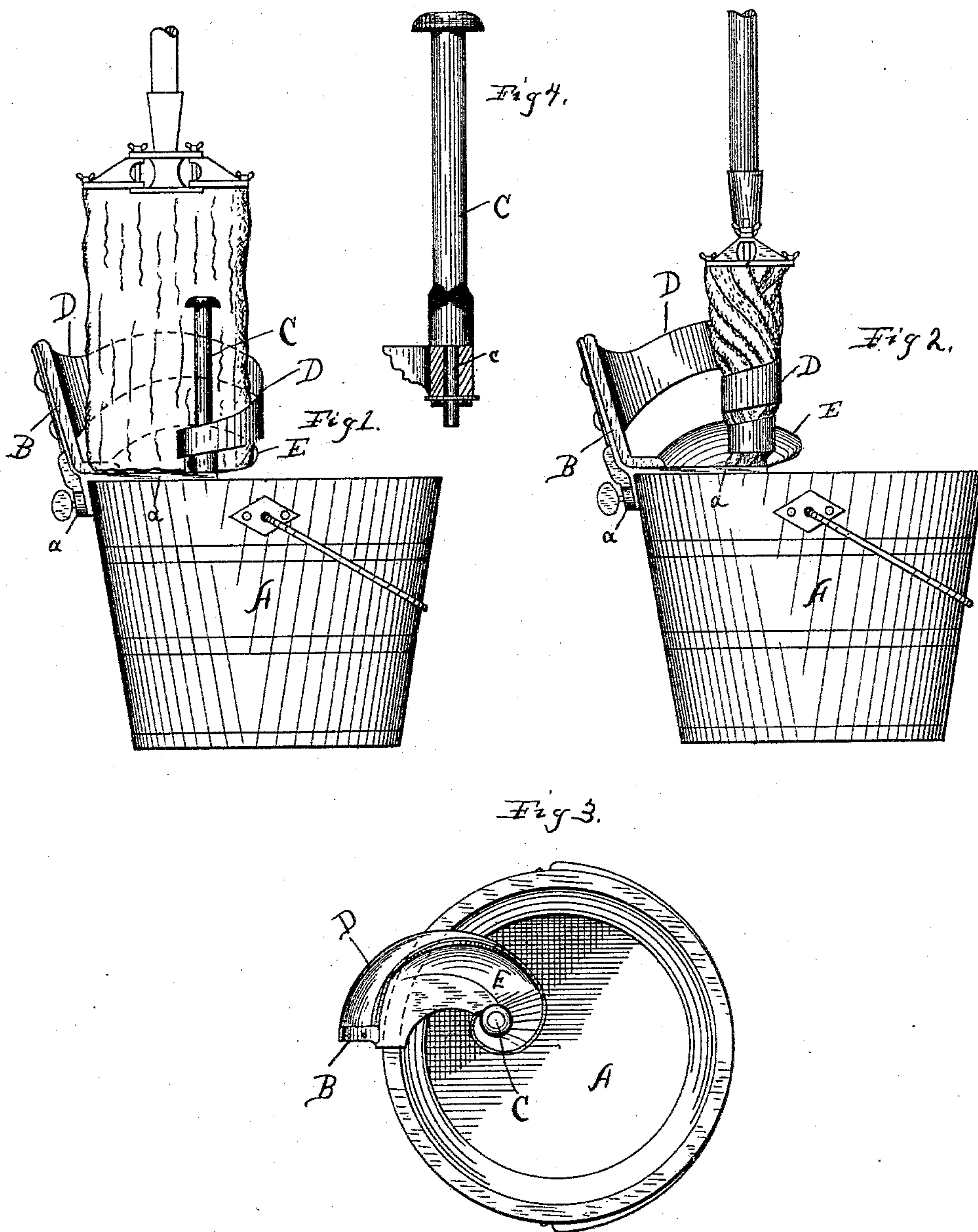


(No Model.)

E. BEACH.  
MOP WRINGER.

No. 414,628.

Patented Nov. 5, 1889.



Witnesses  
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# UNITED STATES PATENT OFFICE.

ELIAS BEACH, OF CHICAGO, ILLINOIS, ASSIGNOR TO HIMSELF AND ROBERT LYMAN, OF SAME PLACE.

## MOP-WRINGER.

SPECIFICATION forming part of Letters Patent No. 414,628, dated November 5, 1889.

Application filed May 23, 1889. Serial No. 311,839. (No model.)

*To all whom it may concern:*

Be it known that I, ELIAS BEACH, a citizen of the United States, residing in Chicago, in the county of Cook and State of Illinois, have  
5 invented a new and useful Improvement in Mop-Wringers, of which the following is a specification.

This invention relates to an improved mop-wringer of that class in which the wringing  
10 of the mop is done by twisting the same; and the invention consists in a flexible spiral-spring band attached at one end to a standard and connected at the other end to a pivoted core-pin, and also in certain details of  
15 construction hereinafter more specifically set forth.

In the accompanying drawings, which form a part of this specification, and in which similar letters of reference indicate like parts in  
20 all the figures, Figure 1 is a side view of my improved mop-wringer attached to a pail, illustrating the condition of the same when a mop is inserted ready to be wrung. Fig. 2 is a similar view showing the mop in the act of  
25 wringing. Fig. 3 is a top or plan view of the pail and apparatus, and Fig. 4 is an enlarged detail view of the pivoted core-pin.

In said drawings, A represents the bucket or pail to which the wringer may be attached  
30 by means of the usual clamp device *a*.

B is an upright bracket attached to or cast with the bed or clamp *a*. This bed-piece is extended a few inches over the pail—a little more than the width of an ordinary mop—  
35 and at its inner extremity carries a pivoted core-pin C, (shown at Fig. 4,) mounted upon the bed in such a manner as to be capable of revolution upon its pivot *c*.

D is a flat band, preferably made of spring  
40 brass or steel, attached at one end to the bracket B and at the other end to the lower part of the core-pin C, being given a helical shape between these points of attachment, the focus of the helix being the axis of the core-pin. This helical band is made tapering, the  
45 broader part being attached to the bracket B and the narrower part to the core-pin C. A dish-shaped plate E, the same being a lateral extension of the body-piece, partially  
50 fills the space beneath the flexible helical

band to prevent the lower end of the mop, when placed within said band, from passing down so far as to be outside of the grasp of the same.

The operation is as follows: The mop to be  
55 wrung is hung down from its mop-stick into the embrace of the helical band, as shown at Fig. 1. In this position the core-pin C will usually be within the folds of the mop-head; but sometimes the mop-head may be entirely  
60 upon one side of said core-pin, owing to the accuracy or want of accuracy with which the mop-head is inserted in the wringer. If the mop-handle be now in either case twisted in a direction toward the focus of the helix, the  
65 fibers or cloth of the mop will engage the band and pin, and rotating the latter will coil the band about the exterior of the mop-head, wringing and compressing the same until it is sufficiently dry. The helical band  
70 being secured at both ends, it is impossible that it should slip upon the mop, and thus the action of the device is always positive and certain. The tapering shape of the band, when  
75 it is wound upon the mop-head by the twisting action above described, causes the band to very completely embrace all the parts of the mop, and particularly the lower or wetter portion of the same. The narrowest part of  
80 the band, it will be seen, is the weakest, and therefore the twist will begin at the focus of the helix first, and the force will be thus distributed throughout the whole winding equally, the force being applied successively to the  
85 portions of the band from weakest to strongest. The core-pin gives a solid interior body, upon which the mop-head is compressed in wringing.

I claim—

1. The mop-wringer consisting of the helical  
90 band attached at one end to a stationary bracket and at the other end to a core-pin, substantially as specified.

2. The combination, in a mop-wringer adapted to be attached to the pail, of the sta-  
95 tionary bracket, the tapering helical flat band and the core-pin, the band being attached to the bracket and to the core-pin, substantially as specified.

3. The combination, in a mop-wringer, of 100

the stationary bracket B, the pivoted core-pin C, and the helical band D, attached to the bracket and to the core-pin, substantially as specified.

5 4. The combination, in a mop-wringer, of the bracket B, core-pin C, helical band D, and guard-plate E, substantially as specified.

5. The mop-wringer consisting of a supporting-bracket, a core-pin, and a helical

band, the latter being secured at its ends to the bracket and pin and tapering from the end at the bracket to the end at the pin, substantially as specified.

ELIAS BEACH.

Witnesses:

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