

P. Shaw,
Shoe Heel,

Nº 26,712.

Patented Jan. 3, 1860.

Fig 1.

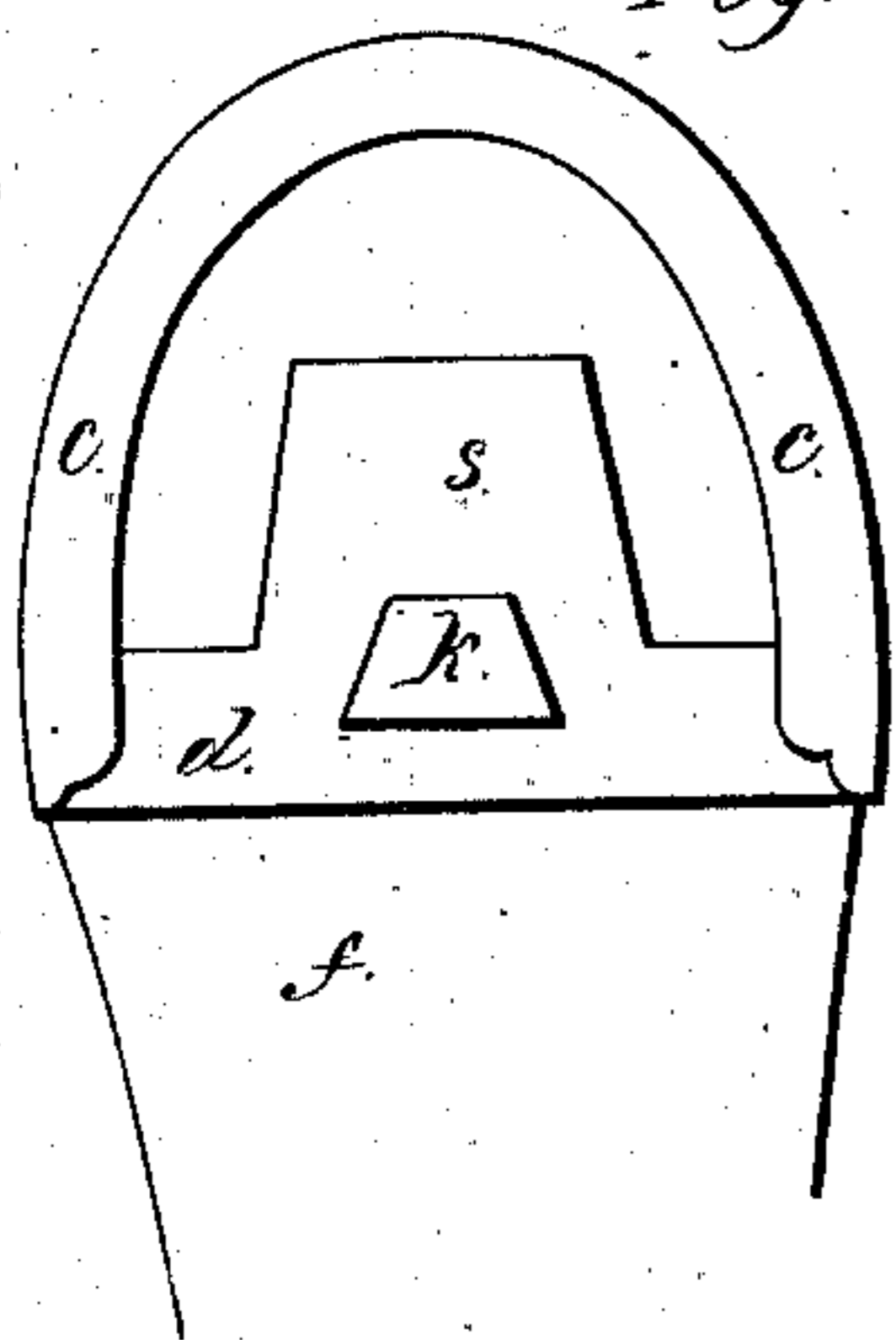


Fig 2.

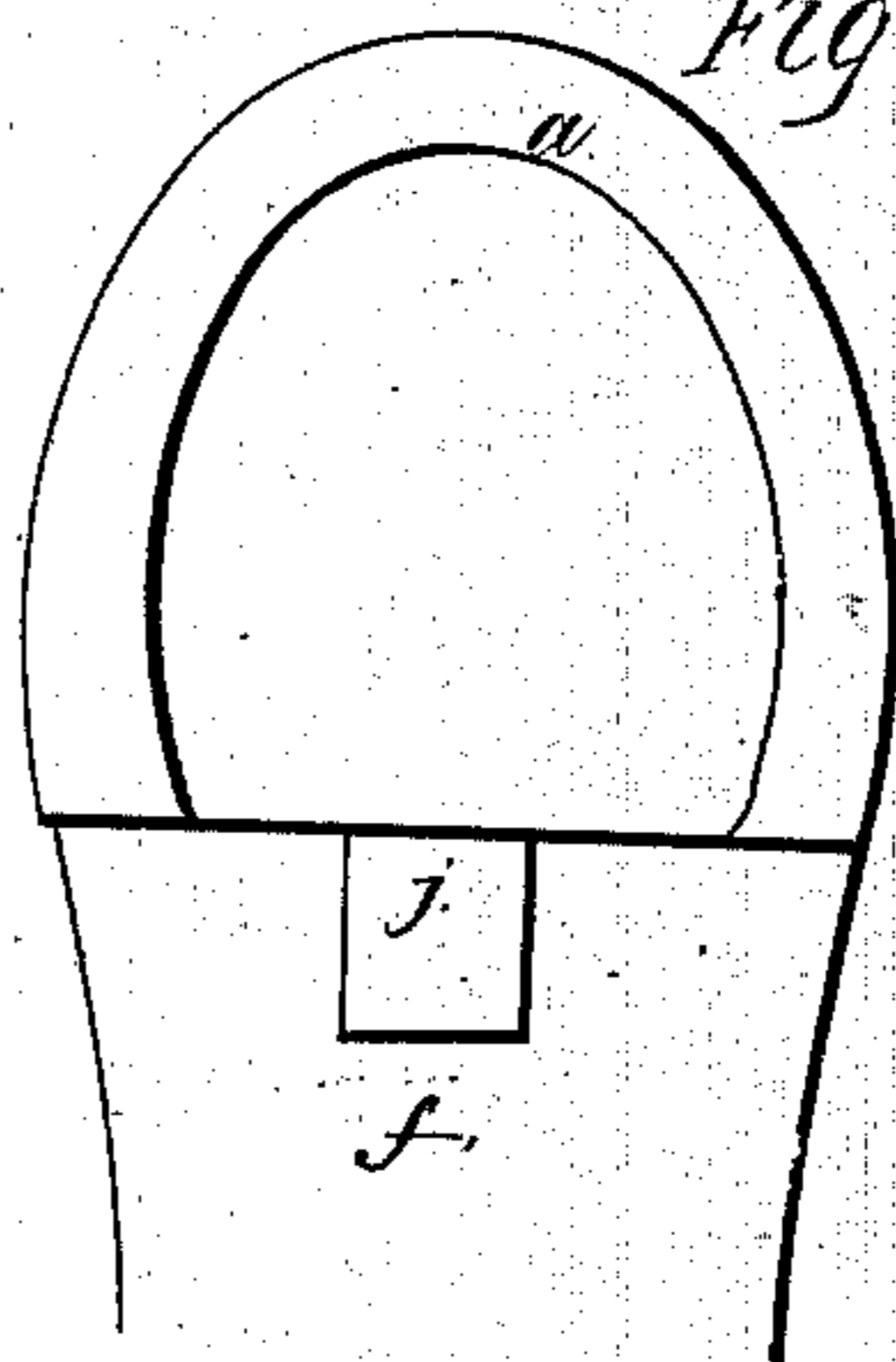


Fig 3.

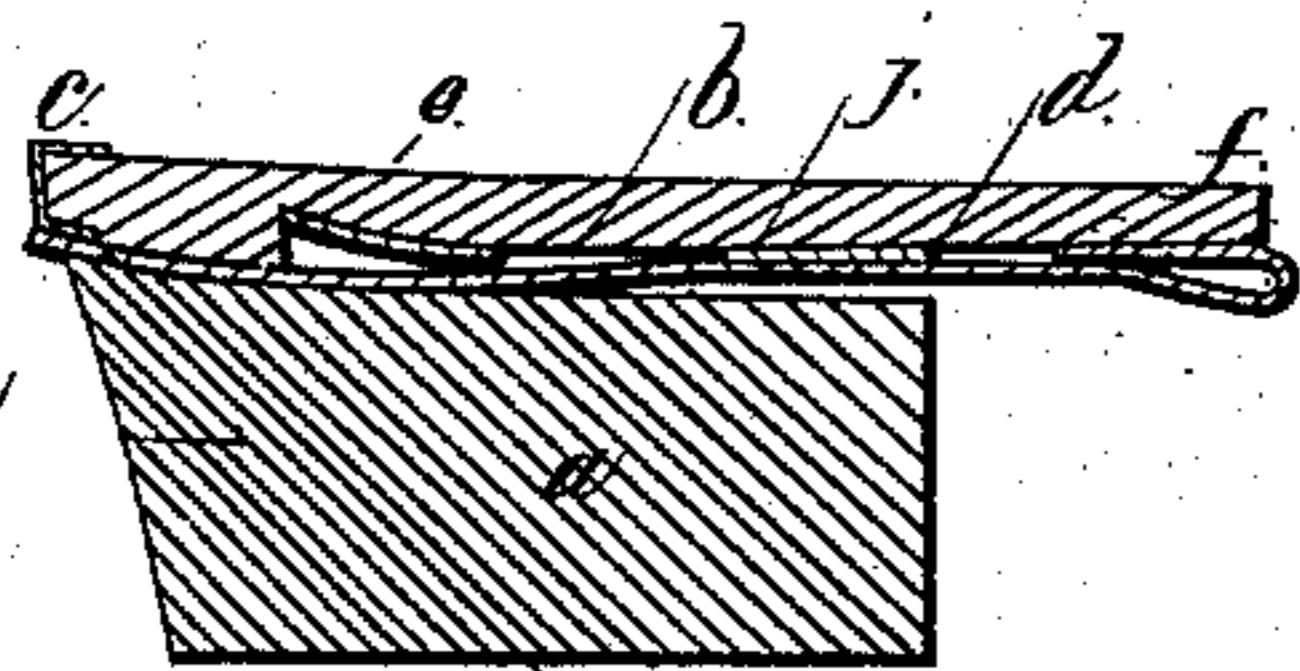


Fig 4.

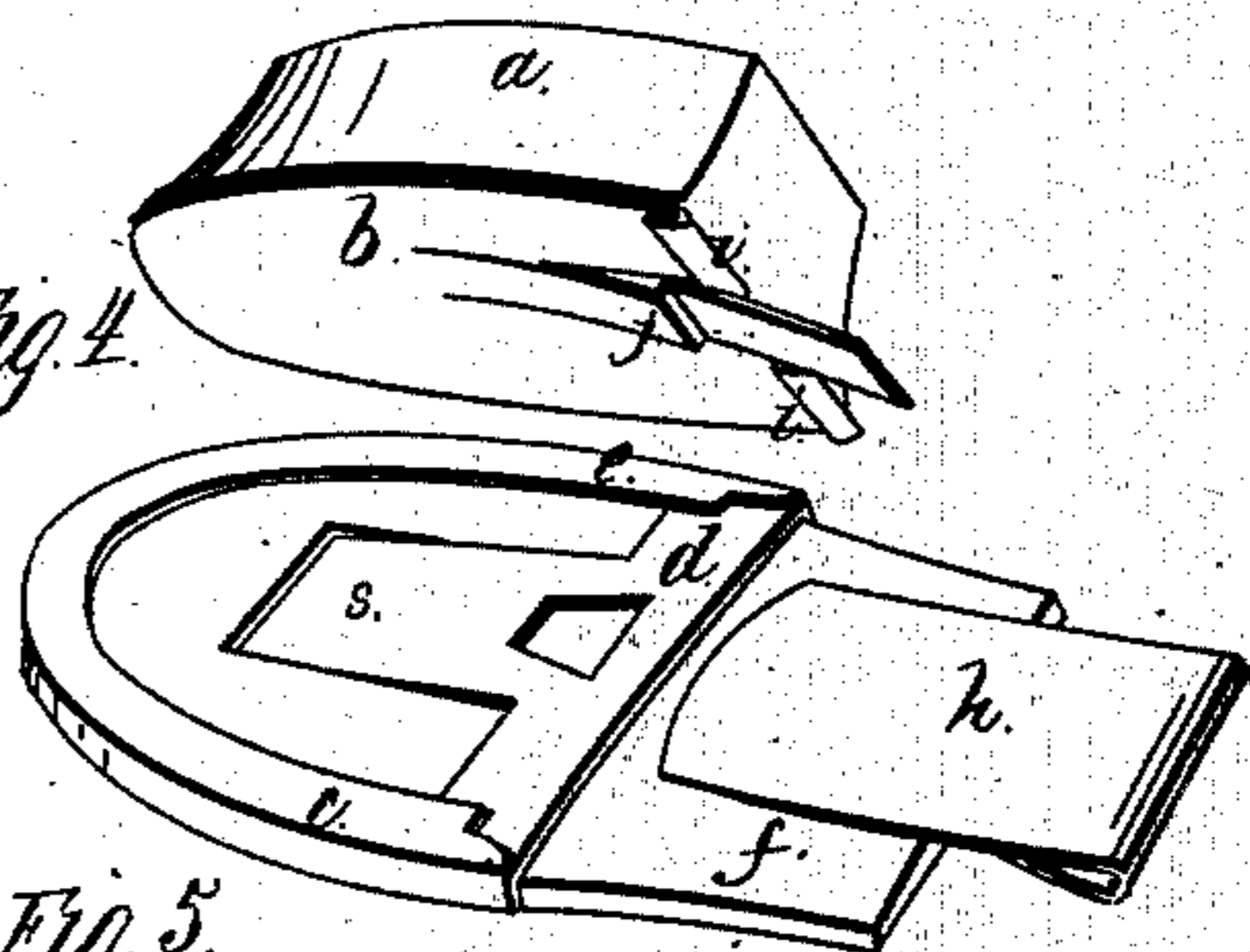


Fig 5.

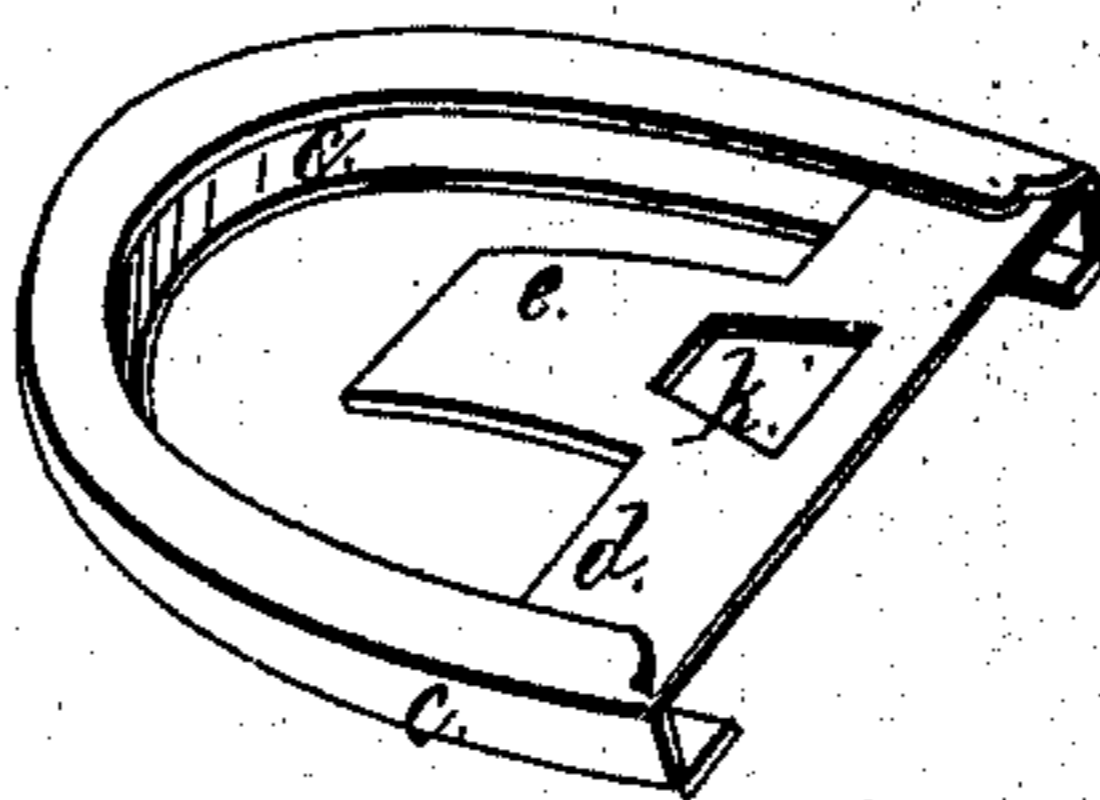
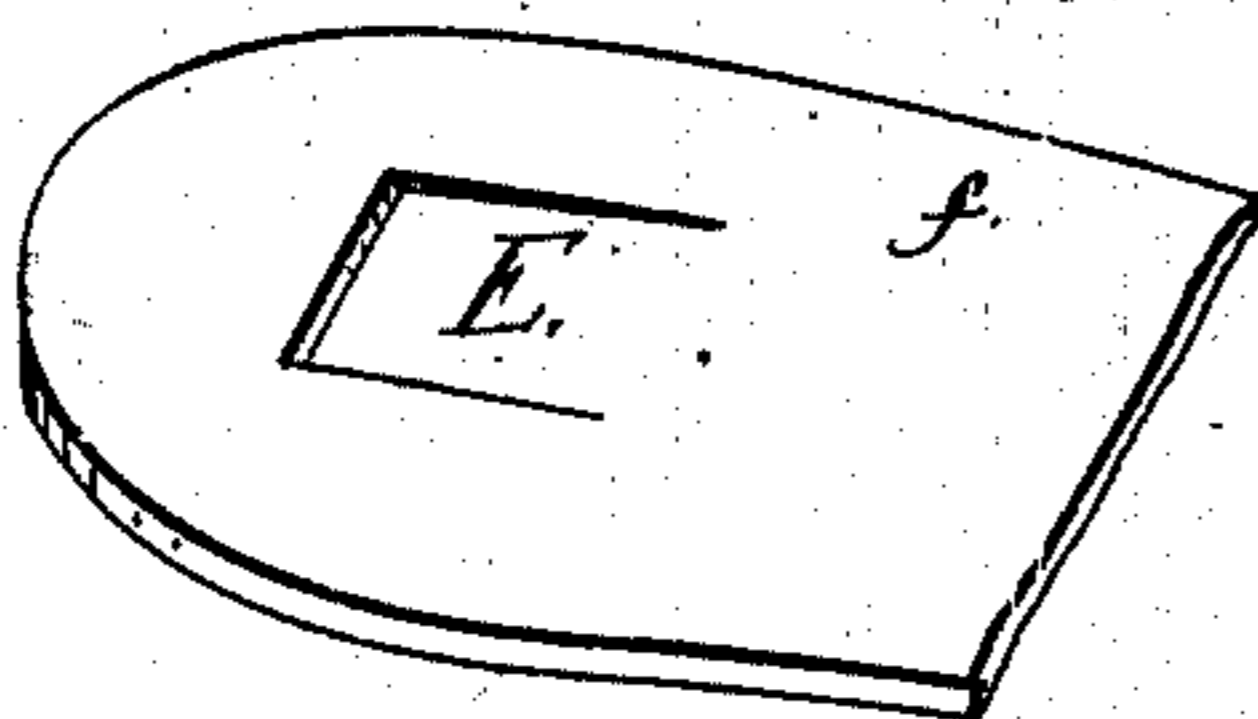


Fig 6.



Witnesses;

C. Horace Hubbard,

W. B. Gleason

Inventor,

Philander Shaw

UNITED STATES PATENT OFFICE.

PHILANDER SHAW, OF BOSTON, MASSACHUSETTS.

HEEL FOR BOOTS AND SHOES.

Specification of Letters Patent No. 26,712, dated January 3, 1860.

To all whom it may concern:

Be it known that I, PHILANDER SHAW, of Boston, in the county of Suffolk and State of Massachusetts, have invented certain new and useful Improvements in Heels for Boots and Shoes; and I do hereby declare that the following, taken in connection with the drawings which accompany and form part of this specification, is a description thereof so full and exact as to enable those skilled in the art to practice my invention.

Similar letters refer to similar parts in all the figures of the drawings, where—

Figure 1 is plan of the heel portion of a shoe sole, showing the metallic band thereon which I use in connecting the heel with the sole. Fig. 2 is a plan, showing the heel connected with the sole. Fig. 3 comprises longitudinal and cross vertical sections through the sole and heel and the metallic parts employed for the connection. Fig. 4 comprises perspective views of the heel detached from the sole, and the sole with its metallic connecting band upon it and the slide used for detaching the band from the sole. Fig. 5 shows the connecting band in perspective, and Fig. 6, the sole with the depression formed to receive the catch of the band by which the band and sole are locked together.

In consequence of the general use of heels on women's shoes and the gradually advancing prices of leather it has become a desideratum to form the heels of some cheaper material, and as heels are noisy and inconvenient for home use, though perhaps well enough adapted for wear out of doors, in compliance with fashion, it is desirable to make the heels detachable from the boot or shoe at the volition of the wearer.

The object of my invention is to produce a durable and cheaply made heel, and one which can be removed and replaced at pleasure of the wearer and which when removed leaves the shoe with the ordinary appearance of a common flat soled or spring heeled shoe.

The nature of my invention consists first—in the use of wood for heels when prepared as hereinafter described, and second—in the addition to, and combination with, the plain soled, or spring heeled sole, boot or shoe, of a heel made removable by the means described and any of their equivalents.

I wish to be understood that I am aware of the use of heels made of wood as it is ordinarily found, no other change being made in it with exception of the requisite changes in form and color; also that heels as ordinarily connected with shoes are capable of being broken or torn off, and that there are inventions in which the heel or a portion of it is arranged to rotate to provide for uneven wear, in which provision is made for removal and replacement by a workman for repairs; but my invention may be distinguished from any other by its adaptation of material; and the adaptation and design of the catches, or other fastenings, of the heel to its easy removal by manipulation of the wearer.

I prepare the wood from which the heels are to be formed by first steaming it, and while it is in the softened and heated condition consequent upon the steaming it is filled with resinous matter, and submitted to great pressure by which its bulk is reduced in some cases nearly one half. The wood when cut into small pieces, of the size of a rough heel, is more easily and quickly prepared than if left in large pieces. Previous to the resin or gum being incorporated into the wood it may be "kyanized" or filled with a preservative solution, which may also be made a dye for the wood. The object in preparing the wood with resin is to prevent it from absorbing moisture which would cause change of form of the heel.

Among the many forms which the second part of my invention may be made to assume that illustrated by the drawings is, I believe, the best adapted for general use. The heel (*a*) has affixed to its seat a metallic plate (*b*) which projects near its edge from the concave surface of the heel to admit of the interlocking shown at Fig. 3, where the band (*c*) which encompasses the edge of the heel portion of the sole, or the spring heel, as the case may be, is shown in section. The ends of (*c*) are united by a metallic tie (*d*) which, when in place upon the shoe, lies on the surface of the sole, and a projection (*e*) from (*d*) forms a spring catch which drops into the recess formed in the sole (*f*) at (*g*) whenever the band (*c*) is slid upon it from the rear, and when the catch (*e*) is interlocked in (*g*) it will be obvious the band can only be removed by unlocking the catch, which is effected by

slipping the piece (*h*) beneath it, raising it up out of recess (*g*) formed for the purpose in the sole.

Further inspection of the drawings will show that (*d*) is so formed that the flanges (*i*) turned on (*b*) will slide under (*d*) as the heel is pushed into its seat, thus holding the heel at its front or straight edge, as well as at its curved edge. A portion of (*d*) is formed into a spring catch (*j*) which, when the heel is slipped into its seat, catches in the recess formed in (*d*) at (*k*) thus locking the heel in its place.

When it is desired to remove the heel the piece (*l*) is slipped under that part of the spring catch (*j*) which projects beyond and in front of the heel. This unlocks the catch, and the heel is then free to be slipped forward out of band (*c*) and away from the

shoe. Then by use of (*h*) as described the shoe is entirely freed from all parts foreign to a plain or spring heeled sole.

Having described my invention, what I claim as new and desire to secure by Letters Patent of the United States is:

1. The heel herein described as being made of compressed wood which is first filled with resinous or oily or other equivalent matter for the purpose set forth.

2. Also the holding band (*c*) arranged to be fixed upon and removed from the sole in combination with the metallic plate (*b*) and heel (*a*) substantially as set forth.

PHILANDER SHAW.

Witnesses:

C. HORACE HUBBARD,
W. B. GLEASON.