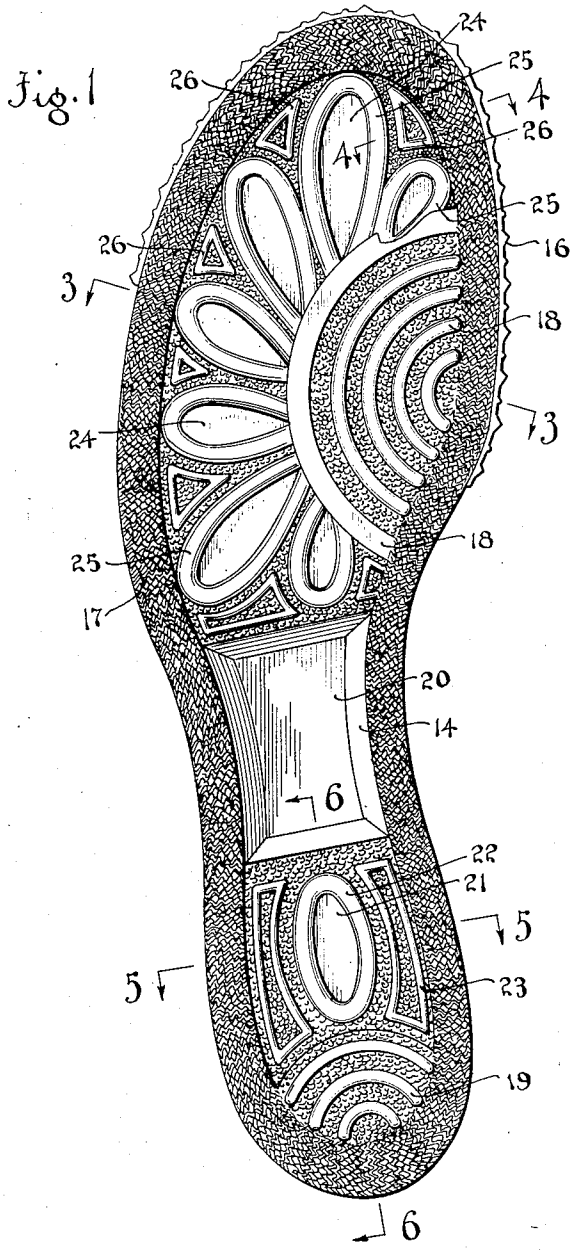
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SPORT SHOE

Filed May 17, 1932 2 Sheets-Sheet 1

Fig. 1



INVENTOR

George B. Carrier

BY Ely & Barrow

ATTORNEYS

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SPORT SHOE

Filed May 17, 1932 2 Sheets-Sheet 2

Fig. 2

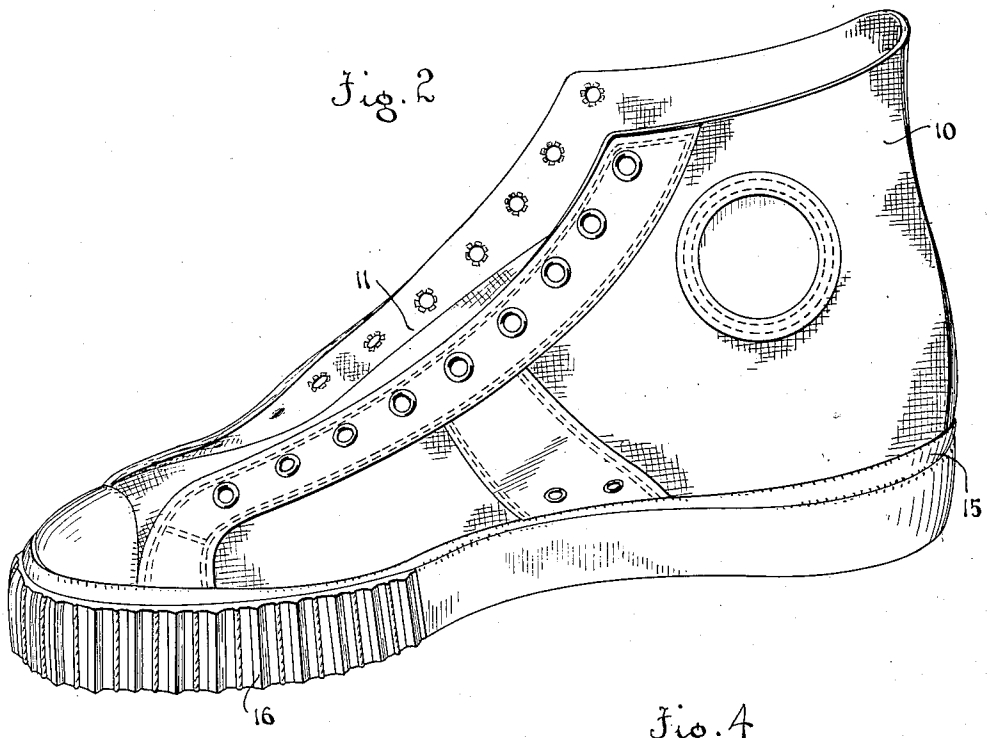


Fig. 3

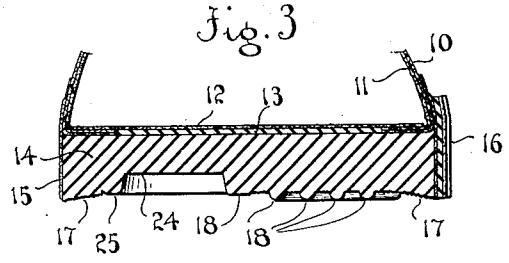


Fig. 4

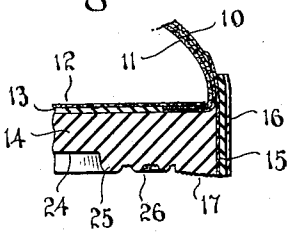


Fig. 5

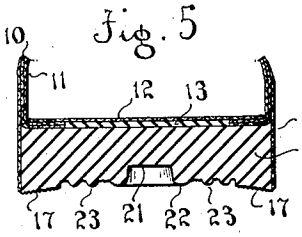
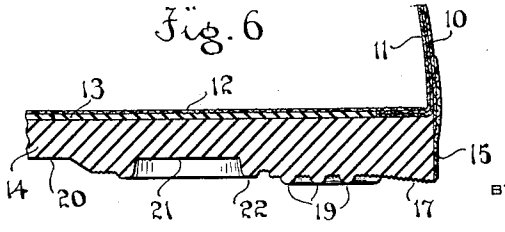


Fig. 6



INVENTOR

George B. Carrier

BY Ely & Barrow

ATTORNEYS

Patented Jan. 22, 1935

1,988,784

UNITED STATES PATENT OFFICE

1,988,784

SPORT SHOE

George B. Carrier, Hudson, Mass., assignor to Firestone Footwear Company, Boston, Mass., a corporation of Massachusetts

Application May 17, 1932, Serial No. 611,830

1 Claim. (Cl. 36—59)

This invention relates to sport shoes, and more especially it relates to rubber-soled shoes for indoor sports such as basket ball, hand ball and the like, and for gymnasium wear. The invention resides in the improved shoe sole with which the shoe is equipped.

The chief objects of the invention are to provide a shoe of the character mentioned which permits easy pivoting either upon the ball or the heel of the shoe; and to provide a sport shoe having improved non-skid characteristics. Other objects will be manifest in the following specification.

Of the accompanying drawings:

Figure 1 is a bottom plan view of a shoe sole embodying the invention, in its preferred form;

Figure 2 is a perspective view of a sport shoe provided with the shoe sole shown in Figure 1;

Figure 3 is a section on the line 3—3 of Figure 2;

Figure 4 is a section on the line 4—4 of Figure 2;

Figure 5 is a section on the line 5—5 of Figure 2; and

Figure 6 is a section on the line 6—6 of Figure 2.

Referring to the drawings, 10 is a shoe upper including a lining 11, 12 is an insole, 13 is a filler, 14 is a rubber outsole, 15 is foxing, and 16 is a vertically corrugated reinforcement upon the toe portion of the shoe. The various parts are assembled in the usual relation as shown, and are vulcanized together to provide a unitary structure.

As is most clearly shown in Figure 1, the bottom or wear-surface of the outsole 14 comprises a plurality of recesses bounded by ribs or ridges, and other ribs defining geometric figures, the surface of the rubber between the ribs being roughened. There is a border-like area 17 of the roughened surface extending completely around the sole, and this area meets the edge of the sole at an angle of less than 90°, as is most clearly shown in Figures 3 to 6 inclusive. Within the border 17 the surface of the sole 14 is entirely below the plane of the sole-margin with the exception of the tops of some of the ribs, which are flush with said plane.

Within the border 17 the design of the sole comprises a plurality of concentric arcuate ribs 18, 18 arranged about an axis that is substantially coincident with the ball of the foot. A similar set of arcuate ribs 19, 19 are arranged at the heel portion of the sole, the axis of the ribs being substantially on the inner edge of the border 17 at the rear thereof. The tops of the ribs 18, 19, with the exception of outermost rib 18, are substantially flush with the plane of the sole margin, and are so disposed as to be parallel to the movement of the sole when the wearer pivots on his heel or on the ball of his foot. Thus they offer but little resistance to such pivotal movement, and at the same time furnish adequate support for the foot at these points.

In the shank of the sole is formed a recess 20 of trapezoidal contour having tapered marginal walls. Rearwardly of the recess 20 the sole is formed with an elliptical recess 21 bounded by a rib 22, and at each side of the latter are four-sided designs formed by ribs 23, 23. Forwardly of the recess 20, between the outermost rib 18 and the border 17, are a plurality of oval-shaped recesses 24, 24 bounded by respective ribs 25, 25. Triangular designs formed by ribs 26, 26 are suitably disposed between the recesses 24, inside the border 17. The height of the ribs 22, 23, 25, and 26 is substantially the same as the outermost rib 18, which is somewhat lower than the height of the other ribs 18 and the ribs 19.

The feature of the numerous recesses in the sole lightens the weight of the shoe, and said recesses constitute vacuum cups, when pressed to the floor by the weight of the wearer, whereby slipping is prevented. When the weight of the wearer is on the inner edge of the shoe, as during a pivoting movement, the ribs 22, 25 are clear of the floor and there is no friction therefrom or vacuum in the recesses 21, 24 to retard the pivoting movement. The feature of the arcuate ribs 18, 19, which are disposed parallel to pivotal movement on the ball and heel of the shoe respectively, is a factor in facilitating pivotal movement.

The shoe while designed to stand the severe wear and tear to which this type of footwear is subjected, is light in weight and achieves the objects set forth in the foregoing statement of objects.

Modification may be resorted to within the scope of the appended claim, which is not limited wholly to the specific construction shown and described.

What is claimed is:

A sport shoe comprising a sole portion formed with a plurality of concentric ribs, the axis of said ribs being substantially coincident with the ball of the foot of the wearer, and a plurality of elongate recesses radially disposed about said axis.

GEORGE B. CARRIER.