

S. BARBER.
SHOE.
APPLICATION FILED MAY 15, 1918.

1,304,646.

Patented May 27, 1919.

Fig. 1.

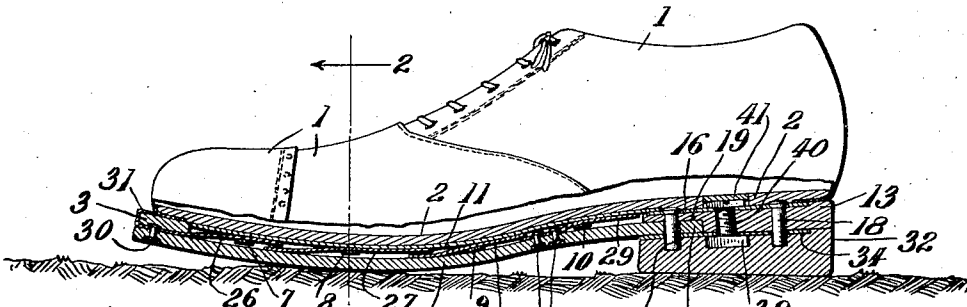


Fig. 2.

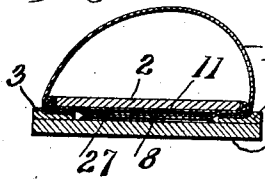


Fig. 4.

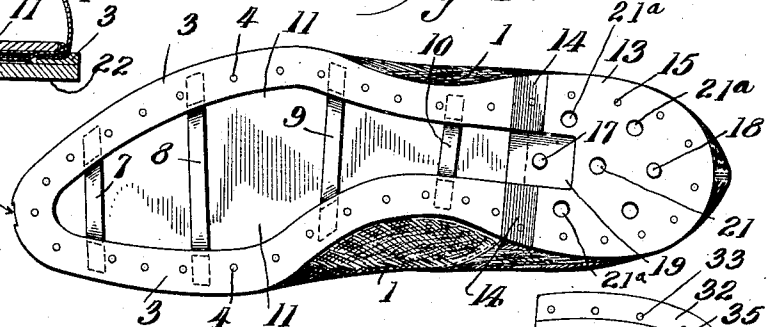


Fig. 3.

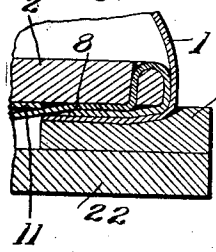


Fig. 6.

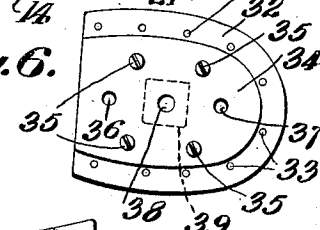


Fig. 5.

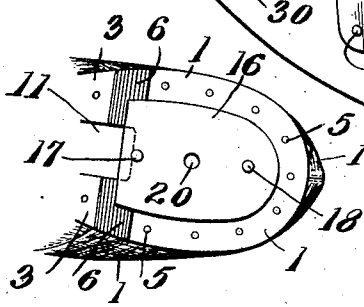
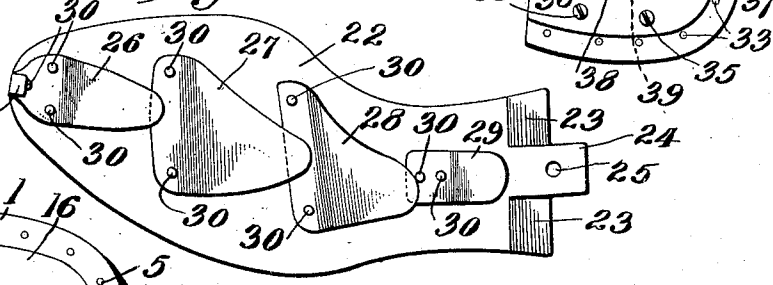


Fig. 7. Salvatore Barber
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By His Attorneys
Williams & Pritchard

UNITED STATES PATENT OFFICE.

SALVATORE BARBER, OF LONG ISLAND CITY, NEW YORK.

SHOE.

1,304,646.

Specification of Letters Patent.

Patented May 27, 1919.

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To all whom it may concern:

Be it known that I, SALVATORE BARBER, a subject of the King of Italy, residing at Long Island City, county of Queens, and State of New York, have invented certain new and useful Improvements in Shoes, of which the following is a specification, reference being had therein to the accompanying drawings, forming part thereof.

My invention relates to shoes of that type or kind in which the outer sole and the outer part of the heel which are subjected to the greatest wear and which form the tread of the shoe are detachable by the wearer, so as to be renewed or replaced by the wearer with a new or fresh set of soles and heels, and the object of my present invention is to so improve this type of shoe, which heretofore has not come into general use, as to make it practical, in order that the inherent and obvious advantages thereof may be fully utilized by the public. In this connection one of the objects of my invention is to provide a shoe of the above mentioned kind which in substantially all respects has the same general appearance as the ordinary shoe heretofore made with permanently attached outer sole and heel. A further object is to so construct the shoe of my invention that it will feel substantially the same upon the foot of the wearer and give the same comfort as shoes heretofore made with permanently attached outer sole and heel. Also important but more general objects of my invention are durability, dependability, inexpensiveness of manufacture of the shoe as a whole and also of the parts to be furnished for renewal, simplicity of construction. Also all of the general advantages heretofore possessed by shoes not embodying my invention, together with other objects and advantages which will hereinafter appear.

My invention includes features of construction and combinations of parts, as will appear from the following description.

I shall now describe the shoe embodying my invention illustrated in the accompanying drawings and shall thereafter point out my invention in claims.

Figure 1 is a longitudinal section, with the upper part in elevation, of a shoe embodying my invention.

Fig. 2 is a transverse section on a vertical plane indicated by the line 2—2 of Fig. 1 as viewed from the right.

Fig. 3 is an enlarged transverse section corresponding to what appears at the right in Fig. 2.

Fig. 4 is a bottom view or inverted plan view of the shoe shown in Fig. 1, but with the outer detachable sole and heel parts removed.

Fig. 5 is a plan view or view of the upper side of the outer detachable sole, which appears in longitudinal section in Fig. 1.

Fig. 6 is a similar view of the outer detachable heel part.

Fig. 7 is an inverted plan view or bottom view similar to what appears at the right in Fig. 4, but with the upper or permanent heel part also removed for showing the stud-carrying metal plate above and held in place by said upper permanent heel part, these parts appearing in longitudinal section in Fig. 1.

The shoe embodying my invention illustrated in the accompanying drawings comprises a usual upper 1, an insole 2, which may be of usual construction excepting as slightly modified by the embodiment therein of features of my invention, and a usual welt 3, between the upper side of which and the lower side of the outer margin of the insole 2, the lower edge of the upper 1 is secured, these three parts all being secured together in any suitable way, such, for example, as by means of nails 4, shown in Fig. 4 of the drawings. The inturned lower edge of the upper 1 is also preferably lasted or nailed to the margin of the insole 2 independently of the securing in place of the welt 3, some of these nails 5 appearing at the right in Fig. 7 beyond the tapered end 6 of the welt 3.

A plurality, shown as four in number, of strong metal straps 7, 8, 9 and 10 are firmly secured at their ends to the opposite edges of the insole 2, which forms a permanent sole member, and these straps extend transversely across below the insole 2 in slightly spaced relation thereto so as to form loops or keepers below and carried by the insole 2. Each end of each of the keeper-forming straps 7, 8, 9 and 10 is shown as turned upward through a slit formed in the margin of the insole 2 and is thence turned outward and downward over the edge of the insole 2 and thence is turned inward in overlapped relation upon itself between the lower side of the insole 2 and the upper surface of the inturned lower marginal edge of the upper

1, as clearly shown in Figs. 2 and 3, thereby producing a very firm and strong connection of the keeper straps 7, 8, 9 and 10 with the insole 2. A thin spring metal plate 11, which may be of thin sheet steel, is located above or within the keepers formed by the straps 7, 8, 9 and 10 and in contact with the lower side of the insole 2, this spring metal plate 11 being of the same general contour as the insole 2, but being of sufficiently smaller size or area to be received within the loops or keepers 7, 8, 9, 10 and 11, and is shown of substantially the same size and as fitting snugly within the central space left clear on the bottom of the insole 2 within the marginal welt 3. At the toe of the shoe the welt 3 is shown as provided with an outer notch 12. The transversely arranged keeper straps 7, 8, 9 and 10 provide for the free bending of the insole 2 and other parts of the shoe in use, and the thin spring plate 11 provides resiliency but is not thick enough to interfere with the bending of the shoe in use.

A permanent heel part is provided and comprises a heel lift 13, which may be built up of one or more thicknesses as desired, and which is shown as having a thinned or tapered forward edge 14 which is adapted to overlie or overlap upon the thinned or tapered rear end 6 of the welt 3. This permanent heel part 13 is lasted in place around its margin by means of nails 15, appearing in Fig. 4. This upper permanent heel part 13 firmly and permanently holds in place an upper metal plate 16 of somewhat smaller marginal extent or area than the heel part 13, so as to come within the curved row of nails 15, this inner or upper inner heel plate 16 appearing in the drawings in Figs. 1 and 7. The permanent metallic heel plate 16 is provided adjacent to the forward and rear edges thereof with front and rear outwardly projecting studs 17 and 18 which project outwardly through and substantially beyond the permanent heel part 13, which at its forward edge is shown as provided on its lower side with a recess 19 surrounding the forward stud 17, as shown in Figs. 1 and 4. Substantially centrally located aligned apertures 20 and 21 are provided respectively in the inner metallic heel plate 16 and in the permanent heel part 13 and are shown in Figs. 1, 4 and 7. Also four shallow recesses 21^a are provided in the lower side of the permanent heel part 13 surrounding the central aperture 21 and as shown in Fig. 4. The purpose of the holes 20 and 21 and recesses 21^a will presently appear.

The parts of the shoe thus far described constitute the permanent or more lasting part of the shoe to the bottom of which the tread parts, comprising detachable sole and heel parts, are to be attached, these lower or outer sole and outer heel parts being subjected to the most destructive wear.

A detachable wear-receiving outer sole member 22, which may be of leather or other suitable material, extends from the toe of the shoe, substantially flush with the forward end or edge of the welt 3, back to the permanent heel part 13 and is shown as having at its rear end marginal tapered parts 23 which are adapted to overlap upon the corresponding tapered part 14 of the permanent heel part 13, this tapering or thinning being upon the upper side only and being shown in Fig. 5. Also at its rear end the outer detachable sole 22 is shown as provided with a rearwardly projecting lug or tongue 24 formed in the same piece or integral therewith and fitting into the recess 19 in the outer and forward edge of the permanent heel part 13, this tongue 24 being provided with an aperture 25 through which the forward stud or pin 17 of the inner metallic heel plate 16 is adapted to project as shown in Fig. 1.

On its upper side the detachable outer sole 22 is provided longitudinally along its middle with a series of rearwardly projecting resilient sheet metal tongues 26, 27, 28 and 29 which at their forward ends are firmly secured directly to the detachable sole 22 by means of rivets 30, as shown in Figs. 1 and 5. It is to be noted that in use the sole 22 may freely bend between the tongues 26, 27, 28 and 29, and in this connection it is to be noted that the rivets 30 for the two middle and larger tongues 27 and 28 are arranged along transverse lines for thereby providing for the entire freedom of the sole to bend at all points between the forward tongue 26 and the rear tongue 29. The sheet metal attaching tongues, which may be of steel, are shown as suitably tapered and as rounded at their free ends, and are shown as slightly overlapping upon each other. The attaching tongues 26, 27, 28 and 29 are respectively cooperative with the transverse loops or keepers 7, 8, 9 and 10 above which and between which and the spring metal plate 11, these rearwardly projecting tongues are adapted to be slidably inserted so as to project through and rearwardly beyond the keepers to the extent of about or substantially one-half of the length of these attaching tongues, the free projecting ends of these tongues at their upper sides resiliently pressing against the metal plate 11, so that a strong resilient attachment of the outer detachable sole 22 to the inner or permanent insole 2 is effected, and as is clearly shown in Fig. 1. The thin spring plate 11 provides a smooth guide for the free ends of the attaching tongues and at the same time prevents the possibility of their abrading the lower surface of the insole 2.

By reason of the arrangement just described, in combination with the marginal projecting welt 3 providing a free or open

space inward therefrom between the spring metal plate 11 and the upper surface of the outer detachable sole 22, these attaching tongues will exert a resilient wedging effect by reason of which the outer edge or margin of the outer detachable sole 22 will be drawn firmly into contact all around with the lower surface of the welt 3, so that no crack or opening will be left at any place, and this action is further facilitated by reason of the fact that the attaching tongues are of graduated width according to the width of the shoe sole at the point where they are located, for example it being noted that the tongues 26 and 29 at the toe and waist of the shoe respectively are correspondingly narrow, while the middle tongues 27 and 28 are tapered to provide a wide base corresponding to the wider tread portion of the shoe, as is shown in Fig. 5. In order tightly and securely to hold in place the projecting forward end of the outer detachable sole 22, the forward end of the foremost sheet metal tongue 26 is provided with an upwardly and rearwardly turned hook 31 which hooks over the forward edge of the welt 3 at the extreme front or toe of the shoe and which engages in the notch 12 at this point, thereby providing both a smooth finish and a firm engagement of the attaching hook 31 with the welt 3, as will be clear from Figs. 1, 4 and 5.

The outer detachable sole 22 is adapted to be slipped into place in engaging position by a sliding movement of such sole from the toe toward the heel of the shoe, as will be readily understood. For greater convenience in effecting this engagement, the attaching hooks 26, 27, 28 and 29 are made of varying length or of varying extent of projection in relation to the spacing or location of the transversely arranged keepers 7, 8, 9 and 10. For example, it has been found convenient to have the free end of the second or largest attaching tongue 27 engage first at the back of the keeper 8, and next after this the next rearwardly located tongue 28 to engage at its free end behind or above the next rearwardly located keeper 9, and then following this the free end of the rearmost tongue 29, at the waist or shank of the shoe, to become engaged above or behind the rearmost keeper 10, and after this to have the forwardly located tongue 26 at the toe of the shoe to come into position for engagement at its free end above or behind the forwardly located keeper 7, following this the hook 31 may be pressed into engagement over the forward edge of the welt 3 at the toe of the shoe, and finally by a firm and gentle pressure upon the toe and heel of the shoe, in which it is of advantage slightly to bend the shoe, the rearwardly projecting integrally formed lug 24 on the detachable

sole 22 will readily snap into place over the free projecting end of the forwardly located stud 17, thereby locking the detachable sole 22 in place against forward disengaging movement. The rear end of the detachable sole 22 is held securely and firmly in place and in contact at its marginal edges with the welt 3, and also the lug 24 is held in place upon the stud 17 against disengagement therefrom, by means of a detachable outer heel part, the construction of which will now be described.

A detachable, outer wear-receiving heel part 32 is provided and may be of leather or other suitable material and may conveniently be built up of a plurality of layers or lifts, all firmly secured together, for example by means of nailing from both sides and as is indicated at the upper side thereof in Fig. 6 by the nails 33 around the margin. Upon its upper side the outer detachable heel part 32 carries a metallic supporting plate 34 which is firmly secured in place by means of screws 35, shown as four in number. In the construction illustrated in the drawings these screws 35 have a usual form of round projecting heads for thereby obtaining a maximum of strength for holding in place the supporting plate 34, and these projecting screw heads are adapted to be received into the small recesses 21^a provided therefor on the lower side of the permanent heel part 13. The supporting plate 34 is countersunk into the material of the outer heel part 32, and at its forward end is shown as flush with the forward end of said outer heel part, as is clearly shown in Figs. 1 and 6 of the drawings.

When the outer detachable heel part 32 is in place below and in contact with the outer surface of the inner permanent heel part 13 as shown in Fig. 1, the forward edge or upper forward margin of this detachable heel part 32, together with the forward marginal edge of the supporting plate 34 carried thereby, will overlap upon the outer surface of the rear end of the outer detachable sole 22 so as to cover not only the projecting lug 24 thereof but also so as further to overlap upon this outer detachable sole 22 at the outer side thereof, and in the construction shown in the drawings this overlap on the rear end of the sole 22 is substantially to the extent of the thinned or tapered marginal end parts 23 thereof which are provided only at the upper or inner side thereof, as hereinbefore described, and which in turn as above described overlap upon and cooperate with the correspondingly tapered forward part 14 of the permanent heel part 13, as will be understood by a comparison of Figs. 4 and 5 in their relation to Fig. 1. The metallic heel-supporting plate 34 is provided at the front and rear margin thereof re-

spectively with apertures 36 and 37 beneath or below which there are corresponding recesses in the material of the outer heel part 32 for the reception of the respective outwardly projecting studs 17 and 18, as shown in Fig. 1. At a substantially central point thereof the supporting plate 34 is provided with a bolt-receiving aperture 38, and at this point below or back of the supporting plate 34 a suitable recess is provided in the material of the outer heel part 32 for the reception of a nut 39, as shown in Figs. 1 and 6.

The outer detachable heel part 32 is adapted to be firmly yet detachably held in place by means of a screw bolt 40 passing outward from the inside of the heel of the shoe through the central hole 20 provided therefor in the upper metallic stud-carrying plate 16, then through the aperture 21 in the upper permanent heel part 13 and through the central opening 38 in the supporting plate 34 and into engagement with the nut 40, which, as above noted, is held in place in the outer detachable heel part 32 by means of the supporting plate 34. The screw or bolt 40 is shown as provided at the inside of the shoe with a flat head which is transversely notched for the reception of a screwdriver, and which is shown as countersunk through the insole 2 and as covered by a small plug 41, the upper surface of which is flush with the upper or inner surface of the insole 2, as is shown in Fig. 1, this covering plug 41 being readily removable by any simple means, such for example as by means of the screwdriver which is employed for removing the bolt 40.

It will be noted that the outwardly projecting studs 17 and 18, passing, as above described, through the supporting plate 34 and into the material of the outer heel part 32, not only prevent rotative movement of the outer heel part 32 upon the attaching bolt 40 as a pivot but also the forward one of these studs 17 is assisted in its hereinbefore mentioned function of holding the detachable outer sole 22 in place by reason of the interlocking engagement of this stud 17 with the outer heel part 32, as is clearly shown in Fig. 1. When the attaching bolt 40 is tightened it not only firmly and securely yet detachably holds the outer heel part 32 in place and in firm contact with the lower surface of the inner permanent heel part 13 but also the upper surface of the forward margin of this outer heel part 32 presses upward upon and firmly holds and locks in place the rear end of the outer detachable sole 22, as most clearly appears in Fig. 1, so that the parts of the shoe are firmly yet detachably held together.

The transverse arrangement of the keeper straps 7, 8, 9 and 10 below the permanent

inner sole 2, together with the securing of the independent attaching tongues directly to the outer sole 22 by the attaching rivets 30, provide for the transverse bending of the shoe in walking without any interference whatsoever from such attaching means for the outer detachable sole 22, as will be readily understood, the operation in this respect being substantially the same as in shoes as heretofore commonly manufactured with outer soles and heels permanently secured in place, such as by sewing or nailing, so as not to be readily renewable by the ordinary wearer himself.

For removing the outer detachable heel part 32, obviously it is only necessary to remove the attaching bolt 40, thereby permitting the outer heel part 32 to be simply lifted off. After the outer removable heel part 32 has been removed or detached, then the outer detachable sole part 22 may next be readily removed or detached. This is accomplished by first disengaging the lug 24 of the outer detachable sole 22 from the stud 17. By pressing gently upon the heel and toe of the shoe and at the same time slightly bending the shoe, the lug 24 will have a tendency to move outward on the stud 17, sufficiently so that the rear end of this sole 22 can be grasped by the fingers, but if in any case the lug 24 should show a tendency to stick, then it may be readily loosened by the end of the screwdriver inserted as a lever at the rear end thereof, as will be readily understood. After the lug 24 of the outer detachable sole 22 has been freed from the sole-retaining stud 17 it is then only necessary to push the sole 22 forward relatively to the other parts of the shoe for thereby entirely disengaging and removing it, the forward toe hook 31 thereby being disengaged and the respective attaching tongues 26, 27, 28 and 29 being by this forward movement withdrawn from above the respective loop-forming straps or keepers 7, 8, 9 and 10. After the detachable outer sole 22 and the detachable outer heel part 32 have been thus removed, they may be replaced by new and unworn similar parts, as is obvious. The shoe of my invention is to be made up and sold with outer sole and heel attached and as is illustrated in Fig. 1 of the drawings, and then when the sole and heel, or either of them, wear out it is proposed that the wearer himself remove the worn outer sole and heel and attach in place thereof a new sole and heel which he can buy at the same store where he bought the shoes, and a supply of which if desired or made necessary by any particular circumstance may be kept on hand by the wearer of the shoes.

It is obvious that various modifications may be made in the construction shown in

the drawings and above particularly described within the principle and scope of my invention.

I claim:

5 1. A shoe of the kind in which an outer sole is detachable for renewing the tread, characterized by having, in combination, an upper, a permanent sole secured thereto, a detachable wear-receiving outer sole, a
10 keeper strap carried directly by and extending transversely from one lateral margin to the other lateral margin of said permanent sole and providing for the longitudinal bending thereof, an attaching tongue se-
15 cured directly to said outer detachable sole at a medial location between the lateral margins thereof along a transverse line of attachment providing for the longitudinal bending of said outer sole, said attaching
20 tongue being detachably engageable with said keeper strap, and means for preventing disengaging movement of said detachable outer sole.

25 2. A shoe of the kind in which an outer sole part is detachable for renewing the tread, characterized by having, in combination, an upper, a permanent sole secured thereto, a detachable wear-receiving outer sole, a plurality of independent keeper
30 straps carried directly by and each extending transversely from one lateral margin to the other lateral margin of said permanent sole and providing for the longitudinal bending thereof, a plurality of independent attach-
35 ing tongues detachably engageable with the keeper straps and each independently secured directly to said outer detachable sole along a transverse line of attachment providing for the longitudinal bending of said
40 detachable outer sole, and means for preventing disengaging movement of said detachable outer sole.

3. A shoe of the kind in which an outer sole part is detachable for renewing the
45 tread, characterized by having, in combination, an upper, a permanent sole secured thereto, a detachable wear-receiving outer sole, a plurality of independent keeper straps carried directly by and each extend-
50 ing transversely from one lateral margin to the other lateral margin of said permanent sole, a medially arranged longitudinal series of independent attaching tongues carried directly by and projecting longitudi-
55 nally from said outer detachable sole and adapted detachably to engage with said keeper straps upon relative lengthwise movement of said soles, said keeper straps and attaching tongues providing for the longitudi-
60 nal bending of said soles, and means for preventing disengaging movement of said detachable outer sole.

4. The invention claimed in claim 3 in which said attaching tongues enter said

keepers to the extent of a part of their length 65 only and project through and beyond said keepers.

5. A shoe of the kind in which an outer sole part forming the tread thereof is detachable for renewal, having, in combina- 70 tion, an upper, a permanent sole, and an outer marginal welt all permanently secured together, transverse metallic keeper straps secured to the margins of said permanent sole and extending transversely across the 75 space below said permanent sole at the inside of said marginal welt, a plurality of independent attaching tongues carried directly by and projecting longitudinally from said outer detachable sole and arranged to form 80 a medial longitudinal series and adapted detachably to engage with said keeper straps upon relative lengthwise movement of said soles, said keeper straps and attaching
85 tongues providing for the free longitudinal bending of said soles, and means for preventing disengaging movement of said detachable outer sole.

6. The invention claimed in claim 5 in which said attaching tongues enter said 90 keepers to the extent of a part of their length only and project through and beyond said keepers.

7. The invention claimed in claim 3 in combination with a spring plate located be- 95 tween said loop-forming keeper straps and said permanent sole at the outer side thereof and adapted to be engaged by the free ends of said attaching tongues.

8. The invention claimed in claim 4 in 100 combination with a spring plate located between the lower side of said permanent sole and said transversely extending keeper straps and adapted to be engaged by the free ends of said attaching tongues. 105

9. The invention claimed in claim 6 in combination with a spring plate located be- 110 tween the lower side of said permanent sole and said transversely extending keepers and adapted to be engaged by the free ends of said attaching tongues.

10. A shoe of the kind in which an outer sole part is detachable for renewing the tread, characterized by having, in combina- 115 tion, an upper, a permanent sole member secured thereto, a detachable wear-receiving outer sole member, a keeper strap carried directly by and extending transversely from one lateral margin to the other lateral margin of one of said sole members and pro- 120 viding for the free longitudinal bending of such sole member, an attaching tongue secured directly to the other said sole member at a medial location between the lateral margins thereof and so as to provide for the 125 longitudinal bending of such sole member, and means for preventing relative disengaging movement of said sole members.

11. A shoe of the kind in which an outer sole part is detachable for renewing the tread, characterized by having, in combination, an upper, a permanent sole member secured thereto, a detachable wear-receiving outer sole member, a plurality of independent keeper straps carried directly by and each extending transversely from one lateral margin to the other lateral margin of one of said sole members and providing for the longitudinal bending of such sole member, a plurality of independent attaching tongues detachably engageable with said keeper straps and each independently secured directly to the other said sole member along a transverse line of attachment and providing for the longitudinal bending of such sole member, and means for preventing relative disengaging movement of said sole members.
12. A shoe of the kind in which an outer sole part is detachable for renewing the tread, characterized by having, in combination, an upper, a permanent sole member secured thereto, a detachable wear-receiving outer sole member, a plurality of independent keeper straps carried directly by and each extending transversely from one lateral margin to the other lateral margin of one of said sole members, a medially arranged longitudinal series of independent attaching tongues carried directly by and projecting longitudinally from the other said sole member and adapted detachably to engage with said keeper straps upon relative lengthwise movement of said sole members, said keeper straps and attaching tongues providing for the longitudinal bending of said sole members, and means for preventing relative disengaging movement of said sole members.
13. The invention claimed in claim 12 in combination with a welt forming a marginal spacing strip above the outer margin of said outer detachable sole so as to space the central part of said outer detachable sole from the central part of said permanent sole, whereby the cooperation of said attaching tongues and said keepers will operate to form a tight joint around the margin of said outer detachable sole.
14. A shoe of the type in which detachable outer sole and heel parts provide for quick renewal of the tread, characterized by having, in combination, an upper, an inner sole, an outer marginal welt, and a permanent heel part all secured together, a detachable outer sole, a plurality of plate-like resilient attaching tongues arranged in a longitudinal series along the middle of the upper side of the outer detachable sole and secured thereto so as to project rearwardly longitudinally therefrom, a corresponding plurality of keeper-forming metal straps extending transversely at the lower side of the inner sole and forming tongue-receiving loops and at their ends secured to the margins of opposite edges of said inner sole, the ends of said straps being passed through the margins of said inner sole and then folded downward and inward over the edge thereof, a spring metal plate between said keeper-forming straps and the lower side of said insole and covering the space within said welt, a metal heel plate above and held in place by said permanent heel part, said upper heel plate being provided with metal studs which project outward through and beyond said permanent heel part, one of said outwardly projecting studs being located adjacent to and projecting through the forward margin of said permanent heel part, said permanent heel part and said upper heel plate having therein central registering apertures, and the forward margin of said permanent heel part being formed with a recess around said forward outwardly-projecting stud, the rear end of said outer detachable sole being provided with a projection adapted to fit into said recess and said projection having a hole therein fitting over said forward stud for thereby holding said outer detachable sole against forward longitudinal detaching movement, a detachable outer heel part upon the lower side of said permanent heel part and provided on its upper side with openings for the reception of said outwardly projecting studs, and a bolt passing through said registering apertures and securing said outer heel part in place upon said upper permanent heel part and whereby said detachable outer heel part locks said outer detachable sole in place.
15. A shoe of the type or kind in which the outer sole part forming the tread thereof is detachable and renewable, having, in combination, an upper, a permanent sole to which the upper is secured, transverse straps of metal forming keepers longitudinally spaced and independently secured to the margins of and extending transversely across from margin to margin at the outer side of said permanent sole, a detachable outer sole, and resilient sheet metal attaching tongues arranged in a medial longitudinal series and independently attached in spaced relation directly to and projecting longitudinally from the upper side of said detachable outer sole and being adapted to pass through above and beyond said keepers.
16. The invention claimed in claim 15 in which said attaching tongues project in a rearward direction, in combination with a hook carried by one of said attaching tongues at the upper side of the forward end of said outer detachable sole, and means carried by said permanent sole and adapted to be engaged by said hook.
17. A shoe of the type or kind in which an outer sole part forming the tread thereof is detachable for renewal, having, in combination, an upper, an insole, and an outer mar-

ginal welt all permanently secured together, transverse metallic keeper straps secured to the margins of said permanent insole and extending transversely across the space below the insole at the inside of said marginal welt, a resilient metallic backing plate within said space outlined by said marginal welt and between said keepers and the lower side of said insole, a detachable outer sole adapted to extend from the toe to the heel of the shoe, and resilient sheet metal attaching tongues rigidly secured at their forward margins to the lower side of said detachable sole and projecting rearwardly and being adapted to pass rearwardly through above and beyond said keepers for thereby firmly and resiliently securing said detachable outer sole in place upon said permanent inner sole.

18. The invention claimed in claim 17 in combination with a hook provided upon the upper side of the margin of the toe end of said detachable sole and adapted to engage over the outer forward margin of said welt.

19. The invention claimed in claim 17 in combination with a projecting stud at the heel of the shoe, the rear end of the detachable sole having a hole therein fitting over said stud for preventing forward disengaging movement of the detachable sole, a detachable heel for maintaining said detachable sole in engagement with said stud, and disengageable means for holding the detachable heel in place on the shoe.

20. A shoe of the type or kind in which an outer sole and heel part forming the tread thereof are detachable for renewal, having, in combination, an upper, an insole, and an outer marginal welt all permanently secured together, transverse metallic keeper straps secured to the margins of said permanent insole and extending transversely

across the space below the insole at the inside of said marginal welt, a detachable outer sole adapted to extend from the toe to the heel of the shoe, resilient sheet metal attaching tongues rigidly secured at their forward margins to the lower side of said detachable sole and projecting rearwardly and being adapted to pass rearwardly through above and beyond said keepers for thereby firmly and resiliently securing said detachable outer sole in place upon said permanent inner sole, a projecting stud at the heel of the shoe, the rear end of the detachable sole having a hole therein fitting over said stud for preventing forward disengaging movement of the detachable sole, a detachable heel for maintaining said detachable sole in engagement with said stud, and disengageable means for holding the detachable heel in place on the shoe.

21. A shoe of the kind in which an outer sole part is detachable for renewing the tread, characterized by having, in combination, an upper, a permanent sole secured thereto, a detachable wear-receiving outer sole, a plurality of spaced attaching devices each independently and separately secured to said permanent sole and exposed at the lower side thereof and arranged to form a medial longitudinal series, and a corresponding plurality of complementary similarly arranged attaching devices each independently and separately secured to said detachable outer sole and exposed at the upper side thereof for cooperation with the attaching devices carried by the permanent sole, whereby substantially free bending of the sole members may take place.

In testimony whereof I have affixed my signature to this specification.

SALVATORE BARBER.