

W. THIERMAN.
 LAST.
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1,414,316.

Patented Apr. 25, 1922.

Fig. 1.

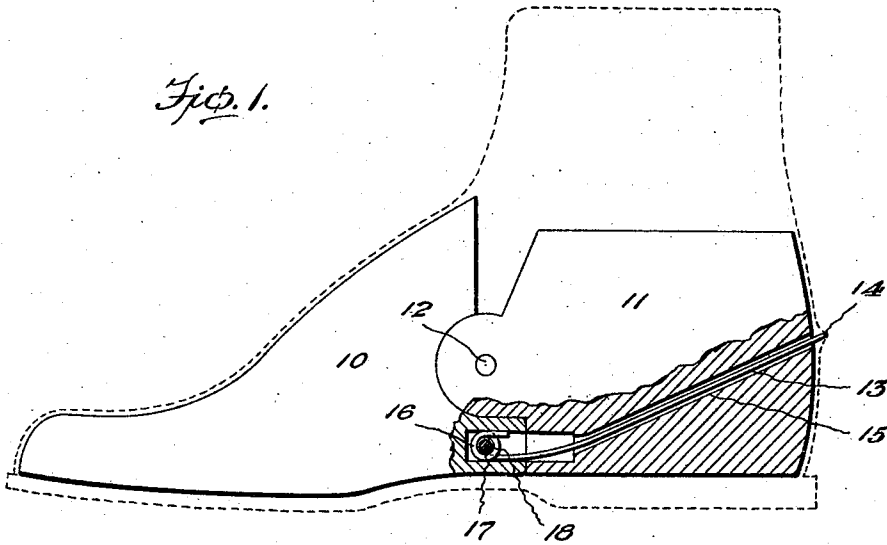


Fig. 2.

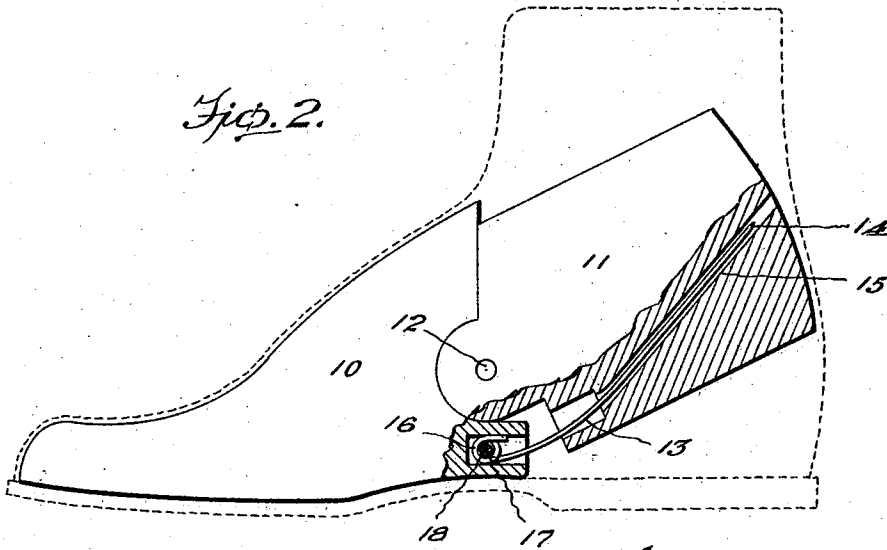
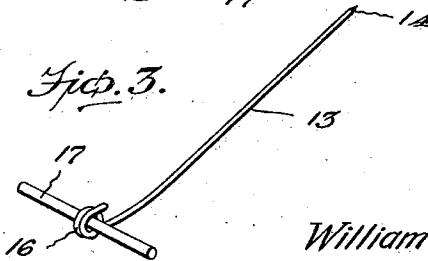


Fig. 3.



Paul W. Hunt.
T. H. Beckman
 WITNESSES

William Thierman
 INVENTOR
 BY *Victor J. Evans*
 ATTORNEY

UNITED STATES PATENT OFFICE.

WILLIAM THIERMAN, OF FARIBAULT, MINNESOTA.

LAST.

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To all whom it may concern:

Be it known that I, WILLIAM THIERMAN, a citizen of the United States, residing at Faribault, in the county of Rice and State of Minnesota, have invented new and useful Improvements in Lasts, of which the following is a specification.

This invention relates to the art of making shoes and more particularly to shoe lasts.

10 An object of the invention is the provision of automatically operated means for securing the last within the shoe without the use of tacks, such as are usually driven through the back of the shoe into the last, thus saving
15 the time and labor necessary for driving and removing the tacks and eliminating the tack hole in the shoe and further preventing damage to the last, due to the use of such tacks.

20 Another object of the invention is the provision of the last securing means which is capable of use in connection with hinged lasts of all descriptions, the invention providing a convenient means for securing the
25 last in position without injury to either the last, the shoe or the lining.

Other objects and advantages of the invention will appear as the following description is read in connection with the accompanying drawings.

30 In the drawings:—

Figure 1 is a side elevation of a last in position within a shoe, the latter being shown by dotted lines, while the last is broken away
35 to more clearly show the invention.

Figure 2 is a view similar to Figure 1 showing the last in position for removal from the shoe.

Figure 3 is a detailed view of the securing
40 means which is carried by the last.

Referring to the drawings in detail, there is illustrated a last which is formed of sections 10 and 11, which are pivotally secured together as shown at 12. This last may be
45 of the ordinary or any preferred form of hinged last, the invention being capable of use with hinged lasts of various kinds.

The invention comprises a flexible pin 13, one end 14 of which is pointed to provide
50 a spur. This pin operates or slides in an upwardly and rearwardly inclined opening 15 which is provided in the last section 11 and extends centrally and longitudinally of the last. The opposite end of the pin is

formed into a loop 16 for the passage of a 55 pin 17, the latter extending transversely through a socket 18 provided in the last section 10 and serves as a means of securing the pin to said last section.

In the use of the invention, the last is inserted in the shoe in the position shown in Figure 2 and when in this position, the pin 13 will be retracted so that the spur or pointed end 14 will lie within the opening 15 and will therefore not come in contact 65 with the shoe lining. When the section 11 of the last has been pushed downwardly within the heel of the shoe, the pointed end or spur 14 will be projected so as to engage the rear end of the shoe and hold the last 70 in proper position until purposely removed.

The invention is susceptible of various changes in its form, proportions and minor details of construction and the right is herein reserved to make such changes as properly 75 fall within the scope of the appended claims.

Having described the invention what is claimed is:—

1. A shoe last comprising a toe section, a heel section pivotally secured to the toe section and having a passage extending from its front to its rear end and a flexible pin having one end secured to the rear end of the toe section at a point directly beneath and spaced from the pivotal connection and 85 adapted to lie within the passage, whereby, when the sections are in normal position the free end of the pin will be projected beyond the outer end of the heel section and retracted when the sections are moved relatively upon their pivot. 90

2. A shoe last comprising a toe section, a heel section pivotally secured to the toe section and having an upwardly and rearwardly inclined passage extending from its 95 front to its rear end and a flexible pin having one end secured to the rear end of the first section at a point directly beneath and spaced from the pivotal connection and adapted to lie within the passage, whereby, 100 when the sections are in normal position, the free end of the pin will be projected beyond the outer end of the heel section and retracted when the sections are moved relatively upon their pivots. 105

In testimony whereof I affix my signature.

WILLIAM THIERMAN.