July 22, 1952 J. H. EVERSTON 2,603,890

SHOE WITH SOLE STAY EXTENSION

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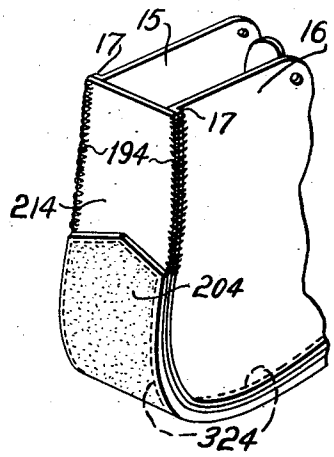
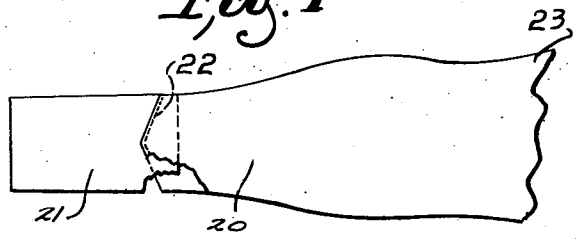


Fig. 11

Fig. 1



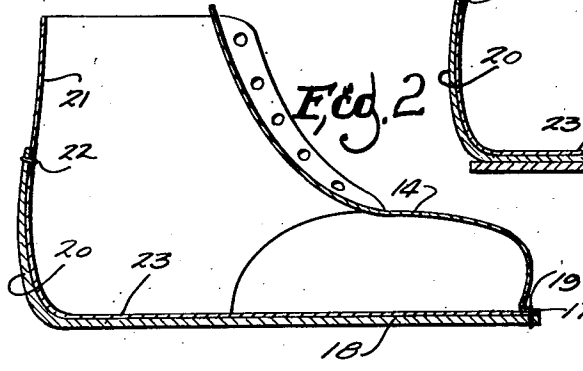


Fig. 2

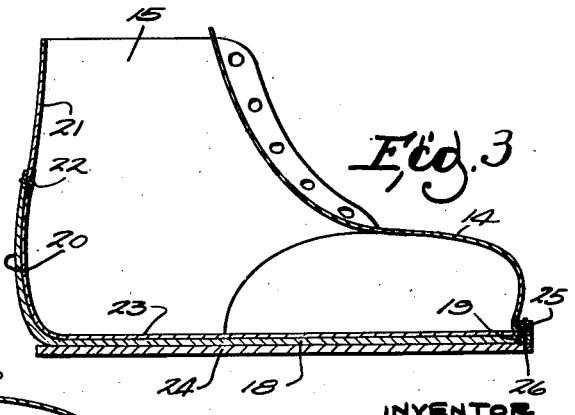


Fig. 3

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SHOE WITH SOLE STAY EXTENSION

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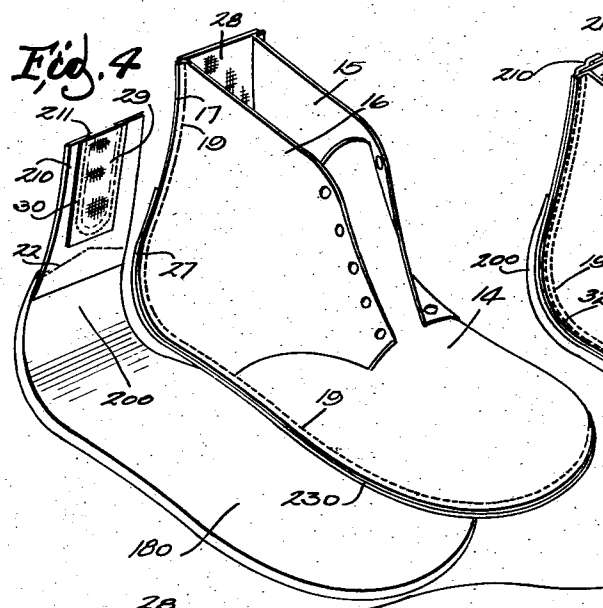


Fig. 4

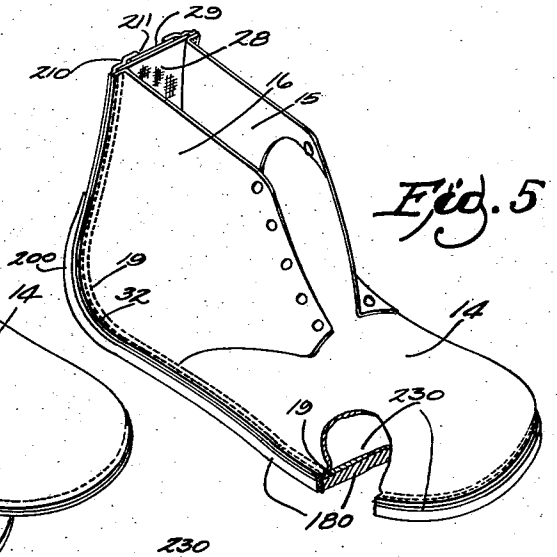


Fig. 5



Fig. 6

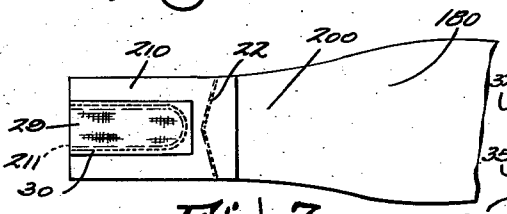


Fig. 7

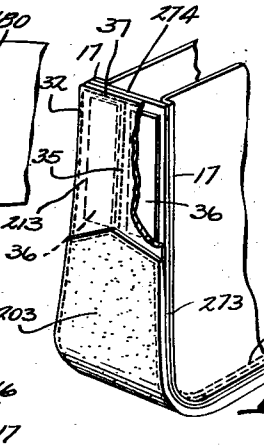


Fig. 10

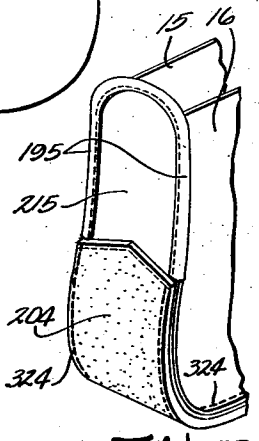


Fig. 12

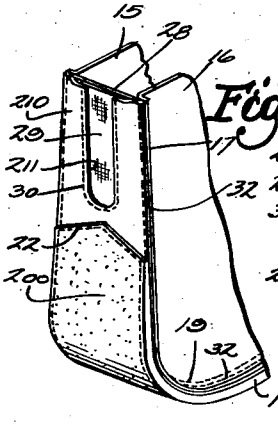


Fig. 8

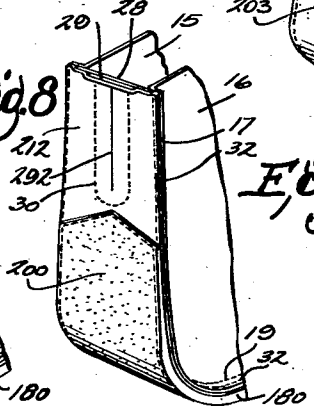


Fig. 9

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SHOE WITH SOLE STAY EXTENSION

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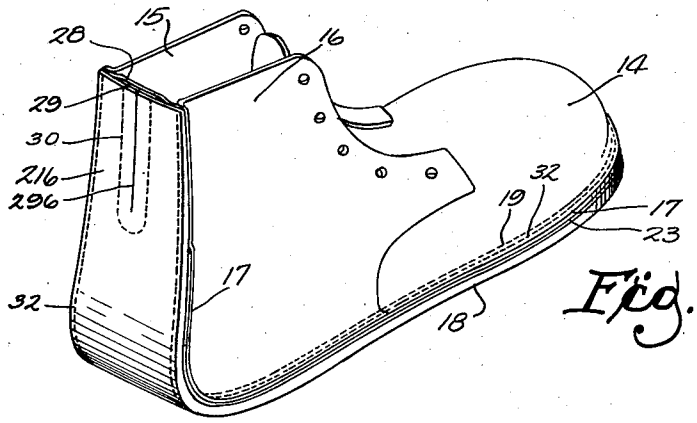


Fig. 13

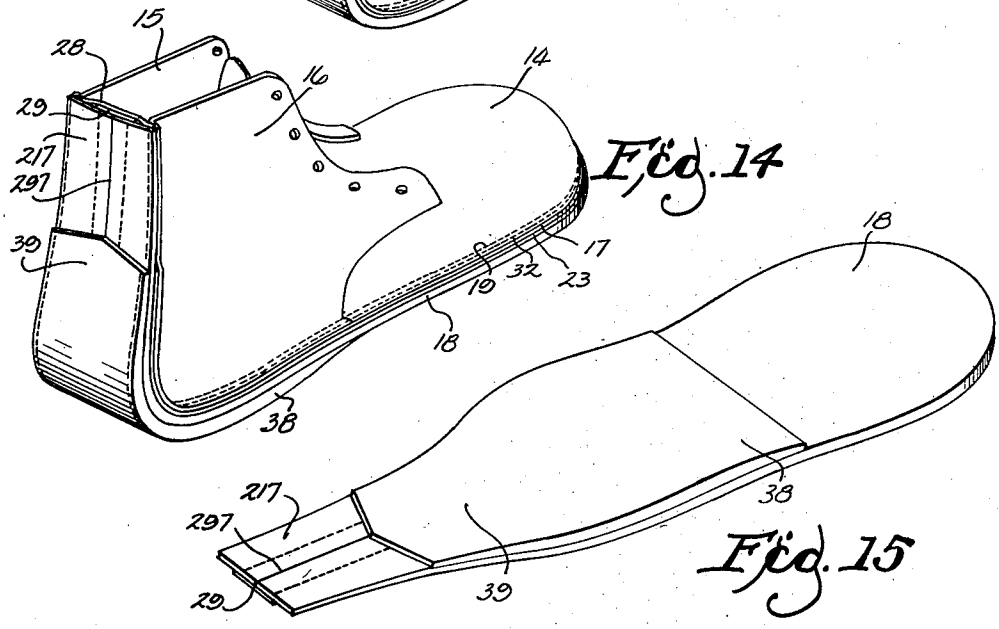


Fig. 14

Fig. 15

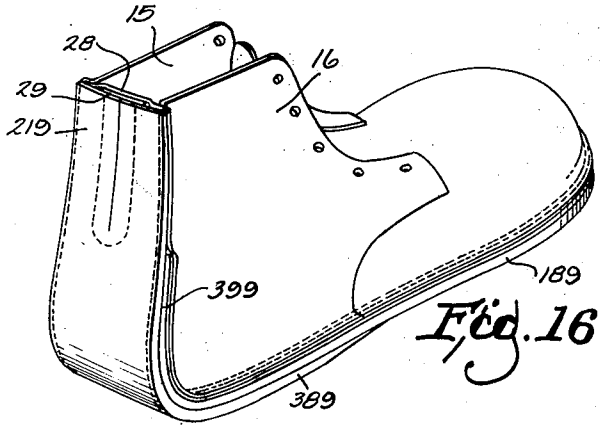


Fig. 16

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UNITED STATES PATENT OFFICE

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SHOE WITH SOLE STAY EXTENSION

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Application September 17, 1948, Serial No. 49,686

17 Claims. (Cl. 36—8.5)

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This invention relates to an improved shoe having an upward extension of the sole at the rear.

It is a primary object of the invention to provide a combination sole and stay, particularly for use in children's shoes, although not limited to such use. One advantage of the construction is to protect the fine leather of the upper from becoming scuffed or marked in use, but another and more important object of the invention is to provide support, and preferably yielding support, for the foot and ankle of the wearer. These and other objects of the invention will be more apparent from the following disclosure thereof.

The present application is a continuation in part of my application of like title, Serial No. 785,877, filed November 14, 1947, and now abandoned.

Fig. 1 is a fragmentary plan view of the combination sole and backstay unit employed in the shoe shown in Fig. 2.

Fig. 2 is a view in longitudinal section through a shoe incorporating the sole and backstay unit shown in Fig. 1.

Fig. 3 is a view in longitudinal section through a modified embodiment of my invention.

Fig. 4 is a view in front quarter perspective showing in relatively separated positions a sole and backstay unit and a partially lasted shoe to which such sole is applicable.

Fig. 5 is a view similar to Fig. 4 showing the completely assembled shoe in this embodiment of the invention, a portion thereof being broken away.

Fig. 6 is a plan view of the insole and backstay unit used in the embodiment of Figs. 4 and 5.

Fig. 7 is a fragmentary plan view of the outsole and backstay unit used in the embodiment of Figs. 4 and 5.

Fig. 8 is a fragmentary view in rear quarter perspective showing a further modified embodiment of the invention.

Fig. 9 is a view in rear quarter perspective showing a still further modified embodiment of the invention.

Fig. 10 is a view in rear quarter perspective showing another modified embodiment of the invention, portions being broken away to expose the interior construction.

Fig. 11 is a fragmentary view similar to Fig. 4 showing a modified embodiment.

Fig. 12 is a further fragmentary view similar to Fig. 4 showing a further modified embodiment.

Fig. 13 is a rear quarter view in perspective showing a further modified embodiment of the invention.

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Fig. 14 is a rear quarter view in perspective showing a further modified embodiment of the invention.

Fig. 15 is a bottom plan view of a special sole and backstay construction used in the shoe of Fig. 14.

Fig. 16 is a rear quarter view in perspective showing a further modified embodiment of the invention.

The upper, generically designated by reference character 14, may be of any construction. It may either be conventional, or may have its toe replaced by an upward extension of the sole as taught in my companion application entitled "Shoe with Sole Leather Toe," Serial No. 785,876, filed November 14, 1947, now Patent No. 2,587,300.

In any event, the upper 14 differs from standard practice in that the quarters 15 and 16 are widely spaced from each other at the rear of the shoe. The entire upper, including the upright margins at the rear of the quarters, is outwardly flanged at 17 for connection of the sole and backstay unit presently to be described.

In the construction in Figs. 1 and 2, I have shown an outsole 18 and an insole 23. Sole 18 extends in the usual manner beneath the shoe, being stitched or cemented at 19 to the outwardly turned flange 17 of the upper. At the rear of the shoe, the sole leather is carried upwardly at 20, merely covering the back of the heel, to protect the wearer from bruising and to protect the rear of the shoe from scuffing and marking such as customarily scratches, abrades, and otherwise destroys the appearance of the fine leathers in the uppers of children's shoes. At 21 I provide a backstay extension from the portion 20 of the sole 18. This extension is likewise preferably made of sole leather, although it may be somewhat thinner than that used in parts 18 and 20 of the unit. One or both of the component parts 20 and 21 are skived where they lap and are stitched together at 22. The stitching 19 which connects the sole unit with the upper is continuous about the front and sides and upwardly at the rear of the shoe for the whole length of the outwardly turned flange 17. The insole 23 preferably laps the backstay extension 21, being skived as shown in Fig. 5 and anchored by the same stitching 22 previously described.

Fig. 3 shows a construction identical with that of Fig. 2 except that a wear sole has been added beneath the bottom of outsole 18 and is anchored by a welt 25 and additional stitching at 26, which supplements that used at 19.

Figs. 4 and 9 disclose various means of introducing elasticity into the backstay. The con-

struction shown in Figs. 4 to 6 employs an insole 230 which generally corresponds to that illustrated at 23 in Figs. 1 to 3. The portion 27 of the insole is, however, continued upwardly by an elastic extension 28 to the top of the shoe, thus becoming a part of the upper and connecting the quarter portion. The upper 14 otherwise corresponds to that already described, having, in this embodiment, the outwardly turned flange 17 continuous around its margin. The stitching 19 which connects the insole and the elastic webbing 28 to the quarters is very close to the quarters in order to catch the margins of the webbing 28, which, as will be noted from Fig. 6, is preferably somewhat narrower than contiguous portions 27 of the insole so that its edge will not be exposed.

The outsole 180 corresponds generally to the outsole 18 already described and has a similar upward extension 200 at the rear of the shoe, to which the stay extension 210 is attached by stitching 22. This stay, however, has a deep notch at 211 spanned by a piece of elastic webbing or goring 29 stitched to it at 30 along all margins of the notch. With the insole already stitched in place as shown in Fig. 4, the outsole is applied and fastened, either by cementing, or by a second row of stitching at 32, the latter being preferred because it connects the outwardly turned upper flange 17 to the backstay extension 210 outside of the edge of the narow webbing 28, the relative positions of the parts being best illustrated in Fig. 11. Both pieces of webbing 28 and 29 resist separation of the quarters and the backstay elements separated by notch 211.

If desired, the opening in the backstay may be substantially concealed in the manner suggested at 212 in Fig. 9. In this construction, the backstay 212 is merely slit at 292 instead of being widely notched. However, the slit may be underlaid by the elastic goring 29 in the same manner as in Figs. 4 to 8, and the stitching 30 which secures the elastic goring 29 to the backstay 212 may be in all respects identical with that shown in Fig. 8, thus providing the same degree of elasticity but concealing the goring.

Fig. 10 shows a construction which may be used where greater stiffness is desired. In this construction the upwardly turned portion 273 of the insole has a backstay part at 274, while the upwardly turned portion 203 of the outsole has a backstay part 213. The backstay parts 274 and 213 are united by marginal stitching 32, which also connects them to the outwardly turned flange 17 of the upper. An additional central row of stitching at 35 subdivides the space between the stay parts 274 and 213 into pockets into which stiffeners 36 may be inserted from the top when the shoe is otherwise complete, the pockets being thereafter closed by a horizontal row of stitches 37 connecting the top margins of the inner and outer stay members. Similar pockets are already existent between the stay extension 210 and the elastic webbing 28 in the construction shown in Figs. 4 to 9, and may receive splints if desired.

In each of Figs. 12 and 11, the outsole portion 204, which is turned upwardly at the rear of the shoe, is secured by stitching 324 which is continuous along the margins of the shoe but terminates at the top of the sole portion 204. From that point to the top of the shoe, the backstay 214 (or 215, Fig. 12) has its margins in face contact with the outwardly turned margins 17 of the quarters 15, 16. However, instead of the type of stitching used in Fig. 4, the aligned margins are preferably somewhat concealed and covered either by an overcast stitch preferably cross-crossed as shown at 194 in Fig. 11, or by a binding 195 and row of stitching as shown in Fig. 12. Either of these arrangements may be used whether the backstay is continuous as in Fig. 4, or provided with goring as in Figs. 4 to 16, or is an upward extension of the insole as shown in Fig. 12 at 215.

Fig. 13 shows a construction which is very similar to the construction of Fig. 9 with the exception that the backstay extension 216 is integral with the outsole 18 instead of being separately fabricated and stitched thereto. Just as in the constructions previously described, the backstay extension is slit or bifurcated at 296 so that the connection of the rear margins of the quarter portions 15 and 16 of the upper is effected by means of the elastic webbing at 28. The supplemental elastic webbing at 29 is connected by stitching 30 to the backstay extensions to resist their separation, thereby supplementing the resilient action of the webbing 28.

The construction shown in Fig. 14 is identical with that of Fig. 13 except that an additional reenforcement is added to provide a heel portion 38 and an upwardly extending counter reenforcement at 39 which is external. The bottom plan view of Fig. 15 shows how the reenforcing leather comprising the heel portion 38 and the counter reenforcement 39 may be prefabricated by cementing it to the sole 18 before the sole 18 is lasted to the shoe.

In the construction shown in Fig. 16, a somewhat similar reenforcement is achieved, but is internally disposed, the counter portion 399 being integral with the outsole 189, and concealed within the elements 380 and 219 which unitarily provide a heel at 389 and a backstay extension at 219, the latter being slit as in Figs. 13 and 14, the upper being completed by one or more plies of webbing spanning the slit as previously disclosed.

In these various constructions it is very desirable that an insole be used and that the insole be attached by the stitching 19 to the outwardly turned flange 17 of the upper as a preliminary to the lasting operation whereby the stitching 32 is used to attach the sole and backstay extension. Without the preliminary connection of the insole to the upper by means of the stitching at 19 it is not possible to insert the last in a manner sufficiently secure as to provide a basis to which the machines may be used to apply to the stitching 32.

I claim:

1. In a shoe, the combination with an upper having quarter portions bodily spaced laterally and having outturned flanges, of an insole having marginal stitched connection with the flanges of the upper and having a portion extending upwardly at the rear of the shoe, the upwardly extending portion of the sole terminating well below the tops of said quarter portions, and an elastic web extending above the upwardly extending portion of said sole to the tops of the quarter portions and marginally connected to the respective quarter portions and to the upper end of the upwardly extended portion of the sole, in further combination with a wear sole element underlying the insole at the bottom of the shoe and having a back stay portion connected in substantial face contact with the upwardly extending portion of the sole first mentioned.

2. The shoe of claim 1 in which the backstay

portion aforesaid extends substantially the full height of the shoe in lapping relation to said webbing and is marginally connected with the said spaced quarter portions of the shoe and is slit intermediate its margins above the upwardly extending portion of the sole first mentioned, whereby to accommodate the yielding of said quarter portion upon the stretching of said webbing.

3. A shoe comprising an upper having quarter portions spaced apart at the rear of the shoe in combination with a band of elastic webbing having stitched connection marginally with the respective quarter portions and spanning the space therebetween, backstay means comprising laterally separable portions normally contiguous and spanning and concealing the webbing, and an outsole connected with said upper and with which said backstay means is connected.

4. A shoe comprising an upper having quarter portions spaced apart at the rear of the shoe, in combination with a band of elastic webbing having stitched connection marginally with the respective quarter portions and spanning the space therebetween, backstay means concealing the webbing, and an outsole connected with the upper and with which said backstay means is connected, said backstay means comprising integral portions of a reenforcement comprising a heel applied to said outsole, said reenforcement extending upwardly at the rear of the shoe and constituting said backstay means.

5. In a shoe comprising an upper with quarters having widely spaced margins, a combination backstay comprising a first elastic web, a second elastic web superimposed upon the first, and a bifurcated backstay strip having laterally separable parts, across the bifurcation of which said second elastic web is connected, said backstay strip having outer margins connected with the margins of the quarter.

6. In a shoe, the combination with an upper including quarter portions having outwardly turned margins widely spaced at the rear, of an insole fastened to said upper margins and having a portion extending upwardly between such margins at the rear to a height less than that of the quarter portions and provided with connection therewith, an elastically yieldable web connected with the insole and extending upwardly therefrom between the quarter portions and provided with a connection to such portions to constitute a part of said upper, an outsole having means connecting it beneath the insole, and a stay comprising laterally separable parts extending upwardly from the outsole and individually connected with such margins behind the elastic web aforesaid.

7. In a shoe, the combination with an upper including quarter portions widely spaced at the rear, of an insole fastened to the margins of the upper and having a portion extending upwardly between such margins at the rear of the shoe and connected with said quarter portions, an elastically yieldable web connected with the insole and extending upwardly therefrom between the quarter portions and connected thereto to constitute a part of the upper, an outsole connected beneath the insole, a stay comprising laterally separable parts extending upwardly from the outsole and individually connected with said quarter portions behind the elastic web aforesaid, in further combination with a second elastically yieldable web spanning the bifurcation of said backstay and connected with the said laterally yieldable parts thereof.

8. In a shoe of the character described, the combination with an outsole having a portion upturned at the rear of the shoe, of a backstay having a portion lapping the said upturned outsole portion and extending substantially to the top of the shoe, an upper having outturned rear marginal portions aligned edge to edge with the said upturned outsole portion and the backstay, an insole having margins interposed between the said upturned outsole portion and the said portions of the upper, the margins of the insole, the outsole and the upper being in substantial registration, stitching connecting the edge portions of the upper through the insole with the edge portions of the outsole, and separate stitching connecting the edge portions of the upper with the margins of the insole.

9. The combination set forth in claim 6 in which the backstay is secured by separate stitching comprising an overcast stitching extending across the aligned edges of the backstay and upper.

10. In a shoe having an outsole upwardly turned at the rear and an upper comprising quarters in connection with the outsole and extending thereabove in spaced relationship and provided with an elastic web connecting said quarter portions above the upwardly turned outsole, and a member unitarily providing a heel beneath the outsole, and a backstay extension behind the upwardly turned portion of the outsole and in marginal stitched connection with said quarter portions behind said web, said extension comprising laterally separable parts.

11. A shoe comprising an upper having quarter portions spaced apart at the rear of the shoe, in combination with a band of elastic webbing having stitched connection marginally with the respective quarter portions and spanning the space therebetween, backstay means concealing the webbing and comprising laterally separable parts respectively connected with respective quarter portions, and an outsole connected with said upper and with which said stay parts are connected, said stay means comprising integral portions of a reenforcement comprising a heel applied to said outsole, said reenforcement extending upwardly at the rear of the shoe and provided with said separable extensions.

12. In a shoe, the combination with an upper having an outwardly turned flange and including rear quarters, of an outsole marginally connected with said flange and a heel provided with means connecting it beneath the outsole at the rear of the shoe, said heel having a backstay extending upwardly about the rear of the outsole and having stitching connecting it with said quarters.

13. In a shoe, the combination with an upper having quarter portions bodily spaced laterally throughout their height and having outturned flanges, of a sole having marginal stitched connection with the flanges of the upper and having a portion extending upwardly at the rear of the shoe, the upwardly extending portion of the sole terminating well below the tops of said quarter portions, an elastic web extending above the upwardly extending portion of the sole to the tops of the quarter portions and marginally connected to the said quarter portion flanges to provide a connection therebetween above the upwardly extended portion of the sole, a wear sole connected beneath the sole first mentioned and having a portion extending upwardly at the rear of the shoe and in marginal connection with said

flanges, and a bifurcated stay projecting upwardly from one of said sole extensions and comprising mutually separable portions lying behind said web and individually connected with the respective margins of said quarter portions.

14. The shoe of claim 13 in which the mutually separable portions of said backstay have normally contiguous inner margins separable upon the expansion of said webbing.

15. The shoe of claim 13 in which the said bifurcated backstay is integral with the wear sole extension.

16. The shoe of claim 13 in which the said bifurcated backstay laps the wear sole extension and has an integral heel underlying the wear sole and connected therewith.

17. The shoe of claim 13 in which an additional elastic web lies between the bifurcated backstay and the web first mentioned and is connected to the separable portions of the bifurcated backstay across the bifurcation thereof.

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