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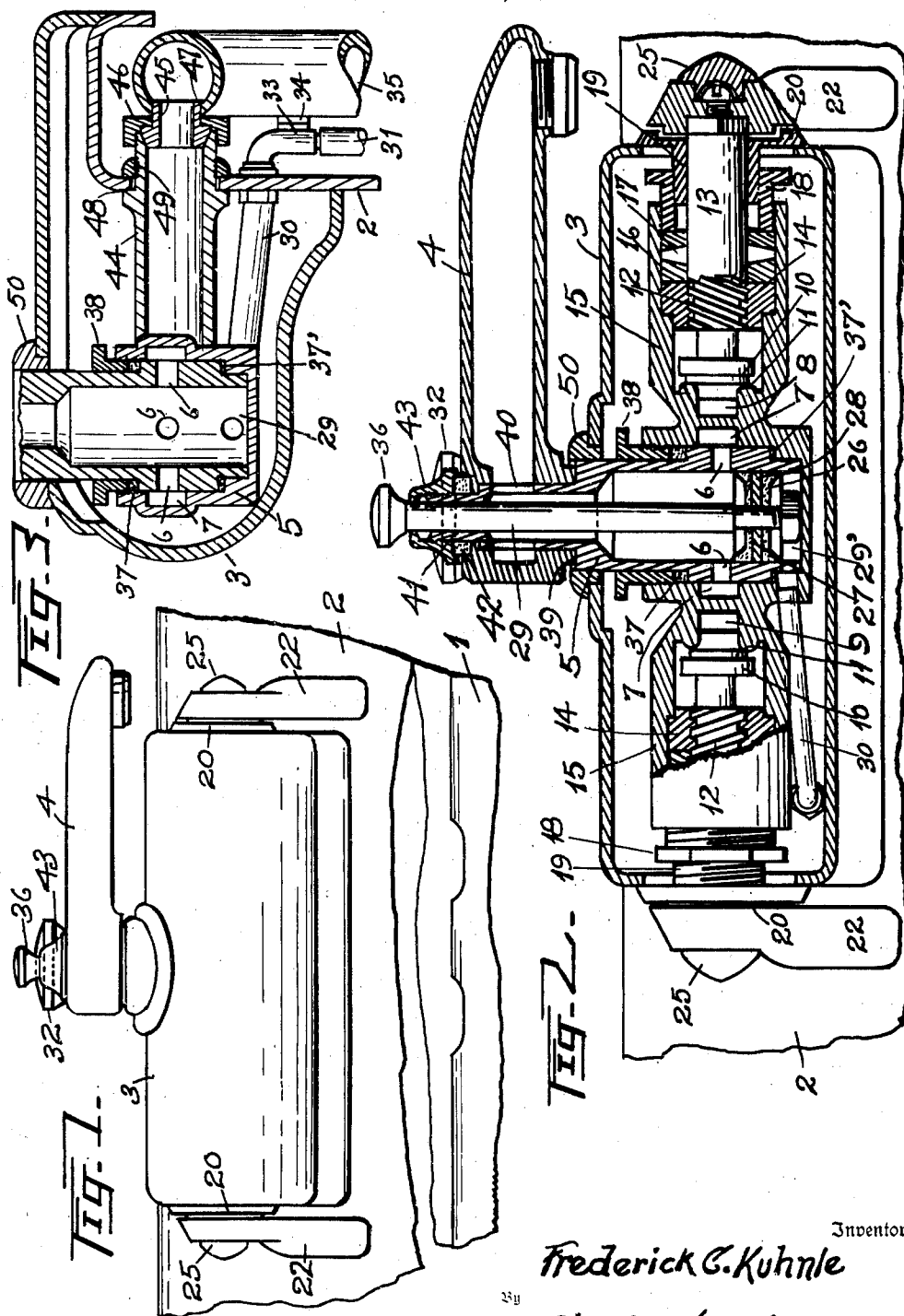
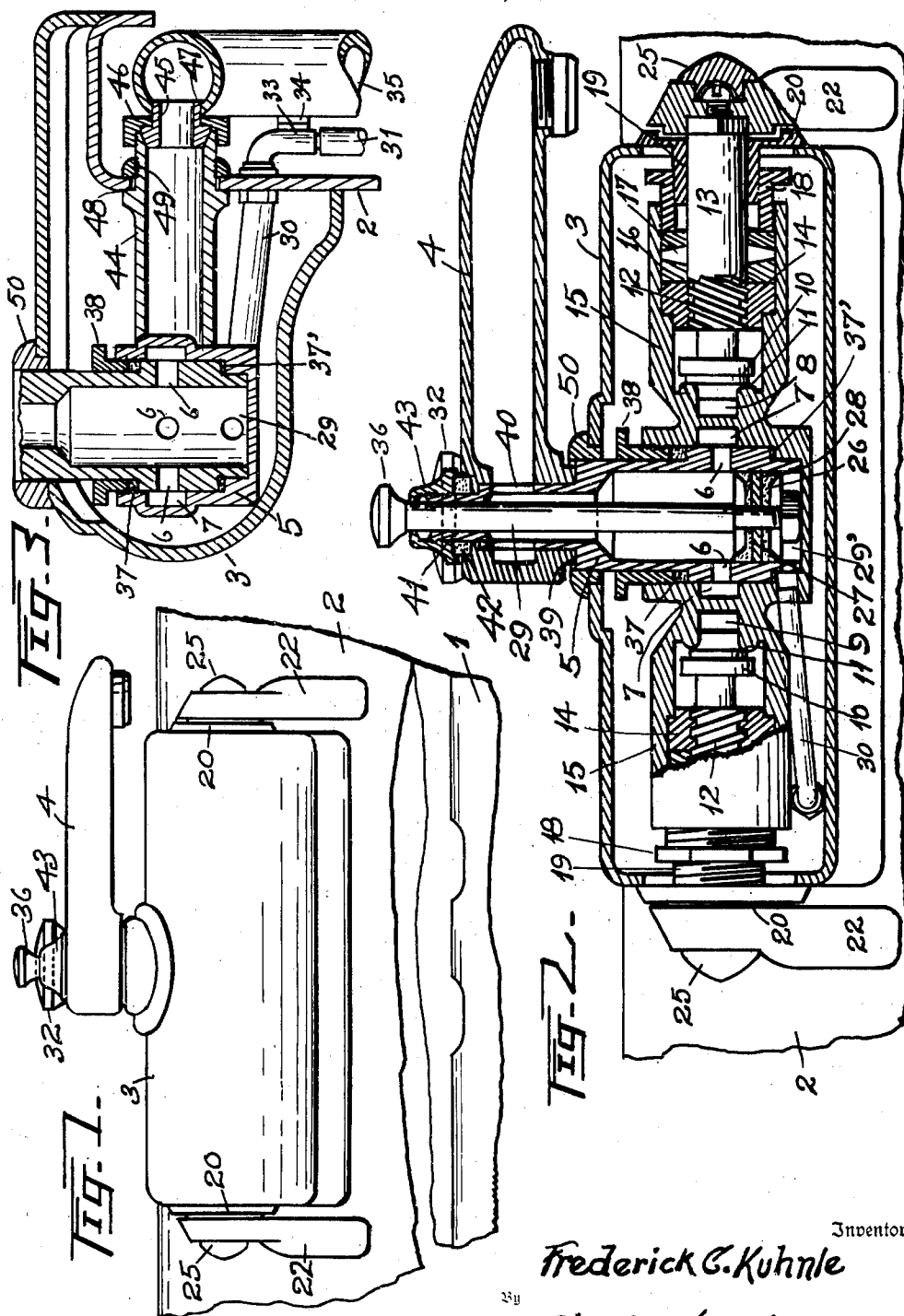
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2,262,291

PLUMBING FIXTURE STRUCTURE

Filed Feb. 6, 1940

2 Sheets-Sheet 1



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Fig. 4.

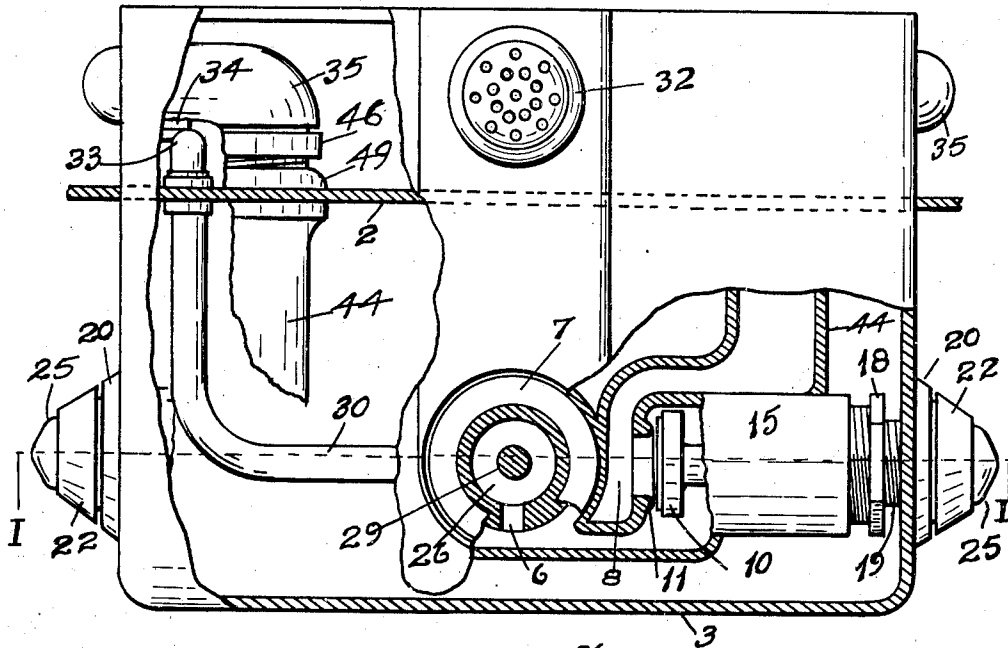
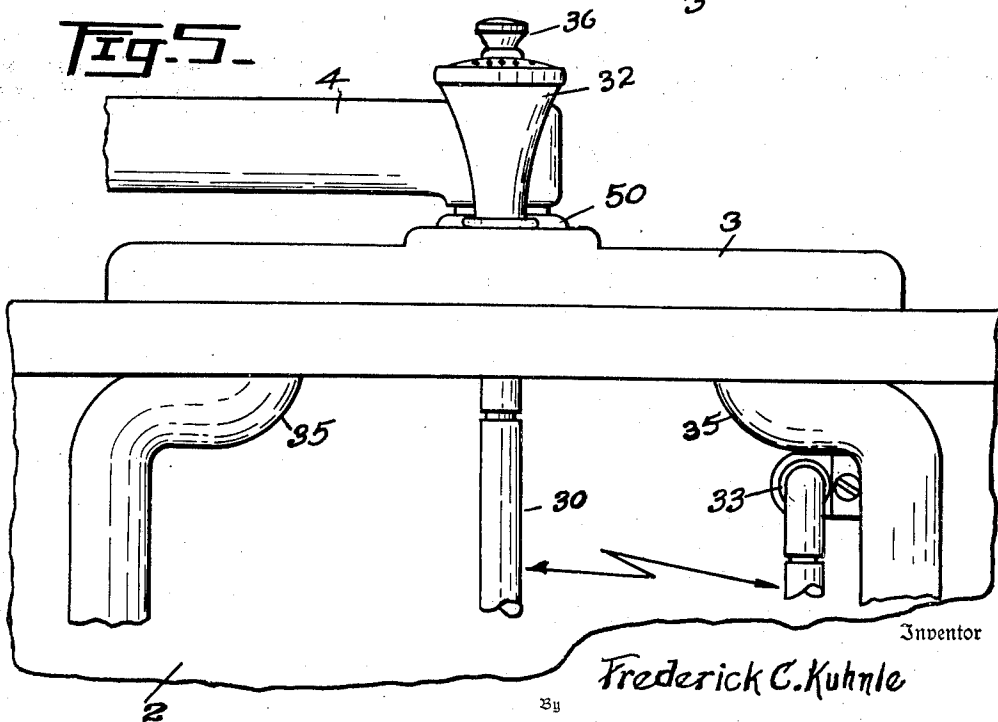


Fig. 5.



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PLUMBING FIXTURE STRUCTURE

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4 Claims. (Cl. 4—187)

My present invention relates to improvements in plumbing fixture structures in which a plurality of valves and faucets cooperate to supply and control the flow of fluid, which is hereinafter referred to as water, as when dishes are being washed in a kitchen sink; and the objects of my improvement are, first, to provide a plumbing fixture structure whereby either hot or cold water may be drawn selectively for any purpose about the kitchen, laundry or other sink; second, to provide a plumbing fixture whereby danger of scalding by hot water through carelessness on the part of the person drawing water is eliminated; third, to provide a plumbing fixture structure wherein the hot water can be drawn only when the hot water control valve is opened; fourth, to provide a plumbing fixture that will be reliable in operation; fifth, to provide a plumbing fixture structure that will remain free from leakage over long periods of time.

These named objects and other objects that appear from a perusal of the description are attained by the structure disclosed in the accompanying drawings, and referring thereto;

Figure 1 is a front elevation view of my plumbing fixture structure including a portion of a kitchen sink.

Figure 2 is a vertical sectional view of my improved plumbing fixture structure taken on a vertical plane on line I—I of Figure 4 hereafter following, and includes portions of a sink.

Figure 3 is a sectional view taken on a vertical plane extending transversely of my plumbing fixture structure on line V—V of Figure 1 and also includes a portion of a sink.

Figure 4 is a fragmentary plan view of my plumbing fixture in which a portion is shown in section looking downward from a horizontal plane taken on line X—X of Figure 1, the view also including a portion of a sink.

Figure 5 is a rear elevation view of my plumbing fixture structure illustrating the water supply connections and the flexible tubing by which water is conducted to the sprinkler head.

Throughout the several views of the drawings illustrating my plumbing fixture structure, similar Arabic numerals designate similar parts, and referring thereto:

Numeral 1 designates the bowl portion of a kitchen sink, and of which only a fragmentary portion is shown; numeral 2 the back splash panel extending upward from the sink top at the wall back of the sink; 3 the housing extending toward the front of the sink from the splash

panel and which houses and hides from sight the principal elements of the fixture structure; 4 the horizontally extending and turnable water discharge spout. The said spout having connected thereto hollow rotatable valve 5 through which either cold or hot water can be conducted to the discharge spout and admitted to the valve 5 through ports 6 having connection with annular port 7 into which is admitted either cold or hot water through ports 8 or 9, in controlled amount by water control valve 10 engaging valve seat 11, as shown in Figure 3, and operated by the steep pitch screw thread 12 on the valve stem 13 extending through nut 14, held in place within the valve housing 15 by annular ring 16, in turn held in place fiber packing 17 and gland nut 18, having screw-threaded therein nipple 19 extending thru the housing wall 3 wherein is enclosed the principal elements of the plumbing fixture structure, which has exterior of the housing 3 and extending therein, recessed finish plate 20 into the recess of which extends annular boss 21 of the hub portion of the valve operating handle 22 secured to the valve stem 13 on squared portion 23 by screw 24 hid by finish cap 25.

Within the hollow rotatable valve 5 is plunger valve 26 consisting of a pair of flexible cupped packing members 27 arranged back to back with a metal disc 28 between them and extending around the stem 29, whereby the valve 26 is operated to open the ports 6 to permit water to flow from the spout 4 or through the port 29 to the metal tube 30 and therethrough to the flexible tubing 31 to the sprinkler head 32, the said flexible tube being connected to the sprinkler head by a slip-over joint and to the metal tube 30 by a nipple extending downwardly from the bracket 33 secured to the lug 34 on the water supply pipe 35, or to some other suitable portion of the valve housing. The valve stem 29 has at its top, button 36 screw-threaded onto it, by which the stem 29 together with the plunger valve 26 is lowered to open the port 6, to the port 29, thereby allowing water to flow to and through metal tube 30 to the sprinkler head 32, through flexible tube 31; and raised to permit water to flow from ports 6 through the interior of valve 5 to the spout 4. The rotatable valve 5 has enlarged portion 5' rotatably supporting the valve 5 in the valve housing 10, and has at each end of the said enlarged portion, packings 37, held in place in the valve housing by gland nut 38. The hollow valve 5 also has a shoulder 39 against which rests the hub of the spout 4;

ports 40 extend through the wall of valve 5 to the interior of the spout 4, which has at its top portion, reduced diameter screw-threaded portion 41 surrounded by packing 42 and has screw-threaded thereon, finish gland nut 43. Connected to the valve seat port 8' and extending therefrom to the water supply pipes 35 is tubular member 44 connected to the said water supply pipe by union nipple 45, having a conical bearing portion extending into and seated in a female conical seat and drawn thereagainst by gland nut 46. The said nipple 45 is screw-threaded into the boss 47 of the water supply pipe. Surrounding the tubular member 44 is shoulder 48 engaging the inner side of the housing wall 3 and drawn thereagainst by screw-threaded nut 49.

While I have described the connections for delivering water to the control valve from the cold water side of the fixture, the reference numerals apply to the hot water side equally.

In the operation of my improved plumbing fixture structure, should it be desired to draw cold water from the spout 4, the plunger valve 26 is forced to its lower position, as shown in Fig. 3, by the valve stems 29 and 36 at the top of said stem. The spout 4 is then swung to the position water is to be delivered to and the valve handle 22 at the right of the fixture is raised, which turns the valve stem 13, and by the steep pitch thread turning in the nut 14, withdraws the valve 10 from the seat 11, thereby allowing the cold water to flow from the water supply pipe 35 through the passage in the tubular member 44, the port 8' to the passages 8 and 9 and through ports 6 to the chamber above the plunger valve 26, from where the water passes through ports 40 to the water discharge spout. However, should it be desired to draw hot water from the water discharge spout, the cold water control valve is allowed to remain closed and the hot water valve at the opposite end of the housing 3 is opened and in like manner as was the cold water valve, thereby allowing hot water to flow to the chamber within the hollow rotatable valve 5 and therefrom to and out of the spout 4. Should the sprinkler head be used, the plunger valve 26 is raised above the ports 6 in the hollow rotatable valve 5. The water can then flow from either the cold water or hot water valve, whichever is opened, downwardly to the port 29, from there through the tube 30 to the connector 33 and through the flexible tube connected to the connector 33 to the sprinkler head.

From the above description it will be understood that hot water can only be drawn from the spout 4 when the plunger valve is in lower position, and either the hot or cold water control valves are open. However, it should also be understood that the temperature of the water can be controlled by opening both the cold and hot

water control valve partly and to an extent that will admit sufficient hot water to temper the cold water.

I claim:

1. In a plumbing fixture structure having a hollow elongated housing secured to the back splash panel of a kitchen sink and extending parallel therewith, a valve housing within the first named housing having therein a plurality of horizontally disposed water control valves and a plunger valve having its axis extending vertically at right angle to the axis of said water control valves for diverting water controlled by said water control valves to either a water discharge spout or to a sprinkler head, and means externally of said housings for operating the said valves.

2. In combination with a sink having a vertically disposed panel with a flange extending generally backward at the top, an elongated hollow housing extending outward from the front and over the top of the said flange, and inclosing a pair of oppositely disposed seated water control valves each having a stem extending through an end of the housing and a lever attached thereto, and a plunger slidable vertically in a chamber between the said oppositely disposed valves for controlling flow of hot or cold water to a spout at the top of the said housing and to a sprinkler head supported by the said housing back of the said vertically disposed panel.

3. In combination with a sink having a vertically disposed splash panel at its back and having a turned flange extending backwardly at the top of the panel, an elongated valve housing, housing secured to the said panel and extending over the said flange and downward in front thereof, and having a semi-cylindrical front and a curved bottom portion engaging the front of the said panel.

4. In combination with a sink having a vertically disposed splash panel with a backwardly turned flange at its top, a valve housing having a pair of water conductors therein extending through the said splash panel and secured thereto, a pair of oppositely disposed valve seat chambers each having therein a valve seat and having hollow connection to the said water conductors, and a valve in each chamber extending parallel with the said splash panel for engaging the said valve seats, a water diverter plunger movable vertically at right angle to the axis of said valves in a chamber between the said valve seats, and in a valve rotatable in the valve housing, a spout secured to the upper portion of the last named valve and having a stem extending upward through the said spout for operably moving the said diverter plunger as specified.

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