No. 774,689. PATENTED NOV. 8, 1904.

J. McDERMOTT.

BRUSH.

APPLICATION FILED SEPT. 11, 1903.

NO MODEL.

Fig. 1.

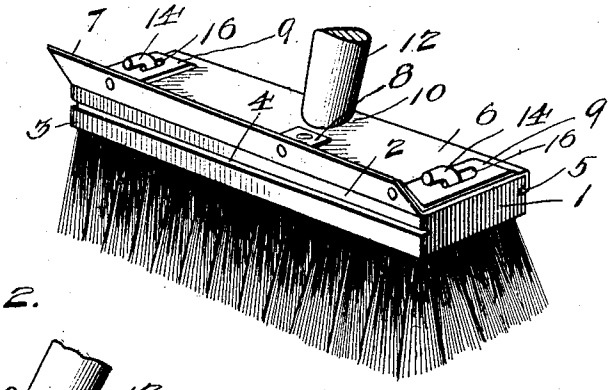


Fig. 2.

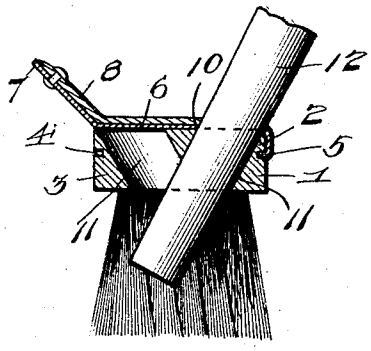


Fig. 3.

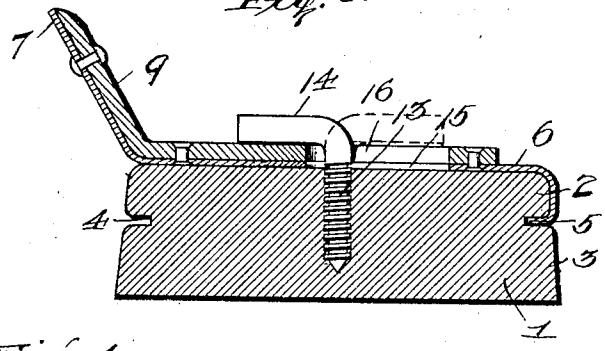
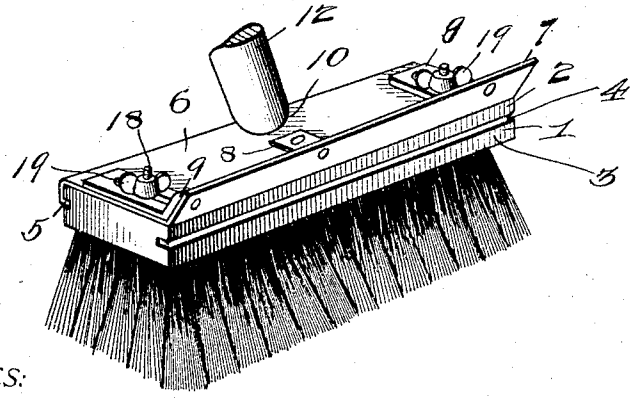


Fig. 4.



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No. 774,689. Patented November 8, 1904.

UNITED STATES PATENT OFFICE.

JAMES McDERMOTT, OF MIDDLETOWN, NEW YORK.

BRUSH.

SPECIFICATION forming part of Letters Patent No. 774,689, dated November 8, 1904.

Application filed September 11, 1903. Serial No. 172,759. (No model.)

To all whom it may concern:

Be it known that I, JAMES McDERMOTT, a citizen of the United States, residing at Middletown, in the county of Orange and State of New York, have invented certain new and useful Improvements in Brushes, of which the following is a specification.

My invention relates to new and useful improvements in brushes intended for rough usage, such as is incident to street-cleaning, and more particularly to the formation of the "brush-back" and cover therefor, and means for securing the cover to the back, so that said back can be readily reversed to prolong the usefulness of the brush. Vast numbers of brushes of this character are used in the cities, and the elements of cheapness and durability are of paramount importance.

My object, therefore, is to produce a cheap and durable brush that will possess, in addition to these advantages, the advantage of the ready reversal of the back or block in the cover after the bristles have been bent backwardly by the first use of the brush.

In the drawings illustrating my invention, Figure 1 represents a perspective view of the brush constructed in accordance with my invention, the handle thereof being broken away. Fig. 2 is a central section through the block, showing the manner of boring the same for the reception of the handle. Fig. 3 is a transverse section through the end of the back and plate, showing more clearly the means for fastening the back to the plate; and Fig. 4 is a perspective view of the brush, showing a modified means for securing the cover and back together.

Referring to the drawings, the numeral 1 represents the back, which is bored in the usual way and provided with bristles which are held in the back by wiring in the usual well-known manner. In carrying out my invention I provide the back on either upper edge with parallel beads 2, between which beads and the lower edges 3 of the back are grooves 4 for the reception of the edge of the flange 5, formed, preferably, integral with the metallic plate 6, which plate is provided with an upturned blade or scraper 7, which is preferably integral with the plate, but may be separate and secured thereto by suitable braces, such as those designated by 8 and 9, which in the present instance are for strengthening purposes and the end ones for the purpose of more securely fastening the back and plate together. Provided centrally of the metallic plate is an aperture 10, which is adapted to register with one or the other of the two obliquely-bored holes 11 in the brush-back, so that the handle 12 will pass through said opening in the plate and into the opening in the back in the usual manner. In addition to the flange 5 entering the groove 4 to hold the plate in place on the back and the back from warping I provide at each end of the back a screw 13, having its upper portion bent at right angles, as shown at 14. This upper portion of the screw passes through elongated slots 15 in the plate and similar slots 16 in each end brace 17, which braces are firmly riveted to the plate and have their forward ends upturned and riveted to the blade for the purpose of strengthening the same. The slots just mentioned are of sufficient length to permit the removal of the back from the plate or cover when the portion 14 of the screw is turned to the position shown in dotted lines, Fig. 3; but when said portions are turned in the opposite direction, in which position they engage the plate 6, or rather the upper surface of the end braces 9, the plate and back will be held firmly together.

Referring to the modification shown in Fig. 4, the construction of the cover or plate and back is identical with that shown in the main figures, the only difference being that for the screws 13 I have substituted two bolts, with their upper ends screw-threaded, as indicated by the numeral 18, for the reception of thumb-nuts 19, by which means the plate and back are held together.

After the brush has been used for a considerable time and the bristles therein become bent toward the rear, impairing the usefulness of the brush, the back can be readily reversed by giving the screw 13 a half-turn, enabling the plate and back to be separated, and the replacement of the back after it has been

reversed will bring the other bead and groove in position to be embraced and entered by the depending flange of the plate, and this reversal will also bring one of the oblique handle-holes in the back opposite the opening in the plate, and upon turning the screws 13 sufficiently to bring them over the plate the whole structure will be firmly locked together and ready for use after the insertion of a handle. I find in practice that forming the back in the manner described—that is to say, with a bead to be embraced by the depending flange of the plate and a groove into which the flange is turned—the construction of the brush as a whole is greatly cheapened, and the edge of the brush in which the handle is inserted and which receives the greatest shock when the brush is in use is strengthened and prevented from warping or cracking.

What I claim is—

1. A broom having a back and handle, said back having along its longitudinal edge a groove, in combination with a metallic plate covering the upper surface of said back and having at one longitudinal edge a scraper-blade and at the other longitudinal edge a depending flange bent inward to extend into said groove, strengthening-strips secured upon the upper surface of the end portions of said plate and blade, and fastening means connected with the back and extending through said plate and strips and provided with means for engaging said strips, substantially as set forth.

2. A broom having a back provided along each of its longitudinal edges with a groove, and having obliquely-bored oppositely-disposed handle-holes therein, a metallic plate resting on the back and having at one longitudinal edge a scraper, and at the other a depending flange bent inward to enter one of said grooves, and having a handle-opening therein adapted to register with one of said holes to permit the insertion of a handle, and means connected with the back and extending through the plate for securing the back and plate together.

3. A brush comprising a back having a groove along each longitudinal edge thereof, a metallic cover or plate having a depending flange adapted to enter the groove, said plate or cover being provided near each end with a slot, a screw in each end of the back and provided with an approximately right-angular portion adapted to pass through the slots and engage the plate to form a means for securing the plate and back together, and means for attaching a suitable handle to the brush.

In testimony whereof I affix my signature in presence of two witnesses.

JAMES McDERMOTT.

Witnesses:

FLORA PIERCE,

S. C. HILL.