

(No Model.)

2 Sheets—Sheet 1.

E. J. LE GAY.

UNITING THE SOLES AND HEELS OF BOOTS AND SHOES.

No. 350,540.

Patented Oct. 12, 1886.

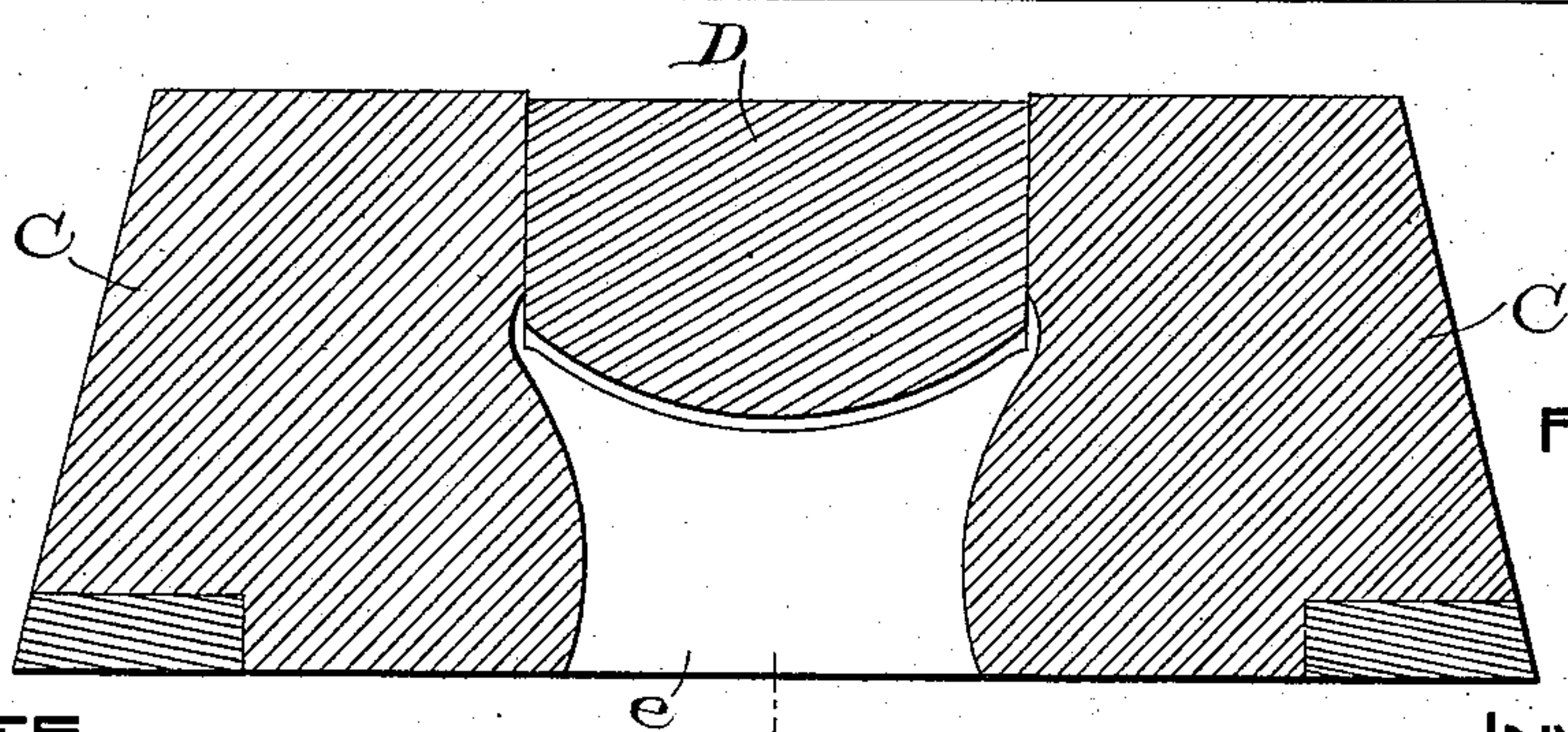
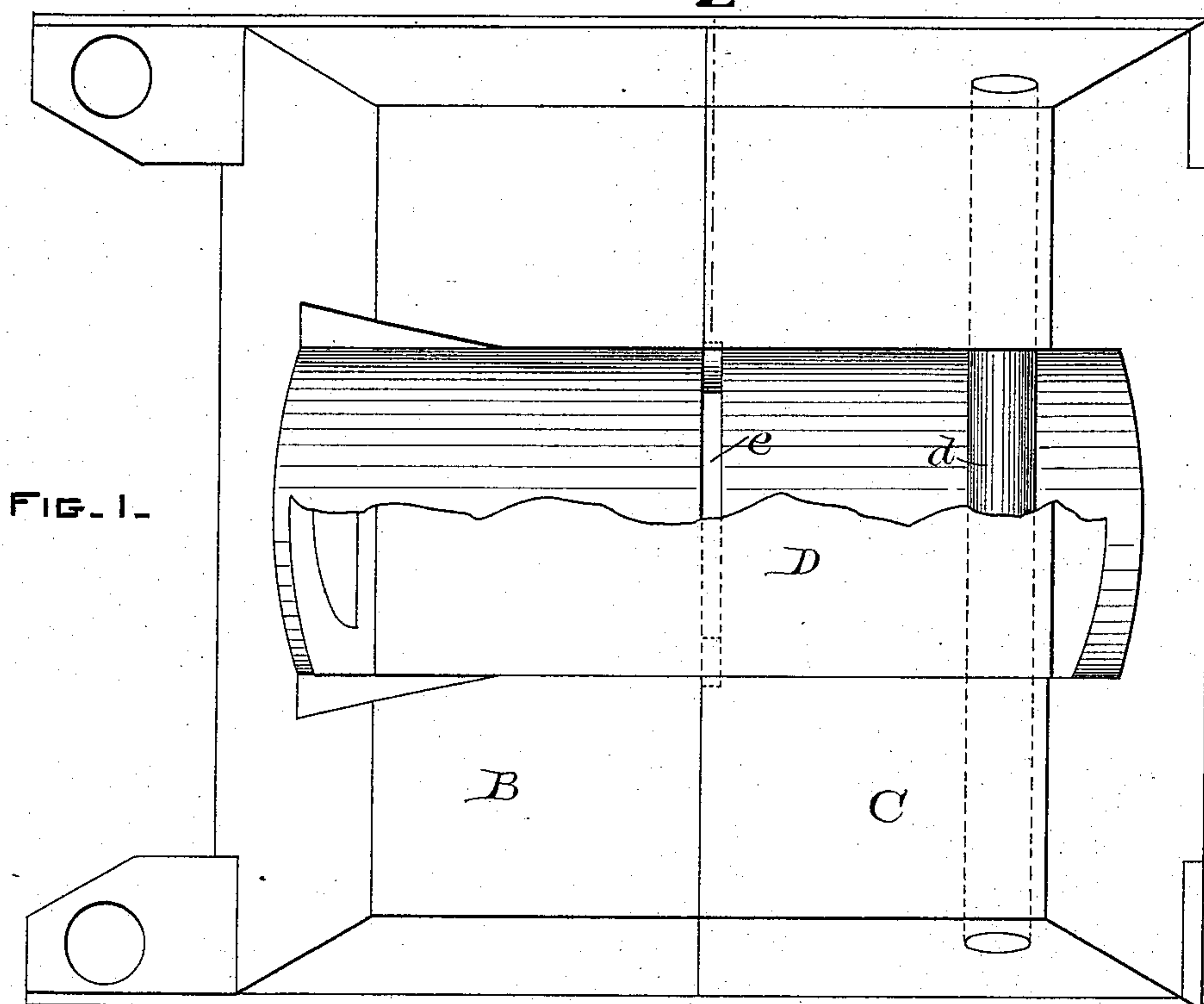
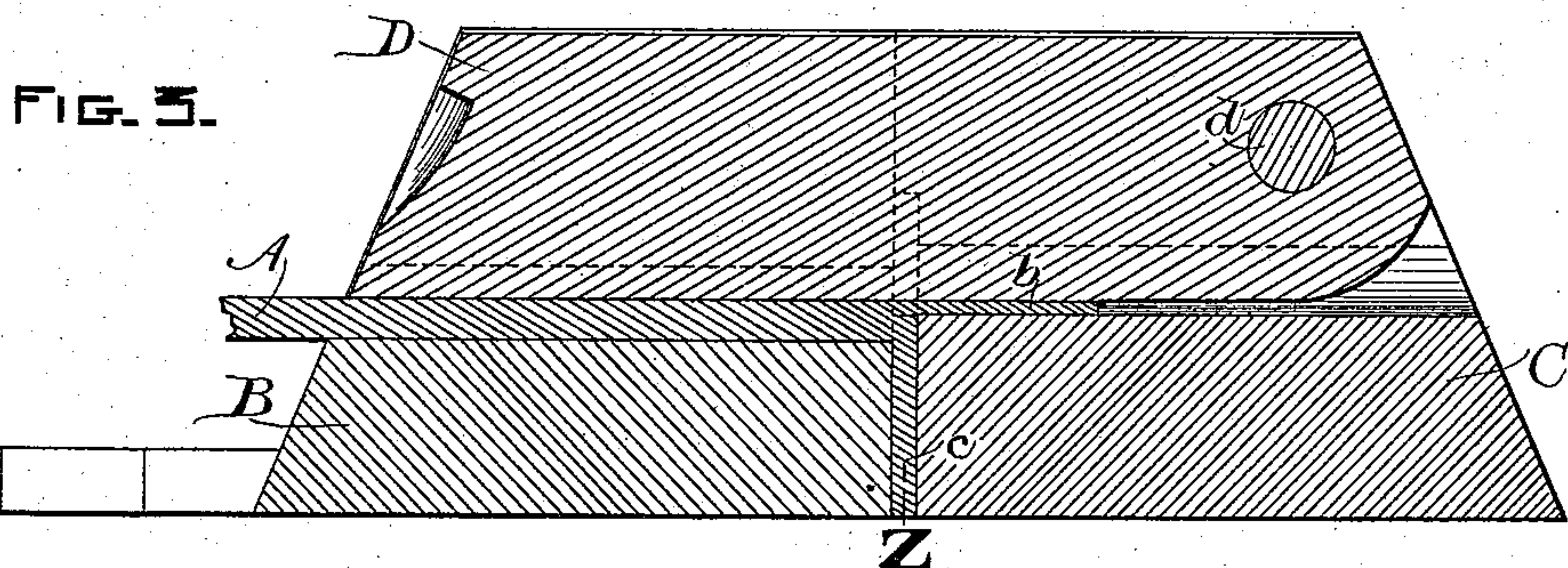


FIG. 2.

WITNESSES

*William
Eugene Humphrey*

INVENTOR

*Edward J. Le Gay
per E. W. Porter Atty*

X

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2 Sheets—Sheet 2.

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FIG. 4.

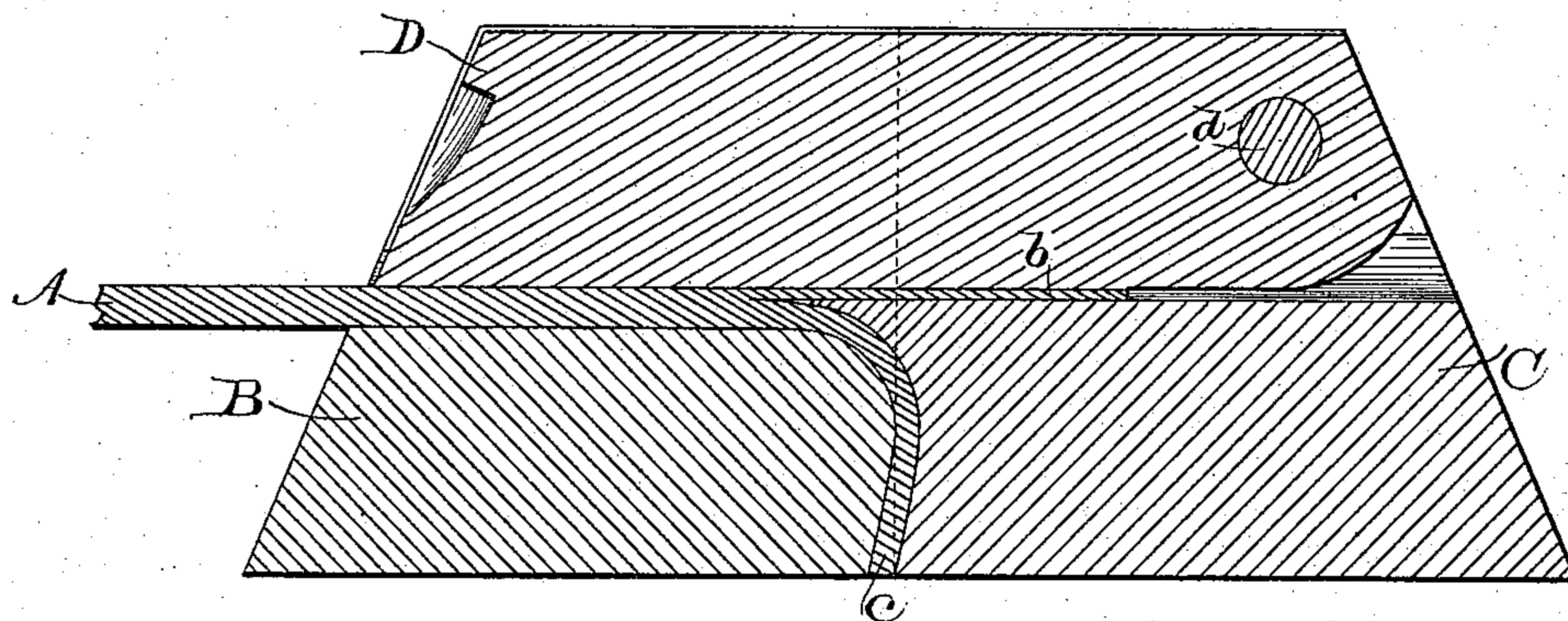


FIG. 5.

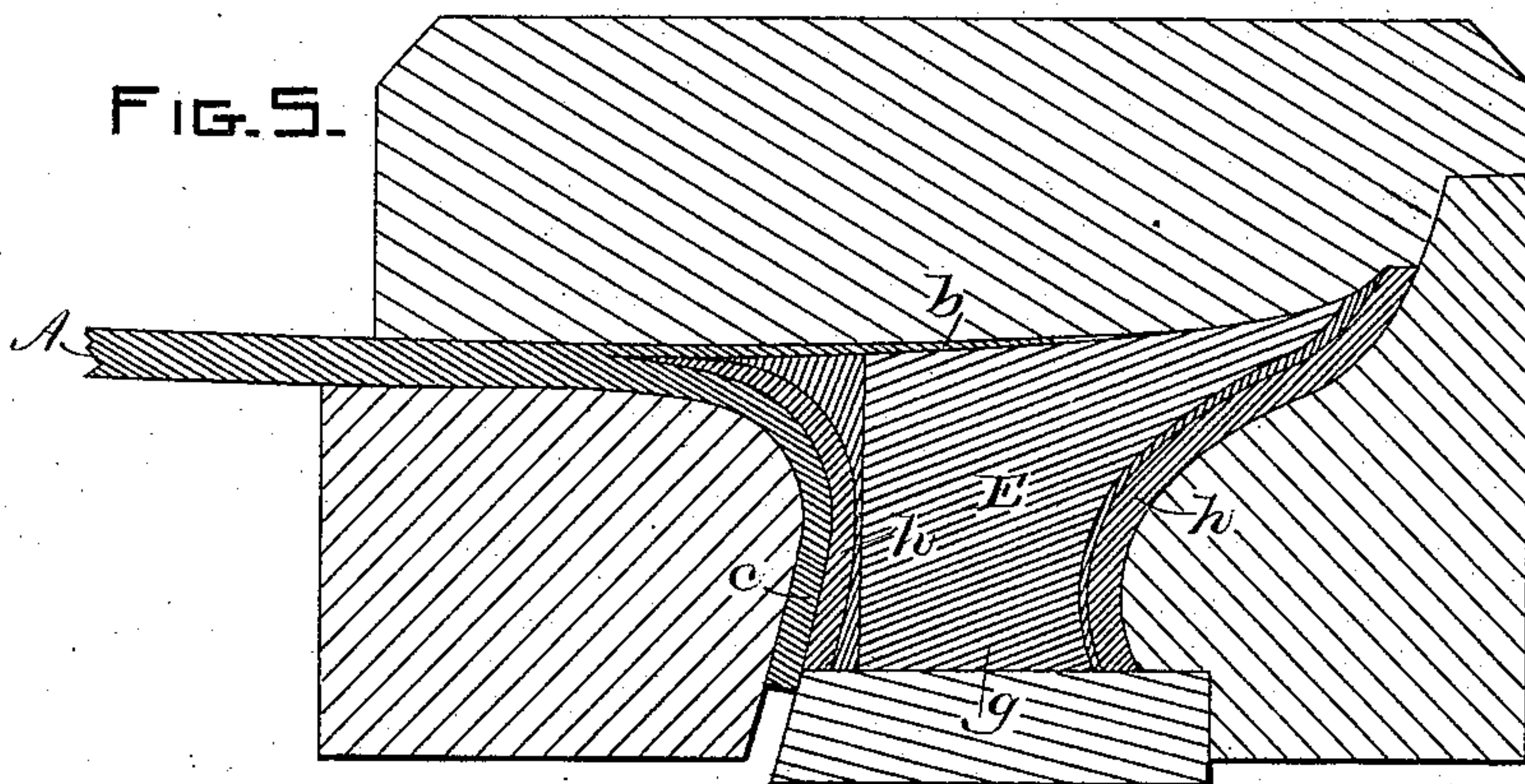


FIG. 7.

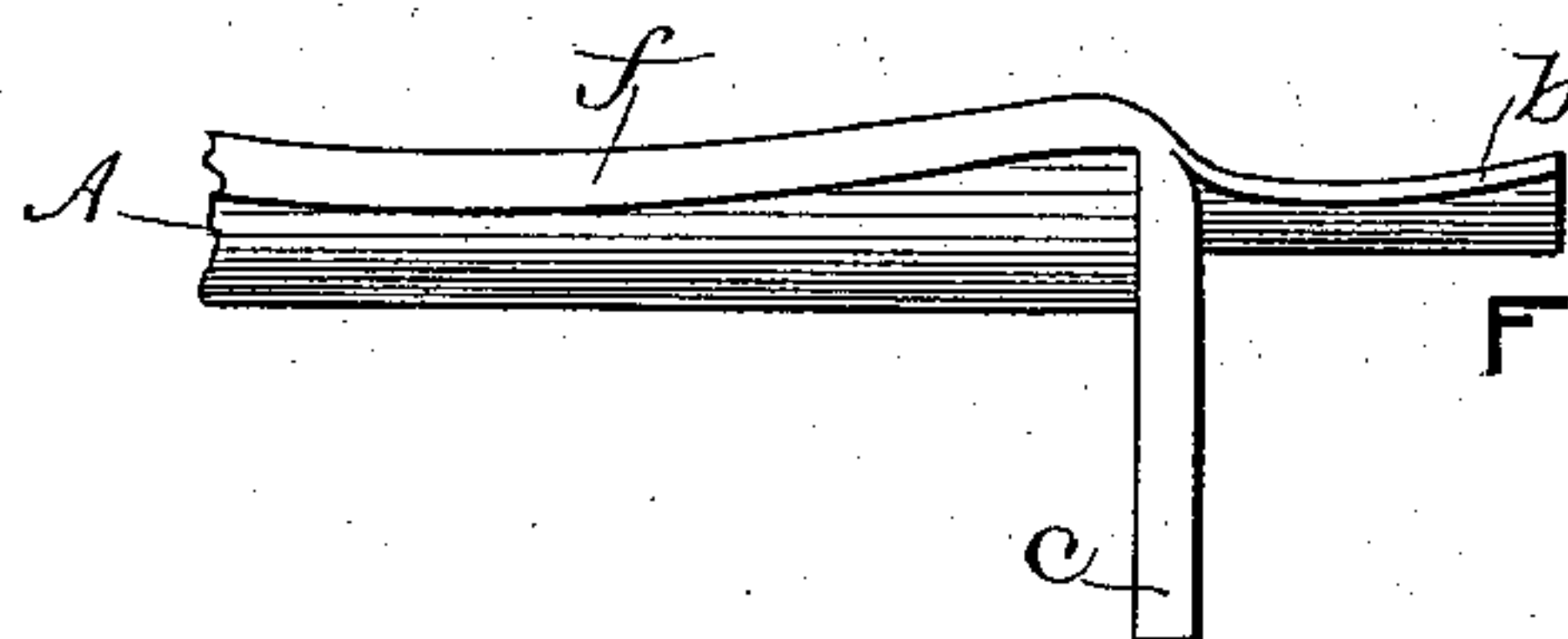
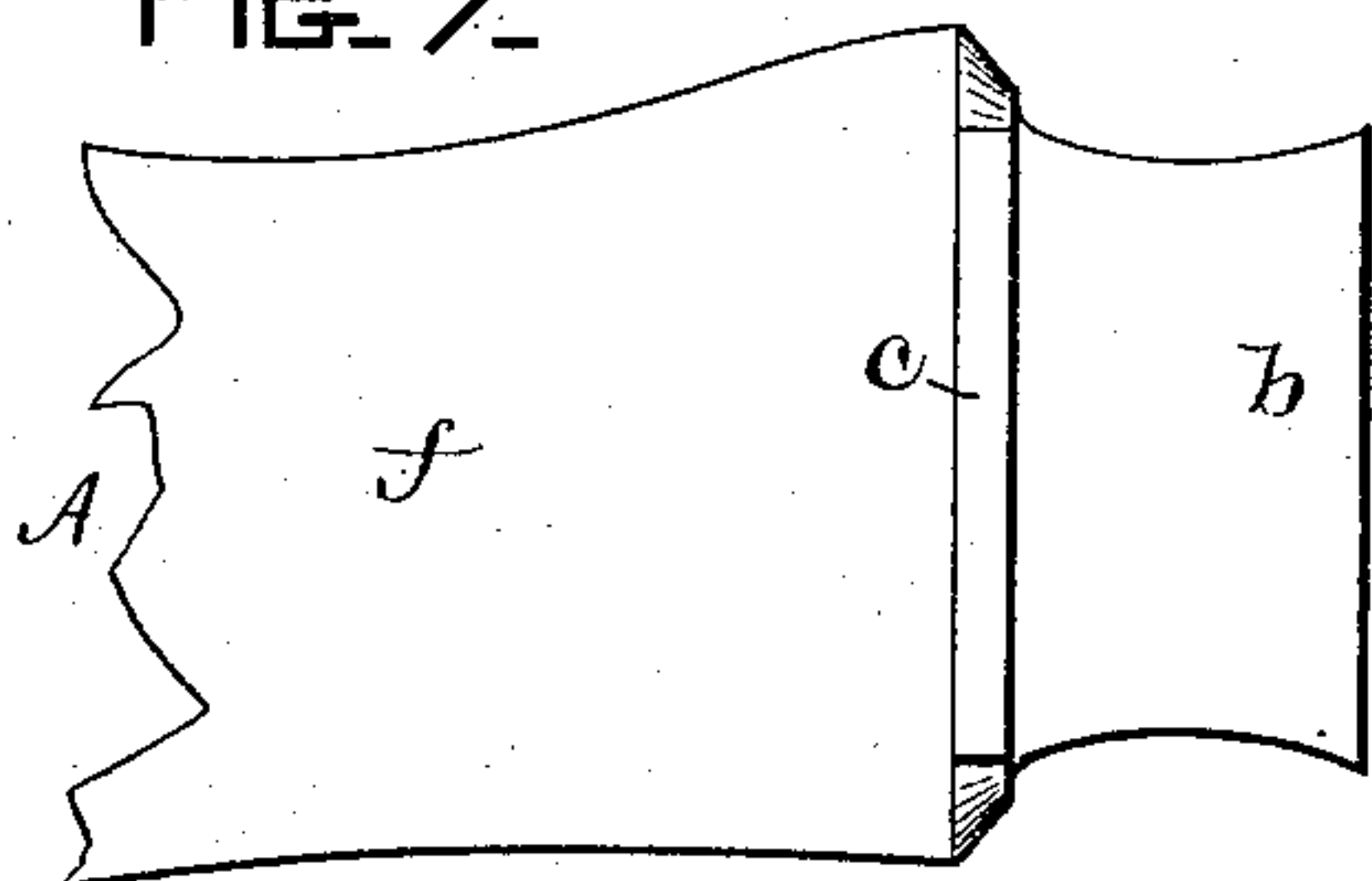
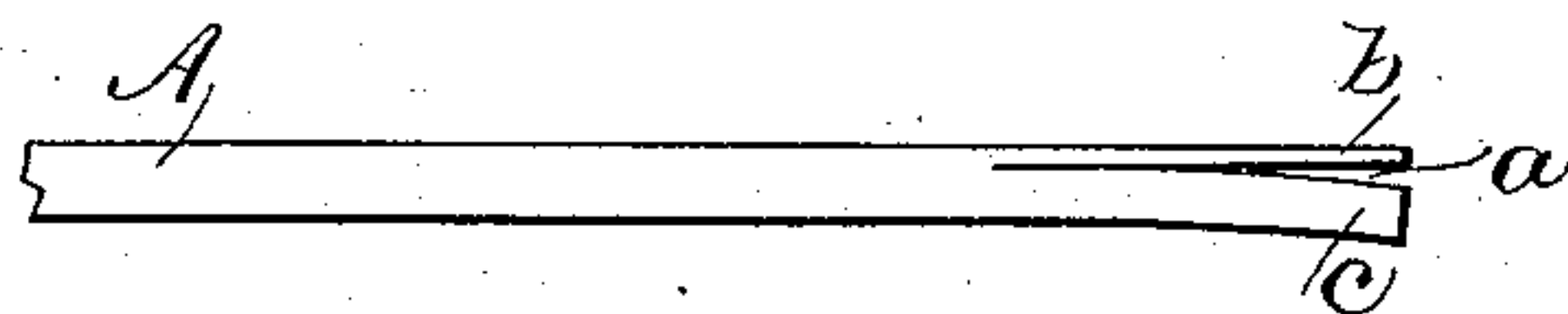


FIG. 8.

FIG. 6.



WITNESSES

all true
Eugene Humphrey

INVENTOR

Edward J. Le Gay
per T. W. Porter Atty.

UNITED STATES PATENT OFFICE.

EDWARD J. LE GAY, OF BOSTON, MASSACHUSETTS.

UNITING THE SOLE AND HEEL OF BOOTS OR SHOES.

SPECIFICATION forming part of Letters Patent No. 350,540, dated October 12, 1886.

Application filed April 19, 1886. Serial No. 199,355. (No model.)

To all whom it may concern:

Be it known that I, EDWARD J. LE GAY, of Boston, in the county of Suffolk and State of Massachusetts, have invented a new and useful Improvement in Uniting the Soles and Heels of Boots or Shoes, which will, in connection with the accompanying drawings, be hereinafter fully described, and specifically defined in the appended claim.

This invention relates to that class or kind of soles and heels in which the rear part of the sole is horizontally divided, and the subdivisions thus formed are respectively secured to the breast and top of the heel; and my invention consists in the method of setting to form in suitable molds the divided sole and then uniting the sole and heel by subjecting them to pressure in suitable molds, the uniting parts of the sole and heel being coated with hard drying cement.

For the purpose of illustrating my method I have introduced the accompanying drawings, in which—

Figure 1 is a top plan view of a mold adapted to mold the sole, as shown in Figs. 7 and 8, the cup of the mold being partly broken away in order to expose the interior of the mold. Fig. 2 is a vertical transverse section taken as on line *z*, Figs. 1 and 3. Fig. 3 is a longitudinal vertical section through the mold shown in Fig. 1, taken as on line *x*, Fig. 2, and showing the molded sole in place therein. Fig. 4 is a view like Fig. 3, except that the sole is shown as being molded for a heel having an overarching instead of a right-line breast. Fig. 5 is a longitudinal vertical section through the sole, heel, and mold, by which the sole and heel are being united by my method. Fig. 6 is an edge view of the rear portion of a sole as divided preparatory to being molded by my method. Fig. 7 is an under side plan view of a sole as molded to be applied to a heel having a right-line breast. Fig. 8 is an edge elevation of the sole shown in Fig. 7, but right side up.

It has long been common to split the sole A, as at *a*, Fig. 6, thus forming the part *b* to be secured to the top or seat of the heel and part *c* to be secured to the breast of the heel; but such union of the sole and heel has heretofore been effected after the sole had been permanently secured to the upper and insole,

the heel being then attached to the sole. Nor has it been heretofore practiced to “mold” the divided sole under due pressure in properly-formed molds, in order to impart to it the required curves and angles to adapt it to the shank of the boot or shoe and the breast and seat of the heel.

In my improved method the shank of the sole is molded to a transverse curve that will fit the shank of the insole, and the parts *b c* are molded to respectively fit the top or seat of the heel and the heel-breast, and for this purpose a mold formed with parts B C D can be successfully employed, part C being formed with a recess, *e*, to receive part *c* of the sole, while part D is hinged at *d* to C, so as to be readily raised and lowered when placing the sole in or removing it from the mold. In performing this part of my method the sole duly softened by moisture is placed in the seat in parts B C with flap *c* in recess *e*, and flap *b* extended on part C. Part D is then turned down and pressure is first applied thereto, when pressure is applied to force parts B C together, whereby the sole is molded, as shown in Figs. 7, 8, if it is to be applied to a heel having a vertical or right-line breast; but if the heel is to be of the overarching kind shown in Fig. 5, then parts B C will at their abutting faces be formed as in Fig. 4. After the sole is thus molded and set to form the rear face of flap *c* and under side of flap *b* are coated with suitable cement or other hard-drying adhesive substance, as are also the parts of the heel E against which said faces are to be placed, and when thus prepared the sole and heel are placed in a suitable mold, as shown in Fig. 5, and the cemented parts are firmly forced together till sufficiently dried, when they are removed from the mold, and when fully dried are in readiness without further fitting to be secured to the boot or shoe. In said Fig. 5 I have shown a “Pompadour” heel, so called, as being united to the sole; but all patterns of heels are united in the same manner, the only difference in the molds being the proper form of the cavity to receive the heel and sole that unite therewith.

In former patents and in an application already allowed I have shown means for closing molds like those presented herewith; hence further space is not requisite for explaining

the same, and, besides, any mold, however actuated, that will set the sole to form and unite the sole and heel, will enable any person of ordinary skill in the art to put my
5 method in practice.

In the accompanying drawings I have shown the heel as formed with a case or shell, *h*, which would preferably be formed of leather, and a filling-block, *g*, cemented to the shell;
10 but the same has no relation to my present invention, as any heel may be used in practicing my invention to which the sole can be secured, and in addition to the cement employed may be re-enforced by nails, tacks, or
15 pegs.

I claim as my invention—

That improvement in the art of uniting the soles and heels of boots and shoes which consists in uniting the two parts of the sole, divided at its heel portion, respectively, with the
20 breast and top of the heel by coating the abutting faces with an adhesive cement and subjecting them to pressure in a conforming mold until sufficiently dried or hardened, substantially as specified.

EDWARD J. LE GAY.

Witnesses:

T. W. PORTER,
EUGENE HUMPHREY.