

Jan. 24, 1956

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2,732,065

DISPENSING ROLL OF NON SKID TAPE FOR ICY SURFACES

Filed Aug. 17, 1953

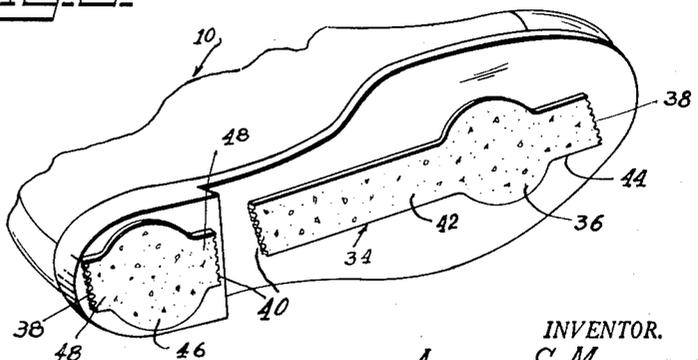
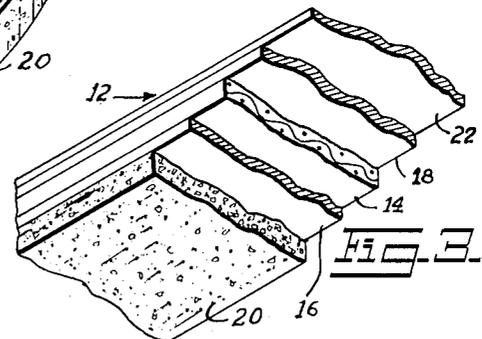
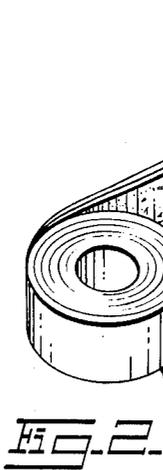
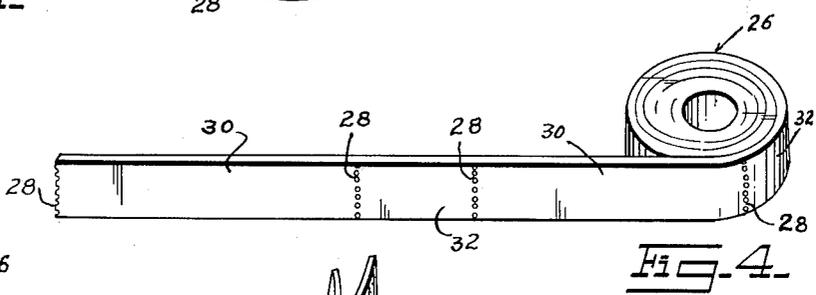
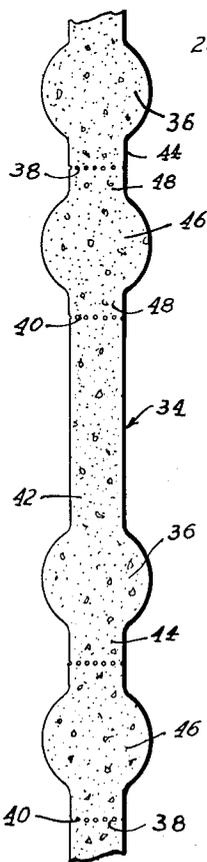
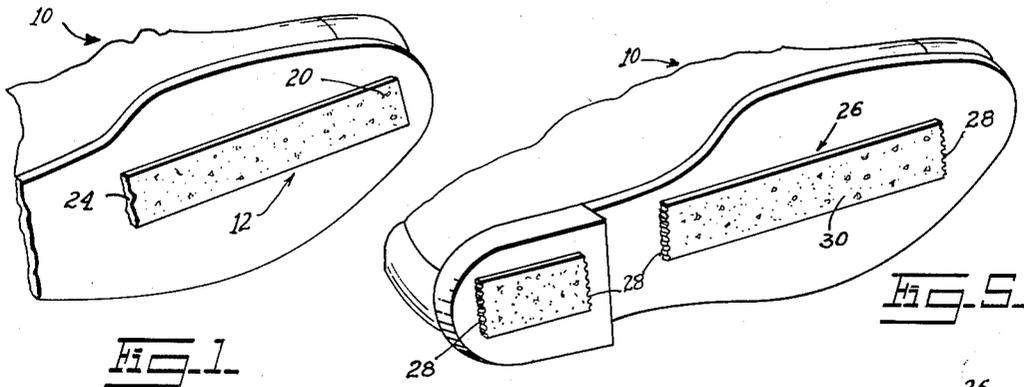


Fig. 6.

Fig. 7.

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DISPENSING ROLL OF NON-SKID TAPE FOR ICY SURFACES

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Application August 17, 1953, Serial No. 374,682

1 Claim. (Cl. 206—56)

This invention relates to a flexible tape provided on one surface thereof with a gritty, sandy, or other friction-producing face and provided on its opposite surface with a tacky or adhesive means whereby the tape can be secured to the sole of a shoe, thus to equip the shoe with a non-slip device that can be used to considerable advantage when one is required to walk upon an icy road, pathway, or other slippery surface.

The desirability of a tape-like article that can be attached to the underside of a shoe sole in the manner referred to above will be well appreciated among those who have experienced difficulty in traversing a slippery surface. In such instances, serious injuries have often been incurred, and a very real hazard is presented by an icy walk, steps, or incline.

While it is not new per se to equip a shoe sole with a non-skid attachment, it has not, to my knowledge, been proposed to provide a means of this type that will be in tape form, so as to be capable of manufacture and sale in a compact roll from which portions of selected length can be removed, for application in selected quantity and in selected amounts to the shoe sole. It is, accordingly, one object of importance to provide a tape as described, that will afford the desired friction-producing action while at the same time being capable of production at a minimum of cost.

Another object is to provide a tape as stated that can be so cheaply made as to be disposable after use. Thus, in accordance with the invention, there is provided a non-skid tape which, after a selected quantity has been unrolled and removed from the roll, will be applicable to a shoe sole at that location found most effective by the particular user, will be usable during a short period of time during which icy surfaces prevail, and will thereafter be readily peeled off the shoe sole and thrown away.

Yet another object is to provide a non-skid tape which, in at least one form thereof, will be provided with score markings or the like, to facilitate removal of particular portions of the tape found to be of optimum length.

Still another object is to form the tape, in at least one form of the invention, with enlargements defining portions of increased width, said enlargements being especially adapted for increasing the friction-producing area where it is most needed.

A further important object of the invention is to combine with the portions of increased width elongated tongue-like portions extendable longitudinally of the shoe sole to provide non-skid areas for substantially the full length of the sole.

For further comprehension of the invention, and of the objects and advantages thereof, reference will be had to the following description and accompanying drawings, and to the appended claims in which the various novel features of the invention are more particularly set forth.

In the accompanying drawings forming a material part of this disclosure:

Fig. 1 is a fragmentary perspective view of a shoe

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showing the sole thereof and illustrating, in operative relationship to the sole, a tape portion applied for the purpose of preventing slippage.

Fig. 2 is a perspective view of the roll of tape from which the portion shown in Fig. 1 is torn.

Fig. 3 is a fragmentary, enlarged, perspective view of the tape per se, the thicknesses of the laminations thereof being shown in section and being exaggerated for the sake of clarity of description.

Fig. 4 is a perspective view of a roll of tape showing a modified form.

Fig. 5 is a view similar to Fig. 1 in which the tape shown in Fig. 4 has been applied to the shoe sole.

Fig. 6 is a greatly enlarged plan view of a fragmentary portion of another modification.

Fig. 7 is a view similar to Fig. 1 in which the tape of Fig. 6 has been applied to the shoe sole.

In the form of the invention shown in Figs. 1-3, there is illustrated a roll of tape from which a selected portion can be torn or cut. A conventional shoe has been designated generally at 10, and although a man's shoe has been shown, it is an important characteristic of the invention that without changing the tape construction, it can be applied to both men's and women's shoes, of any size or design.

In any event, the tape has been designated generally by the reference numeral 12, and is formed from a plurality of superposed laminations, each of which would be quite thin, so as to prevent the tape from defining so great an added thickness on the shoe sole as to form a ridge or other protuberance that would tend to change the ordinary flat-surfaced characteristics of the shoe sole. The laminations shown in Fig. 3, while appearing to be of substantial thickness, are so shown merely to make the construction more readily understandable.

The tape includes a center lamination 14 which can be considered the body of the tape. This is formed from cloth, thin rubber, or any other flexible material having the desired characteristics of strength, cheapness, and adaptability for the application of adhesive thereto.

Coated on opposite faces of the body 14 is adhesive 16, 18. The adhesive 16 is coated on the bottom surface of the tape (considering the same when it has been applied to the underside of a shoe sole), for the purpose of attaching to the tape body a friction-producing or anti-slip lamination 20. The lamination 20 might be a woven, roughened fabric, in some commercial embodiments of the invention. Or, on other embodiments, it might be preferred to sprinkle, spray, or otherwise apply sand, powdered resin, or like gritty substances to the adhesive 16 to form a friction-producing, non-skid lamination that will effectively bite into the icy surface on which one is walking to reduce accidents caused by falls.

To the upper adhesive coating 18 there is applied a protective covering in the form of a cover strip 22. Cover strip 22 is merely a thin fabric or paper which is used to prevent the tacky surface defined by the adhesive 18 from adhering to the confronting surface of the friction-producing lamination 20, when the tape is rolled as in Fig. 2.

The tape would ordinarily be manufactured and sold in rolls such as that shown in Fig. 2. When, however, a quantity of the tape is to be applied to a shoe, one need only tear or cut off the desired length of tape, after which the cover strip 22 is removed. Then, the adhesive 18 having been exposed, the tape portion is attached to the underside of the shoe sole. The adhesive 18 will cause the tape portion to adhere strongly to the shoe sole, and the tape can now be used to advantage in preventing slippage.

It is of importance to note that any desired length

can be employed, and this allows the same tape to be used by children, men, and women, on shoes of different types. Further, the tape can be applied by a particular user to that area on the shoe sole at which it will serve most effectively in preventing slippage. Thus, one might desire to use not only the elongated portion extending for substantially the full distance between the toe and the instep, with the portion being torn along an irregular line 24, but might also use smaller portions, not shown, at opposite sides of the elongated portion, at the location of the ball of the foot. Further, a smaller portion, or side-by-side portions, could be attached to the heel of the shoe. Still further, the ends of selected portions could be allowed to project beyond the back edge of the heel, and could be turned up and adhesively engaged with the back surface of the heel. This would further prevent slippage, by covering the back edge of the heel during normal walking, it having been noted that for a moment during the taking of a regular step, this is the only point of contact between the shoe and the supporting surface.

In Figs. 4 and 5, there is shown a modified form in which the tape 26 is formed identically to the first form, so far as the arrangement and nature of the laminations thereof are concerned. However, in the second form of the invention, the tape has score marks or equivalent weakened lines 28 extending transversely thereof, to facilitate the removal of tape portions 30, 32 respectively. The arrangement of the score markings is of importance, and as shown in Fig. 4, a pair of score lines 28 is provided, in closely spaced relation along the length of the tape. Between the score lines 28 of each pair, a relatively short tape portion 32, which can appropriately be termed the heel portion, is defined, and this portion would be applied to the heel of the shoe as shown in Fig. 5. Then, between the pairs of score lines, elongated tape portions 30, that constitute sole portions, are defined. These are applied to the soles of shoes, again as shown in Fig. 5. The arrangement will, of course, facilitate removal of tape portions to be applied to the heel and sole, respectively, of the shoe.

In Figs. 6 and 7, a tape 34 is provided that has longitudinally spaced, circular enlargements or wide parts used to increase the non-skid area on the ball and heel of the shoe, as shown in Fig. 7.

In the tape 34, there is a widened part 36 for the toe area of the sole, located adjacent score line 38. A second score line 40 is disposed a substantial distance away from the widened part 36, so as to define an elongated tongue member 42 projecting from one side of the widened part 36. A short tongue portion 44 is defined between enlargement or wide part 36 and the score line 38.

An enlargement 46 is formed like the enlargement 36 and is applied to the heel of the shoe. The enlargement 46 is integral, at diametrically opposite locations thereupon, with short tongue portions 48, these being aligned longitudinally with one another.

It will be seen that by forming the tape with pairs of enlargements, with the enlargements of each pair being spaced closely from one another and the pairs being spaced apart substantial distances, and by further providing score lines adjacent diametrically opposite parts of a single enlargement of each pair, this being the enlargement 46, the tape can be applied to the shoe in the manner shown in Fig. 7. To the sole of the shoe there is applied a covering wherein the widened area is

located at the toe end of the sole. This covering has a relatively narrow tongue extending substantially the full distance between the instep and toe, and has a wide part at the ball of the foot, where a maximum amount of friction-producing area is desirable. Meanwhile, the covering for the heel has a widened part at the center of the heel and short end portions aligned longitudinally and centrally of the heel.

In all forms of the invention, the cross-sectional construction shown in Fig. 3 is employed, and the differences among the three illustrated forms reside in the means for defining locations at which the strip is to be torn, and the particular configuration of the strip. It is to be noted, in this regard, that regardless of the form of the invention used, the tape is wholly flexible, can be manufactured at so low a cost as to fall within the disposable, single-use category, and can be used at selected locations upon the shoe sole and heel so as to be capable of compensating for the particular walking habits of the user, it being well known that some persons will apply more pressure to a particular part of the sole or heel than will others.

While I have illustrated and described the preferred embodiments of my invention, it is to be understood that I do not limit myself to the precise constructions herein disclosed and the right is reserved to all changes and modifications coming within the scope of the invention as defined in the appended claim.

Having thus described my invention, what I claim as new, and desire to secure by United States Letters Patent is:

An anti-skid tape for application to the undersides of shoes and other footwear, comprising a tape body in roll formation, means on one face thereof for attaching the same to a shoe or the like, means on the other face thereof having a friction-producing surface, the tape body having lateral enlargements spaced longitudinally thereof to widen the body at predetermined locations, thereby to increase the transverse area of said body and thus afford an increased friction-producing surface on the underside of the shoe at the location of each enlargement, the body having said enlargements disposed in pairs with the enlargements of each pair being spaced closely apart providing short tongue members therebetween and the pairs being spaced substantial distances apart longitudinally of the body providing elongated tongue members therebetween, thus to permit removal of one tape portion having an enlargement and an elongated tongue member for application to the sole of a shoe and a second tape portion having an enlargement and short tongue members at diametrically opposite locations thereupon for application to the heel of said shoe, the body having score lines extending transversely thereof at opposite sides of that enlargement of each pair that forms a part of the second tape portion.

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