H. H. Bigelow,

Blank Heel.

No. 108,870. Patented Nov. 1, 1870.

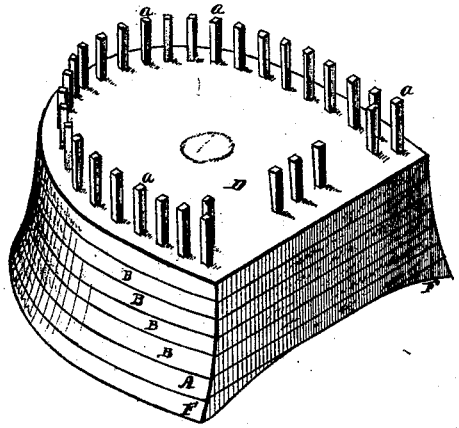


Fig. 1

Fig. 2

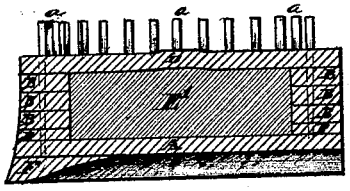
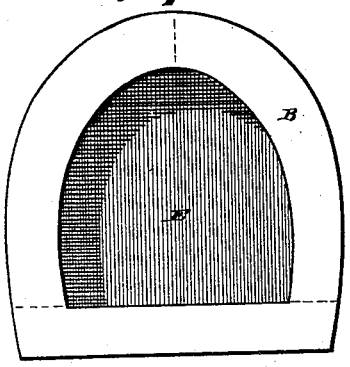


Fig. 3



Witnesses

Thos. H. Dodge

Chas. H. Pulleigh

Inventor

Horace H. Bigelow

UNITED STATES PATENT OFFICE.

HORACE H. BIGELOW, OF WORCESTER, MASSACHUSETTS.

IMPROVEMENT IN HEELS FOR BOOTS AND SHOES.

Specification forming part of Letters Patent No. **108,870**, dated November 1, 1870.

To all whom it may concern:

Be it known that I, HORACE H. BIGELOW, of the city and county of Worcester, and State of Massachusetts, have invented certain new and useful Improvements in Blank Heels for Boots and Shoes; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, which form a part of this specification, in which—

Figure 1 represents a perspective view of my improved blank heel. Fig. 2 represents a central section of the same; and Fig. 3 represents a plan view of the heel before the filling is put in or top lift attached.

To enable those skilled in the art to which my invention belongs to make and use the same, I will proceed to describe it more in detail.

The nature of my invention consists in an improved blank heel for boots and shoes, as hereinafter described.

My improved heel is formed as follows:

Upon the bottom lifting, A, are arranged a number of hollow lifting, B, enough being used to make the heel of the required height to receive the top lift, D. The hollow lifting B are open in their central part, as shown in Fig. 3, so that when packed together an opening, E, is left in the central part of the heel. This opening is then filled with a suitable quantity of leather pulp, ground leather, scraps, india-rubber, or other material, E′, and the top covered with the top lift, D, and the rand F secured around the under side of the bottom lift, A. The heel is then passed through a suitable pressing-machine, which compresses it on all sides, to give it the required form, and while held in press the awl-holes are formed and nails *a* partially inserted, as shown in Figs. 1 and 2.

Any adhesive liquid substance may be mixed with the filling, if desired.

The heel on being removed from the pressing-machine is ready to be attached to the boot or shoe.

By building the heels of hollow lifting a great saving in stock is made, inasmuch as a lift for a smaller-sized heel can be cut from the center of the large one, and a still smaller lift from the center of that; or the lifts B may be wound up from long strips of leather which could not otherwise be used. The central portion being filled with leather pulp or other material, the heel readily acquires the proper form within the press, and when dry it forms a solid central core, thereby making the heel hard and firm, while the outside, being formed by the hollow lifting B, permits of the edges being finished with ease and in a thorough and satisfactory manner. Thus the cost of manufacture is greatly cheapened, while the quality of the heel is improved.

By attaching the rand F to the heel before it is subjected to pressure from all sides, as above described, much labor and trouble are saved, inasmuch as it acquires the proper form, together with the heel, and after attaching them to the boot or shoe, but little, if any, trimming is required, and the stock is not wasted, as is the case when the rand is set at the time of securing the heel to the shoe, and a large portion requires to be cut away in order to make their edges even.

The lifting B may be made in sections, as indicated by dotted lines, Fig. 3. In this way small pieces of waste leather may be utilized. When made in this way I propose to have a machine so arranged as to pin or fasten the pieces together on each side of the joint by one operation of the machine.

Having described my improved blank heel, what I claim therein as new and of my invention, and desire to secure by Letters Patent, is—

1. An improved blank heel, composed of a series of hollow lifts, B, and central filling, E′, formed under pressure from all sides, substantially as described.

2. A compressed boot or shoe heel having the rand F united and compressed with the bottom lift, A, at the time the body of the heel is pressed and formed, as and for the purposes set forth.

3. The hollow lifting B, formed by cutting out the center of the lifting, so as to leave the exterior portion of the lifting in the shape of a continuous or endless strip, as shown and set forth.

HORACE H. BIGELOW.

Witnesses:

THOS. H. DODGE,

CHAS. H. BURLEIGH.