No. 652,011. Patented June 19, 1900.

E. C. WRIGHT.

LAST.

(Application filed Jan. 19, 1900.)

(No Model.)

Fig. 1.

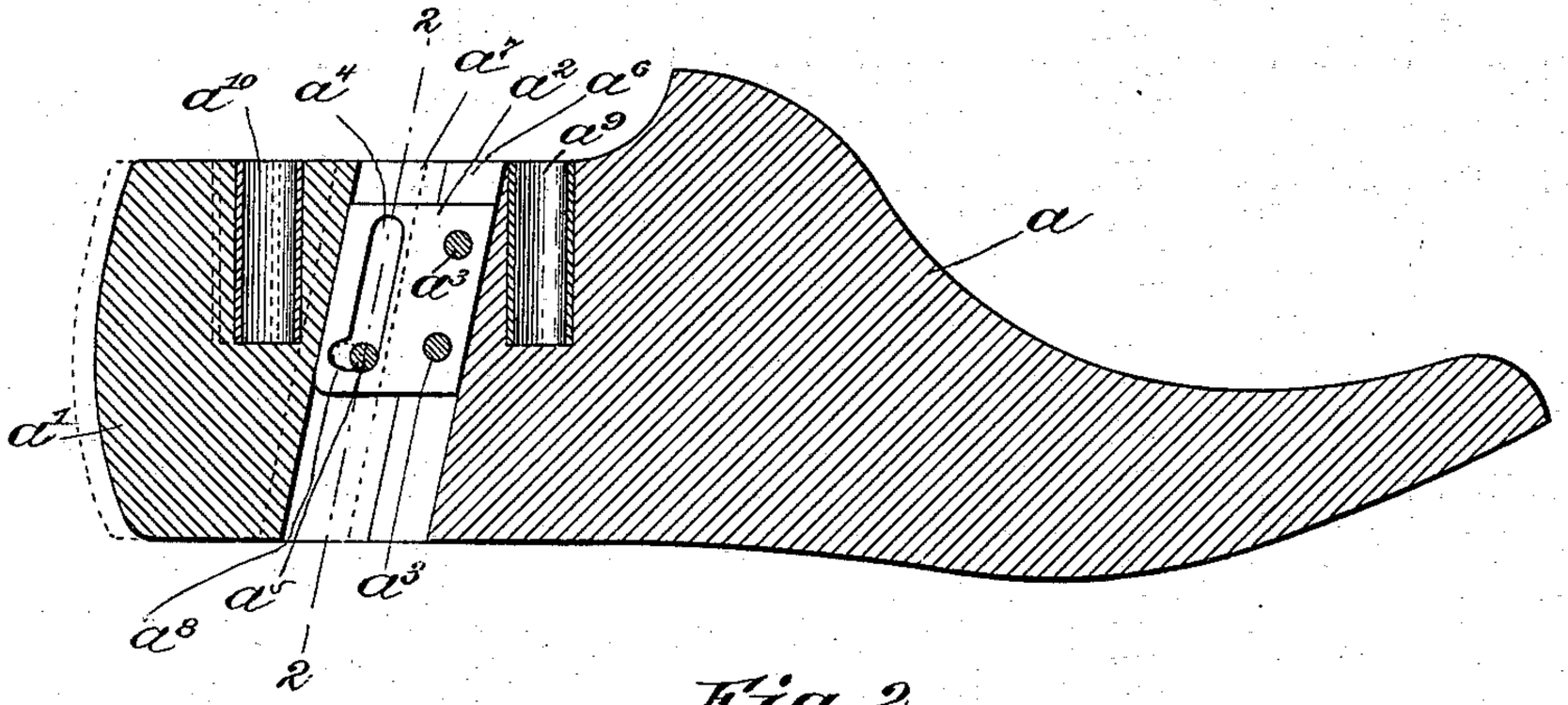


Fig. 2.

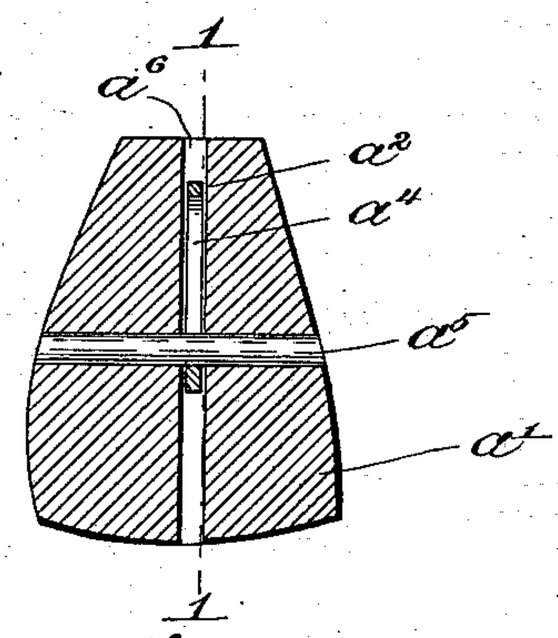
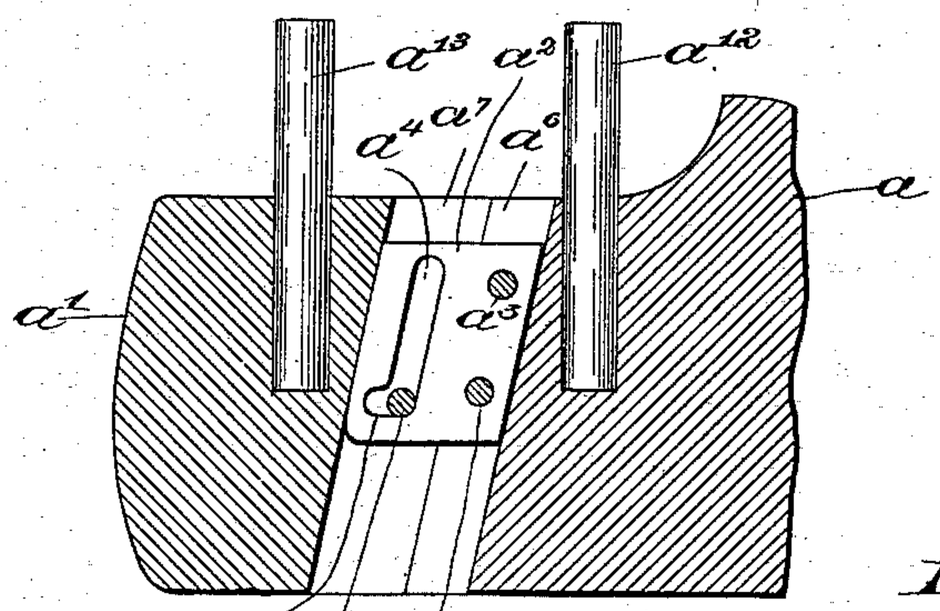


Fig. 3.



Witnesses
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UNITED STATES PATENT OFFICE.

ELLERY C. WRIGHT, OF BROCKTON, MASSACHUSETTS.

LAST.

SPECIFICATION forming part of Letters Patent No. 652,011, dated June 19, 1900.

Application filed January 19, 1900. Serial No. 1,987. (No model.)

To all whom it may concern:

Be it known that I, ELLERY C. WRIGHT, a citizen of the United States, residing at Brockton, county of Plymouth, 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.

My invention is an improvement in lasts, being primarily intended for treeing lasts or followers of the divided or multipart kind.

The line of cut separating my last into the fore-part and heel-part portions extends, preferably, obliquely in a straight line from the top of the last rearwardly toward the heel part, this vertical cut being made oblique to enable the last to shorten for the purpose of removal from a shoe. The fore part and heel part are connected together, so as to permit of their being separated slightly in the direction of the length of the last for the purpose of stretching the shoe during the treeing operation, the connection also permitting the last to shorten for the purpose of removal from the shoe and insertion thereinto.

A further object of my invention is to provide means for maintaining the fore part and heel part in accurate longitudinal or horizontal alinement when in operative position within a last.

The constructional details of my invention and various advantages thereof will be more fully pointed out in the course of the following description.

In the drawings I have illustrated certain embodiments of my invention as I prefer to make it.

Figure 1 is a vertical longitudinal section of a last constructed according to my invention, taken on the line 1 1, Fig. 2. Fig. 2 is a transverse vertical section taken on the line 2 2, Fig. 1. Fig. 3 is a similar section to Fig. 1, showing a modified detail of construction.

It will be understood that my invention is applicable to any form or general construction of this kind of last, and I do not limit myself to the minor details thereof nor to the particular embodiment of my invention herein presented.

After the first lasts have been removed from shoes in the process of shoe manufacture the leather shrinks or contracts somewhat at all parts of the upper, and it is desirable for the best results in the subsequent treeing process to stretch the leather, so as to restore the leather approximately to its original tension, and various trees have already been provided for thus stretching the leather of a shoe by means of separating longitudinally or spreading the fore part and heel part of a follower-last, one of such trees or treeing-machines having independent spindles to fit into suitable sockets provided in the fore part and heel part of the last, respectively, and another of said machines having holes or sockets to receive spindles or pins provided permanently in the respective parts of the last.

Referring to the drawings, it will be seen that I have provided a fore part a and a heel part a', connected by a plate or union a^2, secured in any suitable manner to the fore part, as by the transverse pins or rivets a^3, and having a slot-and-pin connection with the heel part, the slot being preferably provided in the plate a^2 at a^4 to receive a pin a^5. The plate a^2 is held in a kerf or recess a^6 in the fore part, and the heel part has a corresponding kerf a^7 in alinement with said plate for sliding up and down thereover. At its lower end the slot a^4 has an offset a^8, as clearly shown in Fig. 1. The fore part and heel part of the last are provided, respectively, with any suitable or preferred means for coöperating with a treeing device for lengthening the last when in operative position within a shoe, and for this purpose I have shown in Fig. 1 spindle-sockets a^9 a^{10}, and in Fig. 3 I have shown projecting pins or spindles a^{12} a^{13}, these spindles or sockets, as the case may be, being in vertical alinement one behind the other when viewing the last endwise, so that a separating movement of one relatively to the other will cause an even and direct lengthening or stretching movement in the last. I do not limit myself to these parts a^9 a^{13}, inasmuch as any other suitable means may be employed for coöperating with any kind of a treeing device desired.

In operation, the last being in collapsed condition, with the pin a^5 at the upper end of the slot a^4, the fore part a is placed in the shoe and forced forward. Then the heel part is shoved down tightly into the heel, so as to be

even with the rest of the last in the position shown in Fig. 1. The parts of the last being engaged with the corresponding parts of the treeing device, the operator places his foot upon the treadle of the latter or operates the same in other usual manner, thereby forcing the heel part a' away from the fore part into the dotted-line position, Fig. 1, the pin a^5 then occupying the notch or offset a^8 of the plate a^2. This enables the operator to stretch the leather of the shoe to the extent required. Also, because of the shape of the slot a^4, the heel part is caused to move down into the shoe and out again in substantial parallelism with the fore part, giving freedom and ease of movement, as well as the requisite precision and certainty.

When the offset a^8 is used, as shown, it will be observed that it performs two very important functions: First, it permits of the lengthening or stretching movement already explained, and, second, it prevents the heel part from shifting vertically out of longitudinal alinement with the fore part.

If some provision is not made to keep the heel part even with the fore part, the tendency thereof to slide along the oblique or inclined straight slot a^4 is so great that the parts are liable to get out of line and cause creasing or other damage to the shoe.

This construction is very strong and not liable to permit of any lateral shifting of the heel part relatively to the fore part, and is also quite inexpensive.

Instead of the specific form of plate union herein shown I may employ the form shown in my pending application.

I do not restrict myself to the details of construction otherwise than as expressed hereinafter in the claims.

Having described my invention, what I claim, and desire to secure by Letters Patent, is—

1. A last having a fore part and a separate heel part joined by a union permitting the last to shorten for withdrawal from and insertion into a shoe, and means for permitting the fore part and heel part to separate to lengthen the last when in operative position within a shoe, substantially as described.

2. A last having a fore part and a separate heel part joined by a union permitting the last to shorten for withdrawal from and insertion into a shoe, and means for permitting the fore part and heel part to separate to lengthen the last when in operative position within a shoe, combined with means for cooperating with a treeing device for lengthening the last in order to expand and stretch a shoe being treed, substantially as described.

3. A last having a separate fore part and heel part, a plate rigidly secured to one of said parts and projecting into the other of said parts, the projecting end of said plate having an L-shaped slot, and the adjacent part of the last having a pin working in said slot, substantially as described.

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

ELLERY C. WRIGHT.

Witnesses:
GEO. H. MAXWELL,
GEO. W. GREGORY.