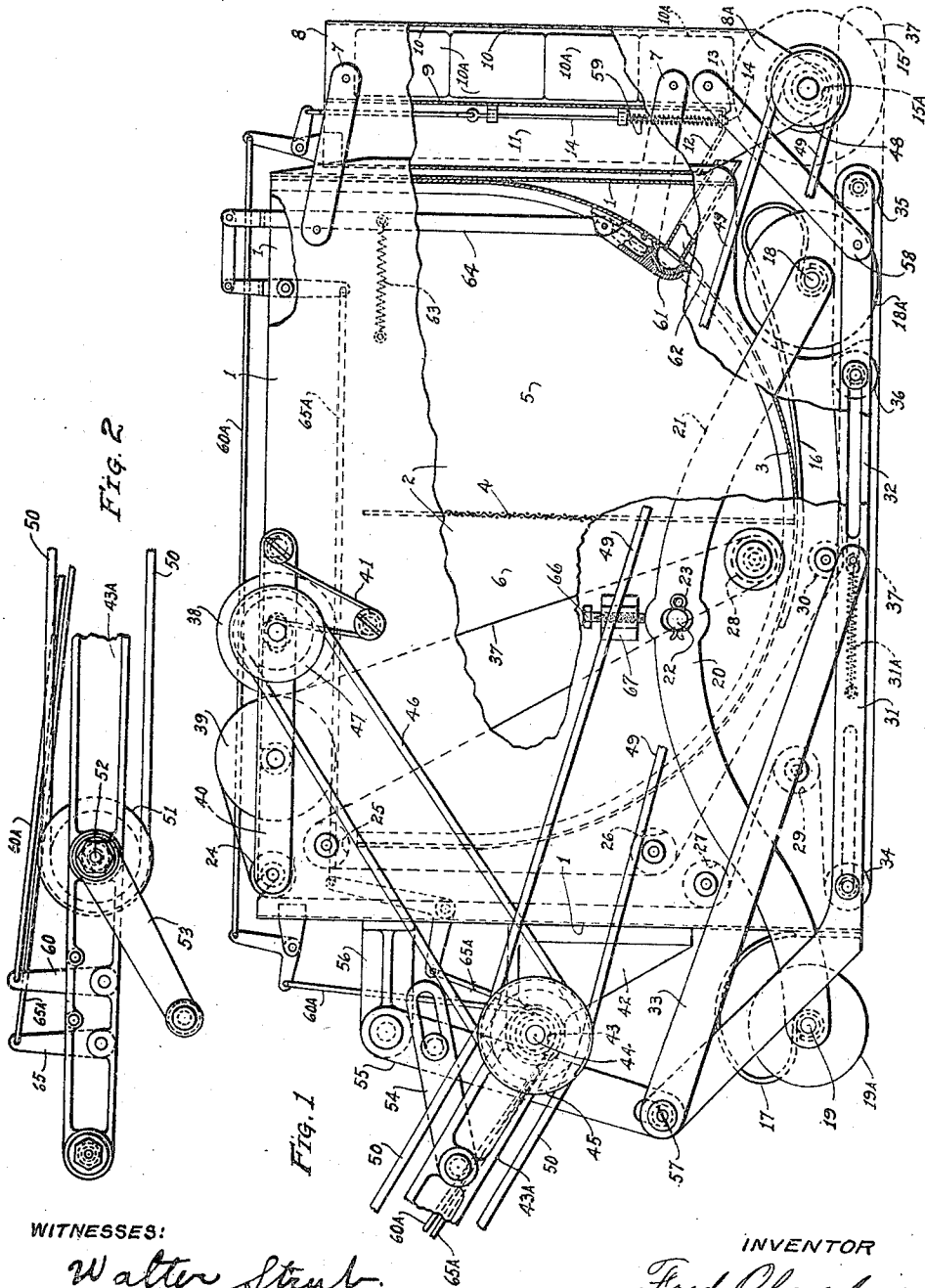


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 COMBINATION SCRUBBING AND MOPPING MACHINE.
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FRED OLANDER, OF CHICAGO, ILLINOIS.

COMBINATION SCRUBBING AND MOPPING MACHINE.

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To all whom it may concern:

Be it known that I, FRED OLANDER, a subject of Sweden, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Combination Scrubbing and Mopping Machines, of which the following is a specification.

My invention relates particularly to improvements in combination scrubbing and mopping machines which scrub and mop the surfaces of floors, and the like, simultaneously; and also said machine may be readily changed into a varnishing or painting machine, by changing for the scrubbing brush a brush suitable for painting or varnishing, as the case may be; the objects as attained by my improvements will be disclosed in the drawings and more particularly described in the following specification and appended claims.

In the accompanying drawing the illustrations Figures 1 and 2 represent the mechanism used to attain the objects of my improvement.

Fig. 1, being a side view of the machine partly broken away to disclose more clearly the invention, and with the push bar or handle only partly shown.

Fig. 2, is also a side view of the other end, or broken away portion of the push bar, or handle, showing the hand driving mechanism, and the valve operating levers.

Similar letters refer to similar parts throughout the several views.

In the illustration Fig. 1, shows a receptacle (2) with a semi-cylindrical bottom (3) inclosed within the sides of a preferably rectangular shell (1); and in the receptacle (2) is a screen or filtering partition (4) to prevent the dirt or sediment from mixing with the cleaner water or liquid compartment (5). Of course it will be understood that the liquid is clear or clean in the first place and is contained in the whole of receptacle (2), but when the dirty water, or liquid from the floor has been taken up by the mop (which will be described later) and run between wringer rolls into compartment (6) the liquid in compartment (5) will become more or less muddy but the screen (4) will prevent most of the dirt, that is the heavier material, from entering compartment (5).

To the front of the machine is hingedly hung in parallel links (7), a preferably

rectangular shell (8) having within its sides, a dividing wall (9) forming thereby, two compartments, one (10), for containing solid or bar soap (10^A), the other (11), for containing liquid soap; this compartment (11), has an inclined bottom (12), with the lower portion extending horizontally and containing a series of outlet holes (13) for the liquid soap; these holes have plug valves (14) for controlling the supply of the liquid soap to the floor or the surface to be cleaned, and to a rotating scrubbing brush (15) which is mounted in bearings (15^A) mounted in the extended sides (8^A) of the shell (8).

The whole shell (1) or receptacle (2) is carried by springs (16) and (17) mounted on shafts (18) and (19) which carry, respectively, two pairs of rollers (18^A) and (19^A); the shafts (18) and (19) are secured in curved flat bars (20) and (21) which are held in place by studs (22) riveted in the sides of shell (1); there being spring cotter pins (23) for keeping the bars (20) and (21) against the sides of the shell (1). Within and to the two opposite sides of the shell (1) are mounted, rotatively, rollers (24), (25), (26), (27), (28), (29) and (30), and to sliding bars (31) and (32), with their respective brace (33), are rotatively mounted rollers, (34) and (35); an idler or supporting roller (36), intermediate said rollers (34) and (35), is mounted in the sides of shell (1); about these rollers is a continuous mat or cloth belt (37) adapted to be used as a mop. This mop rag (37) passes between wringer rollers (38) and (39) removably mounted in opposite bars (40) secured to the sides of shell (1). The wringer roll (38) is held by a spring (41) against its coöperating roll (39).

In a bracket (42) secured to rear of the machine, is rotatively mounted a hollow shaft (43) which forms part of the push bar (43^A), or handle; through this hollow shaft (43) passes a shaft (44) carrying on its either end sprocket wheels, or pulleys (45); there being two sprockets, or pulleys (45) on the near end and one on the far end; one of the near sprockets, or pulleys is connected by a sprocket chain or belt (46) to the wringer roll sprocket or pulley (47), while the other near sprocket or pulley is connected to a rotating brush sprocket or pulley (48) by a sprocket chain

or belt (49); the sprocket or pulley on the far end of said shaft (44) is connected by a chain or belt (50) to a main driving sprocket, or pulley (51) mounted on a shaft
 5 (52), which is rotatively mounted in the bar (43^A), and which has on its opposite end securing a crank (53) for operating and driving said brush (15) and said belt (37).

When mopping in corners where the wall
 10 and floor meet, the push bar (43^A) is raised slightly, thus moving the sliding bars (31) and (32) forward as shown by dotted lines by means of connected levers or links (54) and (55) mounted, respectively, in the bar
 15 (43^A) and the bracket (56) secured in the shell (1), said link (55) slidably connected to (31) at (57). Moving said bar (31) forward raises the soap container (8) and the brush (15) by means of a link (58) connected to both the bars (31) and (32) and
 20 the container (8), clear of the mop (37). In lowering the push bar (43^A) a spring (31^A) automatically returns said bars 31 and 32 to their former places.

The valve for controlling the supply of
 25 liquid soap is automatically returned to its seat by a spring (59), but opened through the medium of connected links and levers connected by a wire rope (60^A) to a finger
 30 grip (60) pivotally mounted near the extremity of the push bar (43^A). In the compartment (5) on the bottom (3) is mounted a valve (61) leading to an outlet water, or liquid, pipe (62), which supplies
 35 the brush (15) with water as needed. This valve (61) is automatically closed by a spring (63) pulling on the valve lever (64), and said valve 61 is also opened through the medium of connected links and levers
 40 connected by a wire rope (65^A) to a finger grip (65) pivotally mounted near the extremity of the push bar (43^A). When using the machine as a painting or varnishing
 45 machine, all that is necessary to do is, to remove the present scrubbing brush and substitute in place thereof a suitable brush for the purpose, and fill the containers with paint or varnish as the case may be, and also, screw down the screws (66) which are
 50 screwed into the lugs (67) which are secured to the sides (1), against the bars (20) and (21) thereby raising the mop (37) clear of the floor. While shown as hand operated, mechanical power may be substituted.
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Having thus described my invention, the merits of my improvements can be readily understood, and it will be seen that the
 60 minor details of my construction can be altered in many ways without departing from

the spirit of my invention, but what I claim and desire to secure by Letters Patent is:—

1. In a scrubbing and mopping machine, in combination, a supporting frame and water carrying receptacle, a support there-
 65 for, means for vertically adjusting the frame on the support, a soap container movably mounted on the front of said frame, and having downwardly extending side portions,
 70 a rotatable scrubbing brush mounted in said side portions, valve controlled means for feeding water from the receptacle, a mop supporting frame movably mounted on the
 75 base of said supporting frame and pivotally connected to the soap container, wringer rolls mounted in said supporting frame, a mopping belt operatively engaging said mop
 80 supporting frame and said wringer rolls, means for moving said mop frame forward and raising the brush and soap container, and means for operating said wringer rolls and scrubbing brush.

2. The combination in a scrubbing and mopping machine of a tank having down-
 85 wardly extending sides, a support therefor, means for vertically adjusting said tank on the support, a sliding mop carrying frame having front and rear rollers slidably
 90 mounted on the base of the sides of the tank, a soap container movably mounted on the tank, a rotatable scrubbing brush mounted on and below the soap container, means connect-
 95 ing said mop frame to the soap container, mop driving wringer rolls, a mop on the mop frame and engaging said wringer rolls, means for operating the wringer rolls and the scrubbing brush, and means for
 100 controlling the forward and rearward movement of the mop frame.

3. In a machine of the class set forth a
 105 tank having downwardly extending side portions, a horizontally movable mop carrying frame mounted thereon, a soap container movably mounted on said tank, a rotatable scrubbing brush mounted on said container
 110 and in front of said mop frame, means connecting the soap container and mop frame adapted to raise the container when the mop frame is moved forward beneath the brush, means for operating said mop frame forward
 115 and backward, mop driving wringer rolls, a mop operatively engaging said rolls and supported on said frame, a push bar for said tank, and driving mechanism mounted thereon and operatively connected to said wringer rolls and the scrubbing brush.

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Witnesses:

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