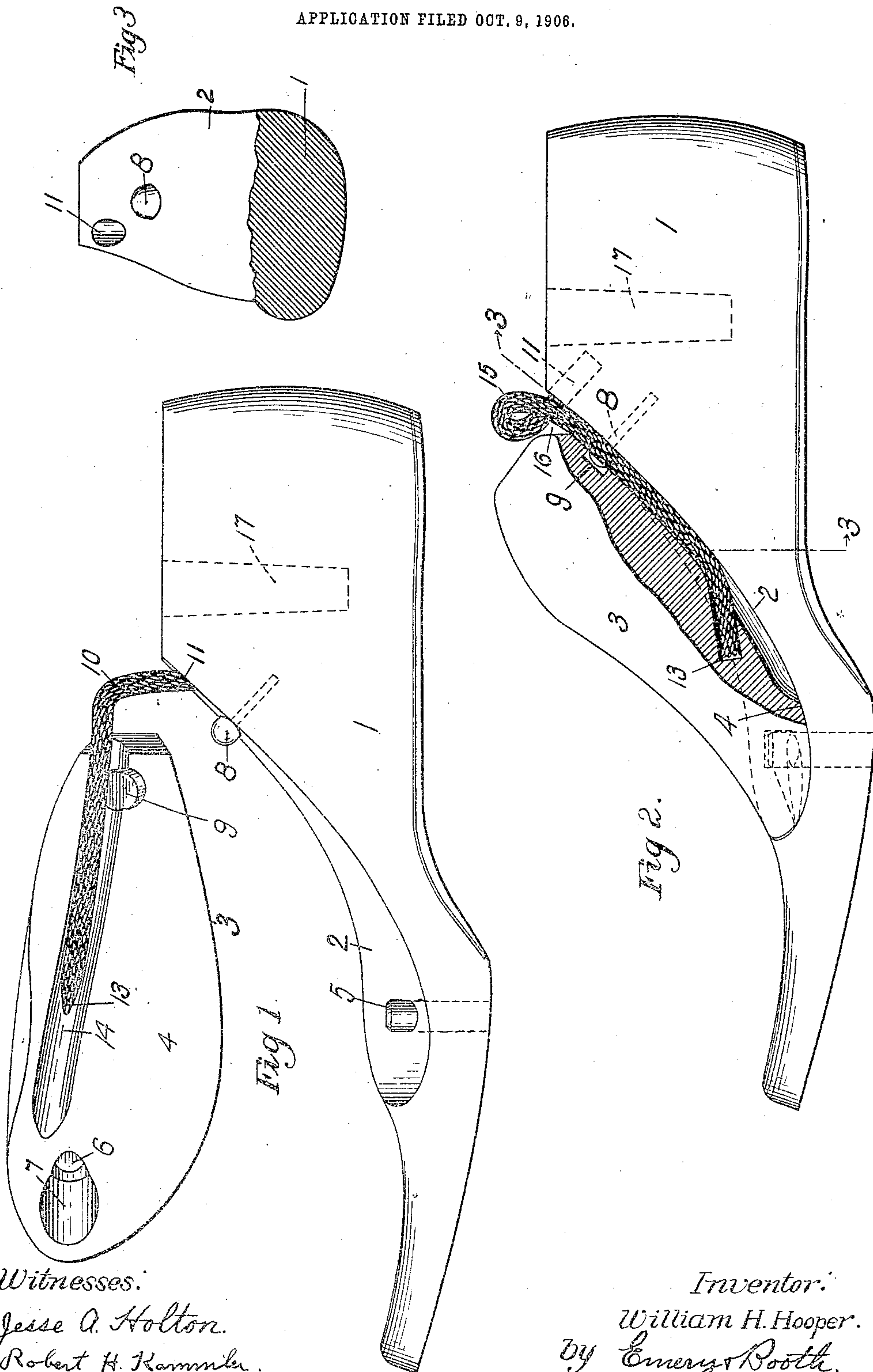


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W. H. HOOPER.
LAST.

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LAST.

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Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, WILLIAM H. HOOPER, a citizen of the United States, and a resident of Lynn, in the county of Essex and State of Massachusetts, have invented an Improvement in Lasts, of which the following description, in connection with the accompanying drawings, is a specification, like letters on the drawings representing like parts.

The invention to be hereinafter described relates to divided lasts employed in the manufacture of boots and shoes, more particularly to such as are provided with a flexible connection, for associating the parts of the last together.

My invention aims generally to provide an improved last wherein the flexible connection joining the parts of the last is so disposed that it is kept out of contact with the lining of the shoe to prevent injuring or soiling the same.

With the above general objects in view the invention consists of the parts and combinations which will be best understood and appreciated by referring to the following description when taken in connection with the accompanying drawings of a last embodying one form of my invention and selected for purposes of illustration, its scope being more particularly pointed out in the appended claims.

In the drawings: Figure 1 is a side elevation of the last embodying one form of my invention, the instep block being shown as separated therefrom and partially turned up to show means for securing and housing the cord; Fig. 2 is a similar view with parts broken out to show the instep block in place and the cord housed or retained between said block and the last; and Fig. 3 is a vertical cross section looking to the rear, taken on the line 3—3, Fig. 2.

Referring to the drawings and in the particular embodiment of my invention herein selected for purposes of illustration, 1 represents the body or the last proper (Fig. 1) which may be of any suitable or desired construction but as herein shown is preferably cut away at its upper side to form a curvilinear surface or seat 2 for the instep block 3, which has a lower surface 4, (Fig. 1) of converse shape to said seat to fit upon the same. For determining the position of the lower end of this instep block and for retain-

ing it in place upon the last body 1, the latter is provided with a positioning stud 5 (Fig. 1) projecting from the surface of said seat 2, and with which a socket 6, at the under side of said instep block, registers when the latter is in place thereon. At its forward portion this socket flares outwardly as at 7, so that as the instep block is placed upon the last the tapered opening thus formed may engage the said stud 5 and be directed thereby into its proper position. For similarly determining the position and preventing lateral motion of the upper end of said instep block upon the last body, the seat of the latter, adjacent its upper portion, is similarly provided with a rounded stud 8, adapted to engage a socket 9, formed at the under side of the instep block and adjacent its upper end. This stud and the socket with which it registers are approximately perpendicular to said surfaces 2 and 4.

For connecting or associating the two parts of the divided last together so that they may not be separated, misplaced or lost during the various processes of lasting, leveling or otherwise finishing the boot or shoe, I have provided a flexible connection, in the present embodiment of my invention shown as a cord 10, one end of which is secured as at 11 to said last 1, at the upper portion thereof by any suitable means. The opposite end of said cord is secured as at 13 (Fig. 2) to the under side and adjacent the lower end of said instep block 2. At its under side the instep block is provided with a longitudinal groove or recess 14 within which the lower end of the cord is secured, this groove being of sufficient depth to receive said cord 10, and forming a housing for the cord when the instep block is in place upon the last. This cord is slightly longer than the distance between its attached ends when the parts of the last are assembled to permit the lower end of said block to be slid up to the upper end of the last, so that the latter may be easily inserted in the shoe and the last block then slid down upon its seat until secured in position thereon. By this arrangement a maximum separation of parts is secured with a minimum length of cord and in inserting the last and positioning the instep block thereon by sliding the latter down upon its seat in the manner just described, said cord is normally confined between the seating faces of said parts and

naturally seats or arranges itself in said groove 14 leaving a small and short loop projecting above the juncture of the last and instep block, which may be operated upon to
5 separate the block from the last and for withdrawing said parts from the shoe.

As will be noted by referring to Fig. 1, the cord receiving groove 14 is at one side of the instep block and the upper end of the cord is
10 secured (see Fig. 3) at the opposite side laterally of the last 1, so that in placing the instep block in position, as by sliding it down upon its seat, the loop 15 is formed naturally. This groove 14 also cuts into one side of the
15 socket 9, so that as the instep block is placed in position and the stud enters into the socket, it engages and compresses the cord 10 to one side of said groove, thereby yieldingly locking the block and last together.

20 When it is desired to withdraw the last from the shoe a pull upon the loop 15 will disengage the cord, pin and socket, permitting the ready separation of the block and last, so that first one and then the other may
25 be easily withdrawn from the shoe.

In the present embodiment of my invention, the upper rear corner of the instep block is cut away to provide a V-shaped socket 16 between the said instep block and
30 the adjacent face of the last to provide a loop seat or suitable clearance for the loop 15. By this arrangement of the cord and the means for housing it within the last, as by said groove, it will be apparent that the cord or
35 the loop thereof cannot come in contact with the lining of the shoe, nor can it interfere with the manipulation of the last in placing it in the shoe or mounting said last upon any of the usual types of shoe supporting jacks.

40 While in the present embodiment of my invention I have shown the groove as being entirely within the instep block, obviously, this is not essential, as the groove may be variously formed or disposed to seat the cord
45 when the parts of the last are assembled. The last is also provided with the usual spindle hole 17 by which it is adapted to be mounted upon the spindle of the heel support of a jack, by which the last and the shoe
50 thereon may be more conveniently handled.

By my invention, means are provided by which the cord is normally retained between the parts of the last or out of possible contact with the lining of the shoe, so that the
55 latter cannot be soiled or otherwise injured thereby, and by connecting one end of the cord to the lower end of the instep block and the other end to a convenient and adjacent portion of the last, maximum separation of
60 the last parts is secured consistent with minimum length of cord and also tending to maintain it in a central longitudinal position between said parts. Furthermore, by keeping the greater portion of the cord continually
65 housed within or between the parts of the

last, the soiling of the cord is also to a considerable degree prevented, avoiding the necessity for cleansing the same.

It will be obvious that my invention is not limited to the specific details or to the arrangement of parts herein shown for illustrative purposes only, but that the same may be modified and varied within wide limits without departing from the spirit thereof.

What I claim is:—

75 1. A last comprising separate parts and having a longitudinal groove between said parts and a flexible connection adapted to lie in said groove secured at its opposite ends to relatively opposite ends of said parts to
80 secure maximum separation of said parts with minimum length of the flexible connection the length of said flexible connection between its points of attachment being greater than the distance between said points when
85 the parts are in assembled relation.

2. A last comprising separate parts and having a longitudinal groove between said parts and a flexible connection adapted to lie in said groove and secured at its opposite
90 ends to relatively opposite ends of said parts to secure maximum separation of said parts with minimum length of the flexible connection, said connection forming a loop projecting from between the parts of the last when
95 said parts are in place.

3. A last comprising two parts, one of which is provided with a longitudinal groove and a flexible connection adapted to lie in said groove and secured at its opposite ends
100 to relatively opposite portions of said parts to secure maximum separation of said parts with minimum length of the flexible connection, said flexible connection being longer than the distance between the points of attachment of said connection when the parts
105 are assembled whereby a loop is presented above the juncture of said parts to facilitate manipulating the same.

4. A last comprising two separate parts
110 having a longitudinal groove between them and a flexible connection adapted to lie in said groove and secured at its opposite ends to relatively opposite portions of said parts to secure maximum separation of said parts
115 with minimum length of the flexible connection, said flexible connection being longer than the distance between the points of attachment of said connection when the parts are assembled whereby a loop is presented
120 above the juncture of said parts to facilitate manipulating the same, one of said parts being cut away adjacent the line of separation to provide a loop seat.

5. A last comprising two separate parts,
125 one of which is provided with a longitudinal groove in its seating face, and a flexible connection uniting said parts, said connection having one of its ends secured adjacent the end of the groove in one of said parts thereof,
130

and the other of said ends secured to the other part adjacent the head of said last, said connection between its points of attachment being longer than the distance between said points when the parts are in assembled relation.

6. A last comprising two separate parts, one of which is provided with a longitudinal groove in its seating face, and a flexible connection uniting said parts, said connection having one of its ends secured adjacent the end of the groove in one of said parts, and the other of said ends secured to the other part adjacent the head of said last, said connection being normally retained between said parts in separating and assembling them and forming a loop projecting from between said parts when they are assembled.

7. A last comprising two separate parts adapted to fit one upon the other having one of said parts provided with a groove and a flexible connection adapted to lie in said groove having one of its ends secured to one of the parts adjacent the lower end of said groove and its other end secured to the upper end of the other of said parts, said connection being longer than the distance between its attached ends when the parts of the last are assembled to provide an upwardly projecting loop to facilitate manipulating said parts.

8. A two part last comprising a body portion and a block adapted to be seated thereon, means for securing them in assembled position, one of said parts having a groove in its seating face, and a flexible connection secured at one end to one of said parts adjacent one end of said groove and at its other end to the other of said parts adjacent the opposite end of said groove, said connection normally extending in said groove between the seating faces of said parts and forming a loop projecting from between the parts when said parts are assembled for separating and manipulating the same.

9. A two part last comprising a last body provided with a block seat, an instep block having a cooperating seating face, one of said parts having a longitudinal groove in its seating face, and a flexible connection arranged therein when said parts are assembled and secured at one of its ends to the bottom of said block and at its outer end to the head of said body, the length of the said connection being greater than the distance

between the attached ends of said connection when the parts are assembled to form a short loop projecting from the juncture of said parts at the head of the last and by which said parts may be manipulated.

10. A last of the type described provided with an instep block, means for determining and securing the block in position on said last, a flexible connection arranged between said last and block for associating them together, and means intermediate said last and block for housing said connection when said block is seated on said last to prevent its contacting with the shoe, said connection being of a length to form a loop projecting from between and above the juncture of said last and block for separating the block and last and for withdrawing the same from the shoe.

11. A two part last having a last body provided with a block seat, an instep block having a cooperating seating face therefor, a flexible connection for associating the block with its last body, one of said parts having a positioning stud and the other a recess register therewith, and connection receiving means between said body and block adapted to house the greater portion thereof when the block is assembled upon its last body, said stud and recess and connection receiving means all cooperating with said connection to bind the same and said block to said last body.

12. A last having separable parts and a flexible connection attached at its ends to the last parts respectively on faces of said parts which are opposed to each other when the parts are assembled, the length of said connection being greater than the distance between its attaching portions normally to cause a loop to be formed exteriorly therein when the parts are assembled and by which the latter may be manipulated.

13. In a last, the body 1, an instep block 3, and a flexible connection 10 forming a loop when the parts are assembled, said connection lying between the two parts.

In testimony whereof, I have signed my name to this specification, in the presence of two subscribing witnesses.

WILLIAM H. HOOPER.

Witnesses:

ANALDO M. ENGLISH,
SIDNEY F. SMITH.