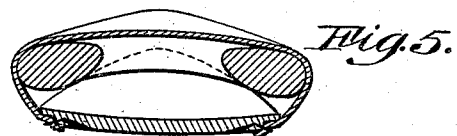
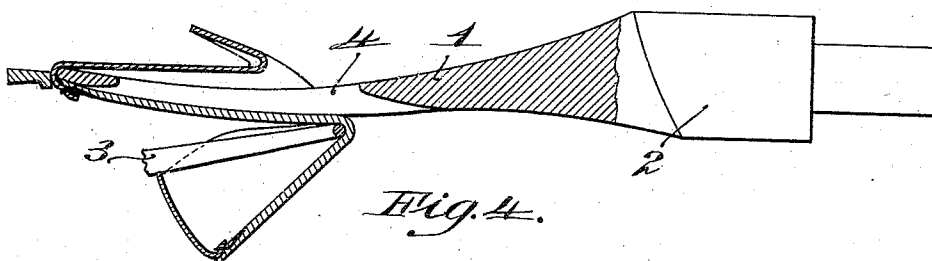
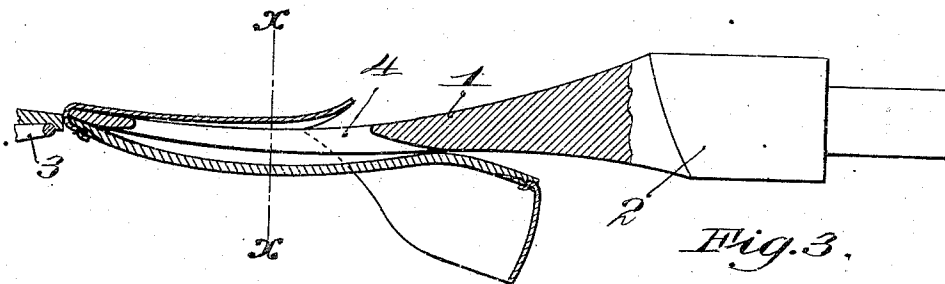
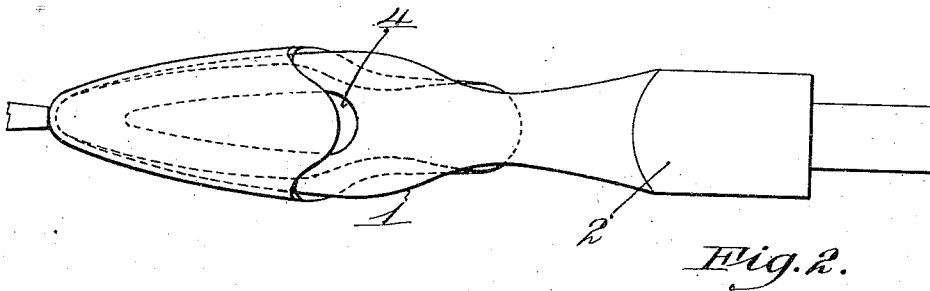
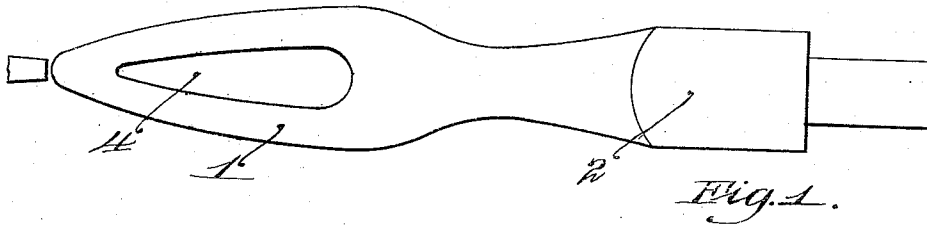


A. EPPLER.
FORM FOR SHOE TURNING MACHINES.
APPLICATION FILED JULY 31, 1905.

973,182.

Patented Oct. 18, 1910.



Witnesses
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UNITED STATES PATENT OFFICE.

ANDREW EPPLER, OF BOSTON, MASSACHUSETTS, ASSIGNOR TO UNITED SHOE MACHINERY COMPANY, OF PATERSON, NEW JERSEY, A CORPORATION OF NEW JERSEY.

FORM FOR SHOE-TURNING MACHINES.

973,182.

Specification of Letters Patent.

Patented Oct. 18, 1910.

Application filed July 31, 1905. Serial No. 271,945.

To all whom it may concern:

Be it known that I, ANDREW EPPLER, a citizen of the United States, residing at Boston, in the county of Suffolk and State of Massachusetts, have invented certain new and useful Improvements in Forms for Shoe-Turning Machines; 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 improvements in forms for shoe-turning machines.

In machines of the type disclosed in Letters Patent of the United States granted August 5, 1902, to Andrew Eppler, No. 706,038, the forepart of a turn shoe is turned by the use, in connection with other instrumentalities, of a form over which the forepart of the shoe is drawn and which distends the shoe and enables the operator to turn it by seizing and drawing back the heel part of the shoe and the margin of the forepart. Owing to the stiffness of the sole of the shoe means are provided in the machine of the patent above referred to for buckling or bending the sole, these means comprising a rod which may be moved forward by the operator until its end presses upward against the sole of the shoe and bends or "breaks" the sole to assist the turning operation.

The forms heretofore used in machines of the kind above referred to, and in other turning machines, have been made of approximately the form of the forepart of the shoe to be turned, being curved longitudinally on the bottom to substantially the normal curvature or spring of the sole, and being made convex on the upper side so as to fill out the shoe approximately to its normal form, the part of the form occupying the shank being of less width than the part occupying the forepart where the sole has its greatest width.

The object of the present invention is to produce a forepart form upon which a shoe may be turned with greater facility and certainty than upon forms of the kind above described, and to this end the invention consists in an improved form for shoe-turning machines characterized by the novel features hereinafter described in connection with the illustrated embodiment of the invention, and defined in the claims.

In the drawings Figure 1 is a plan view of a form embodying the present invention, and Fig. 2 is a similar view showing a shoe upon the form, and associated parts of the machine in which the form is used. Fig. 3 is a longitudinal vertical section of the subject-matter of Fig. 2; and Fig. 4 is a similar view showing the turning operation partly performed. Fig. 5 is a section on line *x-x* of Fig. 3.

As shown in Fig. 1, the form has a body 1 of tapering form with a rounded extremity, over which the forepart of the shoe is drawn, and the body of the form is provided with a shank 2 of suitable shape for securing it in the machine in which it is to be used. As shown in Figs. 3, 4 and 5, the form is made substantially flat transversely, having no convexity on its upper side, and in place thereof it is made of sufficient width to fill out the shoe by distending it laterally to more than its normal width, as shown in Fig. 5. The width of the form is carried back into or beyond the shank portion of the shoe, as shown in Fig. 2, so that this portion is distended laterally instead of being distended vertically by a vertical prominence of the instep portion of the form as in the forms previously used. This lateral distention of the shoe is found to facilitate the turning operation, the projection of the upper beyond the margin of the sole enabling the upper to accommodate itself more readily to the bending of the sole, and the turning of the shank portion of the shoe is rendered more certain since this part is prevented from sliding bodily along the form and forming folds instead of turning, as sometimes occurred on previous forms.

Longitudinally the form is not curved to conform to the spring of the sole, but is made substantially straight, so that when the upper is drawn as tightly as possible along the form there is still a substantial slackness in the sole, as shown in Figs. 3 and 4, and the sole tends to stand off free from the form. This slackness facilitates the preliminary bending or "breaking" of the sole, particularly where a sole-bending device is used in the turning machine. As shown in Fig. 4, the longitudinal slackness of the sole permits the sole-bending device 3 to form a transverse bend in the sole with facility, whereas with previous forms, which conformed to the spring of the sole, the bend-

ing device tended rather to form a longitudinal bend within the transverse concavity of the form, which did not facilitate the turning operation to so great an extent as the transverse bend permitted by the present form. The slackness of the sole further facilitates the turning, owing to the fact that the sole, which is the stiffest part of the shoe and the part most difficult to bend, is left comparatively free and out of close contact with the form, while the shoe is nevertheless fully distended by the form and restrained from longitudinal movement and crumpling.

The form is shown as provided with a central opening 4. This somewhat facilitates the turning operation, but is not a necessary feature of the form.

Although the invention is illustrated in a form adapted for use in a particular style of machine, the invention is not limited to such use, nor is it limited to an embodiment in which the several novel characteristics are used conjointly, since these, although preferably so embodied, will each contribute to its successful operation, though used alone.

I claim—

1. A forepart form for shoe turning machines comprising a rigid tapered body substantially flat transversely and of a width sufficient to distend and substantially fill the forepart of a shoe and hold the portions of the shoe above and below the form in substantially parallel flat planes during the turning operation, substantially as described.

2. A forepart form for shoe turning machines, comprising a rigid tapered body substantially flat transversely on both its upper and lower surfaces and provided with a central aperture, substantially as described.

3. A forepart form for shoe turning machines, comprising a straight rigid tapering body substantially flat transversely and of a width sufficient to distend and substantially fill the forepart of a shoe and hold the portions of the shoe above and below the form in substantially parallel flat planes during the turning operation, substantially as described.

4. A forepart form for shoe-turning machines comprising a tapering body substantially flat transversely and of a length greater in proportion to its width than the length of the forepart of the shoe to be turned so that the widest part of the form extends into and distends the shank of the shoe, substantially as described.

5. A forepart form for shoe-turning machines comprising a substantially flat and straight tapering body of a length greater than the length of the forepart of the shoe to be turned so that the widest part of the form extends into and distends the shank of the shoe, substantially as described.

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

ANDREW EPPLER.

Witnesses:

FARNUM F. DORSEY,
ALFRED H. HILDRETH.