

No. 661,699.

F. W. KITTLINGER.
LAST.

Patented Nov. 13, 1900.

(Application filed Apr. 13, 1900.)

(No Model.)

Fig. 1.

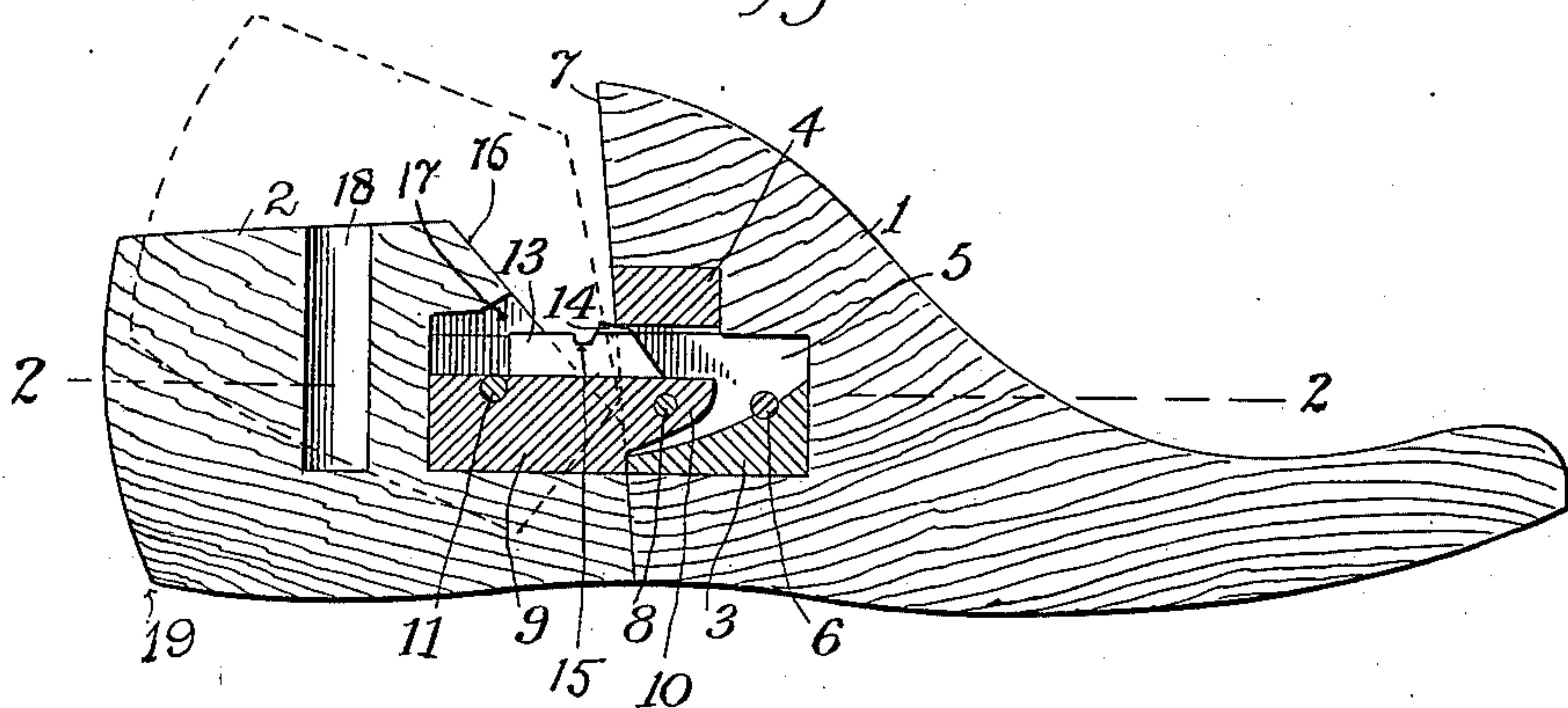
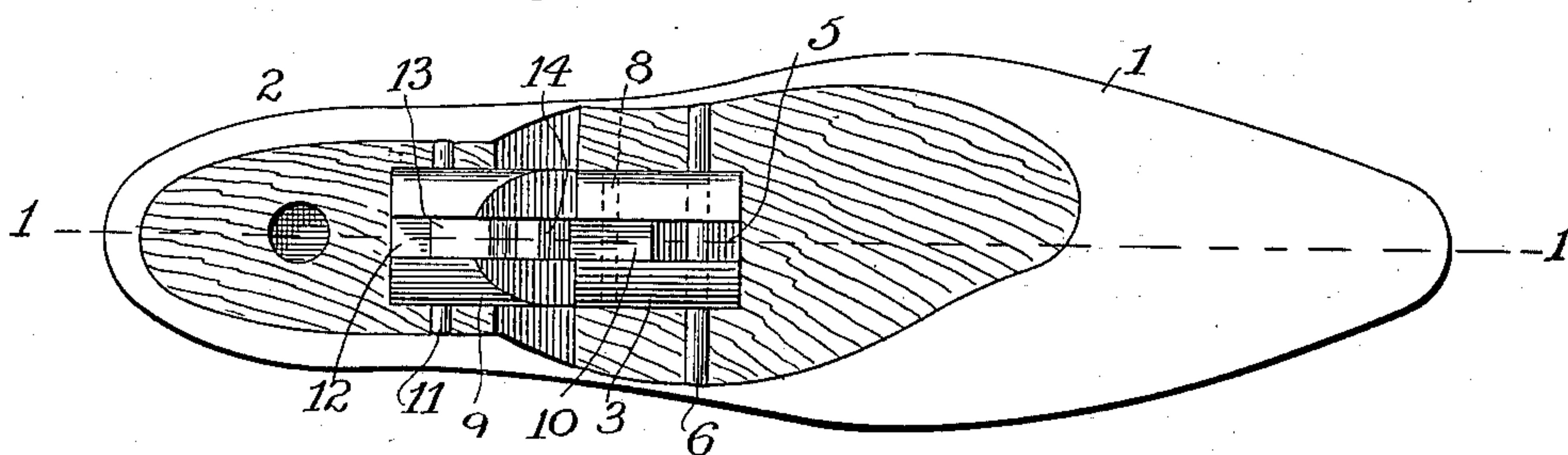


Fig. 2.



WITNESSES

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INVENTOR

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UNITED STATES PATENT OFFICE.

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LAST.

SPECIFICATION forming part of Letters Patent No. 661,699, dated November 13, 1900.

Application filed April 13, 1900. Serial No. 12,715. (No model.)

To all whom it may concern:

Be known that I, FREDERICK W. KITTLINGER, a citizen of the United States, and a resident of New York, (Brooklyn,) in the county of Kings and State of New York, have invented a certain new and useful Improvement in Lasts, of which the following is a specification.

Shoemakers experience considerable difficulty at times in removing the last from shoes and boots, owing to the fact that the article may fit too tightly on the last, and sometimes a job is spoiled by injury to or tearing of the lining or leather at the counter of the shoe or boot, even when using a last made in sections hinged together.

The primary object of the present invention is to overcome or avoid the stated objections to prior lasts and to provide a last which can easily be removed from the shoe or boot without danger of injury to the lining or leather at the counter.

Other objects will appear hereinafter.

To these ends the invention consists of features of construction and combinations of devices hereinafter described, and more particularly pointed out in the appended claims.

The preferred form of the invention is illustrated in the accompanying drawings, forming part hereof, in which—

Figure 1 is a central longitudinal section on the line 1 1 of Fig. 2, and Fig. 2 is a sectional view partly upon the plane indicated in Fig. 1 by the line 2 2.

The reference-numeral 1 indicates the forepart section, and 2 the heel-section of the last. The section 1 is recessed for the reception of a metal block 3 and for a block 4, which overlies a longitudinal vertical slot 5 in the block 3, or the blocks 3 and 4 may be fast to or integral with each other and be slotted at 5. The block 3 (shown in the drawings) is round and is held in place by a pin 6, which passes through the same and through the wood of the section 1. The end of block 3 is flush with the vertically-disposed rear face 7 of the section 1 and so, also, of the block 4. At a point 8, well within the block 3, is the pivot of a block 9, which fits into a recess in the heel-section 2. The block 9 has an arm 10, which fits in slot 5, and is provided with a hole for the pin 8, which secures the arm to

block 3 in a pivotal manner. The block 9 is held in the section 2 by a pin 11, which passes through the block and section. The block 9 is in line with the block 3 when the sections 1 and 2 are in the positions thereof shown in full lines in Fig. 1. The block 9 is slotted at 12 in its upper side, the slot by preference being rectangular. When the sections 1 and 2 are in the positions thereof shown in full lines, the slot 12 is in line with the slot 5 of the block 3, and the two slots form a guideway for a sliding locking-bolt 13. The bolt 13 is provided at its upper side and at its front end with a lug or projection 14, which preferably has a top surface that is slightly inclined in order to wedge under the block 4 aforesaid. In rear of the cam or projection 14 the bolt 13 is recessed at 15 to afford a grip or bearing for a suitable tool for sliding the bolt in its guideway. When the bolt 13 is slid along the slot or groove 12 and the arm 10 into engagement with the slot 5, it engages at its top against the block 4 and at its bottom against the arm 10 and forms a stop or chock for preventing motion of arm 10 and section 2 about the pivot 8, whereby the heel and toe sections 2 and 1 are locked together to form one rigid body in which the resistance to the folding of the last is primarily the said bolt or chock 13. The section 2 is cut away or beveled at 16 to allow the section 2 to swing about the pivot 8 and also at 17 to afford space for the bolt 13 and for the introduction of a tool for operating the bolt. 18 indicates a hole for the standard usually employed by shoemakers for holding lasts in position for work.

The operation is as follows: When it is desired to lock the sections together for use, the bolt 13 is moved by means of a screw-driver or the like to the position thereof shown in Fig. 1 and is jammed under the block 4 to be held by friction. This locks the sections 1 and 2 together, so that they form one rigid structure, equivalent to a one-piece last. When it is desired to remove the last from a boot or shoe, the bolt 13 is slid back into the section 2 and the section 2 is swung up, as shown in dotted lines in Fig. 1, and the last is then drawn out. I remark that since the pivot 8 is well within the section 1 instead of being in the plane of face 7, as heretofore,

the point 19 of the section 2 is drawn inwardly or forwardly as this section is turned to the position shown in dotted lines, thus removing the section 2 out of contact with the counter by a turning movement thereof, and thus providing room for the section 1 to be pulled rearwardly of the shoe or boot while the section 2 is further lifted. In this way the pressure of the counter on the last is first removed and space is provided into which the fore section can be moved to loosen it from the vamp before the last is withdrawn from the shoe or boot.

While the friction between the cam 14 and block 4 is sufficient to hold the bolt in place, it would be no departure from my invention to employ additional means to prevent the bolt from being jarred out during the use of the last.

I do not limit myself to the precise form of my invention shown in the drawings and above described, since the invention may be embodied in many forms without departing from the essential features thereof.

What I claim as new, and desire to secure by Letters Patent of the United States, is—

1. In a transversely-divided last, the combination of heel and fore-part sections, metal blocks secured in opposite recesses in said sections and hinged together, said blocks having slots in line with each other, and a metal bolt sliding in said slots into engagement at its top with one of said blocks and at its bottom with the other of said blocks to lock the sections against folding motion of either, substantially as described.

2. In a transversely-divided last, the combination of heel and fore-part sections, metal blocks secured in opposite recesses in said sections, an arm extending from one of said

metal blocks into a recess or slotted part of the other metal block and hinged thereto inside the face of the section having said block therein, and said blocks having slots aligned with each other above said arm, and a metal bolt slidable in said aligned slots and over said arm into engagement with the other block to form a rigid arm or extension thereof, whereby the last-sections may be rigidly secured together, substantially as described.

3. A last comprising heel and fore-part sections having vertically-disposed adjoining faces, the heel-section having a bevel at its upper front part, slotted metal blocks secured within said sections, an arm from the heel-section block extending into the slot in the fore-part-section block, a pivot-pin wholly within said fore-part section for pivotally securing said arm to the last-named block, and a sliding bolt moving in aligned slots in said blocks for locking said blocks and sections together to form a rigid structure, substantially as described.

4. In a transversely-divided last, the combination of heel and toe sections hinged together, with a sliding bolt on one section and slidable into and out of engagement with the other section in a recessed or slotted part thereof and forming a rigid part, substantially, of the last-named section when engaged therewith and acting to prevent the folding of the last when so engaged, substantially as described.

Signed at New York, in the county of New York and State of New York, this 7th day of April, A. D. 1900.

FREDERICK W. KITTLINGER.

Witnesses:

R. W. BARKLEY,
WM. H. ROMER.