

(No Model.)

G. F. DEMARY.

MANUFACTURING AND ATTACHING HEELS TO BOOTS OR SHOES.

No. 321,696.

Patented July 7, 1885.

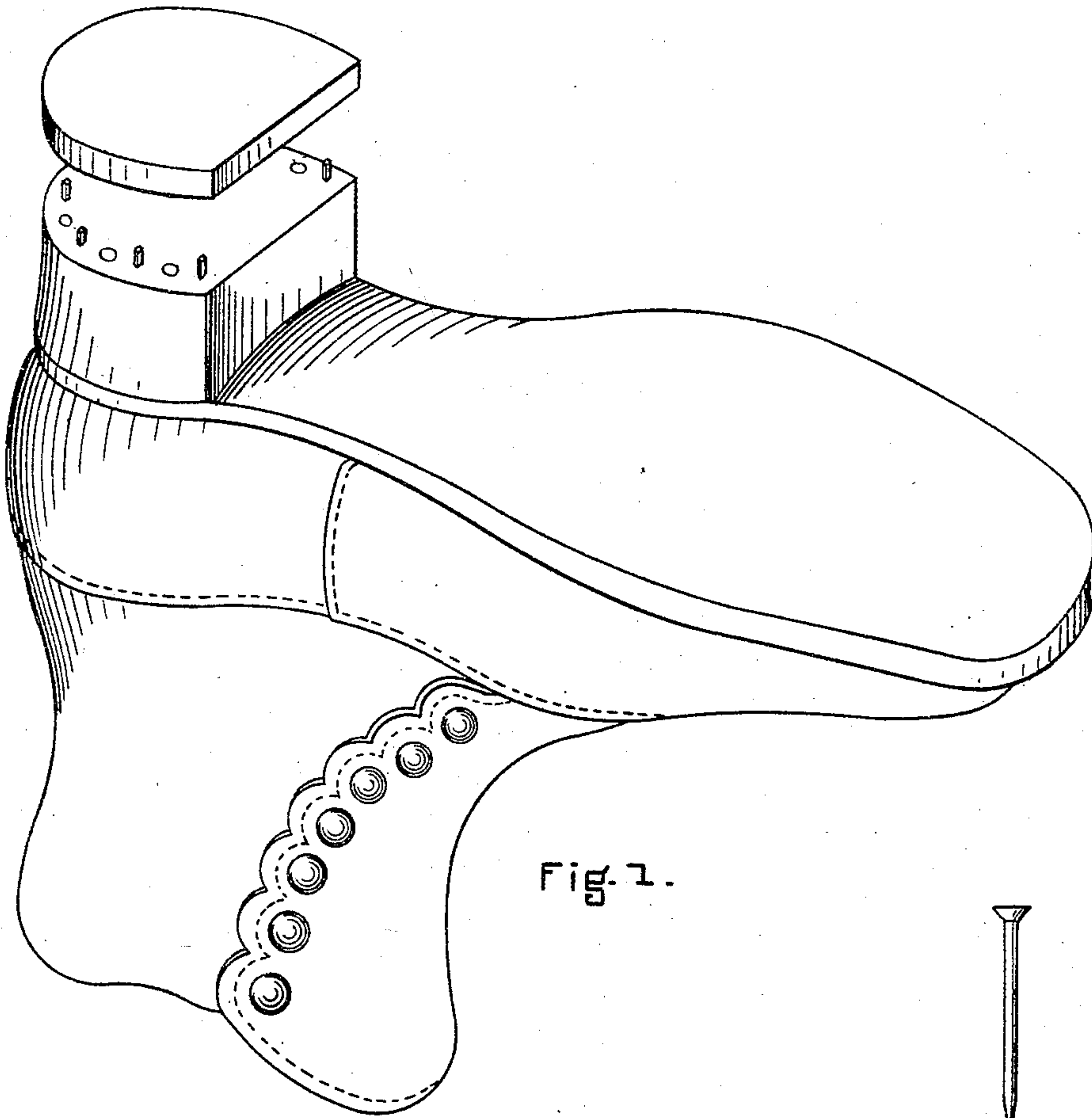


Fig. 1.



Fig. 4.

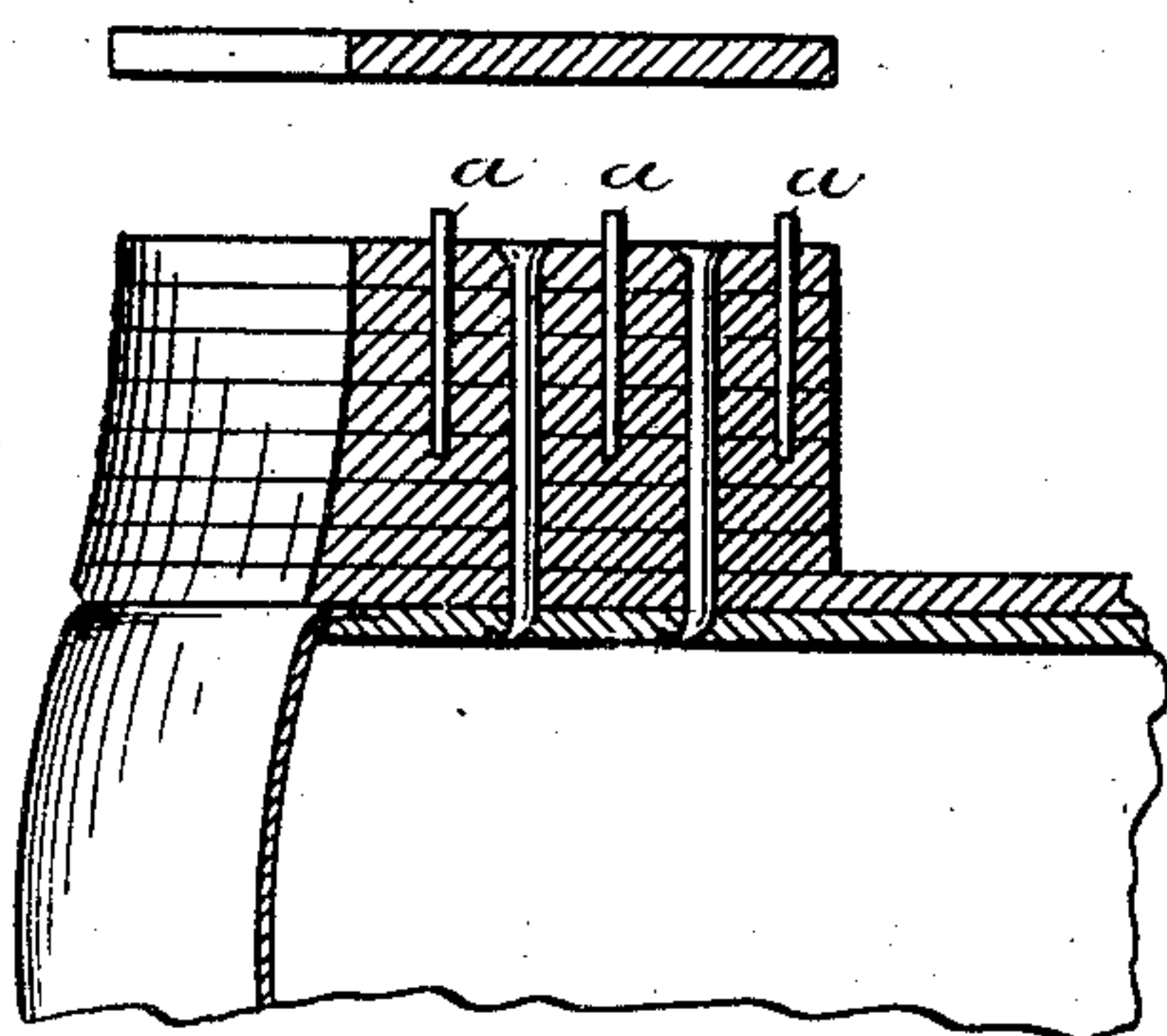


Fig. 2.

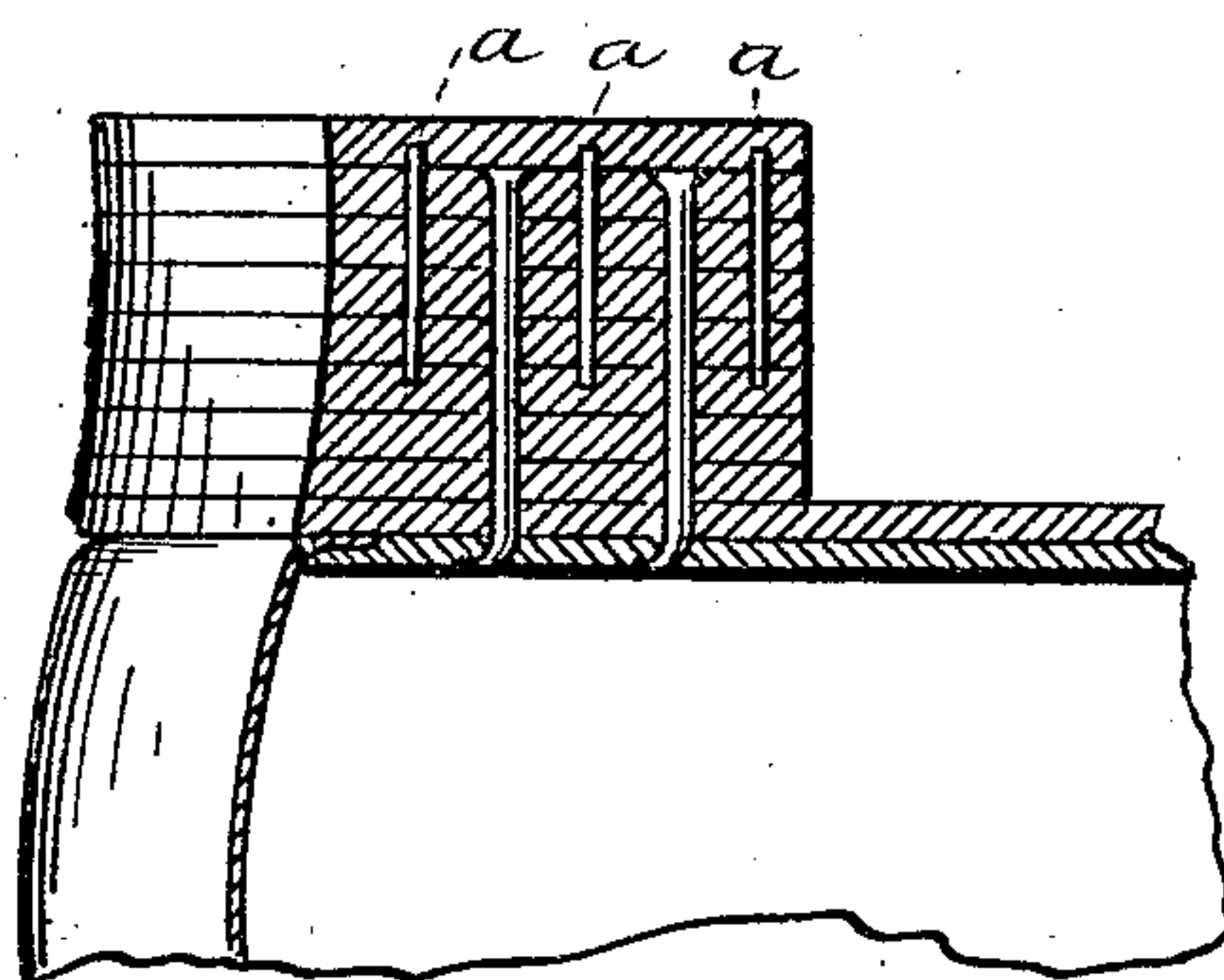


Fig. 3.

WITNESSES

J. W. Dolan.
Fred. B. Dolan.

INVENTOR

G. F. Demary
by his atty
Charles F. Raymond

UNITED STATES PATENT OFFICE.

GEORGE T. DEMARY OF BOSTON, MASSACHUSETTS, ASSIGNOR TO THE
NATIONAL HEELING MACHINE COMPANY, OF SAME PLACE.

MANUFACTURING AND ATTACHING HEELS TO BOOTS OR SHOES.

SPECIFICATION forming part of Letters Patent No. 321,696, dated July 7, 1885.

Application filed January 23, 1885. (No model.)

To all whom it may concern:

Be it known that I, GEORGE T. DEMARY, of Boston, in the county of Suffolk and State of Massachusetts, a citizen of the United States, have invented a new and useful Improvement in the Manufacture of Heels and their Application to Boots and Shoes, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part of this specification, in explaining its nature, in which—

Figure 1 is a perspective view of a shoe to which the heel-blank has been applied, the top lift being shown below the same, but not spanked on. Fig. 2 represents a vertical section thereof upon one side, so as to include a number of attaching-nails and top-lift nails, the top lift not being spanked on. Fig. 3 is a view of the same section with the top lift spanked on. Fig. 4 represents in elevation the form of attaching-nail which I prefer to use.

In attaching heels automatically in heel-attaching machines, it is common to apply very considerable pressure to the heel-blank either before the heel is nailed or while the attaching-nails are being driven, and to secure such heels in place to the soles of the boot or shoe by the ordinary tapering heel-nail, and if the heel is blind nailed it is customary to leave the upper ends or heads of the nails projecting sufficiently to penetrate a short distance into the top lift, which is spanked thereon; but this method of attaching heels is not desirable for certain kinds of work—namely, women's and children's work, and that kind which does not require that the heel-blank be compressed or consolidated. It is of course quite unnecessary to much compress or solidify the heels of boots or shoes intended for children's or women's light wear. To the contrary, it has these objections. First, it makes the heel heavier, and, second, it requires more stock to make the heel of the proper height, thereby adding to the expense. By my improvement the heel is not compressed or solidified in the manner that the ordinary heel-blank is compressed or solidified in heel making or attaching machines; but it is simply compacted sufficiently to bring the lifts

well together, and in this shape is attached with very little pressure to the soles of the boots or shoes. I have found, however, that when I do not consolidate or compress the heel it is necessary to use a different form of attaching-nail from the ordinary heel-nail, and I employ for this purpose a headed nail having a clinching-point such as is shown in Fig. 4. This nail can be easily driven, easily clinched, holds the lifts firmly together, and does not require that they be compressed or solidified in order to accomplish these results, whereas with an ordinary heel-nail it is almost absolutely necessary that the lifts be consolidated in order that the nails shall hold firmly and well.

I have represented in Fig. 4 the form of headed nail which I prefer to use. It should be made of soft metal, and its point is shaped so as to clinch or turn easily upon the iron-bottomed last.

The class of work to which this process is applicable is that which is generally known as "blind nailing," although it is applicable to flush-nailing as well. For blind nailing I do not use as many of the headed nails as would be used in attaching by the ordinary heel-nail, from one-half to two-thirds of that number being sufficient, and at the same time that the headed nails are being driven there are also driven the spanking-nails, which, preferably, are arranged upon the same line as the headed nails, as represented in Figs. 1, 2, and 3, and are not driven flush with it, as are the headed nails, but are left projecting for the top lift, which is spanked thereon. As many of these top-lift nails are used as may be desired, and they may extend entirely through the heel-blank or only partly through it, as may be preferred.

I prefer to use in practicing this process the machine described in my application for Letters Patent dated January 23, 1885, Serial No. 153,712, which is an improvement upon the National Machine, the only change required in the device described in said application being in the templet-plate, which should have a flat or slightly-concave surface instead of a surface as concave as that described.

I prefer that the unheaded nails be driven at

the same time that the headed nails are driven, although it is not essential that this be done, as they may be driven separately, if desired.

In the drawings I have represented the
5 headed nails and the top-lift nails as alternating, *a* being the top-lift nails, and in Fig. 3 I have represented the top lift as spanked on the top-lift nails.

The advantages of this invention have been
10 mentioned in connection with the description.

Having thus fully described my invention, I claim and desire to secure by Letters Patent of the United States--

1. That improvement in the art of attach-
15 ing heels to boots and shoes which consists in securing the heel to the sole by long nails driven through them and upset, and simulta-

neously therewith driving shorter heel-nails, leaving the butts projecting, all substantially as specified. 20

2. That improvement in the art of attaching heels to boots or shoes which consists in securing the heel to the sole by long nails driven through them and upset, and simultaneously therewith driving shorter headless nails, leaving the butts projecting, and afterward attaching the top lift by spanking it upon the heads or butts of the projecting nails, all substantially as specified. 25

GEORGE T. DEMARY.

Witnesses:

F. F. RAYMOND, 2d.,

FRED. B. DOLAN.