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GOLF SHOE

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Fig. 1

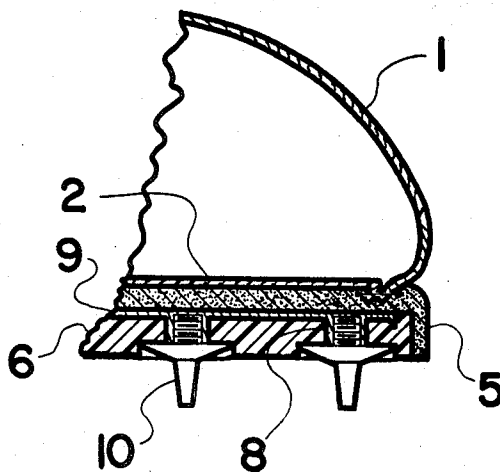
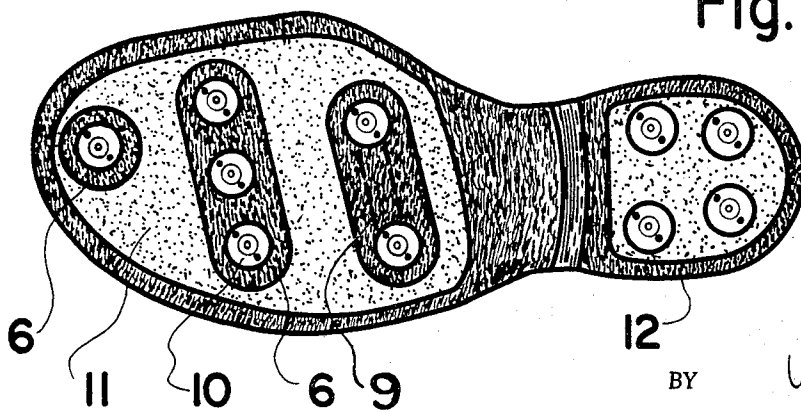


Fig. 2



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3,410,005
GOLF SHOE

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ABSTRACT OF THE DISCLOSURE

The provision of a plurality of strips of rigid material molded integrally into a soft elastomeric sole molded directly to the upper, said strips being spaced from each other and extending transversely of said sole with a plurality of transversely spaced eyelets connected to each of said strips makes possible the resistance to bending stresses in a light weight sole.

The invention refers to golf shoes which customarily are provided with spikes to give the wearer a firm stance even on soft turf. The stress exerted against the spikes is such that hitherto strong and relatively stiff sole material had been used to prevent the spikes or the eyelets in which they are inserted from being torn away from the sole. If molded soles are used, they have to consist of strong and stiff material which renders the shoe heavy, not flexible and not comfortable for the wearer.

According to the invention the loosening of the spikes in or from the sole is avoided even if lightweight and flexible sole material is used by providing inserts in strips between the spikes in such way that these layer-inserts distribute the stresses exerted against the spikes over a larger area of the sole material.

This and other objects of the invention are clarified hereafter in connection with the drawing:

FIG. 1 is a view, partially in section, showing a portion of a golf shoe in which metallic spikes are threaded into eyelets molded into strips of strong elastomeric material which are in turn molded into the sole;

FIG. 2 is a bottom view of the sole showing the strip inserts and the spikes.

In the example shown in FIG. 1, the upper 1 of a golf shoe is provided with a sock lining 2 secured to the upper by the stitching 3. The sole 5 is molded of lightweight soft and resilient elastomeric material, such as unfilled or porous rubber. The spikes 10 with their threaded stub are placed into corresponding threaded eyelets or nuts 8 which are molded into the layer-insert 6. The insert will distribute the stresses over a large area of the outsole 5 without impairing the flexibility of the sole and without undue increase in the weight of the shoe. It is advisable to provide recesses in the insert 6 to accommodate the shoulder of the spike so as to prevent the collection of grass, etc. between the shoulder of the spike and the sole.

In order to assure adequate transfer of the forces involved, it is essential that the outsole is molded and cured in situ to the layer-insert 6 to assure the distribution of the stresses from the insert to the outsole.

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As shown in FIG. 2 the bottom view of a shoe according to the invention, the layer-insert might carry a single spike as shown at the toe and two or more spikes are held by the same layer-insert for further spreading of the load over a larger area. Two or more eyelets might also be connected by a thin steel strip 9 to assist in the forementioned distribution of bending stresses.

The insert-layer 6 between spike and outsole, according to the invention, allows a wider, more efficient spike arrangement relatively close to the edge of the sole, thereby giving a firm stance at all times.

As shown in FIG. 2 the sole has an outer rim 12 of wear and scuff resisting rubber and has in the heel and in the forepart of the sole inserts 11 of soft rubber to make the shoe flexible and also skid resistant even when the spikes 10 are removed from the eyelets. The eyelets for the spikes are embedded in inserts of stronger and harder elastomeric material embedded in the sole so as to distribute the bending stresses from the spikes 10 to a larger area of the sole. The eyelets 8 of two of the spikes are interconnected by a metal strip as shown at 9.

According to the invention the sole and the layer inserts are molded simultaneously preferably in the same operation with the molding and curing of the sole to the upper. The inserts might be pre-molded, but it is essential that the molding of the sole around the inserts is the final operation of the shaping of the sole. Carried out in such manner in the molding of the soles to the upper the forces creating the stresses between the spikes and the upper enclosing the foot of the golfer are distributed without creating undesirable high specific stresses.

What is claimed is:

1. A golf shoe comprising an upper sole of soft elastomeric material molded directly to said upper, a plurality of strips of rigid material, said strips of rigid material being spaced from each other and extending transversely of said sole and molded integrally therein, a thin steel strip between each of said strips of rigid material and said elastomeric material, a plurality of transversely spaced eyelets connected to each of said steel strips having screw threads therein, said eyelets extending downwardly from said steel strips and being embedded in said sole, and spikes means removably threaded into said eyelets.

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