

(No Model.)

E. L. GODING.
LAST.

No. 604,382.

Patented May 24, 1898.

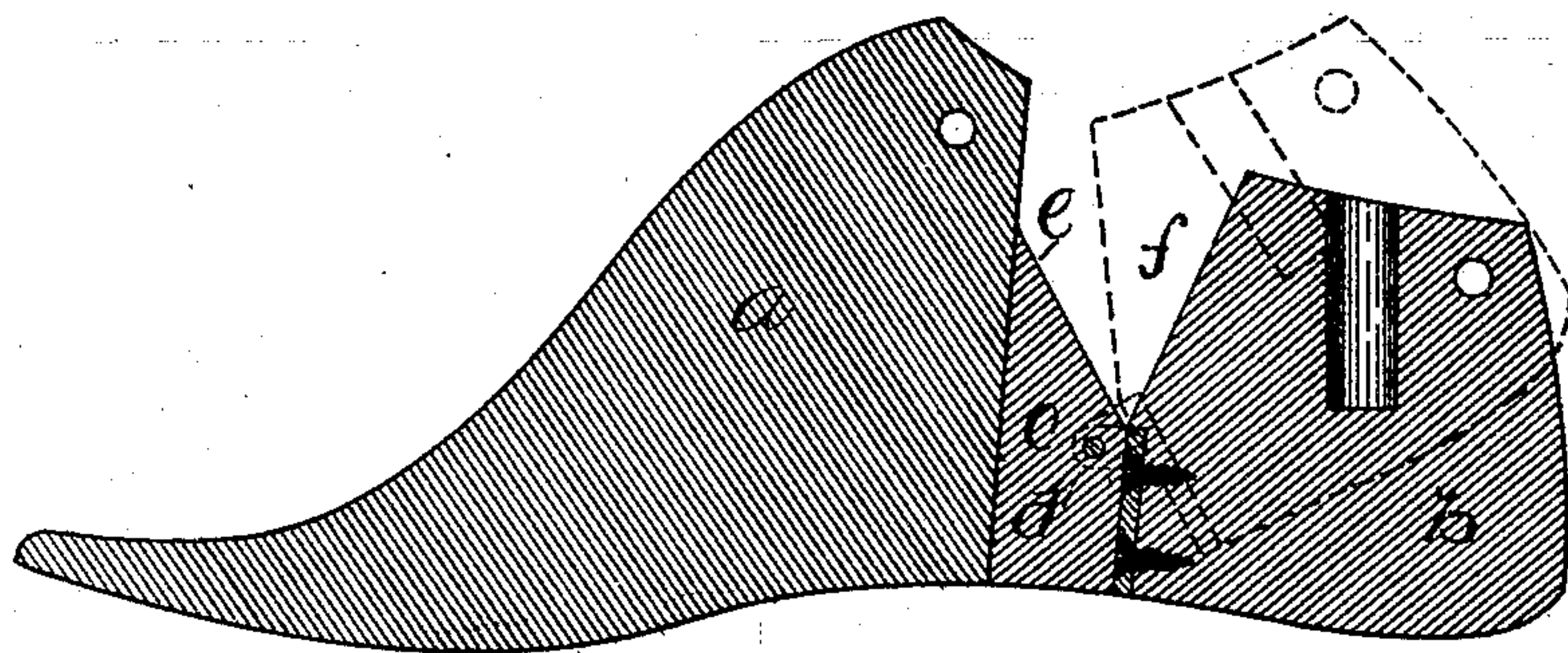


Fig. 1.

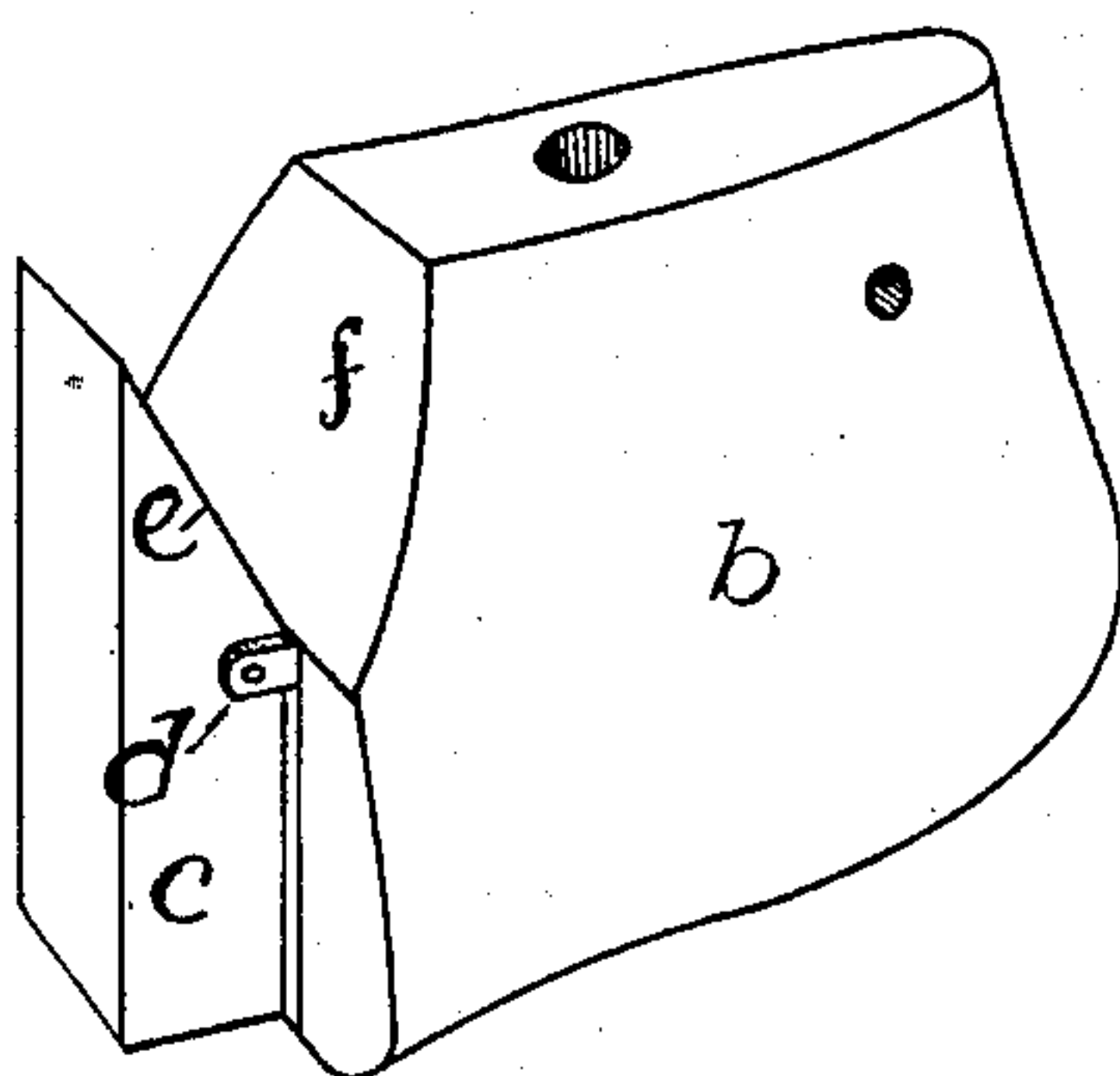


Fig. 2.

Witnesses:

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UNITED STATES PATENT OFFICE.

EDWIN L. GODING, OF PORTLAND, MAINE.

LAST.

SPECIFICATION forming part of Letters Patent No. 604,382, dated May 24, 1898.

Application filed March 22, 1895. Serial No. 542,743. (No model.)

To all whom it may concern:

Be it known that I, EDWIN L. GODING, a citizen of the United States of America, residing at Portland, in the county of Cumberland 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 more particularly in and to that class of lasts known in the trade as "followers."

It consists in forming the last in two independent parts, one (the heel) part being standard and adapted to be used with any style and, within certain limits, any size of fore parts. In the art in its present state of development it is customary to change frequently the shape and style of shoes; but this change in the shape and style is effected by changing the fore part only of the last, inasmuch as the heel of the last has the same length and a standard shape for sizes ranging from 2½ to 5 and from 5 upward. I have taken advantage of this well-known fact in the present invention and by making the heel separate and reducing the forward end of it, or that part which comes in contact with the rear portion of the fore part of the last, make a last-heel which is interchangeable and within the limits specified capable of being used with any fore part. It is found to be unnecessary for the follower to completely fill the shoe at the narrow part, between the heel and instep portion, the shoe at that part being kept in proper form by the tension produced by forcing the heel part into the shoe. If the last was made in the usual form and divided by a straight cut without any change in the form, the heel part could not be interchangeable, because it must make a perfect joint with the fore part and be perfectly symmetrical at the point of contact. Moreover, it would not be possible to divide the last on a vertical or diagonal line extending downwardly toward the toe, because if thus divided it would be impossible to insert the heel after the fore part was placed in the boot, and it is found that when the last is divided on a diagonal line extending downwardly toward the heel

the heel part has a tendency to work loose. I therefore make the forward end of the heel part to vary from the symmetrical outline of the last, making the forward end of the heel part at the point of contact with the fore part considerably reduced. To facilitate the insertion and removal of the heel part, I hinge the unsymmetrical portion of the heel to the heel proper and cut away the top of the heel or of the hinged portion, or of both. Whenever such change takes place it necessitates the employment of an entirely new set of lasts, involving a considerable expense therefor. It is the purpose of the present invention to curtail to some extent this expense by rendering it necessary to supply only the fore part of the last, which is the changeable part. To this end I form the last in two parts, the top part terminating at a point at or near the instep, the rear face of said top part being vertical or inclined downwardly toward the toe. The heel of the last has hinged thereto an intermediate section which does not necessarily conform to the outline of the shoe at the point of contact. Said hinged section above the pivot-point may be inclined from the perpendicular downwardly toward the heel to permit said heel to turn on its hinges forward to facilitate the insertion of the last into the shoe and its removal therefrom by permitting the heel to swing upward and forward toward the front of the shoe. The shape of this intermediate section may be varied indefinitely, but none of its proportions should be greater than the fore part of the last at the point of contact. It is only necessary for it to have a flat surface of sufficient extent to give it a steady bearing against the fore part of the last.

It will be evident that by reason of this invention whenever the style of shoes changes it is necessary to obtain only a supply of the fore parts of the last, using therewith the same heel, thus lessening very greatly the expense of making the change, because the heel of the last, as is well known, is the most expensive part, because of the holes to be made therein, the thimbles, rivets, and the metal heel-plate, which is sometimes used. Another advantage of this construction is that two fore parts may be turned at the same time, the two parts pointing in opposite directions.

When the blank is finished, it is divided in the center. The fore part may be made of pulp or other light and cheap material, inasmuch as there will be very little strain on that part. By this construction also the use of a last-block and fastener therefor is avoided, saving that expense and the expense of providing means to prevent the block from becoming mislaid or separated from its own last, in which case the ordinary last is worthless, because the blocks are not interchangeable.

In the drawings herewith accompanying and forming a part of this application, Figure 1 is a central longitudinal section of a last embodying my invention, and Fig. 2 is a perspective view of the heel disconnected from the fore part.

Same letters refer to like parts.

In said drawings, *a* represents the fore part; *b*, the heel, and *c* the intermediate section, pivotally attached to the heel portion by means of a hinge *d*. The intermediate section has its top inclined downwardly toward the rear, as seen at *e*, and the heel section may be inclined downwardly and forwardly, as seen at *f*, to permit the heel to swing on the intermediate section, as shown in dotted lines in Fig. 1, to facilitate the insertion of the last into the shoe and removing it therefrom.

I am aware that lasts have been divided on a diagonal line inclined downwardly toward the heel, and I do not claim a fore part of a last thus constructed.

I am aware that it is not broadly new to divide a last transversely to its length, and I do not claim the fore part of a last, broadly, but only the specific structure herein described and specifically claimed, the same being specially adapted to be used in connection with my heel and shank hereinbefore described.

I claim—

1. A divided last consisting of a fore part, a heel, and an intermediate section, the lateral surfaces of which are unsymmetrical with said fore part and heel when the several parts are placed adjacent to each other, substantially as and for the purposes set forth.

2. A divided last consisting of a fore part, a heel, and an intermediate section hinged to said heel, the lateral surfaces of said intermediate section being unsymmetrical with said fore part and heel when the several parts are placed adjacent to each other, substantially as and for the purposes set forth.

3. A divided last consisting of a fore part, a heel and an unsymmetrical intermediate section hinged to said heel, the top of said intermediate section being inclined downwardly toward the heel to permit said heel to be turned on said hinge, substantially as and for the purposes set forth.

4. As a new article of manufacture, a last-heel formed in two sections hinged together, the adjacent faces being cut away at the top, the forward section varying from the symmetrical outline of the last by being reduced in size to adapt it to be used with fore parts of lasts of different styles and sizes, substantially as and for the purposes set forth.

5. As a new article of manufacture, a universal last-heel divided at a point at or near the instep and having its forward end reduced in size from the symmetrical outlines of the last, said forward end being adapted to engage the upright end of the fore parts of lasts of different styles and sizes, substantially as and for the purposes set forth.

6. As a new article of manufacture a last-heel adapted to be used with lasts of different styles and sizes consisting of two parts, a heel proper and a brace hinged thereto and adapted to engage the rear end of the fore part of the last when these said parts are inserted in a shoe the size of said brace being in cross-section smaller than the adjacent edge of the fore part of the last, substantially as and for the purposes set forth.

In testimony whereof I affix my signature, in presence of two witnesses, this 20th day of March, 1895.

EDWIN L. GODING.

Witnesses:

ELGIN C. VERRILL,
NATHAN CLIFFORD.