

No. 698,773.

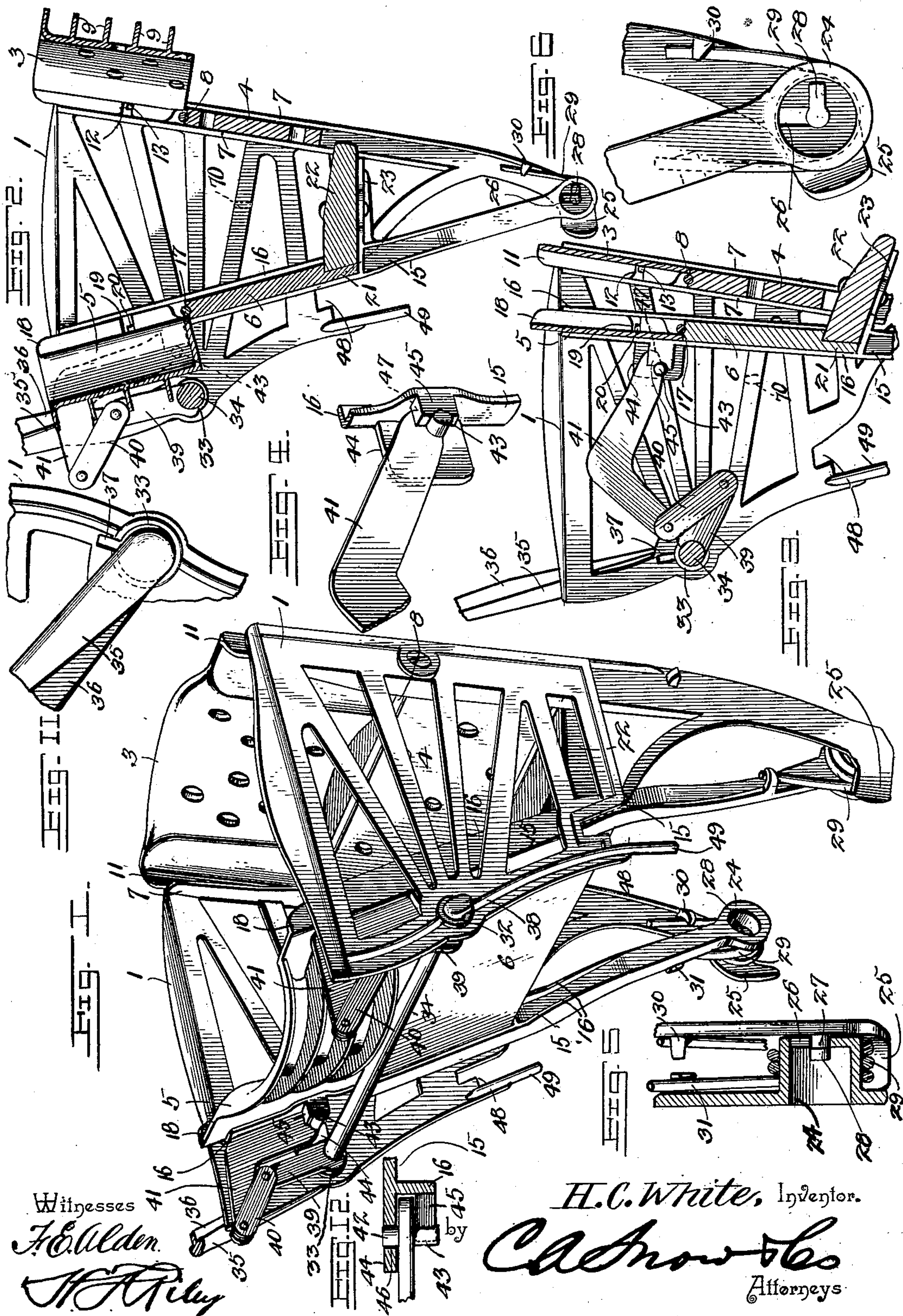
Patented Apr. 29, 1902.

H. C. WHITE.
MOP WRINGER.

(Application filed Oct. 28, 1901.)

2 Sheets—Sheet 1.

(No Model.)



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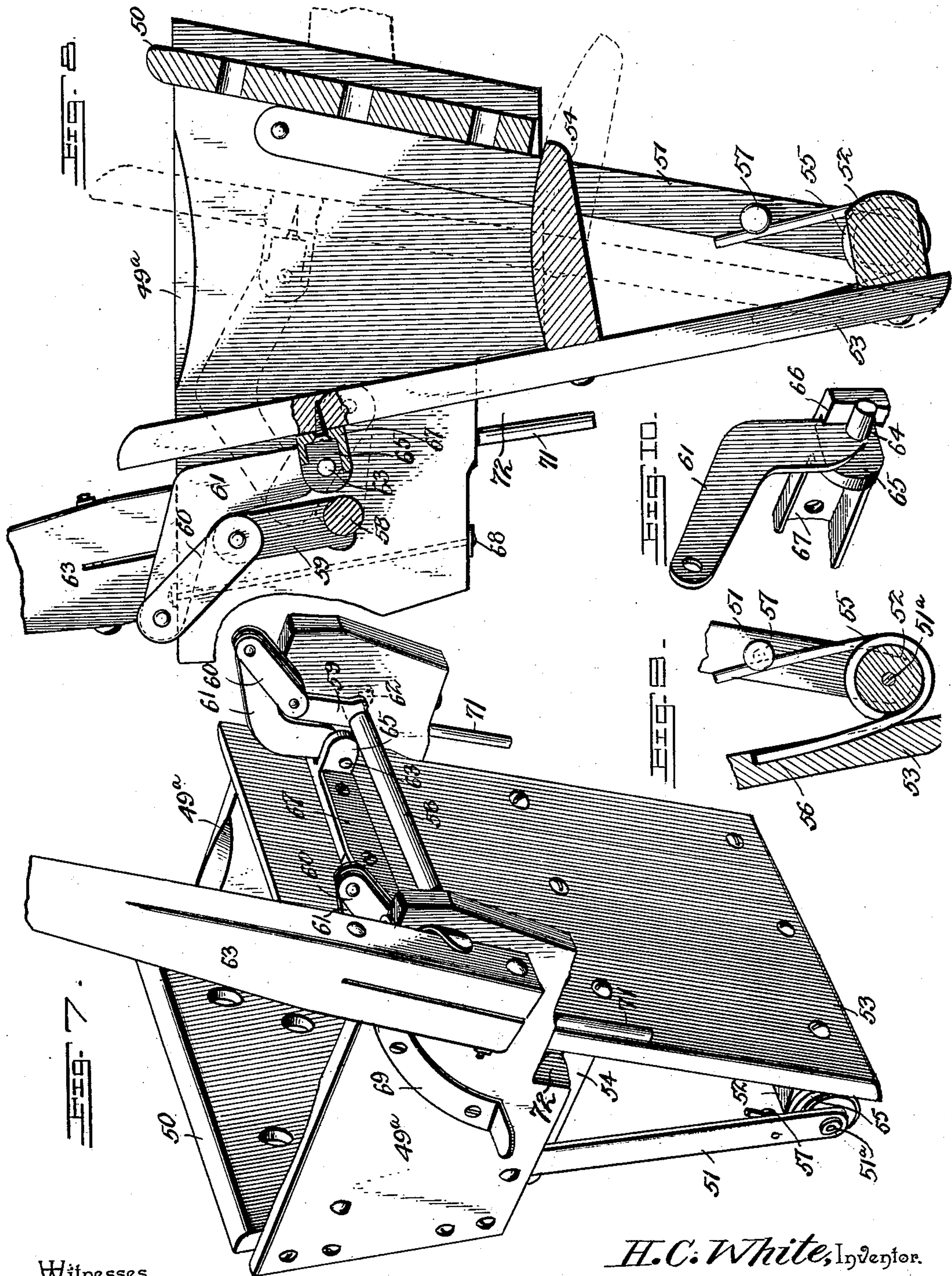
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Witnesses
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UNITED STATES PATENT OFFICE.

HUBERT C. WHITE, OF JAMAICA, VERMONT.

MOP-WRINGER.

SPECIFICATION forming part of Letters Patent No. 698,773, dated April 29, 1902.

Application filed October 28, 1901. Serial No. 80,323. (No model.)

To all whom it may concern:

Be it known that I, HUBERT C. WHITE, a citizen of the United States, residing at Jamaica, in the county of Windham and State of Vermont, have invented a new and useful Mop-Wringer, of which the following is a specification.

The invention relates to improvements in mop-wringers.

10 The object of the present invention is to improve the construction of mop-wringers and to increase their strength, durability, and efficiency, and to provide a simple and comparatively inexpensive one adapted to be readily applied to an ordinary pail and capable of enabling the excess of water to be readily expelled from a mop.

20 The invention consists in the construction and novel combination and arrangement of parts hereinafter fully described, illustrated in the accompanying drawings, and pointed out in the claims hereto appended.

25 In the drawings, Figure 1 is a perspective view of a mop-wringer constructed in accordance with this invention. Fig. 2 is a vertical sectional view of the same, the section being taken centrally of the mop-wringer and the latter being open. Fig. 3 is a vertical sectional view, the section being taken to one side of the center of the mop-wringer and the latter being closed. Fig. 4 is a detail view illustrating the manner of connecting the bell-crank arms with the movable presser. Figs. 5 and 6 are detail views illustrating the construction for connecting the movable presser with the stationary presser-frame. Fig. 7 is a perspective view of a mop-wringer, illustrating a modification of the invention. Fig. 8 is a vertical sectional view of the same. Fig. 9 is detail view illustrating the manner of connecting the movable and stationary pressers. Fig. 10 is a detail view of the hinge connection between the movable presser and the bell-crank arm. Fig. 11 is a detail view of a portion of one of the sides of the stationary presser, illustrating the manner of journaling the rock-shaft shown in Figs. 1, 2, and 3. Fig. 12 is a sectional view of the bearing illustrated in Fig. 4.

50 Like numerals of reference designate corresponding parts in all the figures of the drawings.

1 1 designate similar sides of a stationary presser-frame which is provided with upper and lower presser-boards 3 and 4, cooperating with upper and lower presser-boards 5 and 6 of a movable presser or presser-frame. The lower presser-boards are preferably constructed of wood and are straight, as shown, and the upper presser-boards, which are preferably constructed of metal, are curved transversely of the mop-wringer and are adapted to receive a mop having a mop cloth or fabric in the form of a large bunch of material. The sides 1, which consist of open-work, as clearly shown in Fig. 1, are provided with longitudinal flanges 7, arranged in pairs and receiving the ends of the upper and lower presser-boards. The lower wooden presser-board is provided with perforations for the escape of the water expelled from the mop, and it has a groove at its upper edge to receive a transverse rod 8, which connects the sides and holds the parts together. The upper curved presser-board is provided with exterior ribs 9, and it has perforations located between the ribs. The ends of the curved presser-board are provided with flanges 11, arranged in the grooves formed by the flanges 7 and provided with notches 12, receiving lugs or projections 13 of the sides 1, whereby the curved presser-boards are locked in the grooves of the sides of the presser-frame.

35 The movable presser or presser-frame is provided with sides 15, having parallel ribs or flanges 16, receiving the ends of the presser-boards 5 and 6, which are imperforate to prevent the water from escaping at the rear or outer face of the wringer. The sides are connected by a transverse rod 17, and the upper curved presser-board is provided with side flanges 18, having notches 19 for the reception of lugs or projections 20 of the sides of the movable presser. The lower wooden presser-board 6 is provided at its bottom with a depending flange or extension 21, arranged at the back of the bottom board 22, which is imperforate. By extending the presser-board 6 below the bottom board water is prevented from escaping at the back of the latter, which is received within the recess formed by reducing the lower edge or portion of the said presser-board 6. The sides 15 are provided

between their ends with arms 23, extending beneath and supporting the bottom board, as clearly illustrated in Fig. 2.

The lower ends of the sides of the movable presser are provided with hollow cylindrical enlargements 24, fitting against the inner faces of the lower ends 25 of the sides of the stationary presser and provided with slots 26, having lower bearing portions and arranged substantially longitudinally of the sides 15 and receiving pivots 27. The pivots 27 are formed integral with the sides of the stationary presser and extend from the inner faces of the same and are provided with lugs 28, adapted to be passed through the slots 26 when in alinement with the same and arranged at an angle to the said slots when the parts are assembled. By this construction the parts are detachably interlocked and are adapted to be readily assembled, and the cylindrical enlargements provide a broad bearing and equalize the strain. The mop-wringer is held normally open by springs 29, consisting of coils which are arranged on the cylindrical enlargements, and arms which engage lugs 30 and 31 of the sides 1 and 15.

The sides 1 are provided with bearing-openings 32 and 33 for the reception of a rock-shaft 34, which is provided with an integral handle-lever 35, and the handle-lever is reinforced by a rib 36, adapted in assembling the parts to pass through a slot 37, forming an extension or continuation of the bearing-opening 33. In assembling the parts the lever 35 is passed through the bearing-opening 33 to arrange the side 1 on the rock-shaft, and the slot or extension 37 permits this operation to be effected. The rock-shaft is also provided with a lip or extension 38, arranged at the bearing-opening 32 and adapted to prevent longitudinal movement of the rock-shaft when the parts are assembled.

The rock-shaft is provided adjacent to the inner faces of the sides 1 with arms 39, which are connected by links 40 with bell-crank arms 41, and the latter are pivotally connected with the movable presser and are provided with laterally-extending pivots or journals 42 and 43. The bell-crank arms 41 are arranged in bearings, each consisting of a flange or ear 44 and a parallel flange 45, spaced from the flange 44 to receive the end of the bell-crank arm, which is provided with a cut-away portion adjacent to the pivot. The flange or ear 44 is provided with a bearing-opening and the flange 45 has a bearing-recess to receive the pivot or journal 43. The other pivot or journal 42 is arranged in the opening 46 of the flange 44, and when the parts are assembled the bell-crank arm extends between the flanges 44 and 45 and prevents any displacement of the pivots or journals; but when the cut-away portion 47 is arranged in alinement with the outer end of the flange 45 the bell-crank arm is adapted to be moved laterally past the said flange 45 to disconnect the parts. By this construc-

tion the parts are detachably connected and are adapted to be readily assembled and are securely held in engagement when the parts are in operative position.

The sides 1 are provided at points between their top and bottom with recesses 48, having extensions 49 and adapted to fit the upper edges of a wooden or metallic pail, and the lower ends 25 of the sides are extended approximately horizontally and are curved to form arms which provide a broad bearing to fit against the pail to avoid puncturing or otherwise injuring the same.

In Figs. 7 to 10, inclusive, of the drawings is illustrated a modification of the invention in which the stationary presser is constructed principally of wood, being composed of sides 49^a, a presser-board 50, and depending bars 51, constructed of metal and secured to the inner faces of the sides 49^a by rivets or other suitable fastening devices. The lower ends of the bars 51 are pivoted by a transverse rod 51^a to a block or bar 52, secured to the movable presser 53, which preferably consists of a continuous board and which is provided with a bottom bar or board 54. The rod 51^a extends entirely across the movable presser and will not be affected by the swelling or shrinking of the block or bar 52. The ends of the block or bar 52 are reduced and rounded to receive springs 55, which are provided with arms arranged in grooves 56 of the movable presser and engaging headed lugs or studs 57 of the metal bars of the stationary presser.

The sides of the stationary presser are provided with bearings for a rock-shaft 58, having arms 59, which are connected by links 60 with bell-crank arms 61. One end of the rock-shaft is provided with a lip 62 and the other end has a handle 63 secured to it. The links 60 are arranged in pairs similar to those of the mop-wringer heretofore described, and the bell-crank arms are provided with laterally-extending pivots or journals 63 and 64, arranged, respectively, in bearings of flanges 65 and 66. The flange 65 is provided with an opening to receive the journal or pivot 63, and the other flange 66 is provided with a bearing-recess to receive the other pivot or journal 64. The journals or pivots are adapted to be engaged with the bearings of the flanges similar to those heretofore described. The flanges 65 and 66 are preferably formed integral with a transverse bar 67, which is secured to the movable presser, as clearly shown in Fig. 8.

The sides of the stationary frame or presser are braced by rods 68, extending entirely through the sides from top to bottom and having their upper ends headed and provided at their lower ends with rivet disks or washers. The stationary frame is also provided with a bar 69, having its ends bent outward to form stops for the lever, and one of the sides 1 of the wringer (illustrated in Figs. 1 to 6, inclusive) is provided with an integral projection 70 to form a stop for the lever 35.

The sides 49^a of the stationary presser are provided with recesses 72 for the reception of the upper edges of a pail, which is engaged by depending rods 71.

5 The wet mop-cloth is placed between the stationary and movable pressers and the handle-lever is swung downward, which, through the medium of the rock-arms, the bell-crank arms, and the connecting links, will cause the
10 movable presser to move toward the stationary presser board or boards, and the mop-cloth will be squeezed to the desired extent and all the superfluous water expelled therefrom. When the handle-lever is released,
15 the springs will operate to open the mop-wringer automatically.

Various changes in the form, proportion, size, and minor details of construction within the scope of the appended claims may be
20 made without departing from the spirit or sacrificing any of the advantages of this invention.

What is claimed is—

1. A mop-wringer comprising the stationary
25 and movable pressers provided with lower straight presser-boards and having upper transversely-curved presser-boards, and means for moving the movable presser to and from the stationary presser, substantially as
30 described.

2. A mop-wringer comprising the sides 1 provided at their lower ends with horizontal arms curved to fit against the inner faces of a pail, said sides 1 being also provided with
35 recesses, to receive the upper edges of the pail, a presser-board arranged between the sides, a movable presser connected with the sides 1, and means for operating the movable presser, substantially as described.

40 3. A mop-wringer comprising a stationary presser provided with opposite sides having bearing-openings, one of the sides being provided with a narrow slot forming an extension or continuation of the bearing-opening of
45 such side, a rock-shaft arranged in the bearing-openings of the sides and having rock-arms located between the same, said rock-shaft being also provided with a handle-lever rigid with the rock-shaft and provided with
50 a longitudinal rib arranged to pass through

the said slot, and a movable presser connected with and actuated by the arms of the rock-shaft, substantially as described.

4. A mop-wringer comprising a movable presser provided with sides, a stationary
55 presser having sides arranged adjacent to those of the movable presser, hollow extensions mounted on the sides of one of the pressers and provided with slots, pivots arranged on the sides of the other presser and
60 fitting in the slots and provided with lugs arranged at an angle to the slots when the parts are in operative position and adapted to be brought in alinement with the slots to assemble the parts, and means for actuating the
65 movable presser, substantially as described.

5. A mop-wringer comprising stationary and movable pressers, a shaft journaled on one of the pressers, parallel flanges mounted on the other presser, one of the flanges being
70 provided with a bearing-opening and the other flange having a bearing-recess, an arm having pivots arranged in the bearing-opening and in the bearing-recess, said arm projecting between the flanges when the parts
75 are in operative position, and having a cut-away portion adapted to be arranged adjacent to the flange having the bearing-recess, whereby the parts may be readily assembled, and means for connecting the arm with the
80 shaft, substantially as described.

6. A mop-wringer comprising stationary and movable pressers hinged together, the movable presser being provided at opposite
85 sides with parallel flanges arranged in pairs, one of the flanges being provided with an opening and the other having a bearing-recess, bell-crank arms provided with oppositely-disposed pivots arranged in the openings and recesses of the flanges, a rock-shaft
90 journaled on the stationary presser, and links connecting the bell-crank arms with the rock-shaft, substantially as described.

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

HUBERT C. WHITE.

Witnesses:

JULIUS G. WHITE,
JOHN S. ROBINSON.