Nov. 27, 1934. P. W. BARTEL 1,982,588

SPIKE FOR SPORT SHOES

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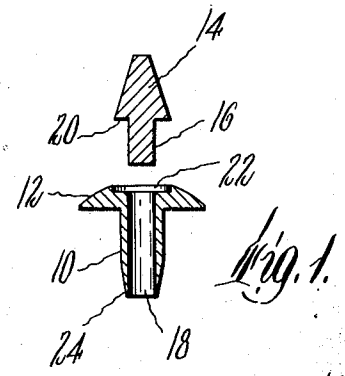


Fig. 1.

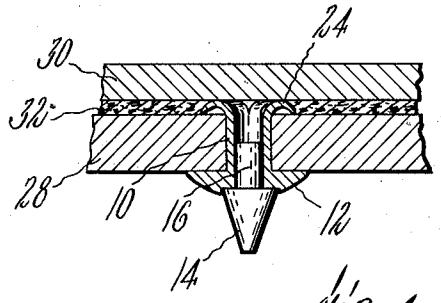


Fig. 4.

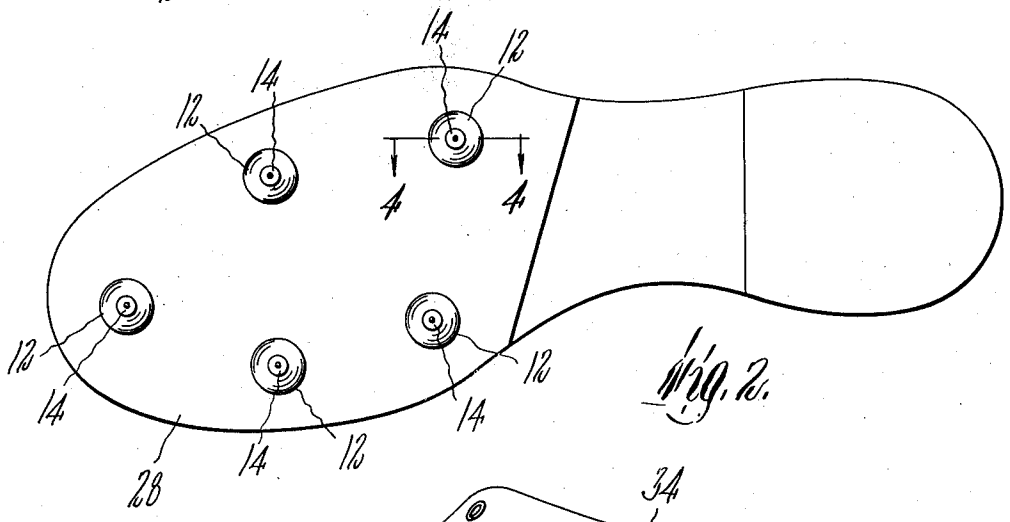


Fig. 2.

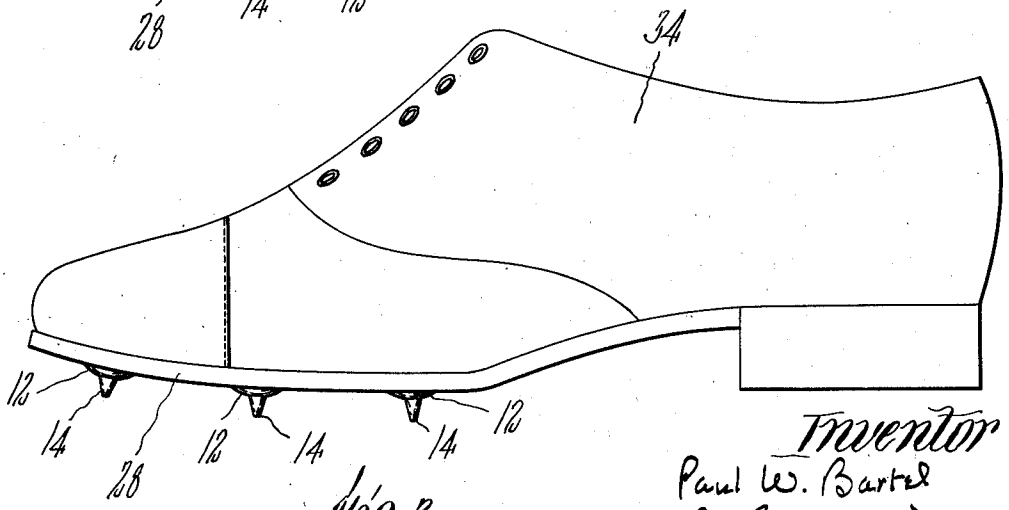


Fig. 3.

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SPIKE FOR SPORT SHOES

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3 Claims. (Cl. 36—59)

This invention relates to spikes for use on sport shoes. Heretofore spikes of this character have been made in one piece provided with a shank adapted to be mounted in a hole in the outer sole of the shoe and to have its end clinched over the inner surface of the sole. The necessity for clinching the inner end of the shank in this manner to fasten the spike to the sole precludes the hardening of the spike so that they wear down very quickly. In order to insert new spikes, the outer sole has to be partially separated from the shoe, the spikes removed therefrom and new spikes inserted. This is a comparatively expensive operation.

One of the important objects of the invention is the provision of a spike for sport shoes having a hardened point adapted to resist wear and having that portion which is intended to be fastened to the sole of the shoe made of softer material to permit the clinching thereof on the inner face of the sole.

Another object of the invention is the provision of a spike structure which permits the point or spike when worn down to be removed and a new point inserted without disturbing the shoe.

With these and other objects in view, the invention consists in the novel construction, combination and arrangement of parts hereinafter fully described and claimed.

In the accompanying drawing illustrating the preferred embodiment of the invention, Figure 1 is an exploded, vertical, central, sectional view of a spike made in accordance with my invention; Fig. 2 is a plan view of the bottom of a shoe in which the sole is shown provided with spikes of the construction of Figure 1; Fig. 3 is a side elevation of the same and Fig. 4 is a sectional view on line 4—4 in Fig. 2.

Referring to the drawing, particularly Figure 1, the preferred form of the invention is shown as embodied in a spike construction comprising two parts, a tubular member 10 having an annular flanged head 12 and a spike member 14 having a shank 16 of restricted diameter. The spike member is preferably cone-shaped having a slightly rounded point and its shank is slightly greater in diameter than the bore 18 of the tubular member so that when the two parts are assembled by forcing the shank into the bore, a frictional fit is assured sufficient to hold the spike member in place. Since the shank is of less diameter than the base of the spike, there is formed an annular shoulder 20 which engages the top face of the flanged head 12 of the tubular member when the spike member is mounted therein. Preferably, a countersink 22 is formed in said flanged head to receive the base of the spiked member and the head may be bevelled or rounded on its margin. The countersink serves to support the spike against lateral strains and the bevelled or rounded margin of the head improves the appearance of the device in a shoe. To facilitate the clinching of the tail end 24 of the tubular member, that end may be formed with a thin edge and scored to break the end into a series of prongs to be turned over on the inner face of a sole.

The tubular member may be made of any suitable metal which is sufficiently soft to permit its tail end to be clinched upon the inner face of the material in which it is mounted but the spike member is intended to be made of hardened wear-resisting metal or of metal treated by any well known method for making it wear-resisting.

In applying the spikes to a shoe, the tubular members are set in the outer sole preferably before it is incorporated in the shoe and the spike members forced into the tubular members after the shoe has been finished. The outer sole is provided with a plurality of holes corresponding in number to the number of spikes desired and a tubular member is inserted in each hole with its flanged head 12 in engagement with the outer face of the sole and its tail end is set or clinched upon the inner face of the sole by any suitable eyeletting machine or mechanism. After all the tubular members have been mounted in the sole, it may then be incorporated in the shoe which may be finished by the usual methods since there is no interference from spikes. This is one advantage of my construction of spikes over the one-piece spike heretofore in use. In Figure 4, 28 designates the outer sole, 30 the inner sole and 32 the ordinary cork shoe-filler interposed between the soles, the tubular member being shown having its tail end clinched on the inner face of the outer sole.

To illustrate the use of my invention, there is shown in Figures 2 and 3 a shoe 34 of the Oxford type provided with a series of five spikes but a larger or a smaller number may be used in any suitable arrangement. Since the spike members are of hardened wear-resisting material, they are very durable and efficient and shoes equipped with them are not open to the objection that the spikes wear down very quickly and thereby lose their gripping qualities. Furthermore, in my construction, when the spike members wear to such an extent that they become unsatisfactory in use, they may be easily withdrawn from the tubular members by any suitable tool and new

spike members pressed in thereby restoring the shoe in this respect to its original condition.

It is to be understood that my invention is not to be limited to the exact construction herein shown and described since it may be embodied in other forms all within the purview of the following claims.

What I claim is:

1. A device of the character described comprising a tubular member having an annular flanged head provided with a countersink and a cone-shaped spike member mounted in said countersink and having a shank frictionally engaged in said tubular member, said tubular member being of relatively soft material permitting its tail end to be clinched upon the inner face of a sole and said spike member being of hardened wear-resisting material.

2. A device of the character described comprising a tubular member having an annular flanged head provided with a centrally located countersink and a spike member having a cone-shaped head and a shank of smaller diameter than the base of said head to form an annular shoulder on the bottom of said base, the shank of said spike member being frictionally mounted in said tubular member with said shoulder seated in said countersink, said spike member being of hardened wear-resisting material and said tubular member being of relatively softer material permitting its inner end to be clinched over the inner face of a sole with its flanged head in engagement with the outer face of said sole, said flange being relatively wide in order to support said spike member at all times in perpendicular relation to the outer face of said sole.

3. A device of the character described comprising a tubular member having an annular flanged head and a spike member having a cone-shaped head and a shank of smaller diameter than the base of said head to form an annular shoulder on the bottom of said base, the shank of said spike member being frictionally mounted in said tubular member with said shoulder seated on the inner portion of said flange, said spike member being of hardened wear-resisting material, and said tubular member being of relatively softer material permitting its inner end to be clinched over the inner face of a sole with its flanged head in engagement with the outer face of said sole, said flange being relatively wide and extending beyond the base of the head of said spike member in order to support at all times said spike member in perpendicular relation to the outer face of said sole.

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