Feb. 19, 1935. I. S. KOCHHEISER 1,991,947

SHOE HARBOR

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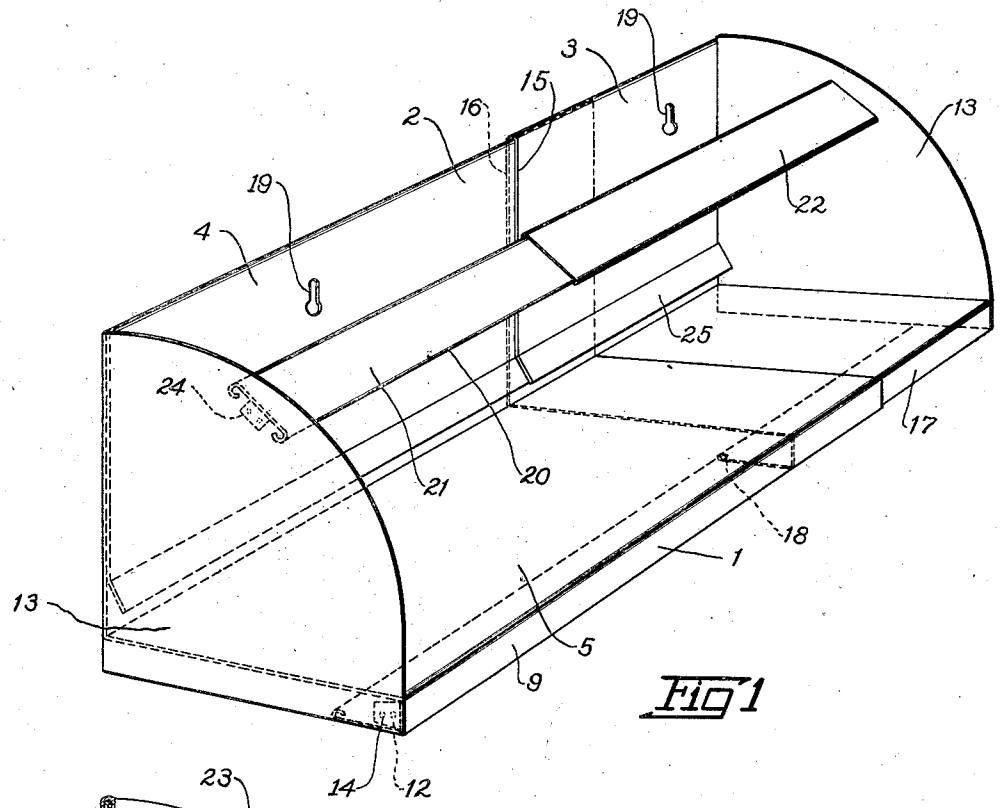



FIG 1

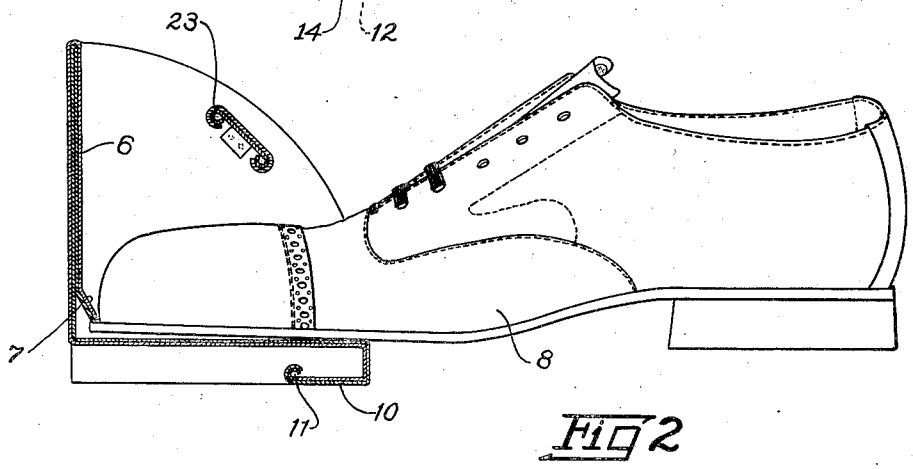



FIG 2

INVENTOR.
Ira S. Kochheiser.
BY Slaugh and Canfield
ATTORNEY.

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## SHOE HARBOR

Ira S. Kochheiser, Mansfield, Ohio

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13 Claims. (Cl. 211—35)

This invention relates to shoe harbors, and more particularly to a shoe harbor which performs the dual function of maintaining a shoe sole in non-curved condition and at the same time provides a compact storage unit therefor.

Heretofore various types of shoe harbors have been employed wherein means have been employed to prevent curling of the shoe which ordinarily results as the shoe becomes relatively dry after use. However, the majority of these were relatively expensive, required a separate unit for each shoe, and involved a relatively large amount of time to properly adjust.

I have devised a novel type of shoe harbor of variable size which is adapted to provide a storage medium for shoes and at the same time maintain them in their normal or non-curling condition. The shoes are quickly and easily inserted within the harbor and removed therefrom and the weight of the shoe is utilized to prevent curling of the shoe adjacent the toe portion.

It is an object of my invention therefore, to provide an improved shoe harbor adapted to maintain shoes in their normal position.

Another object of my invention is to provide a shoe harbor adapted to maintain shoes in their normal condition and which is adjustable to accommodate a relatively greater or less number of shoes as desired.

Another object of my invention is to provide a shoe harbor wherein shoes may be quickly and easily inserted and removed.

Another object of my invention is to provide an improved shoe harbor which is relatively inexpensive to manufacture and may be easily secured to a supporting wall or the like.

Another object of my invention is to provide an improved shoe harbor which is susceptible of manufacture by a relatively inexpensive stamping and welding operation.

Another object of my invention is to provide an improved shoe harbor adapted to have shoes easily inserted and removed therefrom and provided with means preventing accidental displacement of the shoe from the harbor.

These and other objects of the invention will become increasingly apparent from a consideration of the following description and drawing, wherein like reference characters refer to like parts and in which:—

Fig. 1 is a perspective view of a preferred embodiment of my invention; and

Fig. 2 is a transverse sectional view of the embodiment illustrated in Fig. 1 showing a shoe secured therein.

Referring to the drawing, the shoe harbor, generally indicated at 1 and preferably formed of sheet metal, comprises the telescopically engageable sections 2 and 3 adapted to be moved as required to relatively lengthen or shorten the length of the harbor. The section 2 preferably has the back 4 and the base 5 thereof formed of a single piece of sheet metal flanged back on itself along the back as indicated at 6 and flared outwardly adjacent the base as indicated at 7 to provide a means of engaging the peripheral toe portion of the sole of a shoe 8.

The base 5 is provided with a relatively narrow front vertical face 9 by bending down a portion of the metal generally at right angles to the base and bent backwardly as indicated at 10 in a direction generally parallel to the base. The terminus of this portion is curved as indicated at 11, thus providing a bead which maintains the two relatively telescopable sections 3 and 4 in alignment and is adapted to internally engage a similar bead provided on section 3.

The face 9 is preferably provided with an ear 12 which is flanged over in a direction generally at right angles thereto to provide a means of securing a preferably sheet metal end 13 to the base 5.

The end 13, generally quadrant shape, is secured to the back 4 and the base 5 preferably by welding to the ear 12 as indicated at 14 and along the engaging ends of the back 4 and the base 5. Although I preferably secure the end 13 by welding, it is understood that riveting or any suitable means may be employed.

The section 3 is generally similar to the section 2 with the exception that the flange 15 is spaced a sufficient distance from the back 16 to slidingly accommodate the back 4 of section 2, and the generally U-shaped frontal portion of the base indicated at 17 is relatively smaller than a similar portion of the section 2 whereby it may slidingly engage the inner surfaces of the aforesaid portion.

As previously mentioned, a bead 18 formed at the terminus of the U-shaped portion 17 of section 3 is adapted to telescopically engage the interior of the bead 11 formed on a similar portion of the section 2 and thereby maintain the sections 2 and 3 in proper alignment so that there will be no tendency to bind when relatively moving the sections.

An end 13, previously described, is secured to the section 3 preferably by welding in a manner hereinbefore mentioned. Thus the shoe harbor is open at the front and top whereby shoes may

be easily inserted or withdrawn therefrom. It is understood that the flange 15 is flared outwardly as indicated at 25 to provide a means for retaining shoes disposed in the section 3 of the shoe harbor.

The harbor is preferably affixed to a vertical wall or the like and to this end slots 19 are provided adapted to have supporting screws projected therethrough to suspend the harbor as desired. Although I preferably suspend the harbor by means of the aforementioned screws, it is understood that any suitable means may be employed such as supporting on a horizontal surface if desire.

The shoes are disposed in the harbor and are retained therein by the upper peripheral toe portion of the sole being engaged by portion 7 of the back 4, the shoe pivoting about a point substantially centrally of the sole of the shoe. It is desirable that the major portion of the shoe extend outwardly from the face 9 of the harbor so that a relatively large leverage action will be exerted thus counter-balancing any tendency of the toe portion of the shoe to curl. The leverage action exerted by the shoe also insures that the portion 7 engaging the sole will exert sufficient pressure thereagainst to prevent disengagement of the shoe. However, in the event that the shoe should become disengaged, I provide a rail generally indicated at 20 adapted to engage the upper portion of the shoe as it fulcrums about the edge of the base and thus prevent the shoe from being dislodged from the harbor.

The rail 20 comprises two relatively telescopable strips 21 and 22, generally rectangular in shape and having the edges flared to form beads as indicated at 23. The ends of the strips are preferably provided with ears 24 flanged generally at right angles thereto whereby the strips may be secured to the end 13 in any suitable manner such as welding. The rail 20, in addition to serving as a means for preventing dislodgment of the shoes in the harbor, acts as an additional alignment means preventing binding of the interengaged sections.

Although I have shown and described a preferred embodiment of my invention, I contemplate that numerous and extensive departures may be made therefrom without departing from the spirit of my invention and the scope of the appended claims.

Having thus described my invention, what I claim is:—

1. A shoe harbor comprising a generally horizontal support upon which the flexing portion of a shoe sole rearwardly of the toe may rest and on which the shoe may tend to rock downwardly by gravity, and an abutment disposed in generally horizontal spaced relation to and inclined generally downwardly toward the support for engaging a forward portion of the shoe sole to prevent said rocking, and to cause the action of gravity on portions of the shoe rearwardly of the support to effect a slight bending effort on the sole to maintain the shoe sole and adjacent upper portions of the shoe in normal form.

2. In a combined shoe harbor and shoe straightener, a generally horizontal fulcrum element upon which the flexing portion of the sole of a shoe may rest and around which fulcrum rearward portions of the shoe may tend to rock downwardly by gravity, and an abutment above and in generally horizontally spaced relation to the fulcrum and inclined downwardly toward the fulcrum adapted to be engaged by a toe portion of the shoe to oppose said gravity effected rocking and cause the shoe to be supported on the fulcrum to maintain the shoe in normal form.

3. A shoe harbor and shoe straightener as described in claim 2 and in which the fulcrum element comprises a portion of a frame and the abutment is supported in a predetermined relative position on the frame.

4. A combined shoe harbor and shoe straightener as described in claim 2 and in which the fulcrum element and abutment are elongated and generally parallel whereby to accommodate a plurality of shoes side by side on the fulcrum element.

5. In a combined shoe harbor and straightener, a base upon which a forward portion of a shoe sole may be rested and having a fulcrum around which rearward portions of the shoe may tend to rock downwardly by gravity, and a ledge overhanging the base and adapted to be engaged by a toe portion of the shoe substantially to prevent rocking and to cause the said effect of gravity to exert a slight reverse bending effort on the sole.

6. A shoe harbor as described in claim 1 and in which a second abutment is disposed above the support with its axis lying in a vertical plane intermediate the first abutment and the support, for engagement with a toe portion upon displacement of the said toe portion from the first abutment and upon the occurrence of consequent rocking movement to retain the shoe on the support.

7. A combined shoe harbor and shoe straightener as described in claim 2 and in which a second abutment is disposed above and intermediate the fulcrum element and first abutment and adapted to be engaged by a toe portion of the shoe when the first mentioned toe portion is displaced from the first abutment, to prevent rocking of the shoe on the fulcrum element beyond a predetermined amount and to prevent the shoe from falling by gravity from the fulcrum element.

8. A combined shoe harbor and shoe straightener as described in claim 2 and in which the fulcrum element and the abutment are elongated longitudinally and normally generally horizontally to accommodate a plurality of shoes disposed side by side on the fulcrum element and a second elongated abutment generally parallel to the fulcrum element is disposed thereabove and intermediate the fulcrum and the first abutment to be engaged by toe portions of one or more of the shoes when displaced from the first abutment to prevent falling of the shoes by gravity from the fulcrum element and to retain them thereon.

9. A combined shoe harbor and straightener as described in claim 5 and in which an abutment is disposed above the base and intermediate the fulcrum and the ledge upon which toe portions of the shoe may lodge if the toe portions engaged with the ledge become disengaged therefrom, to prevent the shoe falling by gravity from the base.

10. In a combined shoe harbor and straightener, a frame comprising longitudinally extending front and rear generally horizontal spaced rail portions relatively disposed so that the tip of the front rail portion is inclined downwardly toward the rear rail portion whereby a shoe supported by its sole upon the front rail portion may engage said tip by a toe portion of the shoe, to prevent downward rocking of rearward portions of the shoe by gravity around the rear rail portion, and to exert a slight reverse bending effort on the sole, the rail portions being sufficiently long to accommodate a plurality of shoes disposed thereon side by side.

11. In a combined shoe harbor and straightener, a frame comprising longitudinally extending front and rear normally horizontal spaced rail portions relatively disposed so that a shoe supported by its sole upon the front rail portion may engage the rear rail portion by a toe portion of the shoe, to prevent downward rocking of rearward portions of the shoe by gravity around the front rail portion, and to exert a slight reverse bending effort on the sole, the rail portions being sufficiently long to accommodate a plurality of shoes disposed thereon side by side, and the rail portions being longitudinally telescopical to change the length thereof to accommodate different numbers of shoes disposed side by side, and a shoe engageable abutment disposed intermediate and above both said rail portions.

12. In a combined shoe harbor and straightener, a frame comprising longitudinally extending front and rear normally horizontal spaced rail portions relatively disposed so that a shoe supported by its sole upon the front rail portion may engage the rear rail portion by a toe portion of the shoe, to prevent downward rocking of rearward portions of the shoe by gravity around the front rail portion, and to exert a slight reverse bending effort on the sole, the rail portions being sufficiently long to accommodate a plurality of shoes disposed thereon side by side, and a third longitudinally extending rail portion generally parallel to the two said rail portions disposed thereabove and forwardly at the rear rail portion, upon which toe portions of the shoes may lodge when the toe portions engaged with the rear rail are displaced therefrom to prevent the shoes from falling by gravity from the rails.

13. A combined shoe harbor and straightener as described in claim 12 and in which all three rails portions are longitudinally telescopable to accommodate the overall length of the harbor to different numbers of shoes disposed side by side on the rails.

I. S. KOCHHEISER.