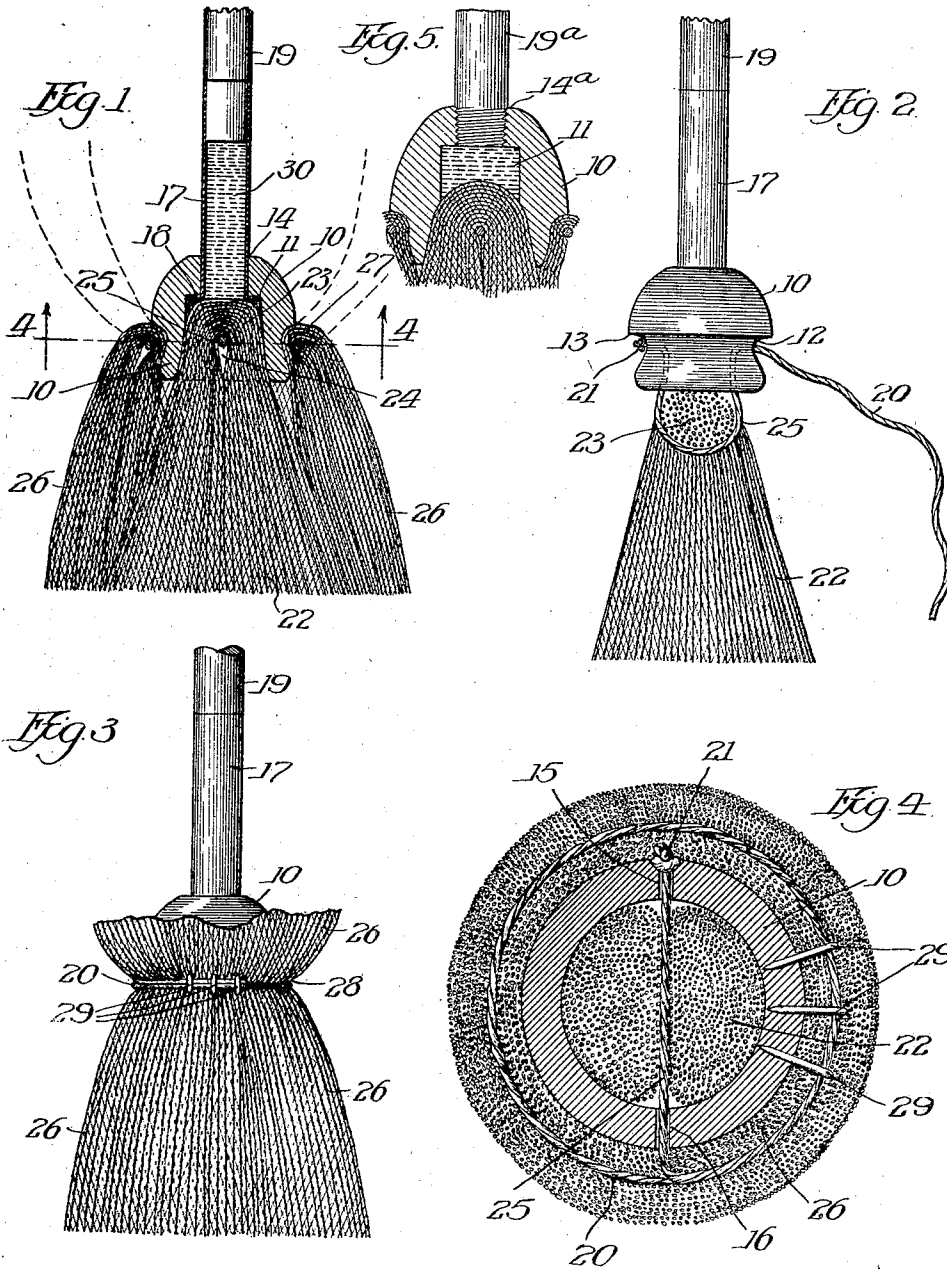


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MOP.

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UNITED STATES PATENT OFFICE.

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MOP.

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To all whom it may concern:

Be it known that I, PERRY G. DAVIS, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Mops, of which the following is a specification.

My invention relates to mops, and particularly to mops of that type employed in the oiling of floors, the primary object of the invention being the provision of a compact, simple and efficient self-oiling or fountain mop, wherein the fabric is automatically kept supplied with oil to compensate for that used by the transference to the floor, by evaporation and otherwise, whereby to maintain a uniform degree of saturation.

A further object is the provision of a mop of the said character wherein there are no projecting hard portions calculated to injure, by contact, furniture and the like.

Another object attained by me is an improved mop wherein the mop fabric is so assembled and held as to present a uniform and compact operative portion securely held against disarrangement and effective for use during a long period of time.

A further important and distinctive feature of the invention is that the mop fabric is so mounted that the oil or other liquid is applied directly to and through the inner fibers by capillary action and indirectly only by lateral contact to the outer fibers as distinguished from the ordinary dip mop in which the exterior disadvantageously receives the oil directly and in greater quantity than the interior.

The invention as thus outlined will be readily understood from the following detailed description, based upon the accompanying drawings, wherein is illustrated a preferred embodiment of the same.

In these drawings:—Figure 1 is a vertical section through the mop; Fig. 2 is an elevation, partly in section, illustrating one step in the assembling of the mop; Fig. 3 is an elevation illustrating the last step; Fig. 4 is a horizontal section on the line 4—4 of Fig. 1, and Fig. 5 is a fragmentary section of a modified form of mop.

In the drawings, wherein similar reference numerals are used to indicate corresponding parts throughout, the numeral 10 designates a bell-like head, preferably formed of wood, having an interior cavity 11, and an exterior annular groove 12 formed with an overhang-

ing shoulder 13. The head is provided with an axial bore 14 and with transversely arranged, alined openings 15 and 16. Within the axial bore 14 is permanently fixed a tubular member 17 having its lower end at 18 outwardly flanged to engage beneath the top of the head within the cavity. This tubular member is adapted to and does serve as a ferrule for the reception of the mop handle 19, which latter is removably seated within said ferrule, while the interior of the tubular member is in open communication with the cavity 11 within the head, for a purpose to be hereinafter described. A cord 20 is threaded through the transverse openings 15 and 16, one end being fixed with reference to the wall of the head by being knotted at 21 so as to prevent its passage through the opening 15. The cord is of such length as to extend for a considerable distance beyond and to project from the opposite opening 16.

The operative portion of the mop may consist of cord, yarn or other appropriate fabric, and is assembled with reference to the head by folding a certain portion 22 of the fabric upon itself at 23, and through the bight 24 of this fold is passed that portion 25 of the cord which is within the head, as shown in Fig. 2. Tension applied to the cord 20 serves, as will be obvious, to draw the fabric 22 into the cavity of the head to the position shown in Fig. 1, the portion 25 of the cord then extending directly across the cavity 11 in line with the openings 15 and 16, whereby it will be seen that the fabric 22 is securely held within the head.

The mop as thus far described is to a certain extent adapted for use upon the winding of the cord about the groove and the securing of the free end of the same. I prefer, however, to employ additional fabric 26, which is likewise bent upon itself, as shown at 27, and arranged about the outer portion of the head with the bight 28 in substantially the plane of the groove 12. The projecting portion 20 of the cord is then wound tightly about the head within the bight of the outer fabric so as to confine the same at this point firmly within the groove beneath the overhanging shoulder 13, and the end of the cord is then secured by staples 29 driven into the head, as shown in Fig. 3. The outer fold of the fabric is then permitted to drop, as shown in Fig. 1, and all of the fabric is then trimmed to present a substantially uniform

lower edge. The mop thus completed is adapted to receive within the hollow ferrule 17 a supply of oil 30, which flows into the interior cavity or reservoir 11 and is absorbed by the upper fold of the fabric 22, and by capillary action distributed through the inner and outer fabric portions 22 and 26. The compact disposition of the fabric within the head is such as to prevent the escape of the oil therefrom otherwise than by capillary action, so that the oil will not flow from the reservoir formed by the cavity 11 and the ferrule 17 faster than is necessary to compensate for that transferred to the floor or lost by evaporation. As the supply of oil in the ferrule 17 becomes exhausted, it may be readily replenished by removing the handle 19, thus affording access to the interior from above.

The manner of securing the fabric within the head is such that there is no possibility of the strands becoming loosened, and the mop may be used until the fabric is worn away substantially to the head itself, while the arrangement of the fabric portion 26 exterior to the head prevents injury to furniture and the like by the head coming in contact therewith.

In Fig. 5 I have shown a slightly modified form of mop in which the operation is the same but which differs in certain structural particulars from that shown and described with reference to Figs. 1 to 4. In this form, the head 10 has its axial bore 14^a interiorly screw threaded to receive the correspondingly exteriorly threaded lower end of the handle 19^a, the ferrule 17 being omitted. In this embodiment of the invention the oil is introduced directly into the reservoir formed by the cavity 11 through the bore 14^a when the handle 19^a is removed.

It will be obvious that other changes in details of construction may be resorted to without departing from the invention as herein set out, and it should be understood that my invention is not limited to the particular forms of construction illustrated and described.

I claim—

1. In a mop, a bell-like head, a cord secured at one end to the one wall of the head and extending thence across the head and through the opposite wall to the exterior, mop fabric folded intermediate its length over the cord and thereby drawn into and confined at the fold within the head cavity to compactly fill the lower open end of the same, and an oil fountain comprising a tubular member extending axially from above through the top of the head into open communication with the inner cavity above the fabric, substantially as described.

2. In a mop, a bell-like head, mop fabric folded upon itself intermediate its length and having the folded portion disposed

within the cavity of the head and the end portions depending therefrom to compactly fill the lower open mouth of the same, a cord secured at one end to one wall of the head and extending through the bight of the folded fabric across the cavity and out through the opposite wall, other fabric folded upon itself and disposed about the periphery of the head with the fold in substantially a horizontal plane including the point of emergence of the cord, the terminal portion of the cord wound tightly about the head within the bight of the fold to bind the fabric about the exterior lower portion of the head and secured at its ends to the head, substantially as described.

3. In a mop, a bell-like head, mop fabric folded upon itself intermediate its length and having the folded portion disposed within the cavity of the head and the end portions depending therefrom to compactly fill the lower open mouth of the same, a cord secured at one end to one wall of the head and extending through the bight of the folded fabric across the cavity and out through the opposite wall, other fabric folded upon itself and disposed about the periphery of the head with the fold in substantially a horizontal plane including the point of emergence of the cord, the terminal portion of the cord wound tightly about the head within the bight of the fold to bind the fabric about the exterior lower portion of the head and secured at its ends to the head, and an oil fountain comprising a tubular member extending axially from above through the head into open communication with the interior above the fabric, substantially as described.

4. In a mop, a bell-like head having an axial opening through its top and an exterior annular groove with an overhanging shoulder, mop fabric folded upon itself intermediate its length and having the folded portion disposed within the cavity of the head and the end portions depending therefrom to compactly fill the lower open mouth of the same, a cord extending through the two walls of the head within the bight of the folded fabric and bridging the cavity, one end of the cord secured by a knot formed thereon and bearing within the groove against the outer wall and the other end portion projecting through the opposite wall in the bottom of the groove, other fabric arranged about the head and folded upon itself with the fold in the horizontal plane of the groove, the projecting portion of the cord wound tightly about the head within the bight of the fold to bind the fabric at the fold within the groove beneath the overhanging shoulder, and means to secure the end of the cord to the head, substantially as described.

5. In a mop, a head provided with an

inner cavity and a lower open mouth, the head provided with an oil supply passage to the cavity, and mop fabric comprising a bundle of fibers arranged in substantially parallel relation below the head, the inner portion of the fabric disposed in open communication with the mouth of the head, and the outer portion of the fabric disposed about and enveloping the inner mop portion and depending below the head outside of and in lateral contact with the inner fabric portion, whereby oil is fed to and through the inner fabric portion directly by capillary action, and to the outer fabric portion by lateral contact to produce a fibrous mop having a fountain-supplied center shading off to a comparatively dry periphery, substantially as described.

6. In a mop, a head provided with an inner cavity and a lower open mouth, the head provided with an oil supply passage to

the cavity, and mop fabric comprising a bundle of fibers arranged in substantially parallel relation below the head, the inner portion of the fabric disposed in open communication with the mouth of the head, and the outer portion of the fabric disposed about and enveloping the periphery of the head and depending below the same outside of and in lateral contact with the inner fabric portion, whereby oil is fed to and through the inner fabric portion directly by capillary action, and to the outer fabric portion only by lateral contact to produce a fibrous mop having a fountain-supplied center shading off to a comparatively dry periphery, substantially as described.

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