United States Patent [19]

Frazier

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[54] **KICKING TOE**

[76] Inventor: **Garland D. Frazier**, R. R. No. 2, Poland, Ind. 47868

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[52] **U.S. Cl.** ..... **36/2.5 AG**

[51] **Int. Cl.** **A43b**

[58] **Field of Search** ..... 36/2.5 R, 2.5 AG, 7.4, 36/7.7

[56] **References Cited**

UNITED STATES PATENTS

2,782,531	2/1957	Frazier et al.	36/2.5 AG
3,406,469	10/1968	Dani	36/2.5 AG

FOREIGN PATENTS OR APPLICATIONS

493,536	5/1950	Belgium	36/7.7

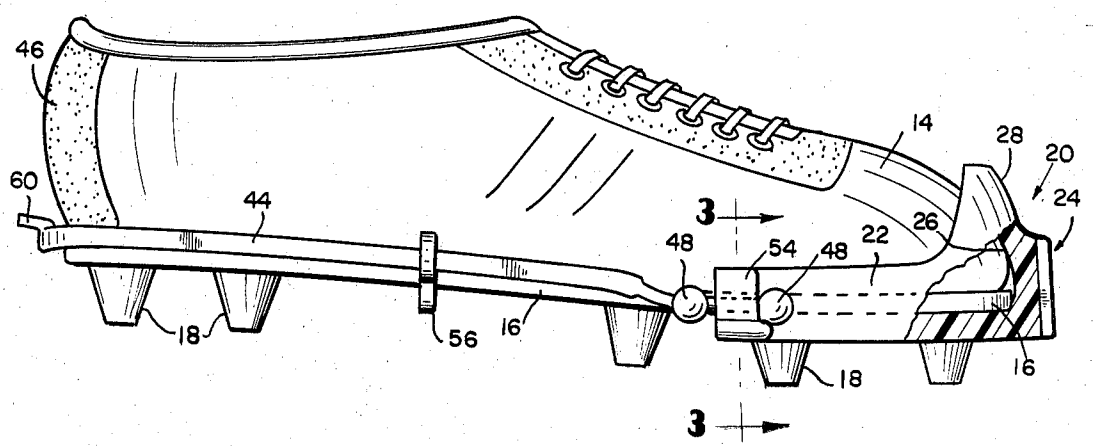
Primary Examiner—Patrick D. Lawson

Attorney, Agent, or Firm—Trask, Jenkins & Hanley

[57] **ABSTRACT**

A football kicking toe for removably mounting on a shoe. The toe has a front portion with a ball-engaging surface, and a pair of arms extending rearwardly along the shoe sides in engagement with the shoe-sole. The arms combine with the front portion to form a flange shaped to abut one or more cleats. An elastic strap extends from each arm along the shoe sides and behind the heel above the sole, and is abuttingly retained against the shoe sides by an elastic yoke interconnecting the strap at each side of the shoe.

8 Claims, 4 Drawing Figures



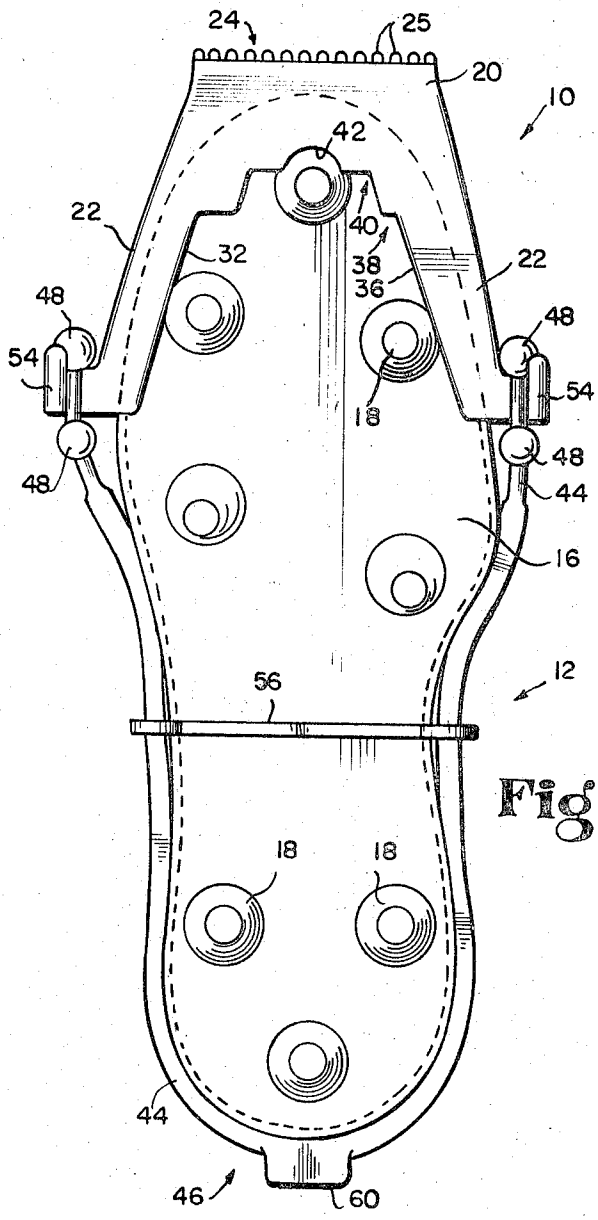


Fig. 1

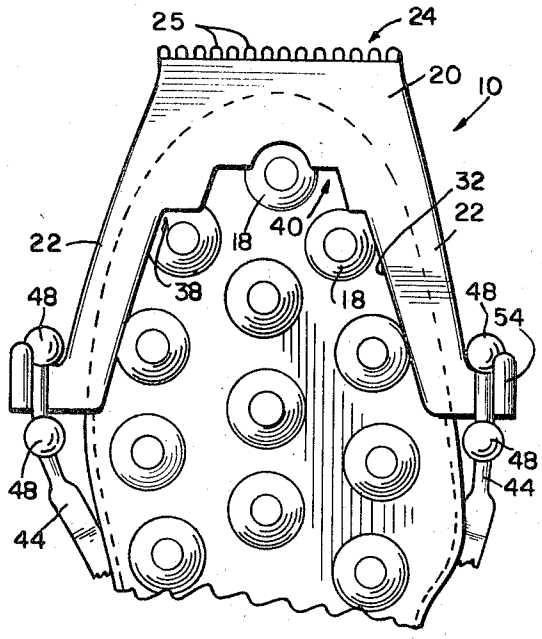


Fig. 4

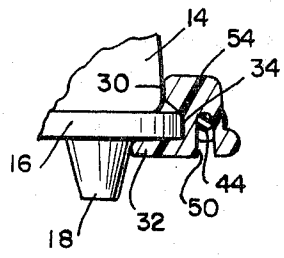


Fig. 3

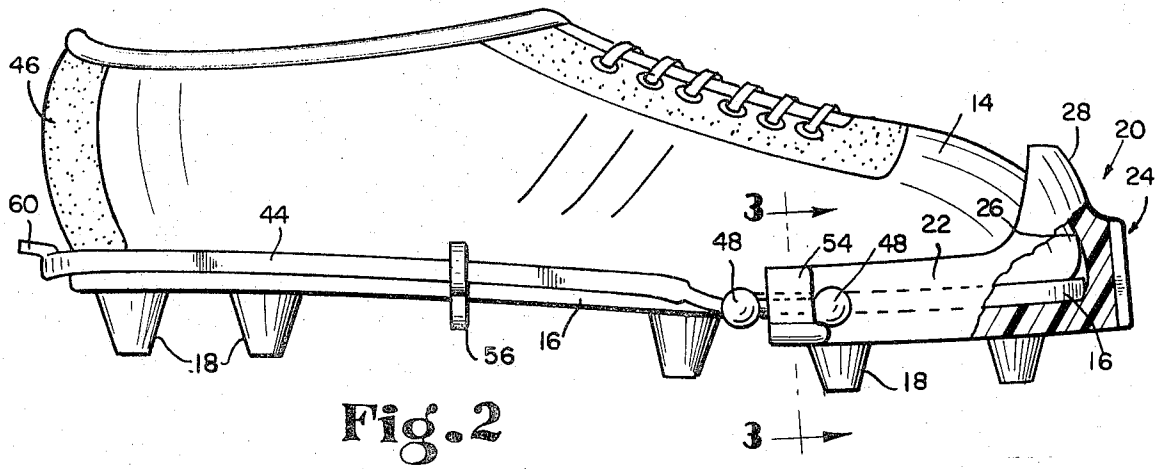


Fig. 2

KICKING TOE

BACKGROUND OF THE INVENTION

Kicking toes for mounting on a football shoe are old in the art, and are often manufactured from a rigid material having a front ball-engaging surface. Toes of this type usually have an inner side shaped to matingly engage the front area of the player's shoe, and are retained on the shoe by a cord tied behind one or more of the cleats. Such rigid toes, however, are not flexible to fit shoes of various sizes, and they require relatively long cleats to assure that the cord will not slip off the cleats during normal running movements. These toes cannot be mounted on short-cleated shoes of the type used on modern artificial playing surfaces since the cleats on such shoes are not long enough to support the cord, nor can these toes be mounted on conventional street shoes which do not have cleats.

Kicking toes have recently been proposed which are formed from lightweight molded plastic or the like, and have a relatively rigid ball-engaging surface with a pair of relatively flexible arms extending rearwardly along the shoe sides. See for example U.S. Pat. No. 2,782,531. In kicking toes of this type, an elastic cord extends rearwardly from the arms and is looped behind one or more of the cleats to pull the arms inwardly into engagement with the edges of the shoe-sole to hold the toe on the shoe. While these toes are adjustable to fit various shoe sizes, they too are limited to use only with football shoes having relatively long cleats, and they still require the player to exercise care to keep the cord from slipping off those cleats. Nor can these toes be mounted on modern short-cleated shoes or on street shoes, thereby limiting their usefulness.

It is therefore desirable to provide a football kicking toe which can be quickly and easily mounted on and removed from any football shoe or street shoe, which will readily fit shoes of several different sizes, and which will not slip off the shoe during normal player movements.

SUMMARY OF THE INVENTION

In accordance with the invention, a football kicking toe for mounting on and removal from a shoe is provided having a front portion with a ball-engaging surface and shaped to fit over the front area of the shoe-toe. A pair of arms extend rearwardly from the front portion along the shoe sides, and have inwardly open grooves for receiving the edge of the shoe-sole. The arms and said front portion together form a flange underlying the sole and shaped to abut one or more cleats on the bottom of the shoe.

An elastic strap extends rearwardly from the arms along the shoe sides and behind the heel above the sole to secure the kicking toe on the shoe, and an elastic yoke slidably interconnects the strap intermediate the shoe length to hold the strap inwardly in abutting engagement with the shoe sides.

BRIEF DESCRIPTION OF THE DRAWINGS

The accompanying drawings illustrate the invention. In such drawings:

FIG. 1 is a bottom plan view of a kicking toe embodying the invention and mounted on a cleated football shoe;

FIG. 2 is a side elevation of the shoe and kicking toe shown in FIG. 1 with portions broken away;

FIG. 3 is an enlarged fragmental vertical section taken on the line 3—3 of FIG. 2; and

FIG. 4 is a fragmental bottom plan view similar to FIG. 1 showing the kicking toe mounted on a football shoe having a different cleat arrangement.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENT

As shown in the drawings, a football kicking toe **10** of this invention is removably mounted on a shoe **12** of the type commonly used by football players, and which generally comprises an upper **14** and a sole **16** having a plurality of spaced cleats **18** projecting downwardly therefrom.

The kicking toe **10** is integrally molded from plastic or the like, and has a relatively rigid front portion **20** with a pair of relatively flexible arms **22** projecting rearwardly along the shoe sides. As shown in FIG. **2**, the inner surface **26** of the front portion **20** is shaped to generally conform to and receive the front area of the shoe-toe, and toe-shield **28** extends upwardly from the front portion **20** over part of the shoe-toe in engagement with the shoe-upper **14** to help locate and stabilize the kicking toe in position. A substantially vertical ball-engaging face **24** extends transversely across the front of the kicking toe, and if desired, a plurality of vertical ribs **25** are formed on the face **24** to minimize slippage between the face and the ball.

As shown in FIG. **3**, the rearwardly extending arms **22** each have upper and lower flanges **30** and **32** which form an inwardly open longitudinal groove **34** for reception of the edge of the shoe-sole **16.** Each of the upper flanges **30** has a width sufficient to abut the shoe-upper **14** directly above the sole **16,** while the lower flange **32** on each arm combines with the front portion **20** to extend continuously around the front of the shoe. The lower flange **32** underlies the shoe-sole for a substantial distance inwardly from the sole edge, and is irregularly shaped to abut one or more of the cleats **18** to stabilize the toe **10** in position on the shoe.

More specifically, as shown in FIGS. **1** and **4**, the irregularly shaped lower flange **32** extends forwardly from the rear of the arms **22** generally parallel with the wole edge before turning laterally inwardly a short distance near the shoe front, as at **38.** The flange then extends generally forwardly parallel with the sole edge before again turning laterally inwardly, as at **40,** and terminating as a semicircular recess **42.** This irregular shape permits the flange to abut one or more of the shoe cleats **18,** regardless of the length of those cleats or their specific arrangement. In the cleat arrangements shown, the flange is shaped to receive the centrally located front cleat within the recess **42** as well to abut a plurality of the cleats disposed near the sides of the shoe to thus permit the toe to be mounted on a football shoe having almost any standard cleat arrangement.

The kicking toe is attached to the shoe by an elastic strap **44** extending rearwardly from the arms **22** above the shoe-sole and stretched behind the shoe-heel **46.** The strap **44** is received in longitudinally extending downwardly open slots **50** formed in lateral projections **54** at the rear of each arm **22.** A pair of enlargements **48** are provided at each end of the strap and are spaced apart a distance sufficient to permit selective reception of either the portion between or behind the enlarge-

ments in the associated slot **50,** to thereby permit adjustment of the strap length and tension.

An elastic yoke **56** is slidably connected to the strap **44** intermediate the length of the shoe at each side thereof, and extends from side-to-side underneath the shoe-sole. The yoke **56** has a length slightly less than the narrowest width of the shoe, and in use is slid along the strap to the point of narrowest shoe width, which is usually at the instep. When in place, the yoke pulls the rearwardly extending portions of the strap inwardly into tight abutting engagement against the sides of the shoe to cause the strap to conform closely to the contoured shoe shape. This prevents the toe from being accidently knocked or pulled loose from the shoe during normal running or kicking movements.

The kicking toe is mounted on the shoe by pushing the front portion **20** rearwardly onto the front of the shoe and into engagement with the shoe-upper **14** and the front edge of the sole **16.** This aligns the sides of the sole for reception in the arm grooves **34,** and brings the lower flange **32** into abutting contact with the cleats **18.** The strap **44** is stretched behind the heel of the shoe above the shoe-sole, conveniently by means of a finger tab **60.** The yoke **56** is moved to the instep of the shoe to pull the strap inwardly into engagement with the shoe sides. If necessary, the strap tension is increased to draw the relatively flexible arms **22** inwardly to seat them against the sides of the shoe-sole.

It will be understood that a kicking toe of this invention is not limited to use only with a cleated football shoe. For example, the toe is particularly adaptable for mounting on a conventional street shoe having an upper, a sole, and an elevated heel. The toe is mounted on the shoe in the same manner as a football shoe with the strap stretched behind the heel above the sole. The yoke is moved to the instep portion of the shoe to pull the strap into abutting engagement with the shoe sides.

I claim:

1. A football kicking toe for mounting on and removal from a shoe, comprising a front portion having a ball-engaging face, a pair of arms extending rearwardly from said front portion along the shoe sides and having grooves for receiving the edge of the shoe-sole, said front portion and arms forming a flange underlying the shoe-sole for a substantial distance inwardly from the edge thereof, an elastic strap connected to said arms and extending along the shoe sides and behind the heel above the shoe-sole, and an elastic yoke slidably connected to said strap intermediate the shoe length to urge said strap inwardly against the shoe sides for substantially the entire shoe length.

2. A football kicking toe as set forth in claim **1** wherein said front portion has a toe shield extending upwardly therefrom for engaging the shoe-upper to help stabilize the toe in position on the shoe.

3. A football kicking toe as set forth in claim **1** wherein the shoe has a group of cleats projecting downwardly from the shoe-sole, and the underlying flange is shaped to at least one of said cleats when the kicking toe is mounted on the shoe.

4. A football kicking toe as set forth in claim **1** wherein means are provided in said elastic strap for adjustably mounting it on said arms.

5. A football kicking toe as set forth in claim **1** wherein at least one end of said strap is received in a downwardly open longitudinal slot formed in one of said arms near tht rearward end thereof.

6. A football kicking toe as set forth in claim **1** wherein said arms are relatively flexible to accommodate shoe-soles of different widths, and said front portion is relatively rigid to resist deformation when said arms are flexed.

7. A football kicking toe for mounting on and removal from a shoe, comprising a front portion having a forward ball-engaging surface and shaped to matingly receive the front area of the shoe-toe, a pair of arms extending rearwardly from said front portion along the shoe sides and each forming a groove for receiving the edge of the shoe-sole, said front portion and said arms forming a flange underlying the shoe-sole a substantial distance inwardly from the shoe-sole edge, an elastic strap connected to said arms and extending rearwardly along the shoe sides and behind the heel above the shoe-sole, and an elastic yoke slidably connected to said strap intermediate the shoe length to urge said strap inwardly against the shoe sides for substantially the entire shoe length.

8. A football kicking toe as set forth in claim **7** wherein the shoe has a group of cleats projecting downwardly from the shoe-sole, and the inwardly presented surface of said underlying flange is shaped to abut at least one of said cleats when the kicking toe is mounted on the shoe.

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