A. W. GRANT.

MOP.

APPLICATION FILED OCT. 18, 1915.

1,178,069.

Patented Apr. 4, 1916.

2 SHEETS—SHEET 1.

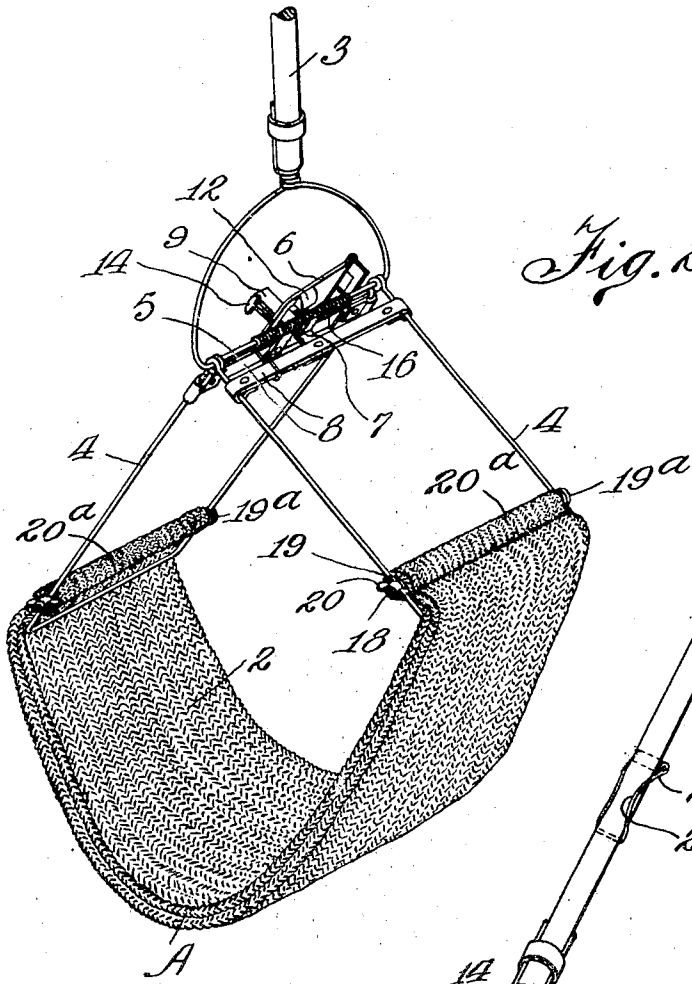


Fig. 2.

Fig. 1.

WITNESSES

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ALEXANDER WINK GRANT

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Fig. 3.

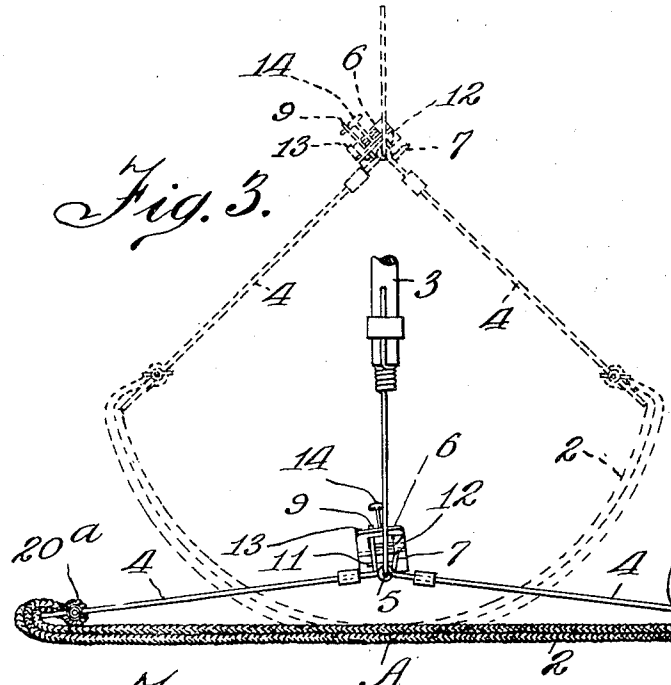


Fig. 6.

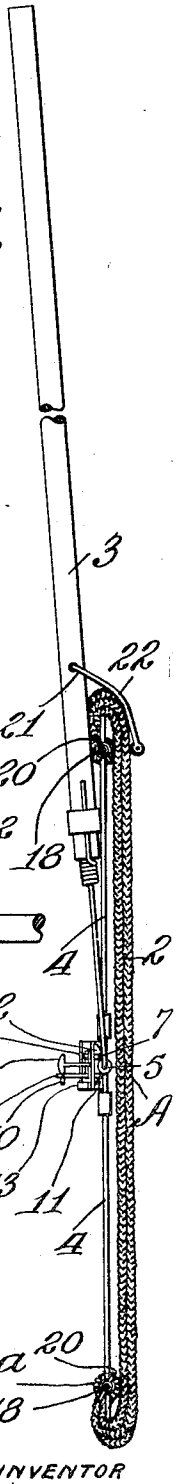


Fig. 4.

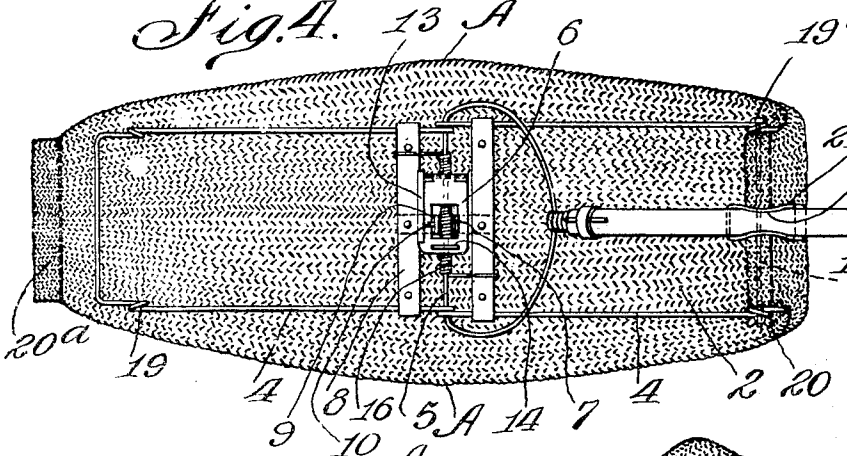
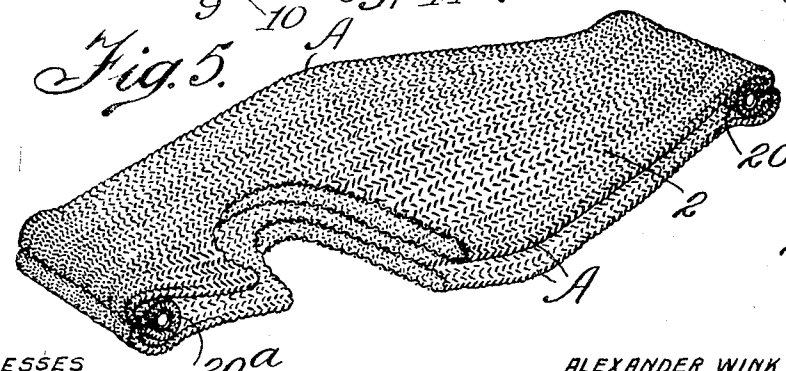


Fig. 5.



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UNITED STATES PATENT OFFICE.

ALEXANDER WINK GRANT, OF MONTREAL, QUEBEC, CANADA.

MOP.

1,178,069. Specification of Letters Patent. Patented Apr. 4, 1916.

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To all whom it may concern:

Be it known that I, ALEXANDER WINK GRANT, a subject of the King of Great Britain, residing at 47 William street, in the city of Montreal, Province of Quebec, Canada, have invented certain new and useful Improvements in Mops, and do hereby declare that the following is a full, clear, and exact description of same.

This invention relates to mops for swabbing floors, walls, windows, etc., and one of the objects is to provide a mop wherein the swabbing cloth is held in a flat stretched out position.

Another object is to provide means whereby the above mentioned flat mop cloth may be loosened for wringing out purposes and readjusted to and automatically locked in position wherein it is held stretched out.

Another object is to provide a mop, the cloth of which is reversibly carried upon a frame to enable the cloth, as one surface becomes worn, to be reversed and an unworn swabbing surface presented.

Another object is to provide means whereby the mop cloth, when not in use, may be held in a stretched out position off the floor to facilitate the drying of the cloth.

The above with further objects and advantages will be hereinafter more fully described and particularly pointed out in the appended claims.

For full comprehension, however, of my invention reference should be had to the accompanying drawings forming a part of this specification, in which similar reference characters indicate the same parts and wherein:

Figure 1 is a perspective view of my improved mop in use; Fig. 2 is a perspective view of the mop with the cloth loosened. Fig. 3 is a side elevation illustrating the automatic readjustment of the mop. Fig. 4 is a plan view with one end of the cloth detached; Fig. 5 is a perspective view of the cloth in one of its reversed positions, and Fig. 6 is a side elevation of the mop when not in use.

The mop consists of a swabbing cloth 2, a frame for carrying the cloth and a handle or pole 3.

The frame is pivoted or hinged between its ends so as to "break" or fold up and consists of swinging end sections each of which is formed preferably of a rectangular frame piece 4 of U-form pivoted at its inner open end to a cross-bar 5, the cloth being beneath the frame and the ends of such cloth attached adjacent the closed outer ends of the frame pieces 4. Cross-bar 5 may constitute part of the handle which latter as shown extends outwardly and upwardly in a loop to a point spaced above the cross-piece where the straight handle portion 3 commences.

A locking catch is provided to hold the frame closed, that is to hold the end sections of the frame in substantial longitudinal alinement as shown in Fig. 1, which is the operative position of the mop. The cloth 2 is substantially equal in length to the frame and in this position of the latter is thus stretched flat between the ends of same and being of greater width than the frame as shown in Fig. 4 acts as a buffer to prevent injury to furniture by the frame, the cloth gradually widening to a point A between its ends and preferably at the center and adjacent the handle to provide a thick buffer for the latter.

The catch consists preferably of a hasp 6 carried upon the upper side of one of the frame pieces 4 adjacent its pivoted end and adapted to be passed over a pin or finger 7 projecting upwardly from the other frame piece 4 adjacent its pivoted end. The pin and hasp are carried by cross-pieces 8 upon the respective frame pieces and a finger 9 extends upwardly from the cross-piece carrying the hasp, such finger being disposed opposite to finger 7, located in the opening of the hasp and having thereon a pair of vertically spaced stops 10 and 11 respectively, above and below the hasp. Finger 7 is shorter than finger 9 and adapted to engage with a downwardly and inwardly inclined cam surface 12 presented by that side of the hasp adjacent the frame piece which carries finger 7; for a purpose to be presently described.

As shown in Fig. 1 the hasp is passed over finger 7 and holds the frame pieces 4 closed, being yieldingly held in this locking position preferably by a flat spring 13 connected at one end with the hasp carrying frame piece and bearing upon the top of the hasp, downward movement of which is limited by stop 11.

The locking catch is located within the loop of the handle and the latter, being pivoted to the frame and looped about such catch, is not impeded thereby but can be swung to any angle desired with relation to

the flat mop proper and when necessary can be placed parallel to or in alinement with such flat mop proper (see Fig. 6) to enable the latter being passed beneath low pieces of furniture or the like.

Accidental upward releasing movement of the hasp is prevented by the spring 13 but when it is desired to loosen the cloth to wring out same, for instance, the hasp is pulled up by means of a T-shaped finger grip 14 thereon and the frame permitted to "break" and fold up, the weight of the cloth causing the outer ends of the frame pieces 4 to swing or fold down toward each other and doubling up the cloth in readiness to be wrung. Stop 10 limits the upward movement of the hasp.

The frame is opened and the cloth stretched out flat again, as illustrated in Fig. 3, by placing the outer ends of the frame pieces 4 upon the floor or other support and pressing down upon the handle which causes such outer ends to spread apart and assume their alined position, the finger 7 engaging cam surface 12 and forcing the hasp up until such finger slips under the opening of the hasp, which latter then snaps down under the influence of spring 12, the frame pieces being thus automatically locked together. In closing the frame, fingers 7 and 9 engage and prevent excessive movement, the finger 9 stopping finger 8 when the latter is beneath the hasp opening.

In order that the closing of the frame may be readily accomplished it is desired that the outer ends of the frame pieces 4 should not come close together when the frame "breaks" but should be spread slightly apart to have the frame of substantial V-form so that when placed upon the floor and pressed down such outer ends will always spread apart and for this purpose I have provided means for limiting the movement of the outer ends of the frame pieces toward each other which, in the preferred form consists of a spring 16 encircling the cross-piece 5 and having its opposite ends attached to the respective cross-pieces 8 of the frame pieces 4.

In the preferred form, the cloth 2 is of tubular form or of double thickness material formed as a loop and secured to the frame by means of pins 18 each of which passes through one end of the loop and is located in oppositely disposed openings 19 presented by one of the frame pieces 4 near its closed outer end. The pins are removable, being headed at one end at 19ª and secured by thumb nuts 20 at their opposite ends so that when the swabbing surface, that is the lower outer ply of the lower fold of the loop, becomes worn or soiled, the pins can be removed, the cloth detached from the frame and reversed to present a new or unworn swabbing surface either by turning the loop over to bring the outer ply of the hitherto top fold of the loop to a downwardly facing position or by turning the loop inside out as illustrated in Fig. 5, the cloth being then again attached to the frame by the pins 18. Sleeves 20ª are set in the ends of the cloth to provide free openings for the accommodation of the pins and to facilitate the passage of the latter through the cloth.

A clip 21, pivotally carried by the handle near its lower end and adjacent the mop proper, is in the form of a hook so that when the mop is not in use the closed frame with the cloth stretched out may be swung up beside the handle and held in such position by hooking the catch thereover as shown in Fig. 6. In this position one end only of the frame rests upon the floor and the cloth, being held off the latter and in its stretched out position, quickly dries, thus avoiding unsanitary condition. The catch is made of resilient material in loop form, indented at the sides at 22 and when the mop is in use can be clipped about the handle.

What I claim is as follows:

1. In a mop, a frame, a pole pivoted to the frame and a cloth stretched out flat upon the frame, such frame being adapted to fold up and loosen the cloth, and the cloth being attached to the frame both when stretched out and loosened.

2. In a mop, a frame, a pole pivoted to the frame, a cloth attached to the frame, such frame being adapted to fold up and loosen the cloth and the cloth being attached to the frame when loosened and means for preventing the folding up of the frame.

3. In a mop, a frame consisting of members arranged to move toward each other, a cloth carried by the frame members, means for locking the frame members against movement toward each other and means for resisting movement of such members toward each other when the locking means is released.

4. In a mop, a frame consisting of members hinged to swing toward each other, a cloth carried by the frame members and a self-locking catch for preventing the frame members swinging toward each other.

5. In a mop, frame pieces relatively disposed in a substantially straight position and hinged to swing toward each other, a cloth carried by the frame pieces, means limiting the swinging of the frame pieces toward each other and a catch for securing the frame pieces in their substantially straight position.

6. In a mop, frame pieces relatively disposed in a substantially straight position and hinged to swing toward each other, a spring yieldingly resisting such movement, a cloth carried by the frame pieces and a catch for securing the frame pieces in their substantially straight position.

7. In a mop, a rectangular frame, a cloth, sleeves set in the cloth and pins passed through said sleeves and removably secured to the frame.

8. In a mop, a frame, a cloth and pins securing the cloth to the frame, such pins being removable from both the frame and cloth.

9. In a mop a pair of frame-pieces hinged at their inner ends, a cloth secured at its ends to the outer ends of the frame pieces, a pin carried by one of the frame pieces and a hasp carried by the other of said frame pieces, adapted to be passed over the pin and secure the frame-pieces against relative movement.

10. In a mop, a pair of frame-pieces hinged at their inner ends, a cloth secured at its ends to the outer ends of the frame pieces, a pin carried by one of the frame pieces and a spring controlled hasp carried by the other of said frame pieces, adapted to be passed over the pin and secure the frame-pieces against relative movement.

11. In a mop, a pair of frame-pieces hinged at their inner ends, a cloth secured at its ends to the outer ends of the frame pieces, a spring controlled hasp carried by one of said frame-pieces and presenting a downwardly and inwardly inclined surface, a pin carried by the other frame-piece and adapted to engage said inclined surface and enter the opening of the hasp to secure the frame pieces against relative movement.

12. In a mop, a handle having a loop at its lower end, a pair of frame pieces hinged at their inner ends to the lower portion of said loop, a cloth attached at its ends to the outer ends of the frame pieces, a hasp carried by one of said frame-pieces, a spring bearing down upon the top of the hasp, a finger upon the hasp carrying frame piece and located in the opening of same, and a finger upon the other of said frame pieces, disposed opposite to the first mentioned finger and adapted to enter the opening of the hasp to secure the frame pieces against relative movement.

13. In a mop, a handle having a loop at its lower end, a pair of frame pieces hinged at their inner ends to the lower portion of said loop, a spring encircling said lower portion of the loop, the ends of the spring being respectively attached to one of the inner ends of the frame-pieces, a cloth attached at its ends to the outer ends of the frame pieces, a hasp carried by one of said frame-pieces and presenting a downwardly inclined cam surface, a spring bearing down upon the top of the hasp, a finger upon the hasp carrying frame piece and located in the opening of same, stops upon the said finger and respectively disposed above and below the hasp, a finger upon the other of said frame pieces, disposed opposite to the first mentioned finger and adapted to engage said cam surface and enter the opening of the hasp to secure the frame pieces against relative movement and a finger grip upon the hasp whereby same may be moved against the influence of the spring bearing thereon and release the cam engaging finger.

In testimony whereof, I have signed my name to this specification, in the presence of two subscribing witnesses.

ALEXANDER WINK GRANT.

Witnesses:

KEITH GORDON GRANT,

STANLEY C. KING.