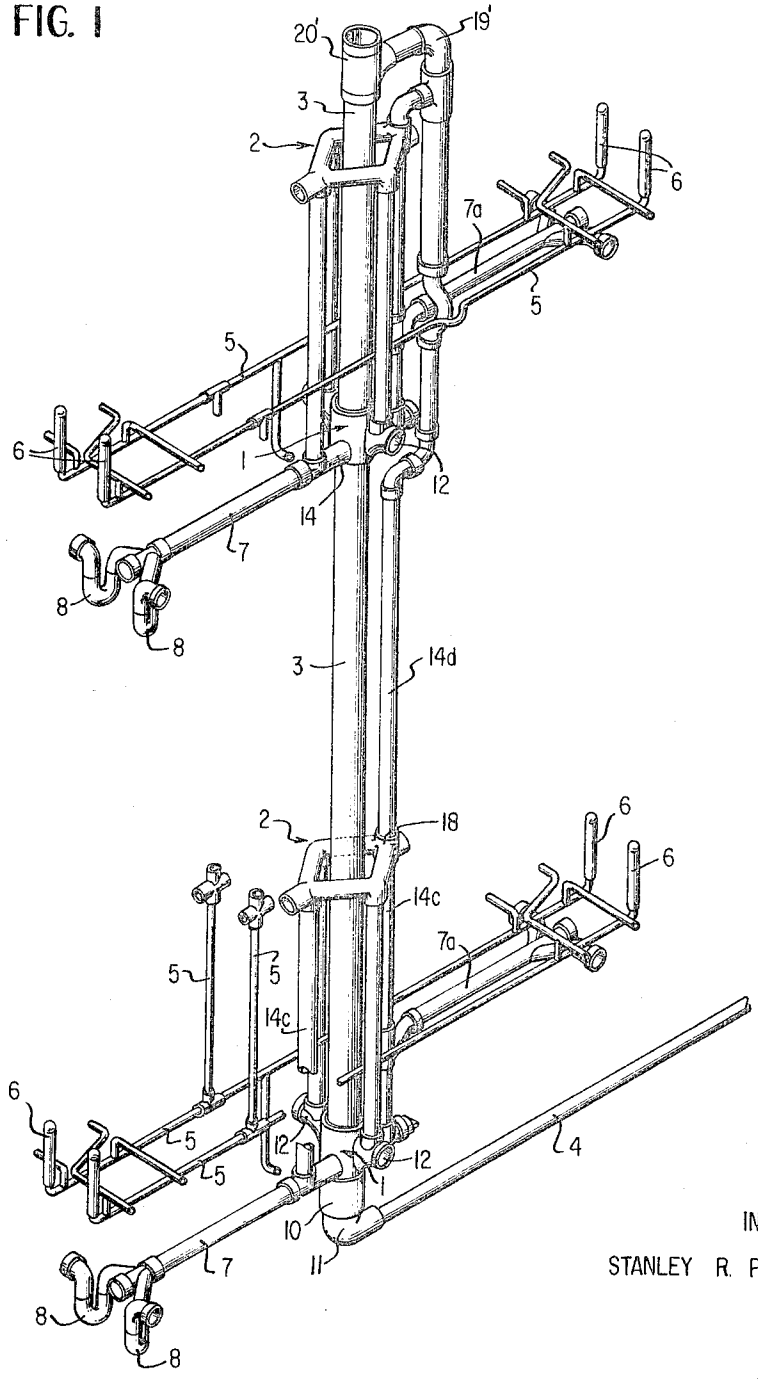
Nov. 1, 1966 S. R. PALOWSKY 3,281,866

VENTED PLUMBING FITTING ASSEMBLY

Filed June 23, 1964

2 Sheets-Sheet 1

FIG. 1



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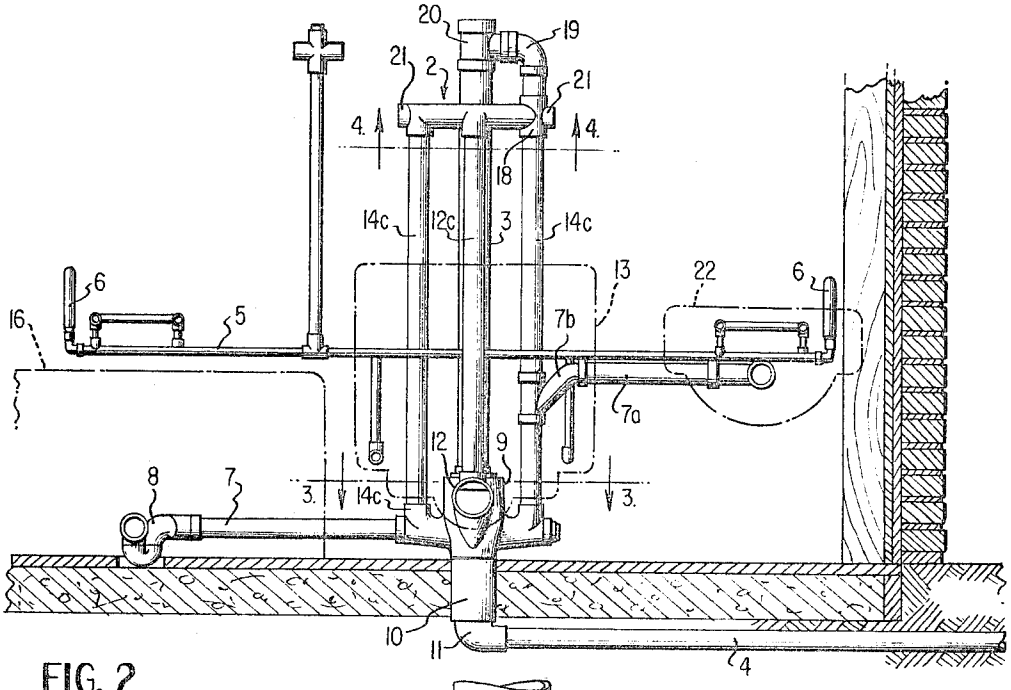


FIG. 2

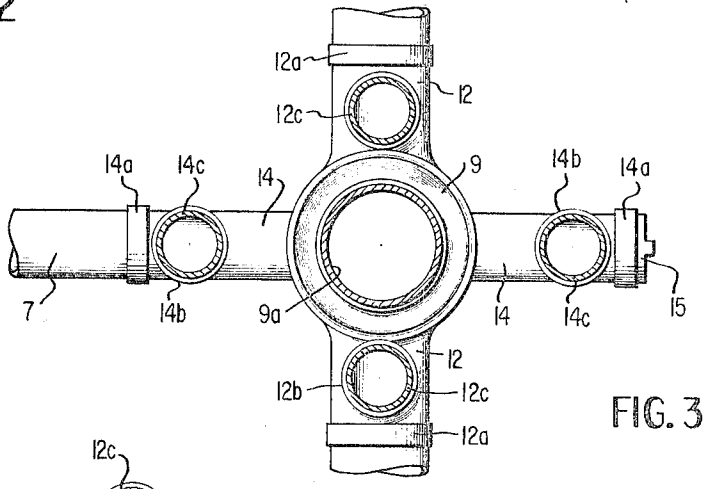
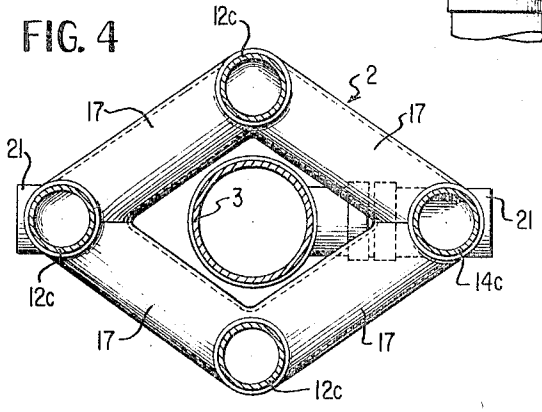


FIG. 3

FIG. 4



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VENTED PLUMBING FITTING ASSEMBLY

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Filed June 23, 1964, Ser. No. 377,205
3 Claims. (Cl. 4—211)

This invention relates to a plumbing fitting assembly, and more particularly, to waste drain, and vent manifold fittings.

With the constant increase of building construction, particularly in the area of residential units, motels, dormitories, and the like, there is always the continual need for employing the available space to its utmost advantage both functionally and economically. With this in mind the plumbing fitting assembly of the present invention has been devised wherein a pair of bathroom units, each consisting of a water closet, a bath tub and wash basin, can be located on opposite sides of a partition wall, and connected to a waste drain and vent manifold whereby the drain and vent manifold provide common fittings for both bathroom units, thereby reducing the number of fittings normally required for such installations.

An object of the invention is to provide an improved waste drain fitting formed as an integral casting and having a vertically extending main passage adapted to be connected at one end to a soil-vent stack and at the opposite end to a sewer line; the drain fitting also having water closet branch channels extending at right angles to and communicating with the main passage, and waste branches extending at right angles to the water closet channels and the main passage and being in communication with the main passage.

Another object of the invention is to provide an improved waste drain fitting formed as an integral casting and having water closet channels and waste branches communicating with a main passage adapted to interconnect a soil-vent stack and sewer line, the water closet channels and waste branches being provided with vent passages extending parallel to the main passage.

Yet another object of the invention is to provide an improved vent manifold adapted to interconnect the individual vent passages of water closet channels and waste branches with a common soil-vent stack to thereby preclude the necessity of extending a plurality of vent stacks through a building structure.

Still another object of the invention is to provide an improved plumbing fitting assembly including a drain fitting and a vent manifold, the drain fitting having water closet channels and waste branches communicating with a main passage connected to a soil-vent stack and sewer line passage, the water closet channels and waste branches being provided with vent passages extending parallel to the soil-vent stack and connected thereto by means of the vent manifold which surrounds the main soil-vent stack.

Yet still another object of the invention is to provide an improved plumbing fitting assembly for use in bathroom units, wherein a cast drain fitting and a vent manifold are constructed and arranged to occupy a minimum of space and to decrease the number of pipe fittings normally required for such installations, with a concomitant reduction of expense in labor and material.

With these and other objects in view, which may be incident to my improvements, the invention consists in the parts and combinations to be hereinafter set forth and claimed, with the understanding that the several necessary elements, comprising my invention, may be varied in construction, proportions and arrangement, without departing from the spirit and scope of the appended claims.

In order to make my invention more clearly understood, I have shown in the accompanying drawings means for carrying the same into practical effect, without limiting the improvements in their useful applications to the particular constructions which, for the purpose of explanation, have been made the subject of illustration.

In the figures:

FIGURE 1 is a perspective view of the plumbing fitting assembly of the present invention employed in a plumbing system for a multi-story building;

FIGURE 2 is a side elevational view of the plumbing fitting assembly, including a drain fitting and vent manifold, showing a water closet, bath tub and wash basin in phantom;

FIGURE 3 is a view of the drain fitting taken along line 3—3 of FIGURE 2; and

FIGURE 4 is a view of the vent manifold taken along line 4—4 of FIGURE 2.

Referring to the drawings and more particularly to FIGURE 1, the plumbing fitting assembly of the present invention which includes a waste drain fitting **1** and a vent manifold **2** is shown, by way of example, installed in a plumbing system for a multi-story building, the plumbing system including the conventional soil vent stack **3** and main sewer line **4** interconnected by drain fitting **1** and vent manifold **2**, to be described more fully hereinafter. The plumbing system also includes water supply lines **5**, air chambers **6**, and waste branches **7**, **7***a* and traps **8**.

As will be seen in FIGURES 2 and 3, drain fitting **1** comprises, an integral casting having a main body portion **9** formed with a vertically extending main passage **9***a*, one end of the passage being connected to the soil vent stack **3** and the opposite end being connected to the sewer line **4** by means of a suitable sleeve **10** and elbow **11**. The drain fitting is also provided with branch channels **12** extending at right angles outwardly from diametrically opposite sides of main body portion **9**, each branch terminating in a flanged portion **12***a* adapted to be connected to respective water closets **13** located on opposite sides of a partition wall, not shown. Drain fitting **1** is further provided with waste branches **14** extending outwardly from diametrically opposite sides of main body portion **9** and being disposed at right angles to water closet branch channels **12**, the waste branches being provided with flanged portions **14***a* at the outer extremities thereof which are adapted to be selectively provided with a clean-out plug **15** or connected by means of waste piping **7**, to a pair of bath tubs **16** located on opposite sides of a partition. Each of the water closet channels **12** and waste branches **14** are provided with upwardly extending vent branches **12***b* and **14***b*, respectively, connected to the respective lower ends of vent pipes **12***c* and **14***c* which extend vertically upwardly and parallel to the soil-vent stack **3**, the upper ends of the vent pipes being connected to vent manifold **2**.

As will be seen in FIGURE 4, the vent manifold comprises a plurality of horizontally disposed pipe sections **17** constructed and arranged to form a rhombic-shaped member surrounding the soil-vent stack **3**. One end of the rhombic-shaped vent manifold is provided with a sleeve **18** (FIGURE 2), for connecting the manifold to soil-vent stack **3** through elbow **19** and coupling **20**, the manifold being further provided with additional plugged ports **21** which can be employed as needed for various installations. To complete the bathroom unit illustrated in FIGURE 2, a wash basin **22** is shown connected to the drain fitting **1** by means of branch waste piping **7***a*, coupling **7***b* and vent pipe **14***c*.

From the above-description, it will be readily apparent that by the construction and arrangement of the improved drain fitting **1** and vent manifold **2**, a pair of bathroom units can be located on opposite sides of a partition wall, whereby the waste drain and vent manifold provide a common plumbing fitting assembly for both

bathroom units, to thereby reduce the number of pipe fittings normally required for such installations.

While FIGURE 2 illustrates the use of the improved plumbing fitting assembly in a one-story building, the versatility of the assembly is illustrated in FIGURE 1 wherein it is employed in a multi-story building. In this arrangement, the assembly for the upper level is identical to the assembly for the lower level; however, the lower manifold is placed in communication with vent stack **3**, above the upper manifold by means of pipe **14***d*, elbow **19'** and coupling **20'**.

While I have shown and described the preferred embodiment of my invention, I wish it to be understood that I do not confine myself to the precise details of construction herein set forth by way of illustration, as it is apparent that many changes and variations may be made therein, by those skilled in the art, without departing from the spirit of the invention or exceeding the scope of the appended claims.

I claim:

1. A waste drain fitting of the character described comprising, an integral casting having a main body portion, said body portion being formed with a main passage, one end of the main passage being adapted to be connected to a soil-vent stack, the opposite end of said main passage being adapted to be connected to a sewer line, branch channels formed on said main body portion and extending at right angles outwardly from opposite sides of the main body portion, said branch channels being in communication with the main passage, each branch channel being adapted to be connected to a water closet, waste branches formed on the main body portion and extending outwardly therefrom, said waste branches being disposed at right angles to said water closet branch channels and being in communication with said main passage and a vent branch provided on each of the water closet branch channels and waste branches, each vent branch having a passage extending parallel to the main passage.

2. A vent manifold of the character described for interconnecting a plurality of water closet and waste vents with a main soil-vent stack, comprising, a plurality of pipe sections constructed and arranged to form a rhombic-shaped member adapted to surround the main soil-vent stack, a plurality of ports formed in said rhombic-shaped member adapted to be connected to the water closet and waste vents, and an additional port formed in said rhombic-shaped member adapted to be connected to the main soil-vent stack.

3. A plumbing fitting assembly of the character described, including a waste drain fitting connected to a vent manifold, said waste drain fitting comprising a body portion having a main passage, one end of the main passage being connected to a soil-vent stack, the opposite end of the main passage being connected to a sewer line, branch channels formed on the body portion and extending at right angles outwardly from opposite sides of the body portion and being in communication with the main passage, each branch channel being adapted to be connected to a water closet, waste branches formed on the main body portion and extending outwardly therefrom, said waste branches being disposed at right angles to said water closet branch channels and being in communication with said main passage, and a vent branch formed on each of the water closet branch channels and waste branches; the vent manifold comprising, a plurality of pipe sections constructed and arranged to form a rhombic-shaped member surrounding the soil-vent stack, a plurality of ports formed in said vent manifold, each port being connected to a respective vent branch on the water closet branch channels and waste branches, and an additional port formed in said manifold for connecting the manifold to the soil-vent stack.

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