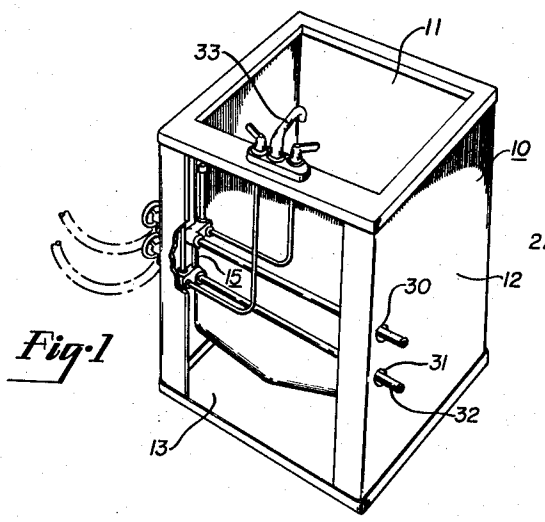
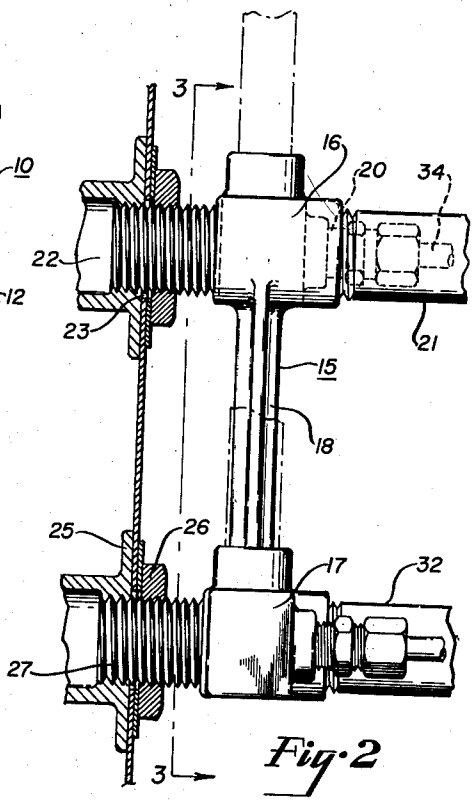
March 16, 1954 B. E. MUSTEE 2,672,152

LAUNDRY FLUID DISTRIBUTION SYSTEM

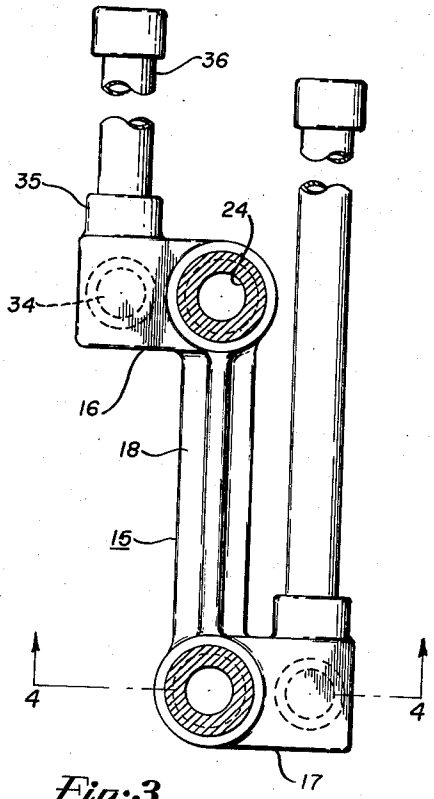
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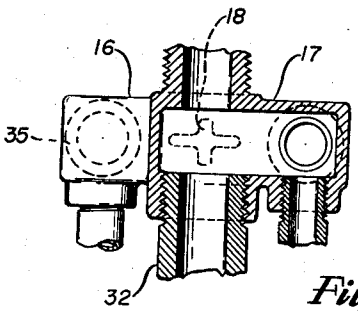
Fig·1



Fig·2



Fig·3



Fig·4

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LAUNDRY FLUID DISTRIBUTION SYSTEM

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3 Claims. (Cl. 137—207)

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The invention relates to laundry equipment in general and relates more specifically to a distribution device and plumbing construction within a cabinet type laundry tub.

An object of this invention is to provide an improved plumbing installation both in service and appearance, but costing less for materials and installation than conventional plumbing.

Another object of this invention is to conceal substantially the entire laundry room plumbing.

Another object of this invention is to provide a universal distribution device as the basic unit of the plumbing system and thereby reduce fittings, pipe, and a number of associated parts needed for inventory.

Another object of this invention is to use one air cushion for both a service outlet and a tub supply outlet in a laundry.

Other objects and a fuller understanding of the invention may be had by referring to the following description and claims, taken in conjunction with the accompanying drawing, in which:

Figure 1 is a view from the rear of a modern laundry tub unit with the distribution system of this invention installed therein;

Figure 2 is an enlarged view of the distribution device installed on a sheet wall, not necessarily the tub cabinet of Figure 1, but as such installation does appear;

Figure 3 is a view taken along line 3—3 of Figure 2; and

Figure 4 is a view taken along line 4—4 of Figure 3.

In Figure 1 of the drawing there is illustrated a laundry tub 10 of a type which has recently been made available on the open market. The laundry tub 10 is not alone the subject matter of this invention, but illustrates the type of modern laundry tub device with which the present invention may best be employed. The laundry tub 10 comprises generally a basin portion 11 with a cabinet 12 to surround and support the basin 11. The cabinet 12 is preferably made with an open back 13 for economy and good ventilation to prevent the accumulation of excessive humidity.

Located rearwardly of the basin 11 and within the confines of the cabinet 12 is a fluid distribution device 15 which embodies the features of this invention. The distribution device illustrated is the preferred type made of a brass or bronze casting for simplicity and neatness of appearance, but it is to be understood that a fabricated and machined distribution device can be created which embodies the essential features of this invention.

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The fluid distribution device comprises a first distribution chamber means 16 and a second distribution chamber means 17 with a web spacer means 18 holding the first and second distribution chamber means a fixed distance apart with respect to one another. In a cast structure the web 18 is an integral part of the two distribution chamber means, but in a fabricated structure a much more simple stem could be provided. The web 18 serves as a temporary function in one sense inasmuch as the fluid distribution device is held rigidly fixed with respect to the cabinet 12 by other means after installation, but actually the web serves the further purpose of preventing the rotation of the fittings when using sill cocks.

Both the first and second distribution chamber means are substantially identical, and accordingly only one of the actual chamber devices need be fully described for an understanding of the entire fluid distribution device. Accordingly, reference hereafter will be made mainly to the first distribution chamber means 16, unless specific reference is made to the distribution chamber means 17.

Each distribution chamber means has a supply entrance 20 adapted to receive a fluid supply line 21. In the particular location of the fluid distribution device, as illustrated in Figure 1, the line 21 is a hot water supply line. The supply entrance 20 and the supply line 21 may be threaded for a threadable fit, or may be soldered together as commonly done with copper alloy plumbing fixtures.

One of the desirable features provided by the present invention is the convenient location of the service distribution valves 22 on the side of the cabinet, and thus eliminating the need for unsightly and expensive plumbing mounted on the wall behind a washing machine adjacent to the laundry tub 10. It was common practice prior to this invention to extend the supply lines serving a laundry tub over to a location near the washing machine, particularly in the event that the washing machine was a modern automatic machine, and it was also common practice prior to this invention to attach air traps to the extended lines somewhere near the distribution valves at the end thereof in order to prevent a troublesome water hammer. With the device 15 of this invention located within the cabinet 12, the service distribution valves, or sill cocks, 22 are conveniently located upon the cabinet 12 and are handy for attachment of hoses thereto, but nothing is visible other than the valves themselves. No exterior plumbing is visible.

Openings 23 may be drilled, if needed, or may

be originally provided in the side of the cabinet 12. The fluid distribution device 15 has a service distribution entrance 24 to receive the nipple of a distribution valve. The distribution device 15 is held inside the cabinet 12 and the valve 22 inserted through the opening 23 and into the entrance 24. A watertight connection is made in the usual manner by a threaded engagement or sweated solder. The valve 22 will generally have a flange 25 thereon to cover over the opening 23 and provide a neat appearance on the outside of the cabinet 12, and generally there will be provided a threaded portion on the valve 22 in order to receive a threaded nut 26 which may be turned tight against the inside of the cabinet 12 around the opening 23 to hold the valve 22 firmly in place. After the valves 22 have been engaged to the distribution device, the web 18 will no longer be required, although generally may be left in place. Therefore, the pair of chamber means 16 and 17, regardless of whether or not the web 18 is permanently engaged, is considered to be a unitary device.

A faucet valve 33, which is usually of the mixer type, is mounted in position to supply water to the basin 11. The distribution chamber means is provided with an outlet supply entrance to receive an interconnecting pipe extended from the faucet valve 33 to the entrance 34. Any number of additional distribution lines may be installed in the chamber means, but as thus far described, there is a service distribution valve and the faucet valve operating from the chamber.

At least one opening into the chamber should be at the lowermost part of the chamber in order to provide for drainage of the system for winter protection. In the illustrated embodiment, this feature is accomplished by having the openings 20 and 24 in such bottom location. Then the sill cocks and the faucet valve 33 may be opened after the main supply is shut off, and the system will drain dry.

Operation of any water valve, and particularly the rapid opening and closing of valves within an automatic washing machine, causes such a rapid stoppage of water flow that a shattering of the water lines often results in what is generally referred to as a water hammer action. In order to prevent such water hammer action and yet avoid the use of unsightly air traps mounted on the wall of the laundry room, an air chamber trap entrance 35 is provided into the chamber means 16 and air chamber trap 36 attached thereto. In the illustration as set forth in the drawing, the trap 36 comprises a length of pipe with a cap thereon. More elaborate devices are conceivable, such for example as an intricately cast bulb on the chamber. Furthermore, the entrance 35 is illustrated at the top of the chamber means 16 but could be provided at the side thereof as long as the actual air trap portion is above the chamber means in order to keep a pocket of air permanently trapped to act as a cushion. An added feature of this invention is the provision of axial alignment of the service line from the main water supply and the service distribution entrance 24 for the sill cock. The opening 24 and the opening 20 are made identical in size in order that either entrance 20 or 24 may serve as the other entrance. In other words, as illustrated in Figure 1 of the drawing, a service line opening 30 is provided in the side of the cabinet 12 opposite from the opening 23. There is also provided an opening 31 for the second supply line. The fluid distribution device 15 may therefore

be mounted adjacent opening 23 or adjacent opening 30 according to whichever side the sill cock should be mounted on. As illustrated in Figure 1, the line 21 previously referred to and a cold water line 32 enter through the openings 30 and 31 and extend across the back of the cabinet into the distribution device 15, which is mounted on the left side of the cabinet when viewed from the rear as in Figure 1. In another installation, the water lines 21 and 32 may not enter through the openings 30 and 31 but may have to come down from the ceiling or up from the floor, in which event an elbow would be placed at a suitable location to bring the supply pipes into the distribution device.

In still another instance, the distribution device may be required to be mounted on the right-hand side of the cabinet 12 when viewed from the rear as in Figure 1, in which event the sill cock 22 would be engaged into the opening 20 and the service line 21 would be engaged into the entrance 24. By making the entrances 20 and 24 in alignment, only one fluid distribution device must be made and supplied with a laundry tub unit without concern about which side the consumer desires to have the sill cocks. Those experienced with industrial supplies will immediately understand the extreme advantage in carrying a single inventory.

Although the invention has been described in its preferred form with a certain degree of particularity, it is understood that the present disclosure of the preferred form has been made only by way of example and that numerous changes in the details of construction and the combination and arrangement of parts may be resorted to without departing from the spirit and the scope of the invention as hereinafter claimed.

I claim:

1. A laundry device comprising, a tub unit having a water basin portion and a housing cabinet, a fluid distribution device mounted within said cabinet, said fluid distribution device comprising a first and second dstribution chamber means, spacer means holding said first and second distribution chamber means at a fixed distance apart, each distribution chamber means having a supply entrance adapted to receive a fluid supply line and having a service distribution outlet to which an outlet may be attached, an opening through the wall of said cabinet aligned with said service distribution outlet of the chamber means, a service distribution valve secured to said cabinet and attached to said service distribution outlet of the chamber means, tub faucet means mounted on said laundry device, said chamber means having an outlet supply entrance, and fluid line means within said cabinet interconnecting said outlet supply entrance and said faucet means.

2. A laundry device comprising, a tub unit having a water basin portion and a housing cabinet, a fluid distribution device mounted within said cabinet, said fluid distribution device comprising a first and second distribution chamber means, a spacer means holding said first and second distribution chamber means at a fixed distance apart, each distribution chamber means having a supply entrance adapted to receive a fluid supply line, a service distribution outlet at the lowermost point of the distribution chamber, an opening through the wall of said cabinet aligned with said service distribution outlet of the chamber means, said service distribution outlet secured to said cabinet and attached to said service dis-

tribution outlet of the chamber means, tub faucet means mounted on said laundry device, said chamber means having an outlet supply entrance, fluid line means within said cabinet interconnecting said outlet supply entrance and said faucet means, and an air chamber trap extending upwardly from said chamber means.

3. A laundry device comprising, a tub unit having a water basin portion and a housing cabinet, a fluid distribution device mounted within said cabinet, said fluid distribution device comprising a first and second distribution chamber means, spacer means holding said first and second distribution chamber means at a fixed distance apart, each distribution chamber means having a supply entrance adapted to receive a fluid supply line and having a service distribution outlet to which an outlet line may be attached, an opening through the wall of said cabinet aligned with said service distribution outlet of the chamber means, a service distribution valve secured to

said cabinet and attached to said service distribution outlet of the chamber means, a supply line opening through a second side wall of said cabinet opposite from and aligned with said opening for the service distribution valve, a supply line from said supply entrance of the chamber means through said supply line opening, tub faucet means mounted on said laundry device, said chamber means having an outlet supply entrance, and fluid line means within said cabinet interconnecting said outlet supply entrance and said faucet means.

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