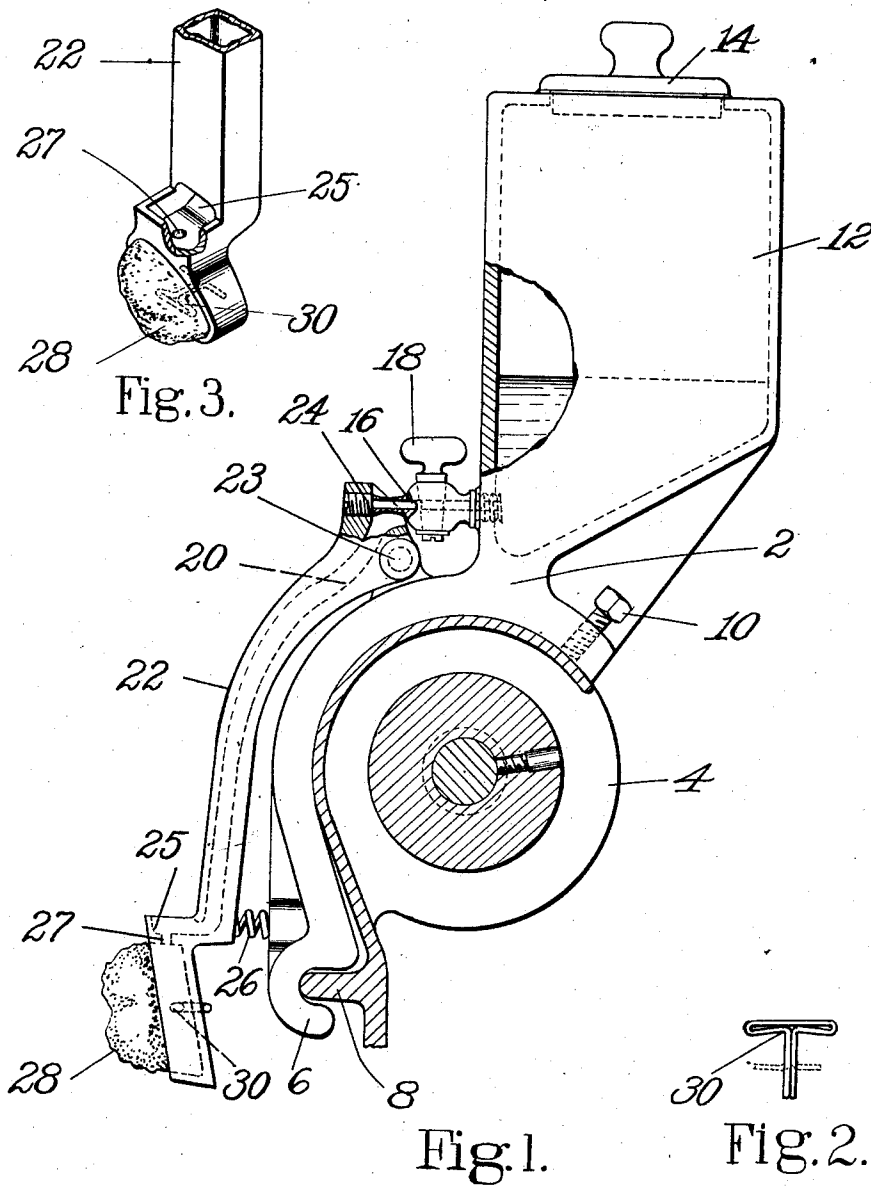


F. M. FURBER.
 DEVICE FOR APPLYING LIQUID TO SHOES OR OTHER STOCK.
 APPLICATION FILED FEB. 10, 1909.

1,043,087.

Patented Nov. 5, 1912.



WITNESSES:

Elizabeth C. Cople
 Edith C. Hollbrook

INVENTOR:

Fredrick M. Furber
 By his attorney,
 Nelson M. Howard

UNITED STATES PATENT OFFICE.

FREDERICK M. FURBER, OF REVERE, MASSACHUSETTS, ASSIGNOR TO UNITED SHOE MACHINERY COMPANY, OF PATERSON, NEW JERSEY, A CORPORATION OF NEW JERSEY.

DEVICE FOR APPLYING LIQUID TO SHOES OR OTHER STOCK.

1,043,087.

Specification of Letters Patent.

Patented Nov. 5, 1912.

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To all whom it may concern:

Be it known that I, FREDERICK M. FURBER, a citizen of the United States, residing at Revere, in the county of Suffolk and State of Massachusetts, have invented certain Improvements in Devices for Applying Liquid to Shoes or other Stock, of which the following description, in connection with the accompanying drawings, is a specification, like reference characters on the drawings indicating like parts in the several figures.

This invention relates to machines or devices for supplying liquid material such as blacking, cement or melted wax to shoes or other stocks and is herein shown embodied in a device for applying blacking to the heels of boots and shoes. It will, however, be understood that the invention is not limited to the particular embodiment of the invention to be hereinafter described.

The primary object of the invention is to provide an improved device for applying liquid to shoes or other stock which shall require only a minimum amount of attention from the operator and shall be reliable and efficient in operation.

With this and other objects in view the present invention contemplates the provision in a liquid applying device of liquid applying means and a support therefor which carries means controlled by the work for regulating the amount of liquid delivered to the applying means.

In a preferred embodiment of the invention there is provided means for applying liquid to a shoe by engagement with the shoe and a support for the applying means arranged to yield to the pressure of the shoe and means for supplying liquid to the applying means, including a valve mechanically controlled by the movement of the yielding support, the arrangement being such that upon movement of a shoe into operative relation with the applying means the supply of liquid for said means will be mechanically turned on and upon withdrawal of the shoe the supply will be automatically shut off. The means for supplying liquid to the applying means has provision whereby the amount of liquid that passes by the automatic valve may be varied to suit different requirements. In the present device a manually adjustable valve is interposed between the source of supply and the applying

means, but it will be understood that the present invention is not limited to this particular construction. By the provision of the manually adjustable valve the feed of the liquid through the automatic valve after said valve has been opened by the application of the work to the applying means may be regulated so that the proper amount of liquid is delivered to the applying means.

Any suitable means may be employed for applying liquid to the shoe. Preferably, however, a body of elastic absorbent material is employed for this purpose, as by its use the liquid may be evenly applied to the work and waste of liquid is prevented.

Other features of the invention will be hereinafter described in the specification and pointed out in the claims.

Referring to the drawings,—Figure 1 is a view in side elevation of a device embodying the present invention; Fig. 2 is a view illustrating a detail of construction; Fig. 3 is a perspective view of the lower portion of the support.

In the drawings a device embodying the present invention is shown in the form of an attachment adapted to be removably clamped upon the frame of a machine for scouring the heels of boots and shoes.

The attachment herein shown has a base 2 curved to fit around a bearing 4 of the machine to which it is attached. The base 2 is provided at its lower end with a hook-shaped portion 6 adapted to engage a projection 8 extending from the frame of the machine so as to prevent upward displacement of the base and is further provided with a set screw 10 arranged to bear upon the top portion of the bearing 4 in such manner as to cooperate with the hook-shaped portion 6 to removably clamp the base in position. Upon the base is mounted a receptacle 12 for the liquid to be applied which has an opening in its top closed by a cover 14. A nozzle 16 provided with a suitable controlling valve, such as 18, is threaded into a side of the receptacle at a portion adjacent its bottom. The open end of the nozzle is arranged to project into the upper open end of a passage 20 formed in an arm 22 which at a point slightly removed from its upper end is pivotally mounted upon the base 2 about an axis which extends substantially at right angles

to the nozzle 16. In the present construction a removable pin 23 is employed as a pivot for the arm in order that the latter may be removed from the base to facilitate cleaning of said arm. The open end of the nozzle is formed to provide a seat for a valve 24 which is threaded into the wall of the passage and arranged for engagement with said seat. A spring 26 having one end arranged in a socket in the base 2 and extending between the lower end of the arm 22 and said base serves to yieldingly hold the valve 24 toward its seat. At the lower end of the arm 22 the passage 20 connects with an open basin 25 which communicates by means of a vertical passage 27 with an open sided recess adapted to receive a body of elastic absorbent material, such as a rubber sponge 28. The sponge is removably secured within the recess so that a portion of it projects outwardly therefrom and is adapted to be engaged by the heel of the boot or shoe to be operated upon.

In the present construction a T-shaped retaining member 30 formed of a single piece of wire, as shown in Fig. 2, is employed to secure the rubber sponge in place. For this purpose the shank of the T-shaped member is passed through the sponge and through an opening formed in the rear wall of the recess so that the head of said member sinks into the body of the sponge and the two ends of the shank are then bent to engage the outer face of said wall.

In the use of the device shown, the blacking to be applied to the heel of a boot or shoe is placed within the receptacle and the valve 18 is adjusted so that a proper amount of liquid will flow through the outlet when the valve 24 is opened by the pressure of the shoe upon the sponge. The operator then rubs the heel or other portion of the shoe to be blacked over the sponge and the pressure of the shoe upon the arm causes the latter to yield inwardly so that the valve 24 opens and allows the liquid blacking to flow down the passage and be absorbed by the sponge. After the heel of the boot or shoe has received a coating of the blacking it is withdrawn from contact with the sponge so that the spring 26 is free to move the arm outwardly so as to press the valve 24 in contact with its seat, thus automatically shutting off the supply of blacking for the sponge. By the provision of a body of absorbent material for retaining the blacking until it is applied to the shoe, waste such as would be caused by dripping of blacking from the end of the arm 22 may be effectively prevented. Moreover, the provision of a body of elastic absorbent material for applying blacking to the work is further advantageous in that it serves to evenly apply the blacking to the work.

It will be noted in the construction shown

that if an excessive amount of liquid is being supplied to the passage 20 it will overflow through the basin 25 and thus indicate the fact to the operator who may then adjust the valve 18 so that the liquid will be supplied to the sponge at the proper rate of flow. The opening 25 is also of advantage in that it facilitates cleaning of the passage 27 in case the latter should become clogged up.

A rubber sponge forms an efficient means for applying liquid to the work owing to its resistance to wear and to liquids which might attack an ordinary sponge.

Having described my invention, what I claim as new and desire to secure by Letters Patent of the United States is:—

1. In a device of the class described, the combination of a receptacle for the liquid to be applied, means for applying liquid to the shoe by engagement with the shoe, a yielding support for said applying means constructed and arranged to receive liquid from the receptacle and having a valve for regulating the amount received arranged to be controlled by the movement of the yielding support whereby the presentation of a shoe to the applying means will cause liquid to be supplied to said means.

2. In a device of the class described, a receptacle for the liquid to be applied, a valve controlled outlet for the receptacle, means for applying liquid to the shoe, a yielding support for said applying means constructed and arranged to conduct liquid from the outlet to the applying means and means controlled by the work for regulating the amount of liquid delivered.

3. In a device of the class described, liquid applying means, a yielding support therefor having provision for delivering liquid to said means, and a valve carried by the support for regulating the amount of liquid delivered arranged to be mechanically controlled by the pressure of the work upon the yielding support.

4. In a device of the character described, liquid applying means comprising a body of yielding, absorbent material, a yielding support therefor consisting of a member having a passage arranged to deliver liquid to the absorbent body, means including a valve controlled nozzle for supplying liquid to said passage and a valve forming a portion of the wall of said passage arranged to be yieldingly held over the open end of the nozzle to close the same and to be displaced to uncover said end by the pressure of the work upon the yielding support.

5. In a device for applying liquids to shoes or other stock, the combination of a receptacle for the liquid to be applied, means for applying liquid to the shoe by engagement therewith, a support for the applying means arranged to yield to lateral

movement of the shoe, and means for delivering liquid from the receptacle to the applying means including a valve for regulating the amount of liquid applied arranged to be automatically controlled by said yielding movement of said support.

6. A device of the class described, having in combination, means for applying liquid to a shoe, a yielding support for the applying means consisting of a member having a passage arranged to deliver liquid to said applying means and provided with a basin communicating with the lower part of said passage for the purpose described, means for supplying liquid to said passage including a valve carried by the support arranged to be mechanically opened by the pressure of the work upon the support and to be automatically closed when said pressure is removed.

7. A device of the class described, having in combination, means for applying liquid to a shoe, comprising a rubber sponge, a yielding support for the sponge consisting of a member having a passage arranged to deliver liquid to the sponge and means for supplying liquid to said passage including a valve arranged to be mechanically controlled by the pressure of the work upon the yielding support.

8. A device of the class described, having in combination, means for applying liquid to a shoe comprising a rubber sponge having a substantially vertical work engaging surface, a support for the sponge consisting of a member having a passage arranged to deliver liquid to the upper part of the sponge and means for supplying liquid to said passage including a valve for regulating the amount of liquid supplied arranged to be controlled by the work.

9. In a device of the character described, a base having provision for attachment to a stationary support, a receptacle supported on said base, a nozzle projecting from said receptacle, an arm pivoted to said base, a plug carried by said arm and positioned to engage and close the opening of said nozzle, a spring acting on said arm to hold said plug against the nozzle and a sponge mounted on said arm, said arm having a passage formed therein to conduct liquid from the nozzle to said sponge.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

FREDERICK M. FURBER.

Witnesses:

ALLAN H. BARROWS,

BERNARD BARROWS.