

No. 847,060.

PATENTED MAR. 12, 1907.

C. GAMACHE.
BRUSH.

APPLICATION FILED JUNE 28, 1906.

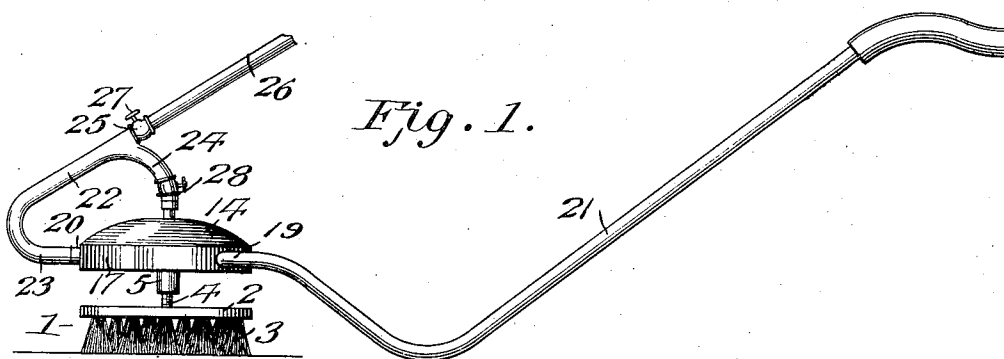


Fig. 2.

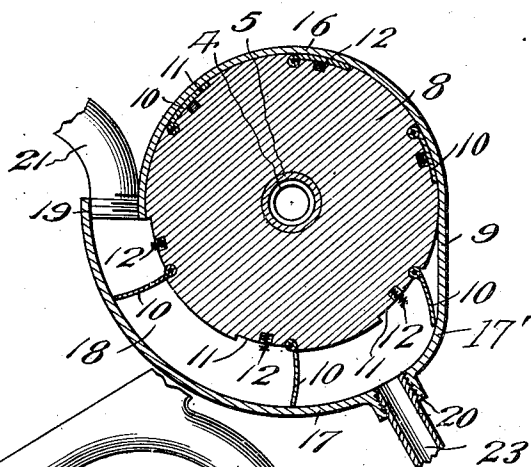
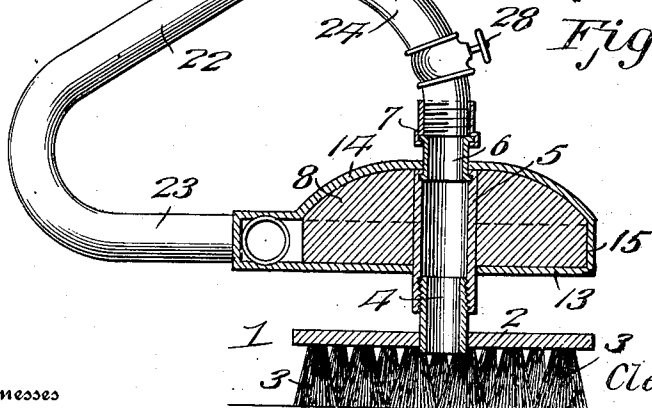


Fig. 3.

Witnesses

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CLEOPHAS GAMACHE, OF BARRE, VERMONT.

BRUSH.

No. 847,060.

Specification of Letters Patent.

Patented March 12, 1907.

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To all whom it may concern:

Be it known that I, CLEOPHAS GAMACHE, a subject of the King of Great Britain, residing at Barre, in the county of Washington and State of Vermont, have invented new and useful Improvements in Brushes, of which the following is a specification.

This invention relates to improvements in brushes, particularly to those of the rotary type designed for scrubbing and washing, the object of the invention being to provide a simple and efficient construction of means for rotating the brush by water-power and supplying water thereto for use in the operation of scrubbing or washing.

In the accompanying drawings, Figure 1 is a side view of a rotary brush embodying my invention. Fig. 2 is a sectional plan view of the brush-motor. Fig. 3 is a vertical cross-section through the brush and the motor.

Referring to the drawings, 1 designates a rotary brush, which may be of any suitable form and construction, that shown in the present instance comprising a back or head 2, carrying tufts 3, of bristle or other brush material.

To the brush-back 3 is rigidly attached a coupling-tube 4, which has a threaded engagement with the lower end of a hollow shaft 5, the upper end of which is swiveled to a tube 6, connected with an internally-threaded coupling 7. Fixed to the shaft 5 is a motor-wheel 8, arranged to rotate within a casing 9 and provided at suitable intervals around its periphery with pivoted vanes or wings 10, adapted to fold on their inward movement into seat-recesses 11 to lie flush with the periphery of the wheel and adapted to be projected by springs 12, suitably mounted on the wheel.

The casing comprises bottom and top walls 13 and 14 and a side wall 15, the latter having a portion 16 arranged concentric with the axis of the wheel and an opposite half or portion 17 disposed on an arc of a greater radius and also concentric to the axis of the wheel. A portion 17' eccentric to the axis of the wheel connects the portions 16 and 17 of the casing. The wheel is arranged so as to turn in contact with the portion 16, which folds the wings or vanes 10 inwardly against the resistance of the projecting spring, that portion of the wheel which is out of contact with the wall-surface 17 being separated from the wall 16 by an inter-

mediate space or channel 18, forming a flow-passage for the circulation of water through the casing, said passage having at one end an inlet 19 and adjacent to the other end an outlet 20. The water entering through the inlet 19 acts upon the projected vanes or wings and rotates the motor-wheel and finally discharges through the outlet 20. The rotation of the wheel imparts corresponding motion to the brush 1 in an obvious manner. A supply-pipe 21 connects with the inlet 19 and forms a handle by which the brush may be manipulated.

A yoke-pipe 22 is provided with branches 23 and 24, communicating, respectively, with the outlet 20 and coupling 7 and suitably fastened to the casing and coupling. At the intersection of said branches the pipe is provided with a coupling 25 for connection with a discharge-pipe 26, said coupling having a controlling-valve 27, whereby the flow of water may be cut off or regulated as desired. The branch 24 is provided with a controlling-valve 28 and supplies water through the couplings and hollow shaft to the brush for cleansing purposes. By closing the valve 28 the flow of water to the brush may be cut off, allowing all the water to discharge through pipes 23 and 26. By this means the flow of water to the brush may be conveniently cut off when the desired amount for the scrubbing or washing operation has been supplied.

It will be seen that my invention provides a simple, convenient, and effective motor-driven brush which may be operated by ordinary house-service pressure and may be utilized in the operation of scrubbing or washing floors and other surfaces, vehicles, and articles of various kinds.

I claim—

1. The combination of a rotary brush, a water-wheel for rotating the brush, said wheel being provided with supply and exhaust connections, a connection between the supply connection and brush for delivering water to the latter, said connection being provided with a valve for cutting off the supply of water to the brush without affecting the operation of the motor.

2. The combination of a rotary brush, a water-motor for driving the brush, said motor including a casing having inlet and exhaust ports, supply and exhaust pipes communicating with said ports, and a connection between the waste-pipe and brush, whereby

the waste water may be delivered to the latter, and a cut-off valve arranged in said connection.

3. In a rotary brush, the combination of a
5 casing having inlet and exhaust ports, a water-wheel arranged within the casing, a hollow shaft carried by said wheel and projecting through the casing, one end of said shaft being connected with the brush and in open
10 communication with the bristles thereof, supply and exhaust pipes connected with the casing and communicating with the supply and exhaust ports thereof, and a waste connection between the exhaust-pipe and hollow
15 shaft, said connection being provided

with a cut-off valve, whereby the flow of water to the brush may be controlled without affecting the operation of the motor-wheel.

4. The combination with a rotary brush, of a water-motor for driving the same, means 20 for conducting the waste water from the motor to the brush, and means for cutting off the delivery of waste water to the brush without affecting the operation of the motor.

In testimony whereof I affix my signature 25 in presence of two witnesses.

CLEOPHAS GAMACHE.

Witnesses:

JAMES MACKAY,
MARY E. SEXTON.