

No. 867,909.

PATENTED OCT. 8, 1907.

W. F. BOSTOCK.
BOOT AND SHOE HEEL.
APPLICATION FILED FEB. 18, 1907.

Fig. 2.

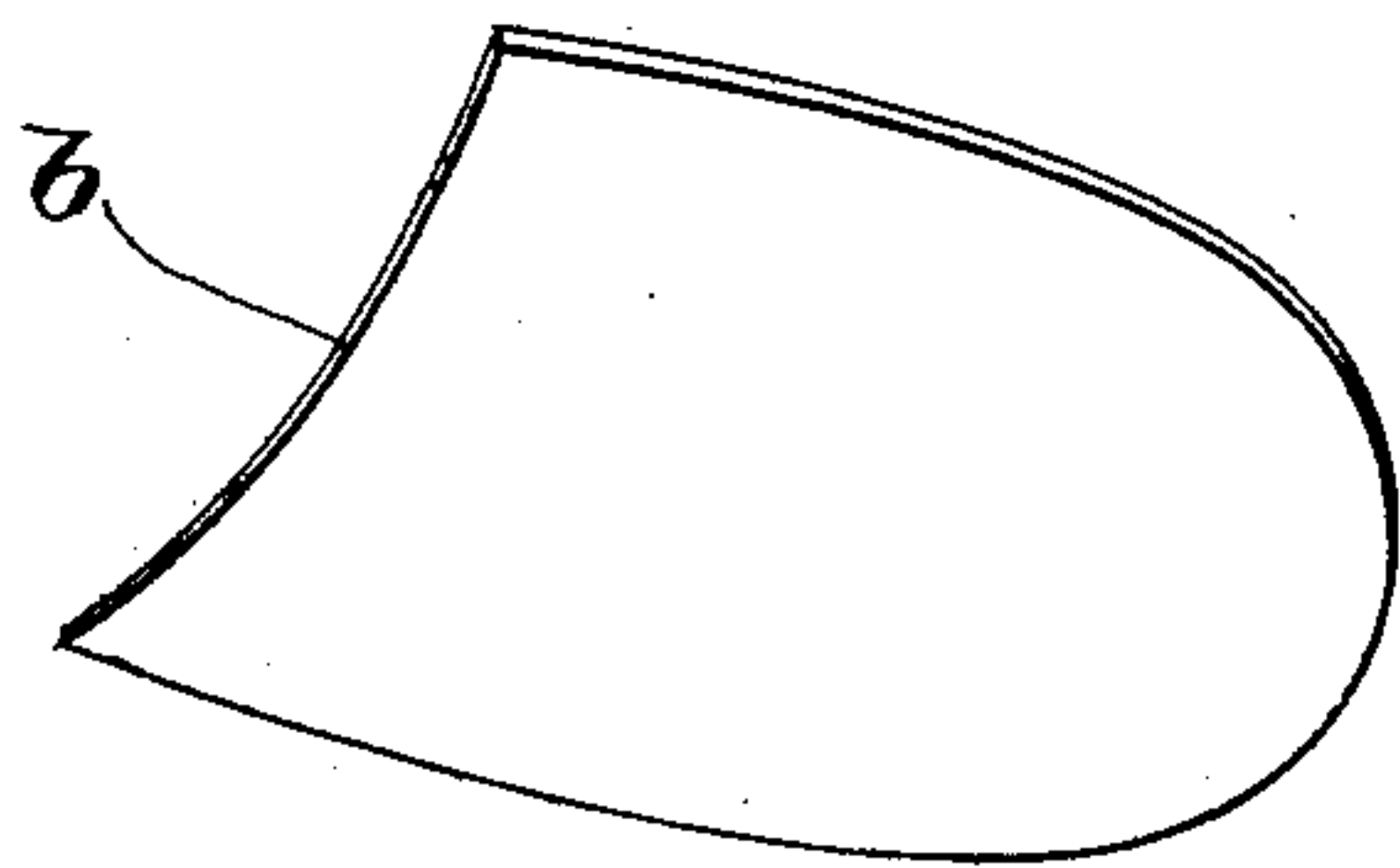


Fig. 5.

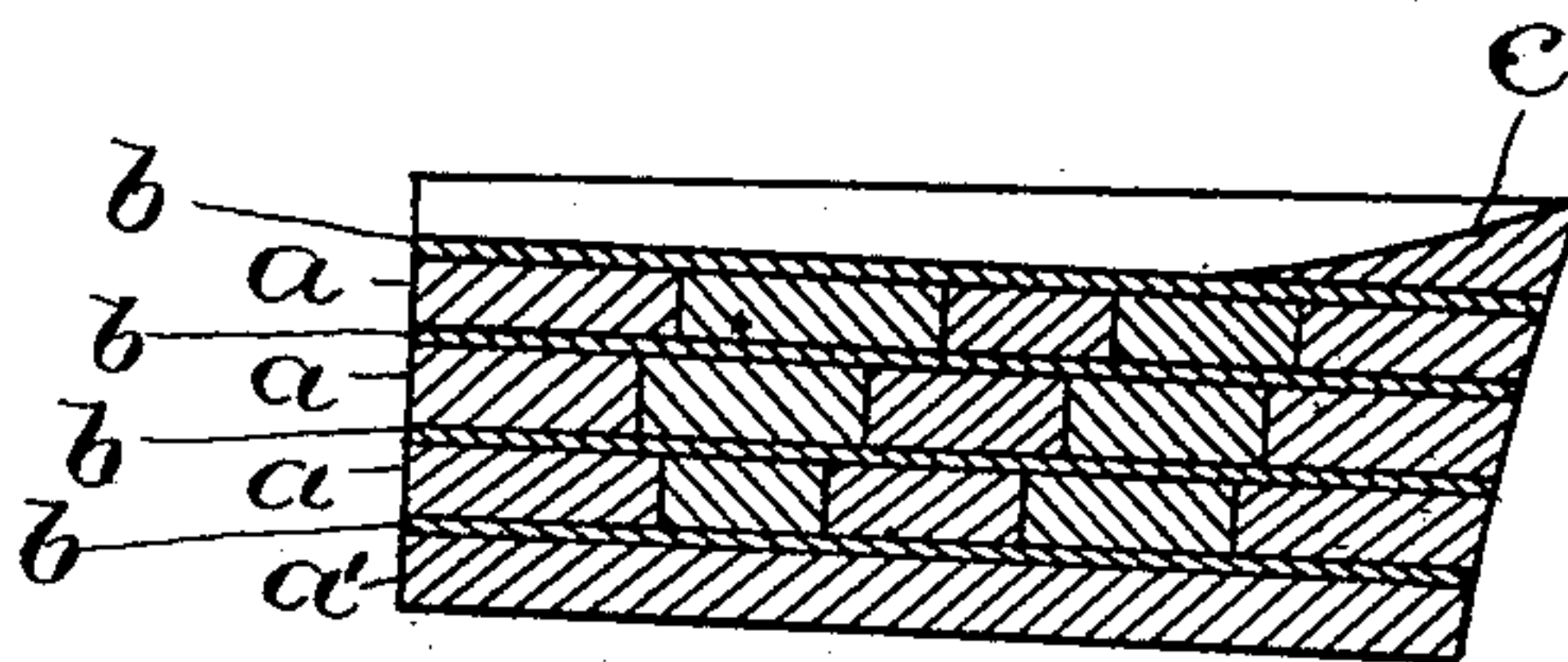


Fig. 1.

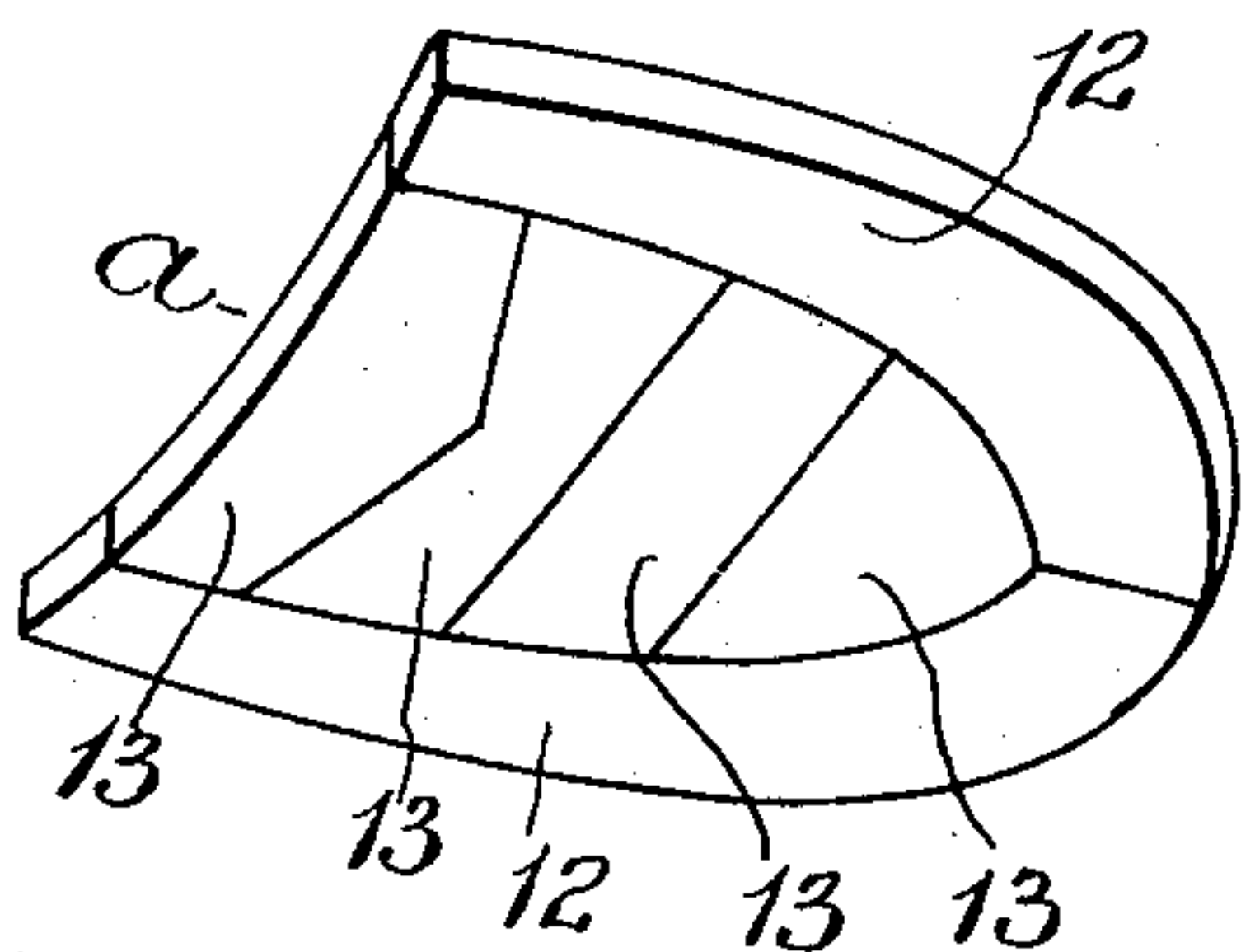


Fig. 6.

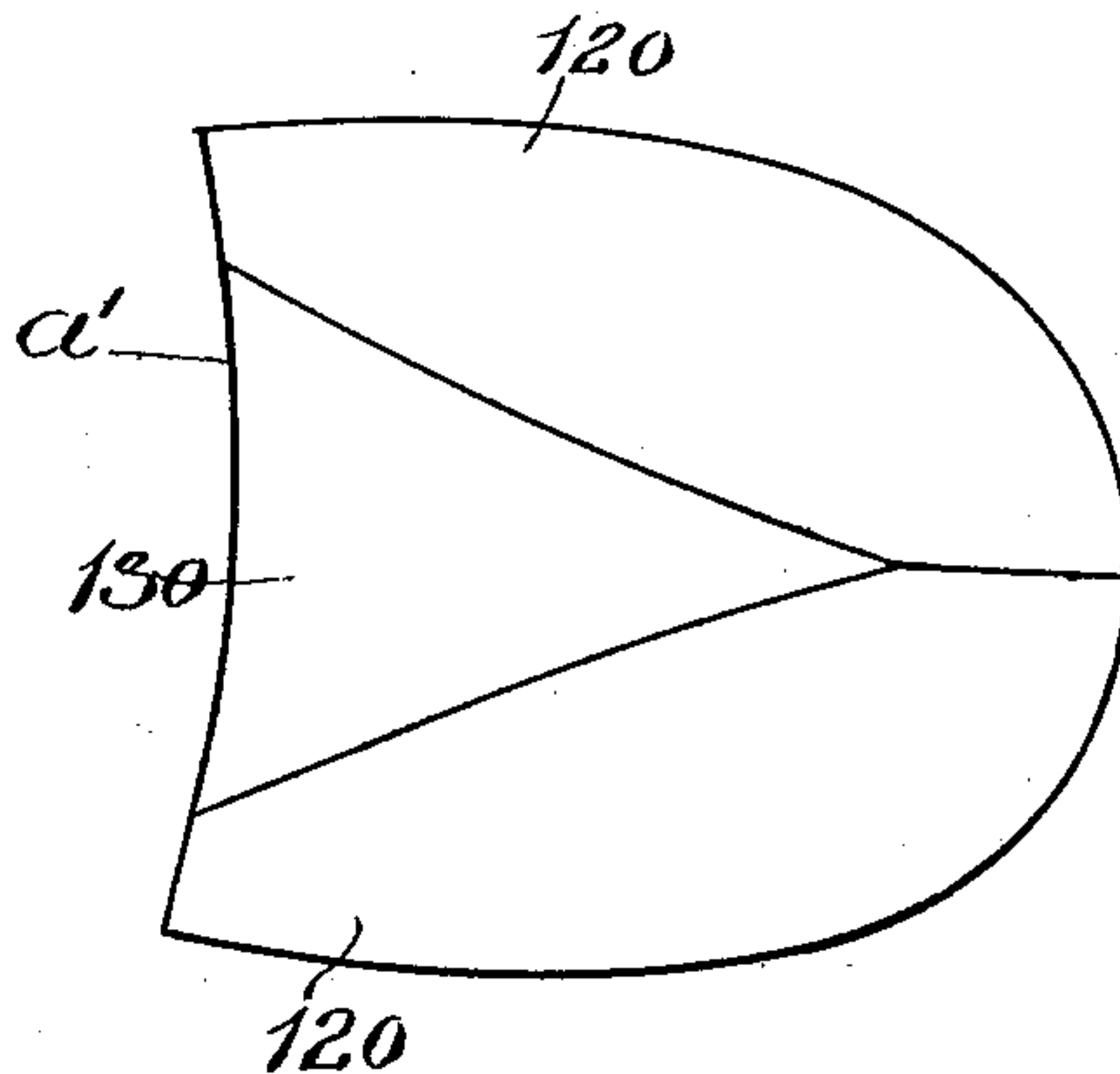


Fig. 3.

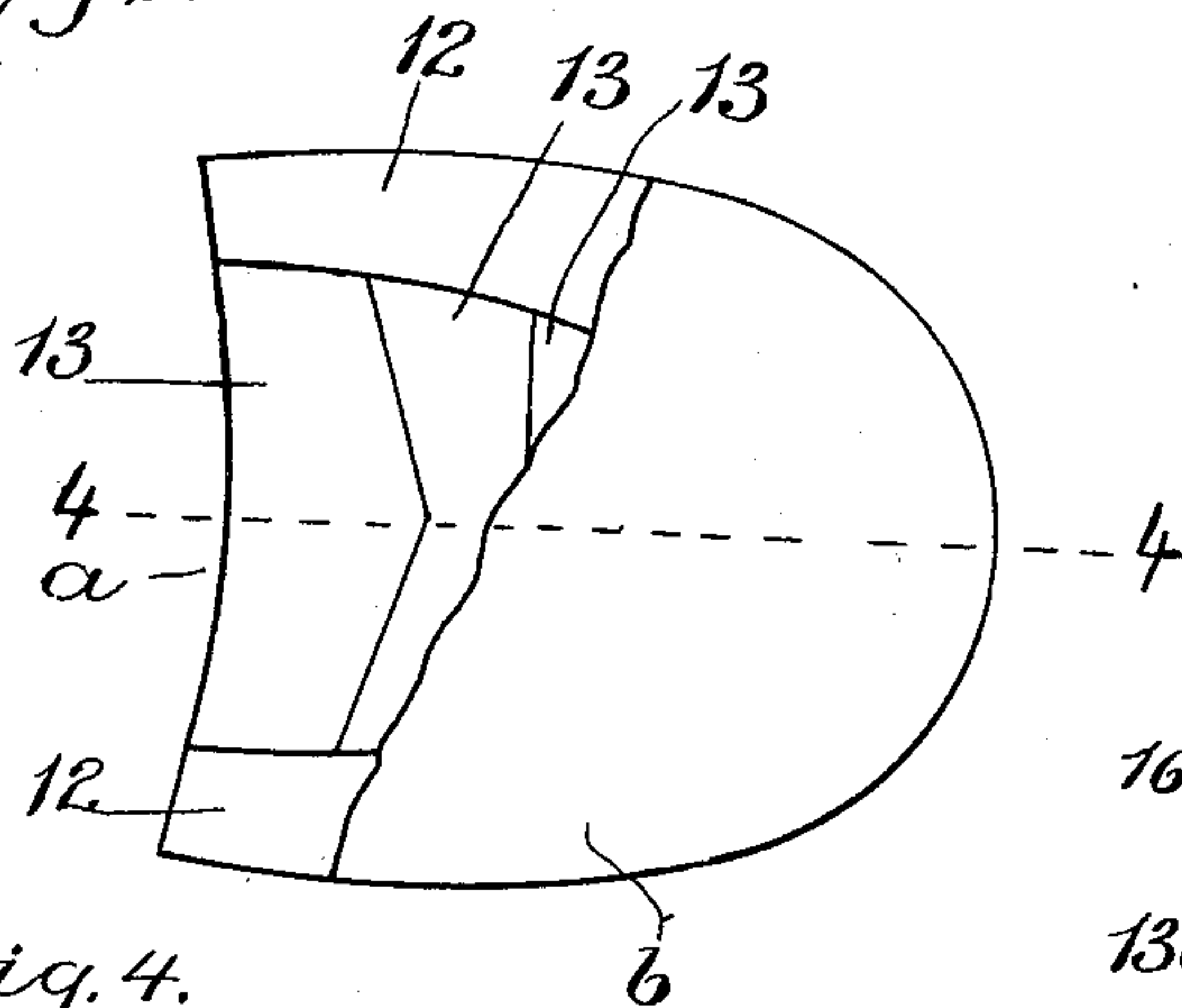


Fig. 7.

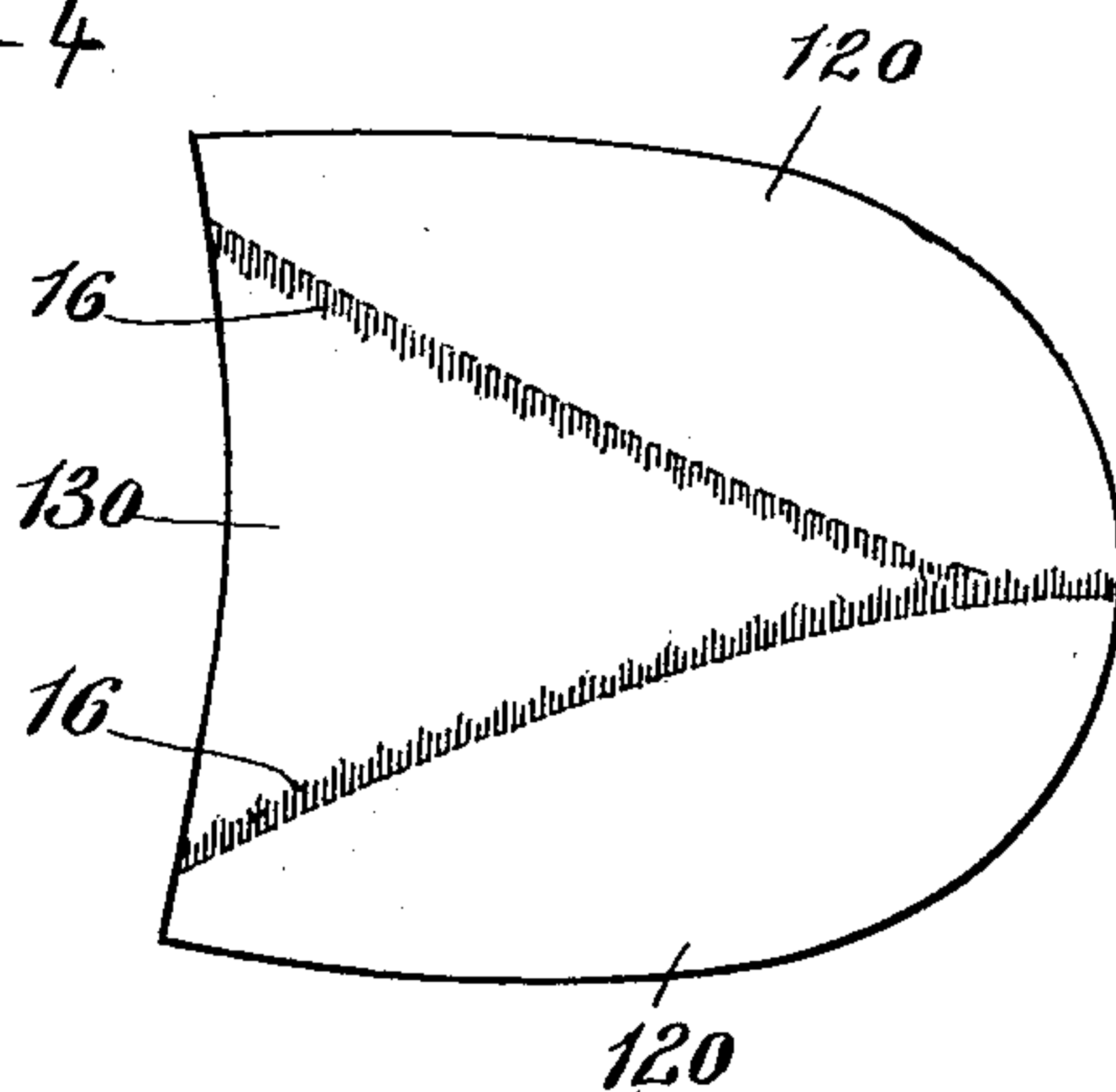
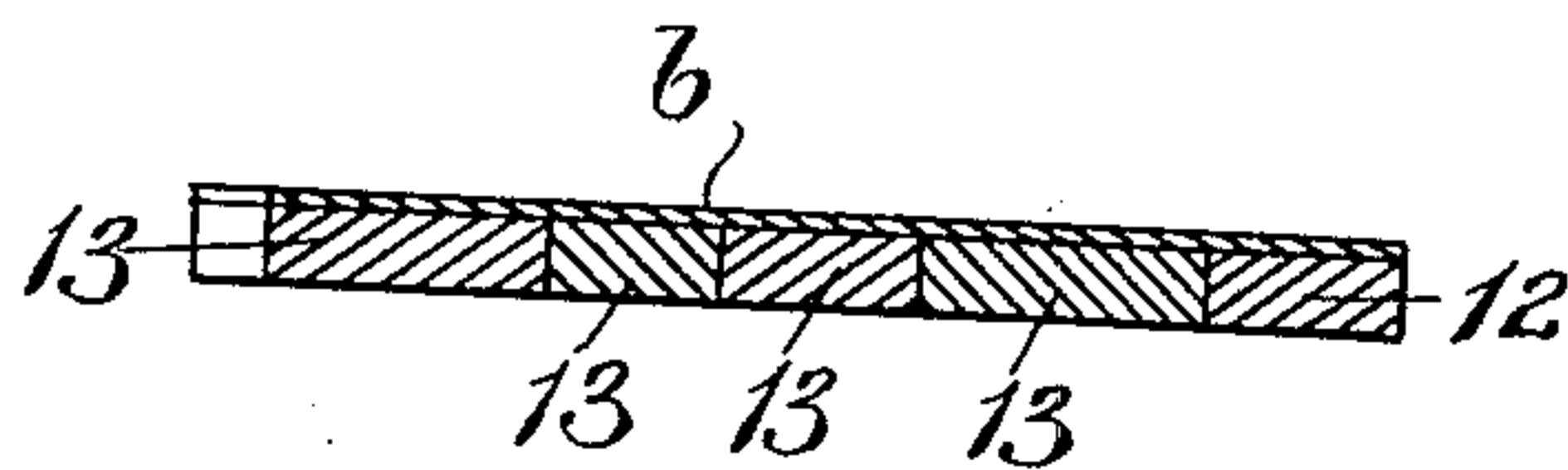


Fig. 4.



Witnesses:

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UNITED STATES PATENT OFFICE.

WILLIAM F. BOSTOCK, OF BROCKTON, MASSACHUSETTS.

BOOT AND SHOE HEEL.

No. 867,909.

Specification of Letters Patent.

Patented Oct. 8, 1907.

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To all whom it may concern:

Be it known that I, WILLIAM F. BOSTOCK, of Brockton, in the county of Plymouth and State of Massachusetts, have invented certain new and useful Improvements in Boot and Shoe Heels, of which the following is a specification.

This invention has for its object to enable a strong, durable and substantial heel to be made by assembling small and relatively thick pieces, each of smaller size than a lift of the heel, and fitted together so that they form a relatively thick pieced lift, and a plurality of relatively thin lifts which are continuous, instead of being pieced, the sections or members of the pieced lifts being abutted together, edge to edge, and united by glue or paste to each other and to the thin continuous lifts, the latter serving both as lifts forming a part of the thickness of the heel, and as means for binding together the members of the pieced lifts. My invention is embodied in the improved heel which I will now proceed to describe and claim.

Of the accompanying drawings, forming a part of this specification,—Figure 1 represents a perspective view of one of the pieced lifts of my improved heel. Fig. 2 represents a perspective view of one of the continuous binding lifts. Fig. 3 represents a side view showing the lifts represented in Figs. 1 and 2, assembled, the thin lift being partially broken away. Fig. 4 represents a section on line 4—4 of Fig. 3. Fig. 5 represents a longitudinal section of a completed heel embodying my invention. Fig. 6 represents a view of the tread face of the top lift of the said heel. Fig. 7 represents a view similar to Fig. 6, showing the top lift ornamented to conceal the joints between the members of the top lift.

The same letters of reference indicate the same parts in all the figures.

In carrying out my invention I cut from waste scraps of sole leather of irregular form, such as are left by a sole-rounding machine and after the operation of dying out soles, heels, lifts, etc., from a side of leather, a plurality of sections or members of such form as that when they are properly assembled they will form a relatively thick pieced lift *a*, such as that shown in Fig. 1. The sections or members of the lift may be of various forms, and they preferably include two elongated members 12 which form the side and rear edges of the lift and portions of the breast edge, and intermediate members 13 located between the side members 12, one of said members forming the remaining portion of the breast edge. The members 12 and 13 are cut out by dies from the scrap material with their edges at right angles to their side faces, the edges of the sections being abutted together, and united by glue or paste interposed between the abutting edges before they are assembled. The members 12 are of such width that they receive between their inner and outer edges the

nails which are ordinarily used to attach the heel to the heel seat of a boot or shoe.

b b represent a series of relatively thin lifts which are preferably cut from sheets of thin skived leather, the said lifts being of such thickness that a plurality of them may be made from a sheet of leather of ordinary thickness. Each lift *b* is of such size that it includes the entire width and length of the heel. I therefore call the lifts *b* continuous, to indicate the fact that each extends continuously lengthwise and crosswise of the heel, instead of being composed of pieces or sections, as in the case of the lifts *a*. Each continuous lift *b* is attached by glue or paste to one side of the group of sections or members 12 and 13 composing one of the pieced lifts, and constitutes a connection or binder between the members 12 and 13, to which it is thus united. When the members 12 and 13 are made of sole leather, the members are arranged so that their flesh sides all face in the same direction, and form one of the surfaces of the pieced lift, preferably the upper surface, the continuous lift *b* being united, by a suitable adhesive, to the flesh sides of the members 12 and 13. The said flesh sides and the cut surfaces of the skiving forming the lift *b* are relatively rough, and are adapted to be intimately united by the interposed adhesive, the latter permeating the rough surfaces, and effecting a firm union between them. In practice the members of each pieced lift *a* and the accompanying continuous binding lift *b* are assembled and united to form an element of the heel, as shown in Fig. 4, the said element including a series of relatively thick lift members 12 and 13, the edges of which are united by glue or cement, and a single relatively thin continuous binding lift *b* united to the flesh sides of the members 12 and 13. In forming each of said elements I apply compressive pressure tending to force the abutting edges of the members 12 and 13 against each other, and cause them to conform accurately to each other, so that there will be no variation in width of the crevices between the abutting edges, the continuous binding lifts *b* being united to the members of the accompanying pieced lift while the latter are under the said edgewise compressive pressure, so that the completed heel element, composed of the relatively thick lifts 12 and 13, and the relatively thin continuous binding lift *b*, are all firmly united, and form a rigid heel element, adapted to be united to a number of other similar heel elements to form a heel of the desired thickness, as shown in Fig. 5, the said heel being completed by the addition of a suitable rand *c* and a top lift *a'*. The top lift may be either continuous or composed of sections abutted together edge to edge and united by glue or cement, and a continuous binding lift *b* united to the flesh sides of the said members. When the top lift is pieced or composed of a plurality of members, I prefer the form of members shown in Fig. 6, there being two side mem-

bers 120 and an intermediate member 130, these being symmetrically formed so that the joints or crevices between them are symmetrically arranged relatively to the median line of the top lift, as shown in Fig. 6. The tread face of the top lift may be ornamented by means of a milling tool moved along said surface over the joints formed by the members 120 and 130, to form ornamental bands or lines 16 obliterating the said joints, and imparting an ornamental effect to the tread surface of the top lift, as shown in Fig. 7.

It will be seen that the improved heel above described, utilizes the strength and solidity of sole leather scraps left by the operation of forming continuous sole and heel lifts, and thin sheets or skivings, several of which may be cut from a single thickness of ordinary leather. The skivings which form the continuous lift *b* not only comprise a considerable part of the thickness of the heel, but they also serve to bind together and prevent edgewise displacement of the members of the thicker pieced lifts. By assembling the members of the pieced lifts so that their flesh sides all face in the same direction, I am enabled to utilize the holding power of the rough flesh sides in effecting a firm union between the members of the pieced lifts and the relatively rough skived surfaces of the binding lifts *b*. By applying edgewise pressure to the members of the pieced lifts in such manner as to press the abutting edges of said lifts closely together, I avoid the formation of conspicuous cracks or crevices on the marginal portions of the pieced lifts, the edgewise compression of the members of the pieced lifts being such that any shrinkage of the members which may occur after they have been assembled in a heel, will not separate the abutting edges and form conspicuous cracks or checks on the surface of the heel. And the cemented continuous lifts preserve the intimate edgewise relationship produced by the edgewise compression owing to the fact that the said continuous lifts oppose the tendency of the compressed members of the pieced lifts which are cemented to the thin lifts, to expand and return to original size, or to separate at their joints. In practice the edgewise compression to which the members of the pieced lifts are subjected, is such as to materially reduce the area of the lift as a whole, and compensate for any shrinkage of the members which may occur after

the parts of the heel have been assembled. My invention enables very narrow pieces, such as are removed by a sole rounding machine or rough rounder, to be utilized in the formation of heel lifts. Such pieces comprise the most valuable parts of the sole leather, and heretofore have been useless for anything but fuel.

I claim:

1. A heel comprising a plurality of relatively thick pieced lifts, and a plurality of relatively thin continuous binding lifts alternating with the pieced lifts, the members of each pieced lift being compressed edgewise, and cemented together edge to edge, and also cemented to the adjoining binding lift, whereby the binding lifts preserve the intimate relationship of the members of the pieced lifts.
2. A heel comprising a plurality of relatively thick pieced lifts, each composed of sole leather pieces or members compressed edgewise, and having their edges cemented together, and their flesh sides facing in the same direction, and a plurality of relatively thin continuous binding lifts cemented to the flesh sides of the members of the pieced lifts, whereby the binding lifts preserve the intimate relationship of the members of the pieced lifts.
3. A heel comprising a plurality of relatively thick pieced lifts, each composed of sole leather pieces or members compressed edgewise, and having their edges cemented together, and their flesh sides facing in the same direction, and a plurality of relatively thin continuous binding lifts composed of leather skivings, cemented to the flesh sides of the members of the pieced lifts, whereby the binding lifts preserve the intimate relationship of the members of the pieced lifts.
4. A heel comprising a plurality of superimposed heel elements, each composed of a relatively thick pieced lift, the members of which are abutted together edge to edge, and subjected to edgewise compression, and a relatively thin continuous binding lift cemented to the members of the pieced lift, and preserving the intimate relationship of the members of the pieced lift.
5. A heel lift comprising a relatively thick pieced layer having its members compressed edgewise and cemented together, and a relatively thin continuous layer cemented to the members of the pieced layer and binding them together to maintain the pressure of the edgewise compressed members of said pieced layer and preserve the intimate relationship thereof.

In testimony whereof I have affixed my signature, in presence of two witnesses.

WILLIAM F. BOSTOCK.

Witnesses:

C. F. BROWN,
E. BATCHELDER.