(No Model.)

## D. BANKS.

MOLD FOR SOLES AND HEELS OF BOOTS OR SHOES.

No. 353,617.

Patented Nov. 30, 1886.

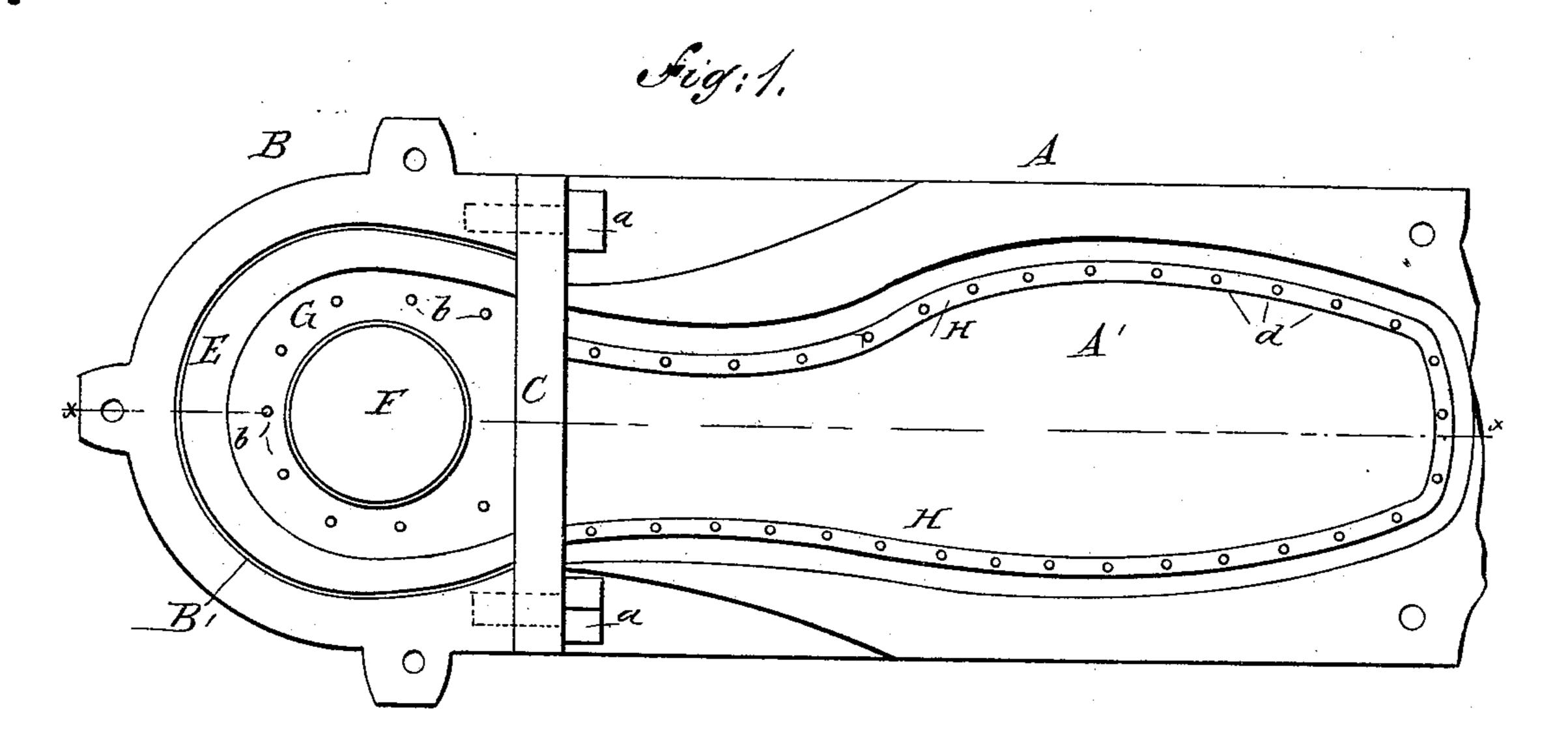
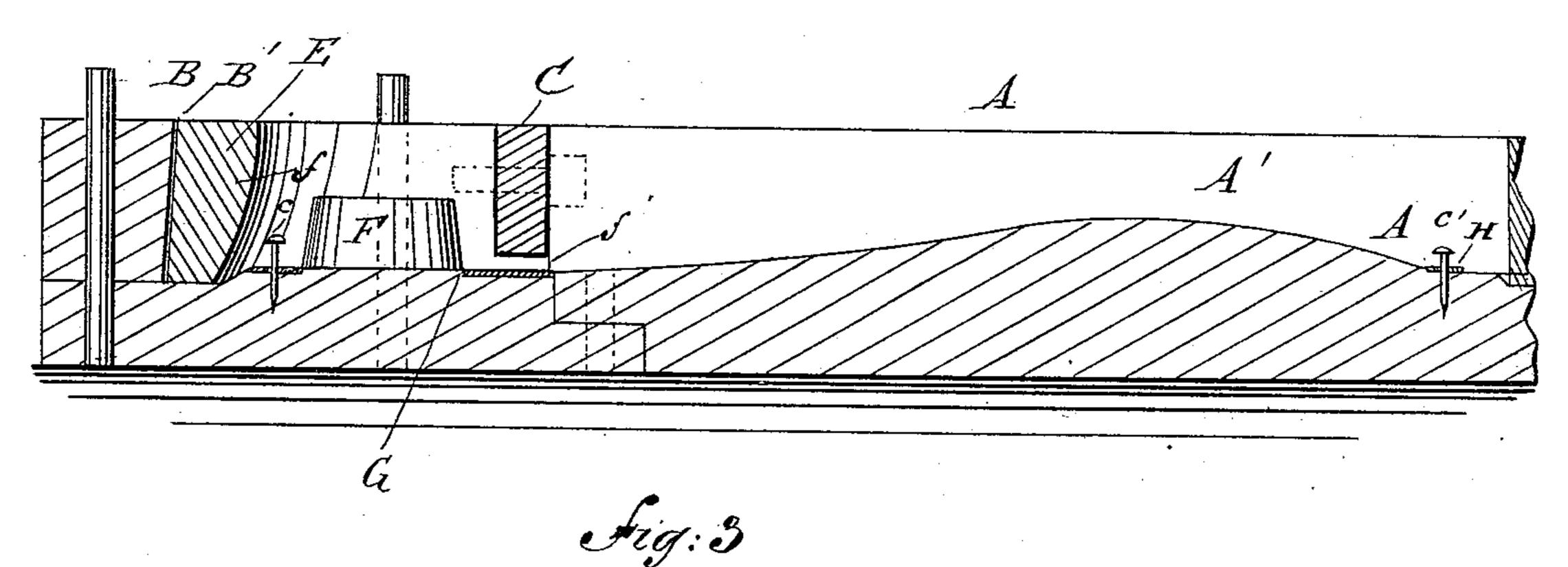


Fig. 2:



WITNESSES:

6. Sedgwick

INVENTOR:

D. Bank

ATTORNEYS.

## United States Patent Office.

DARIUS BANKS, OF MORRISVILLE, PENNSYLVANIA.

## MOLD FOR SOLES AND HEELS OF BOOTS OR SHOES.

SPECIFICATION forming part of Letters Patent No. 353,617, dated November 30, 1886.

Application filed July 29, 1886. Serial No. 209,442. (No model.)

To all whom it may concern:

Be it known that I, Darius Banks, of Morrisville, in the county of Bucks and State of Pennsylvania, have invented a new and Improved Mold for Forming the Heels and Soles of Boots and Shoes of Plastic Material, of which the following is a full, clear, and exact description.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a plan view of my new mold for forming the heels and soles of boots and shoes.

Fig. 2 is a longitudinal sectional elevation of the same, and Fig. 3 is a perspective view of the removable heel-piece of the mold.

The invention will first be described in connection with the drawings, and then pointed out in the claims.

A represents the foot portion, and B the heel portion, of the mold. The foot portion A is formed with a cavity and bottom, A', the size and shape of the sole of a boot or shoe desired 25 to be formed, while the heel portion B has a cavity, B', somewhat larger than the heel of a boot or shoe. A cross-piece, C, is secured to the heel portion B by the bolts a a, to form the front flat portion of the heel, and for shap-3c ing the outer rounded portion of the heel I place in the mold the D shaped back E. This is formed with a curve, f, upon its inner surtin or other malleable or flexible material, so 35 that it can be easily bent for removing it from the heel after the material thereof has been pressed into the mold.

A stud, F, is formed in the center of the heel portion B of the mold to reduce the weight of the heel, and around this stud is placed a removable tack holding plate, G, having numerous small holes, b, formed therein to receive the points of the nails c for holding them in the mold, so the material of the heel may be pressed upon and around them.

In the foot portion A of the mold is placed a removable tack holding plate, H, formed

with numerous small holes, d, to receive the nails c', which may be set all around the mold, so the material placed therein will surround 50 the heads or upper ends of the nails. In this manner the nails for securing the sole and heel to a boot or shoe are permanently attached to the heel and sole in the process of forming the same.

The cross piece C does not reach to the bottom of the mold, but is elevated sufficiently to form the space f', so that the material of the heel will join the material composing the sole.

Constructed in the manner described a full-fashioned heel and sole may be formed together as one article of rubber or other plastic material, by being simply pressed into the mold by hand and permitted to harden, and the heel may be made concaved at its outer rounded 65 surface, and contracted at the front and drawn from the mold with the **D**-shaped back piece, E, which could not be done with a solid mold, and the outer side of the **D**-shaped back E is made perpendicular to permit its ready with-70 drawal from the mold.

Having thus fully described my invention, I claim as new and desire to secure by Letters Patent—

1. The combination, with a mold for a boot 75 or shoe heel, of a removable heel-back, E, made of flexible material and curved and undercut at its inner surface, substantially as described.

2. The combination, with the heel portion face to fully fashion the heel, and is made of tin or other malleable or flexible material, so that it can be easily bent for removing it from the heel after the material thereof has been pressed into the mold.

3. The combination, with the foot portion 85 of the mold, of the narrow removable tackholding plate H, formed with a series of holes, d, the mold being formed with corresponding holes to receive the points of the nails, substantially as described.

DARIUS BANKS.

Witnesses:

CLARENCE GOLDENBERG, HOWARD VAN-COURT.