Dec. 5, 1933. H. W. NESTER 1,937,712

CLEAT FOR SPORT SHOES

Filed July 20, 1932

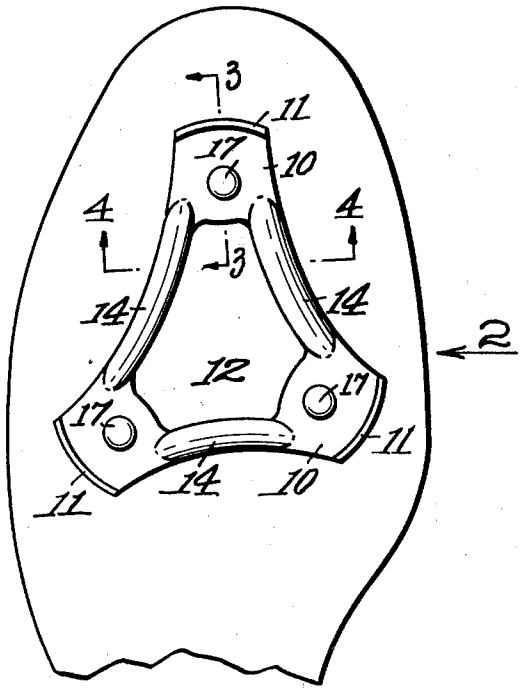

Fig. 1.

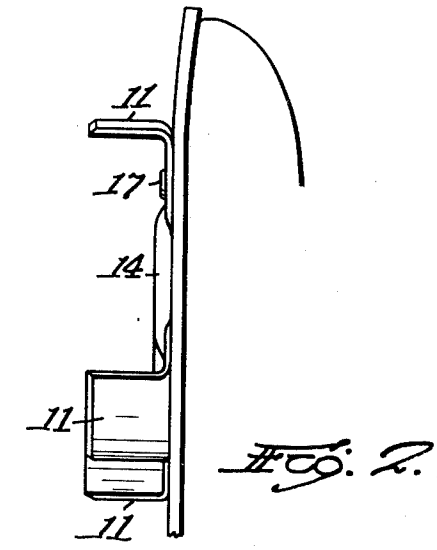

Fig. 2.

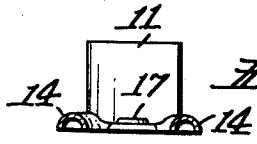

Fig. 4.

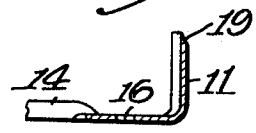

Fig. 3.

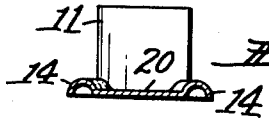

Fig. 5.

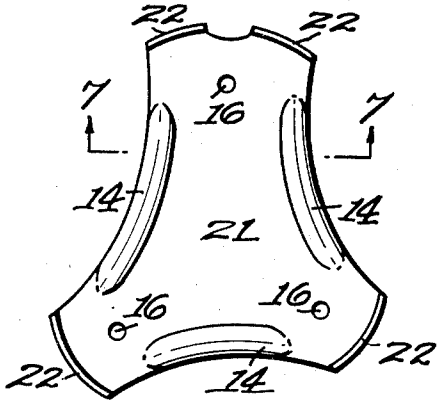

Fig. 6.

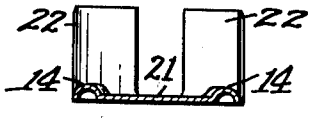

Fig. 7.

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CLEAT FOR SPORT SHOES

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3 Claims. (Cl. 36—59)

This invention relates to cleats designed for attachment to the soles of baseball or other sport shoes. Such cleats are used to provide a more positive grip on the ground and to prevent slipping, particularly on a smooth or wet surface.

It is the general object of my invention to improve the construction of such cleats as heretofore made, and to provide a cleat which is simple in construction, light in weight and easily and economically manufactured.

An important feature of the invention relates to the provision of a one-piece cleat of increased strength and of exceptionally light weight.

In one form of the invention, I combine in one piece of sheet metal a shoe cleat and a so-called "mud plate" and I accomplish this result without substantial increase in weight over the cleat by itself as heretofore manufactured.

My invention further relates to arrangements and combinations of parts which will be hereinafter described and more particularly pointed out in the appended claims.

Preferred forms of the invention are shown in the drawing, in which

Fig. 1 is a plan view of one form of my improved cleat applied to a shoe;

Fig. 2 is a side elevation, looking in the direction of the arrow 2 in Fig. 1;

Figs. 3 and 4 are detail sectional views, taken along the lines 3—3 and 4—4 in Fig. 1;

Fig. 5 is a detail sectional view, similar to Fig. 4 but showing a slightly modified construction;

Fig. 6 is a plan view of a modified form of cleat, and

Fig. 7 is a detail sectional elevation, taken along the line 7—7 in Fig. 6.

Referring to Figs. 1 to 4, I have shown my improved shoe cleat as comprising a plate 10 and a plurality of spurs or calks 11. The plate 10 is provided with a central opening 12 and with connecting edge portions 14 which are arched in cross section as clearly shown in Fig. 4.

The plate 10 is also provided with a plurality of openings 16 (Fig. 6) through which rivets or other fastening devices 17 (Figs. 1 and 2) may be inserted.

The entire cleat is made from a single piece of sheet steel and the spurs 11 are formed by bending portions of the sheet steel plate upward and in segmental shape, as shown in Figs. 1 and 6.

The formation of the spurs 11 of segmental section greatly increases the stiffness of the spurs and also prevents them from bending relatively to the plate 10.

The arching of the connecting edge portions 14 also substantially increases the strength of the cleat and permits a much lighter sheet material to be used to provide the same strength.

The outer edges of the spurs 11 may be beveled or sharpened as indicated at 19 in Fig. 3, so as to more effectively engage a smooth or slippery ground surface. These spurs are also preferably hardened and tempered.

A plate constructed as described possesses the marked advantages of a one-piece construction, combined with relatively light weight and increased strength and rigidity.

In the use of such cleats, it is sometimes found desirable to fill in the opening 12 with a so-called "mud plate", thereby preventing mud from adhering to the leather sole within the opening. This has heretofore been accomplished by providing the mud plate as a separate unit of relatively thin sheet metal, because the sheet metal heretofore used for the plates was so heavy that the cleat was of objectionable weight unless the center portion was cut out and removed and a lighter material used for the mud plate.

With my improved construction, however, and particularly with the segmental spurs 11 and arched connecting edge portions 14, I am able to use sheet steel of such light weight that the mud plate 20 (Fig. 5) may be formed integral with the plate 10 rather than as a separate piece. In other words, the opening 12 may be entirely omitted if so desired and the resulting cleat will even then not exceed in weight the cleats heretofore used and having open centers.

In Fig. 6 I have shown my invention embodied in a cleat having four spurs 22 and having a continuous plate portion 21, the construction being similar in this respect to the construction of Fig. 5 previously described.

It will be understood that the four-spur construction shown in Fig. 6 may also be provided with the cut out center portion as indicated at 12 in Fig. 1. The four-spur construction otherwise corresponds to the construction previously described.

Having thus described my invention and the advantages thereof, I do not wish to be limited to the details herein disclosed, otherwise than as set forth in the claims, but what I claim is:—

1. A shoe cleat formed of a single piece of sheet steel or relatively light weight and comprising a plate and a plurality of integral spurs spaced about the periphery of said plate, said plate having edge portions formed with ribs ex-

tending longitudinally thereof and said ribs being substantially arched in transverse cross section, whereby the stiffness of said plate is increased.

2. A shoe cleat formed of a single piece of sheet steel of relatively light weight and comprising a plate and a plurality of integral spurs spaced about the periphery of said plate, the central portion of said plate being cut away to provide narrow connecting edge portions, said edge portions being formed with ribs extending longitudinally thereof and said ribs being substantially arched in transverse cross section, whereby the stiffness of said plate is increased.

3. A shoe cleat formed of a single piece of sheet steel of relatively light weight and comprising a plate and a plurality of integral spurs spaced about the periphery of said plate, said spurs being outwardly convexly curved in horizontal cross section and thereby effectively resisting bending displacement relative to said plate, and the central portion of said plate being cut away to provide narrow connecting edge portions which are formed with ribs extending longitudinally thereof and substantially arched in transverse cross section, said arched portions merging gradually with the portions of said plate on which said spurs are supported.

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