

UNITED STATES PATENT OFFICE.

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BRUSH.

SPECIFICATION forming part of Letters Patent No. 771,926, dated October 11, 1904.

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To all whom it may concern:

Be it known that I, CHARLES H. PAPENFUS, a citizen of the United States, whose post-office address and residence is at No. 164 Haddon
5 avenue, in the city of Chicago, county of Cook, and State of Illinois, have invented a new and useful Improvement in Brushes, of which the following is a specification.

My invention relates to that class of brushes
10 known as "body-brushes" used for cleaning horses.

The object of my invention is to make a brush which can be thoroughly cleaned after use, to provide an adjustable and removable
15 handle, and to so arrange the bristles as to produce a maximum of penetrative force under pressure when in use. The manner in which I accomplish these objects is described in the following specification and shown in
20 the accompanying drawings, in which—

Figure 1 is a plan view of the back of the brush, part of the removable back and cover and a part of the handle being broken away to show the construction of the frame, ar-
25 rangements of the bristles therein, positions and relation of the back and cover, and attachment of the handle. Fig. 2 is a sectional view through the line 2 2, Fig. 1, showing the construction of the frame, attachment of the
30 handle, and the angular set of the bristles. Fig. 3 is a sectional view through the line 3 3, Fig. 1, showing the construction of the frame and relative position of the bunches of bristles in the frame.

35 In the drawings, the frame A, which may be made of any suitable material, but preferably of hard rubber, is shown with only part of the back B and cover C in place. The back B is of flexible material, preferably of leather.
40 The cover C is also flexible and may be made of any suitable material that is easily cleaned. The rim G is made of any suitable form and is constructed with a recess H in and around the interior, as shown in section in Figs. 2 and
45 3. Into this recess H the cover C and the back B are fitted and are held securely. The frame A is perforated, so as to form the main part of the frame A into longitudinal aper-
tures I and bars J and supporting cross-bars

K. Extended through the bars J are a series 50 of holes L, arranged in parallel lines, their diameters intersecting the central longitudinal lines of said bars, the holes in one line alternating in their relative positions with the
55 holes in the other line in the same bar, as shown in Figs. 1 and 3. The vertical center of each line of holes crosses that of the other line of holes, as shown in Fig. 2. In these
60 holes the bunches of bristles M are inserted and securely fastened. The vertical inclination of the holes inclines each bunch of bristles in the bar alternately toward opposite
65 sides of the bar and over the apertures I, thereby forming a full face of bristles E, as shown in Figs. 2 and 3. This inclination of the bristles toward each side of the brush
70 gives greater penetrative power and resistance when the brush is used sidewise than when the bristles are set at right angles to the plane of the back of the brush.

In each side of the frame A in line with the recess H and through the rim G a slot N is
75 made. Into these slots the ends O of the handle F are inserted and securely held by the screws P, which extend vertically through the rim G and through the ends O of the handle
80 F. The handle F is made of any suitable material and is made adjustable to the size of the hand by the removal and reinsertion of the screws P on either side of the frame A.

When constructed as described and shown and used with the back B and the cover C in place, the dirt and hair from the body of the horse gather in the apertures I on the bars
85 J and at the roots of the bunches of bristles M. To clean this dirt and hair out of the brush, the back B and cover C are removed from the frame. This can be done instantly
90 by placing a pencil, nail, or any other small object between the bristles and bars anywhere near the center of the brush by pushing the back and cover up from the frame. The light force thus applied forces the back and cover
95 from the recess H, and thus removes the back B and cover C. The dirt and hair can then be easily and completely removed from the apertures I, bars J, and roots of the bristles and the brush perfectly cleansed.

The cover C and back B can be replaced one after the other by the raising of their centers and by forcing their edges into the recess H.

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

1. In a brush of the kind described, the combination of a frame A provided with a recess H; a series of longitudinal bars J and cross-
10 bars K, said bars J having a series of holes L forming two lines in each of said bars, said holes being vertically inclined so as to cross the central line of said bars alternately in opposite directions; and a series of bunches of
15 bristles M fixed in said holes; a cover C adapted to fit and be held in the recess H and be removable therefrom; said cover extending over said bars J and apertures I in said frame; and a back B, preferably of leather, fitted into
20 said recess H and over the cover C and being removable therefrom; a handle F secured by its ends O in suitable slots N in the rim G of the frame A, and means for securing the ends O therein, substantially as described and for
25 the purposes specified.

2. In a brush of the kind described, the combination of a frame A having a rim G and series of apertures I and bars J, said bars being adapted to hold and support the bristles
30 of said brush, and a number of bunches of bristles suitably secured in said bars; and a back B adapted to be easily inserted in and removed from said frame A, said back being held in said rim G and covering the apertures
35 I and bars J, and a handle F adapted to be adjustably held in said frame, said handle being attached to the rim G of the frame A and means for fastening said handle to said frame,
40 substantially as described and for the purposes specified.

3. In a brush of the kind described, the combination of a frame A provided with apertures I, and bars J, said bars being adapted to support the bristles E, and a number of bunches
45 of bristles M fixed in the bars J, and a cover C held in said frame A and covering the apertures I and bars J, and adapted to be easily adjusted in and removed from said frame; and a back B held in said frame A and resting on the cover C, said back together with
50 said cover being easily adjusted in and removable from said frame, and means for holding said back and cover in said frame, substantially as described and for the purposes specified.

4. In a brush of the kind described, the combination of a frame A constructed with apertures I and bars J, and a number of bunches of bristles M securely held in the bars J and
60 a back B supported in the frame A and covering said apertures and bars, said back being adapted to be easily adjusted in and removed from said frame, substantially as described and for the purposes specified.

5. In a brush of the kind described the combination of a frame A having bars J and a removable back B, with a series of bunches of
65 bristles M affixed in said bars, each bunch of said bristles in each of said bars being so set in said bars as to alternately incline toward the sides of said frame, substantially as described and for the purposes specified.

6. In a brush of the kind described, the combination of a frame A and a removable leather
75 back B, substantially as described and for the purposes specified.

CHARLES H. PAPENFUS.

Witnesses:

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JOHN J. BEILMAN.