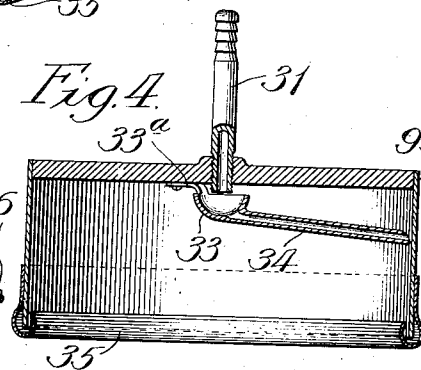
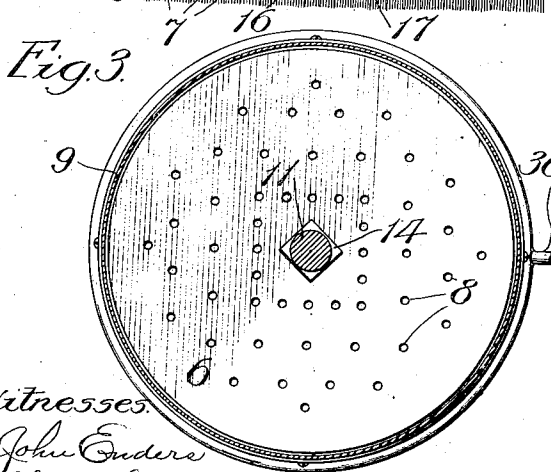
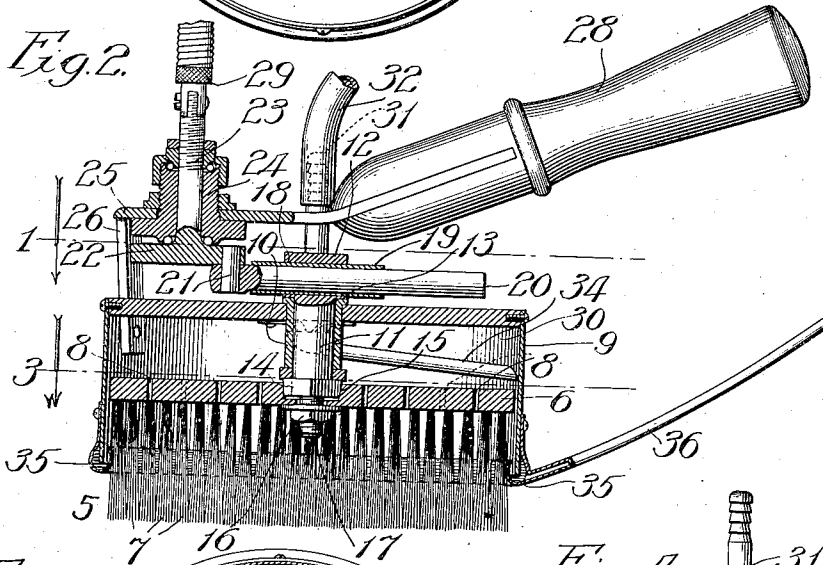
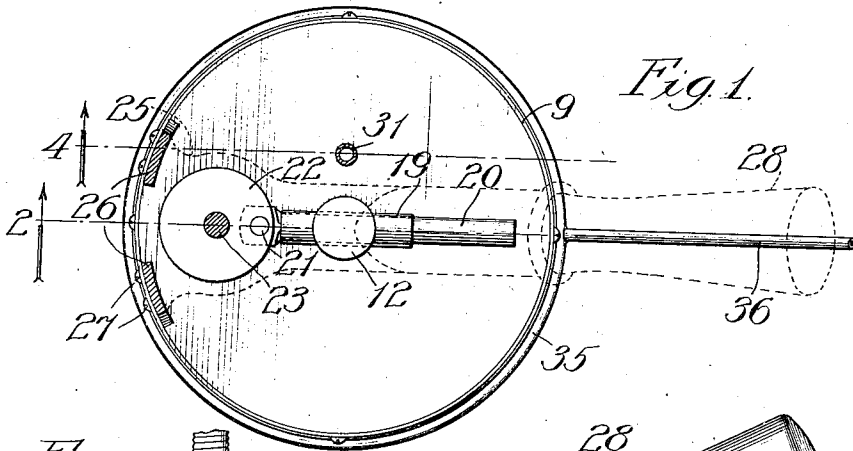


L. SVOBODA & F. KOPECKY.
CLOTH STEAMING BRUSH.
APPLICATION FILED DEC. 10, 1908.

938,089.

Patented Oct. 26, 1909.



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UNITED STATES PATENT OFFICE.

LAWRENCE SVOBODA AND FRANK KOPECKY, OF CHICAGO, ILLINOIS.

CLOTH-STEAMING BRUSH.

938,089.

Specification of Letters Patent.

Patented Oct. 26, 1909.

Application filed December 10, 1908. Serial No. 466,876.

To all whom it may concern:

Be it known that we, LAWRENCE SVOBODA and FRANK KOPECKY, citizens of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Cloth-Steaming Brushes, of which the following is a specification.

Our invention relates to improvement in devices for removing gloss produced upon cloth during the pressing operation, of the variety employing a brush adapted to move against the surface of the cloth simultaneously with the application of steam thereto.

Devices of the character above referred to, as hitherto constructed, involve in their operation the sweeping of the brush across the surface of the cloth in such a way as not to raise the nap of the cloth but brush it down, thereby failing to give to the cloth, when finished, the desired appearance, and preventing the fibers of the cloth from being properly subjected to the steam for entirely removing the gloss.

Referring to the accompanying drawings—Figure 1 is a plan sectional view of our improved device, the section being taken at the line 1 on Fig. 2 and viewed in the direction of the arrow. Fig. 2 is a view in sectional elevation of the device illustrated in Fig. 1, the section being taken at the line 2 on Fig. 1 and viewed in the direction of the arrow. Fig. 3 is a section taken at the line 3 on Fig. 2 and viewed in the direction of the arrow; and Fig. 4, a section taken at the line 4 on Fig. 1 and viewed in the direction of the arrow, the brush being omitted.

In the preferred construction illustrated, the brush for agitating the nap of the cloth from which the gloss is to be removed is represented at 5 and is of cylindrical form comprising a circular disk-shaped back 6 provided with sets of bristles 7, perforations 8 being contained in the back 6 to communicate with the spaces between the bristles as shown for a purpose hereinafter set forth. The casing for housing the upper portion of the brush is represented at 9 and is provided centrally with a tubular bearing 10 in which is journaled a shaft 11 provided with an enlargement 12 at its upper end forming a shoulder 13 which bears against the upper end of the bearing 10. The lower end of the shaft 11 carries a separable square sleeve 14 of a greater width than the internal

diameter of the bearing 10. The back 6 of the brush is provided centrally with a socket 15 in its upper side of the same shape in cross-section as the sleeve 14. The brush fits at its socket 15 over the sleeve 14 and is held on the shaft 11 to rotate therewith by a nut 16 screwing on the threaded end 17 of the shaft. Fixed in an aperture 18 in the portion 12 of the shaft is a sleeve 19 which extends at right angles to the shaft carrying it, this sleeve serving as a bearing for a sliding bar 20 positioned therein and pivoted at one end to an eccentric pin 21 fixed in a disk 22 carried by a shaft 23 journaled in a bearing 24 supported above the casing 9 by a bracket 25 secured at arms 26 to the casing as represented at 27, the free end of the bracket carrying a handle 28 by which the device is manipulated. It is thus manifest that rotation of the shaft 23 produces reciprocation and oscillation of the rod 20, and by reason of its sliding connection with the sleeve 19 thereby produces partial rotations of the brush 5 in opposite directions. The power for driving the shaft 23 may be of any character, it being designed that the power be communicated to the shaft through the medium of a flexible shaft 29 connected with the shaft 23 as represented.

The steam to be discharged upon the cloth being operated on is introduced into the space 30 provided between the top of the casing 9 and the back 6 of the brush, through a pipe 31 connecting with a suitable source of steam supply through the medium of a flexible pipe 32. In the preferred construction illustrated, the steam discharges from the pipe 31 into a dish-shaped member 33 secured to the casing 9 at an arm 33* and having a tube-extension 34 which extends from the member 33 to the inner circumference of the casing 9 for a purpose hereinafter explained.

The steam upon leaving the pipe 31 fills the chamber 30 from which it escapes through the perforations 8, the pressure of the steam forcing it through the spaces between the bristles to the cloth.

Assuming the shaft 23 to be constantly rotated, the operator grasping the handle 28 moves the device upon the goods from which the gloss is to be removed to cause the brush 5 to sweep against the surface of the goods. The brush by reason of the movement described is caused to brush up the nap by

reason of its rotation in opposite directions, thereby permitting the steam applied to the goods as described to thoroughly and effectually act upon the fibers of the nap. Furthermore, by the brushing action described the nap instead of being brushed flat against the body of the goods, is caused to be more or less roughed up with the effect of producing the desired appearance in the goods.

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- It will be noted that the device may be used to operate on goods laid flat upon a table or ironing-board, or it may be supported at its handle 28 in the hand of the operator for operating upon garments applied to a dummy or form.

In operating the device condensation of the steam is liable to occur in the pipe 31 and on the inner surface of the casing 9, and unless means are provided for draining such moisture from the casing, drops thereof might fall upon the goods which, in some cases, might be objectionable. To prevent this occurrence, we have provided the member 33 and pipe 34 hereinbefore referred to, and employ a trough 35 extending around the lower edge of the casing 9, this trough having a pipe 36 communicating therewith and extending in the same general direction as the handle 28. It is thus manifest that any moisture precipitated in the pipe 31 will fall into the member 33 and will thence flow to the side of the casing through the pipe 34. Any moisture precipitated or discharged upon the interior of the casing 9 will run into the trough 35 from which it escapes through the pipe 36 when the device is held in an upright position. It will thus be manifest that the gist of our invention lies in providing a construction in which a brush is caused to move in opposite directions against the surface of the goods to be operated on during the subjection of them to steam, as distinguished from a device in which the brush operates to sweep against the goods in one direction only.

What we claim as new, and desire to secure by Letters Patent, is—

1. In a cloth-steaming brush, the combination of an oscillatory brush-device adapted to be moved against the surface of the goods to be brushed, means for oscillating the brush, and means for supplying steam to the goods while undergoing the brushing operation.
2. In a cloth-steaming brush, the combina-

tion of a casing, an oscillatory brush-device supported in the casing to be moved against the surface of the goods to be brushed, means for oscillating the brush, and means on said device for supplying steam to the goods while undergoing the brushing operation.

3. In a cloth-steaming brush, the combination of a casing, an oscillatory shaft in the casing extending longitudinally thereof, a brush-device connected with one end of said shaft and adapted to be moved against the goods to be operated on, means for imparting oscillatory movement to said brush, and means for supplying steam to the goods while undergoing the brushing operation.

4. In a cloth-steaming brush, the combination of a brush journaled to permit it to oscillate, a drive-shaft, means operated by said drive-shaft for oscillating the brush, and means for supplying steam to the goods while undergoing the brushing operation.

5. In a cloth-steaming brush, the combination of a drive-shaft, a brush journaled to permit it to oscillate against the goods to be operated on, an eccentric connection between said brush and drive-shaft, and means for supplying steam to the goods while undergoing the brushing operation.

6. In a cloth-steaming brush, the combination of a drive-shaft, a second journaled shaft, a brush secured to said second shaft to act against the goods to be operated on, a bar having sliding connection with said second-named shaft and eccentrically connected with said drive-shaft, and means for supplying steam to the goods while undergoing the brushing operation.

7. In a cloth-steaming brush, the combination of a casing, a journal-bearing provided thereon, a shaft journaled in said bearing, a brush having a perforated back secured to said shaft and spaced from the wall of the casing opposing it, a rod having sliding connection with the other end of said shaft, a drive-shaft, an eccentric pin carried by said drive-shaft and connected with said sliding rod, and a steam-conduit opening into the space provided between the back of the brush and the opposing wall of the casing.

LAWRENCE SVOBODA.
FRANK KOPECKY.

In presence of—

RALPH A. SCHAEFER,
A. U. THORIEN.