

March 23, 1937.

A. FESL

2,074,579

SHOE STRUCTURE

Filed May 20, 1936

Fig. 1.

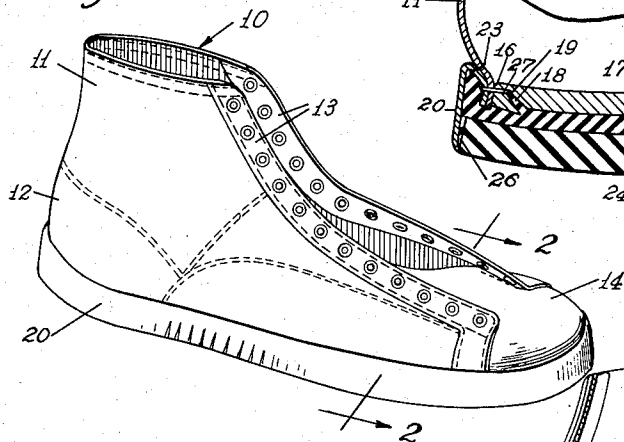


Fig. 2.

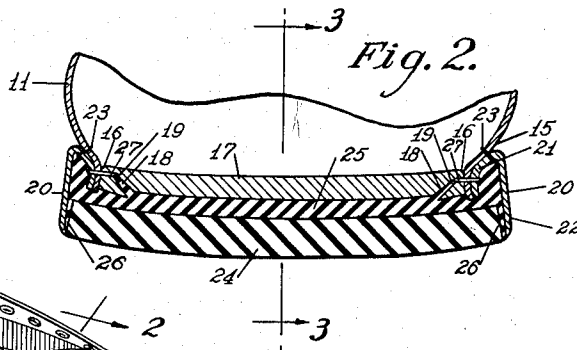


Fig. 3.

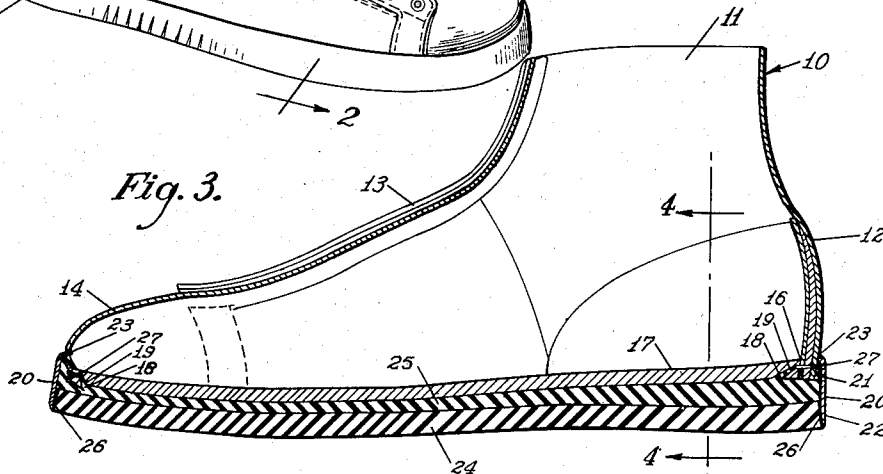


Fig. 5.

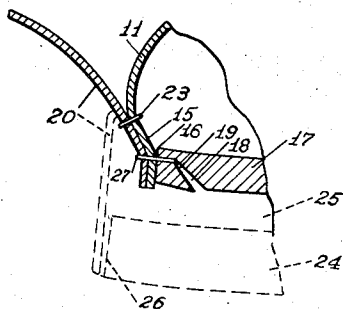
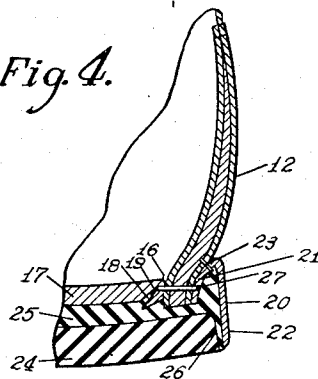


Fig. 4.



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UNITED STATES PATENT OFFICE

2,074,579

SHOE STRUCTURE

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Application May 20, 1936, Serial No. 80,681

9 Claims. (Cl. 36-14)

This invention relates to certain novel improvements in a shoe structure, particularly adapted for use by athletes, and has for its principal object the provision of an improved construction of this character which will be highly efficient in use and economical in manufacture.

It is one of the objects of this invention to provide an athlete's shoe of superior wearing qualities that can be made more quickly and more cheaply than shoes heretofore produced prior to my invention.

A still further object of the invention is the provision of a shoe of this character constructed in a manner such that will afford the necessary flexibility without danger of cracking or of weakening the union between the several parts of the shoe construction.

Other objects will appear hereinafter.

The invention consists in the novel combination and arrangement of parts to be hereinafter described and claimed.

The invention will be best understood by reference to the accompanying drawing showing the preferred form of construction, and in which:

Fig. 1 is a perspective view of the shoe structure embodying my invention;

Fig. 2 is a fragmentary sectional detail view of the same taken substantially on line 2-2 of Fig. 1;

Fig. 3 is a sectional detail view of the same taken substantially on line 3-3 of Fig. 2;

Fig. 4 is a sectional detail view of the same taken substantially on line 4-4 of Fig. 3; and

Fig. 5 is a fragmentary sectional detail view of the same illustrating certain parts in disassembled position.

Referring now more particularly to the drawing, wherein the preferred form of construction of my invention is illustrated, 10 indicates a shoe comprising an upper 11 having a heel portion 12, lacing strips 13, and a toe or vamp portion 14. The upper end of the vamp or toe portion together with the heel portion 12 may be formed preferably, though not necessarily, from one piece of material with the necessary lacing strips 13 provided along the lacing edge portions of the upper 11.

The edge portions 15 of the upper are disposed against the edge portions 16 of an insole 17 preferably formed of leather. This insole 17 is provided with a continuous scoring or channel 18 which extends around the underside of the insole adjacent the edge thereof and which is adapted to facilitate sewing by providing an anchorage for the thread 27 in its bottom region 19.

A foxing is indicated at 20, and this foxing includes an elongated strip of material folded upon itself to provide an inner portion 21 and an outer facing 22. The inner portion 21 is disposed against the edge portion 15 of the upper 11 and is secured thereto by means of stitching 23 or the like.

An outer sole is indicated at 24, and this outer sole 24 is preferably formed of such material as is suitable for the intended purpose of the shoe. Disposed between the inner sole 17 and the outer sole 24 is an insert 25 of crepe rubber, with portions of this crepe rubber confined in the channels provided by the scoring 18. The edge portions of this insert are disposed between the inner and outer portions of the foxing 20, with portions of the insert confined between the outer portion 22 and the edge portion 26 of the outer sole 24, with the parts comprising the sole structure adhesively secured together in a manner well known in the art.

The inner portion of the foxing together with the edge portions 15 of the upper 11 are preferably secured to the inner sole 17 by means of stitches 27 or the like which extend into the channeled part 18 of the insole as aforesaid.

I have found that a shoe constructed in accordance with the invention herein disclosed has superior wearing qualities and can be more quickly and more cheaply constructed than shoes of this character which have preceded my invention. I have also found from actual experience that the possibilities of the several parts becoming disconnected or disjointed are reduced to a minimum, and that the construction affords a great degree of flexibility, thereby lessening the weakening of the joinder of the several parts of the shoe, while at the same time assuring comfort to the wearer during movements of the foot requiring the flexing of the shoe during those movements.

It is intended that the insert 25 be of a uniform thickness exclusive of the edgewise parts thereof which extend upwardly. However, if desired, the insert may gradually increase in thickness in its direction toward the heel portion of the shoe. Any number of rows of stitches may be employed for the intended purpose, and there may be one or more rows of channels or scorings to provide additional pockets or grooves for the crepe rubber.

While I have illustrated and described the preferred form of construction for carrying my invention into effect, this is capable of variation and modification without departing from the spirit of the invention. I, therefore, do not wish to be limited to the precise details of construction set

forth, but desire to avail myself of such variations and modifications as come within the scope of the appended claims.

Having thus described my invention, what I claim as new and desire to protect by Letters Patent is:

1. A shoe of the class described comprising an insole, an upper having edge portions disposed against the edge portion of the insole, an elastic covering on the outer side of the insole and the insole having grooves formed therein to provide sockets receiving portions of said elastic covering, a foxing having a longitudinal portion disposed against the said edge portions of the upper and folded back upon itself to provide a socket receiving the edge portions of the elastic covering, and means connecting the foxing to the upper and to the insole, said insole, elastic covering, and outer sole being further secured together by an adhesive agent.

2. A shoe of the class described comprising an insole, an upper having edge portions disposed against the edge portion of the insole, an elastic covering on the outer side of the insole and the insole having scoring formed therein to provide sockets receiving portions of said elastic covering, an outer sole disposed against the elastic covering, a foxing having a longitudinal portion disposed against the said edge portions of the upper and folded back upon itself to provide a socket receiving the edge portions of the elastic covering, and means connecting the foxing to the upper and to the insole, portions of said elastic covering being disposed between the edge portions of the outer sole and adjacent portions of the foxing, the said insole, elastic covering, and outer sole being adhesively joined in their assembled relation as aforesaid.

3. A shoe of the class described comprising an insole, an upper having edge portions disposed against the edge portion of the insole, an elastic covering on the outer side of the insole and the insole having channeling formed therein and receiving portions of said elastic covering, an outer sole disposed against the elastic covering, a foxing having a longitudinal portion disposed against the said edge portions of the upper and folded back upon itself to provide a socket receiving the edge portions of the elastic covering, and means connecting the foxing to the upper and to the insole, said elastic covering covering the entire outer area of the insole and being adhesively secured thereto and gradually increasing in thickness in its direction toward the heel portion of the said shoe, said outer sole being adhesively joined to said elastic covering.

4. A shoe of the class described comprising an insole, an upper having edge portions disposed against the edge portion of the insole, an elastic covering the outer side of the insole and the insole having grooves formed therein to provide sockets receiving portions of said elastic covering, an outer sole disposed against the elastic covering, a foxing having a longitudinal portion disposed against the said edge portions of the upper and folded back upon itself to provide a socket receiving the edge portions of the elastic cover-

ing, and means connecting the foxing to the upper and to the insole, together with means securing said insole, elastic covering, and outer sole together in their aforesaid relationship, portions of said elastic covering being disposed between the edge portions of the outer sole and adjacent portions of the foxing, said elastic covering covering the entire outer area of the insole and gradually increasing in thickness in its direction toward the heel portion of the said shoe.

5. A shoe structure comprising an insole having grooves formed on the outer side thereof, an outer sole, an elastic member between the inner and outer sole with portions thereof wedged into said grooves, an upper having its edge portions disposed against the edge portions of the insole, a foxing folded upon itself to provide a socket receiving portions of said elastic member, and means connecting the foxing to the upper together with means securing said insole and said outer sole to said elastic member.

6. A shoe structure comprising an insole having grooves formed on the outer side thereof, an outer sole, and an elastic member between and secured to the inner and outer sole with portions thereof wedged into said grooves, the said elastic member substantially covering the entire area of the insole and being of a greater thickness at the heel portion of the insole than at the toe portion thereof.

7. A shoe structure comprising an insole having grooves formed on the outer side thereof, an outer sole, an elastic member between and adhesively secured to the inner and outer sole with portions thereof wedged into said grooves, an upper having its edge portions disposed against the edge portions of the insole, a foxing folded upon itself to provide a socket receiving portions of said elastic member, and means connecting the foxing to the upper, the said elastic member substantially covering the entire area of the insole and being of a greater thickness at the heel portion of the insole than at the toe portion thereof.

8. An athlete's shoe comprising an upper, an insole having channeling formed therein, a covering of crepe rubber secured on the outer surface of the insole with portions of the covering confined in the channeling, a foxing folded to provide a socket receiving portions of the covering, an outer sole disposed over and secured to the covering, the edge portion of said foxing being disposed along the edge portion of the outer sole and there being portions of the covering confined between said foxing and said outer sole, and means connecting the foxing and the upper to the insole.

9. An athlete's shoe comprising an insole, an upper having edge portions engaging the edge portions of the insole, an outer sole, a foxing folded upon itself to provide a socket, and an insert of crepe rubber between the inner sole and the outer sole with portions thereof disposed between the edges of the inner and the outer sole and the foxing, and means connecting the foxing to the inner sole, said insole and outer sole being adhesively secured to said insert.

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