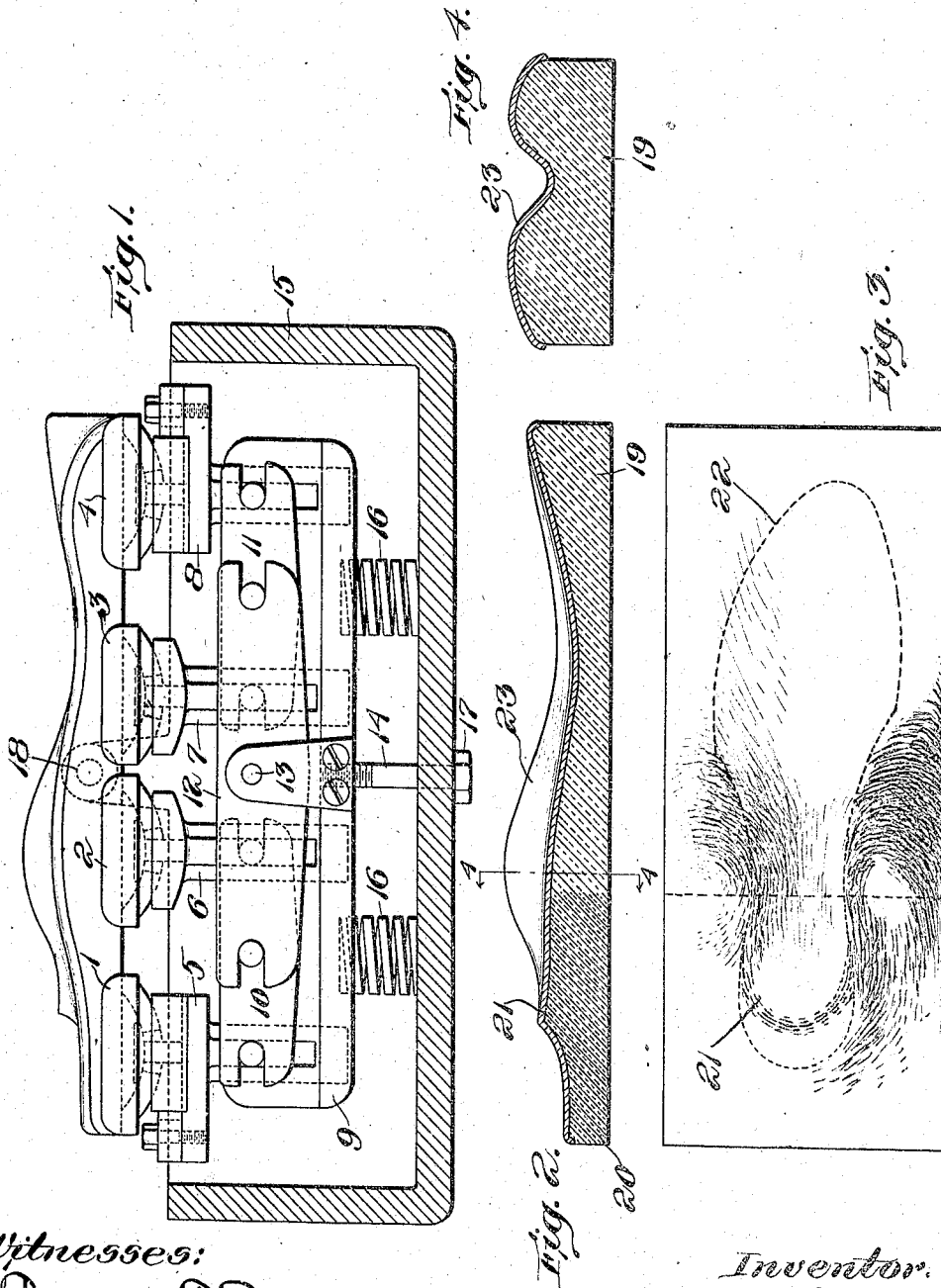


H. A. DAVENPORT.
SOLE PRESSING PAD.
APPLICATION FILED OCT. 9, 1905.

942,133.

Patented Dec. 7, 1909.
2 SHEETS—SHEET 1.



Witnesses:
Farnum D. Dorsey
Alfred H. Hildreth

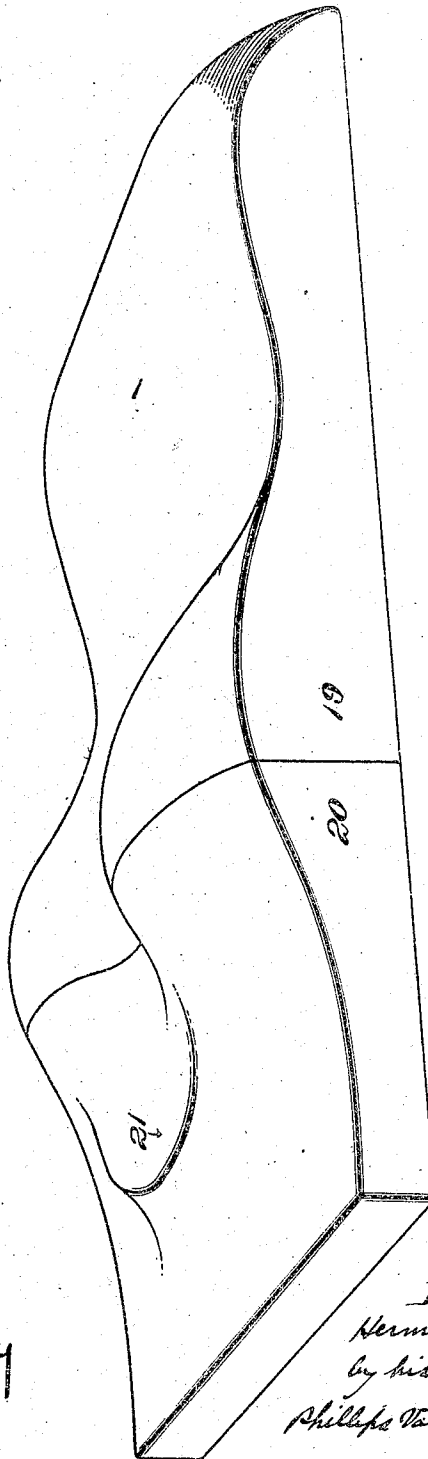
Inventor:
Herman A. Davenport
by his Attorneys
Phillips Van Curen & Cook

H. A. DAVENPORT.
SOLE PRESSING PAD.
APPLICATION FILED OCT. 9, 1905.

942,133.

Patented Dec. 7, 1909
2 SHEETS—SHEET 2.

Fig. 5.



Witnesses.
Darwin D. Worsey
Alfred H. Hildreth

Inventor:
Herman A. Davenport
by his Attorneys
Phillips Van Curen & Pisk

UNITED STATES PATENT OFFICE.

HERMAN A. DAVENPORT, OF BROCKTON, MASSACHUSETTS, ASSIGNOR TO UNITED SHOE MACHINERY COMPANY, OF PATERSON, NEW JERSEY, A CORPORATION OF NEW JERSEY.

SOLE-PRESSING PAD.

942,133.

Specification of Letters Patent.

Patented Dec. 7, 1909.

Application filed October 9, 1905. Serial No. 281,923.

To all whom it may concern:

Be it known that I, HERMAN A. DAVENPORT, a citizen of the United States, residing at Brockton, in the county of Plymouth and State of Massachusetts, have invented certain new and useful Improvements in Sole-Pressing Pads; 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 sole pressing pads for sole laying machines.

The sole pressing pad now commonly used in sole laying machines is composed of yielding elastic material, such as soft rubber, and is usually supported in a movable holder constructed to cause the pressure exerted by the pad to be distributed as evenly as possible over all portions of the sole of the shoe. It is desirable in laying the sole that the edges of the shank and forepart, and particularly of the shank, be rounded over so as to fit snugly against the last. When, however, a pad of yielding elastic material such as is now commonly used is forced against the sole with sufficient pressure to embed the sole in the pad so as to round over the edges of the shank and forepart, the heel portion of the sole is also embedded in the pad and the edge of the heel portion of the sole or the heel seat is also rounded over. This is objectionable, as the heel seat should be substantially flat to enable the heel to be properly attached to the shoe, and when the edge of the heel seat is turned up during the laying operation much difficulty is experienced in securing a close fit between the edges of the heel seat and the heel.

The principal object of the present invention is to provide a sole pressing pad which will exert the proper amount of pressure upon all portions of the sole to properly lay the sole and round over the edges of the shank and forepart if desired; and at the same time leave the heel seat substantially flat.

Other objects of the invention are to provide a sole pressing pad of yielding elastic material which will readily conform to the shape of the bottom of the last and at the same time be strong and durable so as not to be easily cut or injured by the edges of the shoe sole, and in general to improve the con-

struction and mode of operation of sole pressing pads.

With these objects in view a feature of the present invention contemplates the provision of a sole pressing pad having a forepart of yielding elastic material and a heel part of substantially harder material than the forepart. By forming the heel part of harder material than the forepart the heel portion of the sole is not embedded into the pad and the amount of pressure to properly lay the sole can be secured without liability of turning over the edge of the heel seat. The heel portion of the pad is preferably of yielding elastic material in order that it may yield sufficiently to enable the pressure to be properly distributed over all portions of the sole and prevent the formation of a ridge upon the sole by the action of the two portions of the pad thereon.

The invention contemplates the use of any suitable material, but the material which has been found to be most satisfactory in actual practice is rubber, the forepart of the pad being of soft rubber and the heel part of the pad being of substantially harder rubber. The two portions of the pad may be constructed and arranged in any desired manner but are preferably secured together so as to form an integral continuous pad. When the pad is composed of rubber it may be made by any one of a number of different methods which will suggest themselves to manufacturers of rubber goods. A convenient method of making the pad of rubber consists in varying the proportions of the ingredients forming the two parts of the pad and subjecting the entire pad to heat so as to produce a continuous integral pad of vulcanized rubber.

In the preferred form of the invention the heel part of the pad is of yielding elastic material, and in order that the heel part may yield sufficiently to properly distribute the pressure over the entire sole without any liability of turning over the edge of the heel seat, the heel part of the pad is preferably shaped to bear against the sole of the shoe inside of the edge of the heel seat, the heel part of the pad presenting a raised surface somewhat smaller than the heel seat of the sole to be operated upon. This construction of the heel part of the pad may also be used to advantage in sole pressing pads in which both the heel part and the forepart of the

pad are composed of the same kind of material, and it is accordingly considered that a feature of the present invention consists in shaping the heel part of a sole pressing pad so that it bears against the sole of a shoe inside of the edge of the heel seat whether or not the heel part of the pad is composed of harder material than the forepart.

It is also considered that a feature of the present invention consists in the provision of a sole pressing pad of yielding elastic material substantially harder in certain portions of the pad than in the remaining portions as it will be obvious to those skilled in the art that similar or desirable results might be secured upon portions of the sole other than the heel seat by forming the parts of the pad acting upon said portions of harder material.

The working face of a sole pressing pad composed of yielding elastic material such as rubber is easily cut or injured by contact with the edges of a shoe sole, and in order to protect the working face of the pad and at the same time allow the pad to readily conform to the shape of the last, a feature of the present invention contemplates the provision of a leather covering molded to the shape of the working face of the pad. By molding the leather covering before it is applied to the pad, the covering accurately fits the pad and does not impair its yielding elastic qualities.

In addition to the features of invention above referred to, the present invention also consists in the constructions and combinations hereinafter described and claimed, the advantages of which will be obvious to those skilled in the art.

The several features of the present invention will be clearly understood from an inspection of the accompanying drawings, in which—

Figure 1 is a view in side elevation of a sole pressing pad, embodying the same in their preferred form supported in a holder of well-known construction; Fig. 2 is a central longitudinal section of the pad; Fig. 3 is a plan view of the pad; Fig. 4 is a cross-section taken on the line 4-4 of Fig. 2; and Fig. 5 is a perspective view of the pad with the leather covering removed.

The pad holder illustrated in Fig. 1 is the holder which is used in the well-known Goodyear sole laying machine and may be briefly described as follows: 1, 2, 3 and 4 indicate supports to which the pad is secured. These supports are mounted so as to be capable of tilting in any direction upon the upper ends of vertical slides 5, 6, 7 and 8 mounted in a block 9. The two middle supports 2 and 3 are mounted directly upon the upper ends of the slides 6 and 7, while the supports 1 and 4 are secured to blocks 5 and 8 so as to be capable of adjustment to

accommodate pads of different sizes. The slides 5 and 6 are provided with pins which engage slots in opposite ends of levers 10 and the slides 7 and 8 are provided with pins which engage slots in opposite ends of levers 11. The pivots of the levers 10 and 11 are received in slots in opposite ends of levers 12 pivotally mounted upon ears 13 projecting upwardly from the base of the block 9. The levers 10, 11 and 12 act as pressure distributing devices so that the pressure exerted by the pad is distributed evenly over the sole. The block 9 is provided with guiding rods 14 extending downwardly therefrom through the bottom of a box 15 in which the block 9 and the parts supported thereby are placed. The block 9 is yieldingly supported in the box 15 by means of coiled springs 16 and the upward movement of the block is limited by the heads 17 on the lower ends of the rods. The box 15 is pivotally supported in the sole pressing machine by means of studs extending laterally from projections on the side of the box, one of these studs being indicated at 18 in dotted lines. The box 15 is thus allowed to swing about the axis of the studs 18 as a pivot and thus aid in distributing the pressure equally over the sole of a shoe. The sole pressing pad comprises a forepart 19 of soft rubber and a heel part 20 of harder rubber, these parts, as illustrated in the drawing, being closely united so as to form a continuous integral pad. The working face of the forepart of the pad is shaped to properly press the forepart and shank of the sole of a shoe. The heel part is shaped so as to present a raised surface 21 similar in shape to the heel seat of the sole but smaller so as to bear against the sole inside of the edge of the heel seat. The positions of the several parts of the pad with relation to the sole of a shoe will be apparent from an inspection of Fig. 3, in which a sole is indicated at 22 in dotted lines. The covering for the pad is indicated at 23, and consists of a sheet of sole leather molded to the shape of the working faces of the heel part and forepart of the pad and attached thereto by cement or in any other suitable manner.

The nature and scope of the present invention having been indicated, and the preferred form of the invention having been specifically described, what is claimed is:—

1. A sole pressing pad, having, in combination, a forepart of yielding elastic material and a heel part of yielding elastic material substantially harder than the fore part.

2. A sole pressing pad, having, in combination, a forepart of soft rubber and a heel part of substantially harder rubber.

3. A sole pressing pad, having, in combination, a forepart and a heel part of yielding elastic material, the heel part being

shaped to bear against the sole of a shoe inside of the edge of the heel seat.

4. A sole pressing pad, having, in combination, a forepart of soft rubber and a heel part of substantially harder rubber shaped to bear against the sole of a shoe inside of the edge of the heel seat.

5. A sole pressing pad, having, in combination, a forepart and a heel part of yielding elastic material, and a covering of leather molded to the shape of the working faces of the heel and foreparts.

6. A sole pressing pad, having, in combination, a forepart of yielding elastic material and a heel part of substantially harder material than the forepart.

7. A sole pressing pad having certain portions forming its working face composed of yielding elastic material and the remaining portions forming its working face composed

of substantially harder yielding elastic material.

8. A sole pressing pad, having, in combination, a forepart of soft rubber and a heel part of substantially harder rubber united to the forepart so as to be integral therewith, and a covering of leather molded to the shape of the working faces of the heel and forepart, and secured thereto.

9. A sole pressing pad, having, in combination, a forepart and a heel part of yielding elastic material, the heel part having a raised surface to engage the heel portion of the sole within its edge.

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

HERMAN A. DAVENPORT.

Witnesses:

FRED O. FISH,

FARNUM A. DORSEY.