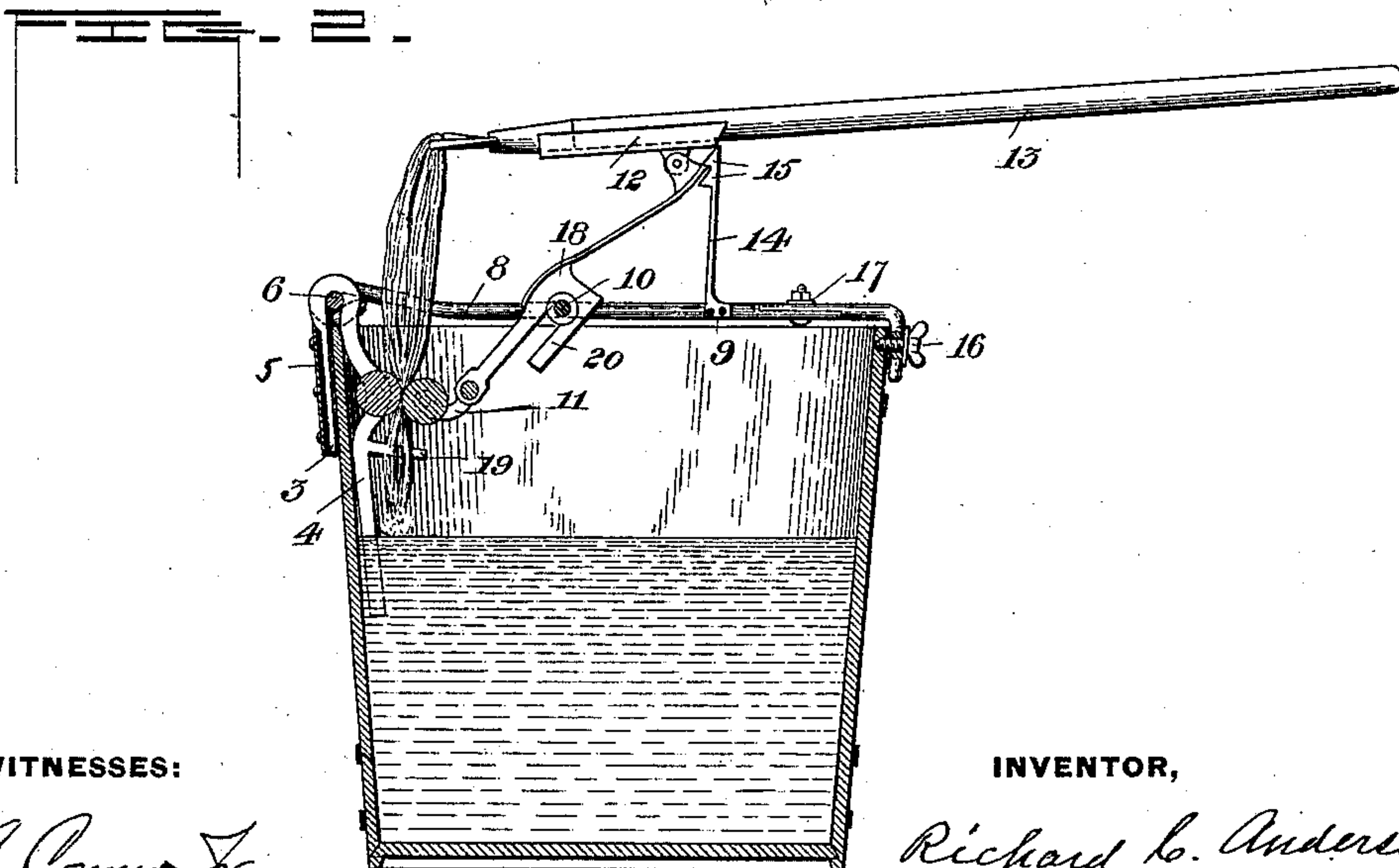
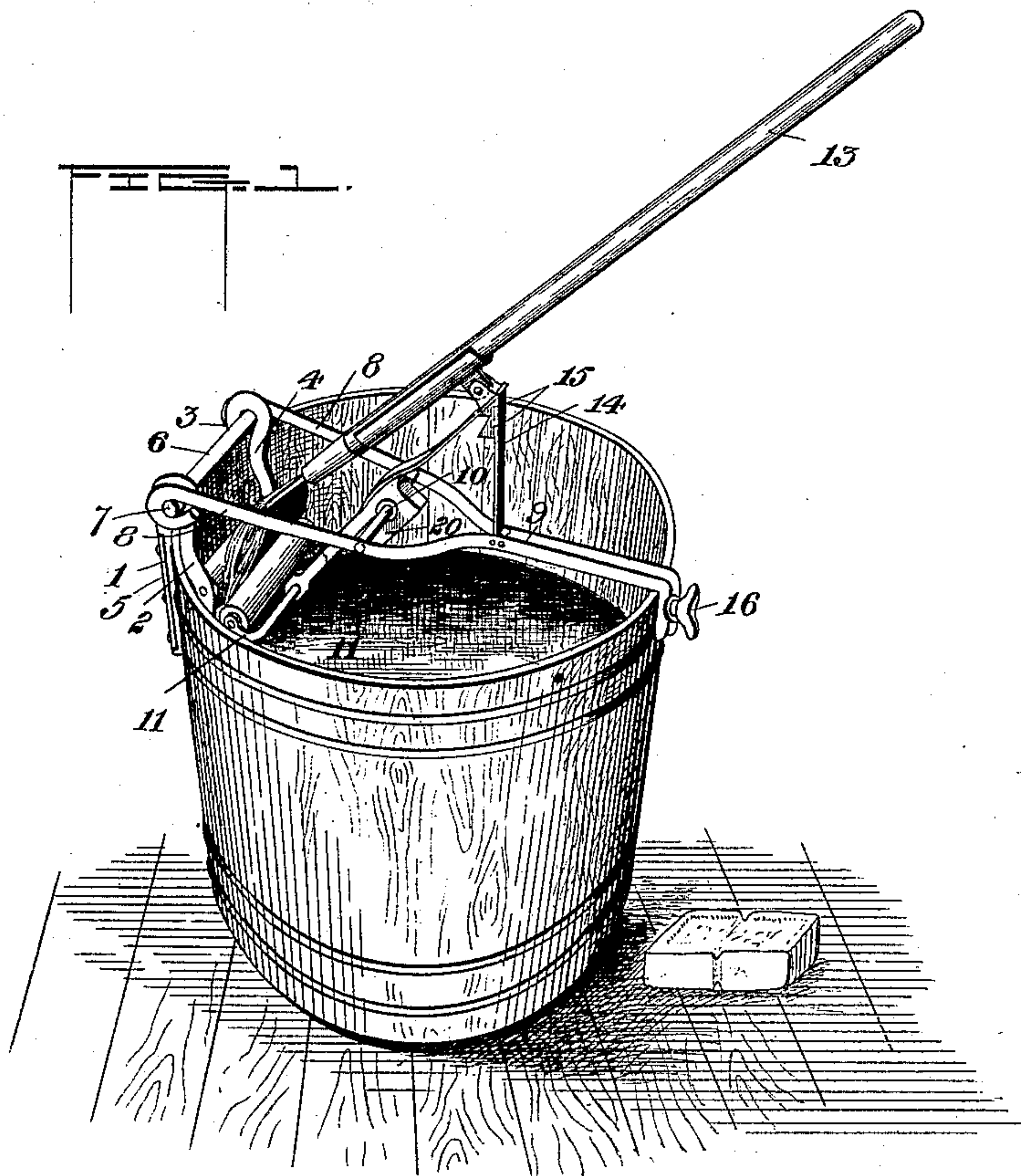


(No Model.)

R. C. ANDERSEN.
AUTOMATIC MOP WRINGER AND WASHER.

No. 422,487.

Patented Mar. 4, 1890.



WITNESSES:

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UNITED STATES PATENT OFFICE.

RICHARD C. ANDERSEN, OF PAWNEE CITY, NEBRASKA.

AUTOMATIC MOP WRINGER AND WASHER.

SPECIFICATION forming part of Letters Patent No. 422,487, dated March 4, 1890.

Application filed July 5, 1889. Serial No. 316,557. (No model.)

To all whom it may concern:

Be it known that I, RICHARD C. ANDERSEN, a resident of Pawnee City, in the county of Pawnee and State of Nebraska, have invented certain new and useful Improvements in Mop Wringers and Washers; and I do hereby 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 pertains to make and use the same.

The object of the invention is to provide a wringer suitable for wringing mops which can readily be applied to or removed from a pail or other article, and which also shall be so arranged that the force applied to the mop-handle in wringing will be directed in or near the axis of the pail or receptacle, and which can without entire removal be easily turned back so as not to allow free access to the interior of the pail, and which has other features and advantages to be hereinafter set forth; and the invention consists in the constructions and combinations hereinafter described and pointed out.

In the accompanying drawings, Figure 1 is a perspective and Fig. 2 a sectional view of a modified form of the improved wringer applied to a tub.

The wringer comprises two frames, one of which consists of two pairs of legs 1 2 and 3 4, firmly connected by one or more cross pieces or plates 5, (shown in end view in Fig. 1 and in section of Fig. 2,) attached to the members 1 and 3, and made to embrace the wall of a pail or other article. The legs 1 3 joined in this or any equivalent manner are intended to lie against the exterior of the receptacle and the legs 2 and 4 against the interior, as indicated. It is obvious that if the members 2 and 4 were rigidly joined by a plate or by a bar or bars or the like it would not be necessary to so join the exterior members 1 and 3, and that the device would be operative were these cross plates or bars omitted, since the parts may be rigidly secured to a rod 6. This rod is extended on each side, at 7, beyond the members of the frame above described, to receive two members 8 of a second frame bent, as shown in the present instance, to embrace said extensions. The two branches 8 are bent and secured together at

a point 9 near the vertical axis of the receptacle to which the device is to be applied. At 10 a cross-bar is secured to the branches 8, and upon it is journaled so as to partially revolve thereon a roller-carrying lever 18. The lever 18 has bracket-arms 11 at its lower end supporting a roller, an oppositely-located roller being supported in the legs 2 and 4 of the first-described frame, which may be curved or enlarged to provide suitable bearings thereon. This lever is provided with a slot or seat at 20, adapted to embrace the fulcrum and partially revolve on the same, and can be loosely connected therewith to permit easy removal for cleaning or other purposes. Upon the upper end of the lever is pivoted or journaled a bed or seat 12, to receive and support the handle 13.

At 9 is erected a post 14, provided with one or more catches or ratchet-teeth 15, arranged and adapted to engage the end of the lever 11, as shown in Fig. 2. This post need not be and preferably is not a spring, as a slight degree of elasticity in the several connected parts will permit lever 18 to be sprung under a catch 15. It is released from engagement with the catch by forcing the beveled or rounded edge of the seat 12 down upon the inclined face of the post or catch, by which lever 18 and post 14 can be slightly sprung apart.

16 indicates a set screw or clamp for securing the frame to the pail, and 17 a means for adjusting the frame to receptacles of different sizes.

19 indicates a guide, of which there are two, one on each of the two parts 2 and 4 of the frame and near the ends of the roller supported in said parts 2 and 4, to retain the mop at the sides when compressed between the rollers.

The operation is as follows: The device having been secured to any suitable receptacle, a mop or like article can be placed in the bracket at either side of the horizontal frame, or it can be inserted between the rollers, the lever 18 readily swinging to a vertical position, whereby the rollers are suitably separated. If the mop be raised vertically from the last-described position, no hindrance to its free movement occurs. If, however, the

handle be inclined and pressed down upon the pivoted seat 12, as represented in the drawings, the lever 18 will be turned upon its fulcrum 10, and its rollers will be caused to approach the roller supported in the vertical frame, and the mop will thereby be compressed between them, and the degree of pressure can be regulated by applying a suitable degree of force to the mop-handle. Under some circumstances it will be desirable to change the contents of the pail after wringing the mop, as above described. To permit this and in the meantime conveniently support the mop, its handle and the lever 18 can be depressed until the upper end of the lever engages one of the catches 15. Several of these can be provided to permit the lower end of mops of different lengths to be retained between the rollers, and this also provides for a variation or increase of pressure on the same mop. When subsequently it is desired to release the mop, the seat 12, having the beveled end bearing on the outer inclined face of catch 15, as shown in Fig. 2, is forced downwardly, with the effect to slightly spring apart the lever and the post and to release the former from its engagement with the catch.

If free and unobstructed access to the interior of the pail is desired, the horizontal frame can be swung back on its joint at 7. To remove the device entirely it is only necessary to loosen the screw or clamp 16 and the wringer can be lifted from the pail. It can be adjusted to pails of slightly-different diameters by means of this screw or to those varying more widely by the fastening-bolt at 17, which operates in a slot in one of the overlapping parts of the frame, as will be readily understood.

The details of the construction above described can be varied by mechanical skill without departing from the invention. The frames can be made of wire, of wrought or cast iron, or they can be stamped out of steel and then suitably formed. Thus the vertical frame could be stamped out of metal and then bent to embrace the edge of the pail, a pintle or journals for the horizontal frame being provided by extensions from the same or by suitably-secured wire, or in any like well-known manner. The parts made of metal may be galvanized, plated, or otherwise protected against corrosion.

It will be noted that the device secures the several advantages of easy adjustment or of removal, whether temporary or permanent, and that in operation the force that wrings the mop is exerted in a vertical line near the axis of the pail, so as to avoid all danger of tipping the same without requiring that it be specially held for that purpose.

I am aware that mop-wringers have been provided with two hinged frames, and such matter is not of my invention. My frames are so constructed and arranged that working-pressure on the mop-handle is transmitted

to a horizontal frame supported on opposite edges of the receptacle, and also so that the rollers are entirely below the top of the receptacle, whereby water squeezed from clothes is all kept in the receptacle and the horizontal frame is adapted to be swung to one side immediately over the vertical frame, so that the receptacle is at such time practically unobstructed and the ready introduction or removal of clothes or water is freely permitted.

Having thus described my invention, what I desire to secure by Letters Patent is as follows:

1. In a mop-wringer, the combination of a vertical frame having outer and inner pendent legs or members adapted to embrace the vertical wall of a receptacle, a roller journaled in the two inner legs, a second frame movable about journals on said vertical frame and extending across to the opposite side of the receptacle and there supported on its wall, a bracket or roller-carrying lever hinged or journaled on a cross-bar secured to said horizontal frame, and a roller carried thereby, substantially as described.

2. In a mop-wringer, a frame having pendent members adapted to embrace the wall of a receptacle, a roller journaled in the inner members below the top of the receptacle, a horizontal frame hinged to the vertical frame and extended to and supported by the opposite side of the vessel, a second roller, and a roller-carrying lever journaled or hinged to the horizontal frame and extending down to the level of the first-named roller, substantially as described.

3. In a mop-wringer, a vertical frame having two members extended down into the receptacle adjacent to its wall and supporting a roller, and having guides secured to said members located below the roller, a second frame hinged to the vertical frame and supported on the top of the receptacle at a point opposite the first-named frame and having a bracket or roller carrying lever hinged thereto, and a roller journaled therein and adapted to be moved thereby immediately above the guides and against the first-named roller, both being entirely within the receptacle, substantially as described.

4. In a mop-wringer, a bracket-frame extending across and supported on opposite edges of a receptacle, a transverse bar connecting the branches of the frame at or near a central vertical plane through the receptacle, and a roller-frame connected to the receptacle near the branched end of the first frame and supporting a roller, said rollers depending from the respective frames below the top of the receptacle, substantially as described.

5. The combination, in a mop-wringer, of the vertical and horizontal frames hinged together, each supporting a roller, the roller-supporting lever fulcrumed on the horizontal

frame, the post, and the seat for the mop-handle pivoted to the lever, substantially as described.

5 6. The combination, in a mop-wringer, of the vertical and horizontal frames, each supporting a roller, the roller-supporting lever fulcrumed on the horizontal frame, the post, and the seat for the mop-handle pivoted to the lever, said pivoted seat having a beveled
10 end to engage the upper end of the post, substantially as described.

15 7. In a mop-wringer, the combination of a horizontal frame adapted to rest on the top of a pail and provided with a vertical post, and a roller-carrying lever fulcrumed in the frame, provided with a pivoted seat adapted

to receive the mop-handle, the post being situated near the axis of the pail, substantially as described.

8. In a mop-wringer, the combination of the horizontal frame, the roller-carrying lever fulcrumed thereon, and a movable seat connected with the lever, adapted to receive the mop-handle, substantially as described.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

RICHARD C. ANDERSEN.

Witnesses:

WILLIAM RYAN,

WILLIAM BALLANCE.