Sept. 13, 1966 G. R. HARTPENCE 3,271,886

AUXILIARY SHOE SOLE

Filed June 16, 1965

Fig. 1

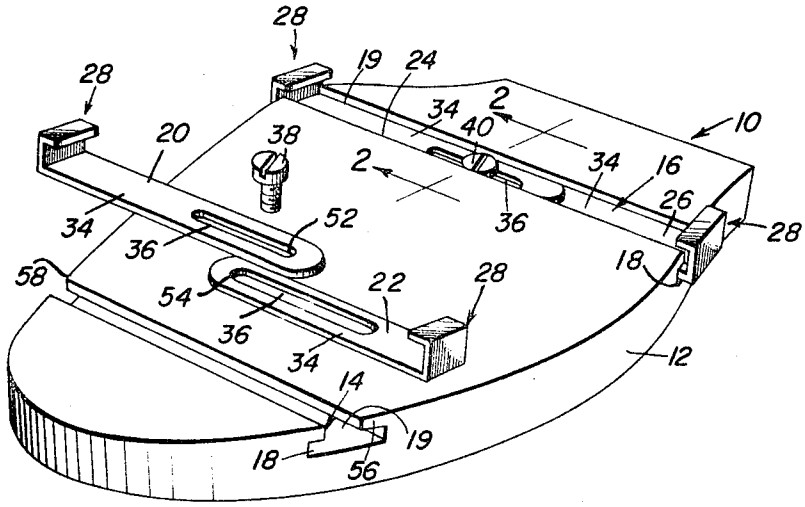


Fig. 2

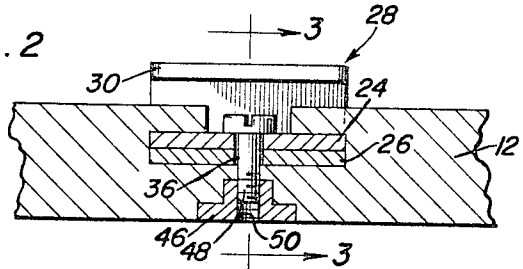
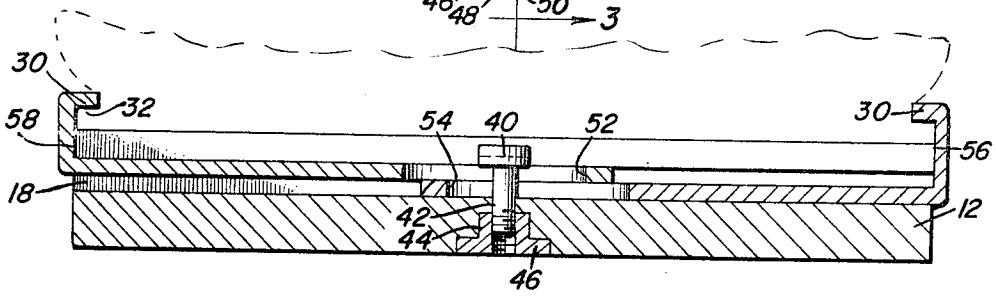


Fig. 3



Glenn R. Hartpence

INVENTOR.

BY Clarence A. O'Brien and Harvey B. Jacobson

Attorneys

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AUXILIARY SHOE SOLE

Glenn R. Hartpence, 8 W. Crest Ave., Winter Garden, Fla.

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This invention relates to auxiliary soles for shoes and more specifically to auxiliary soles adapted for mounting on bowling shoes, or the like.

It is an object of the present invention to provide auxiliary soles which are useful to protect the bottom of specialty shoes such as bowling shoes, or the like.

It is another object of the present invention to provide auxiliary soles adapted for adjustable fit on all sizes and styles of shoes.

It is a further object of the present invention to provide adjustable auxiliary soles for shoes which can be adjusted for fit and then fixed at the desired adjusted size.

It is another object of the present invention to provide an auxiliary shoe sole which is simple to use, inexpensive to manufacture and which can be fabricated from readily available materials.

These together with other objects and advantages which will become subsequently apparent reside in the details of construction and operation as more fully hereinafter described and claimed, reference being had to the accompanying drawings forming a part hereof, wherein like numerals refer to like parts throughout, and in which:

FIGURE 1 is a perspective view of the auxiliary shoe sole comprising the present invention with parts exploded therefrom;

FIGURE 2 is an enlarged partial cross-sectional view taken substantially along the plane of the line 2—2 of FIGURE 1; and

FIGURE 3 is a cross-sectional view taken substantially along the plane of the line 3—3 of FIGURE 2.

Referring now more particularly to the drawings, reference numeral **10** refers to the auxiliary shoe sole comprising the present invention. The shoe sole **10** consists of a bottom member **12** which may be made of leather, neoprene or other well-known synthetic materials. The bottom member is adapted to be slipped on over specialty shoes such as bowling shoes or the like in order to protect the bottom sliding surface of the bowling shoe from foreign substances such as moisture or other objects which would mar the surface and impair the slidability thereof.

The bottom member **12** has first and second T-shaped slots **14** and **16** extending across the upper surface thereof. The slots are substantially parallel and include an enlarged T-portion **18** and narrow upper portion **19**. Mounted in the slot **14** in order to provide a clamping attachment for the toe area of the user's shoes, are clamping members **20** and **22**. Mounted in the slot **16** in order to provide a clamping attachment for the instep portion of the user's shoes are clamping members **24** and **26**. These clamping members are substantially identical and include U-shaped jaws **28** at the outer end thereof. The jaws **28** include gripping portions **30** which grip the upper part of the sole of the user's shoe **32** when the shoe sole device **10** is in place.

The clamping members **20, 22, 24** and **26** have elongate portions **34** which extend into the T-portion **18** of the slots **14** and **16**. The elongate portions **34** are slidable in the slots **14** and **16**, thus providing for adjustment of the jaws **28** in order to provide an adjustable fit for the device **10** on different sized shoes. The elongate portion **34** of each clamping member includes an elongate slot **36** therein. The members **20** and **22** and the members **24** and **26** are positioned in the slots **14** and **16** so that member **20** overlies member **22** and member **24** overlies member **26** whereby the elongated slots **36** are in overlying relationship. A releasable securing means is provided for the clamping members **20, 22, 24** and **26** in the form of conventional bolts **38** and **40** which extend through the overlying elongated slots **36** and into openings **42** in the bottom member **12**. The openings **42** are substantially in the transverse center of the bottom member **12** and extend therethrough. The bottom portion **44** of each opening **42** is enlarged and has a nut **46** seated therein. The bolts **38** and **40** are provided with a threaded portion **48**, and the nuts **46** are provided with a corresponding threaded portion **50**. Thus, it may be seen that the bolts **38** and **40** may be tightened down against the clamping members after the clamping members have been slid along slots **14** and **16** to a desired position, thereby clamping the members in place. The limits of adjustment of the clamping members, for example members **20** and **22**, are defined by the ends **52** and **54** of the slots **36** which abut the bolt member **38** when the members **20** and **22** are extended longitudinally outwardly of the slot **14**. The inside limits of the members **20** and **22** are the sides **56** and **58** of the bottom member **12** which abut the inside of the U-shaped members **28** when the members are moved longitudinally inwardly.

The clamping members **20** and **22** which are slidably mounted in the slot **14** are preferably of a relatively inflexible material such as steel, and the clamping members **24** and **26** are preferably of a relatively flexibly resilient material such as spring steel or any well-known plastic material. Thus, after each of the clamping members have been adjusted for any particular shoe and fixed in relation to the bottom member **12** by tightening the bolts **38** and **40** thereagainst, the shoe sole device **10** may be attached to the shoe by slipping the toe of the shoe into the front jaws **28** and flexing the back jaws outwardly, pushing the bottom member **12** up against the sole of the shoe and releasing the back jaw members **28** over the edges of the shoe sole.

Thus, it may be seen that the auxiliary shoe sole device **10** will enable a bowler to wear his bowling shoes to and from bowling lanes without fear of marring or otherwise impairing the bottom sliding surface of his shoes, and quickly remove the auxiliary shoe soles by flexing the back jaw members **28** outwardly and sliding the auxiliary shoe soles off of the bowling shoes. This eliminates the necessity for changing shoes at the bowling lane thereby eliminating the possibility of the bowler losing his regular shoes which are normally left indiscriminately about the bowling lane. Further, the use of this auxiliary shoe sole device prevents the possibility of falling due to the bottom of the bowling shoes being covered with moisture or other foreign substances. Further, once adjusted and fixed in position, this device will slip on or off easily with urging by the user, while at the same time it will not fall off accidentally.

The foregoing is considered as illustrative only of the principles of the invention. Further, since numerous modifications and changes will readily occur to those skilled in the art, it is not desired to limit the invention to the exact construction and operation shown and described, and accordingly all suitable modifications and equivalents may be resorted to, falling within the scope of the invention as claimed.

What is claimed as new is as follows:

1. An auxiliary shoe sole comprising a bottom member shaped substantially in the shape of a shoe bottom, clamp means slidably mounted within said bottom member, said clamp means provided with adjusting means, releasable securing means operably connected to said adjusting means for releasably securing said adjusting means whereby said clamp means can be adjusted for various size shoe bottoms and fixed when so adjusted, said clamp means comprising a first pair of U-shaped inwardly open-

ing jaws mounted at opposite sides of said bottom member, and a second pair of U-shaped inwardly opening jaws mounted at opposite sides of said bottom member rearwardly of said first pair, said jaws extending upwardly and outwardly from said bottom member, said bottom member including first and second substantially parallel T-shaped slots extending transversely thereof, each of said first pair of U-shaped jaws having an elongate portion slidably mounted in the T-portion of said first slots, each of said second pair of U-shaped jaws having an elongate portion slidably mounted in the T-portion of said second slot, and one of said elongate portions of each pair positioned in overlying relationship with said other elongate portion of said pair, whereby said pairs of jaws are slidably movable in response to sliding of said elongate portions of said slots.

2. The apparatus of claim 1 wherein said adjusting means comprises elongate slots in said elongate portions and said securing means comprises screw means fitting through said elongate slots and adapted to fixedly secure said elongate portions within said T-shaped slot.

3. A detachable shoe sole comprising a bottom member shaped substantially like a shoe bottom, said member including first and second parallel T-shaped slots extending across the top portion thereof, two clamp members slidingly received in the T-portion of each said slot, each said clamp member having an elongate slot in a first end thereof, and a U-shaped inwardly opening jaw at the other end thereof, said jaws extending outwardly of said T-shaped slots whereby said jaws are adapted to clamp on the shoe bottoms thereby holding said detachable sole thereon.

4. The apparatus of claim 3 further including screw means extending through the elongate slot of each said clamp member received in each T-shaped slot, said screw means adapted for selective tightening whereby said clamp members may be adjusted in said T-shaped slot for fixed position therein.

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JORDAN FRANKLIN, *Primary Examiner.*

PATRICK D. LAWSON, *Examiner.*