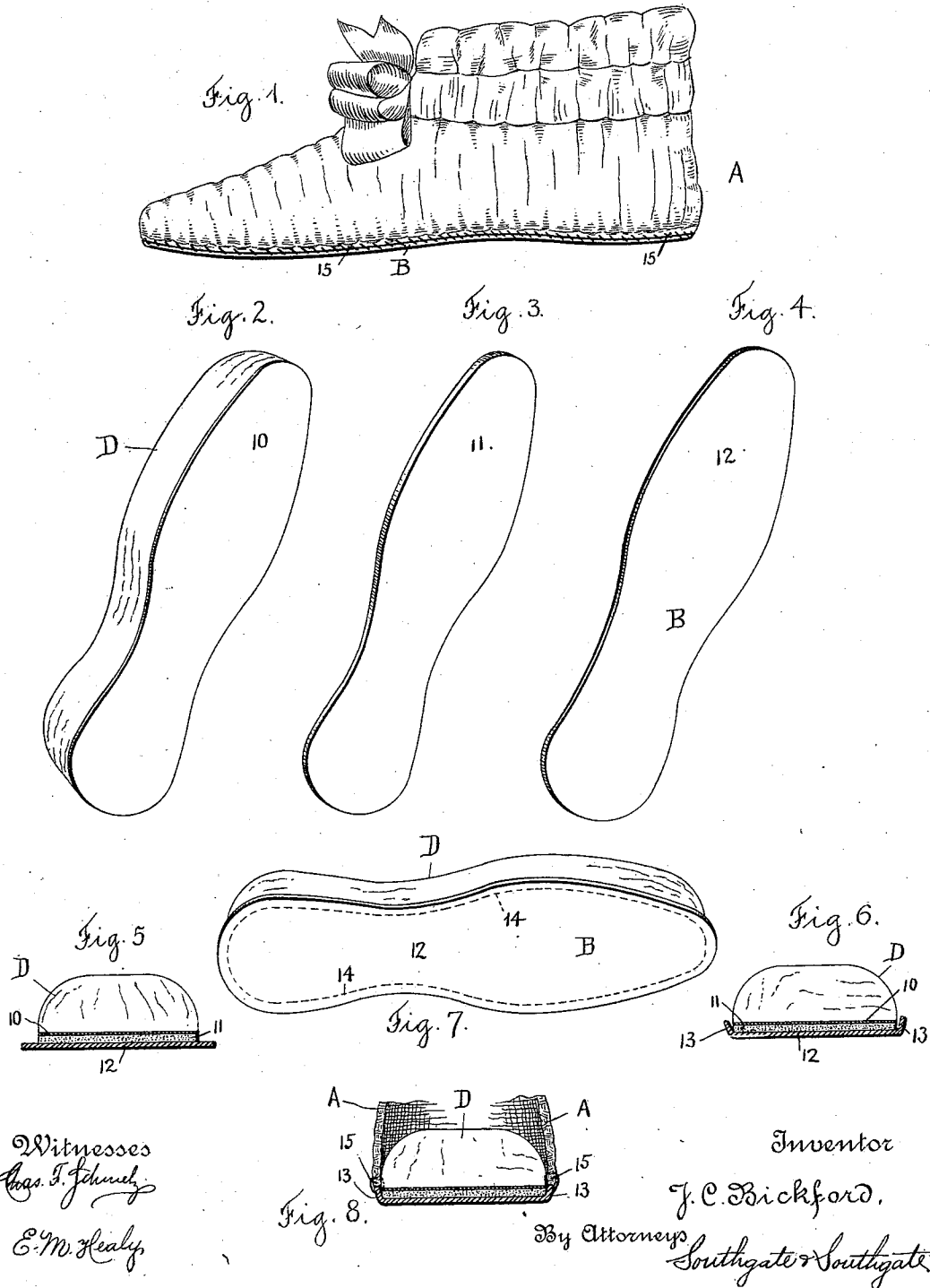


(No Model.)

J. C. BICKFORD.  
WORSTED SLIPPER OR SHOE.

No. 532,525.

Patented Jan. 15, 1895.



# UNITED STATES PATENT OFFICE.

JOHN C. BICKFORD, OF WORCESTER, MASSACHUSETTS, ASSIGNOR TO BICKFORD & SWEET, OF SAME PLACE.

## WORSTED SLIPPER OR SHOE.

SPECIFICATION forming part of Letters Patent No. 532,525, dated January 15, 1895.

Application filed August 30, 1894. Serial No. 521,659. (No specimens.)

*To all whom it may concern:*

Be it known that I, JOHN C. BICKFORD, a citizen of the United States, residing at Worcester, in the county of Worcester and State of Massachusetts, have invented a new and useful Improvement in Worsteds Slippers or Shoes, of which the following is a specification.

The object of my invention is to improve the construction of slippers or shoes, as for example, those which are formed with crocheted or knitted uppers, which are stitched or secured to leather soles. To this end, I employ a composite sole, which is constructed of a body portion and a wearing surface, the latter being preferably sheep skin. The sheep skin is cut larger than the body portion, so that the edges of the same project from the body portion of the sole, and these edges are crimped or turned up around the body portion of the sole to form an upwardly projecting lip or bead. To this projecting lip or bead, the upper is secured by butting the same directly against the lip and fastening the same to the lip by over-casting, whereby there will be no ridge or projection between the parts, but a smooth joint, and whereby the shoe can be constructed without turning.

Referring to the drawings, forming part of this specification, Figure 1 is a side elevation of a shoe or slipper constructed according to my invention. Figs. 2, 3 and 4 are perspective views of the parts from which my composite sole is constructed. Fig. 5 is a transverse sectional view showing the parts of the sole as first united. Fig. 6 is a transverse sectional view showing the construction, when the edges of the bottom or sheepskin sole have been crimped or turned around the body portion of the sole. Fig. 7 is a perspective view showing how the two parts of the sole may be also stitched together, and Fig. 8 is a transverse sectional view of the finished shoe.

As heretofore constructed, the uppers of slippers or shoes of the class I have referred to, have been provided with a tape binding around their lower edge, and the tape binding and sole have been stitched together, through and through, to secure the sole and upper together. I have found in practice that this construction is objectionable, as the stitches for holding the upper and sole together are

directly exposed on the wearing surface of the sole, in such manner that they soon wear through and the upper end sole become detached. Also as the tape must match the upper a great variety of tapes must be kept on hand to match whatever upper may be desired.

In the construction which I have devised, I do away with the tape binding and I provide the sole with an upwardly extending projection or lip, to which the upper may be directly secured.

In the drawings, A designates the upper, which may be knitted or crocheted with an integral selvage or binding on its lower edge, or any other desired form of upper may be used.

In constructing the composite sole B, which I have devised, I employ a central body portion 11, and as the body portion is completely inclosed and is not exposed to wear, I may use a comparatively inexpensive class of leather for this part of the sole, or if preferred, I may make it of leather board or similar material. Upon the upper surface of the body portion 11, I preferably cement or paste an inner sole 10 of the same size as the body portion, which is formed of sheep skin and which carries the natural wool lining D. An outer or wearing sole of sheep skin which is somewhat larger than the body portion 11 is then cemented or secured to the bottom surface of the body portion and I preferably employ a set of gages or tools, for centering the body portion with respect to the wearing sole, so that the wearing sole, as 12, will project evenly upon all sides of the body portion, the parts then assuming the relation illustrated in Fig. 5. When the parts have been secured together as last described, the projecting edges of the wearing sole 12 are then crimped or turned up around the body portion to form a circumferential projection or lip 13, which extends up and away from the wearing surface, as shown in Fig. 6.

For the purpose of crimping or turning up the edges of the sole 12, I preferably employ a die and follower of substantially the same size and shape as the body portion 11, and force the sole through the said die having first slightly moistened the projecting edges,

thus turning or crimping up the edges 13. It is evident that the projection 13 may be crimped or turned up in any other desired manner.

5 The form of sole as thus constructed and as illustrated in Fig. 6, has been found to be sufficiently strong for ordinary wear especially if cement is used for securing the parts of the composite sole together; but to make  
10 the parts absolutely secure, I may stitch the parts of the sole together as illustrated at 14 in Fig. 7, and thus insure the parts remaining in place independent of the cement.

In completing the shoe, from the parts,  
15 which are thus constructed, the upper is butted directly against the projecting lip 13 and is over-cast or sewed over and over directly to said lip and by adopting this style of sewing, I avoid the formation of a ridge or  
20 crease and the parts may be neatly and accurately joined together without reversing or turning the shoe. It will also be seen that the stitches which unite the sole and upper are not exposed to wear as they are at some  
25 distance above the bottom of the sole. Hence the shoe is not open to the objection previously pointed out.

My shoe as thus constructed may be easily and rapidly manufactured and forms a very  
30 superior article as the same is durable and lasting, and very neat in appearance and comfortable, as there are no creases or seams between the upper and sole either on the outside or inside of the shoe.

35 I am aware that changes may be made in the construction of my slipper or shoe without departing from the scope of my invention, and I do not wish to be limited to the details which I have shown and described, but

40 What I do claim, and desire to secure by Letters Patent of the United States, is—

1. A shoe or slipper having a sole with an

upwardly projecting lip extending from the same and an upper butted against the projecting lip and over-cast thereto, whereby the parts are united without ridges, and whereby  
45 the shoe or slipper is completed without turning, substantially as described.

2. A shoe or slipper consisting of a sole formed of a body portion, a wearing surface 50 or sole secured to the bottom of the sole, the edge of the same projecting beyond the body portion and being upwardly crimped to form an upwardly projecting lip, and an upper butted against said lip and over-cast thereto,  
55 whereby the parts are united without ridges and whereby the shoe or slipper is completed without turning, substantially as described.

3. A shoe or slipper formed with a sole consisting of a body portion and a wearing surface or sole, the latter being crimped about  
60 the body portion to form an upwardly projecting lip, and an upper formed of knitted or crocheted material with an integral sel-  
65 vage or binding butted against said lip and over-cast thereto, whereby the shoe or slipper is completed without turning and the parts are united without ridges, substantially as described.

4. A sole for a shoe or slipper consisting of 70 a body portion 11, a wearing surface 12 secured to the bottom thereof, said wearing surface extending beyond the body portion and being crimped to form an upwardly projecting lip and a lining of natural wool se-  
75 cured to the upper side of the body portion, substantially as described.

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

JOHN C. BICKFORD.

Witnesses:

LOUIS W. SOUTHGATE,  
PHILIP W. SOUTHGATE.