Nov. 11, 1924. 1,515,494

W. B. KNOX

FOUNTAIN MOP OR SWAB

Filed May 5, 1923

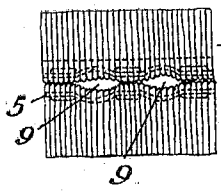


FIG. 9.

FIG. 1.

FIG. 10.

FIG. 2.

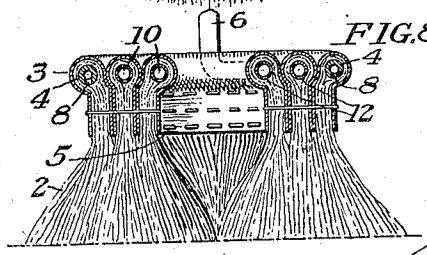


FIG. 8.

FIG. 3.

FIG. 4.

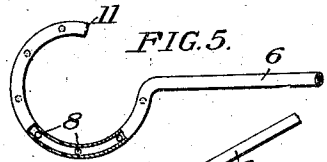


FIG. 5.

FIG. 6.

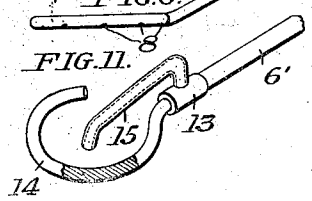


FIG. 11.

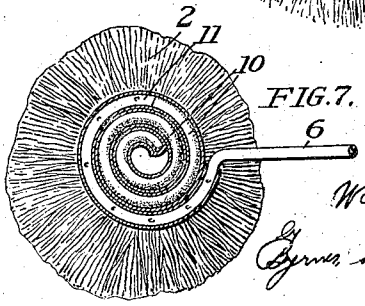


FIG. 7.

INVENTOR

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UNITED STATES PATENT OFFICE.

WALTER B. KNOX, OF PITTSBURGH, PENNSYLVANIA.

FOUNTAIN MOP OR SWAB.

Application filed May 5, 1923. Serial No. 636,895.

To all whom it may concern:

Be it known that I, WALTER B. KNOX, a citizen of the United States, residing at Pittsburgh, Allegheny County, Pennsylvania, have invented a new and useful Improvement in Fountain Mops or Swabs, of which the following is a full, clear, and exact description.

The present invention relates broadly to mops and more particularly to fountain mops or swabs especially adapted for use in the cleaning of automotive vehicles.

Considerable difficulty is frequently encountered by the average automobile owner in attempting to thoroughly wash his car. This is due not only to the splashing of the water, but to the inaccessibility of certain of the parts and the likelihood of scratching. This invention is directed to a fountain mop or swab adapted to be expeditiously attached to an operating handle thereby permitting different heads to be quickly attached to a given handle for use on different parts of the car, such as the body and chassis or running gear. At the same time, the body of the head and the water supply thereto cooperate to prevent undue splashing and insure loosening of accumulated dirt and removal thereof without scratching.

In the accompanying drawings, there are shown for the purposes of illustration only certain preferred embodiments of the present invention, it being understood that the drawings do not define the limits of my invention and that changes may be made in the construction and operation illustrated without departing from the spirit of the invention or scope of my broader claims.

In the drawing:

Figure 1 is a perspective view of one form of mop constructed in accordance with this invention;

Figure 2 is a perspective view of the mop head removed from the handle;

Figure 3 is a perspective view of the handle itself;

Figure 4 is a top plan view of the construction illustrated in Figure 1, the handle being illustrated in dotted lines, in position within the mop head;

Figures 5 and 6 are detail views of the head-engaging portion of the handle; Figure 6 having the angularity of the handle;

Figure 7 is a view similar to Figure 4, illustrating a slightly modified construction.

Figure 8 is a transverse sectional view on the line VIII—VIII of Figure 4;

Figure 9 is a detail view on an enlarged scale illustrating a portion of the mop head construction;

Figure 10 is a view similar to Figure 3, illustrating a modified form of handle: and

Figure 11 is a view similar to Figure 10 illustrating still another form of handle.

In carrying out the present invention, there is provided a mop head 2, of a construction comprising a selvage or edge 3, having a passage 4 extending longitudinally therethrough and provided with a plurality of threads or strings of cotton or other material 5, arranged in substantially regular formation. This head may conveniently be constructed in strip form which is wound upon itself to provide a plurality of closely adjacent convolutions. These convolutions are then secured in postion, whereby the head constitutes a self-sustaining unit adapted to be removed or applied when either wet or dry, as will be hereinafter more fully apparent.

As illustrated in Figures 1 to 6, the handle for use with the head may conveniently comprise a tube or pipe 6, having a coupling member 7 at one end adapted to be connected with a hose or other source of water supply. The opposite end of the handle is bent into generally hook shape, to constitute a head-engaging portion for the mop. The head-engaging portion may be provided with a series of perforations 8, adapted to uniformly deliver to the portion of the mop head engaged thereby a supply of cleaning water.

In order to facilitate the escape of water from the selvage 3, this selvage is preferably so stitched or secured as to provide on its under surface between the strings 5 a series of spaced openings 9. It will be apparent that as these openings 9 are entirely enclosed by the mop head, the splashing of water is prevented. At the same time, the water is directly delivered to the point of use with sufficient force and in sufficient amount to effectively remove any foreign material without scratching the finish of the vehicle.

In certain instances, it may be desirable to deliver the cleaning water throughout substantially the entire length of the longitudinally extending passage 4. It will be apparent that it is not feasible to form the head-engaging portion of the handle of such length that it will, when in position within the head, be substantially coextensive with the length of the passage. Such a construction would make it extremely difficult to apply and remove the head. To overcome this difficulty, the head may be formed with a supplemental tube 10 of sufficient length to extend through the longitudinal passage in the inner convolutions and to receive the end 11 of the head-engaging portion of the handle. This tube 10 may be of any desired material and may conveniently be formed with openings 12 similar to the openings 8, insuring uniform distribution of the water.

With the construction described, it will be apparent that in order to apply the head 2 to the handle, it is only necessary to grip the same in one hand, grip the handle in the other hand, and then move the head-engaging portion of the handle into the passage by producing a relative turning movement between the head and handle similar to that required for performing a nut-applying operation to a screw-thread.

By making the length of the head-engaging portion slightly greater than one-half the peripheral length of the outer convolution of the mop head, the head is firmly secured in position against any accidental removal, while at the same time, easy removal thereof when the head is either wet or dry is made possible.

In Figure 10, there is illustrated a slightly modified form of construction in which the handle 6′ is provided at its lower end with a coupling 13, carrying both a head-engaging portion 14, which may or may not be perforated, as desired, and a supplemental water supply 15. This water supply 15 may be so arranged as to deliver water directly into the central opening 16 of the mop head.

In Figure 11, the coupling 13 is shown as provided with a nozzle 15, and with a solid rod or wire 14′, adapted to engage a portion of the longitudinal passage in the mop head. In this construction, the entire supply of water is delivered through the nozzle 15 and the wire 14′ serves merely as a supporting and sustaining member for the mop.

The advantages of the present invention arise from the provision of an improved form of mop head of unit construction secured in such manner as to provide a series of spirally extending convolutions forming a compact self-sustaining head and facilitating application and removal thereof from a suitably shaped handle.

Further advantages arise from the provision of a handle adapted to be quickly threaded into position in the head or removed therefrom and having means for delivering a supply of cleaning water directly to the point of use.

Still other advantages arise from the provision of a compact head of this character adapted to be quickly removed or applied, whether wet or dry, and having sufficient body not only to serve effectively for the removal of foreign material from the vehicle, but also to prevent any undue splashing and consequent soiling of clothes or interference with surroundings or passersby. The water pressure efficiently removes all dirt and grit from the mop strands, thereby preventing any scratching and also increasing the period of usefulness of the mop.

I claim:

1. In a mop, a head comprising a flexible body having a tubular passage therethrough, said body being wound upon itself to form a plurality of closely adjacent convolutions firmly secured in spiral formation, and a handle having a head-engaging portion of less length than said passage adapted to slide into said passage by a relative turning movement of the head and handle, substantially as described.

2. In a fountain mop, a head comprising a flexible body having a tubular passage therethrough provided with a plurality of escape openings, said body being wound upon itself to form a series of closely adjacent convolutions firmly secured in spiral formation, and a tubular handle having a head-engaging portion adapted to be inserted into said passage by a relative turning movement of the head and handle, for delivering water to said openings, substantially as described.

3. In a fountain mop, a head comprising a flexible body having a tubular passage therethrough, a conducting tube permanently secured in a portion of said passage, said body being wound upon itself to form a plurality of closely adjacent convolutions firmly secured in spiral formation, and a tubular handle having a head-engaging portion adapted to slide into said passage by a relative turning movement of the head and handle, the end of said head-engaging portion cooperating with said tube to deliver water thereto, substantially as described.

4. In a fountain mop, a head comprising a flexible body having a tubular passage therethrough and having a plurality of closely arranged cleaning strands, said body being wound upon itself to form a plurality of closely adjacent convolutions firmly secured in spiral formation, and a tubular handle having a head-engaging portion of materially less length than the length of said passage adapted to slide into said passage by a relative turning movement of the head

and handle, said head-engaging portion having a series of water-delivery openings formed therein, substantially as described.

5. In a fountain mop, a compact head comprising a body of cleaning material wound and secured upon itself to form a series of closely adjacent convolutions, said body having a passage through at least a portion thereof, and a tubular handle having a perforated head-engaging portion adapted to be operatively engaged with said body by a relative turning movement of the head and handle, substantially as described.

In testimony whereof I have hereunto set my hand.

WALTER B. KNOX.