No. 675,944. Patented June 11, 1901.

E. L. GODING.

LAST.

(Application filed Nov. 13, 1899.)

(No Model.)

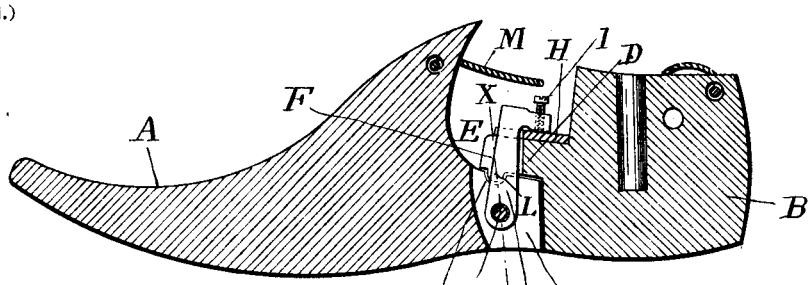

Fig. 2

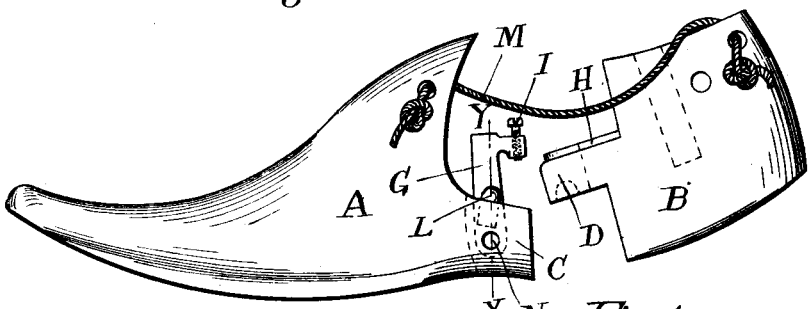

Fig. 1

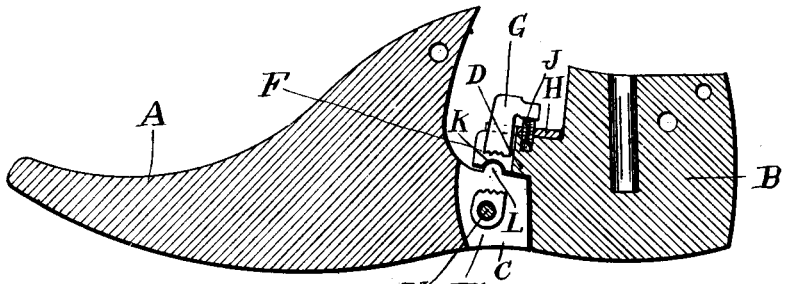

Fig. 3

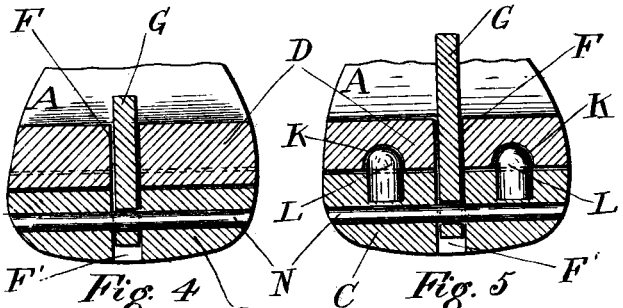

Fig. 4

Fig. 5

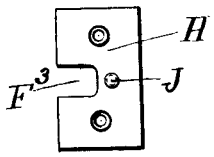

Fig. 6.

Witnesses:
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UNITED STATES PATENT OFFICE.

EDWIN L. GODING, OF SANFORD, MAINE.

LAST.

SPECIFICATION forming part of Letters Patent No. 675,944, dated June 11, 1901.

Application filed November 13, 1899. Serial No. 736,734. (No model.)

To all whom it may concern:

Be it known that I, EDWIN L. GODING, a citizen of the United States, residing at Sanford, in the county of York and State of Maine, have invented certain new and useful Improvements in Lasts; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to improvements in lasts, and particularly to the last described in my application, filed in the United States Patent Office November 26, 1897, Serial No. 659,767; and my application relates particularly to means for removably securing the two parts together against endwise or vertical displacement and to certain details of construction hereinafter described.

In the drawings herewith accompanying and making a part of this application, Figure 1 is an elevation of my improved last, the two parts being shown separated. Fig. 2 is a central longitudinal vertical section of my improved last. Fig. 3 is a central vertical longitudinal section showing a different arrangement for adjusting the latch and taking up the wear. Fig. 4 is a transverse vertical section taken on line X X of Fig. 2. Fig. 5 is a transverse vertical section taken on line Y Y, Fig. 1; and Fig. 6 is a plan of the strengthening-plate.

Same letters of reference refer to like parts.

In the manufacture of boots and shoes it has been found to be a matter of the utmost importance to have a divided last, and, further, to have a divided last the heel part of which is readily removable from the fore part; but it has been found equally important that the two parts when in their operative position should be firmly locked together. I accomplish the first point by dividing the last transversely by lines of cut which form a projecting ledge on the fore part, a projecting overhang on the heel part, and an open space above the ledge and adjacent to said lines of cut, whereby the heel part is adapted to pivot and slide on the fore part in inserting and removing the heel part from the shoe; and the second point I accomplish by forming in one adjacent overlapping face an indent and on the other a projection adapted to enter and fill said indent when the two parts of the last are in their normal position and providing the two parts with a locking-latch pivoted in one part and adapted to engage the other. In said drawings I have shown some of the various constructions adapted to accomplish these purposes.

In said drawings, A represents the fore part; B, the heel part; C, the projecting ledge on the fore part; D, the overhanging portion or shoulder on the heel part, and E the open space above said ledge. The shoulder has a longitudinally-extended slot F therein, and the ledge has pivotedly mounted therein, as at N, a locking-bar G, which may be constructed in any convenient manner adapted to engage the upper surface of said projection on the heel part or of a plate H secured thereon. It may be pivoted in a slot F′ in said ledge. The locking-bar may have a threaded screw I, adapted to move vertically therein, so that it may be readily adjusted to make close contact with the upper face of the ledge or plate, as the case may be. While I have illustrated and described several means of securing a close contact between the coöperating locking parts, I do not limit myself to the use of either of those shown, as other means may be employed for this purpose without departing from the spirit of my invention, which is, broadly, for means for securing a close contact between the coöperating locking members. Instead of the threaded screw being carried by the locking-bar, as shown in Fig. 1, it may be inserted in the strengthening-plate or wood of the shoulder, as seen at J in Fig. 3. The strengthening-plate has a slot F^3 to correspond and register with the slot F in the shoulder and to be most effective should extend more or less completely across the upper face of the overhang, and in order to prevent the locking-bar from being accidentally displaced by jar or otherwise it may incline slightly backwardly and downwardly, as shown in Fig. 2. This arrangement of the locking-bar affords a very strong and easily-applied locking device to prevent the tipping up of the heel part relative to the fore part. The width of the locking-bar is substantially equal to but

not greater than the width of the slot in the projection, and this permits the insertion of the heel part at any angle of elevation.

The enormous strain which is sometimes exerted upon the last tends to draw the two sections apart. To prevent this, I make an indent K in one part and a projection L in the other part, adapted to fit into said indent. In Figs. 1 and 3 I have shown the indent in the under face of the overhang and the projection in the upper face of the ledge. In Fig. 2 the opposite arrangement is shown, the indent being in the ledge and the projection in the overhang. In Figs. 1 and 5 I have shown a plurality of indents and a plurality of projections. This latter construction prevents lateral as well as endwise displacement. In Figs. 2, 3, and 4 the indent consists of a groove extending transversely the entire width of the last, and the projection is a ridge or bead also extending the entire width of the last, or nearly so.

One of the special objects of my invention is to enable the heel part of the last to be removed during the operation of heeling to permit the insertion of the heeling-last without at the same time removing the fore part, because if the fore part be removed the shoe is liable to be disfigured and broken down in handling during the heeling process. My arrangement of the two parts permits this to be done readily, and when the two parts are connected by a flexible cord, as M, there is no danger of the two parts becoming separated, and, besides, the cord may be used to withdraw the fore part from the shoe whenever desired.

One of the advantages of my improved last is that it is capable of being used in connection with a heeling-last, such as is shown and described in Letters Patent issued to me December 28, 1897, No. 596,064, inasmuch as the line of division can be so located that the heel portion is in longitudinal extent just equal to the heeling-last, so that when the heel part is removed the heeling-last may be inserted in its place, and inasmuch as the heeling-last may have a constant length for several sizes of shoes it will be evident that fore parts of various lengths and sizes may be used with a common heel part.

To insert my improved last in the shoe, the fore part is first inserted. The heel part is then tipped forwardly and downwardly somewhat, as illustrated in Fig. 1, until the overhang on the heel part rests on the ledge or projection on the fore part, the front edge of the overhang resting upon or in front of the projection or depression in the ledge, as the case may be. The rear of the heel part is then pushed downwardly, the back of the shoe forcing the heel part forwardly as it is pushed home, the heel part pivoting and sliding on the fore part until it reaches its normal position, as shown in Fig. 2. The locking-latch on the fore part is then brought into engagement with the heel part, thereby locking the two parts firmly together.

Having thus described my invention and its use, I claim—

1. A last divided transversely by lines of cut which form an open space at the top, a rearwardly-projecting ledge on the fore part below said open space and a forwardly-projecting overhang on the heel part, said ledge and overhang adapted to overlap each other when in their normal relation and to pivot and slide one on the other when the heel part is tipped up relative to the fore part and the overlapping contacting surfaces being provided with interlocking parts, whereby longitudinal shifting is prevented while the overlapping parts are in their normal relation.

2. A last divided transversely by lines of cut which form an open space at the top, a rearwardly-projecting ledge on the fore part below said open space and a forwardly-projecting overhang on the heel part, said ledge and overhang adapted to overlap each other when in their normal relation, whereby one part is free to pivot and slide relative to the other while being inserted in or removed from the shoe, means for preventing longitudinally shifting of one part relative to the other when the two parts are in their normal relation and means for locking the two parts together when in their normal relation.

3. In a divided last containing a fore part and detachable heel part, one of said parts having a projection and the other of said parts having a coöperating depression adapted to receive said projection when the parts are in their normal relation, the last when in extended position having a gap above said cooperating parts, the turning movement of one part relative to the other serving to engage or disengage said coöperating parts from each other according as the last is being inserted in or removed from the shoe.

4. A last divided transversely by lines of cut which form longitudinally-overlapping shoulders, a gap extending upwardly from said lower shoulder, a longitudinally-extending slot in the upper shoulder, the upper face of said upper shoulder inclining backwardly and downwardly, and a locking-bar pivotally mounted in the fore part and adapted to engage the upper face of the shoulder on the heel part.

In testimony whereof I affix my signature, in presence of two witnesses, this 28th day of October, A. D. 1899.

EDWIN L. GODING.

Witnesses:
MARION RICHARDS,
ELGIN C. VERRILL.