

G. JAMES.
Method of Producing Heel-Lifts and Cutter
for Cutting the same.

No. 219,583.

Patented Sept. 16, 1879.

Fig: 1.

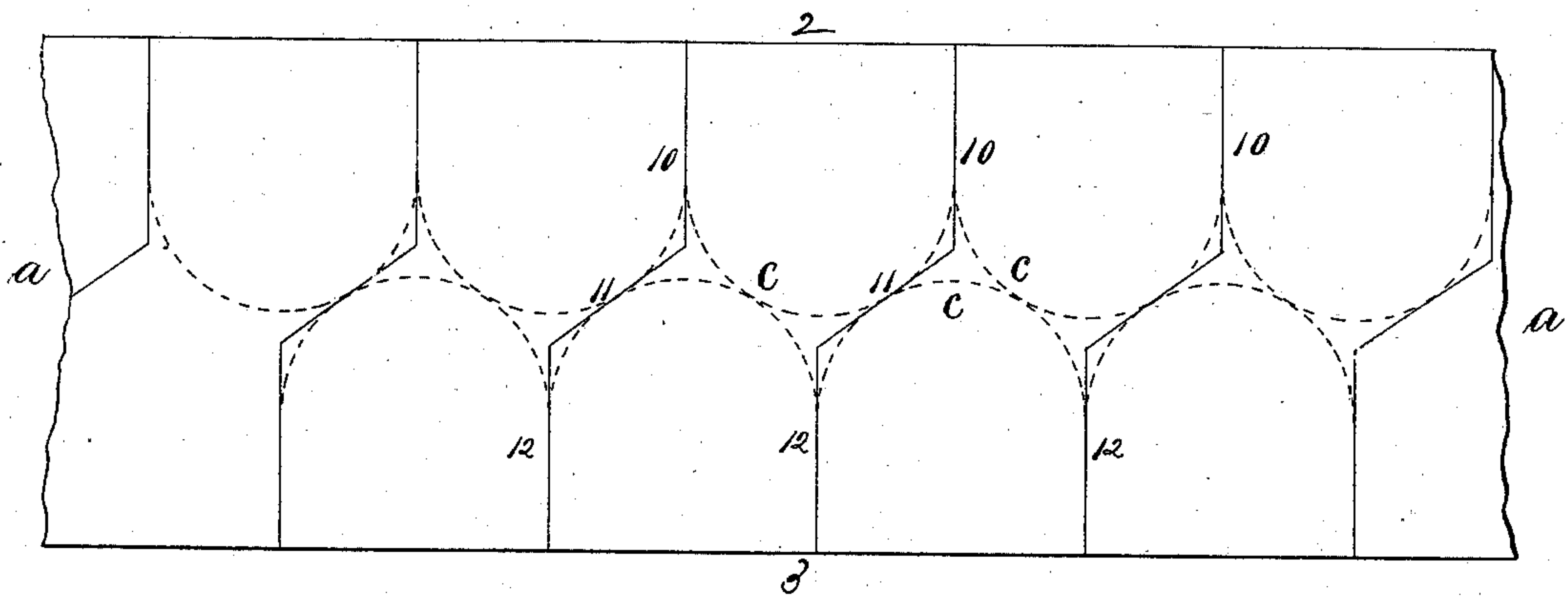


Fig: 4.

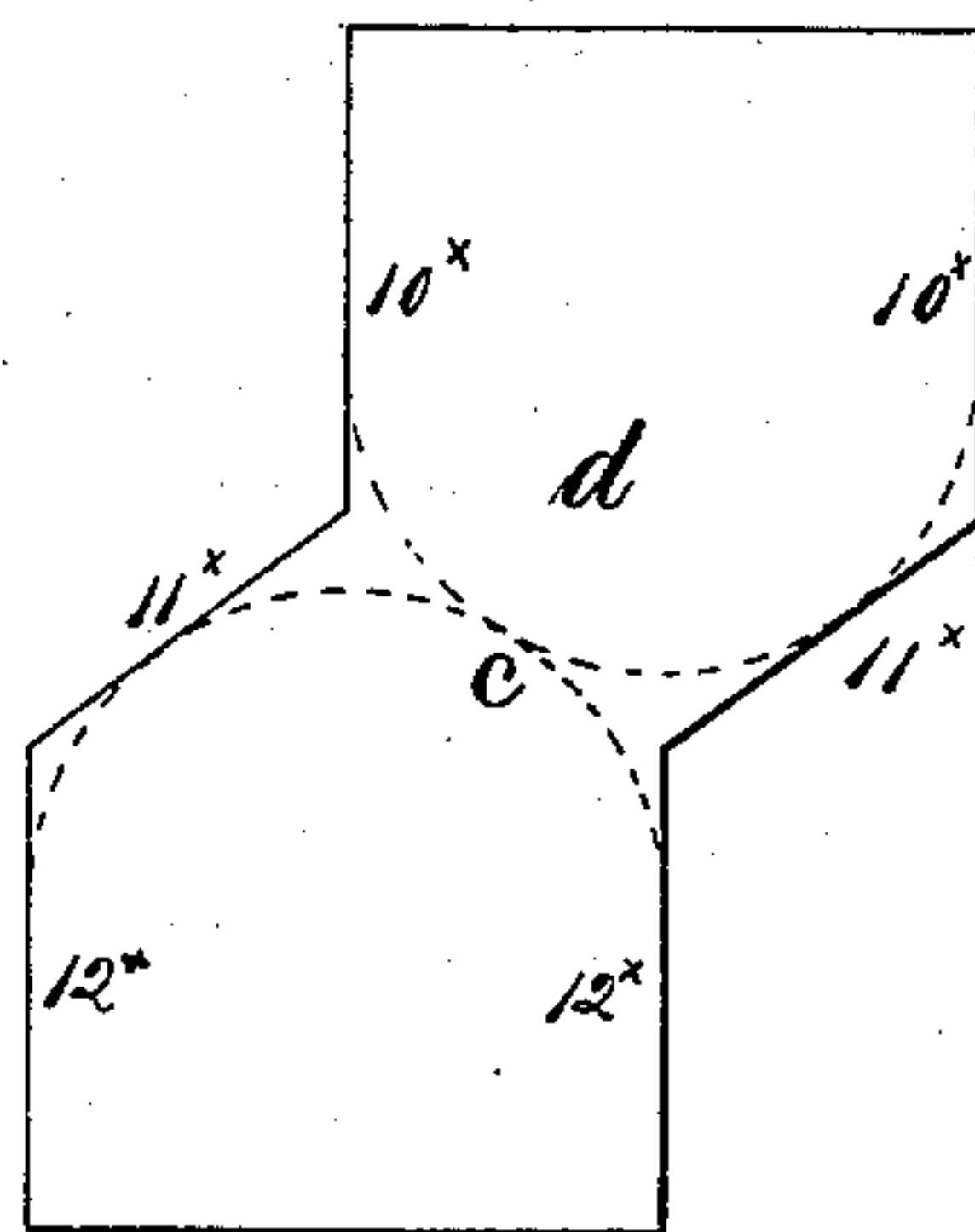


Fig: 2.

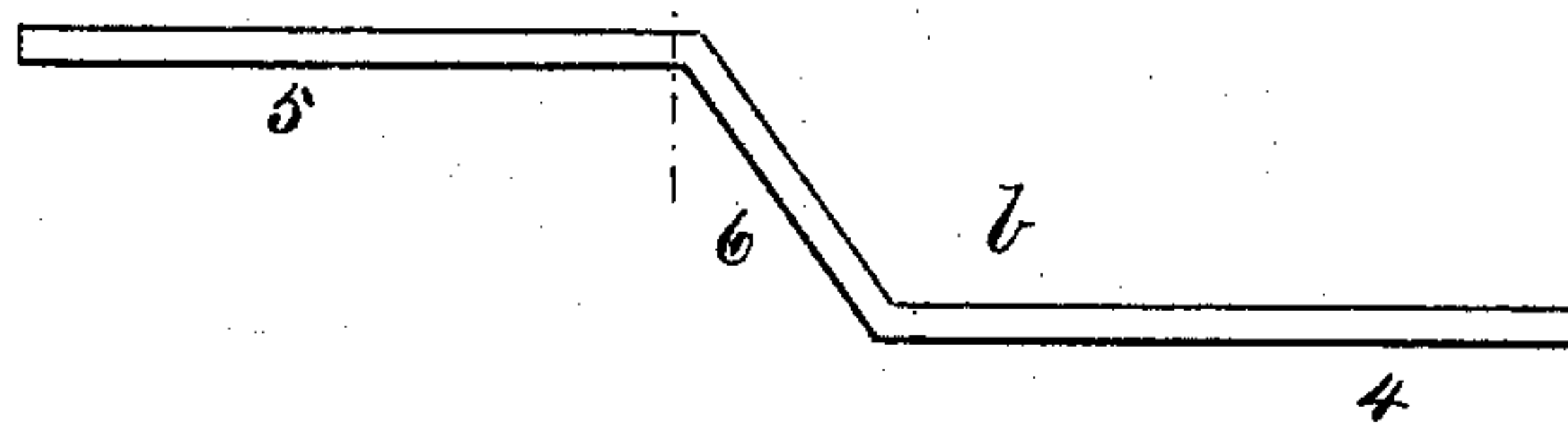
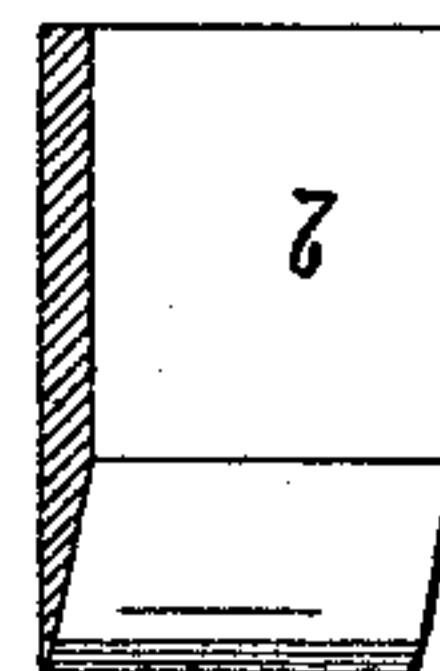


Fig: 3.



Witnesses.

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UNITED STATES PATENT OFFICE.

GEORGE JAMES, OF BOSTON, MASSACHUSETTS.

IMPROVEMENT IN METHODS OF PRODUCING HEEL-LIFTS AND CUTTER FOR CUTTING THE SAME.

Specification forming part of Letters Patent No. **219,583**, dated September 16, 1879; application filed August 2, 1879.

To all whom it may concern:

Be it known that I, GEORGE JAMES, of Boston, county of Suffolk, State of Massachusetts, have invented an Improvement in Methods of Cutting Out Heel-Pieces for Boots and Shoes, of which the following description, in connection with the accompanying drawings, is a specification.

This invention relates to improvements in the method of and in a knife for cutting out heel-lifts; the object of the invention being to facilitate the operation of cutting out the said lifts with the least amount of waste.

In the methods of cutting out heel-lifts as now commonly practiced, wherein each lift is "died out" separately, there is a large waste of valuable stock, and in that method wherein the sole-leather is first cut into long strips and then a series of heel-lifts cut from one edge there is also much waste stock, because of the inability to place the cutting-out die exactly at the proper place.

To save the greatest possible amount of stock the round part of one lift should be taken from between like rounded parts of two reverse lifts, or the round ends should "fall in," as it is technically called, as shown by the dotted lines *c* in Fig. 1. To do this in accordance with my invention I first cut the sole-leather into strips of a width equal to the length of two heel-lifts, less the distance that the rounded ends of the lifts are to fall in, and I then, by a blade of the proper shape, cut the said long strips into heel-lift sections, each section having edges extending at right angles to each end for a distance less than half the length of the section, those parallel edges at one end not being opposite those at the other end, the inner ends of said parallel edges being joined by parallel lines inclined to the ends, after which the said sections are cut at each end into heel-lifts, the parallel edges of the sections next the edges of the breast part of the lift being employed as guides to exactly position the die for cutting out the independent heel-lifts from the said sections.

Figure 1 represents, in plan view, a strip of leather laid out in the form in which it is to be cut to form heel-lift sections and heel-lifts; Fig. 2, an end view of the knife or blade for

cutting the strip into sections; Fig. 3, a sectional view of the knife, and Fig. 4 an independent heel-lift section.

The leather or other material to be cut into heel-lifts is first cut so as to form a long strip, *a*, as shown at Fig. 1, with parallel edges 2 3, to serve as the breast portions of the heel-lifts to be cut therefrom.

My improved cutting-knife consists of a blade, *b*, having an edge consisting of two portions made parallel and joined by an intermediate inclined portion, 6. (See Fig. 2.) With such a knife I then cut the strip *a* into sections *d* (see Fig. 4) on the heavy cross-lines 10 11 12, the lines 10 being parallel with those 12, but not continuous therewith, and the lines 11 connecting the lines 10 and 12, forming for each section *d* edges 10^x 11^x 12^x. These sections are then cut into heel-lifts by the usual dies; but it will be seen that the rounded ends of the heel-lifts of one series are made to fall in between the rounded ends of the other series of heel-lifts, and by this method very little stock is wasted.

Great advantage is derived by employing the sections *d*, for the edges 10^x 12^x act as guides by which to position the leather to be cut into separate heel-lifts accurately with relation to the cutting-die, and the rounded edges always contact exactly right.

I claim—

1. The improvement in the art of producing heel-lifts, which consists in first cutting the leather into strips, then dividing the strips into heel-lift sections having edges 10^x 11^x 12^x, as shown and described, and then cutting the said sections into separate heel-lifts, as indicated in dotted lines, all substantially as described.

2. The strip-dividing knife having its ends 4 5 parallel, the said ends being connected by the inclined edge 6, all as shown and described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

GEORGE JAMES.

Witnesses:

G. W. GREGORY,
N. E. WHITNEY.