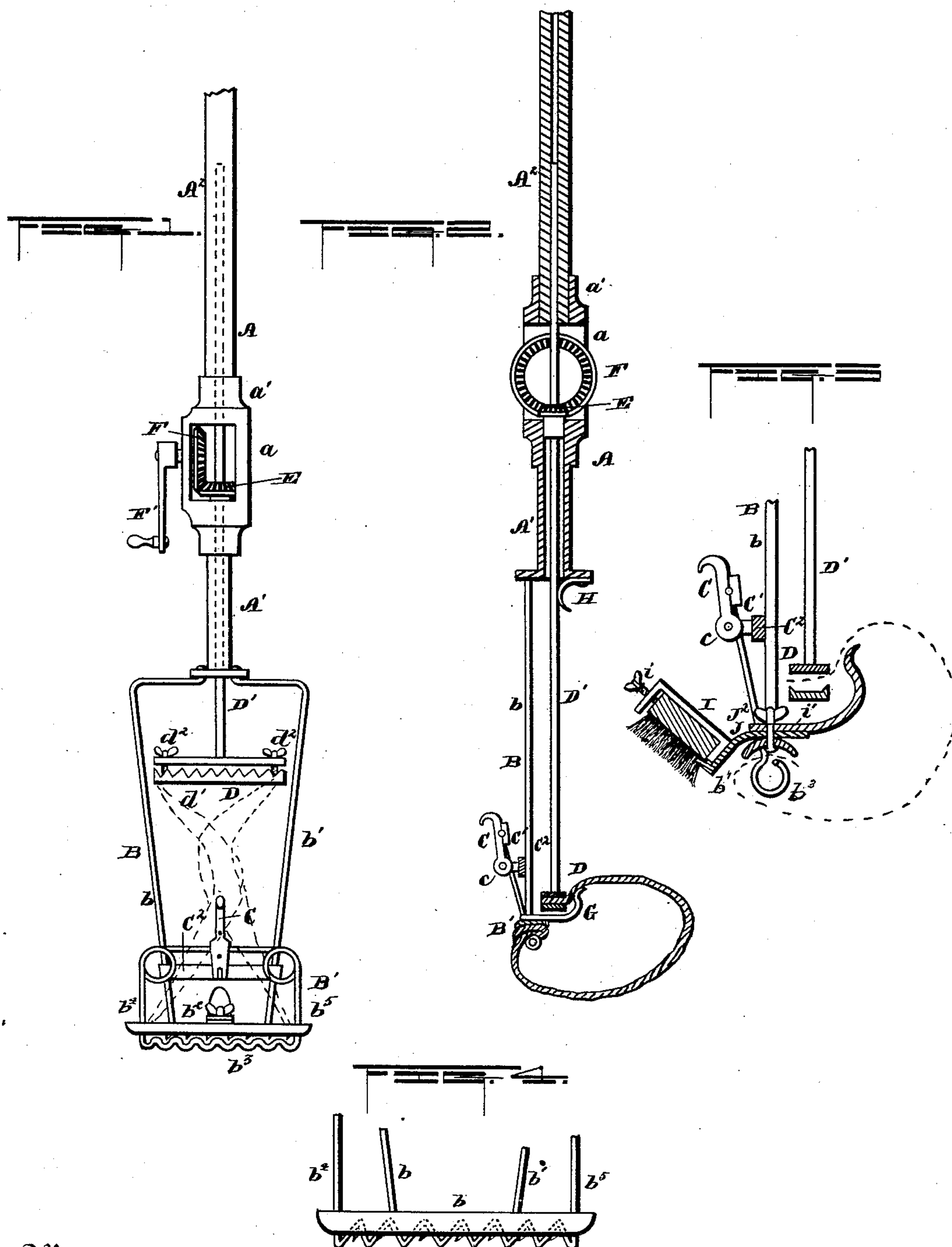


(No Model.)

E. C. ROLLS.
COMBINED MOP AND WRINGER.

No. 428,696.

Patented May 27, 1890.



Witnesses

R. B. Seward.
Am. Bright.

Inventor
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UNITED STATES PATENT OFFICE.

EDWIN C. ROLLS, OF CHATHAM, ONTARIO, CANADA, ASSIGNOR TO CAROLINE CECELIA ROLLS, OF SAME PLACE.

COMBINED MOP AND WRINGER.

SPECIFICATION forming part of Letters Patent No. 428,696, dated May 27, 1890.

Application filed April 8, 1889. Serial No. 306,423. (No model.)

To all whom it may concern:

Be it known that I, EDWIN C. ROLLS, a subject of the Queen of Great Britain, residing at Chatham, county of Kent, and Province of Ontario, Canada, have invented a certain new and useful Improvement in Combined Mop and Wringer; and I declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification.

My invention relates to a new and useful improvement in mop-wringers, and has reference more particularly to a combined mop and wringer.

My design is to provide the mop itself with a power-wringer simple and efficient in construction and operation.

It also contemplates certain novel features in addition thereto, all as more fully hereinafter specified, and pointed out in the claims, and herewith illustrated in the accompanying drawings.

In the drawings, Figure 1 is a front elevation of a device embodying my invention. Fig. 2 is a longitudinal section in a plane at right angle to Fig. 1. Fig. 3 is a separate view in section, showing a brush-holder attachment engaged with the mop. Fig. 4 shows the jaw b^3 fluted.

I carry out my invention as follows:

A represents the mop-handle, made tubular in whole or in part. I prefer to construct the handle in two parts—a lower metallic section A^1 , provided with a gearing-box or housing a , and an upper section of wood or thin metallic tubing A^2 , suitably united with the lower section in any desired manner. Thus the upper end of the gearing-box may be constructed with a ferrule a' to receive the adjacent end of the upper section A^2 . In this case the section A^1 is made tubular its entire length, while the upper end needs to be made tubular a required distance from its union with the gearing-box. To the lower end of the handle is engaged a metal frame B, which may consist of two arms b and b' , provided

with a clamping device B' at the lower extremity of the frame to hold the mop-cloth.

I would have it understood that I do not limit myself to any particular construction of the clamping device alone. I prefer a clamping device such as is shown in Fig. 1, where a bar b^2 is engaged with the frame B, and preferably toothed, as shown. I employ, also, a jaw b^3 , made of suitable wire, coiled or fluted, adjacent to the bar b^2 and provided with arms, preferably spring-arms $b^4 b^5$, engaging a locking-lever C, having a jointed connection with a post or standard C' , as shown at c , said post projecting from a cross-bar C^2 , united with the frame B. The engagement of the arms of the coiled or fluted jaw with the lever C is made at a point outward from the jointed union of the lever with the standard, so that when the lever is thrown in one direction it will open the clamping-jaw, and when thrown in the opposite direction the jaw will clamp the cloth.

By the use of a wire jaw coiled or fluted, as above described, it is evident that the cloth will effectually be prevented from slipping inward toward the center in wringing the cloth, since the cloth will be drawn into the interstices of the wire jaw and so be firmly held in proper position. The bar b^2 , being toothed, will also very materially assist in holding the cloth from slipping and keep it in a flat condition, overcoming all tendency of its bunching in wringing.

To engage the cloth and wring it, an additional clamping device D of any desired construction is provided. As shown, it may consist of a bar d and toothed jaw d' , the two being united by means of set-screws d^2 . The bar d is united to a spindle or rod D' , extended into the tubular handle, in which it has a reciprocatory and rotatable movement.

In the gearing-box I journal a pinion E. The pinion, it will be observed, is perforated to allow the spindle D' to pass freely through it and its journal. By constructing the said spindle angular in cross-section and the perforation in the pinion to correspond it is evident that the spindle will be caused to rotate with the gear, while also it may be recipro-

cated freely through it. A bevel-gear F is journaled in the side of the gear-box, as shown, meshing with the pinion and provided with a crank or handle F for turning
5 the gear.

The operation of the device will be understood. When it is desired to wring the cloth, the clamping device D is drawn upward toward the top of the frame B. The gear is rotated, thereby rotating the said clamping device and twisting the cloth, wringing it in a very thorough manner. When the wringing is completed, the clamping device D is run
10 down toward the lower end of the frame A, when the mop is ready for use.

To hold the cloth firmly when the two ends meet, I provide the bar b^2 with a spring-lip G to engage the clamping device D, in the manner shown in Fig. 2. The lip will securely
20 hold the clamp D in position, giving firmness to the mop.

The power applied to wring the cloth draws it into the interstices of the clamping-jaw in the manner specified. The teeth on the adjacent bar project into the interstices of the clamping-jaw when they are brought together, the clamping-jaw at the same time forming a shield for the teeth, so that they cannot scratch the floor in mopping.

I do not wish to be limited solely to the precise mechanism herein shown and described for rotating the spindle or rod D', as the same might be varied without departing from the principle of my invention. I prefer,
30 also, to provide a spring, as at H, bearing upon the spindle to hold the spindle in a given position when the clamp D is drawn upward and prevent its slipping down until so desired.

I contemplate, when desired, to further provide the clamping device at the lower end of the frame with a brush-holder I, suitably constructed to engage an ordinary brush. To this end the holder may be provided with a set-screw i to
40 secure the brush therewith, and a perforated ear i' . The cross-bar b^2 for this purpose is preferably provided with an arm J and thumb-screw J². The ear of the brush-holder is located upon said post and the thumb-screw turned down upon it to hold it in place.
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The ear may be set at such an angle to the body of the brush-holder that the latter will be in suitable position for use by turning the mop the proper side downward, while by reversing the mop the cloth is in position for
55 use without being at all interfered with by the brush-holder.

This brush-holder attachment may or may not be employed within the scope of my invention.
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When used, the cloth may be brought up toward the top of the frame B and held suspended in that position by the spring H or otherwise.

What I claim as my invention is—
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1. The combination, with a handle made tubular a required distance and provided with a frame supporting a clamping device at its lower end, of a spindle having a rotatable and reciprocating engagement in said handle
70 and gear for rotating said spindle, said spindle provided with a clamping device, substantially as set forth.

2. The combination, with a handle made tubular a required distance and provided with
75 a frame supporting a clamping device at its lower end, of a spindle entering said handle and provided with a clamping device at its lower end, a pinion journaled in the handle, and a gear meshing with said pinion and journaled in the handle, said spindle made angular in cross-section and passed through a corresponding aperture in said pinion, substantially as set forth.
80

3. The combination, with a handle made tubular a required distance and provided with
85 a frame supporting a clamping device at its lower end, of a spring-lip engaged with said clamping device, a spindle having a rotatable and reciprocating engagement in said handle, and mechanism to rotate the spindle, said spindle provided with a clamping device, substantially as set forth.
90

In testimony whereof I sign this specification in the presence of two witnesses.

EDWIN C. ROLLS.

Witnesses:

N. S. WRIGHT,
CHAS. F. SALOW.