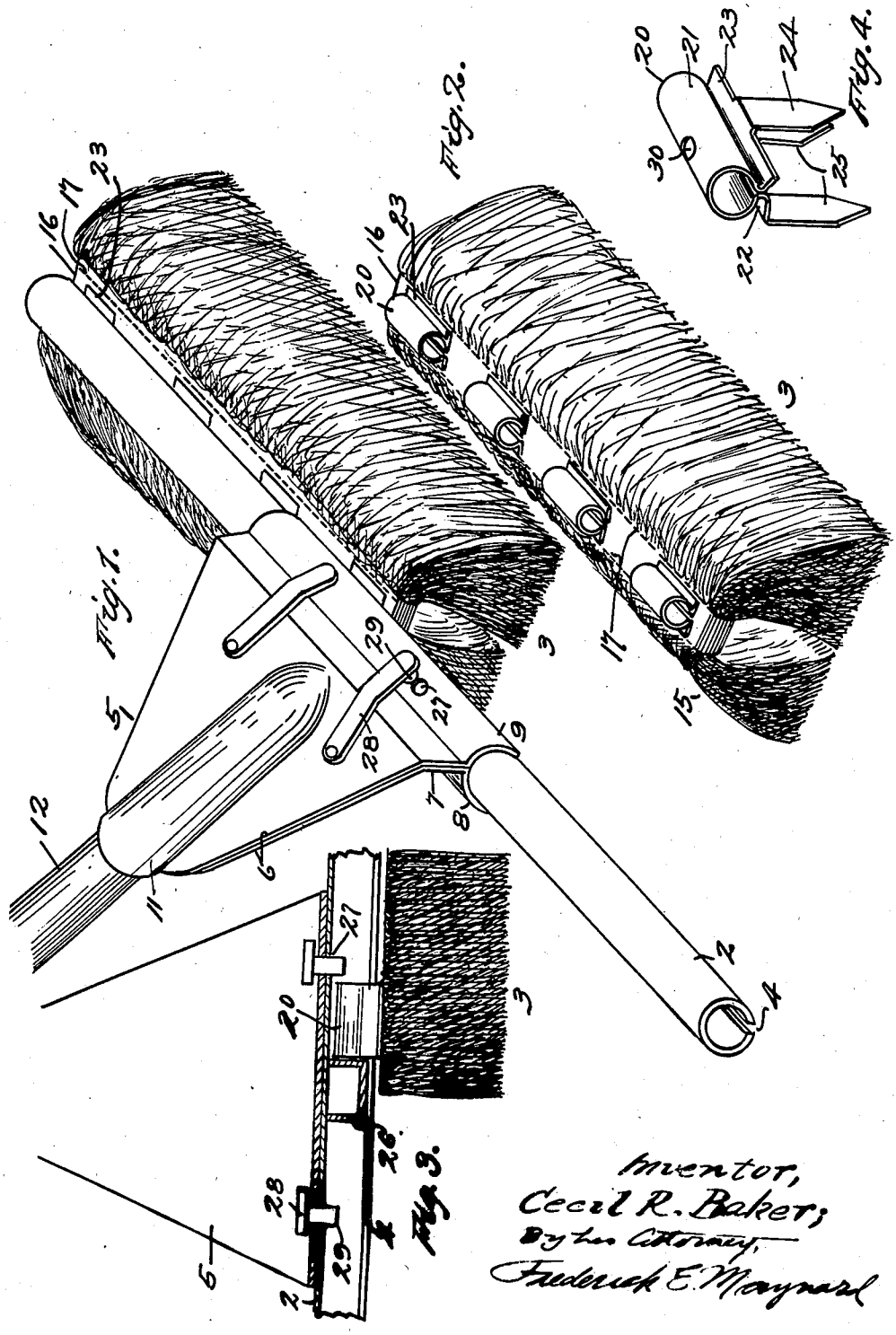
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LATCHED-BACKBONE REMOVABLE MOP

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LATCHED-BACKBONE REMOVABLE MOP

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6 Claims. (Cl. 15—147)

This invention is a mop for cleaning floor or other flat surfaces.

An object of the invention is to provide a simple, substantial, practical, durable and efficient mop structure.

A further object is to provide a two-part mop structure involving a one-piece, split barrel having a rigidly attached handle socket and a cord or other fabric mop device made in one or more interchangeable and end-for-end reversible units.

Another purpose of the invention is to provide a simple, low-cost device for latching the removable mop unit or units in the barrel.

An additional object of the invention is to provide a flexible back-bone mop unit which may be easily applied to the barrel and as easily removed and which may be conveniently thoroughly washed from time to time as desired. And in this connection an object is to provide a cheap but strong button means whereby to affix the mop unit to the barrel.

The invention consists in certain improvements in this art as set forth in the ensuing disclosure and having, with the above, other objects and advantages as hereinafter developed, and whose construction, combinations and details of means, and the manner of operation will be made manifest in the description of the herewith illustrative embodiment; it being understood that modifications, variations and adaptations may be resorted to within the spirit, scope and principle of the invention as it is more particularly claimed presently.

Figure 1 is a perspective of the mop assembly, with one mop unit mounted in the barrel.

Figure 2 is a perspective of a mop unit per se.

Figure 3 is a fragmentary, axial section of the mop barrel to illustrate an interior, mop positioning stop.

Figure 4 is a perspective of one of the backbone buttons before attachment to a unit.

The mop holding part of the structure includes a substantial, stiff tube or barrel 2 of a length to receive one or more mop units 3, and is split along its bottom to provide a mouth 4 open at each end of the barrel. Rigidly fixed to the upper side of the barrel is a rigid bracket 5 here shown as made of superposed, stamped sheet-metal plates 6 whose plane is more or less tangential to the top of the barrel and at an angle of about forty degrees from the horizontal, but this is entirely arbitrary. The bracket has a vertical bend 7 and the two plates making up the bracket are each provided with an elongate, concave lip. The lip 8 of the lower plate of the bracket laps the rear surface of the barrel 2 and is fixed thereto and the lip 9 of the upper plate is likewise fixed to the front of the barrel. The bracket side edges converge upwardly toward the outer open end of a socket 11 formed by the plates for the reception of a suitable handle 12.

One or more mop units 3 are attachable to the holder and each unit consists of a flat hank cord strands 15, or other preferred fabric mat, and which hank is securely bound from end to end on a line medially of the length of the cords by a band 16 of substantial fabric, such as a canvas strap. The band is securely stitched from top to bottom through the hank by longitudinal lines of thread stitches 17 so that the stitched band and the compacted cord strands transversely bound therein form a substantial back-bone which may be flexed transversely. In other words it is a firm but flexible back-bone free of any rigid core or stiffener, and, so, facilitates both washing of the unit and its application to the barrel 2, as will be explained.

In Fig. 4 there is illustrated a rigid-material, cylindric button 20 preferably stamped and shaped from sheet metal in such blank form and bent shape as to provide at the bottom of the cylinder 21, oppositely directed elongate, tangential flanges 22 and 23 one of which has a perpendicular prong 24 about mid-length and the other has a pair of spaced prongs 25. These prongs are adapted to be pushed through the top of the back-bone band 16 and then clinched inwardly on its bottom. A suitable number of these buttons 20 are thus impaled in alinement on top of the band 16 and the unit is easily attached to the holder by threading the buttons endwise into either open end of the barrel and its mouth 4.

When the barrel is long enough to receive say two units 3 it is provided with a centrally located, rigid, fixed stop 26 in its length in such position as to stop the entering action at a given position for the unit. This position is such that one of the buttons 20 will have passed a latch receiving hole 27 spaced and cut in the barrel 2 far enough from the near stop 26 to provide for juxtaposition of the cooperative button of the mop unit.

Pivoted on the top of the bracket 5 is a pair of spring fingers 28 whose outer or swinging ends have latch-forming nogs 29 to snap into respective holes 27 and engage an interposed button against outward movement until its latch has again been lifted from its hole 27 to clear the button. The latch fingers may be swung from the holes to bear on the barrel surface until a mop

unit has been positioned in its place in the barrel, and then the latch is snapped in.

If the barrel is long enough to receive only one unit **3** then the hole **27** is placed mid-length the barrel and latch receiving hole **30** is provided in a mutually cooperative button, Fig. 4.

What is claimed is:

1. A mop and holder combination including a split tubular barrel having a handle socket, a removable mop unit having backbone means slidable into the barrel along the slot, and releasably latching means on the barrel to interengage with the backbone means; said backbone means including a series of spaced members fitting in the barrel and secured along the back of the mop, and the latch means engaging contiguous members to stop withdrawal and including swingable fingers on the barrel having nogs presentable through the barrel to project between a pair of said spaced members.

2. A mop and holder combination including a split-bottom barrel, and a mop unit having cylindric buttons fitting and interlocking in the barrel and having mop impaling means, the buttons having longitudinal, oppositely directed flanges exposed below the barrel and said means including flange prongs.

3. The device of claim 2, and means to engage contiguous buttons to temporarily lock the mop in applied position on the holder and including spring fingers having nogs to engage into the buttons.

4. In a mop holder of the class described; a unitary device including a split, open-end barrel for insertion of a complementary mop unit, and latch means on the device to interlock with an applied mop and spaced buttons, on the mop, slidable into the barrel, and the latch means engageable with contiguous buttons and including spring fingers pivoted on the barrel to swing laterally from holes in the barrel and having nogs, projective in one position of the fingers, through said holes to lock the mop.

5. In a mop device, a mop unit including a fibrous or fabric body having a flexible, nonmetallic backbone, and means affixed to the backbone for attaching the unit to a holder and said means including a series of cylindric buttons having tangential flanges provided with attaching prongs and which flanges, on each button, are longitudinally and oppositely directed along one side of the button.

6. A longitudinally slotted, mop receiving barrel, and a mop unit having a row of cylindric buttons telescopic in the barrel and each having a set of oppositely arranged impaling prongs; said buttons having opposite, longitudinal flanges along one side on which said prongs are formed.

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