P. H. HICKMAN.

SHOE LAST.

APPLICATION FILED JUNE 26, 1915.

1,191,183.

Patented July 18, 1916.

2 SHEETS—SHEET 1.

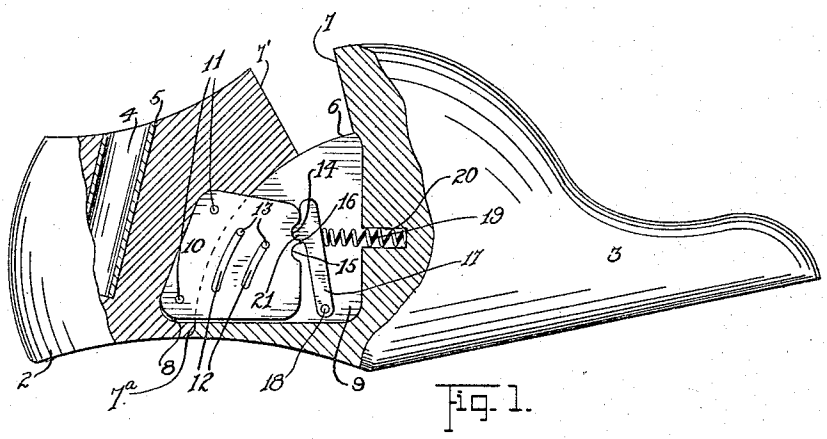


Fig. 1.

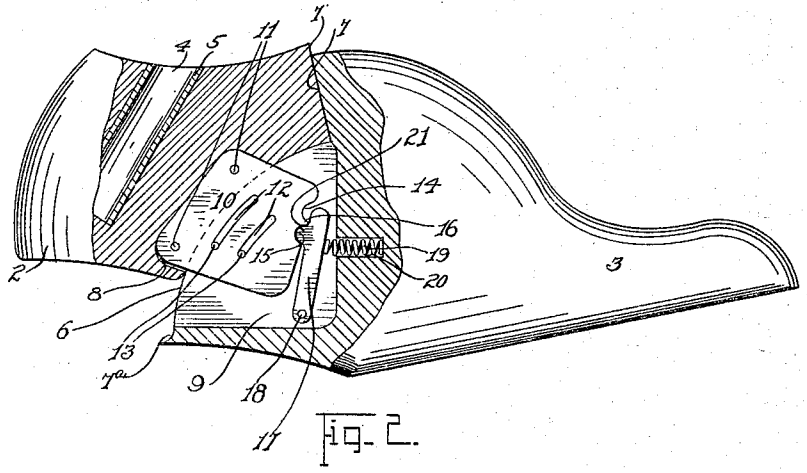


Fig. 2.

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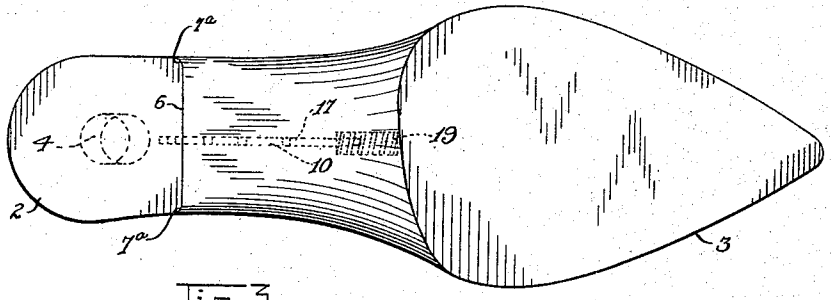


Fig. 3.

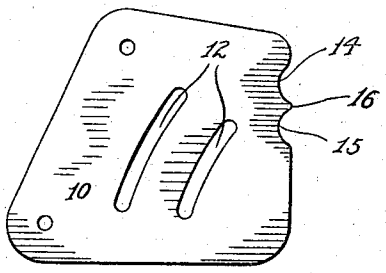


Fig. 4.

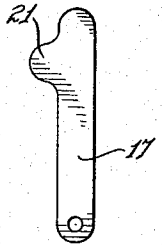


Fig. 5.

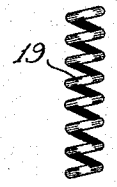


Fig. 6.

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UNITED STATES PATENT OFFICE.

PATRICK H. HICKMAN, OF IRVINGTON, NEW JERSEY.

SHOE-LAST.

1,191,183. Specification of Letters Patent. Patented July 18, 1916.

Application filed June 26, 1915. Serial No. 36,543.

To all whom it may concern:

Be it known that I, PATRICK H. HICKMAN, a citizen of the United States, residing at Irvington, in the county of Essex and State of New Jersey, have invented new and useful Improvements in Shoe-Lasts, of which the following is a specification.

This invention relates to shoe lasts.

One object is to provide a shoe last embodying a toe and heel portion swingingly connected together with means coöperating with the swinging connection to hold the toe and heel portions yieldingly at their opposite limits of movement.

Another object resides in the provision of a shoe last embodying a toe and a heel portion hingedly connected together and having means confined in one of the portions which coacts with the hinged connection to hold the toe and heel portions yieldingly in contracted or extended positions.

A still further object resides in the provision of a shoe last involving toe and heel portions hingedly connected together, in combination with a holding means constantly under tension for coaction with the hinged connection between said portions, so as to hold the portions in their contracted and extended positions.

With the above and other objects in view the invention consists in the construction and novel combination of parts hereinafter fully described, illustrated in the accompanying drawing, and pointed out in the claim hereto appended, it being understood that various changes in the form, proportion, size and minor details of construction, within the scope of the claim, may be resorted to without departing from the spirit or sacrificing any of the advantages of the invention.

In the drawing:—Figure 1 is a view, partly in side elevation and partly in longitudinal section, illustrating the last with the toe portion in extended position with relation to the heel portion. Fig. 2 is a similar view illustrating the toe and heel portions in contracted relation. Fig. 3 is an inverted plan view of the last with the parts in extended relation. Fig. 4 is a detail view of the connecting plate between the toe and heel portions. Fig. 5 is a detail view of the holding member which coacts with the said plate to yieldingly hold the sections in extended or contracted position.

Referring now more particularly to the accompanying drawing, the reference characters 2 and 3 indicate the heel and toe portions respectively, whose inner ends abut and meet on a curved line 6, over which curved line the toe and heel portions are adapted to swing relatively to each other. The heel portion is provided with a socket 5, in which may be fitted a sleeve 4, whereby the last may be secured upon a suitable support (not shown). The heel portion is also provided with a recess 8 adapted to aline with the recesses 9 formed in the toe portion 3.

A plate 10 is rigidly secured in the recess 8 of the heel portion 2 by means of suitable pins 11, passed transversely through the heel portion. This plate 10 is provided with a pair of curved slots 12, formed upon the same arc as the line of curvature 6 at the abutting portions of the toe and heel portions, and this slotted portion of the plate 10 is adapted to extend into the recess 9 of the toe portion and slidably held therein by means of pins 13 passed transversely through the toe portion 3 and through said slot 12.

The plate 10 has a cam edge resulting in the formation of notches 14 and 15 and an intervening shoulder 16. By virtue of the plate connection 10 between the toe and heel portions, it is clear that these portions may swing relative to each other along the curved line 6. The swinging of the heel portion 2 to contracted position with relation to the toe portion 3 is limited by virtue of the coacting shoulders 7 and 7′ of the toe and heel portions respectively. The swinging movement of these parts to extended position is limited by engagement with the lower face of the heel portion with the shoulders 7^a at the rear of the toe portion.

I provide means to coact with the cam edge of the plate 10 to yieldingly hold the toe and heel portions at their limits of swinging movement relative to each other. One form of means for this purpose may consist of an arm 17 pivoted at 18 in the recess 9 of the toe portion 3 and coacting with which is a spring 19 disposed in a recess 20 communicating with the recess 9 and bearing against the arm 17 to force the latter normally toward the heel portion of the last. This arm 17 is provided with a projection 21 adapted to ride over the aforesaid shoulder 16 of the cam edge of the plate 10 and engage interchangeably in the notches

14 and 15 of the cam edge of the plate 10, so as to yieldingly hold the heel portion in extended and contracted positions with relation to the toe portion of the last. In other words, when the heel portion 2 is swung to its extended position with relation to the toe portion, the projection 21 of the arm 17 will fit in the recess 14 of the plate 10, and by virtue of the expansion of the spring 19, the heel portion will be yieldingly held in its extended position with relation to the toe portion. When the heel portion 2 is thrown to contracted position with relation to the toe portion 3, the pivoted arm 17 will be swung forwardly on its pivot 18 by virtue of the upward movement of plate 10 with heel portion 2, and when the heel portion 2 has presented its shoulder 7′ to the shoulder 7 of the toe portion, the notch 15 in the plate 10 will have been presented to the projection 21 of the arm 17, with the result that the tension of the spring 19 will cause this projection 21 to bear with such force in the notch 15 as to yieldingly hold the heel portion in its contracted position with relation to the toe portion.

What is claimed is:—

A last including a toe section, a heel section, a plate fixed to the heel section and having sliding engagement only with the toe section, said toe section being formed with a recess receiving said plate, the edge of the plate which projects within said recess being formed with spaced notches, a vertically extending latch member pivotally supported within the recess of the toe section, said latch member being formed with a projection adapted to enter the notches of the plate, whereby to hold the sections at the limit of their movement in either direction and a spring contacting with the latch member to maintain the same in contact with the notched edge of the plate.

In testimony whereof I affix my signature in the presence of two witnesses.

PATRICK H. HICKMAN.

Witnesses:

EUNICE A. KERN,

ELISE NEUMANN.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."