of the last and nailing the braid to the last.

The successive turns of the braids are then stitched together, using a curved needle 3. Instead of threads I am using raffia fibers 4, thread-ed into the needle. Such fibers unite more firmly with the braids and retain their union even when the outer loops of the stitches wear off as, for instance, in the soles. The braids can be arranged to suit any particular design of the shoes, leaving, for instance, loops 5 for shoe strings.

The heels 6 are formed in a similar manner, winding a heavy braid spirally.

I have found that shoes, made by my method, from natural raffia fibers, formed into uncompressed braids, possess certain definite advantages over shoes made of other fibrous materials and, even of leather, such as:

1. My shoes are lighter in weight, the raffia braids being of somewhat fluffy structure, with numerous air pockets between the strands.

2. The shoe has great resistance both for stretching as in the vamp of the shoe, and for abrasion as in the sole.

3. The shoe is more flexible because of the air pockets in the strands.

4. The shoe is more hygienic because of the freedom of air exchange in the vamp and in the sole.

5. It can be waterproofed or rendered water repellent by any suitable method.

6. The shoe is elastic and is not deformable, tending to retain its shape even when continuously worn under all ordinary conditions. The shoe can be easily cleaned and even washed.

7. Raffia fibers readily take different dyes and can be brightly colored, making attractive footwear.

For certain purposes the raffia fibers may be twisted into ropes for making footwear and other articles, but, as a rule, more durable and attractive products are obtained when raffia is braided.

Other similar fibers can be also used in my method of making shoes although, according to my investigations, raffia fibers have considerable advantages over other vegetable fibers.

It is understood that my footwear and methods of its manufacture may be further modified without departing from the spirit of the invention, as set forth in the appended claims.

I claim as my invention:

1. A method of making shoes consisting in preparing relatively thick and relatively thin braids of a fibrous material; winding the thin braids over the upper portion of a shoe last; winding the thick braid over the sole portion of the last; temporarily fastening the braids to the last; permanently fastening together the adjacent braids; and removing the product from the last.

2. A shoe made of flat braids prepared from relatively soft and flexible vegetable fibers, the braids being placed side by side, abutting each other edgewise, the abutting edges being stitched together by strands of the vegetable fibers, the outer portions of the stitches extending in directions substantially parallel to the braids the inner portions of the stitches being curved inward from the end of one outer stitch portion on one braid to the beginning of the next outer stitch portion of the next braid.

DAVID D. GOLDSTEIN.