(No Model.)

C. A. PALMQUIST.

WASHING MACHINE.

No. 522,695. Patented July 10, 1894.

Fig. 1.

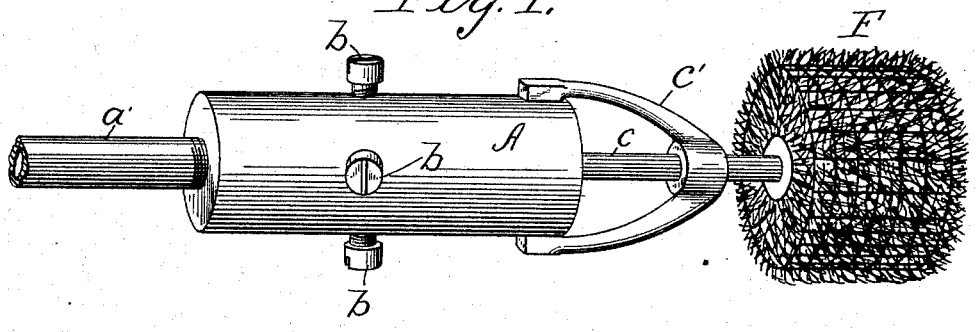


Fig. 2.

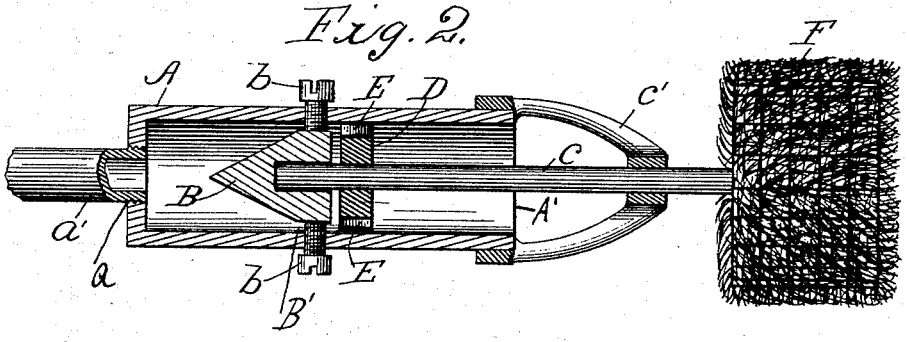
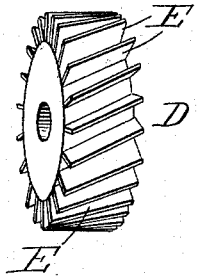


Fig. 3.



Witnesses
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UNITED STATES PATENT OFFICE.

CHARLIE AUGUST PALMQUIST, OF SPOKANE, WASHINGTON.

WASHING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 522,695, dated July 10, 1894.

Application filed July 12, 1893. Serial No. 480,316. (No model.)

To all whom it may concern:

Be it known that I, CHARLIE AUGUST PALMQUIST, a subject of the King of Sweden and Norway, residing at Spokane, in the county of Spokane, State of Washington, have invented a new and useful Washing-Machine, of which the following is a specification.

My invention relates to an improvement in that class of washing or scrubbing devices which are adapted to be operated by the force of the water used to assist in the cleaning process, and it is designed particularly for washing vehicles, though it may be used in many other ways.

The main object is to provide a more compact and durable arrangement which can be held in the hand of the operator and allowed to act on the part being washed; while the principal feature is the peculiar combination of a water motor with a brush or cleaner, whereby the cleaner or brush is made to operate and the water which furnishes the power allowed to pass on to the brush and supply it with water sufficient to effect the cleaning operation.

Other features are present in my invention, such as those of construction and subordinate combinations, all of which will now be described in detail and the novel parts embodied in the claim.

Referring to the accompanying drawings: Figure 1, represents a perspective view of the complete arrangement; Fig. 2, a longitudinal section, and Fig. 3, a detail in perspective of the water motor and its co-operating parts.

The reference letter A, indicates the body of my machine which is constructed cylindrical in shape and preferably of metal. The body is hollow and provided with an open end A′ and the internally threaded opening *a*, formed in the remaining end. Screwed into the opening *a*, is the feed pipe *a′*, which supplies water to the machine, as will more fully appear hereinafter.

Located within the body A, is a water break B, which is of a diameter less than the inner diameter of the body, so that a small circular space B′, is left between the periphery of the water break and the inner side of the body, the former being held in place by means of set screws *b*, passing through the side of the body and bearing against the water break. The latter device is cylindro-conical in shape and arranged with its apex in axial coincidence with the mouth of the feed pipe *a′*, while its cylindrical sides lie parallel with the sides of the body. By this means the water from the pipe *a′*, when it strikes the inclined sides of the break B, is divided and made to flow around the latter and between its cylindrical sides and the inner sides of the body.

The letter C, indicates a revoluble shaft or spindle journaled at its inner end in the base portion of the break B, and at its outer end in the forwardly projecting arms C′. This spindle or shaft is provided with any suitable means whereby it may be prevented from becoming disarranged or moved out of position.

Secured rigidly to the shaft C, and with its inner face lying flush with the base of the water break B, is the wheel D, which is of a diameter equal to that of the inner side of the body A, and has a broadened or extended periphery. Formed on such periphery are the vanes or wings E, which are of a lateral extent equal to the distance from the cylindrical sides of the water break B, to the inner sides of the body, and which are so disposed in relation to the periphery of the wheel B, that their longitudinal extent is at an angle of about forty-five degrees from the axis of the wheel D, so that when the water passing around the cylindrical sides of the water break B, engages them it will, by its direct action, force the wheel D, and consequently its shaft C, to revolve from right to left, or from left to right according to the disposition of the vanes. The latter disposition is of course immaterial, all that is essential to the operation of the invention is that the vanes or wings E, should be arranged out of parallel with the axis of the wheel D.

Secured to the forward extremity of the shaft C, beyond the arms C′, is the brush or cleaner F, which is fixed to the shaft by any preferred means, and which may be of any form suited to the purpose. I have here shown a cleaner or brush constructed of woven wire having secured between its meshes fibrous material and believe this form of brush best adapted to the purpose in hand, viz., cleaning vehicles.

When the water from the pipe a' passes into the body A, and engages the inclined sides of the water break B, it is, as before described, divided so as to flow around the perpendicular portion of the break, and when so divided it engages the vanes E, of the wheel D. This is followed by a revolution of the wheel D, and shaft C, at a speed commensurate with the force or pressure attending the water in the pipe A, and a consequent revolution of the brush F. After the water has passed the wheel D, it continues along the body A, until its mouth is reached. Here it passes out and is thrown against the surface being cleaned and the brush F, thus furnishing the brush with the water requisite to effect or to assist the cleaning operation. In use the device is held in the operator's hands and the pipe a' connected with a suitable source of water supply. It is, of course, necessary that this water be under pressure, though the extent of such is immaterial and may be varied at will and as the exigencies of the occasion will require.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

A washing or scrubbing apparatus comprising a hollow casing or body provided with inlet and outlet orifices, a tapering water break arranged therein and with its apex nearest to the inlet orifice so that the water upon entering the body or casing will engage the point of said water break and pass around its sides, a revoluble shaft arranged longitudinally in the body and having one end projecting outside thereof, a wheel fixed to the shaft adjacent to the base of the water break and having on its periphery a series of vanes or wings disposed out of parallel with the axis of the shaft, whereby when the water passing around the break engages said vanes the wheel and its shaft will be rotated, and a brush or cleaner on the shaft, substantially as described.

CHARLIE AUGUST PALMQUIST.

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