

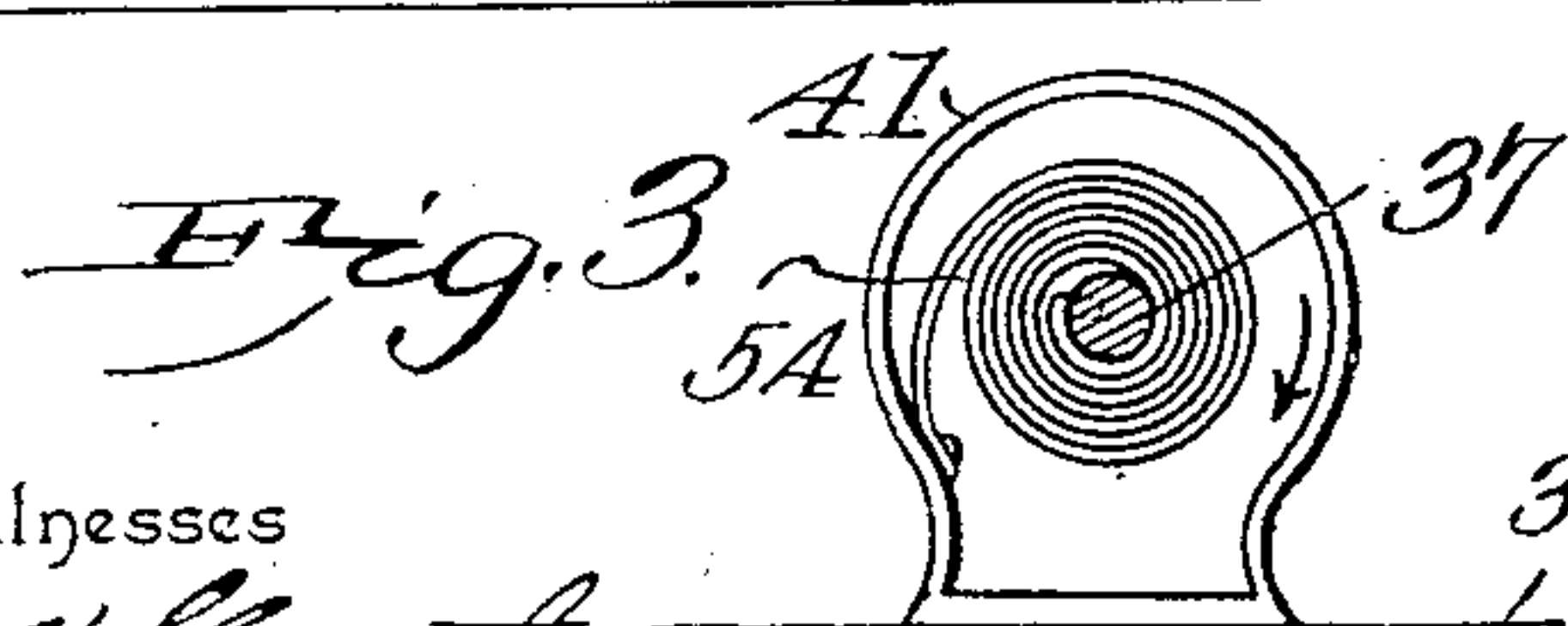
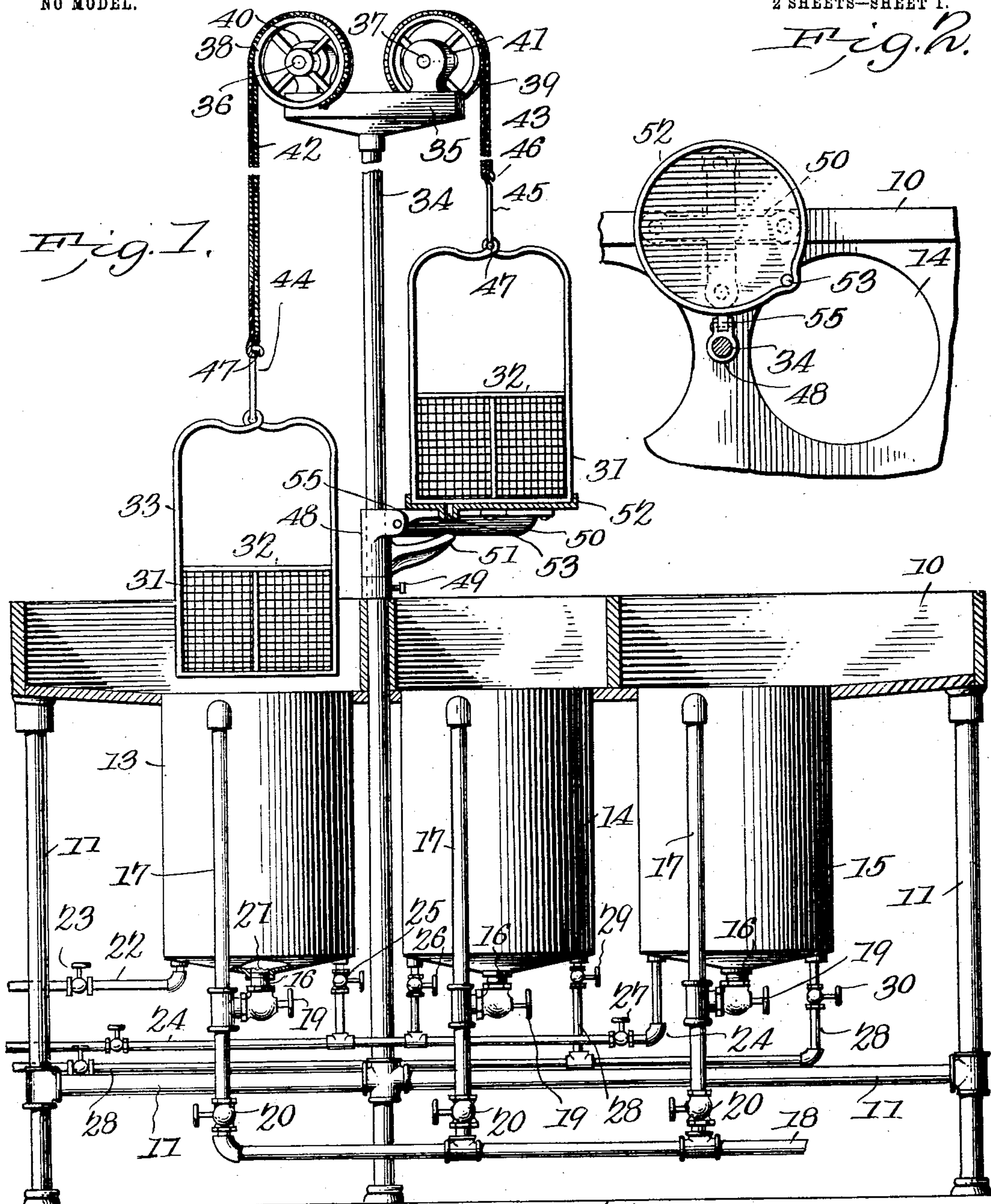
No. 750,851.

PATENTED FEB. 2, 1904.

L. W. HARING.
DISH WASHING APPARATUS.
APPLICATION FILED OCT. 21, 1903.

NO MODEL.

2 SHEETS—SHEET 1.



Witnesses
E. J. Stewart
C. H. Woodward

by *35*

L. W. Haring,
Inventor.
C. A. Snow & Co.
Attorneys

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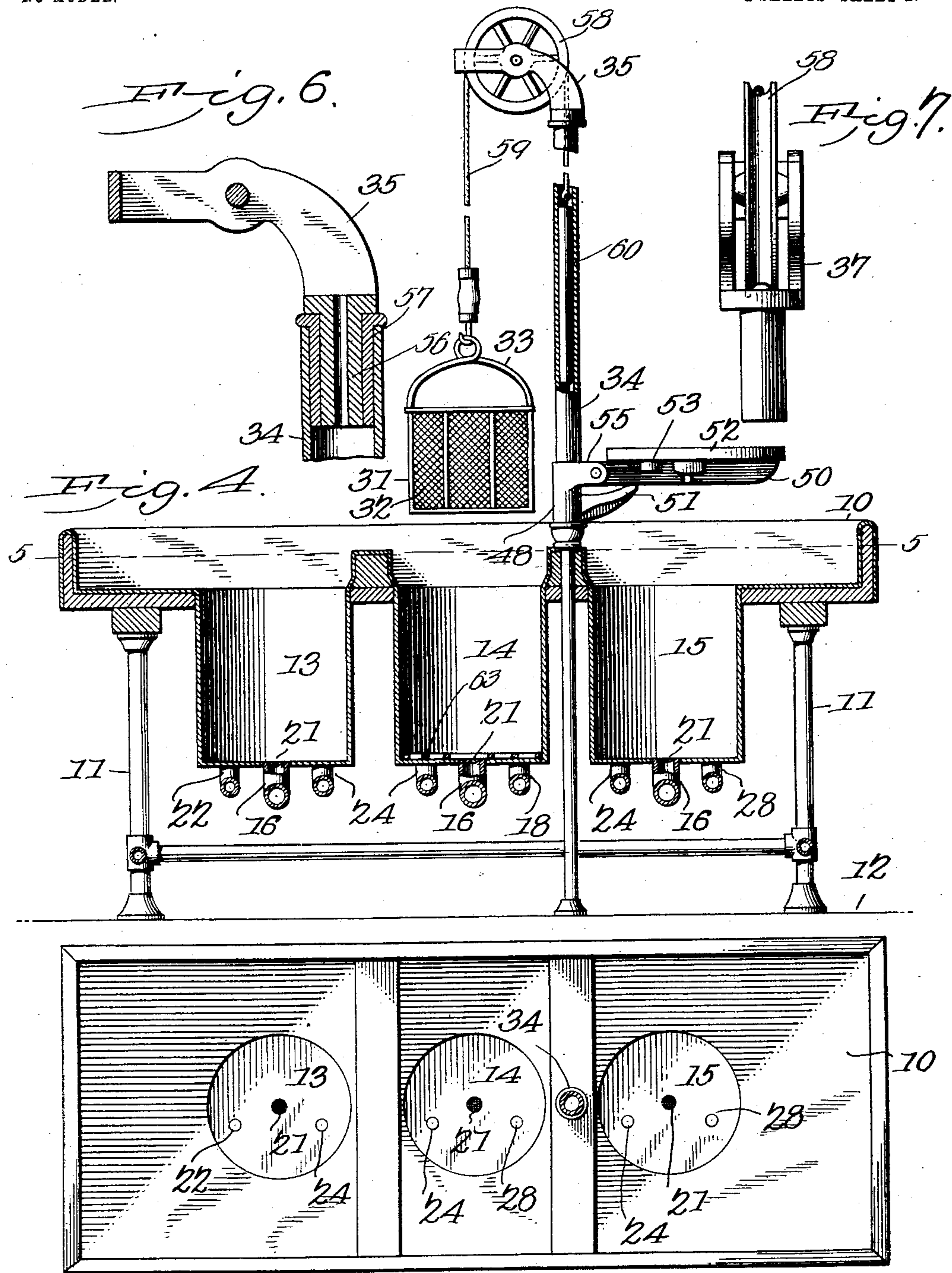
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Fig. 5. *L. W. Haring*, Inventor,
by *C. A. Snow & Co.*
Attorneys

UNITED STATES PATENT OFFICE.

LEDRA W. HARING, OF CHICAGO, ILLINOIS.

DISH-WASHING APPARATUS.

SPECIFICATION forming part of Letters Patent No. 750,851, dated February 2, 1904.

Application filed October 21, 1903. Serial No. 177,970. (No model.)

To all whom it may concern:

Be it known that I, LEDRA W. HARING, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a new and useful Dish-Washing Apparatus, of which the following is a specification.

This invention relates to apparatus for washing dishes, more particularly to that class of such apparatus employed in hotels, restaurants, and like establishments where dishes are to be hurriedly washed and in large quantities, and has for its object to simplify and improve the construction and produce an apparatus wherein the dishes may be washed and drained economically as to time and labor and in which the tendency to fracture the dishes is obviated.

Another object of the invention is to produce an apparatus which may be employed for cooking various articles of food when not required for washing dishes.

The invention consists in certain novel features of construction, as hereinafter shown and described, and specified in the claims.

In the drawings illustrative of the invention, in which corresponding parts are denoted by like designating characters, Figure 1 is a side elevation, partially in section, of the improved apparatus. Fig. 2 is a detail view of the draining attachment. Fig. 3 is a sectional detail, enlarged, of the basket-elevating spring mechanism. Fig. 4 is a view similar to Fig. 1, illustrating some modifications in the construction. Fig. 5 is a plan view in section on the line 5 5 of Fig. 4. Figs. 6 and 7 are enlarged details of the modified form of swivel-head of the basket-support shown in Fig. 4.

The improved apparatus comprises a supporting-table 10, having a vertical rim and preferably formed of wood with a galvanized-iron or other similar suitable lining and from which a plurality of open tanks are suspended, as shown. The table will be suitably supported upon a frame 11, preferably of piping, as shown, and of suitable height above the floor 12.

As many of the tanks may be employed as required, and the table and tanks may be of any required size and of any required mate-

rial; but the tanks will generally be of galvanized iron or steel or other metal which will not corrode or be affected by hot water or steam.

For the purpose of illustration three tanks are shown suspended from the table and open at the top and closed at the bottom and designated by the characters 13, 14, and 15 for the purpose of distinguishing them.

Each of the tanks is provided with a draw-off pipe 16 and overflow-pipe 17, leading to a drainage-main 18 to provide for disposing of the water from the tanks, the draw-off and overflow pipes being provided with controlling-valves 19 20, as shown.

The inlets to the draw-off pipes 16 will be provided with screens 21 to prevent the passage of large particles which would be liable to obstruct the pipes or valves.

The tank 13 is provided with a cold-water connection 22, provided with a controlling-valve 23, and is also provided with a hot-water connection 24, having a controlling-valve 25, the hot-water connection being also extended to the other tanks, 14 15, and provided, respectively, with controlling-valves 26 27, as shown, so that all the tanks may be independently supplied with a supply of hot water when required. The tanks 14 15 are also provided with steam connections 28, having controlling-valves 29 30, as shown. The tank 13 may thus be supplied with water at any required temperature and the tanks 14 15 supplied with hot water or steam or hot water and steam and the temperature and supply controlled by the valves, as will be obvious.

The dish-supporting members are formed of basket-like receptacles constructed of heavy wire frames 31, with finer wire-netting 32 to support the dishes, and each provided with a bail 33, by which it may be handled.

As many of the "baskets" may be employed as required, but two only are shown for illustration.

The receptacles 31 32 fit the tanks and are formed just enough smaller than the tanks to freely move therein without friction.

Extending upwardly from the table 10 is a standard 34, having a "head" 35, rotative on its upper end and carrying stub-shafts 36 37,

mounted transversely for rotation thereon at opposite sides of the head, with one end thereof projecting over the sides of the head, and drums 38 39 mounted on the extended end, the drums thus operating at opposite sides of the head, as shown.

The shafts 36 37 are mounted in casings 40 41, each containing a spring surrounding the shaft and attached by its inner end thereto, while the outer ends of the spring are connected to their respective casings. One of the springs only is shown at 54 for illustration; but it will be understood that each of the casings will be provided with its spring operating to wind up its respective shaft. The drums 38 39 are provided, respectively, with chains or cables 42 43, connecting them with dish-receptacles, as shown. By this arrangement it will be obvious that when the receptacles are elevated the springs will be released and wind up the surplus chain or cables and assist the operator in elevating the receptacles.

The bails 33 will be of sufficient length to project above the surface of the water in the tanks when the receptacles are placed therein, and rods 44 45 will be disposed between the chains or cables and the bails to form lifting means to assist the operator in handling the receptacles.

The rods 44 45, as shown, are formed with open hooks 46 47 where they engage the cables to provide for ready disconnection therefrom when required. Attached to the standard 34 is a bearing 48, engaging a collar 49 and rotative upon the standard.

The bearing 48 is provided with ears 55, between which an arm 50 is pivotally supported for vertical movement, being limited in its downward movement as by a stop-bracket 51.

The arm 50 is provided with a pan 52, having a perforated projection 53.

The pan 52 will be so located relative to the tanks that it will swing thereover or away from the tank, as may be required, or folded up against the standard when not required.

When it is desired to "drain" the contents of one of the receptacles, the latter is elevated and the pan 52 swung beneath it and the receptacle lowered down upon it. The pan with its load is then swung from over the tank, but not far enough to carry the aperture 53 beyond the tank, as the aperture is designed to return the drainage-water to the tank. This leaves the tank unobstructed for the reception of other receptacles, and by providing a plurality of the receptacles the washing, rinsing, and draining may be continuously conducted, resulting in a material saving in time and labor. By this arrangement the dishes may be arranged in the different baskets according to size, form, or quality and then immersed in water of any temperature or condition as to soap or other detergent and transferred from tank to tank and washed and rinsed to any extent required without the necessity for han-

dling the dishes separately or disturbing them until they are thoroughly cleansed, rinsed, and, if required, dried. The dishes may be thus subjected to very hot water, if desired, as the hands of the operator are not required to come in contact therewith. By this arrangement no danger exists of breaking or injuring the most delicate dishes or silverware, as they are not handled separately, but merely lie in the baskets while being treated.

The temperature may be very easily controlled, as above noted, by means of the various valves.

The apparatus is simple in construction, easy to operate, and may be employed for cooking various articles of food when not required for washing dishes.

In Figs. 4, 5, 6, and 7 a modified form of the apparatus is shown, which may be employed under some circumstances and in some localities; but the general form of the structure is the same and its employment will not be a departure from the principle of the invention, as the same results are produced in both structures. In the modified structure the member 35 is provided with a bearing 56, rotative in a step 57 on the standard 34 and provided with a chain or cable wheel 58, the inner rim of the wheel operating in vertical alinement above the center of the tubular standard 34, so that the cable 59, running over the wheel, will be retained in position directly above the standard at all points of the rotation of the head 35, so that a counterweight 60 may be suspended by the cable within the tubular standard to balance the basket 31 and retain its proper relation to the wheel at all points of its rotation, as will be obvious. The counterweight thus becomes a substitute for the spring 54 and will be the preferred form of operating means under some circumstances.

In the modified form of apparatus shown in Fig. 4 a hand-grip 61 is attached to the cable near its basket end, as shown, to assist in handling the baskets.

One or more of the tanks may be provided with gratings (indicated at 63) to hold the baskets above the bottoms of the tanks to provide for the free circulation of the water beneath them.

The apparatus may be employed in hotels, restaurants, boarding-houses, upon dining-cars, passenger-steamboats, or other similar vessels, or other localities where dishes are to be washed in large quantities, and may be increased and decreased in size or capacity, as required.

Having thus described the invention, what is claimed is—

1. The combination in a dish-washing apparatus, of a tank for the wash-water, a dish-receptacle, a vertical standard carrying a movable suspension device for said receptacle, and a drainage-pan swinging upon said standard for supporting said dish-receptacle above or

contiguous to said tank, substantially as described.

2. The combination in a dish-washing apparatus, of a tank for the wash-water, a dish-
5 receptacle, a vertical standard carrying a movable suspension device for said receptacle, a bracket swinging horizontally upon said standard, and a drainage-pan swinging vertically upon said bracket for supporting said dish-

receptacle above or contiguous to said tank, 10 and foldable when not required.

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

LEDRA W. HARING.

Witnesses:

A. SAGERSTEIN,
WILLIAM C. MYERS.