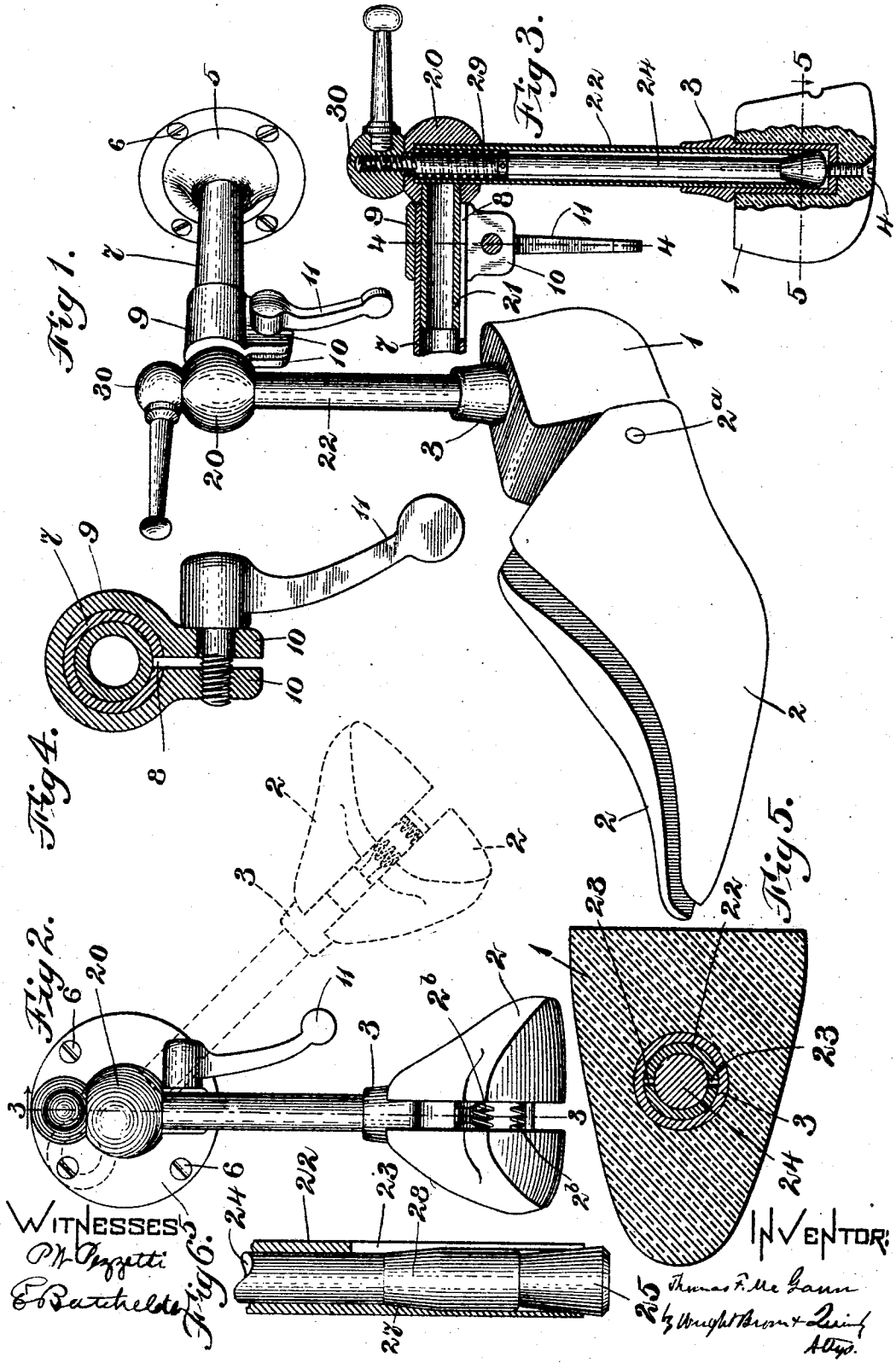
T. F. McGANN.

HOLDER FOR BOOT AND SHOE FORMS.

APPLICATION FILED MAY 29, 1901.

941,723. Patented Nov. 30, 1909.



UNITED STATES PATENT OFFICE.

THOMAS F. McGANN, OF SOMERVILLE, MASSACHUSETTS, ASSIGNOR, BY MESNE ASSIGNMENTS, TO O. A. MILLER TREEING MACHINE COMPANY, OF PORTLAND, MAINE, A CORPORATION OF MAINE.

HOLDER FOR BOOT AND SHOE FORMS.

941,723. Specification of Letters Patent. Patented Nov. 30, 1909.

Application filed May 29, 1901. Serial No. 62,356.

To all whom it may concern:

Be it known that I, THOMAS F. McGANN, of Somerville, in the county of Middlesex and State of Massachusetts, have invented certain new and useful Improvements in Holders for Boot and Shoe Forms, of which the following is a specification.

This invention relates to a new and improved holder for boot or shoe forms and consists in the novel features of construction and relative arrangements of parts hereinafter fully described in the specification, clearly illustrated in the drawings and particularly pointed out in the claims.

Reference is to be had to the accompanying drawings forming a part of this application wherein like characters are used to indicate like parts wherever they occur.

Figure 1 is a perspective view showing an apparatus constructed in accordance with my invention. Fig. 2 is an end view of the apparatus shown in Fig. 1, showing different adjustments of the shoe form. Fig. 3 is a vertical sectional view on the line 3—3 of Fig. 2 looking in the direction of the arrow. Fig. 4 is a cross sectional view on the line 4—4 of Fig. 3 showing the split clamp and the method of its engagement with the arm. Fig. 5 is a cross sectional view on the line 5—5 of Fig. 3 showing the engagement of the expansion shell with the socket carried by the heel of the shoe form. Fig. 6 is a detailed view showing the arrangement of the expansion shell, expansion spindle and its plug.

1 represents the heel part of a shoe form. The forepart as shown is composed of two members 2 2 connected to the heel part 1 by a pintle 2^a. Springs 2^b serve to yieldingly separate the members 2 2 to fill and support a shoe-upper. Such shoe forms are known as split followers and require no further description. Any other preferred kind of shoe form may be employed, the purpose being to employ a form of suitable construction upon which a shoe may be readily placed and easily withdrawn.

3 represents a socket arranged in a complemental recess in the heel part and secured in place by a screw 4.

5 represents a bracket adapted to be secured by screws 6 to an upright or any other preferred supports. This bracket carries a hollow sleeve 7. This sleeve 7 at its free end is slotted as at 8 and carries or is formed integral with a slotted clamp 9, having ears 10 10.

11 represents a clamp screw arranged in ears 10, by which the clamp 9 and the slotted end of the sleeve 7 may be contracted or expanded.

The arm of the apparatus comprises a ball 20 carrying upon one side a spindle 21 adapted to be arranged in the sleeve 7 and locked in place by the clamp screw 11.

22 represents a stem here shown in the form of an expansible cylindrical shell carried by the ball 20. The lower end of this shell is slotted as at 23.

24 represents an expansion spindle arranged in the shell 22. This spindle at its lower end carries an expansion plug 25 that projects below the lower end of the spindle, in order to engage the split end of the shell and expand it against the wall of the socket 3. If desired the shell near the upper end of the slot 23 may be formed with an incline 27 adapted to be engaged by complemental incline 28 on the spindle 24 in order to expand the shell at the upper part of said slot. It will be seen that the incline 28 and the inclined plug 25 coöperate to expand the shell 22 in the form socket by movement of its sides in substantially parallel lines. This feature is of advantage in holding the form firmly upon the shell.

29 represents a spring arranged about the spindle 24 and engaging at one end a shoulder on said spindle and at its opposite end engaging a seat in or carried by the ball 22, and arranged to normally throw the expansion plug 25 and the incline 28 downward or outward to release the expansion shell and permit its contraction.

30 represents a nut, arranged upon the threaded upper end of the spindle 24 and bearing against the ball 20. By means of this nut which may be provided with a handle, as shown, the expansion plug 25 and the incline 28 can be made to expand the

shell against the socket 3 and lock the shoe form rigidly in place.

The operation of my improved apparatus is as follows:—The parts being constructed and arranged as described and positioned as desired, a shoe is drawn upon the shoe form, the latter supporting and filling out the upper. The shoe is then cleaned and polished or subjected to any desired operation after which the shoe is withdrawn from the form, the parts 2 2 of the latter yielding to permit the ready passage of the form through the waist of the shoe without injury to the latter, either in the operation of placing the shoe on the form or removing the shoe from the form. By means of the clamp 9, the shell may be moved to and locked in any desired position of adjustment (see for illustration the dotted line position of parts in Fig. 2) by turning the spindle 21 in the sleeve 7 and clamp 9. The radial position of the shoe with respect to the axis of the shell 22 may be varied as desired by turning the form about the end of said shell and then locking the form to the shell. The form is frictionally held upon the shell 22 and may be held thereon with any desired degree of firmness by adjusting the nut 30. This construction may be used to advantage in operating upon a shoe sustained upon the form, since it permits the resistance to pivotal movement of the form upon said shell to be varied as desired.

Having thus explained the nature of my invention, and described a way of constructing and using the same, although without attempting to set forth all the forms in which it may be made, or all of the modes of its use, I declare that what I claim is:—

1. In an apparatus of the class specified, a support, an arm carried by said support, a clamp for rigidly securing the said arm to said support, a shell carried by said arm, slotted at its free end and adapted to receive upon said free end the socket of a shoe form and to permit pivotal movement of said form on said slotted end, a spindle arranged in said shell and provided with means for expanding the free end of said shell, whereby said form may be rigidly locked in any desired position of adjustment about said shell.

2. In an apparatus of the class described, a support, an arm carried by said support and adapted to be adjusted about said support as an axis, a shell carried by said arm slotted at its free end and arranged in a plane substantially perpendicular to the axis of said arm, a spindle arranged in said shell and provided with a member for expanding the slotted end of said shell and means to force positively said spindle longitudinally of the shell to expand said slotted end.

3. In an apparatus of the character specified, a socket-member carried by the heel of a shoe form, a shell arranged to be inserted therein and adapted to permit pivotal movement of the form on the shell, an arm formed with an expanding member arranged in said shell to expand the latter against said socket member, means for supporting the said arm adapted to permit its adjustment around said means as a center and means for clamping the arm in adjusted position.

4. In an apparatus of the class specified, a support, an expansible shell sustained thereby and adapted to be inserted in the pin hole of a shoe form or last, a spindle, and means to move said spindle longitudinally in said shell, the spindle being provided with inclined faces located at successive points longitudinally of said spindle arranged to engage the interior face of the shell whereby the shell will be expanded by movement of its sides in substantially parallel lines.

5. A holder for a shoe form or the like, comprising a support, a stem adjustably clamped in stationary position upon said support and constructed to enter a socket in the form and to support said form pivotally, and means extending within the stem for locking said form upon said stem.

6. A holder for a shoe form or the like comprising a support, a tubular expansible stem carried by said support constructed to enter a socket in the form and to support said form pivotally, and means for expanding said stem by engagement with its inner surface to hold said form frictionally in position.

7. A holder for a shoe form or the like, comprising a support, an expansible stem carried by said support constructed to enter a socket in the form and to support said form pivotally, and means for expanding said stem at a plurality of successive points longitudinally thereof to hold said form upon the stem.

8. A holder for a shoe form, having in combination, a stem constructed to enter a socket in the form and to support the form pivotally, a horizontal support for sustaining the stem having provision for permitting adjustment of the form in the direction of the length of the support and for permitting its adjustment about an axis parallel with the support and means extending within the stem for locking said form upon said stem.

9. A holder for a shoe form, having in combination, a stem for supporting the form having provision for allowing a pivotal movement of the form about an axis parallel with the stem, a support for sustaining the stem having provision for permitting adjustment of the stem in the direction of the length of the support and for permitting its adjustment about an axis substantially

parallel with the support, and means for removably securing the form upon the stem constructed to offer a frictional resistance to pivotal movement of the form, and having provision for adjustment whereby said resistance may be varied substantially as described.

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

THOMAS F. McGANN.

Witnesses:
E. BATCHELDER,
H. L. ROBBINS.