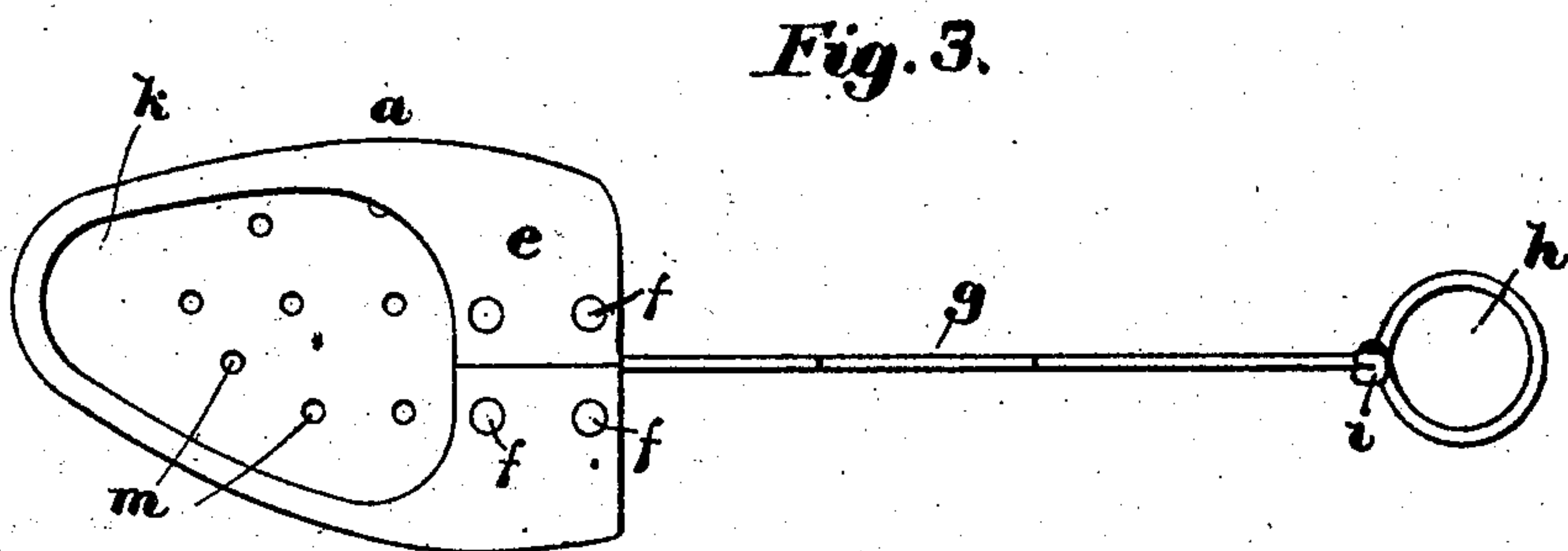
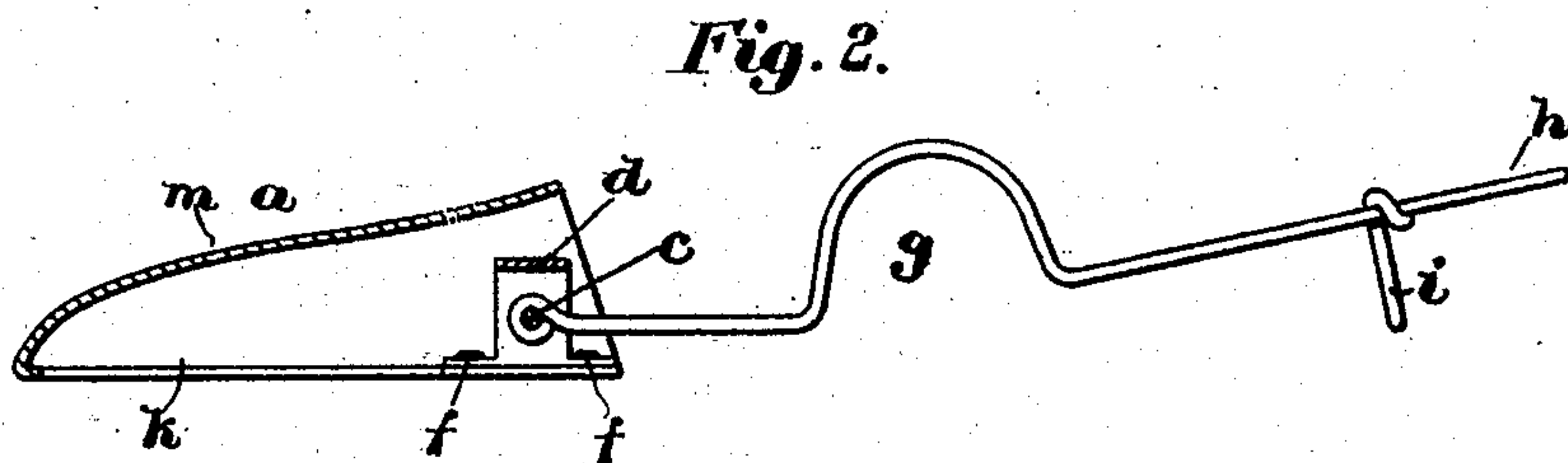
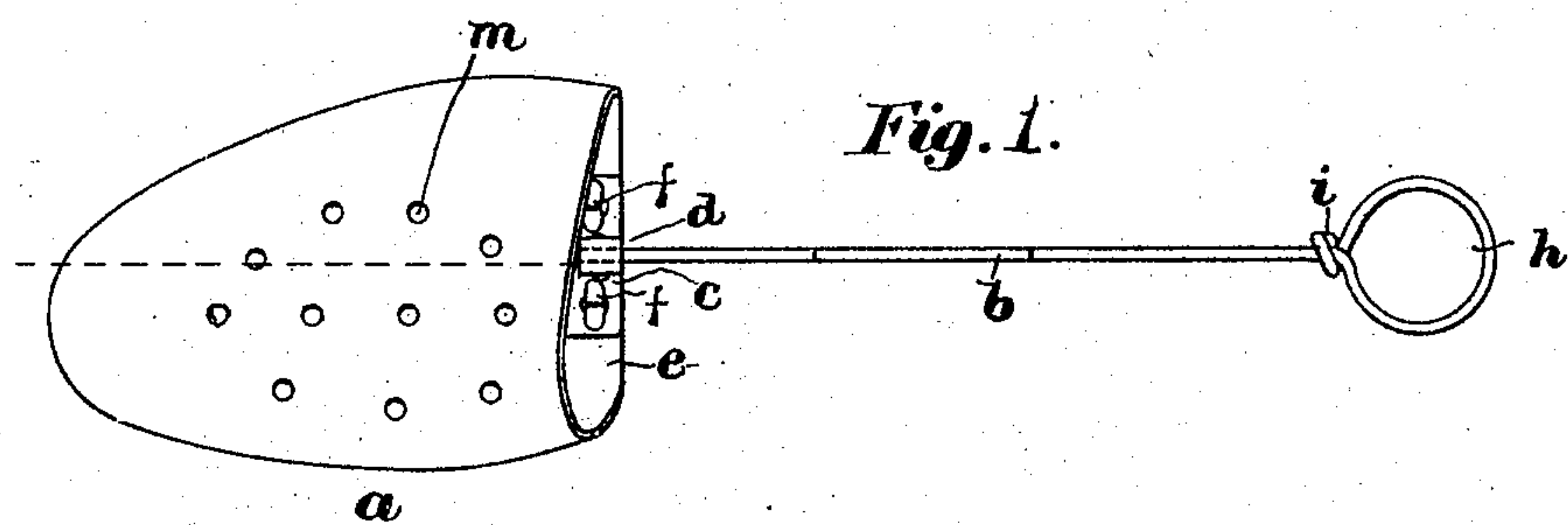


No. 806,483.

PATENTED DEC. 5, 1905.

W. L. C. NILES.  
SHOE FORM.

APPLICATION FILED MAR. 3 1902.



**Witnesses:**

Walter E. Lombard  
Mary A. Kenney

**Inventor:**

Walter L. C. Niles,  
By his Attorney,  
Hart Anderson



# UNITED STATES PATENT OFFICE.

WALTER L. C. NILES, OF LYNN, MASSACHUSETTS.

## SHOE-FORM.

No. 806,483.

Specification of Letters Patent.

Patented Dec. 5, 1905.

Application filed March 3, 1902. Serial No. 96,385.

*To all whom it may concern:*

Be it known that I, WALTER L. C. NILES, a citizen of the United States, residing at Lynn, in the county of Essex and State of Massachusetts, have invented certain new and useful Improvements in Shoe-Forms; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

The present invention relates to shoe forms or trees, and has for its object to produce a shoe form or tree of a light and simple construction and one which is readily adapted for the use of drummers in displaying their samples or as a follower to take the place of the last in the shoe while the shoe is undergoing its finishing operations in the factory, or it can be used as such devices are now very commonly used as a stretcher or former in order to restore and preserve the shape of the vamp portions of shoes by wearers and maintain the sole in its proper horizontal and the at present so much desired flat position.

To the above ends the present invention consists of the improved shoe-form which will now be described and claimed.

The present invention is illustrated in the accompanying drawings, in which—

Figure 1 shows a top plan view of the device. Fig. 2 shows a longitudinal vertical section through the foot-piece or fore part with the brace in side elevation. Fig. 3 shows a bottom plan view of the device.

Similar reference characters will be employed throughout the specification and drawings to designate corresponding parts.

In the drawings, *a* is the fore part, and *b* the rear part or brace hinged to the fore part *a* at *c*, so that the brace may be turned upward and forward with relation to the fore part for the purpose of facilitating the introduction of the device into and its removal from the shoe. The fore part *a* is in shape substantially that of the fore part of a last and will be made any shape and size corresponding to the shape and size of the shoe, or approximately so, with which the device is intended to be used. The fore part *a* is made of any desired or preferred material, and for the purpose of reducing its weight said fore part is made hollow and preferably of some thin sheet material, such as a light sheet metal; but in practice I make the same of a fibrous material, such as papier-mâché or

other fibrous board, which by suitable treatment is hardened to such an extent as to maintain its shape under any pressure to which it may be subjected in the use for which it is designed.

The brace *b* is preferably made of wire of suitable dimension in cross-section and strength to maintain the fore part *a* forced closely into the fore part of the shoe when in operation. The pivot *e*, which couples the parts together, is fastened in a metallic standard or clip *d*, which is secured to the inner face of the bottom *e* by means of rivets *f* or in any other suitable or convenient manner, the clip or brace *d* performing the double function, as will be observed, of receiving the pivot *e*, which couples the parts *a* and *b*, and also of securely uniting the meeting edges of the bottom *e* of the fore part.

In practice the brace *b* will be made slightly longer than is necessary to cause its rear end to impinge against the inner face of the counter of the heel portion of the shoe and so formed as to impart a yielding thrust to the fore part to carry it into the toe portion of the shoe, and this is secured by forming the part *b* with an upwardly-extending arch *g*, which will yield sufficiently to enable the brace *b* to move up and down in the shoe inserting and removing the device and at the same time maintain a yielding pressure while the device is in position in the shoe. The brace at each side of the arch *g* preferably is bent upwardly at a slight angle, as shown clearly in Fig. 2.

For the purpose of readily manipulating the brace *b* I provide it at its rear end with the loop or eye *h*, into which the finger may be inserted in order to raise the brace *b* removing the device from the shoe. In order to insure that when the device is in position in the shoe there shall be sufficient space between the loop or eye *h* and the heel-seat of the shoe, I have provided the brace *h* with a foot or stop *i*, formed by bending the wire around the body of the brace *b* and thence downward at substantially right angles, as shown clearly in Fig. 2.

It will be noted that the device is simple construction and cheaply made, and that the simple brace *b*, made of wire, as described, takes the place of the cumbersome and heavy devices present in the shoe-forms of the prior art, and that the upward-extending arch *g* will produce sufficient resiliency to admit of the free insertion and removal of the device



and secure the desired longitudinal elastic pressure to maintain the fore part in close contact with the toe portion of the shoe.

In order to permit of the ventilation of the device and the rapid evaporation of any moisture which may be in the lining of the fore part of the shoe, the bottom *e* of the fore part is provided with a large opening *k* and the top of the fore part with apertures *m*, a desirable feature, but not an essential feature of the present invention.

As is well known to those skilled in the art, shoes are made with varying degrees of "swing"—that is to say, the angular disposition of the fore part of a shoe with relation to the shank and rear part vary considerably in different shoes, so that in those shoes having considerable swing or in which the fore part of the sole turns sharply inward with relation to the shank and rear part of the shoe it is quite difficult to use the forms of the prior art indiscriminately with all shoes. Those that would be capable of use with a comparatively straight shoe would be impractical, not to say impossible, of use in a shoe having considerable swing. It thus happens that in those forms having comparatively rigid braces or rods either the rod will have to be bent or shaped to conform to the longitudinal lines of the shoe or else the end of said brace-rod where it bears against the counter of the shoe will strike said counter to one side or the other of the center, thus distorting the shoe and, furthermore, finding an insecure bearing. In my device, however, it will be noted that the brace-rod is free to swing laterally and that by reason of its

arched connection to conform to the longitudinal lines of the shoe whether said shoe be straight or angular, and this without imparting any strain to the hinge or union which connects the brace to the fore part.

It is thought that the operation of the device has been sufficiently disclosed in connection with the foregoing description of its form and arrangement and that a further description of its operation will be deemed unnecessary.

Having described my invention, I claim as new and desire to protect by Letters Patent of the United States—

1. A shoe-form, comprising a hollow fore part, a standard secured to and uniting the meeting edges of said fore part, and a brace pivotally connected to said standard, substantially as described.

2. A shoe-form, comprising a fore part, a wire brace pivotally connected to said fore part, a loop or eye at the rear end of the brace and a stop extending downward from said brace in front of said loop or eye, substantially as described.

3. A shoe-form, comprising a fore part, a wire brace pivotally connected to said fore part, a loop or eye at the rear end of the brace, a stop extending downward from said brace in front of said loop or eye and an integrally-formed arched portion intermediate the ends of said brace, substantially as described.

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

WALTER L. C. NILES.

Witnesses:

MABEL E. ADAMS,  
T. HART ANDERSON.