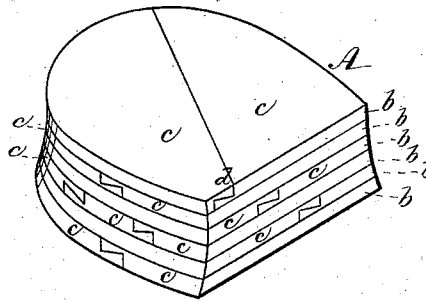


B. F. LOCKE.  
 Manufacture of Boot and Shoe Heels.

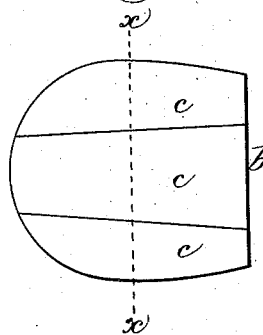
No. 217,123.

Patented July 1, 1879.

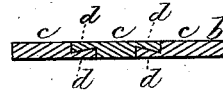
*Fig. 1.*



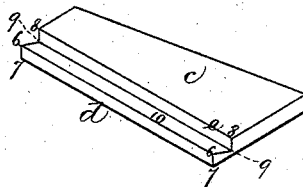
*Fig. 2.*



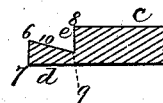
*Fig. 3.*



*Fig. 4.*



*Fig. 5.*



Witnesses;  
 W. J. Cambridge  
 Chas. E. Griffin

Inventor;  
 B. F. Locke  
 per J. E. Tschumacher

# UNITED STATES PATENT OFFICE.

BENJAMIN F. LOCKE, OF SOUTH WEYMOUTH, MASSACHUSETTS.

## IMPROVEMENT IN MANUFACTURE OF BOOT AND SHOE HEELS.

Specification forming part of Letters Patent No. **217,123**, dated July 1, 1879; application filed April 21, 1879.

*To all whom it may concern:*

Be it known that I, BENJAMIN F. LOCKE, of South Weymouth, in the county of Norfolk and State of Massachusetts, have invented an Improvement in the Manufacture of Heels for Boots and Shoes, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, making part of this specification, in which—

Figure 1 is a perspective view of a boot-heel made in accordance with my invention. Fig. 2 is a plan of one of the lifts of the heel detached. Fig. 3 is a vertical section on the line *xx* of Fig. 2. Fig. 4 is a perspective view of one of the pieces of which the lifts are composed. Fig. 5 is a vertical section, enlarged, through the piece represented in Fig. 4.

My invention relates to that class of heels for boots and shoes the lifts of which are formed of small waste pieces of leather placed together, and has for its object to unite these pieces in such a manner that any blow or pressure applied to the face of the lift will tend to close the joint or joints between the pieces of which it is formed, instead of separating them, as is the case when the edges of the pieces are merely butted together or scarf-joints are employed; and my invention consists in providing the contiguous edges of two pieces which are to be united with longitudinal angular lips, beveled inward, so that one will hook over the other, a joint being thus formed which will effectually prevent any separation of the pieces, either while the nails are being driven in or afterward when the boot or shoe is being worn.

To enable others skilled in the art to understand and use my invention, I will proceed to describe the manner in which I have carried it out.

In the said drawings, A represents a boot-heel formed of lifts *b*, each of which is composed of any desired number of small waste pieces of leather, *c*, of any suitable shape. These pieces are united together by self-locking joints made in the following manner. Each of the contiguous edges of two pieces to

be united is provided with an angular lip, *d*, extending longitudinally from one end to the other, and formed by a suitable hand-tool, or by a machine having a cutter or cutters adapted for the purpose. This projecting angular lip *d* is beveled inward from the outer edge, 6, to the angle 9 of the shoulder *e*, Figs. 4 and 5, the edge 6 not extending to the level of the surface of the lift, and the distance from the point 6 to the point 7 being equal to the distance of the point 8 from the point 9, so that when the lips *d* thus formed are hooked one over the other, as seen in Figs. 1 and 3, the surfaces of the two pieces thus united will be flush with each other; and it will be seen that, owing to the peculiar bevel or direction of the inclination of the surfaces 10 of the lips *d*, any blow or pressure upon the surface of the lift will tend to cause the two pieces to approach or hug each other closely, the tightness of the joint increasing in proportion to the pressure upon the lift or force of the blow thereon—an advantage of great importance, as it effectually prevents the separation of the pieces while the lift, or the heel composed of such lifts, is being nailed on, and also while the boot or shoe is in actual use.

Any desired number of the lifts of a heel may be composed of pieces united by self-locking joints formed as above described, the outer or bottom lift being preferably made of a single piece, so as to present a more finished appearance; and the joints may run in any desired direction; but I prefer to arrange those of one lift so as to break joints with those of the contiguous lifts above and below, the lifts being held together by nails or cement, as preferred.

It is evident that my invention may be applied to sole-taps, if desired.

What I claim as my invention, and desire to secure by Letters Patent, is—

A heel-lift composed of pieces *c*, provided at their contiguous edges with longitudinal angular lips *d*, beveled from 6 to 9, as shown, and adapted to hook one over the other in such a manner that pressure applied to the face of

the lift will tend to tightly close the joint or joints between the pieces, substantially as set forth.

2. A heel composed wholly or partially of lifts formed of pieces *c*, united by means of longitudinal angular lips *d*, beveled from 6 to 9, and adapted to hook one over the other in such a manner that pressure applied to the face of the lift will tend to tightly close the

joint or joints between the pieces, substantially as set forth.

Witness my hand this 19th day of April,  
A. D., 1879.

BENJ. F. LOCKE.

In presence of—

P. E. TESCHEMACHER,  
W. J. CAMBRIDGE.