

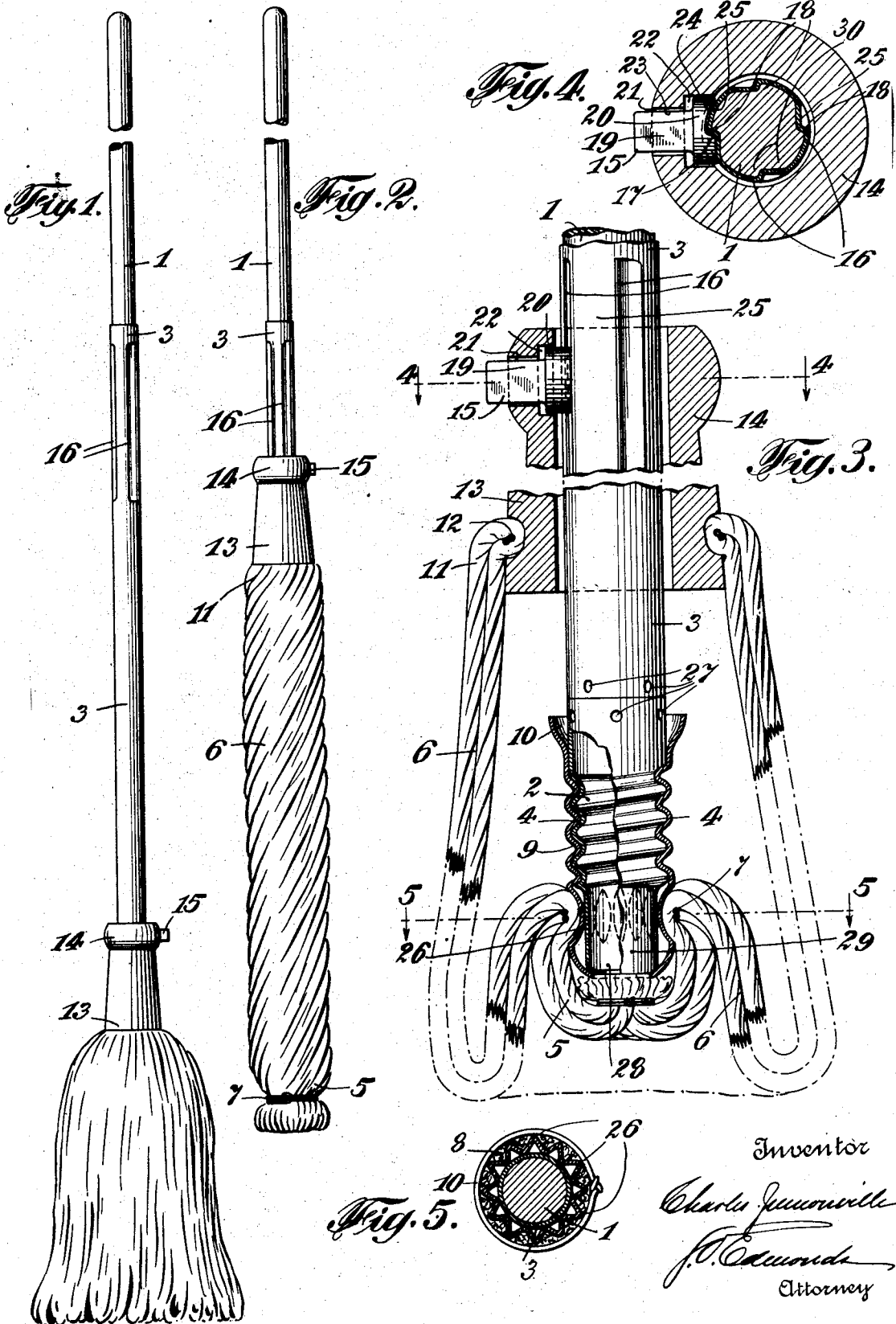
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MOP

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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, CHARLES JUMONVILLE, a citizen of the United States, residing in the city of New Orleans, in the parish of Orleans, State of Louisiana, have invented certain new and useful Improvements in Mops, of which the following is a specification.

This invention relates to mops, and more particularly to mops which may be wrung out by twisting the mop strands about the mop handle.

The aim of my invention is to provide a mop which improves upon prior mop constructions, and to provide a mop which is simple and durable in construction, and to provide a mop which may, with a minimum amount of effort and exertion, be used, wrung out, relieved of mop strands, and replenished with other mop strands. Another object of my invention is to provide a mop having means for automatically holding the mop strands twisted about the handle, which means are simple in construction and may quickly and easily be operated to hold the strands in, or to release the strands from such position. A further object of my invention is to provide an improved socket which holds the mop strands against slipping. Other objects of my invention will be in part obvious and in part pointed out hereinafter:

My invention accordingly consists in the features of construction, combination of elements and arrangement of parts which will be exemplified in the construction hereinafter set forth and the scope of the application of which will be indicated in the following claims.

In order that a clearer understanding of my invention may be had, attention is hereby directed to the accompanying drawings, forming a part of this application, and illustrating one possible embodiment of this invention. Referring to the drawings, Fig. 1 is an elevation of a side of a mop embodying my invention in position for use; Fig. 2 is a view similar to Fig. 1 showing the mop strands locked in twisted position about the handle; Fig. 3 is a central vertical section through the lower elements of the mop, certain parts being broken away to more clearly bring out the details of the construc-

tion; Fig. 4 is a horizontal sectional view taken on the line 4—4 of Fig. 3; and Fig. 5 is a horizontal sectional view taken on the line 5—5 of Fig. 3. Similar reference characters refer to similar parts throughout the several views of the drawings.

Referring to the drawings, the mop handle comprises a rod 1, of wood, or other suitable material, having a threaded portion 2 adjacent its lower end. Surrounding the lower portion of rod 1 is a metallic sleeve 3 which has threads 4 engaging threads 2 of the rod. The lower ends 5 of mop strands 6 are bound by wire 7 upon a socket 8, which has interior threads 9 whereby the socket and strands may be attached, securely but removably, to the threads at the lower end of the handle 1 and sleeve 3, and at its upper end has an annular flare 10. The other ends 11 of strands 6 are bound by encircling wire 12 about a sleeve 13 which is mounted about handle 1 and sleeve 3 for turning and sliding thereon, sleeve 13 having an extension 14 adapted to be grasped by the hand. The construction so far described is similar to the construction disclosed in my prior application, Serial No. 521,214, filed December 9, 1921.

My present construction improves upon said construction by providing mechanical means for holding the mop strands extended along and twisted about the handle, thereby avoiding the continued manual exertion heretofore necessary in holding the strands so extended and twisted during the continuance of the wringing operation, and in addition providing means for placing the mop in more convenient and sanitary shape for storage and transportation.

As one possible means to this end I provide a ratchet button 15 on sleeve 13 and a cooperating ratchet or ratchets 16 on sleeve 3. The inner end of button 15 provides a shoulder 17 adapted to engage the shoulder 18 of one of the ratchets 16 to prevent the turning of the sleeve 13 about the handle 1, and there is sufficient frictional engagement between the button 15 and ratchet 16 laterally to prevent sleeve 13 from sliding down the handle 1. Button 15 has a square portion 19 and an annular extended portion 20, and is mounted for radial reciprocation in a hole 21 in sleeve 13,

which hole is shaped similarly to the button, having an annular portion 22 and a square portion 23 which is too small to permit the button portion 20 to pass therethrough.

5 Thus the button 15 is held in the hole 21 against turning and against falling out when the handle 1 extends through sleeve 13. To wring out the mop, extension 14 of sleeve 13 is grasped in the hand and pulled

10 upwardly along handle 1, thus extending the attached mop strands therealong. The ratchets 16 on sleeve 3 are so disposed as to be engaged by the button 15 when sleeve 13 is in this position. Sleeve 13 is now turned

15 about handle 1 and simultaneously inward pressure is applied by hand to button 15, thus twisting the mop strands. When the mop strands, by means of such twisting, are brought under sufficient wringing tension, instead of continuing to hold the sleeve

20 manually to hold the mop strands against becoming untwisted and to maintain a wringing effect, as has heretofore been customary, the operator's hand may be withdrawn entirely, since the cooperation between ratchets 16 and button 15 serves to hold the sleeve 13 against reverse turning on handle 1 and thus serves to maintain the strands twisted about handle 1 and under

30 wringing tension. As before noted, in mops of this character heretofore constructed, the mop strands normally and automatically bunch at the lower end of the mop when held in vertical position and unless prevented by manual operation, and the mop strands are so bunched whenever the mop is laid aside or transported. By reason of my improved means above described for mechanically holding the mop strands extended along and twisted about the mop

40 handle, I am able to place my mop in much more convenient and sanitary shape whenever it is desired to transport or place the same aside.

45 The outer surface of button 15 adjacent shoulder 17 is preferably tapered outwardly, as at 24, and is adapted to be engaged by the tapering surfaces 25 of the ratchet 16, so that when no inward pressure is exerted upon button 15, the turning of the sleeve

50 13 in twisting direction about handle 1 throws button 15 outwardly and allows the sleeve 13 to be turned in untwisting direction on handle 1, and also to slide downward thereon so long as no inward pressure is applied to button 15. The button 15 and ratchet 16 cooperate in the above described manner particularly well when the mop is held in vertical position. However, after

60 button 15 has engaged ratchet 16 under even moderate tension of the twisted mop strands, the mop may be freely moved about and placed in any position without the locking engagement between the ratchet button and

65 the ratchets becoming disrupted.

As another improvement upon prior mop constructions, I provide means upon the socket 8 for preventing mop strands attached to the socket from slipping or twisting thereon. To this end I V crimp or corrugate a portion of the outer periphery of the socket 8 longitudinally, as at 26. The lower ends of the mop strands are placed around the socket 8, where this crimping or corrugation is presented, and then the binding wire 7 is attached about the mop strands so as to bind them against these crimps or corrugations. These crimps and corrugations thus serve to hold the mop strands against slipping and turning on socket 8.

Sleeve 3, including the threaded portion for the ratchet portions 16 and the intermediate portion, may be provided by one or more separate pieces as desired. As shown in the drawings, sleeve 3 is made in two pieces, one piece including the ratchet 16 and intermediate portion, and the other piece constituting a ferrule providing the threaded end 4. These portions may be secured against sliding and rotation upon the handle 1 by means of nails or by indenting the metal, as at 27.

The interior threads 9 of the socket 8 may be arranged to extend only to the crimp portion 26. In this event the handle 1 may be provided with an extension 28 below its threads 2 adapted to seat within the socket 8 behind the crimp portion and to extend to the end of the socket. Sleeve 3 may likewise be provided with an extended portion 29 arranged to surround portion 28 of handle 1.

From the above, the construction and operation of the mop will be readily apparent.

In a mop embodying my invention, the quantity of material of the mop head bunched at the end of the handle makes it possible to clean a large amount of floor space in a little time; thus much time is saved as well as strength. A mop of this construction is as simple as the prior constructions and may be used without the operator touching the mop head with the hand. The operator may also at all times stand comfortably erect. The mop may be wrung by holding it in vertical position, securing the sleeve 13 in the left hand and rotating the handle to the right with the right hand while holding the socket stationary and pressing the ratchet button inwardly at the same time. To release the mop strands from extended and twisted position about the mop handle, no pressure is applied to the button and the sleeve only is held. By simply turning the mop handle to the right, the button releases itself, and the mop strands may be restored to untwisted position and bunched again at the end of the mop handle.

As many changes could be made in the above construction and many apparently 130

widely different embodiments of this invention could be made without departing from the scope thereof, it is intended that all matter contained in the above description or shown in the accompanying drawings shall be interpreted as illustrative and not in a limiting sense.

As an example of one such possible modification, it may be mentioned that the ratchets need not be supplied by a metal sleeve, but that the construction is operable when the exposed ratchets appear on handle 1, for instance when the ratcheted portions of handle 1 (Fig. 4) are not covered by sleeve 3 as shown.

What I claim is:—

1. The combination with a mop handle, a sleeve slidable and rotatable on said handle, and mop fabric attached at one end to an end of said handle and attached at the other end to said sleeve, of means, comprising a stationary ratchet surface on said handle and a coacting ratchet button movably mounted on said sleeve, for holding said sleeve against rotation about and against sliding along said handle when said mop fabric has been stretched along and twisted about said handle by relative movement between said sleeve and said handle, said ratchet surface presenting engaging shoulders extending longitudinally along said handle, and said button being movable radially on said sleeve into and out of engagement with said ratchet shoulders.

2. The combination with a mop handle, mop strands thereon, and manually operable means, including a sleeve slidable along and rotatable about said handle and engaging said strands, for extending said strands along and twisting said strands about said handle, and means, comprising an elongated ratchet surface on said handle and a coacting ratchet button movably mounted on said sleeve, for holding said sleeve against turning in untwisting direction on said handle when said strands have been twisted about said handle.

3. The combination with a mop handle, a sleeve slidable and rotatable on said handle, and mop fabric attached at opposite ends to said handle and sleeve, of a button slidably mounted in a radial perforation in the sleeve and protruding therefrom, said button and perforation having corresponding square portions whereby the button is prevented from turning in said sleeve, and said button having a portion inwardly of and larger than said square portions whereby movement of said button in said perforation is limited in an outward direction, and means, comprising coacting shoulders, one on the inner end of said button and another on the mop handle for releasably locking said sleeve against rotation about the handle in untwisting direction when the mop fabric is

stretched along and twisted about the handle due to manipulation of the sleeve thereon.

4. The combination with a mop handle, a sleeve slidable and rotatable on said handle, and mop fabric attached at opposite ends to said handle and sleeve, of a button slidably mounted in a radial perforation in the sleeve and protruding therefrom, said button and perforation having corresponding square portions whereby the button is prevented from turning in said sleeve, and said button having a portion inwardly of and larger than said square portions whereby movement of said button in said perforation is limited in an outward direction, and means, comprising coacting shoulders, one on the inner end of said button and another on the mop handle for releasably locking said sleeve against rotation about the handle in untwisting direction when the mop fabric is stretched along and twisted about the handle due to manipulation of the sleeve thereon, one of said shoulders being tapered, whereby relative rotation between said button and handle in twisting direction places said button outwardly in the perforation and permits subsequent rotation of the sleeve in untwisting direction.

5. The combination with a mop handle, a sleeve slidable and rotatable on said handle, and mop fabric attached at one end to an end of said handle and attached at the other end to said sleeve, a button loosely mounted in a radial perforation in said sleeve and having a shoulder at its inner end, a ratchet surface on the handle adjacent the shoulder of the button and adapted to coact therewith, the outer end of said button protruding from said perforation whereby the shoulder may be moved manually into coaction with said ratchet surface, and said ratchet surface and shoulder when coacting having a tapered engagement whereby relative rotative movement between said shoulder and ratchet places the shoulder and ratchet out of coacting relation.

6. The combination with a mop handle, a sleeve slidable and rotatable on the mop handle, and mop fabric attached at opposite ends to said handle and sleeve, of a shouldered surface on said handle, and a button carried on said sleeve for inward and outward movement thereon and having a shoulder engageable with the shouldered surface of the handle, said button having a manually engageable portion, the button when subjected to inward manual pressure interlocking with the mop handle preventing relative rotation in untwisting direction, and when released from manual pressure being movable out of engagement with the mop handle by relative rotative movement between the button and handle, to permit relative rotation in untwisting direction.

7. The combination with a mop handle 130

having a threaded extremity, and mop strands, of a socket comprising a single sheet of metal having portions bent into threads adapted to fit the threads on the extremity of the mop handle, and having portions bent radially outwardly forming projections positioned to engage said mop strands when bound upon the said socket, whereby said strands are held against slipping about said socket. 10

This specification signed this 26 day of July, 1922.

CHARLES JUMONVILLE.