

*Thompson & Mears
Shoes.*

N^o 48113.

Patented Jun. 6. 1865

Fig. 3.

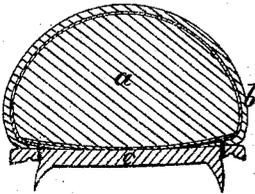


Fig. 4.

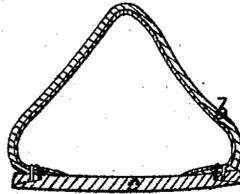


Fig. 1.

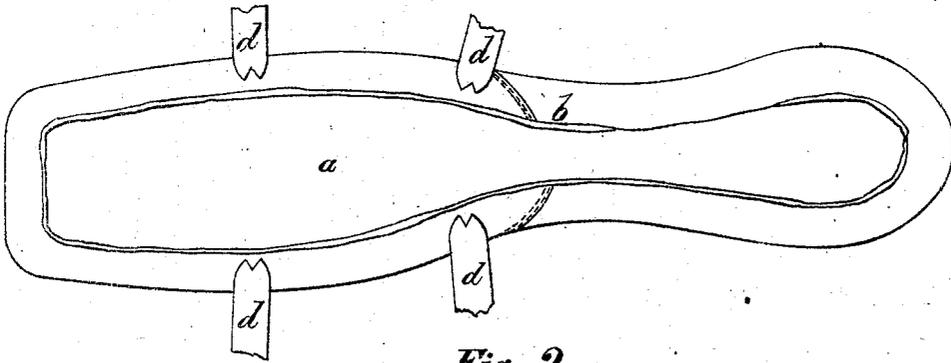
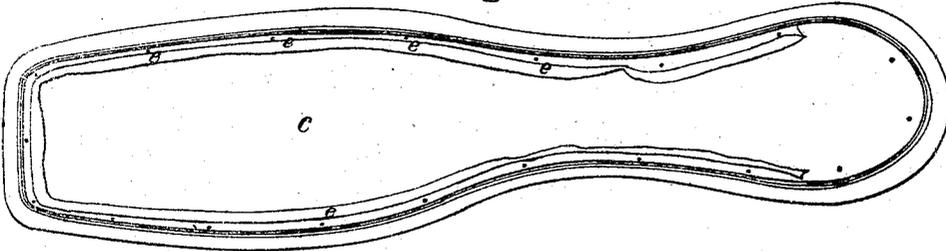


Fig. 2.



UNITED STATES PATENT OFFICE.

EDWIN THOMPSON, OF ABINGTON, MASSACHUSETTS, AND L. R. MEARS, OF
BROOKLYN, NEW YORK.

IMPROVEMENT IN THE MANUFACTURE OF MACHINE-SEWED SHOES.

Specification forming part of Letters Patent No. 48,113, dated June 6, 1865.

To all whom it may concern:

Be it known that we, EDWIN THOMPSON, of Abington, in the county of Plymouth, State of Massachusetts, and L. R. MEARS, of Brooklyn, Kings county, and State of New York, have invented an Improvement in the Manufacture of Machine-Sewed Shoes; and we do hereby declare that the following, taken in connection with the drawings which accompany and form part of this specification, is a description of our invention sufficient to enable those skilled in the art to practice it.

This invention relates to the process of sewing shoes without an inner sole upon what is now well known to shoe-manufacturers as the "McKay Sewing-Machine."

The invention may be said to relate more particularly to the preparation of a shoe for the sewing process, for the purpose of lasting the shoe and performing the sewing operation without the employment of an inner sole.

Heretofore it has always been the practice to use an inner sole in the manufacture of shoes sewed upon these machines, (excepting in shoes known as "turns,") the inner sole having been considered necessary for the support of the vamp until the stitching uniting the vamp and outer sole was effected. Until recently this inner sole formed part of the finished shoe, entering into its construction by the stitches being passed through the three contiguous edges of the outer sole, the vamp, and the inner sole. Of late, however, shoes have been to a greater or less extent constructed with temporary inner soles, which, being made narrower than the outer soles, served the purpose of lasting the shoes and supporting the vamps, but did not necessarily form parts of the finished shoes, the stitches in each shoe passing outside of the edge of the inner sole, and uniting only the vamp and outer sole, and the inner sole being removed, if desirable, after the sewing was effected. In such processes a narrow paper or leather inner sole is sometimes used, and sometimes a narrow metal inner sole; but always, until our invention, a permanent or temporary inner sole has been employed in the manufacture upon these machines of such shoes as have the outer sole and vamp during the process of sewing in the relative position to each other that they occupy in the finished shoe.

For reasons obvious to shoe-manufacturers, and which it is unnecessary herein to elaborate, it is desirable to dispense with the employment of inner soles in the process of lasting and sewing such shoes (not turns) as are to have no inner soles in their finished condition, and it is the object of this invention to accomplish this result.

The invention therefore consists in the preparation of a shoe for the sewing process by lasting it and temporarily securing the outer sole to the vamp without the use of an inner sole. This may be more clearly understood by reference to Figure 1 of the drawings, which denotes a bottom view of the last and the vamp before the application of the outer sole to Fig. 2, which is a bottom view of the sole as temporarily applied to the vamp, the last having been removed, and to Figs. 3 and 4, which represent, respectively, a cross-section of the shoe upon the last and a cross-section of the finished shoe.

a denotes the last, *b* the vamp, and *c* the sole. The vamp having been formed, the last is placed therein, the edges of the vamp being drawn over the bottom surface of the last, as seen in Fig. 1, in which position the vamp is held or clamped by thin plates or springs *d*, or by any other suitable means which shall hold or support the last and vamp together, and in position for application of the outer sole. The vamp being held in this position and the last suitably supported, the sole is laid upon the last in the position with respect to the vamp that it is to occupy in the finished shoe. In this position it is secured to the vamp by a number of small tacks or nails, *e*, driven into the outer surface of the sole, and through said sole and the vamp. Preferably these nails or tacks are driven just inside of the line of a channel in which the stitches are embedded, although they may be driven directly in the channel or outside thereof, the flap in either case (if the work be channeled) serving to cover the heads of the tacks. These tacks clinch upon the inside of the vamp against the surface of the last. They may be of hard or soft metal, though if driven in the channel in the path of the needle it will be best to use soft-metal nails. They are driven at such distance apart as may be requisite for the temporary union and juxtaposition of the sole and vamp

when the last is withdrawn and the shoe is supported upon the sewing-machine horn or work-supporting surface. The shoe is fed along and sewed upon the machine in the ordinary manner, and it will be obvious that no inner sole is required for the purpose of lasting or to effect the temporary union of the outer sole and vamp.

Instead of the tacks, which are used for the temporary union of vamp and sole, cement may be employed, or any other means which shall effect the same result—namely, this support of sole and vamp in relative position to each other for the action of the stitching mechanism without an inner sole.

We claim—

The process or method of temporarily uniting the vamp and sole of a shoe for their subsequent union by stitches, substantially as set forth.

In witness whereof we have hereunto set our hands this 12th day of April, A. D. 1865.

EDWIN THOMPSON.
L. R. MEARS.

Witnesses:

J. A. PRATT,
E. A. PRATT.