P. W. ZIEGLER.

FLOOR CLEANER.

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**1,067,570.** Patented July 15, 1913.

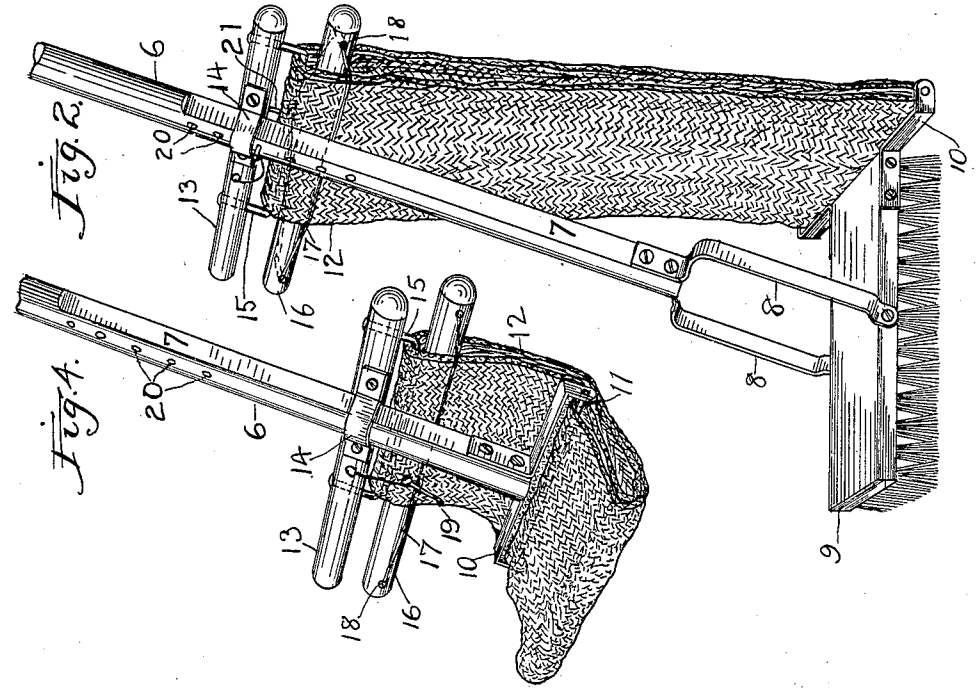


Fig. 2.



Fig. 4.

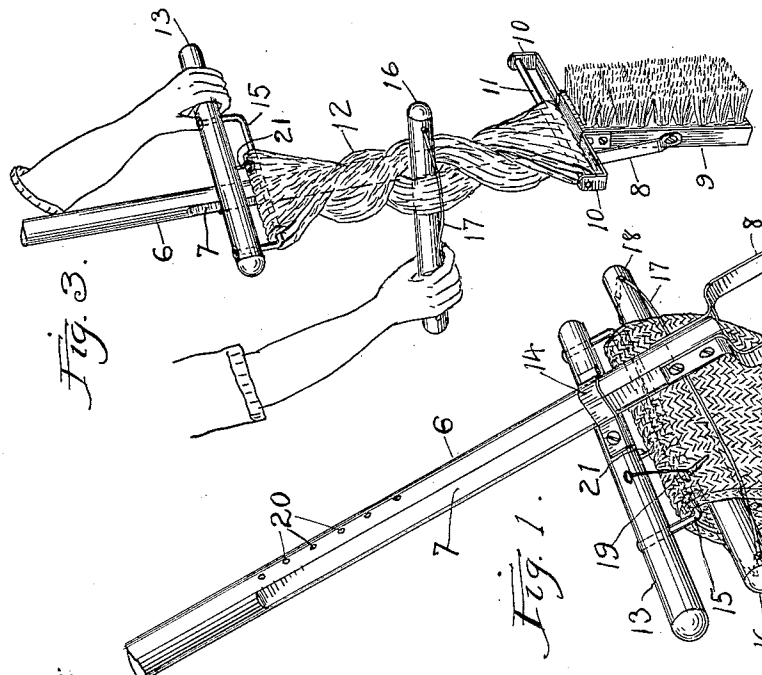


Fig. 3.



Fig. 1.

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# UNITED STATES PATENT OFFICE.

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## FLOOR-CLEANER.

1,067,570. Specification of Letters Patent. Patented July 15, 1913.

Application filed December 7, 1911. Serial No. 664,441.

*To all whom it may concern:*

Be it known that I, PETER WILLIAMSON ZIEGLER, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented new and useful Improvements in Floor-Cleaners, of which the following is a specification.

My invention relates to floor cleansers employing a mop and means for wringing the mop.

The object of my invention is to provide a floor cleanser of this character and of novel, simple and efficient construction having provision whereby the wringing of the mop may be easily effected by twisting it from the center toward both ends and whereby the mop may be easily adjusted to wringing and to cleaning positions, as will be hereinafter described and particularly claimed.

In the accompanying drawings Figure 1 is a view of the invention with the mop in operative position. Fig. 2 is a view showing the scrubbing brush in operative position. Fig. 3 is a view showing the methods of wringing the mop, and the way to use the wringing bar. Fig. 4 is a view of a modified form in which the mop is attached to a handle for use without a scrubbing brush. The scrubbing brush may also be attached to a handle for use without a mop by omitting the mop and mop attachments.

In said drawings 6 is the handle; 7 is a portion of the handle squared or flattened on two sides to prevent the sliding handle bar 13 from turning on the handle; 8—8 are projecting arms fastened to the flattened end 7 of the handle 6; 9 is a scrubbing brush pivotally attached to the projecting arms 8—8; 10—10 are extending arms fastened to the end of the scrubbing brush 9, and embracing the mop holding rod 11, to which is attached one end of the mop 12; 13 is a sliding handle bar, attached to the lower portion 7 of the handle 6 by the guide plate 14; to the sliding handle bar 13 is fastened a mop holding rod 15, which holds the upper end of the mop 12; 16 is a wringing bar held between the upper and lower fabrics of the mop 12 by a cord or wire 17 passing through holes 18—18 and over and under the mop 12; 19 is a pin to be inserted in holes 20—20 to hold bar 13 in place and 21 is a hook for hanging the wringing bar 16 when not in use.

When using the scrubbing brush as in Fig. 2 or wringing the mop as in Fig. 3 the sliding handle bar 13 is drawn up on the squared or flattened portion 7 of the handle 6 to the proper height and held in position by a pin 19 inserted in a hole 20 in the portion of handle 7 under the guide plate 14 on the sliding handle bar 13. When using the mop the sliding handle bar 13 is loosened and allowed to drop down to near the end of the flattened portion of the handle 7, and the scrubbing brush 9 is revolved a half turn as in Fig. 1 thus bringing the mop on the floor and under the back of the brush.

In Fig. 3 is shown the method of wringing which is simple easy and effective. The left hand grasps the handle bar 13 which holds the handle 6 and both ends of the mop 12 so they cannot turn while the mop 12 is wound from the center toward both ends by the wringing bar 16 in the right hand of the operator. When a half turn of the wringing bar 16 is made it is pushed through the mop 12 to the other end of the wringing bar, and the turn and forward push repeated until the mop is wound tight enough to remove the water from it. The mop is then easily and quickly unwound by reversing the operation. The bar 13 is then hung by the cord 17 and hook 21 as shown in Fig. 1—2 and 4.

In Fig. 4 a modification of the floor cleaner is shown in which the mop 12 is used without a scrubbing brush. In this form the extending arms 10—10 are fastened to the flattened end 7 of the handle 6 and embrace the mop holding rod 11 to which one end of the mop 12 is attached. The sliding handle bar 13, the mop holding rod 15, the upper end of the mop 12, and the wringing bar 16 are all attached and used the same as in the other form.

When the modified form is used for the mop, the scrubbing brush may be used on a separate handle, using the handle 6, the projecting arms 8—8 and the scrubbing brush 9, as shown in Fig. 2 without the mop and mop attachments.

What I claim is:

1. A floor cleanser comprising a handle, a mop, means for attaching one end of the mop to said handle, means for attaching the other end of the mop to said handle and a wringing bar movable to the central portion of the mop and having a mop-engaging part, whereby the mop may be twisted from the central portion toward both ends.

2. A floor cleanser comprising a handle, a mop, means for attaching one end of the mop to said handle, means for attaching the other end of the mop to said handle, said mop having an opening therein between said attaching means, and a wringing bar extending through said opening.

3. A floor cleanser comprising a handle, a mop, means for attaching one end of the mop to said handle, means for attaching the other end of the mop to said handle, said mop having an opening therein between said attaching means, a wringing bar extending through said opening, a loop connected to said wringing bar on each side of said mop and embracing a part of said mop.

4. A floor cleanser comprising a handle, a mop, means for attaching one end of the mop to said handle, means for attaching the other end of the mop to said handle, said mop having an opening therein between said attaching means, a wringing bar extending through said opening and movable therein from the central portion of the mop to a position adjacent one end thereof, and means to hold said wringing bar in a position adjacent one end of the mop.

5. A floor cleanser comprising a handle, a handle bar extending transversely of the handle and slidably connected thereto, a mop, means for attaching one end of said mop to said handle, means for attaching the other end of said mop to said handle bar, means for holding said handle bar in different positions of adjustment on said handle, said mop having an opening therein between said attaching means, and a wringing bar extending through said opening.

6. A floor cleanser comprising a handle having a flat face, a handle bar extending transversely of the handle, a loop secured to the handle bar and embracing the handle and engaging said flat face and thereby preventing the turning of the handle bar, a mop, means for attaching one end of said mop to said handle, means for attaching the other end of said mop to said handle bar, means for holding said handle bar in different positions of adjustment on said handle, said mop having an opening therein between said attaching means, and a wringing bar extending through said opening.

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Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."