

May 1, 1923.

J. COLLIER

1,453,306

BRUSH

Filed April 13, 1922

Fig. 1.

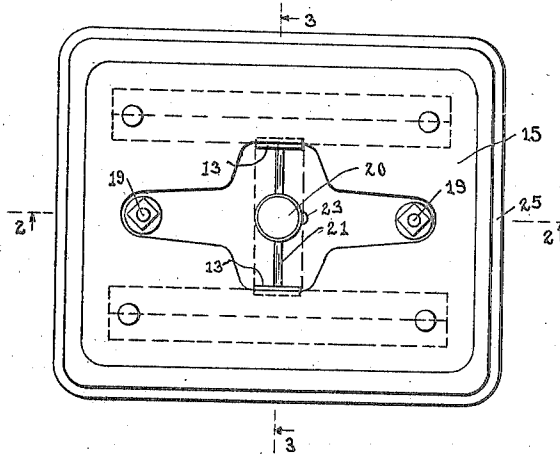


Fig. 2.

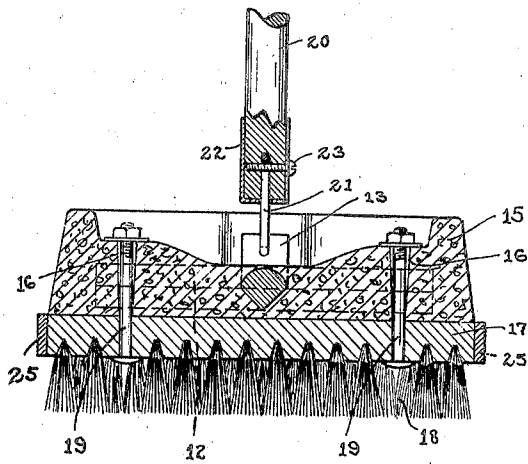


Fig. 3.

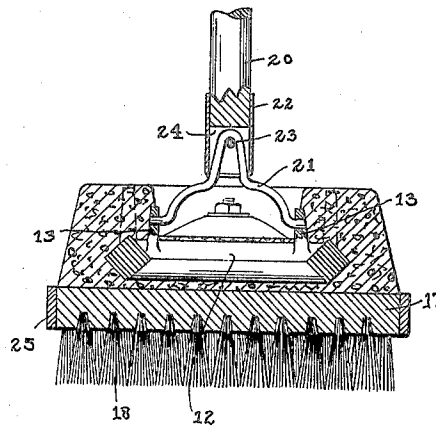
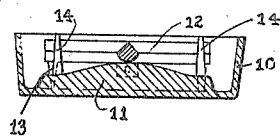


Fig. 4.



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UNITED STATES PATENT OFFICE.

JAMES COLLIER, OF RACINE, WISCONSIN, ASSIGNOR TO S. C. JOHNSON & SON, OF RACINE, WISCONSIN, A PARTNERSHIP CONSISTING OF HERBERT FISK JOHNSON, HERBERT FISK JOHNSON, JR., HELEN CONVERSE JOHNSON, AND JESSIE JOHNSON LYMAN.

BRUSH.

Application filed April 13, 1922. Serial No. 552,202.

To all whom it may concern:

Be it known that I, JAMES COLLIER, a citizen of the United States, and resident of Racine, in the county of Racine and State of Wisconsin, have invented new and useful Improvements in Brushes, of which the following is a description, reference being had to the accompanying drawings, which are a part of this specification.

This invention relates to brushes and particularly to brushes for polishing hardwood floors which have been covered with wax. Brushes now on the market are formed with a cast iron body in order to produce the necessary weight to perform the polishing operation without the operator exerting a pressure on the brush. These iron brushes are satisfactory in many respects, but the expense incident to the manufacture of these brushes makes the cost of the same prohibitive.

It is therefore an object of this invention to provide a brush particularly adapted for polishing floors or the like in which the weight is contributed by forming the body of the brush of cement or other similar material. In this connection the invention contemplates a method of constructing brushes of this general type.

In the accompanying specification and drawings one illustrative embodiment of the invention will be described and shown so that those skilled in the art may readily appreciate the advantages of the invention.

In the drawings:

Fig. 1 is a top plan view of a brush constructed in accordance with this invention,

Fig. 2 is a longitudinal section through the brush,

Fig. 3 is a transverse section through the brush, and,

Fig. 4 is a sectional view of the mould used in manufacturing the brush.

The construction of the brush can be best described by describing the method of moulding the same. In this connection a mould 10 is provided having an enlargement 11 at the bottom thereof. A cast metal reinforcing member 12 is placed in the bottom of the mould, this reinforcing member being substantially H-shaped in plan view, as clearly illustrated in Fig. 4. Formed on this reinforcing member are a pair of ears

13 which are inverted in Fig. 4 and extend into recesses formed in the enlargement 11 of the mould. Projections 14 extending upwardly from the bottom of the mould provide openings in the body of the brush adapted to receive securing bolts in a manner to be later described.

In forming the brush the cement or other similar material is poured into the mould and when the same sets or becomes hard the resulting product is a body 15, in which there is embedded the reinforcing member 12. The projections 14 have provided apertures 16 extending vertically through the body 15.

The brush further comprises a back 17 provided with bristles 18. This back is secured to the body 15 by bolts 19 passing through the back 17 and through the apertures 16 formed in the body 15.

A handle 20 may be secured to the body 15 by means of a bail 21 looped into the ferrule 22 of the handle and held in place by a screw 23 passing therethrough. A slot 24 formed in the lower end of the handle enables the looped end of the bail to extend upwardly into the handle. The ends of the bail 21 enter apertures formed in the ears 13 projecting from the reinforcing member 12. This structure provides a pivotal connection between the handle and the brush and insures a durable, cheap and easily detachable connection between these parts. The outer edge of the back 17 is preferably provided with a piece of felt or other similar material 25 to prevent marring of the furniture.

From the foregoing it will be obvious that a brush is provided which will have all of the advantages of a brush of the iron type now generally in use, which however, will have the added advantage that it may be cheaply and easily constructed. The body of cement or other similar material contributes the weight necessary for an efficient brush of this type. If the back 17 carrying the bristles 18 becomes broken or the bristles worn, the same may be removed and a new back carrying the bristles substituted, whereby the life of the body of the brush may be materially lengthened.

While the illustrative example of this invention, and the described method of con-

structing the same has proven efficient. I do not wish to be unnecessarily limited to the details described herein but reserve the right to make such changes and modifications in construction and method of constructing as may come within the purview of the accompanying claims:

Having thus described the invention, what I claim is:

10 1. In a brush of the class described a moulded body of cementitious material, a reinforcing member moulded therein, ears projecting from said reinforcing member, a brush back removably secured to said body
15 and a handle pivotally connected to said ears.

2. In a brush of the class described a moulded cement body, a reinforcing member moulded therein, ears formed on said reinforcing member and projecting from the
20 top of said body, a brush back removably secured to said body, a handle and a bail secured to said handle and pivotally con-

nected to said ears for securing said handle to said body.

3. In a brush of the class described, a
25 moulded body of cement, a reinforcing member moulded therein, ears formed on said reinforcing member and projecting beyond the upper face of said body, said body being formed with vertically extending openings, a
30 back, bristles in said back, bolts passing through said back and through the apertures in said body for removably securing said back thereto, a handle provided with a
35 slotted end and a ferrule, a bail looped in the said ferrule, a bolt through said ferrule and engaging the looped end of said bail, the free ends of said bail entering apertures formed in said ears for pivotally securing
40 said handle to said body.

In testimony whereof, I affix my signature.

JAMES COLLIER.