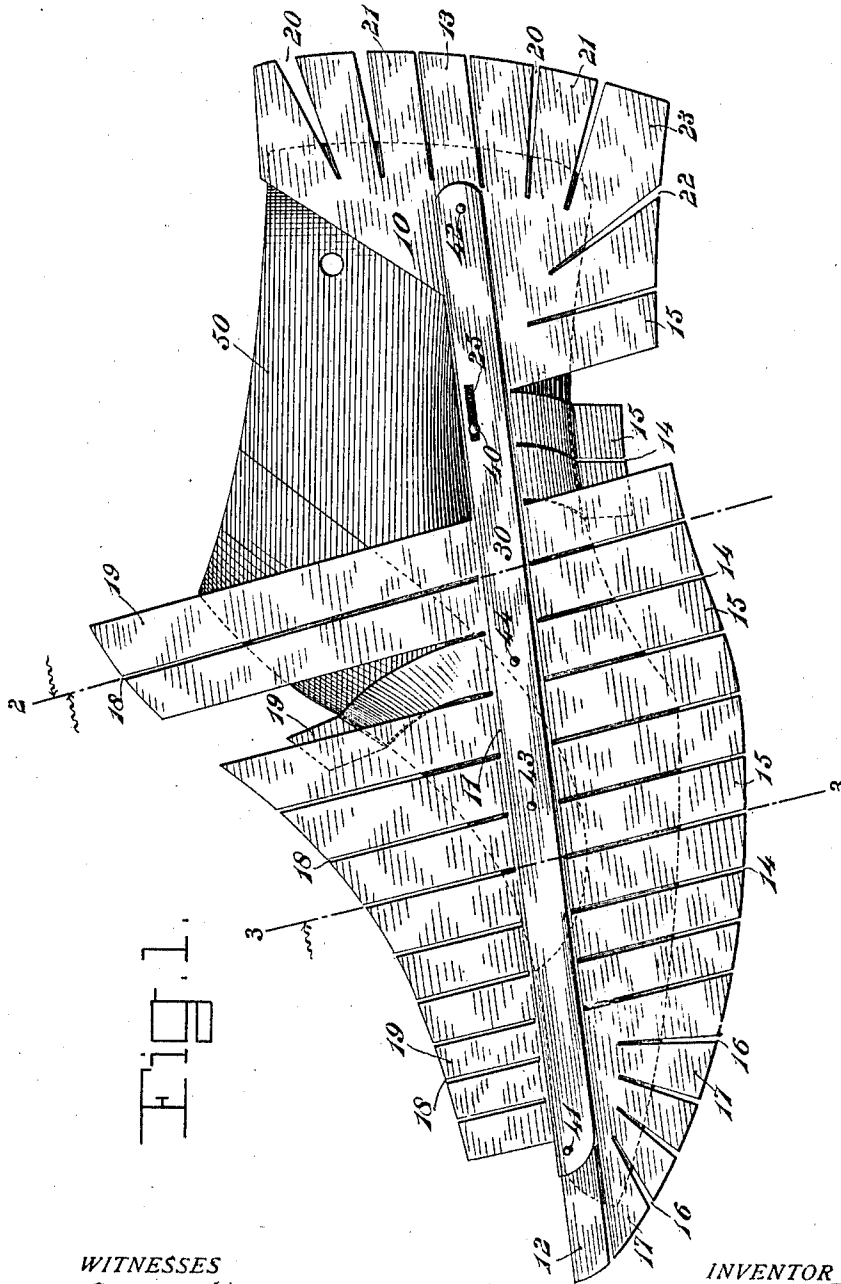


A. E. WHITELOW.
 BLANK FOR LAST FORMS FOR UPPER PATTERNS FOR BOOTS OR SHOES.
 APPLICATION FILED SEPT. 14, 1909.

986,884.

Patented Mar. 14, 1911.
 2 SHEETS—SHEET 1.



WITNESSES
Harry King
Kathleen Taylor

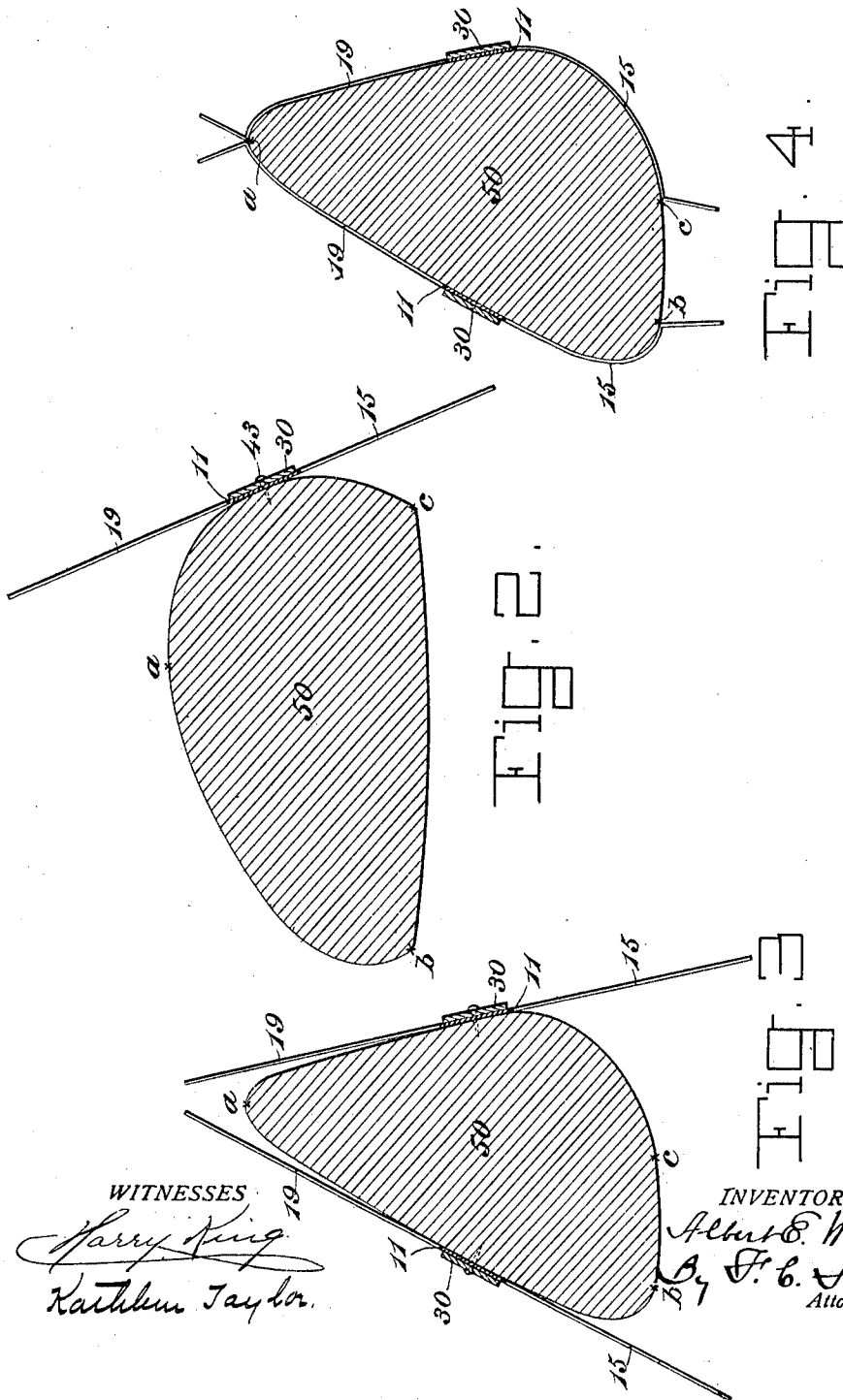
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UNITED STATES PATENT OFFICE.

ALBERT EDWARD WHITELAW, OF MELBOURNE, VICTORIA, AUSTRALIA.

BLANK FOR LAST-FORMS FOR UPPER-PATTERNS FOR BOOTS OR SHOES.

986,884.

Specification of Letters Patent. Patented Mar. 14, 1911.

Application filed September 14, 1909. Serial No. 517,585.

To all whom it may concern:

Be it known that I, ALBERT EDWARD WHITELAW, a subject of the King of Great Britain, and a resident of Melbourne, in the State of Victoria, in the Commonwealth of Australia, have invented certain new and useful Improvements in Blanks for Last-Forms for Upper-Patterns for Boots or Shoes, whereof the following is a specification.

This invention relates to a flexible blank for a last form adapted for application to a last for the purpose of laying out flat the necessary dimensions of the last for the making of patterns for the cutting of uppers.

In obtaining the flat dimensions of the last for the purpose indicated, a usual practice has been to tack or hold to one side of the last a roughly shaped blank of paper, then to cut slits in the edges thereof forming tongues bendable independently of one another, then to bend them in succession or in groups closely against the last to the measuring lines thereof, then to mark said tongues at said lines, then to remove the blank from the last and cut the tongues at the points indicated; thus producing a last form from which upper patterns are subsequently constructed. Sometimes the last form is produced by direct cutting off of the tongue ends at the measuring line while the blank is on the last without the preliminary marking thereof.

In the old practice above indicated the rough blank contains no definite guide for the cutting of the slits to form the tongues, consequently such slits are cut to varying depths and the resulting integral strip which constitutes the body of the last form is irregular in shape. Owing to this irregularity it cannot be drawn in a straight line over the last from the back to the tip of the toe and its measurement as regards length is liable to be inaccurate and is usually verified or corrected by a tape which is drawn taut from the center of the back of the last to the toe thereof. A last form made from a rough blank in the old way is subject to a further inaccuracy which affects the outline and spring of the subsequent pattern, being an inaccuracy due to the fact that the body of the blank is liable to bend or shift laterally during the marking and cutting of the tongues. Another objection to last forms made from a rough blank is that they con-

sume the pattern maker's time in the cutting of the tongues.

The principal object of this invention is to provide a blank formed upon carefully designed lines and which will maintain its shape during the measuring operation so that patterns of uniform accuracy may be constructed therefrom.

Another object of this invention is to save the time of the pattern maker by supplying ready-to-use blanks at trifling cost.

Another object of this invention is to provide a last form in which the measuring tongues can be utilized to determine the degrees of concavity in the concave portions of the last without concealing the guide line at the convexities thereof.

Another object of this invention is to provide a blank which is adjustable on the last without relative change of position to facilitate the measuring of the depression at the top between the toe and instep.

Another object of this invention is to provide a last pattern which is sufficiently rigid to prevent lateral shifting or longitudinal extension during the measuring operation.

Figure 1 of the accompanying drawings represents a face elevation of a blank embodying one form of this invention, said blank being applied to one side of a last and some of the tongues being bent into measuring contact therewith. Fig. 2 represents a transverse section on line 2—2 of Fig. 1 of a last having applied thereto on the inner side thereof a blank of this character in position for use in measuring. Fig. 3 represents a transverse section of a last on line 3—3 of Fig. 1 showing blanks embodying this invention applied to the inner and outer sides thereof in position for use in measuring. Fig. 4 represents a similar section to that shown in Fig. 3, the blanks being applied to opposite sides of the last and some of the tongues being shown as bent into contact with the last over the measuring lines thereof.

The same reference numbers are used in all the figures to indicate corresponding parts.

The blank 10 herein shown may be constructed from any suitable flexible sheet material, preferably of heavy Manila paper. In the making of a blank a sheet of the material to be used in the construction thereof is cut larger than and roughly in the general outline of a side elevation of the last to

which it is to be applied. A plurality of slits 14 are cut on the lower side of said sheet forming downward tongues 15, and a plurality of slits 18 are cut on the upper side thereof forming upward tongues 19. Radial slits 16 are cut on the under side of said sheet near the toe forming radial tongues 17. Radial slits 20 are cut in the rear end of said sheet forming back horizontal tongues 21. An inclined slit 22 is formed on the under side of said sheet near the rear end forming a heel tongue 23. The slits may vary in form direction and number without departing from this invention. The slits are however preferably in the form of slots having parallel sides resulting from the cutting out of parts of the sheet or blank for the purpose hereinafter described. As thus constructed the blank is composed of a sheet of flexible material adapted to practically cover one side of a last and comprises a straight longitudinal body 11 having a tongue 12 at its front end and a tongue 13 at its rear end, vertical tongues 15 on its lower side, radial tongues 17 on its lower side, vertical tongues 19 on its upper side and horizontal tongues 21 and 23 on its rear end. The body 11 of the blank is provided preferably near its rear end with a longitudinal slot 25. A straight stiffening strip 30 is preferably applied to the body 11, being cemented or otherwise attached thereto.

Separate blanks 10 are used for the inside and outside respectively of the last when the blanks are provided with reinforcing strips so that the reinforcing strip may always be on the outside of the blank in order to get a proper measurement for the last form. A blank of the same thickness throughout may be used on either side of the last.

In the use of this invention a blank 10 is applied to one side of a last 50 and secured in stationary position thereon by any suitable means. The means shown are tacks, a tack 40 passing through the slot 25 into the quarter of the last, a tack 41 passing through the front of the body 11 of the blank into the toe of the last, a tack 42 passing through the rear end of the body 11 of the blank into the back of the last and intermediate tacks 43 and 44 being used along the body of the last. After the blank has been secured to the last, the vertical tongues 15 and radial tongues 17 on the lower side of the body 11 of the blank are bent into close contact with the last and given markings to correspond with the lower edge of the last, those at the waist being carried under to a line thereon corresponding with the edge of the insole. The vertical tongues 19 on the upper side of the body 11 are bent over the top of the last and given markings to correspond with the medial longitudinal line of the last. The rear tongues 21, 13 and

23 are bent over the rear end of the last and given markings to correspond with the medial line at that end. The tongue 12 at the front end of the body 11 is bent over in contact with the last and given a marking to correspond with the toe edge of the last. Before the measure is taken along the depressed portion of the last between the in-step and toe thereof, all the tacks are removed except the tack 41 at or near the toe and the tack 40 which passes through the slot 25 of the blank. The slot 25 permits the blank to slide forward and the body 11 over said depressed portion to be pressed down into contact therewith. After the blank is marked as above described the ends of the tongues are cut off on the lines of said markings and the last form is complete and ready for use in the construction of patterns for uppers. The ends of the tongues may be cut off while the blank is on the last and the markings dispensed with.

I claim as my invention—

1. A blank for a last form composed of a sheet of flexible material adapted to practically cover one side of a last and comprising a straight central body adapted for attachment to the side of a last and tongues closely disposed along said body and bendable upward and downward respectively into contact with the top and bottom of the last.

2. A blank for a last form composed of a sheet of flexible material adapted to practically cover one side of a last and comprising a straight central body adapted for attachment to the side of a last and tongues disposed along opposite sides of said body and separated by slits extending at divers angles from said body, said tongues being bendable into contact with the body of the last and adapted to indicate in flat the contour of one side thereof.

3. A blank for a last form composed of a sheet of flexible material adapted to practically cover one side of a last and having lateral slits along its central portion extending inward from its opposite sides, radial slits near its toe and heel ends and longitudinal slits at said ends, said slits forming tongues bendable in divers directions into contact with the surface of one side of the last and adapted to indicate in flat the contour thereof.

4. A blank for a last form composed of a sheet of flexible material adapted to practically cover one side of a last and comprising a straight central body having a reinforcing strip adapted for attachment to the side of a last and tongues closely disposed along said body on opposite sides thereof and bendable upward and downward respectively into contact with the upper and lower parts of the last.

5. A blank for a last form composed of a sheet of flexible material adapted to prac-

5 tically cover one side of a last and comprising a straight central body having a longitudinal slot for adjustable attachment to the side of a last and tongues closely disposed
10 along said body on opposite sides thereof and bendable upward and downward respectively into contact with the upper and lower parts of the last.

15 6. A blank for a last form composed of a sheet of flexible material adapted to practically cover one side of a last and comprising a straight central body having a reinforcing strip and a longitudinal slot for adjustable attachment to the side of a last
20 and tongues closely disposed along said body on opposite sides thereof and bendable upward and downward respectively into contact with the upper and lower parts of the last.

25 7. A blank for a last form composed of a sheet of flexible material adapted to practically cover one side of a last and comprising a central reinforced body adapted for

attachment to the side of a last and tongues disposed along opposite sides of said body 25 and separated by slits extending at divers angles from said body, said tongues being bendable into contact with the body of the last and adapted to indicate in flat the contour of one side thereof. 30

8. A blank for a last form composed of a sheet of flexible material adapted to practically cover one side of a last and comprising a straight central slotted body adapted for adjustment to the side of a last and 35 tongues disposed along opposite sides of said body and separated by slits extending at divers angles from said body, said tongues being bendable into contact with the body of the last and adapted to indicate in flat 40 the contour of one side thereof.

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Witnesses:

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