July 9, 1929. N. BLOOM ET AL 1,720,165

APPARATUS FOR STEAMING FABRICS AND FURS

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Fig. 1.

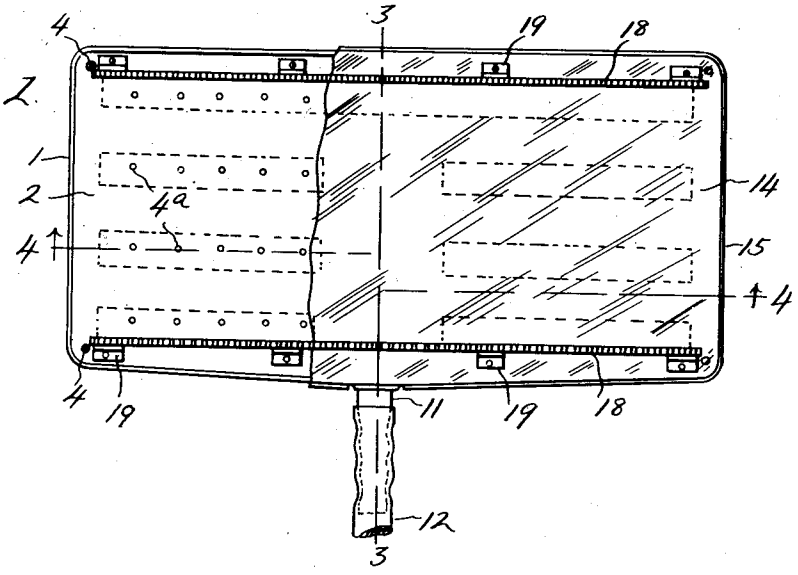

Fig. 2.

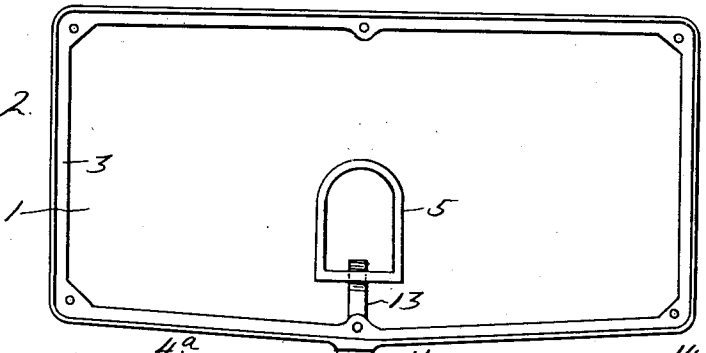

Fig. 4.

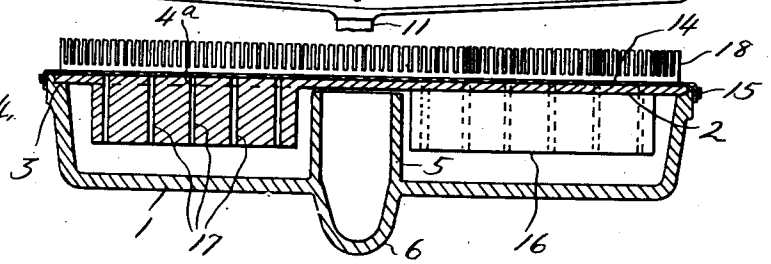

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Fig. 3.

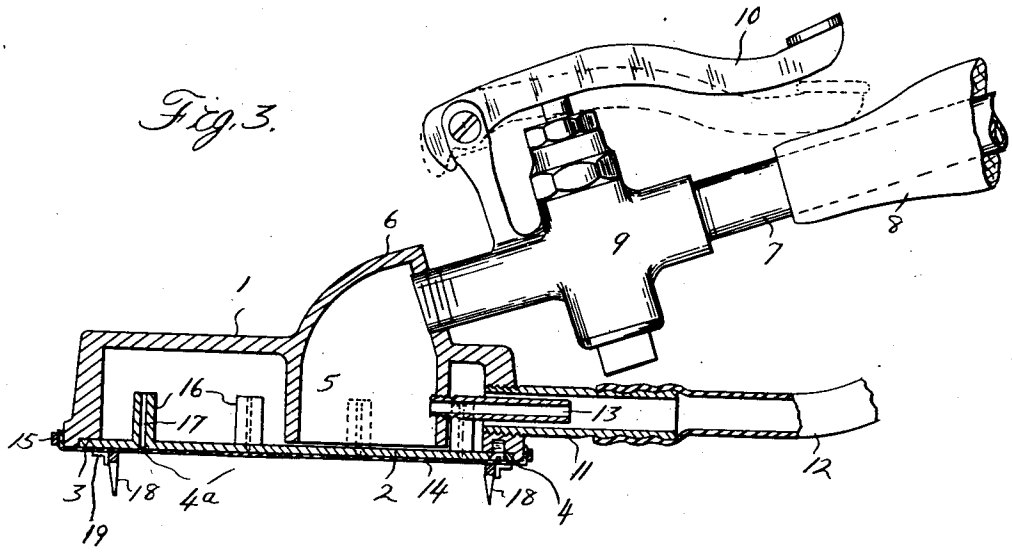
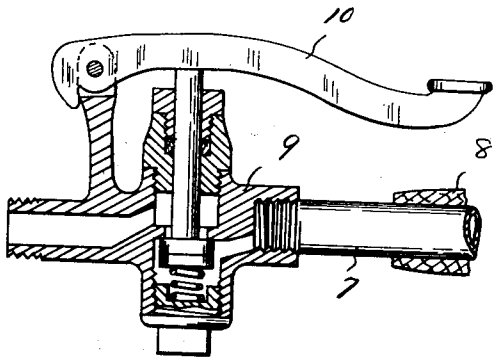


Fig. 5.



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UNITED STATES PATENT OFFICE.

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APPARATUS FOR STEAMING FABRICS AND FURS.

Application filed October 31, 1927. Serial No. 229,917.

This invention relates to apparatuses for steaming fabrics and furs and particularly to portable devices for treating fabrics and furs with jets of steam to renovate such goods, raising the nap thereof, removing any wrinkles that may be present and generally improving the appearance.

One object of the invention is to provide a steam-distributing head adapted by an attached handle to be readily applied to a garment, or to any fabric or fur, either suspended or disposed flat upon a support.

Another object is to provide a steam-distributing head having a supporting handle attached thereto, and having a conduit supplying steam to said head extended through said handle and controlled by a valve member readily operable by the hand gripping said handle.

A further object is to mount upon a portable stem-distributing head one or more combs for smoothing the nap or fur of garments and the like as they are being steamed by said head.

A further object is to provide a steam-distributing head with a drainage connection for carrying off condensate and to adapt a nozzle to discharge a portion of the steam delivered to said head into said connection, so as to derive an ejector effect.

These and various other objects the invention attains by the construction hereinafter described and illustrated in the accompanying drawings, wherein:—

Figure 1 is a bottom view of the herein disclosed device.

Figure 2 is a similar view of the device with the face plate thereof removed.

Figure 3 is a sectional view of the device taken upon the line 3—3 of Figure 1.

Figure 4 is a longitudinal sectional view taken upon the line 4—4 of Figure 1.

Figure 5 is a detail sectional view of the steam control valve.

In these views the reference characters designate a steam-distributing head, comprising a hollow open-bottomed member 1 formed preferably of some light metal such as aluminum, and a metallic face plate 2 which engages a seat 3 upon the edge of the member 1, and closes the bottom of said member. Said plate is detachably secured to said casing by a plurality of screws 4 or the like, and is formed with rows of perforations 4^a for the discharge of steam.

Formed integrally with the member 1, interiorly thereof, is a steam chamber 5 preferably located substantially mid-way between the ends of said member. Said chamber is open at its end adjacent to the face plate 2 and said end is slightly spaced from said plate. A protuberance 6 upon the top of the head 1, 2 is formed with a passage opening into the chamber 5 and a steam duct 7 is connected to said passage to deliver steam into said chamber. The duct 7 extends through a handle member 8 by which the device may be manipulated and it is preferred to interpose a control valve 9 for said duct between the handle 8 and protuberance 6, and to extend the control lever 10 of said valve in such proximity to the handle 8 as to permit ready control of said valve by the hand gripping said handle.

From the central portion of the member 1, a drainage tube 11 opens laterally and may be connected to a suitable flexible drainage hose 12. In order to facilitate the discharge of condensed steam from all parts of the head 1, 2 through the tube 11, it is preferred to connect a steam ejector nozzle 13 with the chamber 5 and to extend said nozzle into the tube 11. Thus a portion of the steam supplied to the chamber 5 is discharged through said nozzle into the drainage tube so that any condensate formed in the head 1, 2 tends to immediately escape through said tube.

It is preferred to extend across the plate 2 a fabric cover member 14 secured in any suitable manner upon the head 1, 2, as for example by a clamping ring 15, embracing the head and the marginal portion of said cover member. The member 14 functions to protect the fabrics or furs that are being steamed from direct contact with the head 1, 2, and furthermore absorbs any moisture that may escape through the perforations of the face plate, thus preventing said moisture from damaging the goods being treated. The cover member 14 is sufficiently heated by its contact with the face plate 2 to rapidly evaporate any moisture which it may thus absorb.

The face plate 2 carries interiorly of the head 1, 2 a plurality of spaced ribs 16 extending longitudinally of said head, in

spaced relation to the top thereof. Each of said ribs is formed with a plurality of restricted steam discharge passages 17 which respectively communicate with the perforations 4^a of said face plate and which are adapted to deliver steam to said perforations from the interior of the head, while tending to prevent any discharge of condensate through said perforations.

When the described implement is used upon furs or fabrics having a heavy nap it is preferred to mount upon the face plate 2 one or more combs 18 extending preferably lengthwise of the head 1, 2. In the disclosed embodiment of the invention two such combs are illustrated, the same being disposed upon the face plate adjacent to its opposite lengthwise edges. While the means for fastening said combs in their position of use may be of any suitable nature it is preferred to form the base portion of said combs with laterally projecting lugs 19, riveted or otherwise rigidly attached to the face plate.

In the use of the described device the operator grips the handle 8 and with the thumb of the hand engaging said handle depresses the control lever 10 of the valve 9 to admit steam to the head 1, 2. The close proximity of the steam supply chamber 5 to the plate 2 retards the escape of steam into the main chamber of the head 1, 2 so that the discharge of steam from said chamber through the passages 17 is under only a moderate pressure. The device is moved gradually across the fur or fabric to be treated with the steam discharging face of said head in close proximity to (or in contact with) said fur or fabric. The fine jets of steam discharging from the perforations 4^a permeate the fabric or fur and slightly heat and moisten the same so as to increase the flexibility of the goods and remove any wrinkles or spots therein. The deposition of moisture upon the goods resulting from use of the described device is too slight to be in any way detrimental. It is, however, important to prevent any water of condensation that may accumulate in the head 1, 2 from discharging freely through the perforations of the face plate and wetting the goods undergoing treatment. Such a contingency is positively avoided by associating the ejector nozzle 13 with the drainage tube 11 and further by providing the fabric cover member 14 to absorb and dissipate any moisture that may escape through the perforations of the face plate. In treating furs and fabrics having a long, heavy nap, the combs 18 serve to smooth such fur or nap and impart to the same uniformity of direction.

The device is of so simple a nature that it may be readily manipulated by an unskilled employee, and may be used with equal efficiency upon goods suspended from a rack or hook, or arranged flat upon a table or the like, or upon garments carried by a dummy or lay figure.

While it will be apparent that the illustrated embodiments of my invention herein disclosed are well calculated to adequately fulfill the objects and advantages primarily stated, it is to be understood that the invention is susceptible to variation, modification and change within the spirit and scope of the subjoined claims.

What we claim is:

1. In a device of the character described, the combination with a hollow steam-distributing head comprising a face plate perforated for the discharge of steam, of means for delivering steam to said head, a handle attached to the head, and a plurality of spaced ribs carried by said face plate within the head and each formed with a plurality of passages communicating at corresponding ends with the perforations of the face plate and opening within the head at their other ends.

2. In a device of the character described, the combination with a hollow steam distributing head, comprising a perforated face plate, of a steam delivery chamber within said head having an open end spaced slightly from said face plate, to provide for a restricted discharge of steam from said chamber into said head, means for delivering steam to said chamber, an outlet tube for condensate communicating with said head, and a nozzle opening from said steam delivery chamber and discharging within said outlet tube.

3. In a device of the character described, the combination with a hollow-steam-distributing head, comprising a face plate perforated for the discharge of steam, of means for delivering steam to said head, and a comb exteriorly carried by said face plate.

4. In a device of the character described, the combination with a hollow steam-distributing head, comprising a face plate perforated for the discharge of steam, of means for delivering steam to said hollow head, and a pair of combs mounted upon said head adjacent to opposite edges thereof in substantially transverse relation to said face plate.

5. In a device of the character described, the combination with a portable hollow head having a provision for effecting a restricted discharge of steam therefrom, of a supporting handle carried by said head, means for delivering steam to said head, a tube connecting with said head for discharging condensate therefrom, and a nozzle connecting with the steam supply means for discharging into said outlet tube for deriving an ejector effect.

6. In a device of the character described, the combination with a hollow head having a provision for effecting a restricted discharge of steam therefrom, of a steam delivery chamber within said head having a restricted outlet into said head, means for delivering steam to said chamber, an outlet tube for condensate

communicating with said head, and a nozzle opening from said steam delivery chamber and discharging into said outlet tube.

7. In a device of the character described, the combination with a hollow head having a provision for effecting a restricted discharge of steam therefrom, of means for delivering steam to said head, and a comb exteriorly carried by said head.

8. In a device of the character described, the combination with a hollow steam distributing head, of means for delivering steam to said head, and a pair of combs mounted upon said head in substantially parallel spaced relation, said head having a provision between said combs for effecting a restricted discharge of steam.

9. In a device of the character described, the combination with a portable hollow steam distributing head, of a supporting handle carried by said head, means for delivering steam to said head through said handle, said head comprising a face plate perforated for the discharge of steam, a tube connecting with said head for discharging condensate therefrom, and a nozzle connecting with the steam supply means for discharging into said outlet tube for deriving an ejector effect.

10. In a device of the character described, the combination with a hollow steam distributing head comprising a backing plate and a perforated face plate spaced from said backing plate, of an annular wall integrally projecting from said backing plate into proximity to said face plate, and forming with the face plate a steam delivery chamber within said head, means for delivering steam to said chamber, an outlet tube for condensate communicating with said head, and a nozzle opening from said steam delivery chamber, and discharging within said outlet tube.

In testimony whereof we hereunto set our hands.

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