Nov. 10, 1925. 1,560,995

L. KAPLAN

SOLE

Filed June 11, 1924

FIG. 1.

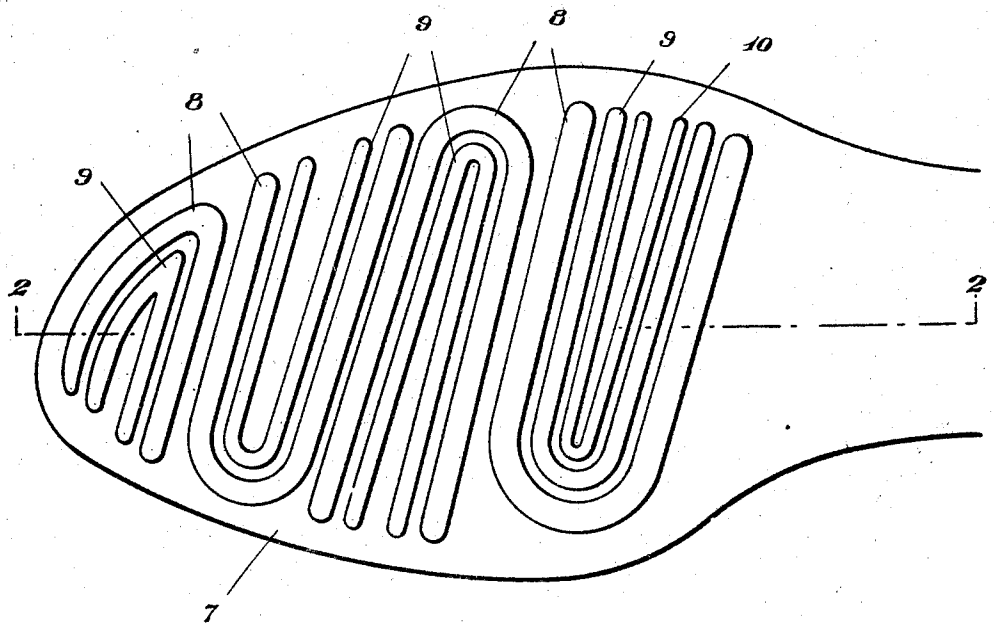
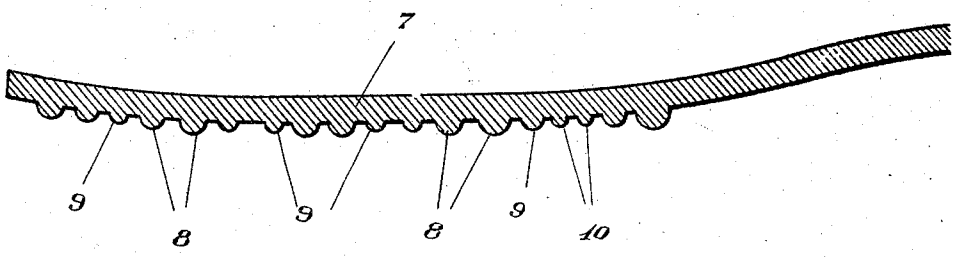


FIG. 2.



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Patented Nov. 10, 1925. 1,560,995

UNITED STATES PATENT OFFICE.

LOUIS KAPLAN, OF NEW YORK, N. Y.

SOLE.

Application filed June 11, 1924. Serial No. 719,357.

To all whom it may concern:

Be it known that I, LOUIS KAPLAN, a citizen of United States, residing at New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Soles, of which the following is a specification, reference being had therein to the accompanying drawing.

The present invention relates to soles for shoes, oxfords and other articles of footwear, and aims to provide a sole having novel and improved non-skid means on the tread surface thereof, and especially useful for footwear used when playing games, such as golf, tennis, and the like.

With the foregoing and other objects in view, which will be apparent as the invention is more fully understood, the invention resides in the formation of the tread surface of the sole, as hereinafter claimed, it being understood that changes can be made within the scope of what is claimed, without departing from the spirit of the invention.

The invention is illustrated in the accompanying drawing, wherein—

Figure 1 is a bottom plan view of a sole embodying the improvements.

Fig. 2 is a longitudinal section on the line 2—2 of Fig. 1.

The sole 7 may be of rubber, fibre, composition or other suitable resilient or semi-resilient material which has long wearing qualities.

In carrying out the invention, the tread surface of the sole is formed with several sets of protruding ribs. The ribs are U-shape, and the ribs of each set are located one within the other in spaced substantially parallel relation. Such ribs are arranged transversely of the sole, that is, with the ends or bends of the ribs presented toward the side edges of the sole, and the sets of ribs are alternated, inasmuch as the successive sets of ribs are in reversed positions. A marginal space is provided between the ribs and the edges of the sole, to permit of the sole being stitched or otherwise fastened to the welt of the upper.

The outer rib 8 of each set is of greater width and height than the inner rib 9 which is of less width and height. Each set of ribs may embody two or more ribs. As shown, the rear set has three ribs, the innermost rib 10 being of less width and height than the second rib 9. In other words, the ribs of each set decrease in width and height from the outer rib inward. Thus, when the sole is new, the ribs 8 projecting below the ribs 9 will contact with the ground or other surface, and as the ribs 8 wear away, the ribs 9 come into contact with the surface, and further wear will enable the ribs 10, when used, to come into contact with the surface, the unworn inner ribs are presented for contact with the ground or surface, to continue the non-skidding grip of the sole on the surface.

By positioning the ribs transversely they will provide an effective grip on the surface to prevent forward or rearward sliding of the sole on the surface, and the bends of the ribs being presented toward opposite sides will prevent side-wise or lateral skidding.

The ribs are also arranged at obtuse or acute angles with the longitudinal line of the sole, with those portions of the ribs at the arch or inner side of the sole nearer to the toe end of the sole than those portions of the ribs at the opposite or outer side of the sole. The sole shown in Fig. 1 is for the left foot, being shown bottom side up.

The sole is especially advantageous for footwear used when playing golf, tennis and other similar games, in order to prevent the feet from slipping on the ground, either for sudden stops in the playing of tennis, or during the execution of golf strokes so that the feet do not turn or become misplaced on the ground.

Having thus described the invention, what is claimed as new is:—

1. A sole having sets of U-shaped ribs on its tread surface with the ribs of each set located one within the other, said ribs being arranged with their ends and bends presented toward opposite sides of the sole, and the sets of ribs being in reversed positions so that the bends of the ribs of some of the sets are at one side while the bends of the ribs of the other sets are at the opposite side.

2. A sole having transverse U-shaped ribs on its tread surface with the ends and bends of the ribs presented toward opposite sides of the sole, the ribs being spaced apart longitudinally of the sole and being in reversed positions with the bends of some of the ribs at one side and bends of the other ribs at the opposite side.

3. A sole having sets of U-shaped ribs on its tread surface with the ribs of each set located one within the other and decreasing in size from the outer rib inward, said ribs

being arranged with their ends and bends presented toward opposite sides of the sole.

4. A sole having sets of U-shaped ribs on its tread surface with the ribs of each set located one within the other and decreasing in size from the outer rib inward, said ribs being arranged with their ends and bends presented toward opposite sides of the sole, and the sets of ribs being in reversed positions.

In testimony whereof I hereunto affix my signature.

LOUIS KAPLAN.