

(No Model.)

E. C. ROLLS.
MOP AND WRINGER.

No. 432,806.

Patented July 22, 1890.

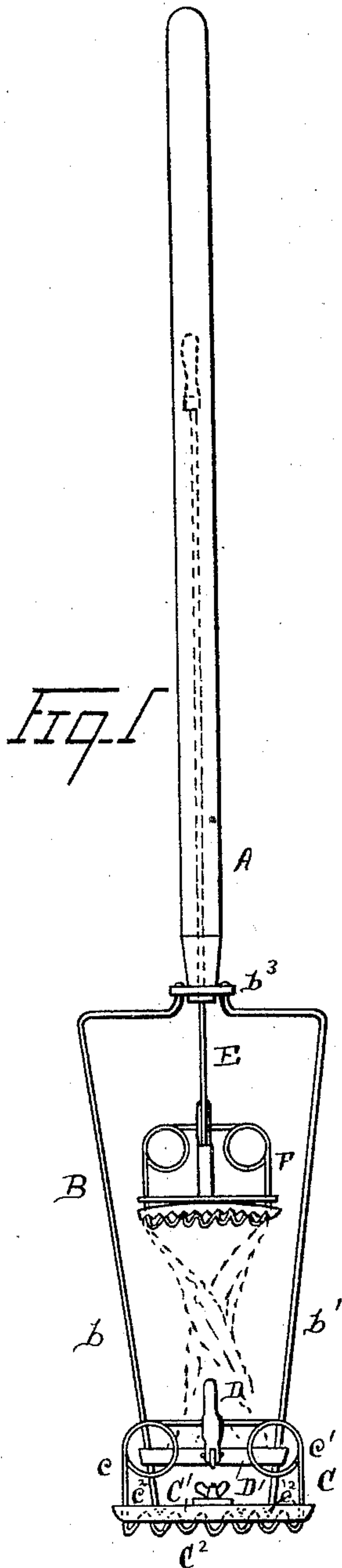


Fig. 1

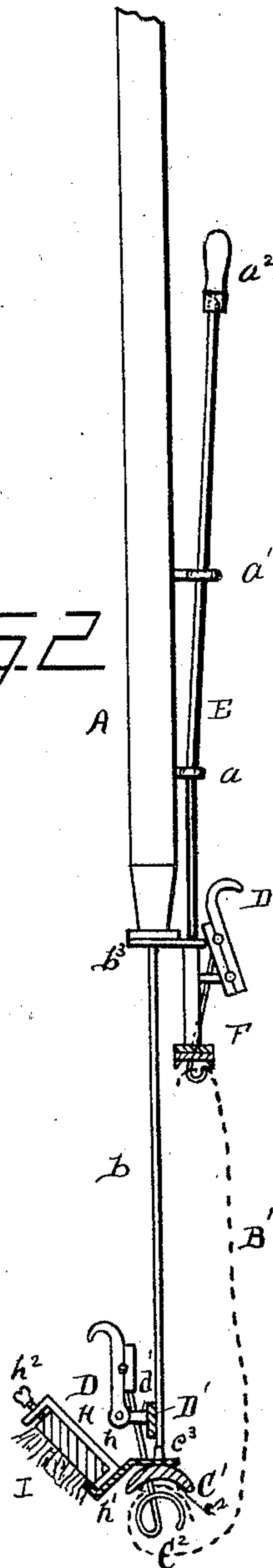


Fig. 2

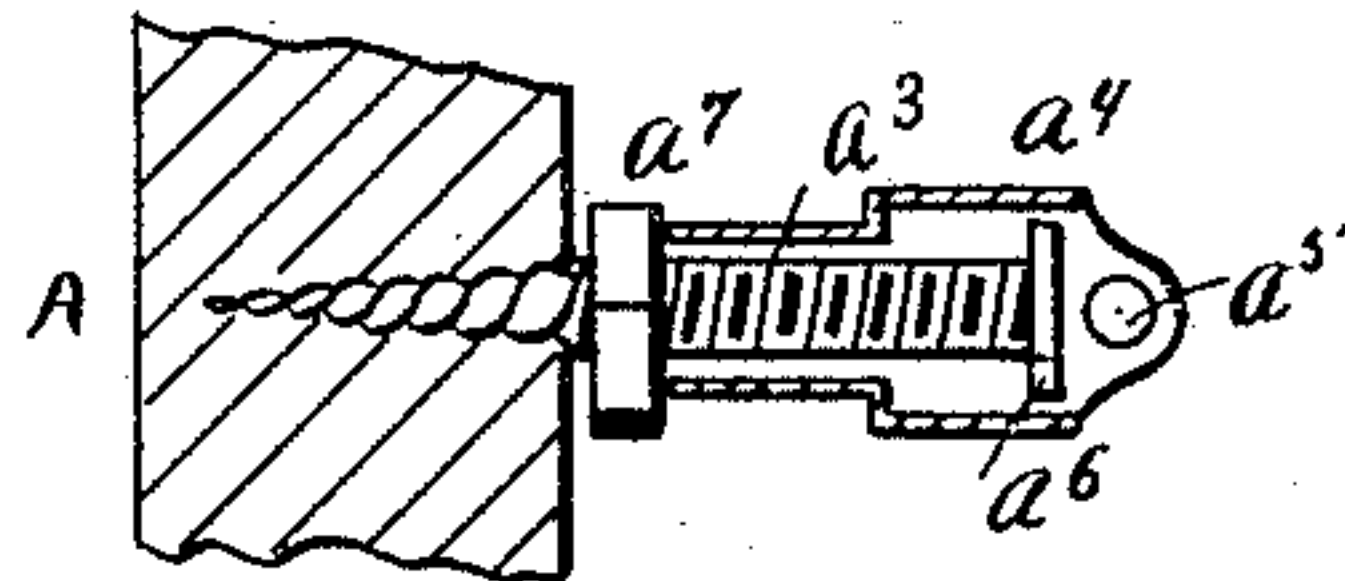


Fig. 3

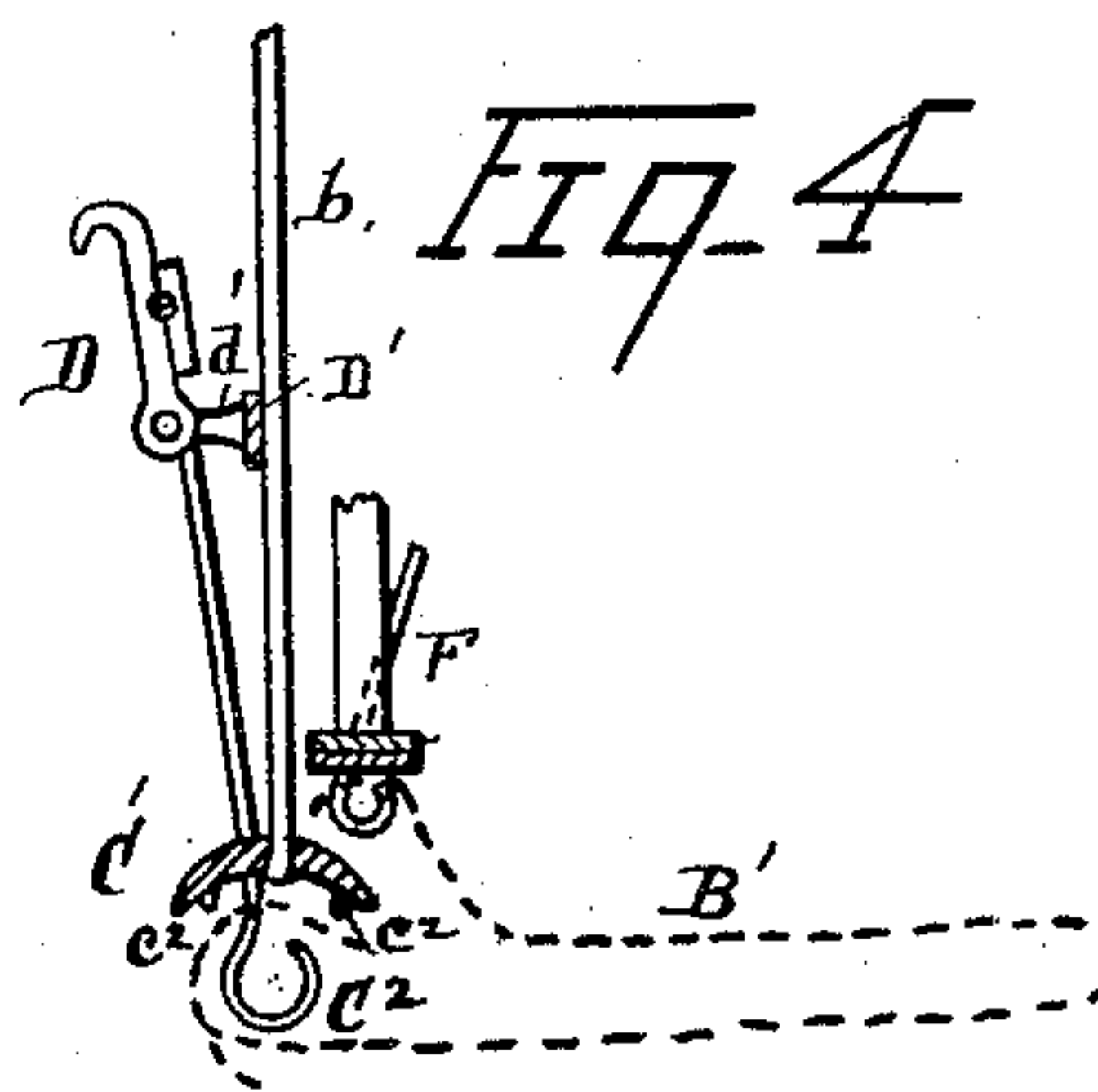
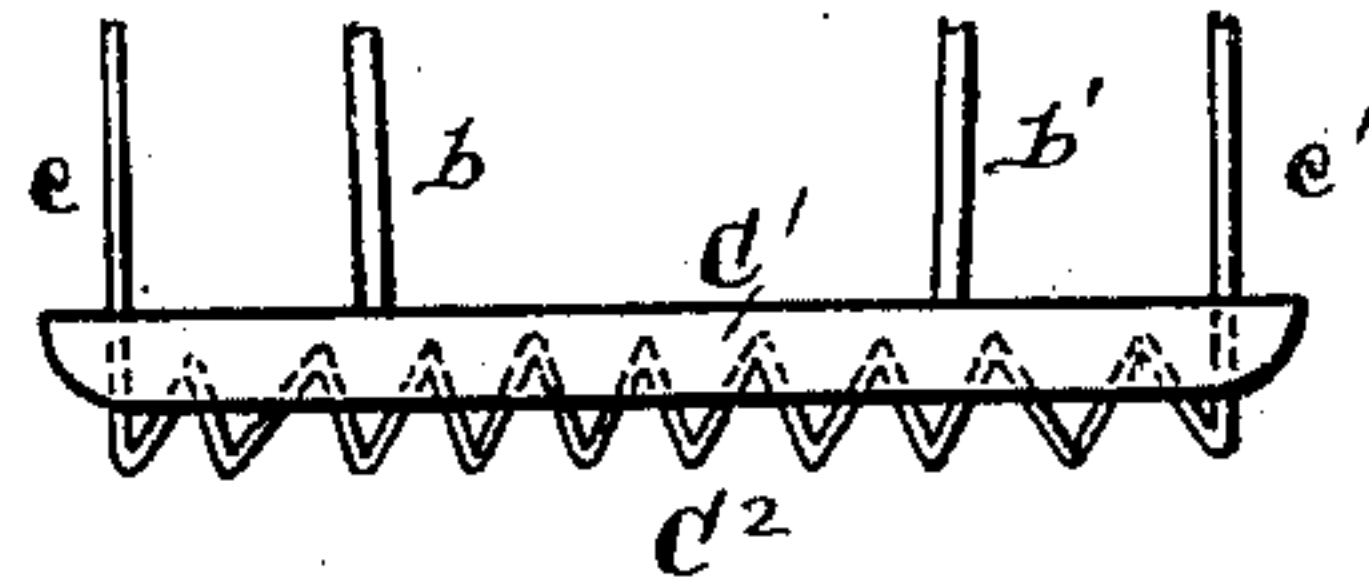


Fig. 4

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UNITED STATES PATENT OFFICE.

EDWIN C. ROLLS, OF CHATHAM, ONTARIO, CANADA.

MOP AND WRINGER.

SPECIFICATION forming part of Letters Patent No. 432,806, dated July 22, 1890.

Application filed April 19, 1889. Serial No. 307,847. (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 Essex, and Province of Ontario, Canada, have invented a certain new and useful Improvement in a 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 has for its object to provide a mop and wringer attachment combined therewith, which shall be simple and efficient in its construction and operation, whereby the necessity of soiling the hands by contact with the mop-cloth and water is wholly avoided.

To this end my invention consists of the devices and appliances and their combinations, as more fully hereinafter described and set forth in the claims, and more definitely illustrated in the accompanying drawings, in which—

Figure 1 is a front elevation of a device embodying features of my invention. Fig. 2 is a longitudinal section at right angles to Fig. 1, and showing brush attachment. Fig. 3 is a separate view showing the bar c^2 fluted or coiled. Fig. 4 is a separate view in section showing the actual position of the clamping devices when in readiness for mopping. Fig. 5 is a detail view of a tension-bearing of convenient construction and operation.

I carry out my invention as follows:

A represents a mop-handle, preferably made of wood and provided with a bifurcated frame B at its lower end. The said frame may consist of arms $b b'$, which are provided at their lower extremities with a clamping device C, to hold the mop-cloth, indicated in dotted lines at B', Figs. 2 and 4. I prefer to construct the said clamping device with a locking-bar C' , engaged with said arms $b b'$ and with a movable jaw C^2 , preferably constructed of coiled or fluted wire of proper size, said jaw being provided with arms cc' , which may be in the nature of spring-arms, the same being connected to a lever D, having a jointed engagement upon a post d' on a cross-bar D' ,

uniting the arms of the frame B. The union of the arms $c c'$ with the lever D being outward from its jointed engagement upon the post d' , it will be seen that as the lever is thrown in one direction the jaw C^2 will be opened, the jaw being firmly closed against the bar C' when the lever is thrown in the opposite direction. The said bar C' is also preferably provided with teeth, as at c^2 , Figs. 1 and 4, projecting into the interstices of the jaw to more firmly hold the cloth in place, the jaw forming a shield to prevent the teeth from scratching the floor. I do not, however, contemplate limiting myself to any particular form of clamping device alone at the base of the frame B.

To wring the cloth, I provide a vertically-sliding bar or rod E, having a clamping device F engaged therewith at its lower end. The bar or rod E is preferably made of spring-steel. The clamping device F may be of any suitable construction, but is so constructed and engaged with the bar E and supported thereupon as to hold the cloth suspended and stretched its full width. Such a construction and arrangement will insure the return of the cloth to the floor for mopping in a stretched and flat condition without any adjustment being required by the hand or otherwise. To this end the fastening device F extends in a plane parallel with the plane of the frame B, or substantially parallel therewith, as shown in Figs. 1, 2, and 4, both when raised and lowered.

A special feature of my invention is to make the clamping device F, with the mop-cloth thereto attached, self-supporting in any desired position. Accordingly I prefer to provide the frame B with a collar b^3 , through which the bar E is extended. The handle A is also provided with suitable bearings or supports $a a'$, the rod E having a reciprocatory engagement in said collar and bearings, so as to lift the cloth upward into position for wringing, as shown in Fig. 2, the clamp F being raised toward the top of the frame B for this purpose, and to force the cloth downward again into position for use, as shown in Fig. 4. When the cloth is suspended, as shown in Fig. 1 in the position for wringing, the rod or bar E may readily be rotated to twist and wring the cloth.

To make the bar and its clamp self-supporting in any desired position, I design to make the upper support or bearing a' adjustable, so that the rod E may be forced outward at its upper end from the handle to secure any degree of frictional tension required. It will be obvious that by adjusting outward said bearing a' beyond the projection of the bearing a a bend or curvature will necessarily be given to the spring-bar E, causing said bar to bind suitably in its bearings, the binding-pressure so produced upon said bar being made sufficient to support and hold the clamp F, as may be required. It will also be obvious that the bar E is at the same time readily moved vertically, as may be required, and rotated in order to wring the cloth, the pressure serving effectually to prevent any slipping of the bar when it is desired to have it maintained in any particular position. The tension of the bar E thus will not only support the clamp in position for wringing, but will equally well hold the clamp firmly in its proper position when forced down into position for mopping and prevent its slipping about the floor, as it would otherwise do.

The adjustable support or bearing a' may be of any suitable construction. Thus, the bearings a a' may consist simply of eyes screwed into the handle, the eye a being in line with the aperture in the collar b^3 , so that the rod may pass straight through the two, parallel with the handle and with the bars b b' of the frame. The upper eye, if simply screwed into the handle, may readily be run in the required direction to secure the degree of tension desired on the sliding bar. If the upper bearing be simply a screw-eye, as shown in Fig. 2, by removing the handle a^2 of the sliding bar it may be readily disengaged with said eye, which may then be adjusted, as required, and the sliding bar be then re-engaged therein. This bending outward of the upper end of the sliding bar gives ample room for the hand in rotating the bar.

A simple and convenient construction of an adjustable bearing to engage the upper end of the sliding bar is shown in Fig. 5, in which a^3 represents a threaded stud entering the handle A, said stud provided with a tubular or hollow sleeve a^4 , perforated, as shown at a^5 , to receive the sliding bar E. Said sleeve may be held from displacement on said stud by providing the stud with a cap or head a^6 . The stud is also further provided with a nut a^7 at the inner end of the sleeve, by turning which upon the stud it is evident that the sleeve may readily be adjusted to secure the proper tension of the sliding bar without removing it from said bearing.

H in Fig. 2 represents a brush-holder attachment, consisting, essentially, of a suitable frame h , to hold the brush, the frame being provided with an ear h' , set at a proper angle to the frame and perforated to rest over a post c^3 on the cross-bar C' . A thumb-screw

h^2 holds the brush J in the frame. When it is desired to use the brush, the cloth is drawn up to the top of the frame, where it is firmly held by the tension of the bar E, as already described. By turning over the mop-handle and forcing downward said bar the cloth is in position for use without any interference by the brush. This brush attachment may be used or dispensed with within the scope of my invention. It will be observed that in wringing, the strain comes upon the jaw C^2 of the clamp C, thereby forcing the cloth into the interstices of the coiled or fluted wire, holding the cloth from bunching in the middle.

What I claim as my invention is—

1. The combination, with a handle provided at its lower end with a frame supporting a clamping device, of a rotatable and reciprocatory rod provided with a clamping device at its lower end, and bearings for uniting said rod to said handle, one of said bearings being adjustable at an angle to said rod to retain said rod in adjustment, substantially as set forth.

2. The combination, with a handle provided at its lower end with a frame supporting a clamping device, of a rotatable and reciprocatory rod supporting a clamping device, and bearings uniting said rod to said handle and exerting a frictional tension upon said rod to retain it in its adjusted position, substantially as set forth.

3. The combination, with a handle provided at its lower end with a frame supporting a clamping device, of a rotatable and reciprocatory rod, and bearings uniting said rod to said handle, one of said bearings being out of alignment with the other, whereby the rod is caused to bind in said bearings, substantially as set forth.

4. In combination, a bar having a toothed face, a jaw constructed with an irregular surface upon the portion adjacent to said bar and upon its opposite portion, whereby the mop-cloth when engaged between said bar and jaw will be prevented from bunching at the sides of the jaw and slipping on the under side of the jaw from one end thereof to the other when in use, and a device for clamping and locking said jaw in position, substantially as set forth.

5. In a mop provided with a tension, sliding bar, a bearing uniting said bar to the mop-handle, said bearing consisting of a stud engaged with the handle, a perforated sleeve mounted on said stud, and a nut engaged upon the stud between the sleeve and the handle, substantially as set forth.

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

EDWIN C. ROLLS.

Witnesses:

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