

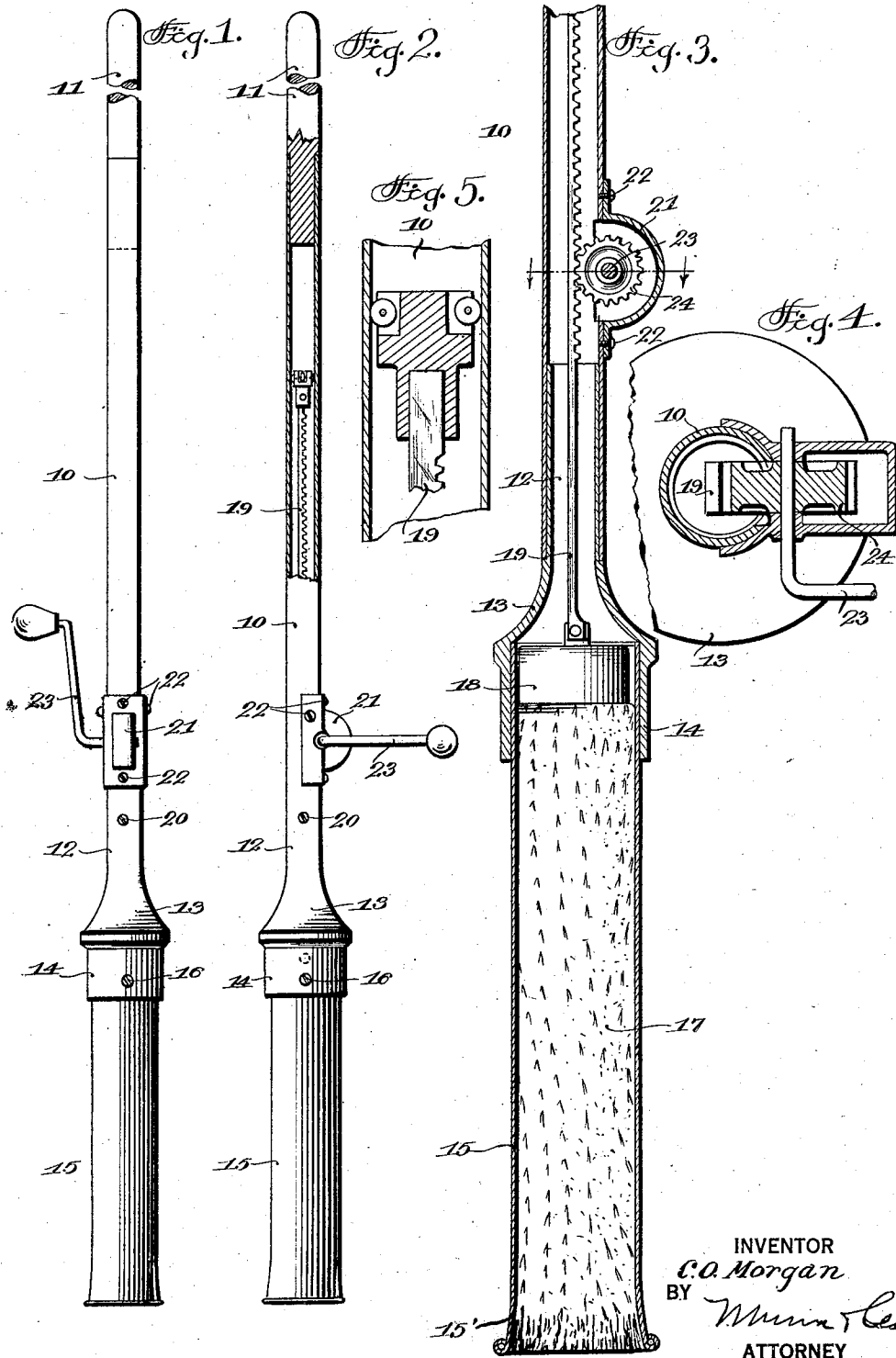
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## MOP

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This invention appertains to improvements in floor mops and the like generally, and has for an object to provide one of a comparatively simple and inexpensive, but durable and efficient construction and arrangement of its parts, and which embodies a means to eliminate all necessity for the hands of the user to come in contact with the water employed with the same in mopping and scrubbing operations at any time, or for any purpose whatsoever throughout such operations.

Another object of the invention is to provide a device of the class set forth, wherein a mechanical means is employed for squeezing or wringing water out from the mopping cloth or head of the device, and its operation is to be readily and easily accomplished without undue exertion on the part of the operator.

A further object of the invention is to provide a mop structure as hereinbefore characterized, which embodies the additional advantage that the mopping cloth or head may be kept housed against becoming unduly soiled, or otherwise unfit for immediate use during periods of non-use.

With the foregoing and other equally important objects and advantages in view, the invention resides in the certain new and useful combination, construction and arrangement of parts as will be hereinafter more fully described, set forth in the appended claims, and illustrated in the accompanying drawing, in which:

Figure 1 is a front elevation of a practical embodiment of the device,

Figure 2 is a side elevation of the same, partly in section,

Figure 3 is an enlarged fragmentary vertical section through the lower end portion thereof,

Figure 4 is a similar fragmentary horizontal section taken on the line 4-4 of Figure 3, and

Figure 5 is another enlarged fragmentary vertical section showing the guide device for the upper end of the rack member.

Referring to the drawing, wherein like characters of reference designate corresponding parts throughout the several views there-

of, the embodiment of the invention, as shown therein by way of example, is constituted in an intermediate tubular handle portion 10, preferably of metal, which has its upper end engaged over a solid extended portion 11, preferably of wood, and its lower end telescopically engaged over a shorter tubular portion 12, also of metal or alloy. This lower tubular portion 12 is preferably flared, as at 13, in an outward direction to merge into a relatively short hollow cylindrical portion 14. This portion 14 is, in turn, telescopically engaged over one end of a cylindrical portion 15, which merges into a flared portion 15' at its lower end and is secured in such engagement by means of a set screw or the like 16.

A mopping cloth or yarn hank 17 is attached to a cylindrical support or head 18, which is slidably mounted in the bore of the cylindrical portion 15. This head 18 is, in turn, attached to the lower end of an actuating member, which is preferably in the form of a rack bar 19, and extends upwardly within the tubular members 10 and 12.

Telescopically engaged portions of the tubular members 10 and 12 are secured together by means of a set screw or the like 20, and immediately above the engaged end of the member 12, the member 10 is formed to provide a vertically elongated opening or slot, which is enclosed by a semi-cylindrical housing 21 secured in position at the outer side of the member by means of screws or the like 22.

Journalled transversely in the opposite side walls of the housing 21 is a hand crank or the like 23, on the intermediate portion of which a gear 24 is keyed or otherwise secured. This gear operates through the slot in the member 10, and has its toothed periphery disposed in mesh with the teeth on the actuating member or rack bar 19, so that, when rotated with the hand crank 23, the latter will be raised and lowered within the members 10 and 12.

During the raising movement of the member or rack bar 19, the head 18 will be drawn upwardly to the inner end of the cylindrical portion 15, and the mopping cloth or yarn hank 17 entirely into the latter. To facili-

tate the movement of the mopping cloth or yarn hank 17 inwardly of the cylindrical portion 15, the lower end of the latter is slightly flared in an outward direction, as at 15'.

5 Mounted on the upper end of the actuating member or rack bar 19 is a guide member, which consists of a metal or alloy member 25 having a socket in its lower side to receive the upper end of the member or bar 19 therein, and a series of recesses spaced  
10 about its outer side to have rollers 26 journaled in the same. These rollers 26 are rotatable on horizontal axes, so as to have rolling contact with the inner side of the tubular member 10 during the raising and lowering  
15 movements of the member or rack bar 19.

In the use of the device, as thus constructed and arranged and with the actuating member or rack bar 19 in its lowest position, the head  
20 18 will be disposed a short distance inwardly of the lower flared end 15' of the portion 15, while the mopping cloth or yarn hank 17 will be projected almost free of the housing 15 for the employment of the same in the  
25 usual manner of such devices. Now, whenever it is desired to squeeze or wring water out from the mopping cloth or yarn hank 17, the operator will grasp the hand crank 23 and manipulate the same in a proper manner, so  
30 that the gear 24 will rotate in a direction to raise the actuating member or rack bar 19 within the tubular handle portion 10, when the head 18, at the lower end of the member or bar 19, will be drawn upwardly of the  
35 cylindrical housing 15<sup>A</sup>, and the mopping cloth or yarn hank 17 inwardly of the latter. As the mopping cloth or yarn hank 17 is drawn inwardly of the lower flared end 15' of the housing 15, the water content thereof  
40 will be squeezed out of the same in a most thorough and efficient manner. Thus, in no instance will it be necessary that the hands of the operator come in contact with the mopping cloth or yarn hank 17 or the water  
45 content thereof at any time during an operation of the device.

After a scrubbing or mopping operation, the cloth or yarn hank 17 will preferably be  
50 drawn inwardly within the housing 15 and left in that position while the device is not in use, so that the same will not become unduly soiled by dust or dirt accumulations thereon during the period of such dis-use.

Without further description, it is thought  
55 that the features and advantages of the invention will be readily apparent to those skilled in the art, and it will of course be understood that changes in the form, proportion and minor details of construction may  
60 be resorted to without departing from the spirit of the invention or its scope as claimed.

Having thus fully described the invention, what is claimed is:

1. In a device of the class described, a tele-  
65 scopically sectional hollow handle open at

its lower end, a mop head, supporting means for the mop head extending inwardly of the open end of said handle, and means carried by an intermediate portion of said handle for actuating said supporting means to project  
70 the mop head outwardly of the open end of said handle for use and to thereafter draw the same inwardly of the latter to wring water therefrom and to otherwise house it during periods of dis-use.

2. In a device of the class described, a hollow handle open at its lower end, a movable member mounted within said handle, a mop head detachably secured to the lower end of  
75 said member, rack teeth formed at one side of said member, a gear journaled to said handle and in mesh with said rack teeth, and means for rotating said gear to actuate said member to project the mop head outwardly of the open end of said handle for use and to thereafter draw the same inwardly of the latter to wring water therefrom and to otherwise house it during periods of dis-use.

3. In a device of the class described, a hollow handle open at its lower end, a movable  
80 member within said handle, a mop head detachably secured to the lower end of said member rack teeth formed at one side of the upper end portion of said handle, a hollow housing carried at one side of said handle and  
85 having its interior in open communication with the interior of the handle, a gear journaled in said housing and in mesh with said rack teeth, and a hand crank for rotating said gear to actuate said member to project the mop head outwardly of the open end of  
90 said handle for use and to thereafter draw the same inwardly of the latter to wring water therefrom and to otherwise house it during periods of dis-use.

4. In a device of the class described, a hollow handle open at its lower end, a movable  
95 member within said handle, a mop head detachably secured to the lower end of said member, a guide carried by the upper end of said member, rack teeth formed at one side of the upper end portion of said member, a hollow housing carried at one side of said handle and having its interior in open communication with the interior of the handle, a gear  
100 journaled in said housing and in mesh with said rack teeth, and a hand crank for rotating said gear to actuate said members to project the mop head outwardly of the open end of the handle for use and to thereafter draw the same inwardly of the latter to wring water therefrom and to otherwise house it during periods of dis-use.

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