

Nov. 18, 1924.

1,516,333

G. CLAUSING

LAST

Filed April 28, 1924

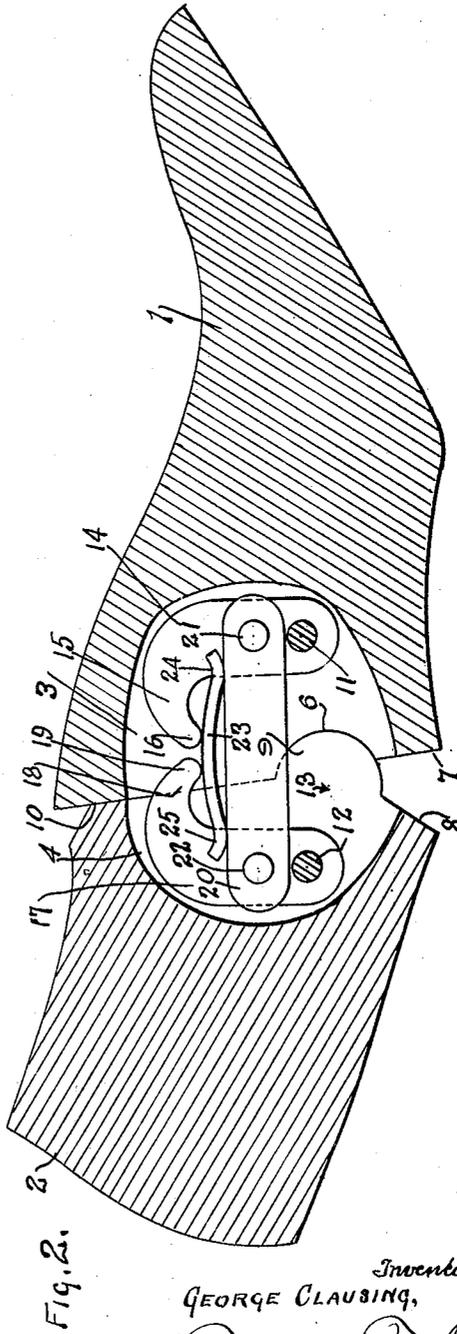
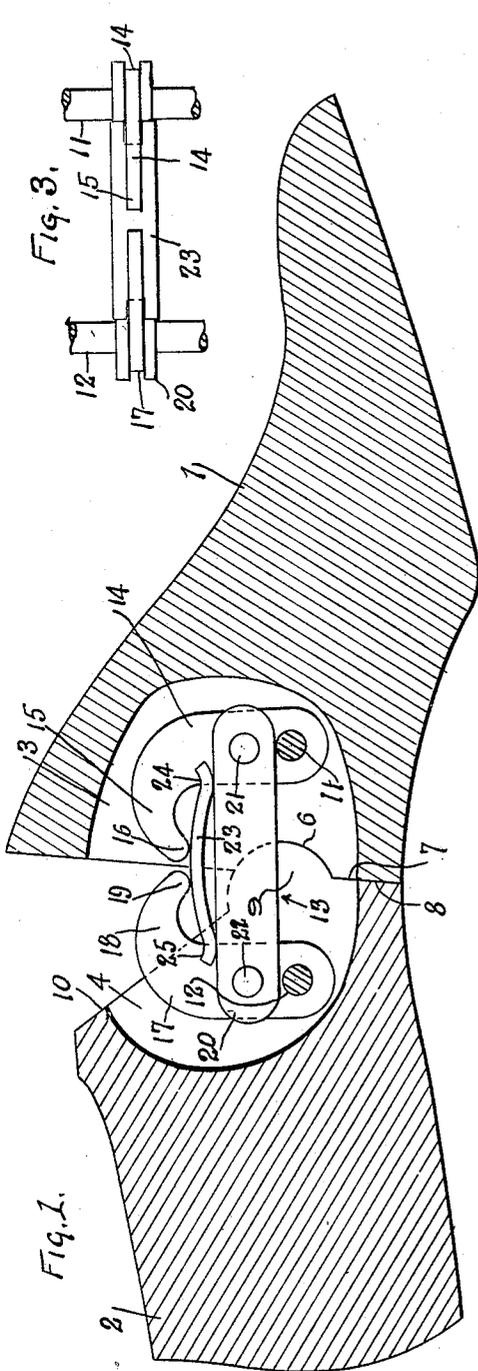
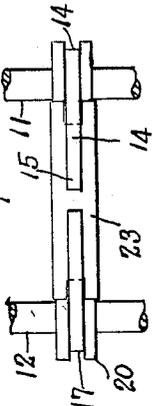


Fig. 3.



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UNITED STATES PATENT OFFICE.

GEORGE CLAUSING, OF PORTSMOUTH, OHIO, ASSIGNOR TO THE VULCAN LAST COMPANY, OF PORTSMOUTH, OHIO, A CORPORATION OF OHIO.

LAST.

Application filed April 28, 1924. Serial No. 709,474.

To all whom it may concern:

Be it known that I, GEORGE CLAUSING, a citizen of the United States, residing at Portsmouth, in the county of Scioto and State of Ohio, have invented certain new and useful Improvements in Lasts, of which the following is a specification, reference being had therein to the accompanying drawing.

My invention relates to lasts and in particular to collapsible lasts.

It is the object of my invention to provide an easily and cheaply constructed last which will be collapsible and which will stay in either its collapsed or extended position.

It is a further object of my invention to provide means for yieldingly resisting the passage of the last halves from expanded to collapsed position and vice versa.

Referring to the drawings:

Figure 1 is a section through the last in expanded position.

Figure 2 is a section of the last in collapsed position.

Figure 3 is a plan view of the mechanism which joins the last halves and yieldingly resists the movement of such halves.

Referring to the drawings in detail:

1 represents the toe part of a last and 2 the heel part. The toe part is cut away to receive the last connecting mechanism at 3 and the heel part is cut away for a similar purpose as at 4. The rear face of the forepart of the last has a substantially vertical flat surface when in expanded position, which extends substantially half way from the top of the forepart of the last to the bottom. About midway from the top of the last is a concave portion 6, which is semi-circular in character, the lower end of which terminates in a short vertical rear face 7 on the rear of the toe part of the last. The front of the heel part of the last has a similar vertical face near the bottom as at 8, which adjoins the corresponding surface 7 on the toe part. Above this space 8 is a semi-circular projection or knuckle 9, which fits within the concave portion 6 of the toe part. This knuckle has a circular surface describing more than 180 degrees and at the upper end of it starts a rearwardly directed front face 10 of the rear last part. The front or toe part of the last is provided with a transverse pin 11, while a similar pin is located transversely as at 12 in the rear or heel part

of the last. The centers of these pins are located on a line below the center 13 of the knuckle 9 when the last is in its expanded position and the last parts are so arranged that when this last is moved to its collapsed position this line joining the centers of the pins 11 and 12 will pass over the so-called dead center 13, which is approximately indicated on the drawings.

Pivotally mounted on the pin 11 is a vertically and laterally extending hook having a vertically extending portion 14 and a hook portion 15 with a nose 16. The pin 12 carries a similar hook having a vertical portion 17, a hook 18, and a nose 19. Connecting the vertical portions of the hooks is a link 20, of which there may be either one or a pair on either side of the hooks. This link is pivotally mounted as at 21 to the hook 14 and as at 22 to the hook 17.

Mounted upon the link 20 is an arch spring 23 having the ends 24 and 25 bearing upon the top of the link 20 and its center arched above the link. Its ends are bifurcated to embrace the hooks on either end to prevent the lateral shifting of this spring 23. The noses and hooks, such as 16 and 19, engage with the top of the spring over its arched portion. When the last is collapsed the distance between the centers of the pins 11 and 12 increases with the result that the pins move away from each other and the hooks rock on the pivotal points 21 and 22. This causes the noses 15 and 18 of the hooks to be depressed with the consequent flattening of the spring 23, which resists this operation and furnishes the yielding resistance of the yielding of the last from extended to collapsed position. The compressibility of the material out of which the last is made also cooperates to permit of this operation. The tendency of the spring to return to its initial arched position assists in the movement of the last parts to expanded position when the dead center is again passed over.

I desire to comprehend within my invention such modifications as may be necessary to adapt it to varying conditions.

Having thus fully described my invention, what I claim as new and desire to secure by Letters Patent, is:

1. In a last, a fore part and a heel part adapted to rock upon one another from collapsed to expanded position and vice versa, a transverse pin in either part, vertical

members pivoted thereon, a link pivotally connecting said members, and yielding means engaging with said members, to resist the movements of the last parts.

5 2. In a last, a fore part and a heel part adapted to rock upon one another, hooks pivotally mounted in said last parts, a link connecting said hooks and pivotally connected to each hook, and yielding means
10 to resist the rocking of said hooks about the points of connection of the link to the hooks.

3. In a last, a fore part and a heel part adapted to rock upon one another about a
15 given center, hooks pivoted in the respective last parts at points below the pivotal center of the last parts when the parts are in expanded position and above said center when the parts are in collapsed position, a
20 link pivotally connecting said hooks together, and a yielding means engaging said hooks to resist the movements of the last parts.

4. In a last, a fore part and a heel part adapted to rock upon one another about a
25 given center, hooks pivoted in the respective last parts at points below the pivotal center of the last parts when the parts are in expanded position and above said center
30 when the parts are in collapsed position, a link pivotally connecting said hooks together, and a yielding means engaging said hooks to resist the movements of the last parts, the parts being so arranged that when
35 the last parts are moved from one position to another and the distance between the points of connection of the hooks to the last parts varies, the hooks will rock about the pivotal connections of the links to the hooks.

5. In a last, a fore part and a heel part adapted to rock upon one another about a
40 given center, hooks pivoted in the respective last parts at points below the pivotal center of the last parts when the parts are in expanded position and above said center
45 when the parts are in collapsed position, a link pivotally connecting said hooks together, and a yielding means engaging said hooks to resist the movements of the last
50 parts, the parts being so arranged that when the last parts are moved from one position to another and the distance between the points of connection of the hooks to the last parts varies, the hooks will rock about the
55 pivotal connections of the links to the hooks, and said yielding means being mounted upon the link having its free ends resting thereon and its center engaging the noses of the hooks.

6. In a last, hooks pivoted in either the
60 fore part or the heel part of the last, a link pivotally connected to said hooks above the points of connection of the hooks to the last parts, means to permit said parts to
65 rock about one another on a common center so that the distance between the centers of connection of the hooks to the last parts will vary as the line joining said centers passes over the center of pivotal movement
70 of the last parts, an arch spring having its free ends resting on said link and the center of its arch engaged by the noses of the hooks.

7. In a last, hooks pivoted in either the
75 fore part or the heel part of the last, a link pivotally connected to said hooks above the points of connection of the hooks to the last parts, means to permit said parts to rock
80 about one another on a common center so that the distance between the centers of connection of the hooks to the last parts will vary as the line joining said centers passes over the center of pivotal movement of the
85 last parts, an arch spring having its free ends resting on said link and the center of its arch engaged by the noses of the hooks, said free ends of the spring being adapted to engage the hooks to prevent lateral movement of the spring.

8. In a last, a fore part and a heel part
90 having a knuckle joint so that they can rock about one another on a common center, hooks pivotally mounted in the respective last parts below said center when the parts
95 are expanded and above said center when the parts are collapsed, a link pivotally connected to said hooks above said center, yielding means mounted on said link and adapted to be compressed by the noses of said hooks.

9. In a last, a fore part and a heel part
100 having a knuckle joint so that they can rock about one another on a common center, hooks pivotally mounted in the respective last parts below said center when the parts
105 are expanded and above said center when the parts are collapsed, a link pivotally connected to said hooks above said center, yielding means mounted on said link and adapted to be compressed by the noses of said
110 hooks, said last parts being composed of compressible material which will yield to the variation in distance between the pivotal points of connection of the hooks to the last parts as the parts move from one position to the other.

In testimony whereof, I affix my signature.

GEORGE CLAUSING.