

1,297,567.

FIG. 1

FIG. 2

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By Substantive Ways  
allays

# UNITED STATES PATENT OFFICE.

JAMES PIERSON JOHNSON, OF TORONTO, ONTARIO, CANADA.

## AUTOMOBILE-WASHER.

1,297,567.

Specification of Letters Patent.

Patented Mar. 18, 1919.

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*To all whom it may concern:*

Be it known that I, JAMES PIERSON JOHNSON, of the city of Toronto, in the county of York, in the Province of Ontario, Canada, have invented certain new and useful Improvements in Automobile-Washers, of which the following is the specification.

My invention relates to improvements in automobile washers and the object of the invention is to devise a washer particularly adapted for cleaning the wheels, spokes and similar parts of an automobile and which will be simple and cheaply constructed and quickly operated and it consists essentially of a tubular handle, to one end of which the water supply is connected, a cross head carried by the opposite end of the handle, a pair of brushes carried by the cross head, one at each end, and extending parallel with and to each side of the longitudinal axis of the handle and means for feeding a stream of water from the tubular handle to between the brushes and streams of water extending around the outside of the brushes as hereinafter more particularly explained by the following specification.

Figure 1, is a general perspective view of my washer.

Fig. 2, is a longitudinal sectional view through the major portion of my washer showing the brushes in full and a spoke portion inserted between the brushes.

Fig. 3 is a sectional plan view looking at the cross head.

Fig. 4, is a sectional view on line *x-y* Fig. 3.

In the drawings like characters of reference indicate corresponding parts in the various figures.

1 indicates a tubular handle which is divided into two portions 1<sup>x</sup> and 1'. 2 indicates a flexible water supply pipe which is connected to one end of the tubular handle 1 by a control cock 2<sup>x</sup>. Intermediately of the length of the handle portion 1<sup>x</sup> are formed a series of perforations 1<sup>2</sup>. 3 indicates an annular casing forming an annular chamber surrounding that portion of the tubular handle 1<sup>x</sup> containing the perforations 1<sup>2</sup>. The outer face of the casing 3 in proximity to its edge is slightly inclined inwardly toward the outer edge of the casing, such inclined portion being provided with perforations 3<sup>x</sup> adapted to throw an annular series of streams of water di-

verging slightly outward as they pass toward the end of the handle. The handle portion 1<sup>x</sup> in proximity to its outer end is provided with an annular flange 1<sup>3</sup>, the extreme end of the portion 1<sup>x</sup> at the outside of the annular flange 1<sup>3</sup> being tapered inwardly. The opposing end of the handle portion 1' is provided with an internally tapered portion which fits around the exterior tapered portion at the end of the handle portion 1<sup>x</sup>.

1<sup>5</sup> indicates an annular washer fitting upon the annular flange 1<sup>3</sup> and against which the opposing end of the handle portion 1' bears. 1<sup>6</sup> indicate lugs extending from the handle portion 1'. 1' indicate links pivoted to the lugs 1<sup>6</sup> and provided at their opposite ends with inturned ends 1<sup>8</sup> extending around the edge of the flange 1<sup>3</sup>. 1<sup>9</sup> indicate levers pivotally mounted upon the inturned ends of the links 1<sup>8</sup> and provided with jawed ends 1<sup>10</sup> adapted to grip the edge of the annular flange 1<sup>3</sup>.

When it is designed to engage the handle portion 1' with the handle portion 1<sup>x</sup> the tapered ends thereof are passed one over the other and the levers turned into a position substantially at right angles to the tubular handle in engagement with the edge of the flange 1<sup>3</sup>. They are then thrown inwardly against the handle portion 1' thereby drawing the handle portion 1' and 1<sup>x</sup> together into a tight position against the washer 1<sup>5</sup>. The outer end of the handle portion 1' is provided with a closure 1<sup>11</sup> provided with a central perforation 1<sup>12</sup> through which a stream of water is designed to pass.

4 indicates a cross head carried by the outer end of the handle portion 1', the arms of the cross head being provided with orifices 4<sup>x</sup> and 4', each provided with diametrically opposing recesses 4<sup>2</sup> and 4<sup>3</sup>. 5 and 6 indicate brushes provided with shanks 5<sup>x</sup> and 6<sup>x</sup>. The outer ends of the shanks are provided with annular shoulders 5' and 6' from which extend threaded stems 5<sup>2</sup> and 6<sup>2</sup> which pass freely through the orifices 4<sup>x</sup> and 4', the shoulders 5' and 6' bearing against the outer face of the cross head and the opposite ends of the stems projecting beyond the opposite face of the cross head. 5<sup>3</sup> and 6<sup>3</sup> indicate nuts which are screwed on to the projecting ends of the stems 5<sup>2</sup> and 6<sup>2</sup>. By this means the stems

are secured rigidly in position, any turning movement being prevented by a projection 5<sup>4</sup> extending from each of the stems 5<sup>2</sup> and 6<sup>2</sup> so as to fit into one of the recesses 4<sup>2</sup> or 5<sup>4</sup>. The opposite recess is provided so that the brushes 5 and 6 may be interchanged in such a way that the opposite outer faces of the brushes may be brought into an adjacent position when the face that is in use has become worn.

7 indicates a soap pump, which is secured by any suitable means to the handle portion 1<sup>x</sup>, the nozzle of the pump being provided with a closing cock 7<sup>x</sup> and an extension tube 7<sup>7</sup> passing into the interior of the tubular handle 1 and passing longitudinally thereof as indicated by dotted lines in Fig. 1 and full lines in Fig. 2. By this means the soap, when fed to my device, is carried through the casing 3 and is not fed so as to mingle with the water until well past this casing so that only clear water passes through the perforations 3<sup>x</sup> of the casing, the soapy water being fed through the perforation 1<sup>12</sup> directly on to the spoke being cleaned.

In Fig. 2, I have indicated a spoke at 8. If it is only desired to use the exterior perforations a closing plug 9 may be provided as indicated by dotted lines in Fig. 2, fitting into the end of the tubular handle portion 1<sup>x</sup>. Also if desired the tubular portion 1<sup>1</sup> may be disengaged from the tubular portion 1<sup>x</sup> by throwing out the levers 1<sup>9</sup> and the tubular member corresponding to the tubular member 1<sup>1</sup> provided with a single brush may be inserted in place when it is desired to clean the ordinary parts of an automobile.

When using my device for cleaning the spokes the spoke is inserted between the brushes 5 and 6 as clearly indicated in Fig. 2, the stream of water provided with the necessary amount of soap being directed against the spoke, the brushes being moved back and forth during this operation. Of course, immediately after the soap is supplied to the interior of the handle the cock 7<sup>x</sup> is closed so as to prevent the pressure of water passing back into the pump.

Although I have shown brush members it will, of course, be understood that other cleaning devices might be employed, such as mops arranged in pairs and held in a similar manner.

From this description it will be seen that I have devised a very simple device particularly adapted for cleaning spokes and

other similar members where it is convenient to clean both sides of such members at the same time and such as will be cheap to construct, easily operated and can be readily adapted for cleaning any part of an automobile.

What I claim as my invention is:

1. An automobile washer comprising a tubular handle member, to one end of which a water supply is adapted to be connected, a cross head carried by the opposite end, and cleaning members extending from each end of the cross head in a direction parallel to and at each side of the longitudinal axis of the tubular member with a space between permitting the embracing of parts to be cleaned.

2. An automobile washer comprising a tubular handle member, to one end of which a water supply is adapted to be connected, a cross head carried by the opposite end, cleaning members extending from each end of the cross head in a direction parallel to and at each side of the longitudinal axis of the tubular member, and a closure for the outer end of the tubular handle having a perforation adapted to feed a stream of water between the cleaning members.

3. An automobile washer comprising a tubular handle member, to one end of which a water supply is adapted to be connected, a cross head carried by the opposite end, cleaning members extending from each end of the cross head in a direction parallel to and at each side of the longitudinal axis of the tubular member, a closure for the outer end of the tubular handle having a perforation adapted to feed a stream of water between the cleaning members; and means for feeding an annular series of streams around the outside of the cleaning members.

4. An automobile washer comprising a tubular handle member, to one end of which a water supply is adapted to be connected, a cross head carried by the opposite end, cleaning members extending from each end of the cross head in a direction parallel to and at each side of the longitudinal axis of the tubular member, and means for feeding an annular series of streams around the outside of the cleaning members.

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Witnesses:

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