

(No Model.)

C. J. BAILEY.
SOCK SOLE FOR BOOTS OR SHOES.

No. 466,592.

Patented Jan. 5, 1892.

Fig: 1.

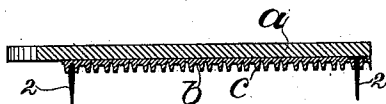


Fig: 2.

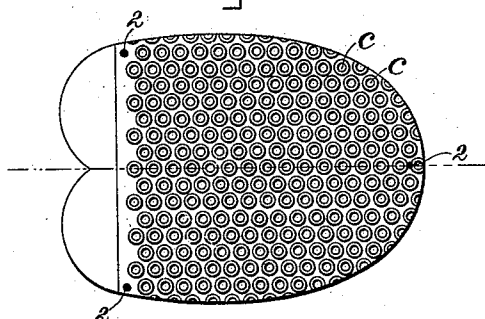
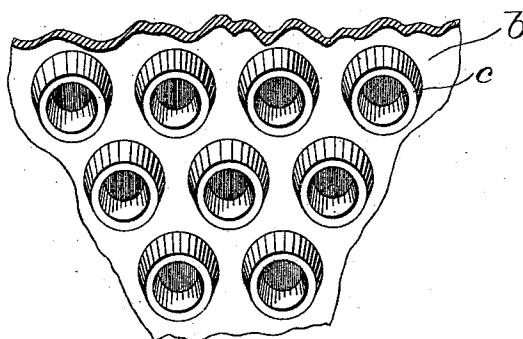


Fig: 3.



Witnesses:

Oscar F. Hill.
Lowell Howell

Inventor,

Charles J. Bailey
by Crosby & Gregory Attys.

UNITED STATES PATENT OFFICE.

CHARLES J. BAILEY, OF NEWTON, MASSACHUSETTS.

SOCK-SOLE FOR BOOTS OR SHOES.

SPECIFICATION forming part of Letters Patent No. 466,592, dated January 5, 1892.

Application filed August 4, 1891. Serial No. 401,701. (No model.)

To all whom it may concern:

Be it known that I, CHARLES J. BAILEY, of Newton, county of Middlesex, State of Massachusetts, have invented an Improvement in Sock-Soles for Boots or Shoes, of which the following description, in connection with the accompanying drawings, is a specification, like letters and figures on the drawings representing like parts.

Boots and shoes as commonly made are provided with solid heels secured in position by nails, thereby presenting an unyielding object beneath the heel, so that in walking the wearer is subjected to a series of sudden jars or shocks. Such sudden jars or shocks to the body appear in themselves to be slight, and hence unimportant; but it has been discovered that the excessively large number of sudden jars or shocks to the body each day affects the general health and produces or greatly aggravates certain diseases. Many devices have been made by which such sudden jars or shocks may be overcome; but on account of their peculiar construction they are objectionable—as, for instance, a heel-sock or sock-lift has been made of rubber and provided on its under side with a number of solid projections. Such form is objectionable, because the rubber is too heating to the foot and because the solid projections are felt as hard spots by the wearer.

Sock-soles have been made composed of a layer of thin leather and a layer of rubber, having on them a series of transverse ribs and also a large number of pyramidal projections; but such forms are objectionable, because the ribs and projections are felt as hard spots by the wearer. In fact, all the constructions known to me which may be adapted for the purpose contain solid projections or ribs, which when in use will be felt by the wearer, and are hence objectionable.

This invention has for its object to construct a sock-lift which may be placed in a boot or shoe and attached to the inner sole thereof or not, as desired, but which is yielding evenly over the entire surface which comes in contact with the tread of the foot.

In order to carry out this invention, I have secured to the under side of a piece of thin leather or other suitable material made heel-shaped a layer of rubber provided with a

large number of cellular or socketed collapsible projections. By making said projections annular, and also by making the side walls thereof quite thin, a suitable space is provided on each side of said walls to receive the material thereof when compressed, and hence no hard spots will be felt by the wearer.

Figure 1 shows in longitudinal section a sock-lift embodying this invention; Fig. 2, an under side view of the sock-lift shown in Fig. 1, and Fig. 3 an enlarged view in perspective of a portion of the yielding material to be referred to.

The layer *a* of leather or equivalent material has secured to its under side a layer *b* of rubber, upon the under side of which is formed a number of collapsible cellular or socketed projections *c*. The projections *c* have, as shown, thin side walls, and, being made cellular or socketed, a sufficient space is left on each side of said thin walls to receive the material when the projections are compressed. The projections are preferably made substantially frusto-conical in shape, as shown. When solid projections or ribs are employed which cannot be compressed so as to lie substantially flat by the weight of the person small hard spots or bunches will be felt by the wearer; but with the construction herein shown and described no such hard spots or bunches will be felt, as the weight of the person will compress the thin cellular projections substantially flat and so as to cover substantially the entire surface of the rubber foundation. A yielding cushion is hence provided beneath the heel to take up or overcome the sudden jars or shocks incident to walking, said cushion being yielding evenly over its entire surface.

To fasten the sock-lift to the insole, I provide tacks 2, which pass through the rubber layer *b* only, the heads of said tacks being thereby concealed between the layers *a* *b*, and hence prevented from injuring the stocking or foot.

I claim—

1. The sock-lift for boots or shoes herein shown and described, consisting of a thin piece of leather and a thin layer of rubber secured to the under side of said leather and a number of frusto-conical cellular collapsible projections with thin side walls formed on the un-

der side of said rubber layer, leaving spaces
between the said side walls to receive them
when compressed or flattened to cover sub-
stantially the entire under surface of said
5 rubber layer, substantially as described.

2. The sock-lift for boots or shoes herein
shown and described, consisting of a thin piece
of leather and a thin layer of rubber secured
to the under side of said leather and a number
10 of cellular or socketed collapsible projections
on the under side of said rubber layer, said

projections when collapsed forming a cushion
yielding evenly over its entire surface, and
the fastenings, as tacks 2, the heads of which
are concealed, substantially as described. 15
In testimony whereof I have signed my name
to this specification in the presence of two
subscribing witnesses.

CHARLES J. BAILEY.

Witnesses:

BERNICE J. NOYES,
FRANCES M. NOBLE.