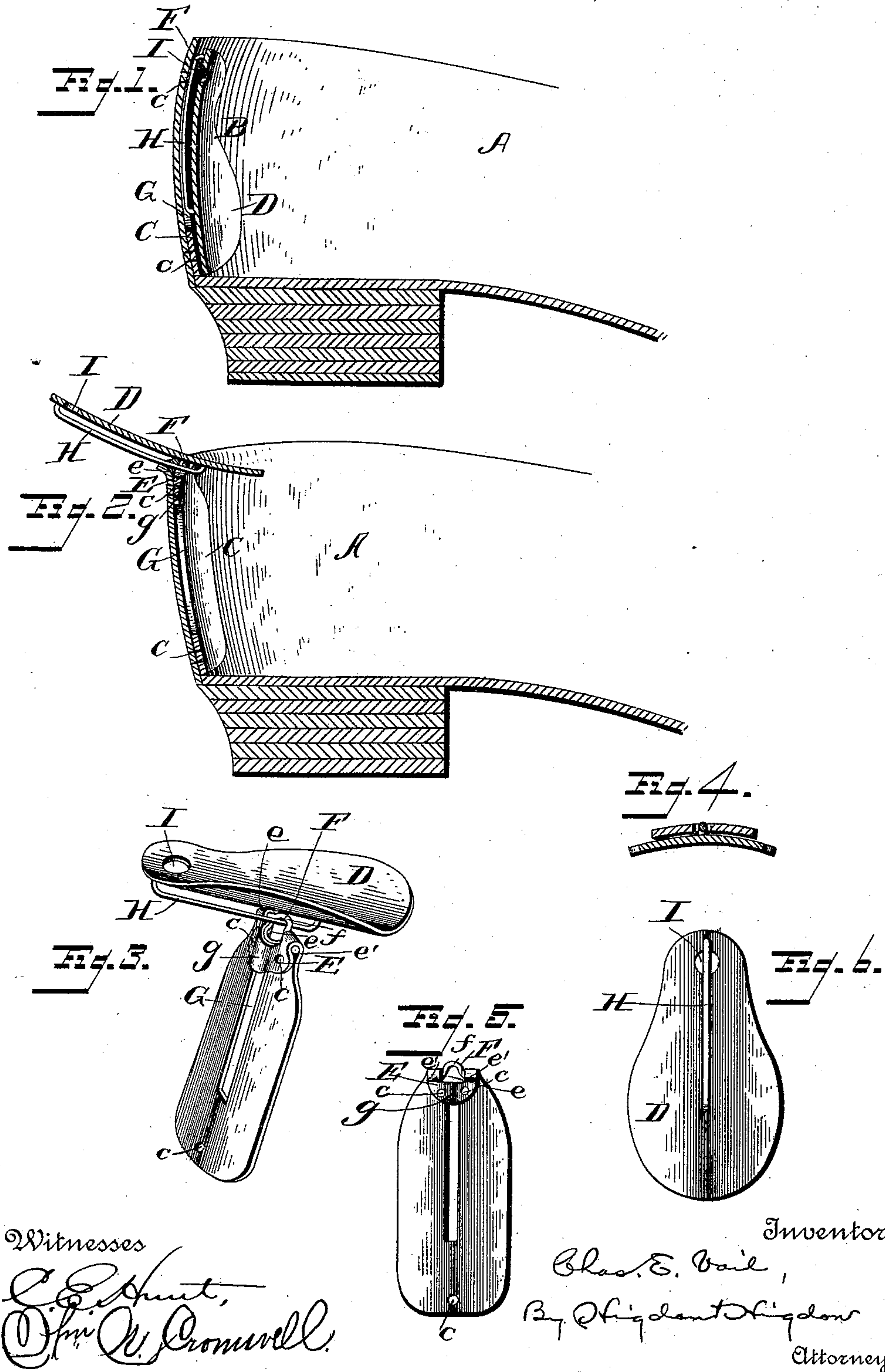


(No Model.)

C. E. VAIL.  
SHOE HORN.

No. 487,860.

Patented Dec. 13, 1892.



Witnesses

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# UNITED STATES PATENT OFFICE.

CHARLES E. VAIL, OF SALT LAKE CITY, UTAH TERRITORY.

## SHOE-HORN.

SPECIFICATION forming part of Letters Patent No. 487,860, dated December 13, 1892.

Application filed September 10, 1892. Serial No. 445,543. (No model.)

*To all whom it may concern:*

Be it known that I, CHARLES E. VAIL, a citizen of the United States, residing at Salt Lake City, in the county of Salt Lake and Territory of Utah, have invented certain new and useful Improvements in Shoe-Horns; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to shoe-horns; and it has for its object to provide an article of this character designed to be applied to and form a permanent part of the shoe.

A further object of the invention is to provide a novel construction of shoe-horn, comprising in its construction a longitudinally and laterally adjustable member adapted to be withdrawn from the shoe for use and to be inclosed and concealed within the latter when not in use.

In the drawings, Figure 1 is a vertical longitudinal sectional view of a shoe, illustrating my invention applied thereto and in inoperative position. Fig. 2 is a similar view illustrating the horn in position for use. Fig. 3 is a detailed perspective view of the horn detached. Fig. 4 is a transverse sectional view thereof. Figs. 5 and 6 are rear elevations, respectively, of the rigid and adjustable sections detached.

Corresponding parts in all the figures are denoted by the same letters of reference.

Referring to the drawings, A designates a shoe, to which is applied my improved horn B. The latter comprises a rigid section C, secured within the heel of the shoe, and an adjustable section D, working upon the rigid section. The rigid section consists of a plate preferably formed of sheet metal, curved to conform to the contour of the heel of the shoe, and provided with apertures *c*, by means of which the plate is riveted or otherwise secured to the interior surface of the shoe-heel. At the upper end of this plate is provided an arm E, recessed, as at *e*, and bent over the inner face of the plate to form two aligning eyes *e' e'*. Within the latter project the ends of a bearing and guide pin F, said pin being formed at its center with an outwardly-projecting U-shaped loop *f*. The member C is

also provided with a central longitudinal slot G, which has its upper end terminating below the pin F, and between said end and the pin the plate is provided with a groove or depression *g*. The purpose of said slot and groove will appear farther on. The member D likewise consists of a plate which conforms to the contour of the member C and is adjustable upon the outer face of the latter. To this end the member B is provided upon its rear face with a centrally and longitudinally arranged guide-bar H. The latter has its ends bent toward the member B and secured thereto, whereby said bar is free from contact with said member throughout its length. In practice the loop *f* of the pin F embraces the bar H and is adapted to work between the same and the opposing face of the member D. In normal position the member D overlaps the member C and is permitted to fit closely against the same by reason of the accommodation of the guide-bar H within the slot G and groove or depression *g*. To further facilitate the compact relative location of the two members when in normal position, the member D is provided near the upper terminal of the guide-bar H with an aperture I, which receives the loop of the pin F.

The operation and advantages of my invention will be readily understood by those skilled in the art to which it appertains. Normally the two members of the horn are entirely contained within the heel of the shoe and by reason of their construction offer no inconvenience to the wearer of the shoe. When the shoe is placed upon the foot of the wearer, the member D is first drawn outwardly its full movement and is then thrown rearwardly, as shown in Fig. 2. When the foot is inserted in the shoe, the heel engages the member D, and by reason of the pivotal movement of the latter the heel is guided into the shoe. The member D is then slid down to its normal position and out of view.

I claim as my invention—

1. As an improved article of manufacture, a shoe-horn comprising two members, one of which is adapted to be attached within the heel of a shoe and the other loosely connected therewith and outwardly and rearwardly adjustable with relation thereto, substantially as set forth.

2. As an improved article of manufacture,  
a shoe-horn consisting of a plate conforming  
in contour to and adapted to be secured within  
the heel of a shoe, said plate being provided  
5 with a bearing and guide pin, a longitudinal  
slot, and with a groove or depression between  
said slot and pin, and a plate of correspond-  
ing contour provided at its back with a lon-  
gitudinally-arranged bar working upon said

pin and adapted to be normally received by 10  
said slot and the groove or depression, sub-  
stantially as set forth.

In testimony whereof I affix my signature in  
presence of two witnesses.

CHARLES E. VAIL.

Witnesses:

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J. H. HEYWOOD.