

May 12, 1942.

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2,282,583

RECEIVING AND LOADING TRAY FOR LAUNDRY HYDRO-EXTRACTORS

Filed Feb. 8, 1941

2 Sheets-Sheet 1

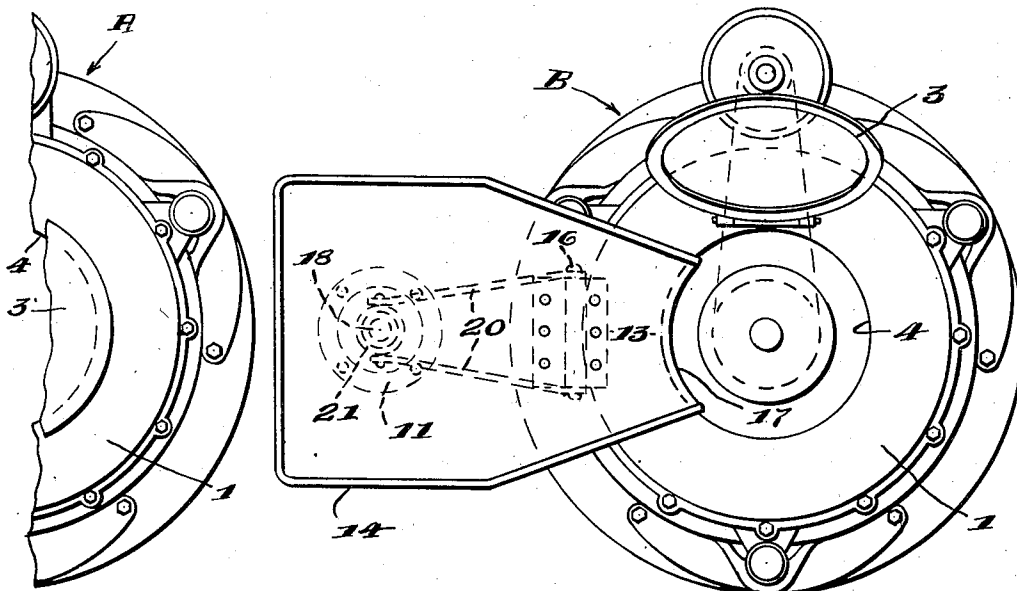
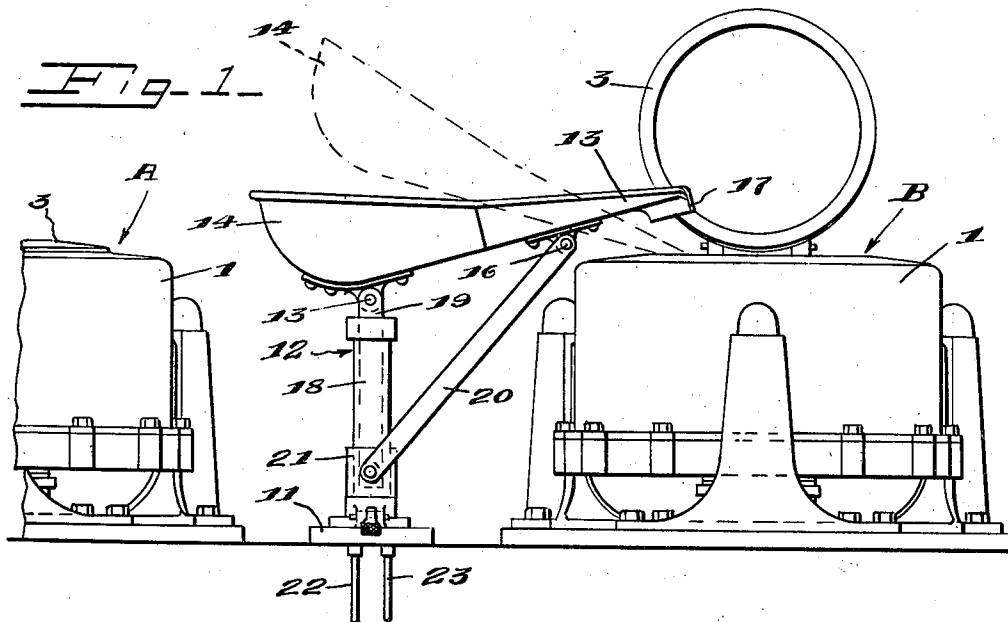


Fig-2

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2 Sheets-Sheet 2

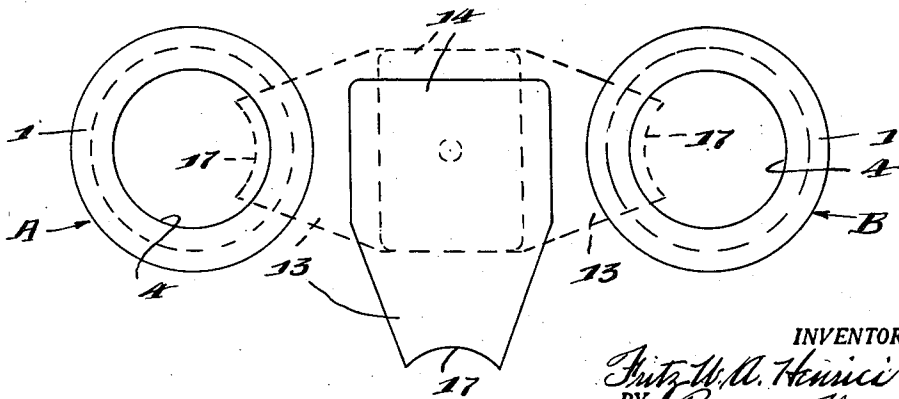
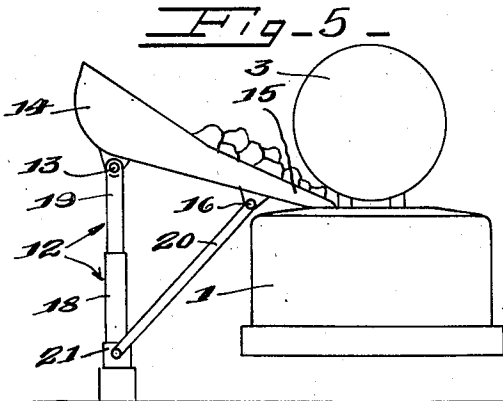
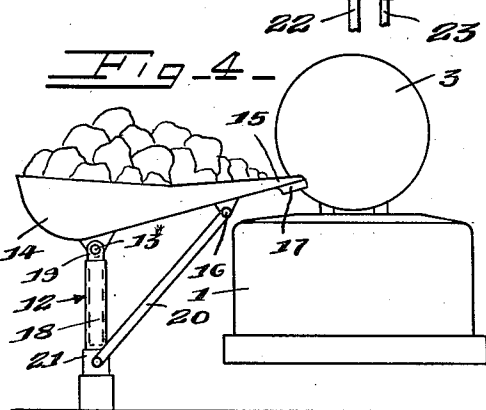
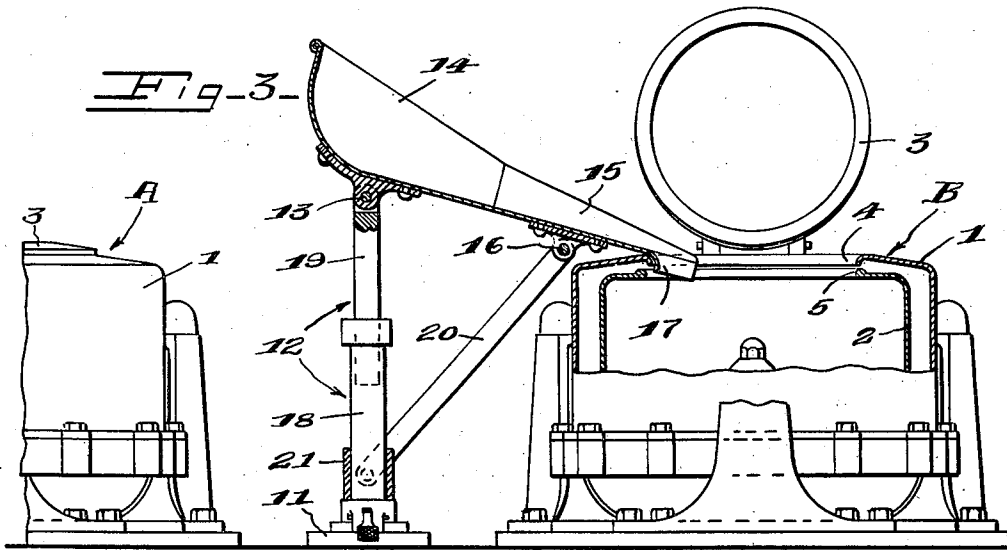


Fig. 6

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UNITED STATES PATENT OFFICE

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RECEIVING AND LOADING TRAY FOR LAUNDRY HYDRO-EXTRACTORS

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Application February 8, 1941, Serial No. 378,038

3 Claims. (Cl. 214-130)

This invention relates to receiving and loading platforms or trays for serving a plurality or group of apparatus, as hydro-extractors, such as are used in laundries.

It has for its object a loading and receiving tray shiftable into position to serve any one of a group of extractors, and also operable into and out of normal position to hold the articles to be delivered or to be received, into an inclined position to deliver them into any one of a group of machines or extractors.

It further has for its object a tray supported by a pedestal, which in turn is supported on a base to swivel about an upright axis together with means self-contained with the pedestal structure to elevate or tilt the tray into different positions relative to the horizontal.

It further has for its object a tray in which the pedestal is a lifting jack, together with means for tilting the tray during the operation of the jack about a pivot or fulcrum located between the pedestal and the delivery end of the chute.

The invention consists in the novel features and in the combinations and constructions hereinafter set forth and claimed.

In describing this invention, reference is had to the accompanying drawings in which like characters designate corresponding parts in all the views.

Figure 1 is a side elevation of this receiving and loading tray located between two hydro-extractors.

Figure 2 is a plan view of parts seen in Figure 1.

Figure 3 is a longitudinal sectional view of parts seen in Figure 1.

Figures 4 and 5 are operation views illustrating the tilting of the tray from receiving position to unloading position.

Figure 6 is a diagrammatic view illustrating the swivelling of the tray relative to a plurality of hydro-extractors.

This receiving and loading tray comprises, generally, a base, a pedestal or standard mounted on the base to swivel about an upright axis, a tray member pivotally mounted on the upper end of the pedestal, the tray member having a radially extending portion constituting a delivery chute, and means carried by and self-contained with the pedestal for pivoting the tray member between the pivotal connection with the pedestal and the delivery end of the chute, so that the chute overhangs the last-mentioned pivotal connection, and means for elevating and lowering the tray about one of said pivotal connections.

A and B designate two extractors of a group, these being of any suitable form, size and construction. The extractors are of the type including an outer casing 1 and an internal rotating basket 2 and having a cover 3 which closes aligned openings 4, 5 in the casing 1 and in the top of the basket 2. 11 designates the base of the receiving and loading tray, this being mounted on the floor or other support among the extractors of a group.

12 designates generally a pedestal swivelly mounted on the base 11 and pivoted at its upper end at 13 to the tray member. The tray member is formed with a radially extending chute portion 15. The tray also is pivoted at 16 at a point between the pivot 13 and the discharge end of the chute, to a supporting means carried by the base. The tray member is tiltable to different inclinations about the pivot 16. The tray member 14 is also provided at the delivery end of the chute with a down-turned lip 17 for entering the opening 4 in the top of the extractor casing 1.

The tray member is tiltable to different elevations, preferably about the pivot 16, by elevating the end of the tray member pivoted to the pedestal. As here shown, the pedestal consists of a jack operated by fluid pressure, as air, the jack comprising a cylinder 18 mounted on the base 11, and a piston or plunger rod 19 slidable in the cylinder, the rod 19 being pivoted at 13 to the tray and capable of turning or swivelling therein.

The supporting means for the pivot 16 is here shown as a brace 20 pivoted at one end to a collar 21 rotatably mounted on the lower end of the cylinder 18 and at its other end at 16 to the tray member. A motive fluid, as air, is supplied to the cylinder in any suitable manner, as through a pipe 22 and exhausted therefrom, as through a pipe 23, these pipes having suitable control valves, not shown, therein.

The tray is mounted in juxtaposition to one or a plurality of extractors, and the load to be delivered to the extractor deposited on the tray member, when the same is in the position shown in Figures 1 and 4, wherein the discharge end of the chute is above or clear of the opening 4 in the top of the extractor. Air is then admitted to the cylinder 18 and the tray elevated into the position shown in Figure 1 by dotted lines or in the full line position (Figures 3 and 4), so that the articles on the tray member will slide into the extractor or can be readily pushed from the tray member along the chute into the basket of the extractor or with the tray in the position shown

in Figures 1 and 4, the articles may, if desired, be loaded from the extractor onto the tray.

With this receiving and loading tray, a plurality of extractors may be served by a single tray, due to the fact that the tray can be swung about the upright axis of the pedestal, so that the delivery end of the chute is in juxtaposition to any one of a group of extractors. Owing to the fact that the tilting mechanism and the elevating and lowering mechanism are self-contained or a single unit mounted on a single base, the tray and its mechanism is particularly simple, compact and readily installed without any attachment to the extractor.

What I claim is:

1. A receiving and loading tray comprising a base, a pedestal mounted on the base and including a portion mounted to swivel about an upright axis, a tray member pivotally mounted on the upper end of the pedestal, the tray member having a delivery chute, a brace pivotally connected at its lower end to the pedestal and at its upper end to the tray member between its pivotal connection with the pedestal and the delivery end of the chute, the pedestal including a jack operable to shift the tray member about the pivotal axis between it and the brace.

2. A receiving and loading tray comprising a base, a pedestal having an upright cylinder mounted on the base, a plunger slidably and rotatably mounted in the cylinder and projecting above the outer end of the same, a tray member pivoted to the upper end of the plunger, the tray member having a laterally extending delivery chute, and means on the pedestal to rotate about the same with the tray and the plunger and pivotally connected to the tray between its pivotal connection with the plunger and the delivery end of the chute.

3. A receiving and loading tray comprising a base, a pedestal mounted on the base, and a lifting jack having a portion mounted to swivel about an upright axis and to shift up and down lengthwise of said axis, a tray member pivotally mounted on said portion, the tray member having a laterally extending delivery chute, means mounted on the pedestal to have a swivelling movement and pivotally connected to the tray member between its pivotal connection with said portion of the pedestal and the delivery end of the chute and forming a fulcrum about which the tray tilts during raising and lowering of the said portion of the jack.

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