J. MULLINS.

SHOE UPPER MOISTENER.

APPLICATION FILED MAR. 26, 1917.

1,247,312.

Patented Nov. 20, 1917.

FIG. 1.

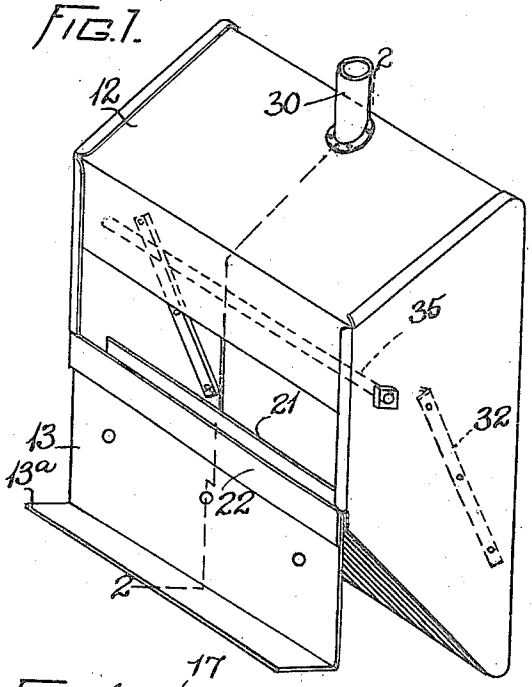


FIG. 2.

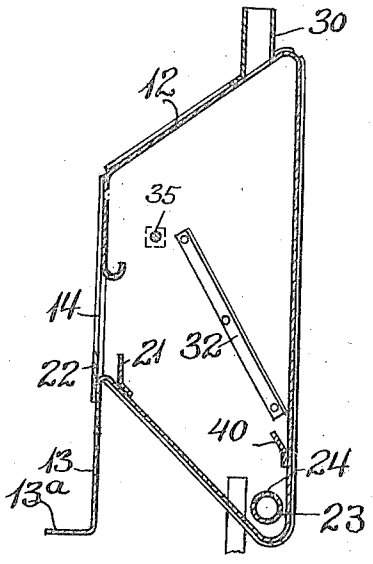


FIG. 4.

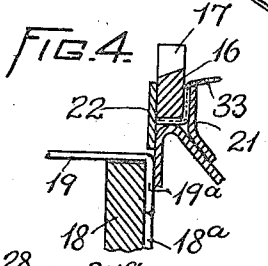


FIG. 5.

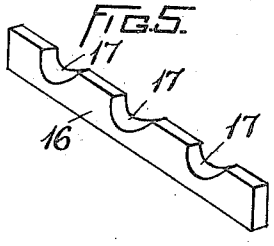


FIG. 3.

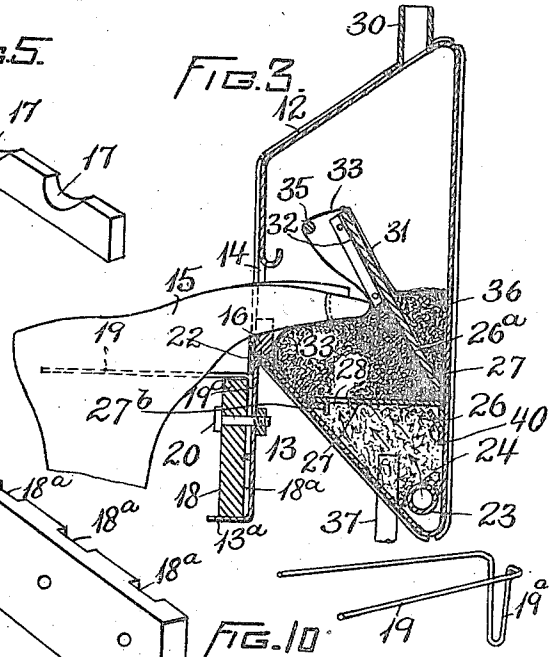


FIG. 6.

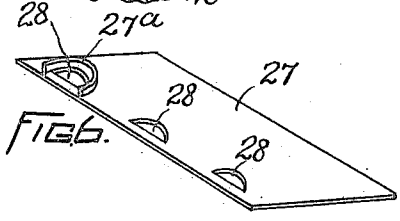


FIG. 8.

FIG. 10.

FIG. 7.

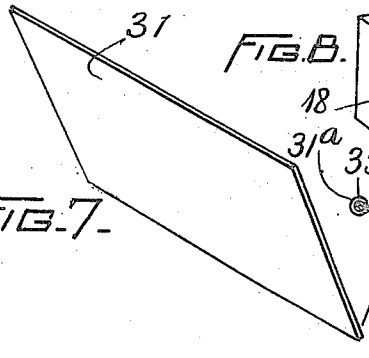


FIG. 9.

INVENTOR

James Mullins

by Wright Brown Quinby & May

ATTY'S.

UNITED STATES PATENT OFFICE.

JAMES MULLINS, OF SANFORD, MAINE.

SHOE-UPPER MOISTENER.

1,247,312. Specification of Letters Patent. Patented Nov. 20, 1917.

Application filed March 26, 1917. Serial No. 157,318.

To all whom it may concern:

Be it known that I, JAMES MULLINS, a subject of the King of Great Britain, residing at Sanford, in the county of York and State of Maine, have invented new and useful Improvements in Shoe-Upper Moisteners, of which the following is a specification.

This invention relates to devices for moistening the toe portions of partly lasted shoe uppers while the parts are on the last, the last and the upper thereon being inserted in an inverted position in a casing to which vapor is supplied, the vapor being diffused through a filling of fibrous material, such as cotton waste, occupying the lower portion of the casing and contacting with the portion of the upper to be moistened.

The invention has for its object to provide an effective and simple moistening apparatus adapted to properly moisten or temper the toe portion of an upper, and free from liability to injure any of the parts of the shoe which are inserted in the casing.

The invention also has for its object to prevent the long continued use of the cotton waste or other fibrous filling, without loss or impairment of its efficiency.

The invention is embodied in the improvements which I will now proceed to describe and claim.

Of the accompanying drawings forming a part of this specification,—

Figure 1 is a perspective view of the casing of my improved moistener, without the removable parts or elements of the moistener hereinafter described.

Fig. 2 is a section on line 2—2 of Fig. 1.

Fig. 3 is a sectional view of the entire moistener.

Fig. 4 is an enlargement of a portion of Fig. 3.

Figs. 5, 6, 7, and 8 are perspective views of the removable parts shown by Fig. 3.

Fig. 9 is a fragmentary sectional view.

Fig. 10 is a perspective view of one of the shoe supporting racks.

The same reference characters indicate the same parts in all of the figures.

The casing 12 of my improved moistener may be made of sheet metal, or any other suitable material or materials, and preferably includes vertical back and front walls, vertical end walls, an inclined top wall and an inclined bottom wall, the top and bottom walls being oppositely inclined, so that the back wall is longer than the front wall. The casing is supported at the rear by the angle formed by the back and bottom walls, and at the front by a flange 13 having a foot 13ª.

In the front wall is an opening 14 formed to permit the insertion in the casing of the toe portions of two or more incomplete inverted shoes 15, each including a partly lasted upper, the toe portion of which is not lasted, means being provided for supporting said shoes in predetermined positions. I have embodied said means in a wooden bar 16, constituting a shoe rest portion, having a series of recesses 17 receiving portions of the lasted uppers, a wooden bar or strip 18, a series of wire racks 19, the strip 18 and racks 19 being attached by bolts 20 to the flange 13. The strip 18 and racks 19 constitute supplemental shoe rest portions. The bar 16 is preferably inserted loosely and removably in a socket formed by the front portion of the bottom wall of the casing and by flanges 21, 22 attached to said wall and to the flange 13. 23 represents a steam pipe entering the lower portion of the casing and supplying steam or vapor thereto, said pipe having perforations 24. In the lower portion of the casing is a filling of fibrous material, such as cotton waste, located between the pipe 23 and opening 14, the top of said filling being in close proximity to the shoe uppers inserted in said opening. The fibrous filling is preferably composed of a lower mass or body 26 and an upper mass 26ª. The lower mass 26 which is inserted first, supports a loose vapor-concentrating baffle-plate 27 which rests in a substantially horizontal position on said lower mass, and forms a partition extending from front to back and from end to end of the casing. In the plate 27 near the front edge thereof are formed orifices 28, arranged to coincide with the notches 17, so that the vapor diffused through the mass 26 is concentrated at said orifices and passes upwardly directly under the toe portions of the shoe uppers, the vapor flowing through the upper mass 26ª which is superimposed on the plate 27 after the latter is located. The top of the casing is provided with a vapor outlet 30 located at the upper portion of said top. To prevent water of condensation dripping from said outlet from contacting with and injuring a part of the shoe, such as the toe portion of the inner sole, I provide an inclined deflector 31, which is a plate formed to extend from end to end of the casing and

loosely supported by inclined ledges or cleats 32 attached to the ends of the casing, the lower edge of the deflector resting loosely on the back of the casing.

As shown by Fig. 3, the deflector 31 overhangs the toe portion of an inserted shoe, and is in the path of water dripping from the outlet 30, and deflects such water toward the back of the casing. The upper edge of the deflector is spaced from the front of the casing, so that vapor passes freely upward between said front and the deflector on its way to the outlet. 33 represents a flexible porous apron of fibrous material, such as cheese cloth, secured at one edge to the casing, at the lower edge of the opening 14, the apron being preferably composed of two or more layers of cheese cloth. A portion of said apron rests on the top of said fibrous filling, and constitutes a porous covering which contacts directly with the toe portion of the shoe upper, and not only diffuses the rising vapor, but also prevents the filling from becoming matted or compacted at its surface by pressure of the upper against it, the apron conforming to the unlasted toe portion of the upper, as shown by Fig. 3. The apron and the filling 33 constitute a porous bed for the inserted portion of the upper. The woven fabric of the apron is firmer than the filling and resists the pressure of the upper sufficiently to prevent said pressure from impairing the porosity of the filling portion of said bed.

The front edge of the apron 33 is preferably clamped between the bar 16 and the walls of the socket in which said bar is inserted, as shown by Fig. 4. The apron is preferably elongated to extend upwardly over elevated supporting means, here shown as embodied in a horizontal rod 35 attached to the ends of the casing. If desired, the deflector 31 may constitute a part of said supporting means, the apron extending across the upper edge of said deflector and depending loosely therefrom, as indicated by Fig. 3. One end of the apron is therefore secured, and the other end is loose, so that the apron is adapted to conform to various sizes and shapes of uppers.

The deflector 31 may be loosely confined against the cleats 32, by a body 36 of cotton waste.

A stand pipe 37 in the bottom of the casing permits the escape of water therefrom.

The racks 19 have vertical U-shaped neck portions 19^a, which are adjustably confined by the bolts 20 so that the racks may be vertically adjusted. Said neck portions occupy vertical grooves 18^a (Fig. 8), in the inner side of the clamping strip 18, the edges of the grooves preventing the said neck portions from turning on the bolts 20.

The baffle-plate 27 may be provided with upwardly projecting flanges 27^a at the orifices 28, to prevent the material of the mass 26^a from being pressed or packed closely into said orifices and obstructing the flow of vapor therethrough. I have shown only one of said flanges in Fig. 6, but it is obvious that a flange may accompany each orifice. One function of the lower mass 26 of fibrous material is to support the baffle-plate 27. It is obvious, however, that said plate may be removably supported by other means, in which case the mass 26 may be omitted.

For example, the inner edge of the plate may bear on a cleat 40 attached to the back of the casing, the outer edge bearing on the inclined bottom wall of the casing. The deflector 31 may have a socket 31^a formed to receive the rod 35, as shown by Fig. 9, said rod being removably secured to the casing to permit the removal or displacement of the deflector. The baffle plate 27 may have downwardly projecting ears 27^b between its outer edge and the outer edges of the orifices 28, to prevent the fibrous material 26 from being packed too closely into said orifices.

Another function of the apron 33 is to partially check the hot vapor and prevent it from overheating the upper.

I claim:

1. A shoe upper moistener comprising a casing having a shoe-receiving opening, means for supporting a plurality of shoes in predetermined positions, means for supplying vapor to the casing below said opening, a vapor-concentrating baffle-plate supported in the casing between the said vapor-supplying means and shoe-receiving opening, and having a plurality of apertures arranged to concentrate the vapor under shoes held by said supporting means, and a mass of fibrous material resting on said plate, the top surface of said mass being in close proximity to the inserted portions of the shoe uppers.

2. A shoe upper moistener comprising a casing having a shoe-receiving opening, means for supporting a plurality of shoes in predetermined positions, means for supplying vapor to the casing below said opening, a lower mass of fibrous material above the said vapor-supplying means, a vapor-concentrating baffle-plate resting loosely on said mass and having a plurality of apertures arranged to concentrate the vapor under shoes held by said supporting means, and an upper mass of fibrous material resting on said plate, the top surface of said upper mass being in close proximity to the inserted portions of the shoe uppers.

3. A shoe upper moistener comprising a casing having an upper-receiving opening, means for supporting a plurality of shoes in predetermined positions, means for supplying vapor to the casing below said opening, a filling of fibrous material above

said vapor-supplying means, the top surface of said filling being in close proximity to an upper inserted in said opening, supporting means within the casing located above said opening, and a flexible porous apron secured at one end to the casing below said opening and extending loosely from its secured end over said supporting means, its opposite end being free, said apron bearing on the top surface of said filling and adapted to bear on and conform to the toe portions of the shoe uppers, said filling and apron constituting a porous bed for the inserted portion of the upper, the apron also preventing the closing of the pores of the filling by pressure of the upper thereon.

4. A shoe upper moistener comprising a casing having an upper-receiving opening, and a socket at the lower edge of said opening, an upper rest detachably engaged with said socket, means for supplying vapor to the casing below said opening, a filling of fibrous material above said vapor-supplying means, the top surface of said filling being in close proximity to an upper inserted in said opening, and a flexible porous apron clamped at one end between said socket and rest, and extending inwardly therefrom over the top of said mass, said apron being conformable to the toe portions of the shoe uppers.

5. A structure as specified in claim 4, in which the casing is provided above said opening with supporting means on which a portion of said apron rests loosely.

6. A shoe upper moistener comprising a casing having a shoe-receiving opening, and means for supporting shoes in predetermined positions, with their toe portions within the casing, means for supplying vapor to the casing below said opening, a mass of fibrous material above said vapor-supplying means, the top surface of said mass being in close proximity to an upper inserted in said opening, a vapor outlet in the top of the casing, and an inclined deflector arranged to overhang the toe portion of an inserted shoe and located in the path of water of condensation dropping from said outlet whereby such water is deflected toward the back of the casing and prevented from contacting with the inserted shoe, the upper edge of the deflector being spaced from the front of the casing and permitting the upward passage of vapor between said front and the deflector.

7. A structure as specified in claim 6, in which the ends of the casing are provided with inclined cleats on which said deflector rests loosely, the lower end of the deflector resting against the rear side of the casing.

8. A shoe upper moistener comprising a casing having a front opening and a downwardly projecting flange below said opening, a clamping strip bearing on the outer side of said flange and having grooves in its inner side, shoe supporting yokes having vertical U-shaped portions inserted and vertically adjustable in said grooves and bearing on the edges thereof, and bolts securing said yokes and strip to the flange, said yokes being clamped between the said strip and flange, and prevented from swinging edgewise by the edges of said grooves.

In testimony whereof I have affixed my signature.

JAMES MULLINS.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."