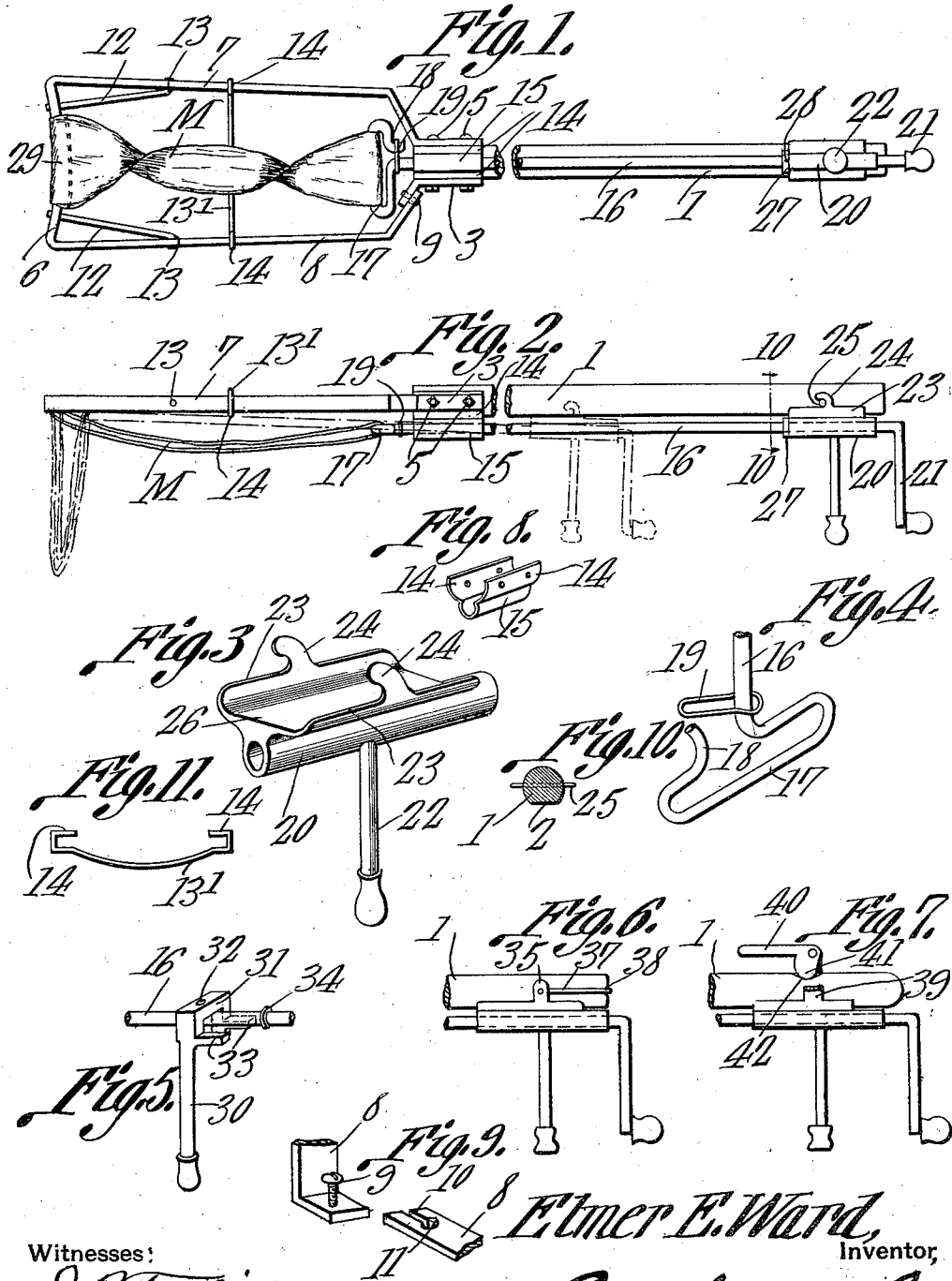


E. E. WARD.
MOP WRINGER.
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1,006,706.

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UNITED STATES PATENT OFFICE.

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MOP-WRINGER.

1,006,706.

Specification of Letters Patent.

Patented Oct. 24, 1911.

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To all whom it may concern:

Be it known that I, ELMER E. WARD, a citizen of the United States, residing at Colorado Springs, in the county of El Paso and State of Colorado, have invented a new and useful Mop-Wringer, of which the following is a specification.

This invention relates to combined mops and wringers.

10 The object of the invention is to provide an article of this character which shall possess all of the desirable qualities necessary to the production of an efficient implement, namely lightness, compactness, simplicity, 15 ease of operation, ease of adjustment, and of a construction that will permit of its being inserted under articles of furniture lying comparatively close to the floor.

A further object is to provide a combined 20 mop and wringer, in which the positioning of the mop will be facilitated, the wringing of the same easily accomplished, and in which both sides of the mop may be utilized for doing effective work.

25 With the above and other objects in view, as will appear as the nature of the invention is better understood, the same consists in the novel construction and combination of parts of a combined mop and wringer, as 30 will be hereinafter fully described and claimed.

In the accompanying drawing forming a part of this specification, and in which like characters of reference indicate corresponding 35 parts:—Figure 1 is a top plan view of the device. Fig. 2 is a side elevation. Fig. 3 is a perspective detail view of the slide handle used in manipulating the wringer rod. Fig. 4 is a perspective detail view, on 40 an enlarged scale, of the mop holding loop. Fig. 5 is a perspective detail view of a modified form of slide handle. Figs. 6 and 7 are views in side elevation of other modified forms of slide handles. Fig. 8 is a detail 45 perspective view of the wringer rod guide. Fig. 9 is a fragmentary detail view in perspective showing the manner in which the parts of the mop head may be separated to permit the insertion of a new mop. Fig. 50 10 is a transverse detail view taken on the

line 10—10 of Fig. 2. Fig. 11 is an edge view of a brace bar employed in conjunction with a mop head to prevent spreading.

Referring to the drawing, 1 designates the mop stick, which as shown in Fig. 10 is 55 approximately circular in cross section and provided with a flat side 2. To one end of this mop stick is secured a pair of arms 3 forming the terminals of the mop head 4, the arms and stick being held assembled by 60 bolts 5. The mop head is constructed, preferably, of bar metal that is rectangular in cross section and its outer end 6 is dished inwardly for a purpose that will presently appear. The side member 7 of the head is 65 constructed in one piece, but the side member 8 is constructed in two pieces, the ends of which overlap and are held assembled by a screw 9 as clearly shown in Fig. 9. As 70 shown in this figure, the end of the said member 8 is provided with a slot 10 terminating in a countersink 11 the object of this arrangement being to permit the member to be readily disconnected from the arm 75 3 for the purpose of positioning or removing a mop. As will be obvious, when the head of the screw 9 is seated in the countersink, a durable connection will be secured between the side member and the arm, but 80 this connection is such as will permit of the parts being readily disconnected when desired.

Combined with the end member 6 of the head and the side members are two cloth 85 guards 12, which incline toward each other, and operate to prevent the looped mop M from working around upon the side members. These guards are readily detachable from the side and end members when a mop 90 is to be removed or a new one positioned. As clearly shown in Fig. 1, the guards engage at one end with the member 6, and at the other end are provided with outturned terminals 13, designed to fit in orifices in 95 the side members.

To prevent any tendency of the side members to yield either inwardly or outwardly, a brace bar 13 is provided which, as shown 100 in Fig. 11, is provided with clip members 14 designed to embrace the side members,

the intermediate portion of the brace bar being dished so as not to interfere with the mop when the same is twisted while being wrung.

Secured to the mop stick by the bolts 5 is the guide, shown in detail in Fig. 8, the same comprising curved side members 14, that embrace the sides of the mop stick, and a reduced curved guide proper 15. The guide is engaged by a rod 16, one end of which is provided with a mop holding loop 17 the free terminal 18 of which is outwardly curved and is designed to be engaged by a keeper 19 slidably mounted upon the rod, the keeper operating to prevent the loop from spreading, and also to maintain the mop in position. The other end of the rod passes loosely through a suitable sleeve 20 and has its outer end bent at right angles to its length to provide a crank 21. The sleeve is provided with a lateral handle 22, and is further provided with lateral flanges 23 formed with hooks 24 which are designed to engage with a transverse pin 25 carried by the mop stick. The intermediate portion 26 between the flanges 23 is flattened and is designed to seat against the flat portion 2 of the mop stick. In order to prevent the sleeve from slipping down upon the rod 16, a collar 27 is rigidly secured to the rod as by a bolt or pin 28.

As will be noted by reference to Fig. 2, when the parts are in the position shown therein, the rod 16 lies parallel with the mop stick 1, but when the parts are moved to the position indicated by dotted lines, the rod assumes an angular position relative to the handle, whereby to permit the mop loop 17 to lie contiguous to and substantially in the same plane as the member 6 of the head, so as to obviate the presentation of an obstruction which would tend to interfere with the smooth working of the mop. In order to permit the rod to assume this position, the guide, comprising the parts 14 and 15 is spaced a sufficient distance away from the mop stick to allow the rod to move toward the stick, as shown in Fig. 2.

In the operation of wringing the mop M in the form of the invention just described, the sleeve is moved from the position shown by dotted lines in Fig. 2 to that shown in full lines, and the hooks are brought into engagement with the pin 25. The operator then grasps the handle 22 in one hand and holds the mop head down into a bucket, and with the other hand rotates the crank 21 until the mop has been wrung sufficiently dry. During this operation, the looped end 29 of the mop, owing to the curvature of the member 6, will be forced inward away from the side members 12 and thus become compact under the strain of wringing, which results in drying the cloth more thoroughly. When the wringing has been accomplished,

the hooks are moved out of engagement with the pin 25, and the sleeve is shifted to the position shown by dotted lines in Fig. 2, whereupon the mop is ready for use. It will be observed that with the construction shown, the mop can be used from either side, merely by reversing the position of the head.

In the modification shown in Fig. 5, the handle 30 is provided with an arched head 31 having a central orifice 32 to receive a screw by which it is secured to the mop stick. Projecting rearwardly from the head are two spaced lugs 33, that are designed to be engaged by a collar 34 rigid with the wringer rod 16, to maintain the same in operative position when the mop is being wrung. When the parts are to be moved to mopping position, the wringer rod is moved toward the outer end of the mop stick, thus to permit the collar to clear the lugs 33, whereupon the rod may be slipped down to the position shown in Fig. 2.

In the modification shown in Fig. 6, the sleeve is of the same general construction as that shown in Fig. 3, except that the hooks 24 are omitted and in lieu thereof a pair of ears 35 is provided pivotally connected with which are the ends of a bail 37 that passes around the outer end of the mop stick, and engages a depression 38 therein.

In the modification shown in Fig. 7, the sleeve is provided with two positioning ears 39 between which is pivotally mounted a cam lever 40, the nose of the cam 41 being arranged to engage a depression 42 in the mop stick, and thus hold the handle from downward movement when the mop is being wrung.

It will be seen from the foregoing description, that while the improvements herein described are simple in character, that they will be thoroughly efficient for the purposes designed, and will result in the presentation of a durable, efficient, and easily operated mop.

I claim:—

1. The combination with a mop stick and head, and a guide on the stick; of a wringer rod mounted for rotation and reciprocation within said guide and having a crank at its upper end capable of turning above the upper end of the stick, a sleeve within which the upper portion of said rod is journaled, a handle on said sleeve, and means for connecting the sleeve with the upper end of the mop stick or disconnecting it therefrom and moving it toward said guide.

2. The combination with a mop stick and head, and a guide on the stick; of a wringer rod mounted for rotation and reciprocation within said guide and having a crank at its upper end capable of turning above the upper end of the stick, a sleeve in which the upper end of said rod is journaled, the top

of the sleeve being flattened, flanges rising
from opposite sides of the flattened portion,
the mop stick being flattened to fit against
said portion and between said flanges, a
5 transverse pin secured through the stick, and
hooks rising from said flanges and adapted
to engage the extremities of said pin.

In testimony that I claim the foregoing as
my own, I have hereto affixed my signature
in the presence of two witnesses.

ELMER E. WARD.

Witnesses:

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