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INSOLE AND METHOD OF MAKING SAME

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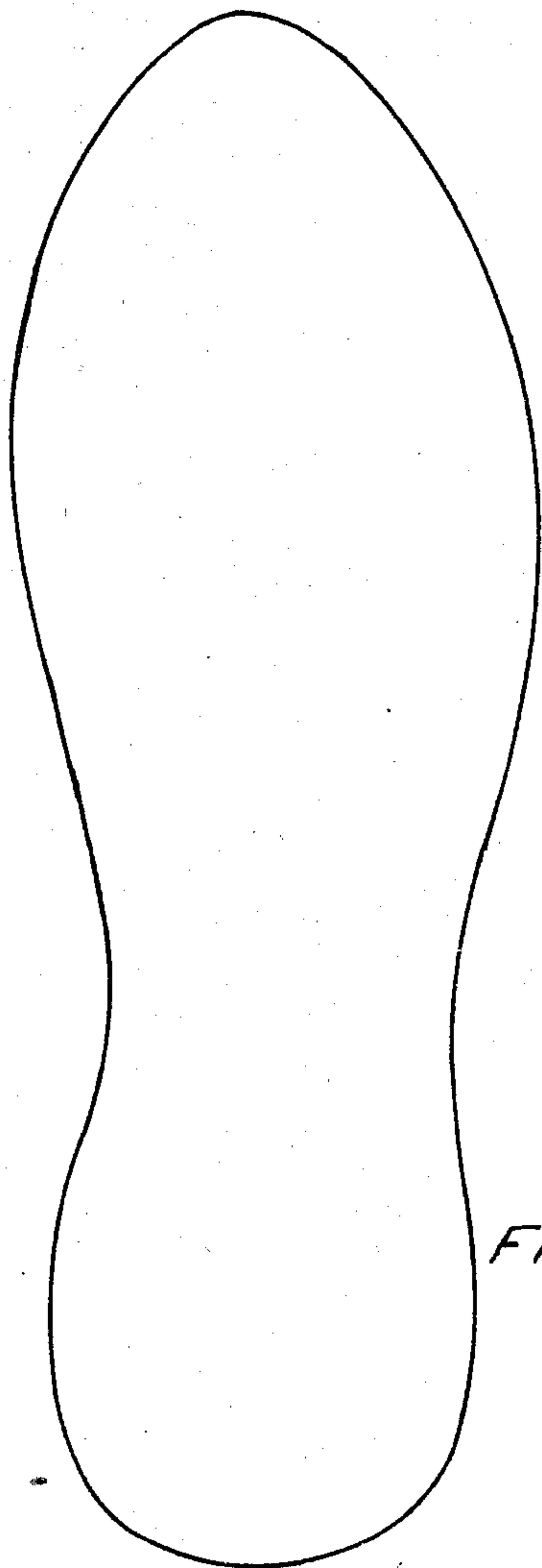


Fig 1

Fig 2

a

b



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UNITED STATES PATENT OFFICE

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INSOLE AND METHOD OF MAKING SAME

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My invention relates to insoles for shoes and to a method for making the same.

Heretofore insoles have been made from such materials as cork, leather or sheep-skin.

5 Cork is sufficiently stiff to be self-supporting in the shoe but adds little warmth and dryness to the foot and rather quickly deteriorates and becomes useless. Leather insoles are generally secured in the shoes by a suitable adhesive and in a sense constitute a part
10 thereof. Sheep-skin insoles are made with the leather flexible so that they have to be secured in the shoes or else backed by a stiffening material to be self-supporting. They
15 are too hot for ordinary wear causing excessive perspiration with the result that the insole soon wrinkles and causes great discomfort. The space taken up in the shoe by the
20 wool is also very great and this is a distinct disadvantage if an attempt is made to use sheep-skin in the ordinary dress shoe.

The principal object of my invention is the provision of an improved type of insole.

25 Another object is to provide an insole possessing the advantages of both the cork and sheep-skin insoles but free from the disadvantages thereof.

Another object is to provide a fur insole adapted to be self-supporting within the shoe.

30 Another object is to produce an insole which will not be affected by moisture.

Another object is to produce an improved method of making an insole.

35 My invention is embodied in the structure illustrated in the accompanying drawing, in which—

Fig. 1 is a plan view thereof; and

40 Fig. 2 is a side view of the insole with "a" the flesh side of the skin, and "b" the fur or hair side.

The insole of my invention is produced from short haired raw hide tanned in such a way as to make it stiff and waterproofed to prevent the absorption of moisture in the
45 shoe. This insole is self-supporting within

the shoe and need not be adhesively secured to the bottom thereof to hold it in place. It is thin enough to be worn in the ordinary dress shoe without discomfort and adds greatly to the comfort of the wearer from
50 the standpoint of the warmth imparted to the feet by its use. Since it is self-supporting, it can be placed in the shoe or taken out at any time by the user thereof so that the shoe may easily and quickly be fitted for the type
55 of weather which is to be encountered.

There are possibly various ways in which an insole such as that described can be produced but I have discovered a method by means of which I have obtained very good
60 results in the production of insoles possessing the characteristics described.

The first step is the selection of the proper skin. I have found that I obtain good results by using any short haired hide, but the skin
65 which I prefer is calf skin as the hair thereon is of substantially the proper texture and seems to stay in better during the treatment thereof and after it is used as an insole. The
70 skins are taken raw and partially scraped to remove the surplus tissue from the underside thereof. They are then subjected to a tanning operation designed to cure them sufficiently to prevent deterioration but to result
75 in a final product which is stiff and not easily bent. To obtain this effect, I have found that an alum tanning process can be used to great
80 advantage. As an example, I have used six gallons of water in which I have dissolved two pounds of alum and one pound of salt. This solution will tan five or six medium
85 sized skins.

When employing the tanning solution, it must be kept cold to obtain the right results. It may be used with or without agitation.
85 With proper stirring, the skins will be sufficiently cured in about twelve hours. If they are left stationary, the time will be as great as three days. When the skins seem to be
90 cured properly, a small piece should be cut

from a skin and dried as a test piece. A very little bit of experience will soon indicate to an operator when the tanning has been carried on sufficiently to obtain the effect desired.

5 When the curing of the skins is completed, they are stretched out on a flat surface in any suitable manner for drying, with the hair side faced against the surface to permit access to the underside of the hide.

10 The next step is waterproofing the skin. This can be done during the drying or after the drying of the skins has been completed. I have found that the best result is obtained if the hide is partially dry when the water-
15 proofing treatment is applied. Various kinds of waterproofing materials may be employed depending upon the choice of the manufacturer. I have employed several different materials myself, with all of which I have
20 obtained good results, but of course some better than others. The materials employed are wax, a mixture of wax and oil and shellac. I have obtained good results by simply coating the surface of the skin with ordinary
25 orange shellac. I have applied the wax on hot so that it penetrates the pores of the skin, and the wax and oil mixture has been used in the same way.

The preferred manner in carrying on this
30 process is to treat the skin so as to obtain an absorption of the waterproofing material, and also coat the surface. For penetrating the flesh side, various waxes may be used but I have obtained the best results by applying
35 hot shellac thereto with sufficient rubbing to obtain proper penetration. The shellac is preferably added to only a small spot at a time and this spot properly treated until the shellac is well worked in. Then as a final
40 treatment when the first coating of shellac has cooled, a top dressing of shellac or similar material is added. This may include not only shellac but if desired, any varnish, lacquer or similar coating which will impart
45 a light glossy waterproof finish to the already impregnated hide.

When the treatment of the skins is completed, the insoles are cut or stamped therefrom. The insoles are meant to be used with
50 the fur or hair side up and they may be marked as lefts and rights in this way for the guidance of the user.

In order to disclose to those skilled in the art, the manner in which my insoles may
55 be made, I have described specific details of one process for producing the same. It is obvious however, that some of the steps may be changed or their order reversed and an insole of the general character described still
60 produced. I do not restrict myself therefore, to the particular details pointed out but the invention is limited only by the scope of the appended claims.

What I claim as new and desire to secure
65 by United States Letters Patent is:

1. As a new article of manufacture an insole formed of calf skin tanned to make the same stiff so that it will support itself against wrinkling in the shoe.

2. As a new article of manufacture an insole formed of short haired skin, tanned to
70 result in a stiff product, and waterproofed to prevent absorption of sufficient moisture to soften the insole to permit wrinkling.

3. As a new article of manufacture an insole formed of short haired skin, tanned stiff
75 and coated with a waterproofing agent.

4. As a new article of manufacture an insole formed of short haired skin, tanned stiff
80 and coated with shellac.

5. As a new article of manufacture an insole formed of short haired skin, tanned stiff,
85 impregnated with a waterproofing agent and coated with shellac on the flesh side.

6. As a new article of manufacture an insole formed of short haired skin, alum tanned
90 to be stiff and self-sustaining in a shoe, impregnated with a waterproofing agent and coated with shellac on the flesh side.

In witness whereof, I hereunto subscribe
95 my name this 2nd day of August, 1927.

FRANK OBLAK.

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