

(No Model.)

J. BLAKEY.

COMBINATION METALLIC LAST.

No. 299,613.

Patented June 3, 1884.

Fig. 1.

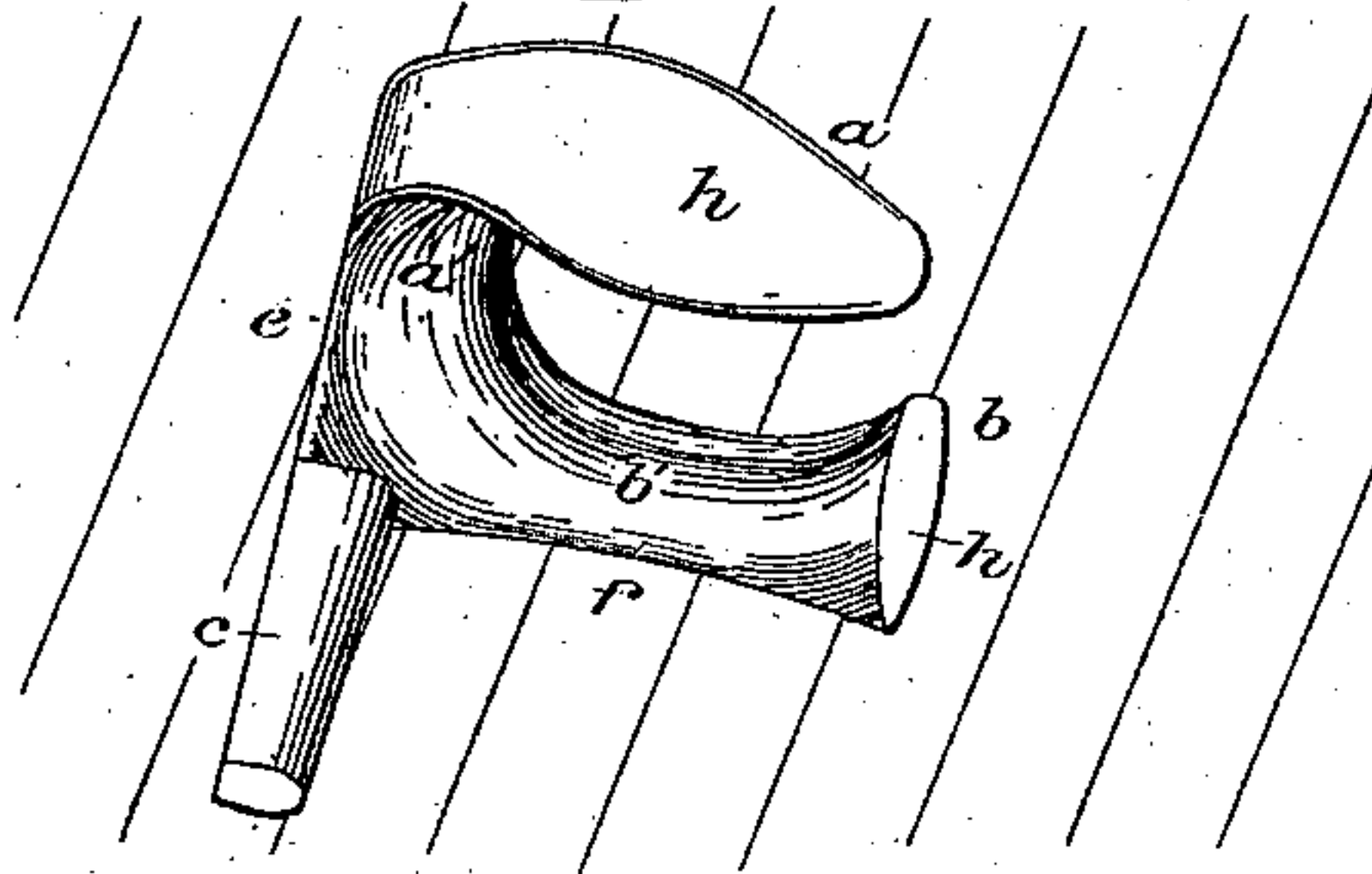


Fig. 2.

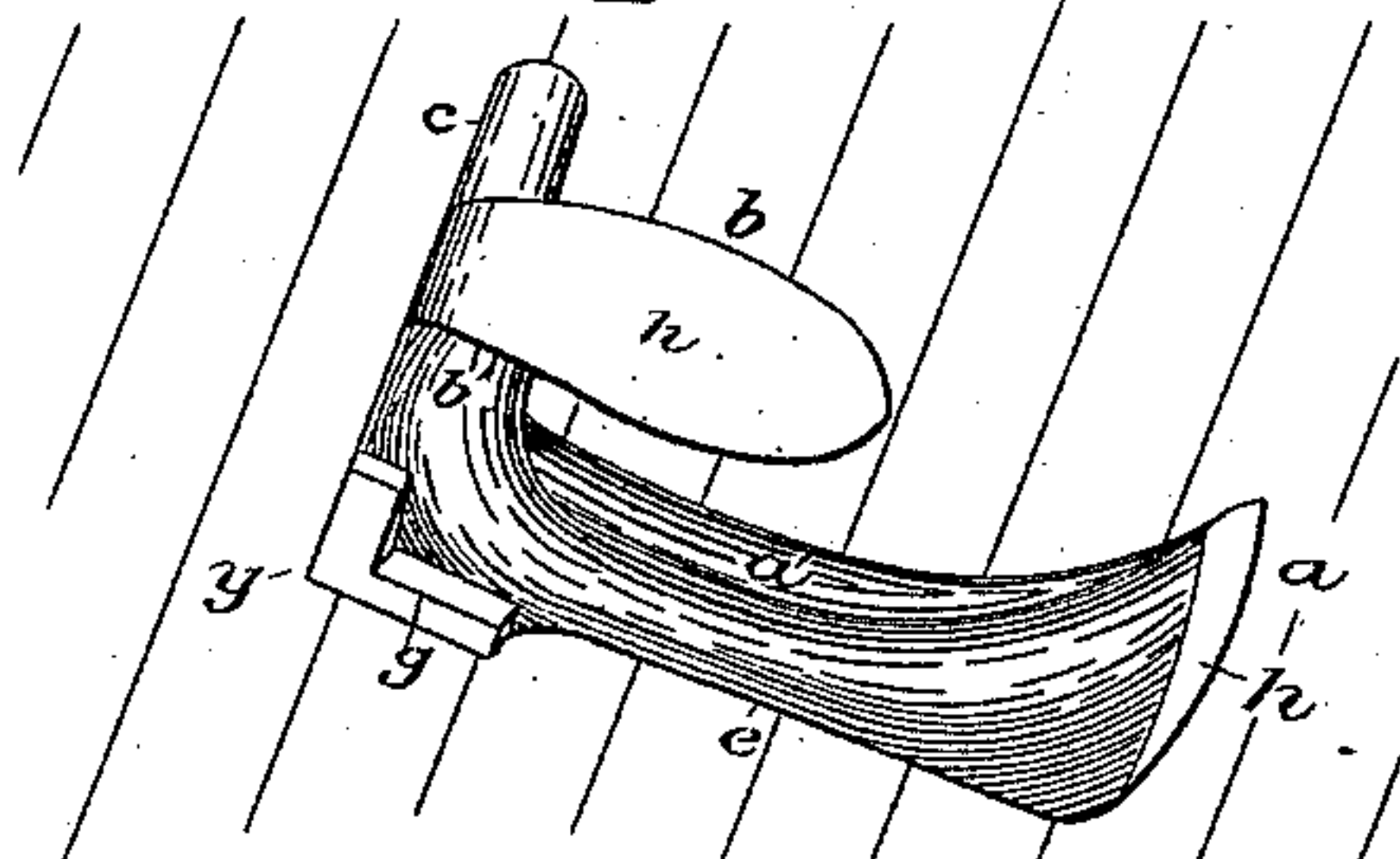


Fig. 3.

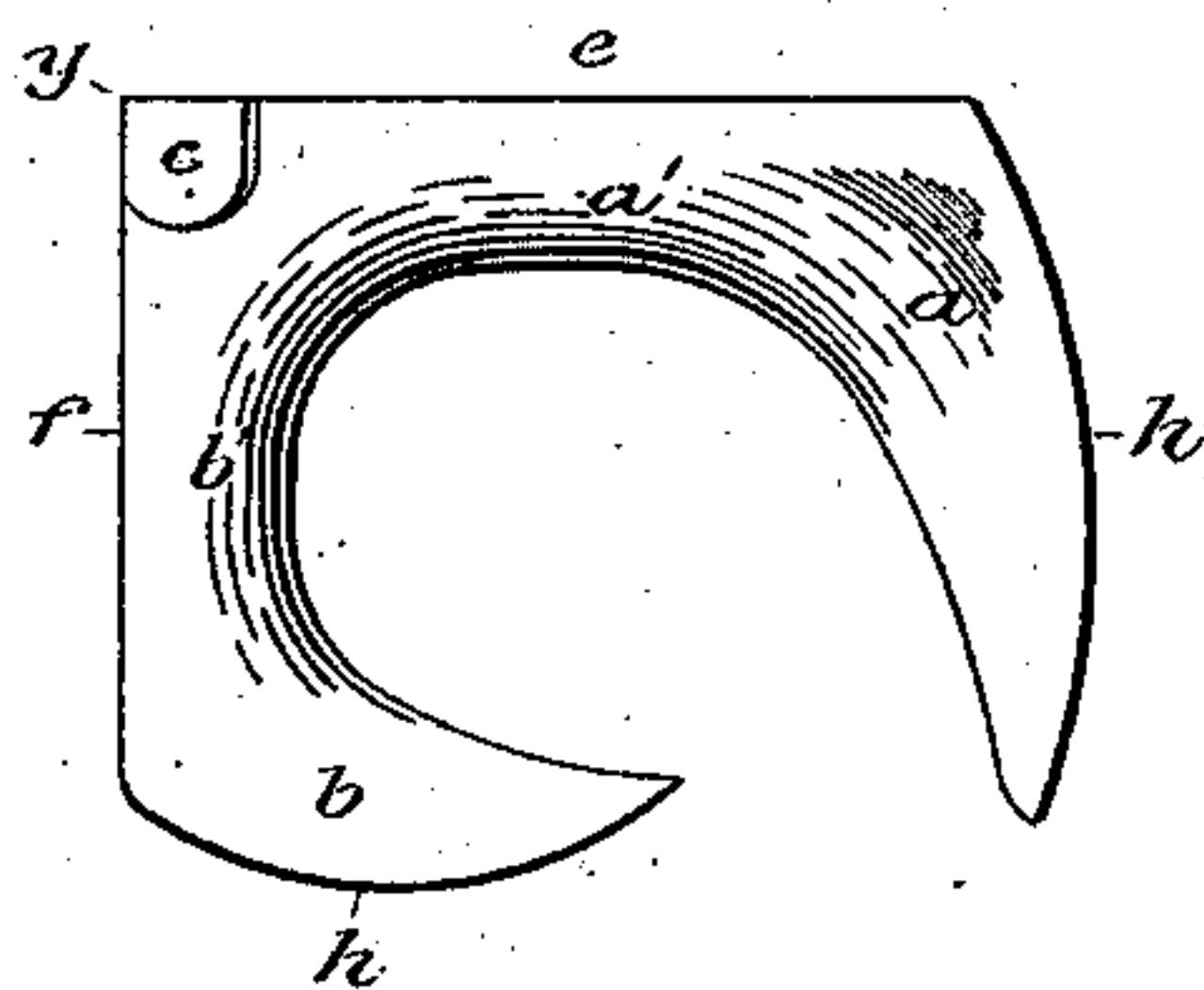
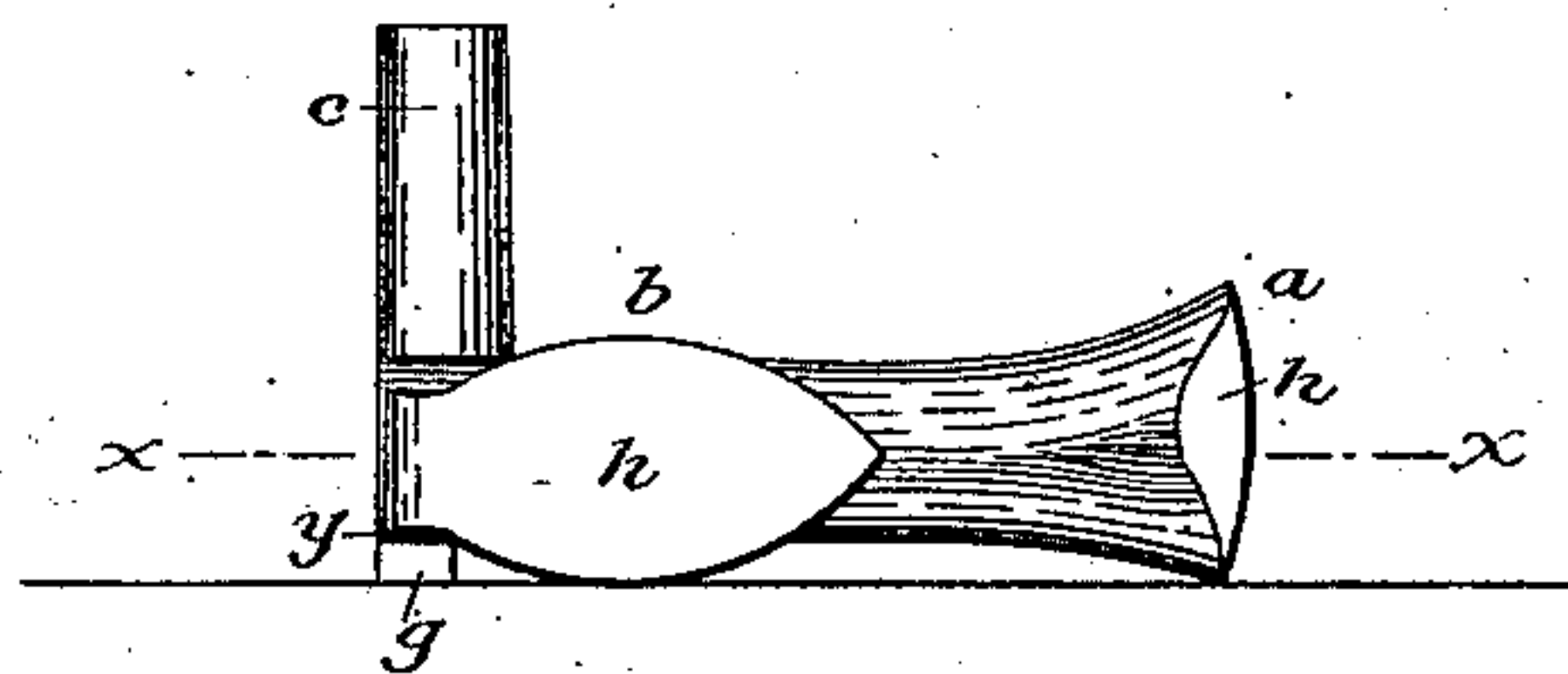


Fig. 4.



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# UNITED STATES PATENT OFFICE.

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## COMBINATION METALLIC LAST.

SPECIFICATION forming part of Letters Patent No. 299,613, dated June 3, 1884.

Application filed February 25, 1884. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN BLAKEY, a subject of the Queen of Great Britain, and a resident of Leeds, Yorkshire, England, have invented an Improved Combination Metal Last, of which the following is a specification.

My invention relates to the metal last usually employed for clinching down the nails which sometimes project through the sole of a boot or shoe inside. The last is inserted into the boot, which it fits rather loosely, and the nails are clinched by hammering the sole or heel from the outside. Such lasts are also useful for inserting extra nails and for attaching sole-plates, heel-plates, &c. As ordinarily constructed, the metal last is provided with a socket, whereby it is fixed removably, sole up, on a post or upright, and lasts of several sizes are necessary to fit boots and shoes of different sizes.

My invention consists in the combination of two lasts of different sizes, and a heel-anvil, all formed in one, and adapted to form bases and supports for each other, whereby they co-act and become interdependent. Each of the three elements may be brought into play successively by simply turning the device over, so as to bring the element which it is desired to use uppermost.

In the drawings which serve to illustrate my invention, Figure 1 is a perspective view showing the larger last, *a*, uppermost, ready for use. Fig. 2 is a similar view showing the smaller last, *b*, uppermost. Fig. 3 is a plan showing the heel-anvil *c* arranged uppermost, and Fig. 4 is a side elevation of Fig. 3.

For convenience I prefer to cast the whole combination of iron and malleableize it; but it might be made otherwise as well. It will be seen that the shanks *a'* and *b'* of the lasts *a* and *b*, respectively, stand at right angles to each other, but are in the same plane, (indicated by line *x x* in Fig. 4.) The heel-anvil *c*, however, stands out at right angles to this plane, the three elements *a*, *b*, and *c* springing from a common point—namely, the angle *y*. The back *e* of shank *a'* is a plane and forms a base

to support the last *b*, and the back *f* of shank *b'* is also a plane and forms a base to support last *a*.

In order to furnish a firm and level base for the heel-anvil *c*, I provide a projection, *g*, (seen in Figs. 2 and 4,) to level up the base. This is made necessary by the width of the lasts *a* and *b*, as exemplified in Fig. 4. The faces or soles *h h* of the lasts are made somewhat convex, by preference, in order that the shoe may slip on them easily and fit them better when on.

The two lasts *a* and *b* are designed to serve for all the ordinary sizes of boots and shoes, as it is not necessary that the last should fit the shoe snugly.

In using my combination metal last it is not necessary that it be attached in any way to a bench, table, or block. Indeed, it is most convenient to leave it entirely unattached, as it is thus left free to be shifted and turned at will. The weight of the device, being all in one piece, imparts the necessary solidity and firmness without attachment.

My combination-last forms a complete article of manufacture and sale, and as such I claim it.

Having thus described my invention, I claim—

1. As an improved article of manufacture, a combination metal last comprising the lasts *a* and *b* and the heel-anvil *c*, formed in one piece, and constructed and arranged with respect to each other substantially as described.

2. As an improved article of manufacture, a combination metal last comprising the larger last, *a*, and its shank *a'*, the smaller last, *b*, and its shank *b'*, the heel-anvil *c*, and the projection *g*, all formed in one piece, and constructed and arranged substantially as set forth.

In witness whereof I have hereunto signed my name in the presence of two subscribing witnesses.

JOHN BLAKEY.

Witnesses:

A. V. DOCKERY,  
F. P. SHACKLETON.