

EXHIBIT 1005

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

WENZHOU XIN XIN SANITARY WARE CO., LTD.,

Petitioner,

v.

DELTA FAUCET COMPANY,

Patent Owner.

U.S. Patent No. 11,473,277

DECLARATION OF J. CHRIS COOK

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I, J. Chris Cook, state and declare as follows:

I. INTRODUCTION

1. Based on my background, being over the age of eighteen (18), and being of sound mind, I am competent to make this Declaration.

2. Petitioner Wenzhou Xin Xin Sanitary Ware Co., Ltd. (“Sanitary Ware”) has retained me to provide my opinion on U.S. Patent No. 11,473,277 (“the ‘277 Patent”) (Ex. 1001) for a Declaration in support of a Petition for *Inter Partes* Review (“IPR”) of the ‘277 Patent. The opinion set forth in this Declaration addresses the ‘277 Patent, the state of the relevant art at the time of the invention of the ‘277 Patent, and the scope and content of the prior art in comparison to the ‘277 Patent.

3. I have reviewed and am familiar with the ‘277 Patent, which was filed on February 4, 2021, and issued on October 18, 2022. I have also reviewed and am familiar with the prosecution history of the ‘277 Patent (Ex. 1003).

4. I understand that the application for the ‘277 Patent was a continuation of U.S. Patent Application No. 16/131,035, filed on September 14, 2018, now U.S. Patent No. 10,914,056 (“the ‘056 Patent” or “Parent”) (Ex. 1002). I have also reviewed and am familiar with the prosecution history of the ‘056 Patent (Ex. 1004).

5. I have reviewed and am familiar with: (1) U.S. Patent Application Pub. No. 2008/0142095 to Van Der Linden (“Van Der Linden”) (Ex. 1006); (2) Chinese Patent No. 203281567 to Shen Wei (“Shen Wei”) (Ex. 1007); (3) U.S. Patent

Application Pub. No. 2011/0061754 to Thomas *et al.* (“Thomas”) (Ex. 1008); (4) French Patent Publication No. 2,606,622 to Boursier (“Boursier”) (Ex. 1009); and U.S. Patent Application Pub. No. 2012/0204342 to Hotaling (“Hotaling”) (Ex. 1010).

6. I am familiar with the state of the technology at issue as of September 14, 2018, the earliest filing date to which the ‘277 Patent claims the benefit of priority.

7. I have been asked to provide my technical review, analysis, insights, and opinions regarding the above-noted references that form the basis for the grounds of rejection set forth in the IPR Petition of the ‘277 Patent.

A. Expert Qualifications

8. I am a mechanical engineering consultant with a background in the areas of mechanical design and analysis, sheet metal design, digital prototyping, injection molding design, tolerance analysis, project management, design for manufacturability, failure analysis, quality assurance, finite element analysis, and computational fluid dynamics analysis.

9. I have a Bachelor of Science in Mechanical Engineering from Texas A&M University and a Master of Science in Engineering Management from Southern Methodist University. I am currently an independent consultant, focusing on mechanical design and analysis of client products. I have worked in this capacity

from November 2021 to the present.

10. As set forth in more detail in my *curriculum vitae* (Appendix A), I have substantial experience in the areas of mechanical engineering, product design, product development, quality assurance, and mechanical testing. Prior to working as an independent contractor, I served as the Director of Engineering for CommScope in Dallas/Fort Worth, Texas from June 2018 to October 2021. My responsibilities included leading teams of mechanical engineers, designers, and change coordinators to design and release the latest concealment solutions for mmWave and sub6GHz small cells, power cabinets, cable management accessories, and tower/pole/rooftop macro structural mounts. During this time I also worked to define requirements with clients and project managers to incorporate new innovations and designed and launched several product families to increase revenue from \$8M to \$24M in two years.

11. Prior to my serving as the Director of Engineering at CommScope, I served as a Senior Engineering Manager from June 2013 to June 2017. During these four years I managed cross functional teams of 10-22 FTEs each, consisting of mechanical and product engineers, tech writers, CAD specialists, and electrical/reliability labs while overseeing a \$3.2M annual budget. I further developed and qualified multiple new product introductions, addressed key quality issues, and developed full documentation sets for product release.

12. Prior to working as a Senior Engineering Manager at CommScope, I served as a Principal Mechanical Engineer from May 2011 to June 2013. In this capacity I led a team of three engineers and designers, from concept to manufacturing, for all aspects of system and mechanical design for indoor DAS system, conducting thermal analysis and testing of all system components while coordinating with EE and supply chain teams for design and manufacturing. I further scheduled design activities, prototype builds, and physical testing for program with eight major products and dozens of accessories.

13. Prior to my employment at CommScope, I was the president and director of Delta EOC, LLC d/b/a CalidiTech, a mechanical engineering consulting firm, from September 2009 to May 2018. During my time at CalidiTech, I provided mechanical design, structural/thermal analysis and project management consulting services to clients using cloud hosted Ansys packages, and reduced time to market by eliminating design iterations required to release products thereby meeting customer needs. Core clients included Raytheon, CommScope, JMA, and Optimal Electronics.

14. Prior to founding CalidiTech, I worked at Texas Instruments (TI) as an Application Engineer and Project Manager from February 2005 to January 2009. At TI, I supported RFID product line in the U.S. valued at \$30M annually, and identified and fixed product problems in collaboration with production machine

vendors.

15. I am a named inventor on U.S. Patent Nos. 11,165,161, 11,121,459, and 10,798,819 and have applied for several other patents. I have been through multiple training sessions on intellectual property and patent processes. As Director of Engineering at CommScope, I was on the team of reviewers for all patent applications and renewals for the business units I served. Therein, I worked closely with the patent attorneys to determine patentability, claim writing, and valuation of each patent for which my team applied. In thirty years of professional experience, I have worked on over a hundred product design project as both a corporate employee and independent consultant.

16. My experience with fluid control devices include: (A) designing a heating and flow control medical device for a client company in 2010; (B) designing restaurant equipment with drain systems in 2023; (C) using equipment for thermal and reliability testing that controlled water and air flow from 1995~2021; (D) I spent a year reviewing and approving natural gas pipeline systems for residential and large transmission projects; (E) I also perform most of my own plumbing work on the properties I own; (F) I have designed my own check valve system to route wastewater from dual dishwashers into the drain line; and (G) I have installed dozens of faucets, toilets, hose bibs, dishwashers, clothes washing machines, and irrigation system components.

17. Appendix A is a copy of my resume, which further expands on my qualifications and expertise.

B. Basis of My Opinion and Materials Considered

18. The opinion set forth in this Declaration is based on my entire background, including my education and professional experience, as well as my general knowledge and research activities. In rendering this opinion, I reviewed the ‘277 Patent, the cited prior art, and other background documents. Appendix B provides a full list of the documents that I considered in making this opinion.

C. Legal Standards for Patentability

19. I have been informed that, under 35 U.S.C. § 120, an application for a patent can claim priority to an earlier filed non-provisional patent application if the later filed application is filed before the patenting or abandonment of the earlier filed application.

20. I understand that, under 35 U.S.C. § 102, a patent claim is unpatentable as anticipated if each and every element of a claim, as properly construed, is found either explicitly or inherently in a single prior art reference. Under the principles of inherency, if the prior art necessarily functions in accordance with, or includes the claimed limitations, it anticipates.

21. I have been informed that a claim is unpatentable under 35 U.S.C. § 102(a)(1) if the claimed invention was patented, described in a printed publication,

or in public use, on sale, or otherwise available to the public before the effective filing date of the claimed invention. I have also been informed that a claim is unpatentable under 35 U.S.C. § 102(a)(2) if the claimed invention was described in a patent or published application by another inventor that was effectively filed before the effective filing date of the claimed invention.

22. I further have been informed that under the exceptions set forth in 35 U.S.C. § 102(b), a disclosure made one year or less before the effective filing date of a claimed invention shall not be prior art to the claimed invention if the disclosure was made by the inventor or joint inventor or by another who obtained the subject matter disclosed directly or indirectly from the inventor or a joint inventor.

23. I understand that, under 35 U.S.C. § 103, a patent claim is unpatentable if the differences between the patented subject matter and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person of ordinary skill in the art.

24. When considering the issues of obviousness, I understand that I am to do the following: (i) determine the scope and content of the prior art; (ii) ascertain the differences between the prior art and the claims at issue; (iii) resolve the level of ordinary skill in the pertinent art; and (iv) consider objective evidence of non-obviousness. I appreciate that secondary considerations must be assessed as part of the overall obviousness analysis (*i.e.*, as opposed to analyzing the prior art, reaching

a tentative conclusion, and then assessing whether objective indicia alter that conclusion).

25. I understand that not all innovations are patentable. Even if a claimed product or method is not explicitly described in its entirety in a single prior art reference, the patent claim will still be found unpatentable if the claim would have been obvious to a person of ordinary skill in the art at the time the invention was made.

26. In determining whether the subject matter as a whole would have been considered obvious at the time that the invention was made from the perspective of a person of ordinary skill in the art, I have been informed of several principles regarding the combination of elements of the prior art: (a) First, a combination of familiar elements according to known methods is likely to be obvious when it yields predictable results; (b) Second, if a person of ordinary skill in the art can implement a “predictable variation” in a prior art device, and would see the benefit from doing so, such a variation would be obvious. In particular, when there is pressure to solve a problem and there are a finite number of identifiable, predictable solutions, it would be reasonable for a person of ordinary skill to pursue those options that fall within his or her technical grasp. If such a process leads to the claimed invention, then the latter is not patentable and is, instead, more the result of ordinary skill and common sense; (c) Third, matters relating to ornamentation only, which have no

mechanical function, cannot be relied upon to patentably distinguish a claimed invention from the prior art. Rather, aesthetic design changes are considered routine expedients that require only ordinary skill in the art; (d) Fourth, a simple substitution of one known element for another is likely obvious when the substitution yields predictable results.

27. I understand that the “teaching, suggestion, or motivation” test is a useful guide in establishing a rationale for combining elements of the prior art. This test poses the question as to whether there is an explicit teaching, suggestion, or motivation in the prior art to combine prior art elements in a way that realizes the claimed invention. Though useful to the obviousness inquiry, I understand that this test should not be treated as a rigid rule. It is not necessary to seek out precise teachings; it is permissible to consider the inferences and creative steps that a person of ordinary skill in the art (who is considered to have an ordinary level of creativity and is not an “automaton”) would employ.

28. I understand that other factors may be considered in establishing a rationale for combining elements of the prior art. These factors include: (1) whether the claimed invention was merely the predictable result of using prior art elements according to their known function(s); (2) whether the claimed invention provides an obvious solution to a known problem in the relevant field; (3) whether it would have been obvious to try the combinations of elements, such as when there is a design

need or market pressure to solve a problem and there are a finite number of identified, predictable solutions; and (4) whether the claimed invention resulted more from design incentives or other market forces. I further understand that for an invention to be rendered obvious, the prior art must provide a reasonable expectation of success.

II. DESCRIPTION OF THE RELEVANT FIELD AND THE RELEVANT TIMEFRAME

29. To determine the relevant field, I reviewed the ‘277 Patent and its file history. I further reviewed the ‘056 Patent and its file history.

30. To determine the scope of the prior art, I understand the prior art must antedate the invention date of the ‘277 Patent. As discussed above, the ‘277 Patent claims priority to U.S. Patent Application No. 16/131,035, filed on September 14, 2018, now the ‘056 Patent. I reviewed all cited prior art references contained in the file histories of the ‘277 Patent and ‘056 Patent.

31. Based on this history, the ‘277 Patent has a claim to the September 14, 2018 filing date of the ‘056 Patent as the earliest priority date.

32. Without confirming or acknowledging a priority date to which the ‘277 Patent is entitled, the following opinion relies on art that antedates September 14, 2018.

33. Based on my review of this material, I believe that the relevant field for the purposes of the ‘277 Patent is, in general, mechanical engineering and

mechanical design.

III. THE PERSON OF ORDINARY SKILL IN THE RELEVANT FIELD IN THE RELEVANT TIMEFRAME

34. I have been informed that “a person of ordinary skill in the relevant field” is a hypothetical person to whom an expert in the relevant field could assign a routine task with reasonable confidence that the task would be successfully carried out. I have been informed that the level of skill in the art is evidenced by prior art references.

35. I understand that Petitioner contends: “A person of ordinary skill in the art (“POSITA”) at the time of filing would have had a minimum of a bachelor’s degree in mechanical engineering or its equivalent and two years of experience in mechanical engineering with some experience in mechanical design. In lieu of a degree, a POSITA could be one whose equivalent accumulated knowledge and experience in the field of mechanical engineering and specifically mechanical design makes him or her a POSITA. Additional graduate-level education could substitute for professional experience, or significant experience in the field could substitute for formal education.” Petition at 7.

36. For the purpose of this declaration, I have adopted Petitioner’s definition of a POSITA.

37. My background educational and professional experience provide me with a strong understanding of the abilities and knowledge of a person of ordinary

skill in the art for the relevant field of the ‘277 Patent. Not only do I have such abilities and knowledge, but I have also worked with and overseen the work of others with such abilities and knowledge in my capacities as a consultant and engineer.

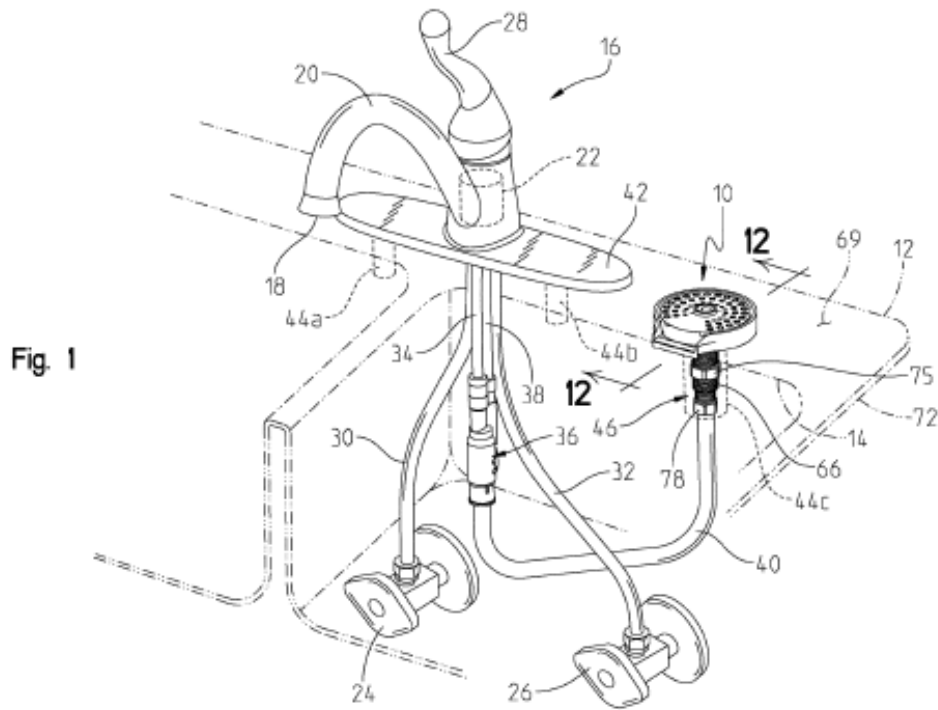
IV. OVERVIEW OF THE ‘277 PATENT

38. The ‘277 Patent identified a supposed problem in the field of vessel rinsing apparatuses: the interior of glasses are hard to clean using conventional disposable sponges and typical faucets with no directionally pressurized water flow. Ex. 1001 at 1:18-27

39. To these ends, the ‘277 Patent (mistakenly) states that “[t]here remains a need for a vessel rinsing apparatus capable of being installed in a standard countertop opening, or integrated as part of a faucet escutcheon, which allows for the cleaning of small vessels, such as glasses and cups.” Ex. 1001 at 1:28-31.

40. In response, the ‘277 Patent claims a purportedly novel vessel rinsing apparatus (10) comprising a mounting member (46), a fluid discharge member (54) including a plurality of nozzles (84) and a trigger (88), a valve member (56) operably coupled to the fluid discharge member and configured to control water flow through the nozzles in response to movement of the trigger, and a drain bowl (52/48) operably coupled to the mounting member, including a lower wall (64), an upwardly extending wall (114), and a drain channel (116) configured to receive water from the drain bowl and discharge water above into a sink basin. *See* Ex. 1001 at claims 1 &

11; and Figs. 1 & 3 below.



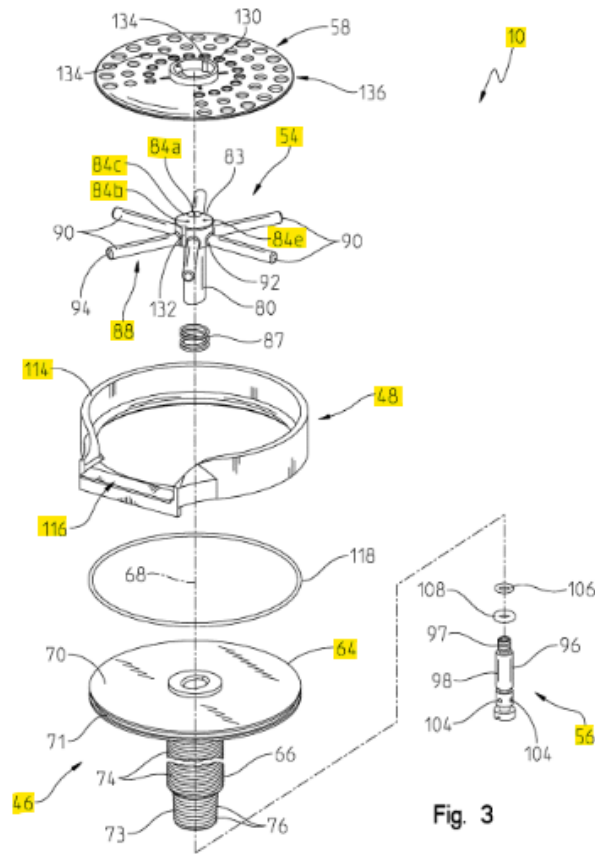


Fig. 3

41. In the prosecution of the Parent, analogous claims were rejected under § 103. Ex. 1004, Non-Final Rejection dated July 31, 2020, at 3-9. In response, the Patent Owner argued that the point of novelty of the '277 Patent is a drain bowl including a lower wall coupled with an upwardly extending wall and a drain channel configured to receive water from the drain bowl and discharge water above and into a sink basin. Ex. 1004, Amendment and Response to Non-Final Office Action dated September 24, 2020, at 50-53. Moreover, claims 1, 11, & 20 of the '277 Patent were issued a nonstatutory double patenting rejection as being unpatentable over these same analogous claims of the Parent. Ex. 1003, Non-Final Rejection dated March 3, 2022, at 247-252; and Terminal Disclaimer dated March 28, 2022, at 154.

V. CLAIM INTERPRETATION

42. During an IPR, I understand that claim terms are given their broadest reasonable construction in light of the specification of the patent in which it appears. I understand that, under this broadest reasonable construction standard, claim terms are generally given their ordinary and customary meaning, as would be understood by one of ordinary skill in the art in the context of the entire disclosure.

43. Here, I have been told that Petitioner proposes that all claim terms be given their plain and ordinary meaning, and my understanding of the claims is in view of the plain and ordinary meaning of such terms.

VI. THE PRIOR ART

A. Van Der Linden

44. Van Der Linden is a U.S. patent publication published in 2008. Van Der Linden generally discloses “a faucet having washing means for washing the insides of glasses and the like, which washing means comprise an abutment surface for abutment thereagainst of an open end of a glass... a spray nozzle... for spraying washing liquid ... into the glass during abutment of said open end against said abutment surface, and a valve... to be actuated by actuating means for supplying washing liquid to the spray nozzle as desired.” Ex. 1006 at Abstract.

45. Importantly, Van Der Linden discloses a “washing device 21” comprising “an at least substantially cup-shaped container 31 which joins the upper

end of the base 28, which container comprises a slightly concave bottom 32 and an upright wall 33 which joins the circumference of the bottom 32.” Ex. 1006 at [33].
 “At the lowermost point, the circular wall 33 is interrupted, thereby creating an outflow opening 34 at that location.” *Id.* See also Figs. 1 & 2 below:

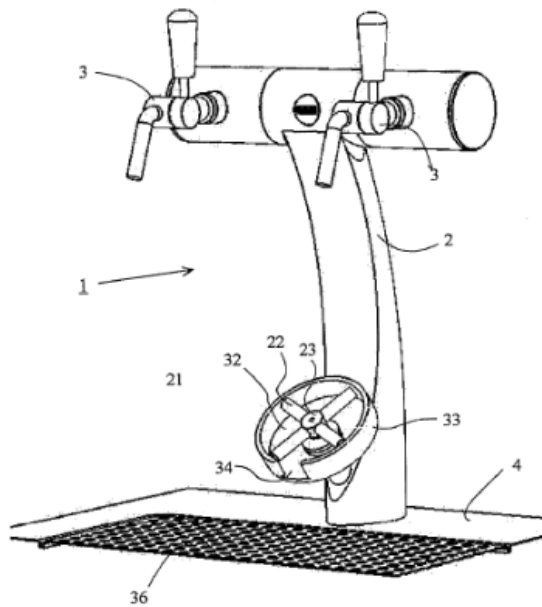


Fig. 1

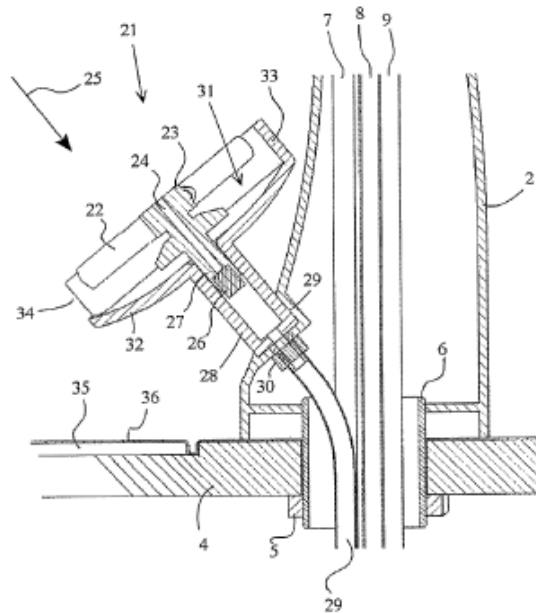


Fig. 2

B. Thomas

46. Thomas is a U.S. patent publication published in 2011. Thomas generally discloses “a diverter assembly configured to be connected to a faucet assembly that may be installed on a sink deck. The diverter assembly includes a diverter and an auxiliary fluid dispenser, such as a side sprayer or a filtered water dispenser.” Ex. 1008 at [0003]; see Fig. 1 below:

fluid delivery devices may be substituted therefore, including a filtered water dispenser.” *Id.*

49. Of note, Thomas was assigned to the Patent Owner, Delta Faucet Company, on February 24, 2015 from Masco Corporation of Indiana. *See* Reel/frame 035168/0845.

C. Shen Wei

50. Shen Wei is a Chinese patent published in 2013. Shen Wei discloses “cup-washing machine” comprising a “nozzle, valve spool, body, spring, bracket, protective sleeve of the bracket, sealing ring, [and] fastening nut.” Ex. 1007 at 1. As shown in Figure 1 below, Shen Wei discloses a body 3 extending along a longitudinal axis. As shown in Figures 3 & 4 below, Shen Wei further discloses a plurality of nozzles (orifices 9).

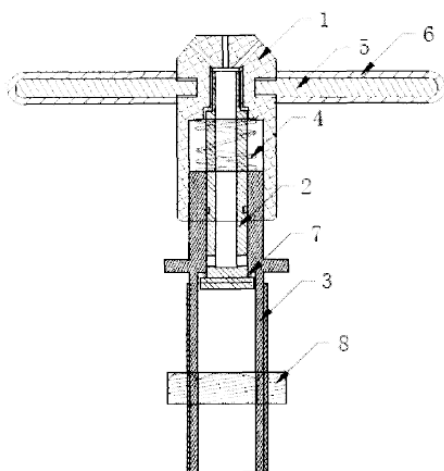


Figure 1

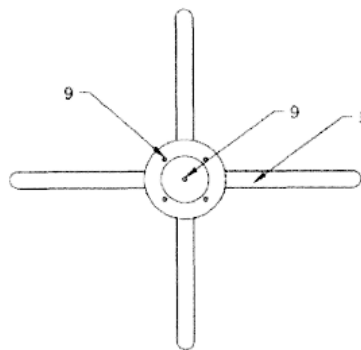


Figure 3

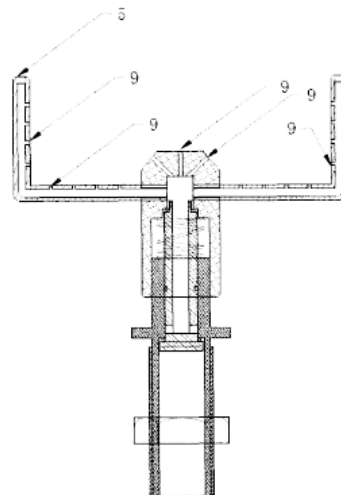
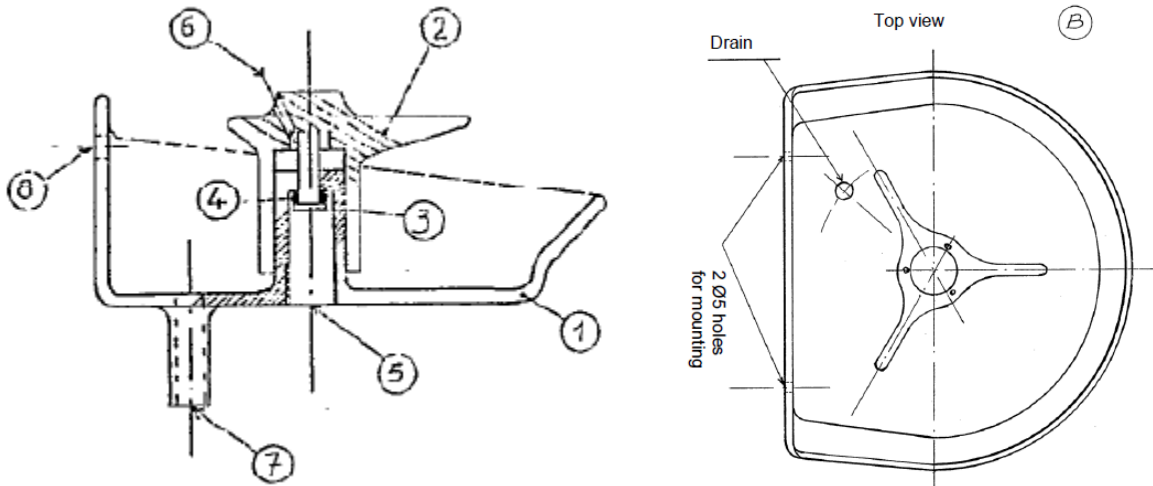


Figure 4

D. Boursier

51. Boursier is a French patent published 1988. Boursier generally discloses a “Glass rinser shown with: The tray or reservoir 1[;] The 3-branch pusher 2[;] The valve 3[;] An O-ring 4[;] A drinking water inlet 5[;] A drinking water outlet 6[;] A drain 7[;] A wall mount 8[;] for use by winemakers, consumers, etc.” Ex. 1009 at1; *see* Figs. A & B below:



E. Hotaling

52. Hotaling is a U.S. patent publication published in 2012. Hotaling generally discloses a “drain system for a food preparation machine includes a preparation area drain tray; a rinsing station including a water source; a water collection tray disposed below the rinsing station so as to collect water supplied from the water source; and, a passage from the rinsing station to the preparation area drain tray directing water to flush the preparation area drain tray with water supplied from

the water source..” Ex. 1010 at Abstract.

53. Hotaling discloses “a passive rinse system in which water from an adjacent rinse station [106] is directed to a desired location in the drip tray [102] using a trough [105] that connects the rinse station water collection tray [101] to the drip tray...” *Id.* at [0017]; see Figs. 2 and 3 below.

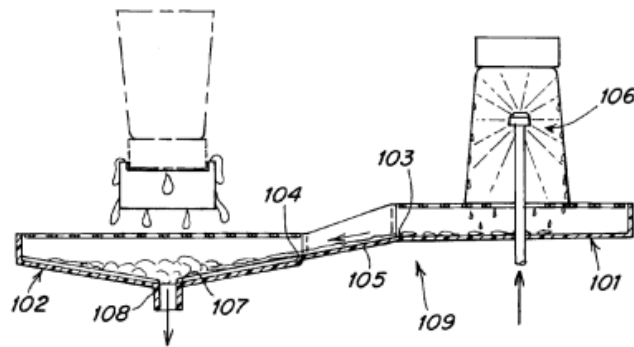


Fig. 2

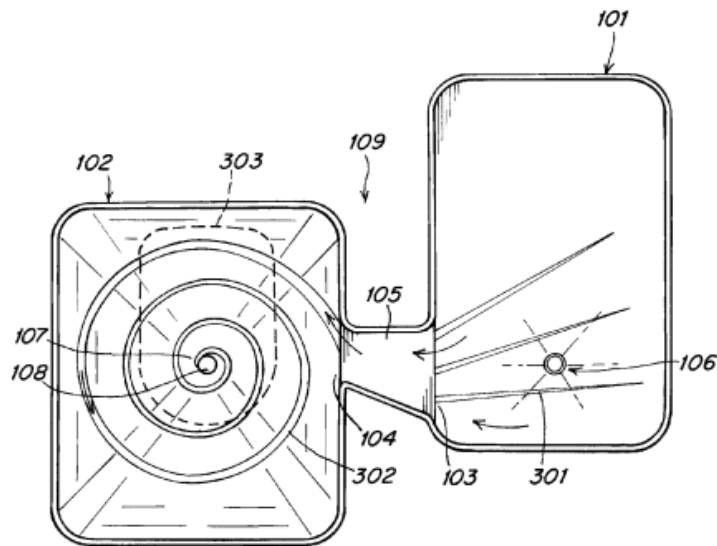


Fig. 3

VII. THE PRIOR ART IN RELATION TO CLAIMS OF THE ‘277 PATENT

54. In comparing the prior art cited herein to the claims of the ‘277 Patent, I used the plain and ordinary meaning of claim terms. In my analysis, I considered the level of one of ordinary skill in the art at the time of the ‘277 Patent, which I understand to be the September 14, 2018 filing date of the ‘056 Patent to which the ‘277 Patent claims priority.

A. Van Der Linden in Combination with Shen Wei Compared to Claims 1-5, 10-13, and 15

55. In my opinion, the combination of Van Der Linden and Shen Wei disclose each and every limitation of claims 1-5, 10-13, and 15 of the ‘277 Patent for the reasons detailed below.

1. Claim 1

i. “A vessel rinsing apparatus” (preamble)

56. In my opinion, Van Der Linden discloses a vessel rinsing apparatus (**washing device 21**). Van Der Linden “relates to a faucet having **washing means for washing the insides of glasses** and the like...” Ex. 1006 at Abstract. For example, Van Der Linden discloses a “draft tower 1... with a **washing device 21**.” *Id.* at [0031].

ii. “a mounting member extending along a longitudinal axis, the mounting member configured to extend through a mounting aperture formed within a mounting deck”

57. In my opinion, Van Der Linden discloses a mounting member (**base**

28) configured to extend through a mounting aperture (**recess 29**) formed within a mounting deck (**worktop 4, column 2**). In Van Der Linden, “[t]he **supply line 28** also forms a **base** for the washing device 21, whose lower end is accommodated in a **recess 29** in the wall of the **column 2**.” Ex. 1006 at [0032]. See Fig. 2 below:

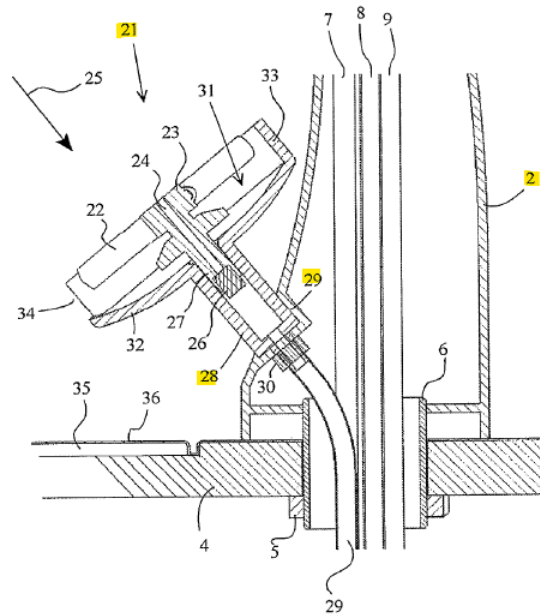


Fig. 2

58. To the extent that the mounting member (**base 28**) of Van Der Linden is not longitudinal, in my opinion, this element is clearly disclosed by Shen Wei. For example, Shen Wei discloses a mounting member (**body 3**) extending along a longitudinal axis and explains that the “cup-washing machine can be installed on the sink/tank” via the **fastening nut 8**. Ex. 1007 at [0009]. As shown in Figure 1 below, the **body 3** extends along a longitudinal axis and is secured to a sink by the **fastening nut 8**:

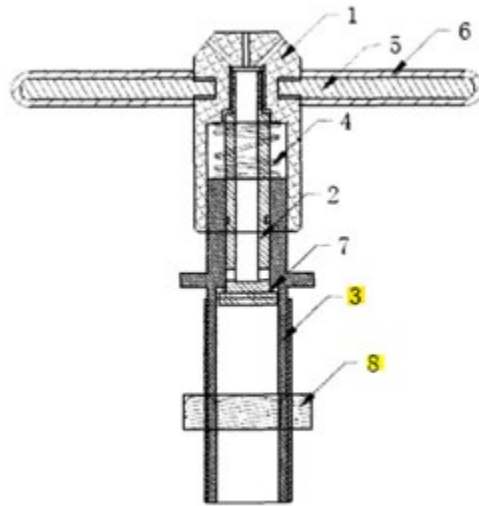


Figure 1

59. In my opinion, it would have been obvious to one having ordinary skill in the art, having the teachings of Van Der Linden and Shen Wei before him before the effective filing date of the claimed invention, to modify the vessel rinsing apparatus of Van Der Linden to incorporate the longitudinal mounting member (**body 3**) and mounting method of Shen Wei so as to minimize the number of components for cost and reliability. In fact, the aperture mounting method and longitudinal mounting body is the same configuration that deck mounts in residential and commercial faucets and plumbing fixtures have used for hot and cold water valves for many years. Given the known advantages and predictable result of having a longitudinal mounting member that mounts through apertures like other commonly available fixtures for increased standalone stability, one having ordinary skill in the art would have been motivated to make this obvious modification.

- iii. *“a fluid discharge member including a central body supporting a plurality of nozzles and a trigger, the central body being movable relative to the mounting member”*

60. In my opinion, Van Der Linden discloses a fluid discharge member (**spray nozzle body 23**) with a central body (**cylindrical end 27**) supporting a nozzle (**spray channel/nozzle 24**) and a trigger (**abutment member 22**). In Van Der Liden “[t]he washing device 21 comprises a **cross-shaped abutment member 22**... [and] a **spray nozzle body 23**... provided with an internal **spray channel 24** that opens into a **spray nozzle**... [and] comprises a **cylindrical end 27**...” Ex. 1006 at [0031].

61. In my opinion, a POSITA would understand the central body (**cylindrical end 27**) to be at least implicitly movable relative to the mounting member (**base 28**) under the action of the **pressure direction 25**. For example, it is my understanding that when the abutment member 22 is pressed in the pressure direction 25, the cylindrical end 27 so too moves downward relative to the base 28, opening a valve 26. Van Der Linden explains that “when a pressure is exerted on the abutment member 22 in the **pressure direction 25** by pressing the open end of a glass against said abutment member, the valve 26 will open, so that washing liquid will be sprayed into the glass in question from the spray channel 24.” *Id.* Said another way, in my opinion, the only way for the valve 26 to open is for the pressure direction 25 to move the entire spray nozzle body 23 (including the abutment member 22, spray channel/nozzle 24, and cylindrical end 27) downward relative to the base 28.

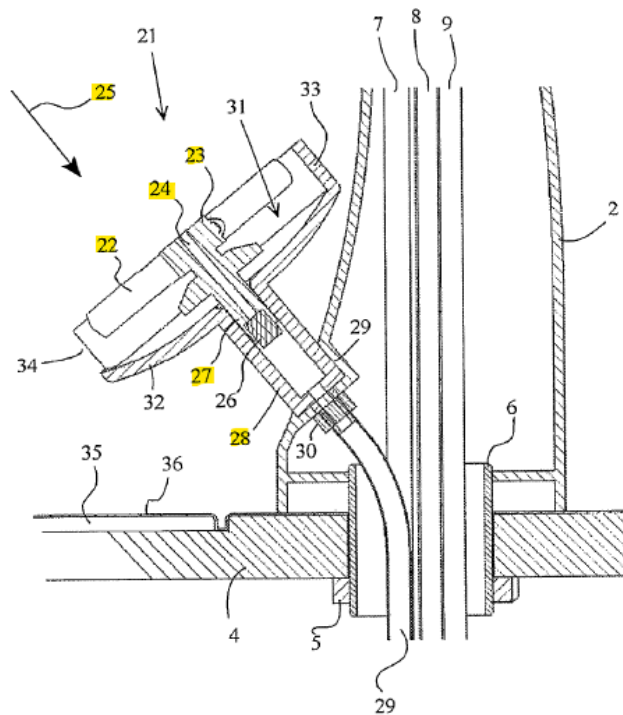


Fig. 2

62. To the extent that Van Der Linden does not disclose a *plurality* of nozzles, in my opinion, this element is clearly disclosed by Shen Wei (**orifices 9**). In Shen Wei “said nozzle has **orifices [9]**, and water flows through these small **orifices [9]** to form high speed and high pressure to effectively pre-cool/pre-heat/flush various containers...” Ex. 1007 at [0008]. As shown in Figures 3 & 4 below, Shen Wei clearly discloses a plurality of spray nozzles (**orifices 9**):

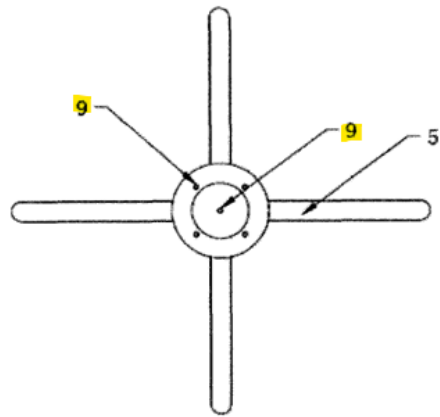


Figure 3

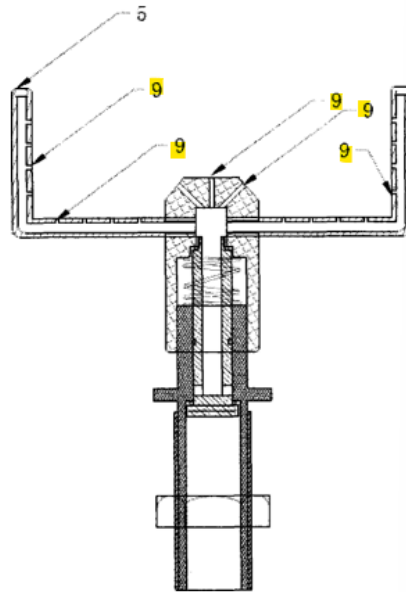


Figure 4

63. In my opinion, it would have been obvious to one having ordinary skill in the art, having the teachings of Van Der Linden and Shen Wei before him before the effective filing date of the claimed invention, to modify the vessel rinsing apparatus of Van Der Linden to incorporate the plurality of spray nozzles (**orifices 9**) of Shen Wei. In my opinion, only having a single nozzle would be ineffective and require users to move the glassware around excessively, making it highly likely that the glassware would not be cleaned effectively. Given the known and predictable rinsing advantages of having a plurality of nozzles for more effective and efficient cleaning, one having ordinary skill in the art would have been motivated to make this obvious modification.

- iv. *“a valve member operably coupled to the fluid discharge member and configured to control water flow through the central body to the plurality of nozzles in response to movement of the trigger”*

64. In my opinion, Van Der Linden discloses a valve member (**valve 26**) operably coupled to the fluid discharge member (**spray nozzle body 23**) via the cylindrical end 27. For example, in Van Der Linden the “**spray nozzle body 23** comprises a cylindrical end 27 provided with a **valve 26**...” Ex. 1006 at [0031].

65. In my opinion, Van Der Linden further discloses a valve member (**valve 26**) configured to control water flow through a central body (**cylindrical end 27**) to a plurality of nozzles (**spray channel/nozzle 24**) in response to movement (**pressure direction 25**) of a trigger (**abutment member 22**). Van Der Linden explains this water flow mechanism as follows: “The pressure in the supply line 29 will keep the valve 26 in the closed position as long as no pressure is exerted on the abutment member 22, so that the supply of washing liquid from the supply line 29 to the spray channel 24 is blocked. However, when a pressure is exerted on the abutment member 22 in the pressure direction 25 by pressing the open end of a glass against said abutment member, the valve 26 will open, so that washing liquid will be sprayed into the glass in question from the spray channel 24.” Ex. 1006 at [0031]; *see also* [0035]. Further, Van Der Linden states that this water flow mechanism is not novel: “The above principle is already known per se to those skilled in the art and need not be explained in more detail herein, therefore.” *Id.* at [0031]; *see* Fig. 2 below:

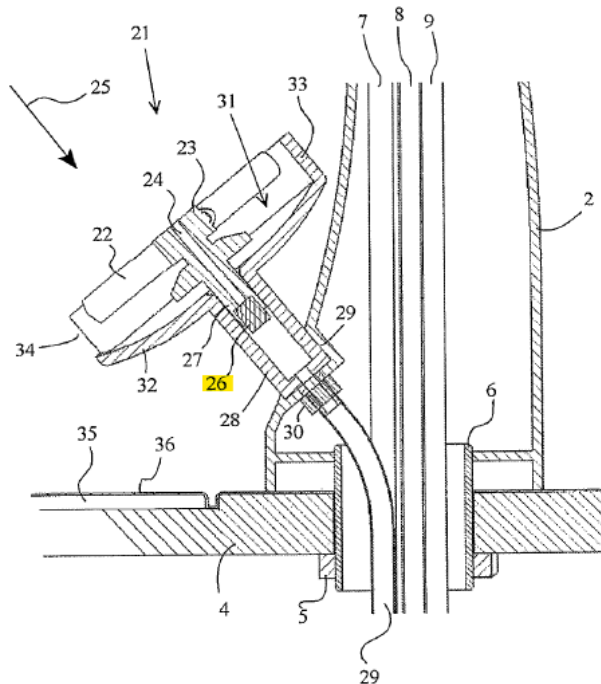


Fig. 2

- v. *“a drain bowl operably coupled to the mounting member, the drain bowl including a lower wall, an upwardly extending wall operably coupled to the lower wall, and a drain channel extending through the upwardly extending wall, the drain channel configured to receive water from the drain bowl and discharge water above and into a sink basin supported by the mounting deck”*

66. In my opinion, Van Der Linden discloses a drain bowl (**cup shaped container 31**) operably coupled to a mounting member (**base 28**). For example, in Van Der Linden “[t]he washing device 21 further comprises an at least substantially **cup-shaped container 31** which joins the upper end of the **base 28**...” Ex. 1006 at [0033].

67. In my opinion, Van Der Linden further discloses a drain bowl (**cup shaped container 31**) including a lower wall (**slightly concave bottom 32**), an

upwardly extending wall (**upright wall 33**) operably coupled to the lower wall, and a drain channel (**outflow opening 34**) extending through the upwardly extending wall. For example, in Van Der Linden the “**container [31]** comprises a **slightly concave bottom 32** and an **upright wall 33** which joins the circumference of the bottom 32... At the lowermost point, the circular wall 33 is interrupted, thereby creating an **outflow opening 34** at that location.” Ex. 1006 at [0033]; *see* Fig. 2 below:

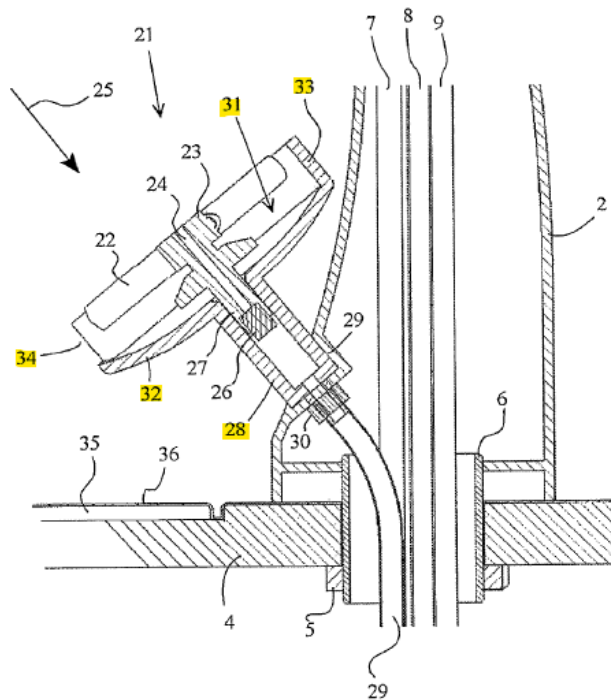


Fig. 2

68. In my opinion, Van Der Linden further discloses a drain channel (**outflow opening 34, 79**) configured to receive water from a drain bowl (**cup shaped container 31**) and discharge water above and into a sink basin (**drip tray 36, sink 77**) supported by a mounting deck (**worktop 4, column 2**). For example,

Van Der Linden explains that “[s]aid **outflow opening 34** is located above a recessed part 35 in the **worktop 4**, where a **drip tray 36** is provided.” Ex. 1006 at [0033]. Van Der Linden further explains the discharge feature: “said washing liquid will flow out of the **container 31** via the **outlet opening 34** and into the recessed part 35 via holes in the **drip tray 36**...” *Id.* at [0035]. Further, in my opinion, a second disclosed embodiment of Van Der Linden explicitly teaches discharging water into a sink basin: “As is apparent from FIG. 5, the **outflow opening 79** of the washing device 78 opens above the **sink 77**.” *Id.* at [0039]; *see* Fig. 5 below:

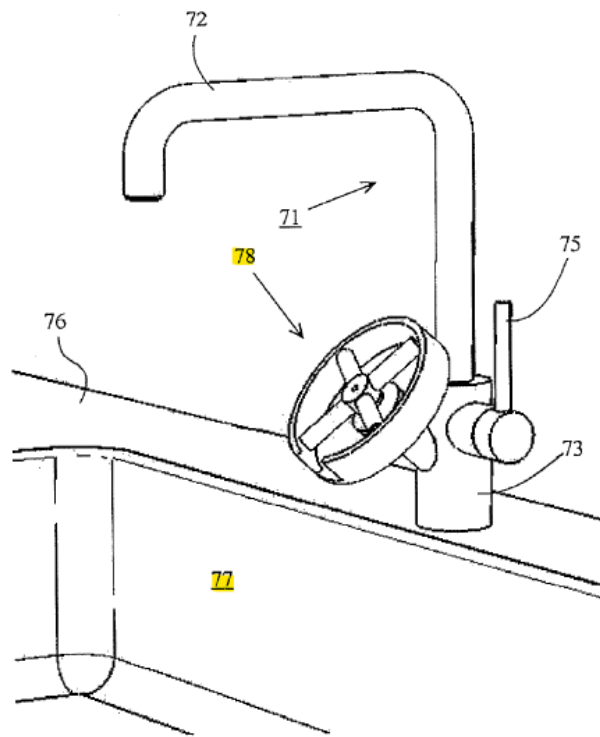


Fig. 5

2. Claim 2

- i. *“The vessel rinsing apparatus of claim 1, wherein the mounting member comprises a mounting shank defining an opening extending along the longitudinal axis, and the central body of the fluid discharge member is received within the opening of the mounting shank and movable along the longitudinal axis.”*

69. In my opinion, Van Der Linden discloses a mounting member with a central body comprising a mounting shank (generally, **base 28**) defining an opening (**shown in red**) extending along an axis and the central body (**cylindrical end 27**) of the fluid discharge member (**spray nozzle body 23**) is received within the opening of the mounting shank (**shown in red**) and movable along an axis. As seen in annotated Figure 2 below, the **base 28** defines an opening extending along an axis and the **cylindrical end 27** of the **spray nozzle body 23** is received therein and moveable along that axis upon movement of the abutment member 22 in the pressure direction 25. *See* Ex. 1006 at [0031] & [0035].

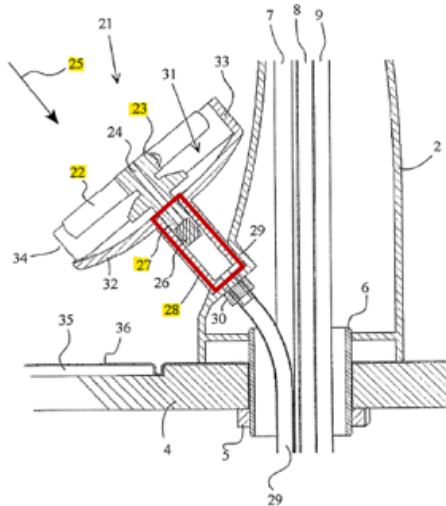


Fig. 2

70. Again, to the extent that the opening of the mounting member (**base 28**) of Van Der Linden does not extend along the longitudinal axis, in my opinion, this element is clearly disclosed by Shen Wei. For example, Shen Wei discloses an opening of a mounting member (**body 3**) extending along the longitudinal axis. As shown in Figure 1 below, the opening of **body 3** extends along a longitudinal axis:

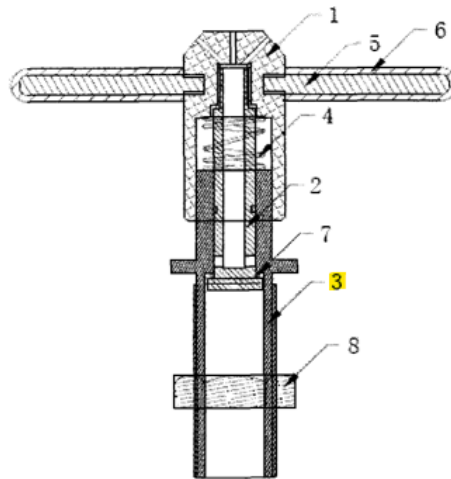


Figure 1

71. In my opinion, it would have been obvious to one having ordinary skill in the art, having the teachings of Van Der Linden and Shen Wei before him before the effective filing date of the claimed invention, to modify the vessel rinsing apparatus of Van Der Linden to incorporate the longitudinal mounting member (**body 3**) of Shen Wei. Given the known and predictable advantages of having a longitudinal mounting member for reducing the number of parts, using the hollow body of the mounting shank as a fluid path and lining up the discharge member with the axis is the most straight forward and obvious solution.

3. Claim 3

- i. *“The vessel rinsing apparatus of claim 2, wherein the lower wall includes an opening through which the mounting shank extends.”*

72. In my opinion, Van Der Linden discloses a lower wall (**slightly concave bottom 32**) including an opening (**shown in red**) through which the mounting shank (generally, **base 28**) extends. As seen in annotated Figure 2 below, the **concave bottom 32** includes an opening (**red**) through which the **base 28** extends. In my opinion, this opening allows for the flow of water from the supply hose to the nozzle in response to pressure at the trigger.

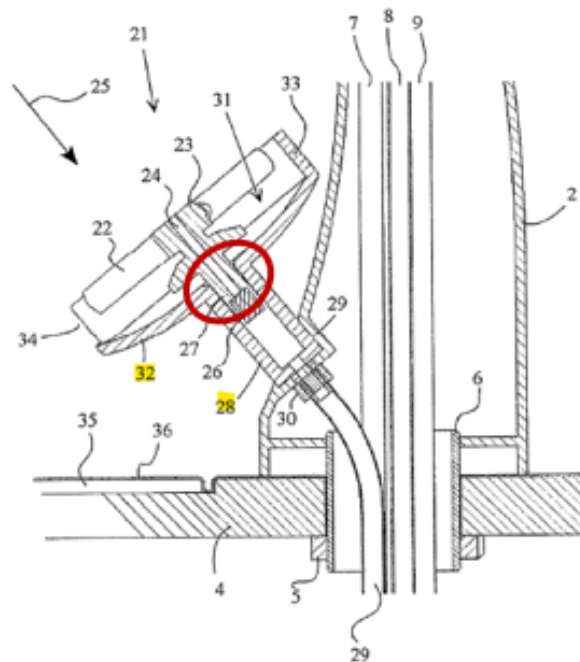


Fig. 2

4. Claim 4

- i. *“The vessel rinsing apparatus of claim 1, wherein the drain bowl is defined by an escutcheon.”*

73. In my opinion, Van Der Linden discloses a drain bowl (**cup shaped container 31**) defined by an escutcheon. The ‘277 Patent defines an escutcheon as including an upwardly extending wall, a lower wall, and a drain channel. *See* Ex. 1001 at 5:40-53. In my opinion, the **cup shaped container 31**, including **slightly concave bottom 32**, **upright wall 33**, and **outlet opening 34**, define as escutcheon. *See* Ex. 1006 at [0033].

5. Claim 5

- i. *“The vessel rinsing apparatus of claim 1, wherein the drain channel slopes away from the fluid discharge member and the drain bowl.”*

74. In my opinion, Van Der Linden discloses a drain channel (**outflow opening 34, 79**) sloped away from a fluid discharge member (**spray nozzle body 23**) and a drain bowl (**cup shaped container 31**). For example, Van Der Linden explains that “[m]ost of the washing **water will flow** from the glass into the container **31 under the influence of the force of gravity**... From the container 31, said washing liquid will flow out of the container 31 via the outlet opening 34 and into the recessed part 35...” Ex. 1006 at [0035]. In this regard, in my opinion, the outflow opening 34 is sloped away from the spray nozzle body 23 and container 31 to facilitate the outflow of water under the force of gravity into the recessed part 35,

i.e., the sink (see Fig. 5), as best shown in Figure 2 below:

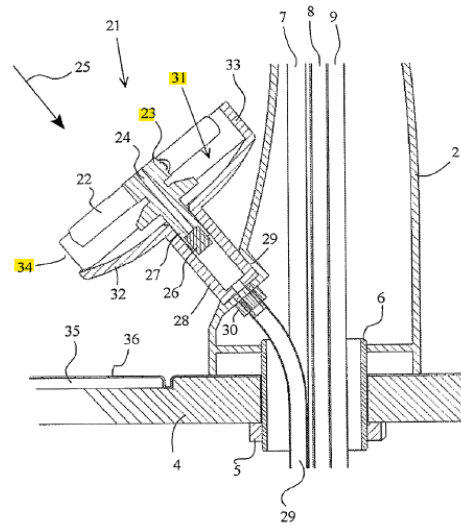


Fig. 2

6. Claim 10

- i.* “The vessel rinsing apparatus of claim 1, wherein the trigger of the fluid discharge member includes a plurality of arms extending radially outwardly from the central body of the fluid discharge member.”

75. In my opinion, Van Der Linden discloses a trigger (**abutment member 22**) of a fluid discharge member (**spray nozzle body 23**) including a plurality of arms extending radially outwardly (**cross shaped**) from the central body of the fluid discharge member. For example, in Van Der Linden the “washing device 21 comprises a **cross-shaped abutment member 22**... **In the centre of the cross shape of the abutment member**, the washing device 21 comprises a **spray nozzle body 23** connected to the abutment member...” Ex. 1006 at [0031]; see Figure 1:

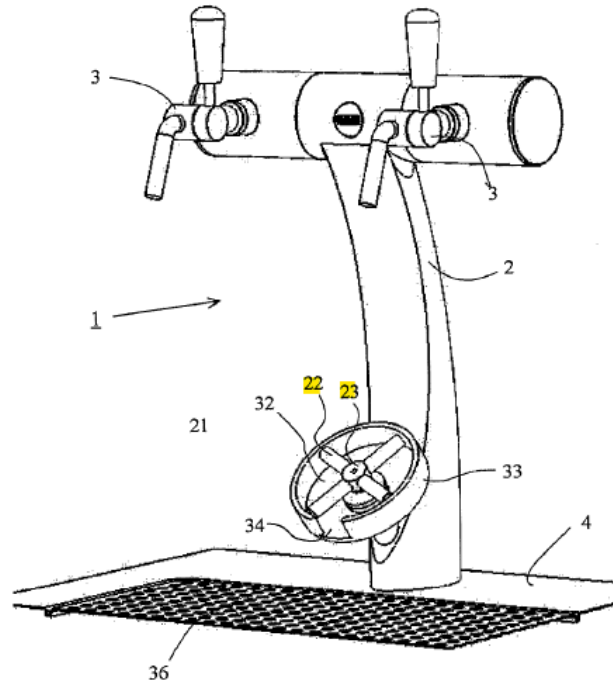


Fig. 1

7. Claim 11

i. “A vessel rinsing apparatus” (preamble)

76. In my opinion, Van Der Linden discloses a vessel rinsing apparatus (**washing device 21**). See Ex. 1006 at Abstract & [0031].

ii. “a drain bowl including a lower wall, an upwardly extending wall operably coupled to the lower wall, and a drain channel extending through the upwardly extending wall, the drain channel configured to receive water from the drain bowl and discharge water above and into a sink basin supported by a mounting deck”

77. In my opinion, Van Der Linden discloses a drain bowl (**cup shaped container 31**) including a lower wall (**slightly concave bottom 32**), an upwardly extending wall (**upright wall 33**) operably coupled to the lower wall, and a drain

channel (**outflow opening 34**) extending through the upwardly extending wall. *See* Ex. 1006 at [0031] & Fig. 2.

78. In my opinion, Van Der Linden further discloses a drain channel (**outflow opening 34, 79**) configured to receive water from the drain bowl (**cup shaped container 31**) and discharge water above and into a sink basin (**drip tray 36, sink 77**) supported by a mounting deck (**worktop 4, column 2**). *See* Ex. 1006 at [0031], [0035], [0039] & Fig. 5.

iii. *“a mounting member operably coupled to the drain bowl, the mounting member configured to couple the drain bowl to the mounting deck”*

79. In my opinion, Van Der Linden discloses a mounting member (**base 28**) operably coupled to a drain bowl (**cup shaped container 31**) and configured to couple the drain bowl (**cup shaped container 31**) to the mounting deck (**worktop 4, column 2**). *See* Ex. 1006 at [0033], [0032] & Fig. 2.

iv. *“a fluid discharge member including a central body supporting a plurality of nozzles and a trigger, the central body being movable relative to the mounting member”*

80. In my opinion, Van Der Linden discloses a fluid discharge member (**spray nozzle body 23**) with a central body (**cylindrical end 27**) supporting a nozzle (**spray channel/nozzle 24**) and a trigger (**abutment member 22**). *See* Ex. 1006 at [0031]. In my opinion, Van Der Linden further discloses the central body (**cylindrical end 27**) moveable (**pressure direction 25**) relative to the mounting

member (**base 28**). *See* Ex. 1006 at [0031], [0035] & Fig. 2.

81. To the extent that Van Der Linden does not disclose a *plurality* of nozzles, in my opinion, this element is clearly disclosed by Shen Wei. Shen Wei discloses a plurality of nozzles (**orifices 9**). *See* Ex. 1007 at [0008] & Figs. 3 & 4. In my opinion, it would have been obvious to one having ordinary skill in the art, having the teachings of Van Der Linden and Shen Wei before him before the effective filing date of the claimed invention, to modify the vessel rinsing apparatus of Van Der Linden to incorporate the plurality of nozzles (**orifices 9**) of Shen Wei. In my opinion, only having a single nozzle would be ineffective and require users to move the glassware around excessively, making it highly likely that the glassware would not be cleaned effectively. Given the known and predictable rinsing advantages of having a plurality of nozzles for more effective and efficient cleaning, one having ordinary skill in the art would have been motivated to make this obvious modification.

- v. *“a valve member operably coupled to the fluid discharge member and configured to control water flow through the central body to the plurality of nozzles”*

82. In my opinion, Van Der Linden further discloses a valve member (**valve 26**) operably coupled to the fluid discharge member (**spray nozzle body 23**). In Van Der Linden the **valve 26** is coupled to the spray **nozzle body 23** via the cylindrical end 27. *See* Ex. 1006 at [0031]. In my opinion, Van Der Linden further

discloses a valve member (**valve 26**) configured to control water flow through the central body (**cylindrical end 27**) to the plurality of nozzles (**spray channel/nozzle 24**). *See* Ex. 1006 at [0031], [0035] & Fig. 2.

- vi. *“wherein the drain channel slopes away from the fluid discharge member and the drain bowl to facilitate water drainage into the sink basin.”*

83. In my opinion, Van Der Linden further discloses a drain channel (**outflow opening 34**) sloped away from a fluid discharge member (**spray nozzle body 23**) and a drain bowl (**cup shaped container 31**) to facilitate water drainage into the sink basin (**drip tray 36, sink 77**). *See* Ex. 1006 at [0035]. In this regard, in my opinion, the outflow opening 34 is sloped away from the spray nozzle body 23 and container 31 to facilitate the outflow of water under the force of gravity into the recessed part 35 via holes in the drip tray 36, from where it will be further discharged through the worktop 4., *i.e.*, the sink. *See id.* at [0039], Fig. 2 & Fig. 5.

8. Claim 12

- i. *“The vessel rinsing apparatus of claim 11, wherein the mounting member extends along a longitudinal axis, the mounting member configured to extend through a mounting aperture formed within the mounting deck.”*

84. In my opinion, Van Der Linden discloses a mounting member (**base 28**) configured to extend through a mounting aperture (**recess 29**) formed within a mounting deck (**worktop 4, column 2**). *See* Ex. 1006 at [0032] & Fig. 2.

85. To the extent that the mounting member (**base 28**) of Van Der Linden is not longitudinal, in my opinion, this element is clearly disclosed by Shen Wei. Shen Wei discloses a mounting member (**body 3**) extending along a longitudinal axis. *See* Ex. 1007 at Fig. 1. In my opinion, it would have been obvious to one having ordinary skill in the art, having the teachings of Van Der Linden and Shen Wei before him before the effective filing date of the claimed invention, to modify the vessel rinsing apparatus of Van Der Linden to incorporate the longitudinal mounting member (**body 3**) and mounting method of Shen Wei to minimize the number of components for cost and reliability. In fact, the aperture mounting method and longitudinal body is the same configuration that deck mounts in residential and commercial faucets and plumbing fixtures have used for hot and cold water valves for many years. Given the known and predictable advantages of having a longitudinal mounting member that mounts through apertures like other commonly available fixtures for increased standalone stability, one having ordinary skill in the art would have been motivated to make this obvious modification.

9. Claim 13

- i. *“The vessel rinsing apparatus of claim 12, wherein the mounting member comprises a mounting shank defining an opening extending along the longitudinal axis, and the central body of the fluid discharge member is received within the opening of the mounting shank and movable along the longitudinal axis.”*

86. In my opinion, Van Der Linden discloses a mounting member with a central body comprising a mounting shank (generally, **base 28**) defining an opening extending along an axis and the central body (**cylindrical end 27**) of the fluid discharge member (**spray nozzle body 23**) is received within the opening of the mounting shank and movable along an axis. *See* Ex. 1006 at [0031], [0035] & Fig. 2.

87. Again, to the extent that the opening of the mounting member (base 28) of Van Der Linden does not extend along the longitudinal axis, in my opinion, this element is clearly disclosed by Shen Wei. Shen Wei discloses an opening of a mounting member (**body 3**) extending along the longitudinal axis. *See* Ex. 1007 at Fig. 1. Again, it would have been obvious to one having ordinary skill in the art, having the teachings of Van Der Linden and Shen Wei before him before the effective filing date of the claimed invention, to modify the vessel rinsing apparatus of Van Der Linden to incorporate the longitudinal mounting member (body 3) of Shen Wei. Given the known and predictable advantages of having a longitudinal

mounting member for reducing the number of parts, using the hollow body of the mounting shank as a fluid path and lining up the discharge member with the axis is the most straight forward and obvious solution.

10. Claim 15

- i. *“The vessel rinsing apparatus of claim 11, wherein the drain bowl is defined by an escutcheon.”*

88. In my opinion, Van Der Linden discloses a drain bowl (**cup shaped container 31**) defined by an escutcheon. The ‘277 Patent defines an escutcheon as including an upwardly extending wall, a lower wall, and a drain channel. *See* Ex. 1001 at 5:40-53. In my opinion, the **cup shaped container 31**, including **slightly concave bottom 32**, **upright wall 33**, and **outlet opening 34**, define as escutcheon. *See* Ex. 1006 at [0033].

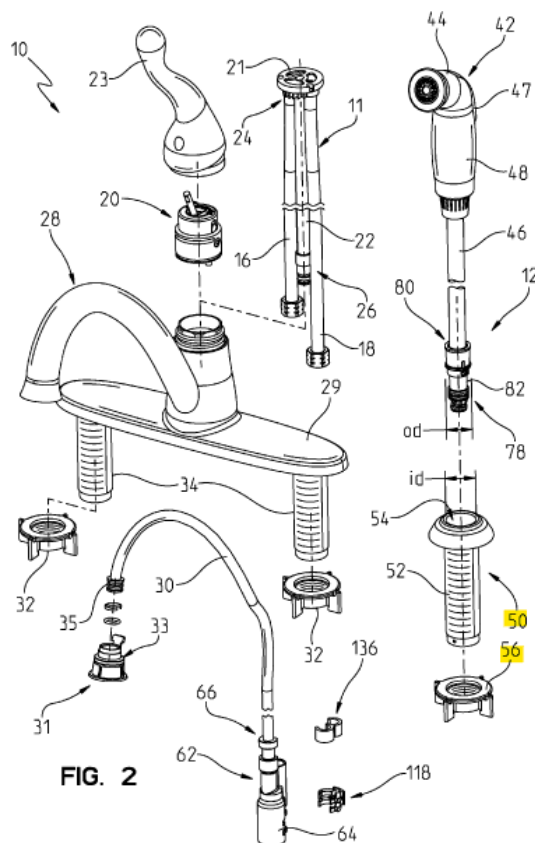
B. Thomas in Combination with Van Der Linden Compared to Claims 1-7, 10-17, 20-21, and 23-24

89. In my opinion, the combination of Thomas and Van Der Linden disclose each and every limitation of claims 1-7, 10-17, 20-21, and 23-24 of the ‘277 Patent for the reasons detailed below.

1. Claim 1

- i. *“A vessel rinsing apparatus” (preamble)*

90. In my opinion, Thomas discloses a vessel rinsing apparatus (**a side sprayer assembly 42, auxiliary fluid dispenser, fluid delivery device**). *See* Ex.

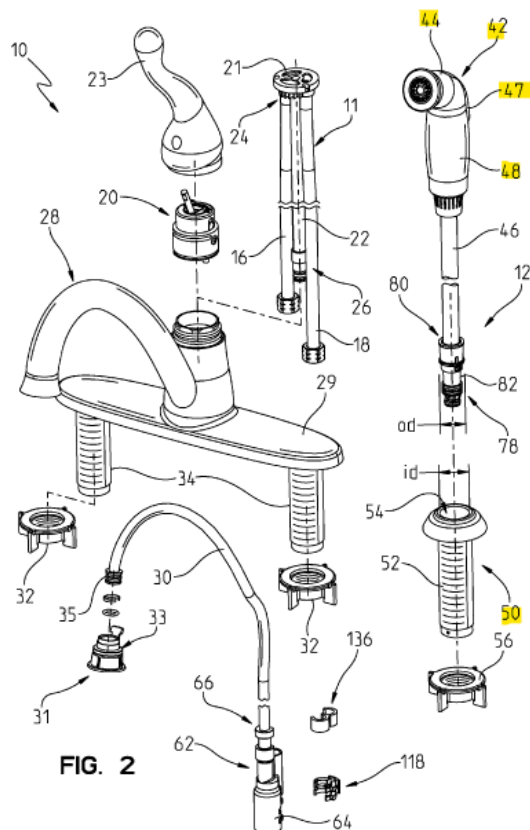


- iii. "a fluid discharge member including a central body supporting a plurality of nozzles and a trigger, the central body being movable relative to the mounting member"

92. In my opinion, Thomas discloses a fluid discharge member (**sprayer assembly 42**) with a central body (**body 48**) supporting a plurality of nozzles (**handheld sprayer 44**) and a trigger (**trigger 47**), the central body (**body 48**) being moveable relative to the mounting member (**mounting base 50**). For example, Thomas explains that the “auxiliary fluid dispenser, illustratively a **sprayer assembly 42** includes a **handheld sprayer 44** fluidly coupled to a dispenser or **sprayer outlet tube 46**. The **sprayer 44** may be of conventional design and includes a **trigger 47** configured to activate water flow therethrough. The **sprayer 44** includes

a **body 48** configured to be **removably supported** by a **mounting base 50**.” Ex.

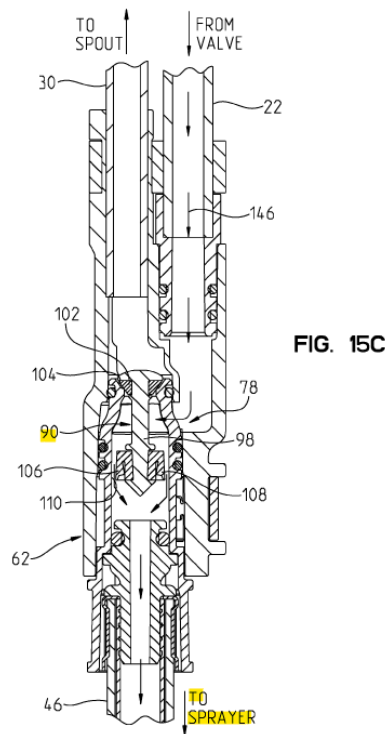
1008 at [0033]; see Fig. 2 below:



- iv. *“a valve member operably coupled to the fluid discharge member and configured to control water flow through the central body to the plurality of nozzles in response to movement of the trigger”*

93. In my opinion, Thomas discloses a valve member (**valve member 90**) operably coupled to the fluid discharge member (**sprayer assembly 42**) and configured to control water flow through the central body (**body 48** via **sprayer tube 46**) to the plurality of nozzles (**handheld sprayer 44**) in response to movement of the trigger (**trigger 47**). For example, Thomas explains the water flow mechanism as follows: “A **valve member 90** is... **configured to move relative thereto to**

control the flow of water... Ex. 1008 at [0040]. Further, the **“valve member 90** may operate in a known manner in response to differential water pressure changes... FIG. 8C shows the **valve member 90** in a **sprayer delivery position.**” *Id.* at [0041]. **“The water 146 flows... out the sprayer tube 46 (FIG. 15C)”** if **“the sprayer trigger 47 has been actuated.”** *Id.* at [0045]; see Fig. 15C below:



94. In my opinion, and as Thomas admits, the claimed valve member that controls water flow in response to the trigger is a well-known element in the field with various disclosures in the prior art, such as by Shen Wei and Van Der Linden.

- v. *“a drain bowl operably coupled to the mounting member, the drain bowl including a lower wall, an upwardly extending wall operably coupled to the lower wall, and a drain channel extending through the upwardly extending wall, the drain channel configured to receive water from the drain bowl and discharge water above and into a sink basin supported by the mounting deck.”*

95. In my opinion, Van Der Linden discloses a drain bowl (**cup shaped container 31**) operably coupled to a mounting member (**base 28**). *See* Ex. 1006 at [0033]. In my opinion, Van Der Linden further discloses a drain bowl (**cup shaped container 31**) including a lower wall (**slightly concave bottom 32**), an upwardly extending wall (**upright wall 33**) operably coupled to the lower wall, and a drain channel (**outflow opening 34**) extending through the upwardly extending wall. *See id.* & Fig. 2.

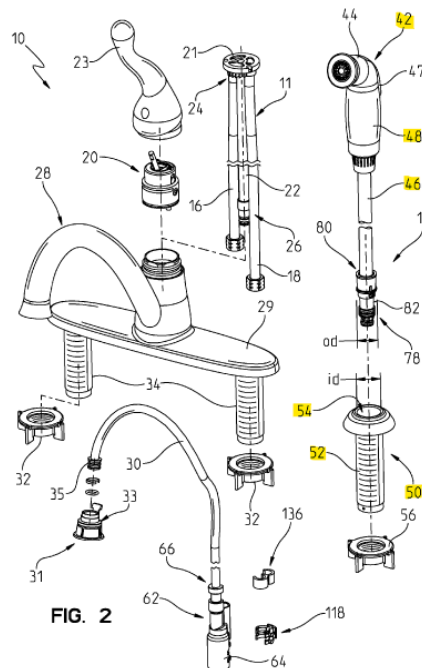
96. In my opinion, Van Der Linden further discloses a drain channel (**outflow opening 34, 79**) configured to receive water from a drain bowl (**cup shaped container 31**) and discharge water above and into a sink basin (**drip tray 36, sink 77**) supported by a mounting deck (**worktop 4, column 2**). *See* Ex. 1006 at [0033], [0035], [0039] & Fig. 5. In my opinion, there are a very limited number of ways to remove water from a stationary bowl shape: either via a hole in the bottom or a gap in the side. It is obvious to anyone with ordinary skill in the art that either solution is required to move water from the rinser to the sink basin or another drain area.

97. In my opinion, it would have been obvious to one having ordinary skill in the art, having the teachings of Thomas and Van Der Linden before him before the effective filing date of the claimed invention, to modify the vessel rinsing apparatus of Thomas to incorporate the cup shaped container of Van Der Linden. Thomas explicitly teaches substituting other known fluid delivery devices for the auxiliary fluid dispenser shown: “While the illustrative auxiliary fluid dispenser is shown as comprising sprayer assembly 42, it should be noted that other fluid delivery devices may be substituted therefore, including a filtered water dispenser.” Ex. 1008 at [0033]. In my opinion, any drain area that does not incorporate side walls (*i.e.* not bowl shaped) would allow uncontrolled water flow and be unusable for this specific application. Incorporating the drain bowl with the mounting member is an obvious method to reduce part count, complexity and cost. Given the known and predictable vessel rinsing advantages of having a cup shaped container for improved cleaning of the inside of glasses, improved drainage, and reduction of splashing, one having ordinary skill in the art would have been motivated to make this obvious modification.

2. Claim 2

- i. “The vessel rinsing apparatus of claim 1, wherein the mounting member comprises a mounting shank defining an opening extending along the longitudinal axis, and the central body of the fluid discharge member is received within the opening of the mounting shank and movable along the longitudinal axis.”

98. In my opinion, Thomas discloses a mounting member (**mounting base 50**) comprising a mounting shank (**mounting shank or post 52**) defining an opening (**passageway 54**) extending along a longitudinal axis and the central body (**body 48** via **sprayer outlet tube 46**) of the fluid discharge member (**sprayer assembly 42**) is received within the opening of the mounting shank and movable along the longitudinal axis. Thomas explains that the “**mounting base 50** includes a **mounting shank or post 52** defining a **passageway 54** to slidably receive the **sprayer outlet tube 46**.” Ex. 1008 at [0033]; see Fig. 2 below:



3. Claim 3

- i. *“The vessel rinsing apparatus of claim 2, wherein the lower wall includes an opening through which the mounting shank extends.”*

99. In my opinion, Van Der Linden discloses the lower wall (**slightly concave bottom 32**) including an opening (**shown in red**) through which the mounting shank (generally, **base 28**) extends. *See* Ex. 1006 at Fig. 2 (annotated) *supra*. In my opinion, it would have been obvious to one having ordinary skill in the art, having the teachings of Thomas and Van Der Linden before him before the effective filing date of the claimed invention, to modify the vessel rinsing apparatus of Thomas to incorporate the claimed cup shaped container with a concave bottom including an opening through which the mounting shank extends of Van Der Linden. Thomas explicitly teaches substituting other known fluid delivery devices for the auxiliary fluid dispenser shown. *See* Ex. 1008 at [0033]. In my opinion, it would have been obvious to combine the cup shaped container with a concave bottom with an opening of Van Der Linden to fit the mounting shank of Thomas to provide the known and predictable result of increased stable support to the drain bowl via the mounting deck 4. This is also an obvious way to reduce parts, complexity, and cost. In my opinion, if the drain bowl were not combined with the mounting shank, it would require complex fasteners and/or tubing to make the necessary path for the water.

4. Claim 4

- i. *“The vessel rinsing apparatus of claim 1, wherein the drain bowl is defined by an escutcheon.”*

100. In my opinion, Van Der Linden discloses a drain bowl (**cup shaped container 31**) defined by an escutcheon. The ‘277 Patent defines an escutcheon as including an upwardly extending wall, a lower wall, and a drain channel. *See* Ex. 1001 at 5:40-53. In my opinion, the **cup shaped container 31**, including **slightly concave bottom 32**, **upright wall 33**, and **outlet opening 34**, defines as escutcheon. *See* Ex. 1006 at [0033].

5. Claim 5

- i. *“The vessel rinsing apparatus of claim 1, wherein the drain channel slopes away from the fluid discharge member and the drain bowl.”*

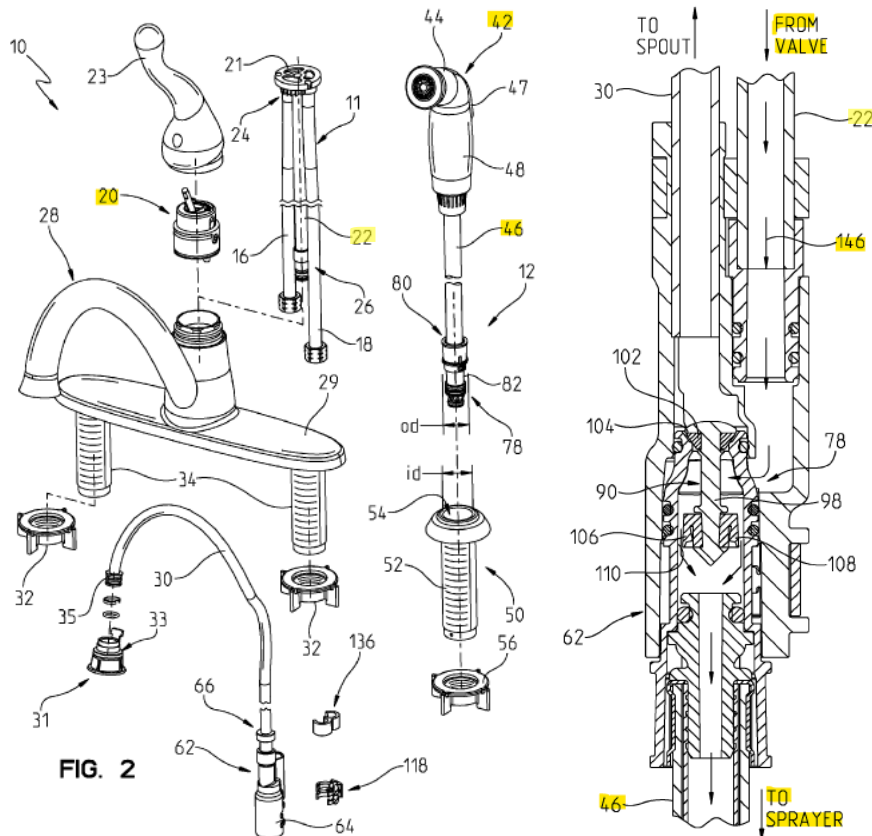
101. In my opinion, Van Der Linden discloses a drain channel (**outflow opening 34**) sloped away from a fluid discharge member (**spray nozzle body 23**) and a drain bowl (**cup shaped container 31**). *See* Ex. 1006 at [0035] & Fig. 2. In my opinion, it would have been obvious to one having ordinary skill in the art, having the teachings of Thomas and Van Der Linden before him before the effective filing date of the claimed invention, to modify the vessel rinsing apparatus of Thomas to incorporate the sloped outflow opening of Van Der Linden. Thomas explicitly teaches substituting other known fluid delivery devices for the auxiliary fluid dispenser shown. *See* Ex. 1008 at [0033]. Water naturally flows from a high

point to a low point due to gravity. Using gravity to assist that a sloped bowl provides for draining water is a trivial design feature. In my opinion, it would have been obvious to combine the slopped outflow opening of Van Der Linden with Thomas to predictably facilitate drainage from the drain bowl into the sink.

6. Claim 6

- i. *“The vessel rinsing apparatus of claim 1, wherein the fluid discharge member is in selective fluid communication with an outlet of a faucet mixing valve.”*

102. In my opinion, Thomas discloses a fluid discharge member (**sprayer assembly 42** via **sprayer outlet tube 46**) in selective fluid communication with an outlet of a faucet mixing valve (**inlet tube 22** of **mixing valve 20**). For example, Thomas explains the selective fluid communication between the outlet of the mixing valve and the fluid discharge member as: “A user input, illustratively a handle 23, is operably coupled to the **mixing valve 20** to control the flow rate and the temperature of water delivered to the mixed water **inlet tube 22**.” Ex. 1008 at [0031]. Further, the “auxiliary fluid dispenser, illustratively a **sprayer assembly 42** includes a handheld sprayer 44 **fluidly coupled to... sprayer outlet tube 46**.” *Id.* at [0033]. Thomas explains the connection: “The water 146 flows in from the **valve 20** into the center portion of the diverter stem 98 and either exits out... the **sprayer tube 46** (FIG. 15C)” if “the sprayer trigger 47 has been actuated.” *Id.* at [0045]; *see* Figs. 2 & 15C below:

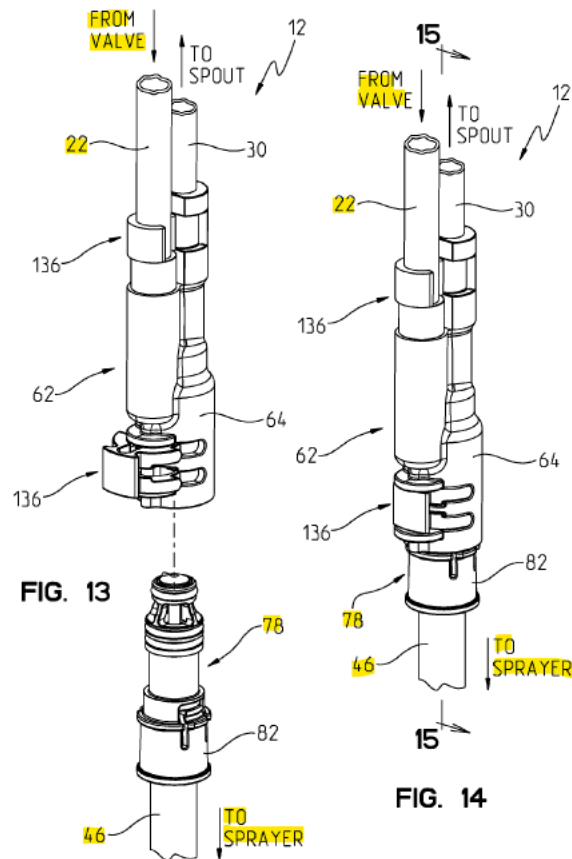


7. Claim 7

- i. *“The vessel rinsing apparatus of claim 6, further comprising a diverter valve fluidly coupled intermediate the outlet of the faucet mixing valve and the fluid discharge member.”*

103. In my opinion, Thomas discloses a diverter valve (**diverter valve 78**) fluidly coupled intermediate the outlet of the faucet mixing valve (**inlet tube 22 of mixing valve 20**) and the fluid discharge member (**sprayer assembly 42 via sprayer outlet tube 46**). Thomas explains the positioning of the diverter valve: “With reference to FIGS. 3-5, a **diverter valve 78** is secured to... the **sprayer tube 46**.” Ex. 1008 at [0040]. In my opinion, Figure 13 and 14 show the mixing valve 20

(FROM VALVE) on one end, the sprayer assembly 42 (TO SPRAYER) on the other, and the diverter valve 78 in between. *See* [0045] and Figs. 13 & 14 below:



8. Claim 10

- i. “The vessel rinsing apparatus of claim 1, wherein the trigger of the fluid discharge member includes a plurality of arms extending radially outwardly from the central body of the fluid discharge member.”

104. In my opinion, Van Der Linden discloses a trigger (**abutment member 22**) of a fluid discharge member (**spray nozzle body 23**) including a plurality of arms extending radially outwardly from the central body of the fluid discharge member (**cross-shaped**). *See* Ex. 1006 at [0031] & Fig. 1.

105. In my opinion, it would have been obvious to one having ordinary skill in the art, having the teachings of Thomas and Van Der Linden before him before the effective filing date of the claimed invention, to modify the vessel rinsing apparatus of Thomas to incorporate the cross-shaped abutment member of Van Der Linden. Thomas explicitly teaches substituting other known fluid delivery devices for the auxiliary fluid dispenser shown. *See* Ex. 1008 at [0033]. In my opinion, a single arm or point of contact on the trigger would provide an unstable method of activation by pressing with a round piece of glassware. Such a design would require users to spend extra time to ensure no unwanted splashing or even damage to the glassware occurred. Basic design principles state that to make stable contact with a plane, like that created by the rim of a glass or container, requires at least 3 points of contact, or arms in this case. In my opinion, it would have been obvious to combine the cross-shaped abutment member of Van Der Linden with Thomas to predictably improve the trigger mechanism of the auxiliary fluid dispenser for specific use with glasses. Moreover, this design feature is well known in the field and is disclosed in numerous prior art references, such as Shen Wei and Boursier.

9. Claim 11

i. “A vessel rinsing apparatus” (preamble)

106. In my opinion, to the extent the preamble is limiting, Thomas discloses a vessel rinsing apparatus (**a side sprayer 42/auxiliary fluid dispenser/fluid**

delivery device). *See* Ex. 1008 at [0002], [0033] & Fig. 2.

- ii. *“a drain bowl including a lower wall, an upwardly extending wall operably coupled to the lower wall, and a drain channel extending through the upwardly extending wall, the drain channel configured to receive water from the drain bowl and discharge water above and into a sink basin supported by a mounting deck”*

107. In my opinion, Van Der Linden discloses a drain bowl (**cup shaped container 31**) including a lower wall (**slightly concave bottom 32**), an upwardly extending wall (**upright wall 33**) operably coupled to the lower wall, and a drain channel (**outflow opening 34**) extending through the upwardly extending wall. *See* Ex. 1006 at [0033] & Fig. 2.

108. In my opinion, Van Der Linden further discloses a drain channel (**outflow opening 34, 79**) configured to receive water from the drain bowl (**cup shaped container 31**) and discharge water above and into a sink basin (**drip tray 36, sink 77**) supported by a mounting deck (worktop 4, column 2). *See* Ex. 1006 at [0033], [0035], [0039], Fig. 2 & Fig. 5). In my opinion, there exists a very limited number of ways to remove water from a stationary bowl shape that are well-known: either a hole in the bottom or a gap in the side. It is obvious to anyone with ordinary skill in the art that either solutions is required to move water from the rinser to the sink basin or other drain area.

109. In my opinion, it would have been obvious to one having ordinary skill in the art, having the teachings of Thomas and Van Der Linden before him before

the effective filing date of the claimed invention, to modify the vessel rinsing apparatus of Thomas to incorporate the cup shaped container of Van Der Linden. Thomas explicitly teaches substituting other known fluid delivery devices for the auxiliary fluid dispenser shown. *See* Ex. 1008 at [0033]. Any drain area that did not incorporate side walls (*i.e.* not bowl shaped) would allow uncontrolled water flow and be unusable for this application. In my opinion, given the known and predictable vessel rinsing advantages of having a cup shaped container for improved cleaning of the inside of glasses, improved drainage, and reduced splashing, one having ordinary skill in the art would have been motivated to make this obvious modification.

iii. “a mounting member operably coupled to the drain bowl, the mounting member configured to couple the drain bowl to the mounting deck”

110. In my opinion, Thomas discloses a mounting member (**mounting base 50**) operably coupled to an auxiliary fluid dispenser (**spray assembly 42**), *i.e.*, the drain bowl (**cup shaped container 31** of Van Der Linden), the mounting member configured to couple the drain bowl to the mounting deck (**mounting deck 4**). *See* Ex. 1008 at [0033] & Fig. 1.

iv. “a fluid discharge member including a central body supporting a plurality of nozzles and a trigger, the central body being movable relative to the mounting member”

111. In my opinion, Thomas discloses a fluid discharge member (**sprayer assembly 42**) with a central body (body 48,) supporting a plurality of nozzles

(**handheld sprayer 44**) and a trigger (**trigger 47**), the central body (**body 48**, **sprayer outlet tube 46**) being moveable relative to the mounting member (**mounting base 50**). *See* Ex. 1008 at [0033] & Fig. 2.

- v. *“a valve member operably coupled to the fluid discharge member and configured to control water flow through the central body to the plurality of nozzles”*

112. In my opinion, Thomas discloses a valve member (**valve member 90**) operably coupled to the fluid discharge member (**sprayer assembly 42**) and configured to control water flow through the central body (**body 48 via the sprayer tube 46**) to the plurality of nozzles (**handheld sprayer 44**). *See* Ex. 1008 at [0040], [0041], [0045] & Fig. 15C.

- vi. *“wherein the drain channel slopes away from the fluid discharge member and the drain bowl to facilitate water drainage into the sink basin”*

113. In my opinion, Van Der Linden further discloses wherein a drain channel (**outflow opening 34, 79**) slopes away from a fluid discharge member (**spray nozzle body 23**) and a drain bowl (**cup shaped container 31**) to facilitate water drainage into the sink basin (**recessed part 35/sink 77**). *See* Ex. 1006 at [0035]. In my opinion, the outflow opening 34,79 is sloped away from the spray nozzle body 23 and container 31 to facilitate the outflow of water under the force of gravity into the recessed part 35, *i.e.*, the sink 77, as best shown in Figs. 2 & 5.

114. In my opinion, it would have been obvious to one having ordinary skill in the art, having the teachings of Thomas and Van Der Linden before him before

the effective filing date of the claimed invention, to modify the vessel rinsing apparatus of Thomas to incorporate the sloped outflow opening of Van Der Linden. Water naturally flows from a high point to a low point due to gravity. Using gravity to assist that a sloped bowl provides for draining water is a trivial design feature. Thomas explicitly teaches substituting other known fluid delivery devices for the auxiliary fluid dispenser shown. *See* Ex. 1008 at [0033]. In my opinion, it would have been obvious to combine the sloped outflow opening of Van Der Linden with Thomas to predictably facilitate drainage from the drain bowl into the sink.

10. Claim 12

- i. *“The vessel rinsing apparatus of claim 11, wherein the mounting member extends along a longitudinal axis, the mounting member configured to extend through a mounting aperture formed within the mounting deck.”*

115. In my opinion, Thomas discloses a mounting member (**mounting base 50**) extending along a longitudinal axis, the mounting member configured to extend through a mounting aperture (**nut 56**) within the mounting deck (**mounting deck 4**). *See* Ex. 1008 at [0033], Figs. 1 & 2.

11. Claim 13

- i. *“The vessel rinsing apparatus of claim 12, wherein the mounting member comprises a mounting shank defining an opening extending along the longitudinal axis, and the central body of the fluid discharge member is received within the opening of the mounting shank and movable along the longitudinal axis.”*

116. In my opinion, Thomas discloses a mounting member (**mounting base 50**) comprising a mounting shank (**mounting shank or post 52**) defining an opening (**passageway 54**) extending along a longitudinal axis, and the central body (**body 48** via **sprayer outlet tube 46**) of the fluid discharge member (**sprayer assembly 42**) is received within the opening of the mounting shank and movable along the longitudinal axis. *See* Ex. 1008 at [0033] & Fig. 2.

12. Claim 14

- i. *“The vessel rinsing apparatus of claim 11, wherein the valve member comprises a valve shaft configured to move with the trigger.”*

117. In my opinion, Thomas discloses a valve member (**valve member 90**) comprising a valve shaft (**poppet or stem 98**) configured to move with the trigger (**sprayer trigger 47**). In Thomas, the “**valve member 90** of the diverter valve 78 includes a **poppet or stem 98 movably supported...**” Ex. 1008 at [0041]. Further, “water 146 flows in from the valve 20 into the center portion of the diverter **stem 98** and... out the sprayer tube 46 (FIG. 15C)” if “the **sprayer trigger 47** has been actuated.” *Id.* at [0045] and Fig. 15C.

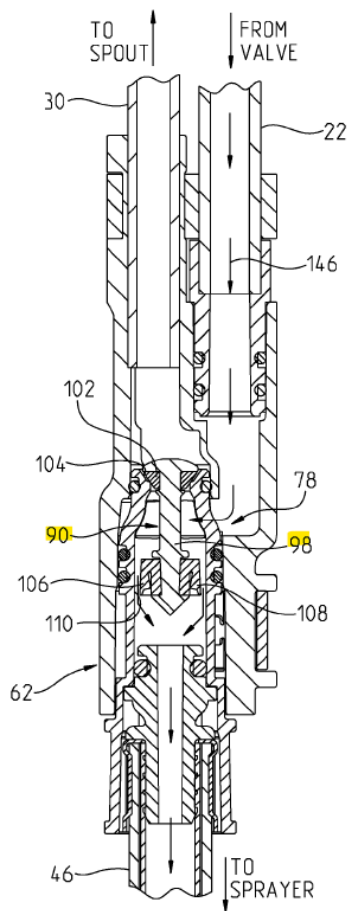


FIG. 15C

13. Claim 15

- i. “The vessel rinsing apparatus of claim 11, wherein the drain bowl is defined by an escutcheon.”

118. In my opinion, Van Der Linden discloses a drain bowl (**cup shaped container 31**) defined by an escutcheon. The ‘277 Patent defines an escutcheon as including an upwardly extending wall, a lower wall, and a drain channel. *See* Ex. 1001 at 5:40-53. In my opinion, the **cup shaped container 31**, including **slightly concave bottom 32**, **upright wall 33**, and **outlet opening 34**, define as escutcheon. *See* Ex. 1006 at [0033].

14. Claim 16

- i. *“The vessel rinsing apparatus of claim 11, wherein the fluid discharge member is in selective fluid communication with an outlet of a faucet mixing valve.”*

119. In my opinion, Thomas discloses a fluid discharge member (**sprayer assembly 42 via sprayer outlet tube 46**) in selective fluid communication with an outlet of a faucet mixing valve (**inlet tube 22 of mixing valve 20**). See Ex. 1008 at [0031], [0033], [0045], Figs. 2 & 15C.

15. Claim 17

- i. *“The vessel rinsing apparatus of claim 16, further comprising a diverter valve fluidly coupled intermediate the outlet of the faucet mixing valve and the fluid discharge member.”*

120. In my opinion, Thomas discloses a diverter valve (**diverter valve 78**) fluidly coupled intermediate the outlet of the faucet mixing valve (**inlet tube 22 of mixing valve 20**) and the fluid discharge member (**sprayer assembly 42 via sprayer outlet tube 46**). See Ex. 1008 at [0040], [0045], Figs. 13 & 14.

16. Claim 20

- i. *“A fluid delivery device” (preamble)*

121. In my opinion, Thomas discloses a fluid delivery device. For example, Thomas discloses “a diverter assembly configured to be connected to a faucet assembly that may be installed on a sink deck. The diverter assembly includes a diverter and an auxiliary fluid dispenser, such as a side sprayer or a filtered water

dispenser. The diverter assembly is illustratively coupled to a tube which, in turn, is coupled to the delivery spout outlet of the faucet. The diverter assembly may redirect flow from the delivery spout outlet of the faucet to the auxiliary fluid dispenser upon activation of the auxiliary fluid dispenser.” Ex. 1008 at [0003].

ii. *“a vessel rinsing apparatus”*

122. In my opinion, Thomas discloses a vessel rinsing apparatus (**a side sprayer 42/auxiliary fluid dispenser/fluid delivery device**). See Ex. 1008 at [0002], [0033] & Fig. 2.

iii. *“a drain bowl including a lower wall and an upwardly extending wall, and a drain channel extending through the upwardly extending wall, the drain channel configured to receive water from the drain bowl and discharge water above and into a sink basin supported by a mounting deck”*

123. In my opinion, Van Der Linden discloses a drain bowl (**cup shaped container 31**) including a lower wall (**slightly concave bottom 32**), an upwardly extending wall (**upright wall 33**), and a drain channel (**outflow opening 34**) extending through the upwardly extending wall. See Ex. 1006 at [0033] & Fig. 2.

124. In my opinion, Van Der Linden further discloses a drain channel (**outflow opening 34, 79**) configured to receive water from the drain bowl (**cup shaped container 31**) and discharge water above and into a sink basin (**drip tray 36, sink 77**) supported by a mounting deck (**worktop 4, column 2**). See Ex. 1006 at [0033], [0035], [0039], Fig. 2 & Fig. 5). There are a very limited number of ways to

remove water from a bowl shape: a hole in the bottom or a gap in the side. It is obvious to anyone with ordinary skill in the art that either solutions is required to move water from the rinser to the sink basin or another drain area.

125. In my opinion, it would have been obvious to one having ordinary skill in the art, having the teachings of Thomas and Van Der Linden before him before the effective filing date of the claimed invention, to modify the vessel rinsing apparatus of Thomas to incorporate the cup shaped container of Van Der Linden. Thomas explicitly teaches substituting other known fluid delivery devices for the auxiliary fluid dispenser shown. *See* Ex. 1008 at [0033]. Any drain area that did not incorporate side walls (*i.e.* not bowl shaped) would allow uncontrolled water flow and be unusable for this application. Incorporating the drain bowl with the mounting member is an obvious method to reduce part count, complexity and cost. Given the known and predictable vessel rinsing advantages of having a cup shaped container for improved cleaning of the inside of glasses, improved drainage, and reduced splashing, one having ordinary skill in the art would have been motivated to make this obvious modification.

- iv. *“a mounting member operably coupled to the drain bowl, the mounting member configured to couple the drain bowl to the mounting deck”*

126. In my opinion, Thomas discloses a mounting member (**mounting base 50**) operably coupled to an auxiliary fluid dispenser (**spray assembly 42**), *i.e.*, the

drain bowl (**cup shaped container 31** of Van Der Linden), the mounting member configured to couple the drain bowl to the mounting deck (**mounting deck 4**). *See* Ex. 1008 at [0033] & Fig. 1.

- v. *“a fluid discharge member including a central body supporting a plurality of nozzles and a trigger, the central body being movable relative to the mounting member”*

127. Thomas discloses a fluid discharge member (**sprayer assembly 42**) with a central body (**body 48**) supporting a plurality of nozzles (**handheld sprayer 44**) and a trigger (**trigger 47**), the central body (**body 48, sprayer outlet tube 46**) being moveable relative to the mounting member (**mounting base 50**). *See* Ex. 1008 at [0033] & Fig. 2.

- vi. *“a valve member operably coupled to the fluid discharge member and configured to control water flow through the central body to the plurality of nozzles”*

128. In my opinion, Thomas discloses a valve member (**valve member 90**) operably coupled to the fluid discharge member (**sprayer assembly 42**) and configured to control water flow through the central body (**body 48 via the sprayer tube 46**) to the plurality of nozzles (**handheld sprayer 44**). *See* Ex. 1008 at [0040], [0041], [0045] & Fig. 15C.

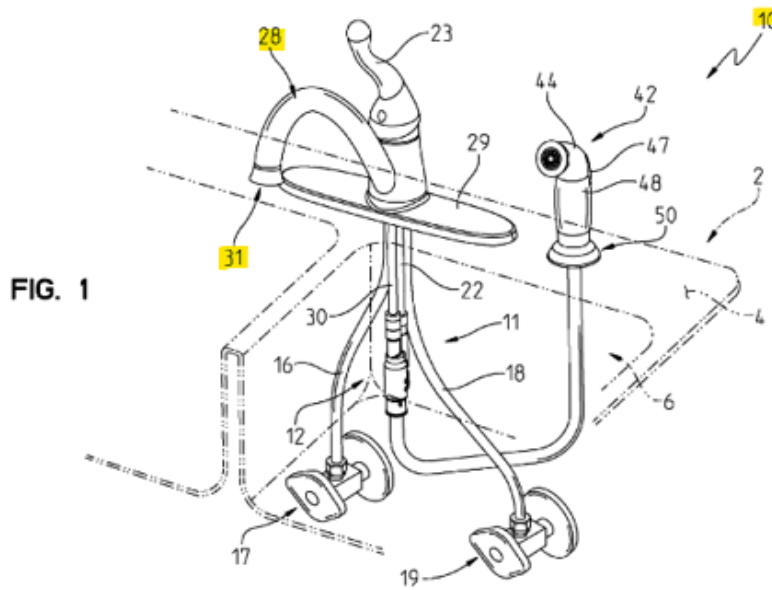
- vii. *“a faucet”*

129. In my opinion, Thomas discloses a faucet (**faucet assembly 10**). “[A] sink assembly 2 is shown as including a sink or mounting deck 4 supporting an illustrative **faucet assembly 10** above a sink basin 6.” Ex. 1008 at [0031]; *see* Fig.

FIG. 1

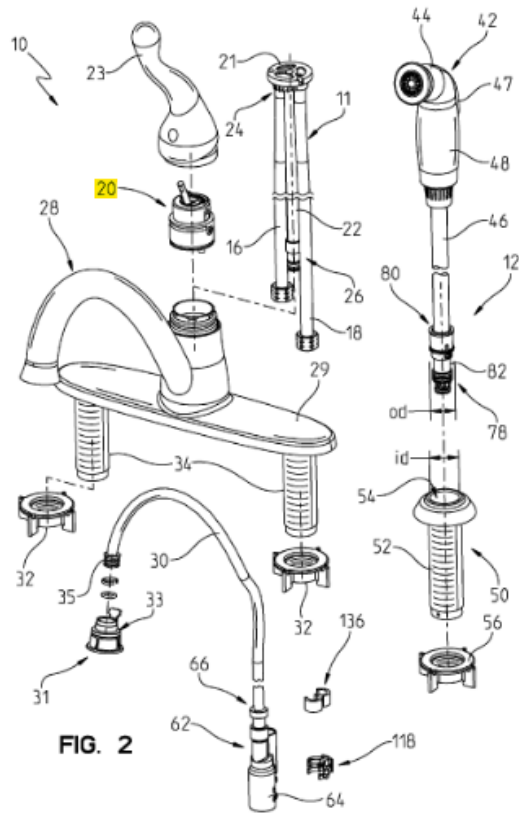
viii. “a delivery spout having a water outlet”

130. In my opinion, Thomas discloses a delivery spout (**delivery spout 28**) having a water outlet (**outlet 31**). Thomas explains that the “faucet assembly 10 includes a **delivery spout 28** supported by a base 29 and configured to receive a spout outlet tube 30 having an **outlet 31** positioned above the sink basin 6...” Ex. 1008 at [0032]; *see* Fig. 1.



iv. “a valve fluidly coupled to the delivery spout, the valve configured to control water flow to the water outlet”

131. In my opinion, Thomas discloses a valve (**mixing valve 20**) fluidly coupled to the delivery spout (**delivery spout 28**), the valve (**mixing valve 20**) configured to control water flow to the water outlet (**outlet 31**). Thomas explains that the “[o]peration of the **mixing valve 20 regulates the flow of water**... A user input, illustratively a handle 23, is operably coupled to the **mixing valve 20 to control the flow rate and the temperature of water** delivered to the mixed water inlet tube 22.” Ex. 1008 at [0031]; *see* Fig. 2 below.



- v. *“wherein the fluid discharge member of the vessel rinsing apparatus is in selective fluid communication with the valve of the faucet”*

132. In my opinion, Thomas discloses a fluid discharge member (**sprayer assembly 42**) of a vessel rinsing apparatus in selective fluid communication with the valve of the faucet (**mixing valve 20**). In Thomas, the fluid discharge member is in selective fluid communication with the valve of the faucet via the diverter assembly 12 via the sprayer tube 46. Thomas explains that the “water 146 flows in from the **valve 20** into the center portion of the **diverter stem 98** and either exits out the spout outlet tube 30 (FIG. 15B) or out the **sprayer tube 46** (FIG. 15C), depending on whether the sprayer trigger 47 has been actuated.” Ex. 1008 at [0045]; *see* Fig. 15C.

17. Claim 21

- i. *“The fluid delivery device of claim 20, further comprising a diverter valve fluidly coupled intermediate the valve of the faucet and the fluid discharge member of the vessel rinsing apparatus.”*

133. In my opinion, Thomas discloses a diverter valve (**diverter valve 78**) fluidly coupled intermediate the outlet of the faucet mixing valve (**inlet tube 22 of mixing valve 20**) and the fluid discharge member (**sprayer assembly 42 via sprayer outlet tube 46**). See Ex. 1008 at [0040], [0045], Figs. 13 & 14.

18. Claim 23

- i. *“The vessel rinsing apparatus of claim 20, wherein the mounting member extends along a longitudinal axis, the mounting member configured to extend through a mounting aperture formed within the mounting deck.”*

134. In my opinion, Thomas discloses a mounting member (**mounting base 50**) extending along a longitudinal axis, the mounting member configured to extend through a mounting aperture (**nut 56**) within the mounting deck (**mounting deck 4**). See Ex. 1008 at [0033], Figs. 1 & 2.

19. Claim 24

- i. *“The vessel rinsing apparatus of claim 23, wherein the mounting member comprises a mounting shank defining an opening extending along the longitudinal axis, and the central body of the fluid discharge member is received within the opening of the mounting shank and movable along the longitudinal axis.”*

135. In my opinion, Thomas discloses a mounting member (**mounting base**

50) comprising a mounting shank (**mounting shank or post 52**) defining an opening (**passageway 54**) extending along a longitudinal axis, and the central body (**body 48 via sprayer outlet tube 46**) of the fluid discharge member (**sprayer assembly 42**) is received within the opening of the mounting shank and movable along the longitudinal axis. *See* Ex. 1008 at [0033] & Fig. 2.

C. Thomas Combined with Boursier and Hotaling Compared with Claims 1-2, 5-7, 10-14, 16-17, 20-21, and 23-24

136. In my opinion, the combination of Thomas, Boursier, and Hotaling disclose each and every limitation of claims 1-2, 5-7, 16-17, 20-21, and 23-24 of the ‘277 Patent for the reasons detailed below.

1. Claim 1

i. “A vessel rinsing apparatus” (preamble)

137. In my opinion, Thomas discloses a vessel rinsing apparatus (**a side sprayer 42/auxiliary fluid dispenser/fluid delivery device**). *See* Ex. 1008 at [0002], [0033] & Fig. 2.

ii. “a mounting member extending along a longitudinal axis, the mounting member configured to extend through a mounting aperture formed within a mounting deck”

138. In my opinion, Thomas discloses a mounting member (**mounting base 50**) extending along a longitudinal axis configured to extend through a mounting aperture (**nut 56**) formed within a mounting deck (**mounting deck 4**). *See* Ex. 1008 at [0033] & Figs. 1 & 2.

- iii. *“a fluid discharge member including a central body supporting a plurality of nozzles and a trigger, the central body being movable relative to the mounting member”*

139. In my opinion, Thomas discloses a fluid discharge member (**sprayer assembly 42**) with a central body (**body 48**) supporting a plurality of nozzles (**handheld sprayer 44**) and a trigger (**trigger 47**), the central body (**body 48**) being moveable relative to the mounting member (**mounting base 50**). *See* Ex. 1008 at [0033] & Fig. 2.

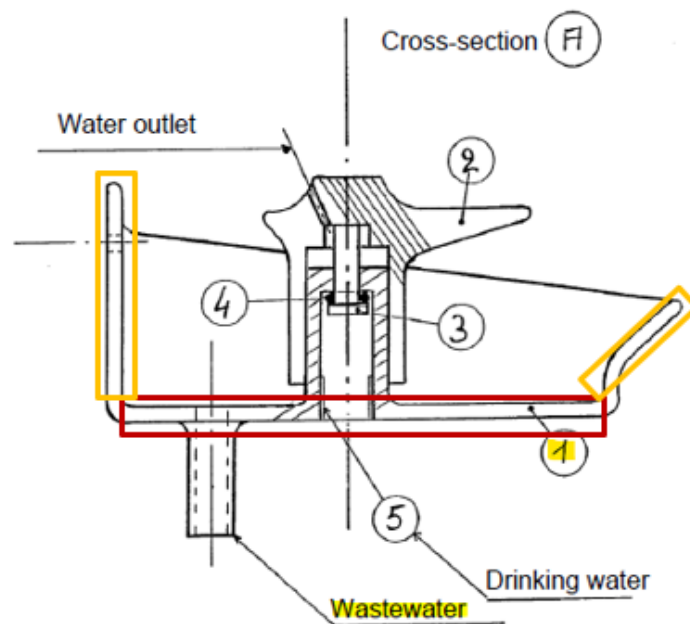
- iv. *“a valve member operably coupled to the fluid discharge member and configured to control water flow through the central body to the plurality of nozzles in response to movement of the trigger”*

140. In my opinion, Thomas discloses a valve member (**valve member 90**) operably coupled to the fluid discharge member (**sprayer assembly 42**) and configured to control water flow through the central body (**body 48 via sprayer tube 46**) to the plurality of nozzles (**handheld sprayer 44**) in response to movement of the trigger (**trigger 47**). *See* Ex. 1008 at [0040], [0041], [0045] & Fig. 15C.

- v. *“a drain bowl operably coupled to the mounting member, the drain bowl including a lower wall, an upwardly extending wall operably coupled to the lower wall, and a drain channel extending through the upwardly extending wall, the drain channel configured to receive water from the drain bowl and discharge water above and into a sink basin supported by the mounting deck.”*

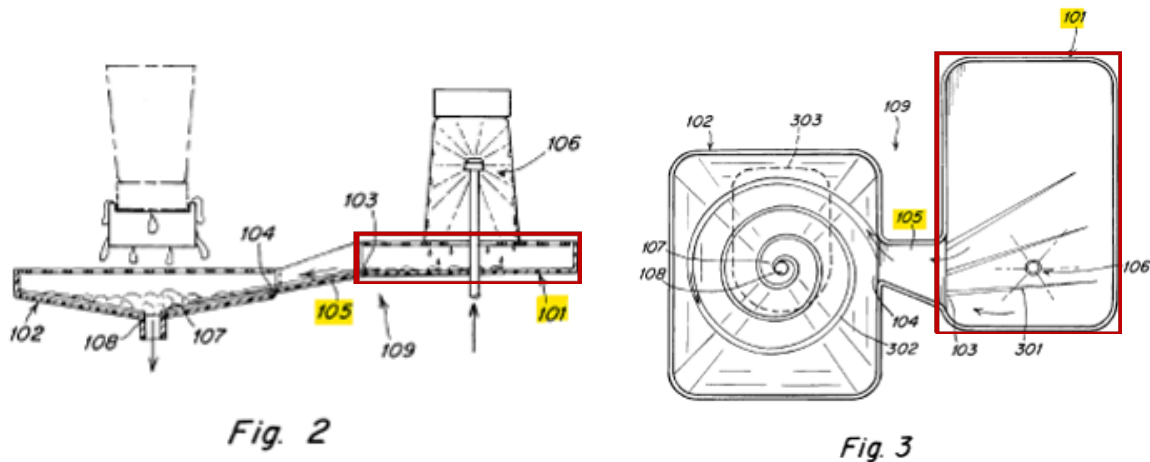
141. In my opinion, Boursier discloses a drain bowl (**tray or reservoir 1**)

including a lower wall (**shown in red**), an upwardly extending wall (**shown in orange**) operably coupled to the lower wall, and a drain channel (**drain 7, wastewater outlet**) configured to receive water from the drain bowl and discharge water. Boursier explains that the “small **tray** contains the drinking water and **wastewater connections.**” Ex. 1009 at 1. The **tray/reservoir 1** with lower wall, upper wall, and drain channel of Boursier is best shown in annotated Figure A:



142. In my opinion, Boursier does not explicitly disclose mounting the tray/reservoir 1 to a mounting member. However, Boursier does teach that the tray 1 is “itself fastened to a wall or other partition by means of two screws.” *Id.* at 1. To these ends, it would have been obvious to one having ordinary skill in the art to combine the mounting base 50 of Thomas with the tray/reservoir 1 of Boursier to provide a mounting method for deck installation with minimal and standard parts.

143. Boursier further does not explicitly disclose a drain channel extending through an upwardly extending wall. However, in my opinion, Boursier does disclose a drain or wastewater: “The small tray contains the drinking water and wastewater connections.” Ex. 1009 at 1. Boursier also discloses an upwardly extending wall. *See* Fig. A (annotated). In my opinion, Hotaling discloses a drain channel (**trough 105, passage**) extending through an upwardly extending wall (**shown in red**) of a drain bowl (**water collection tray 101**). Hotaling explains that “the rinse station **water collection tray, 101**, is connected to a high point, 104, in the drip tray, 102, by a **continuous trough, 105**, through which water is conducted from the rinse station, 106, to the drip tray, 102.” Ex. 1010 at [0018]. In Hotaling, the drip tray 102 is analogous to a sink basin. *See* Figs. 2 & 3 below:



144. In my opinion, it would have been obvious to one having ordinary skill in the art to combine the drain channel and upwardly extending wall of Boursier with the drain channel extending through the upwardly extending wall of Hotaling to

predictably improve water drainage into a sink basin. In my opinion, this is an obvious adaptation of the wall/partition mount of Boursier and the appliance mount of Hotaling to the deck mount feature of this design. The bowl is mounted above the sink basin and drains with the aid of gravity and the water is directed by the simplest and most obvious change in the geometry to direct the water properly.

2. Claim 2

- i. *“The vessel rinsing apparatus of claim 1, wherein the mounting member comprises a mounting shank defining an opening extending along the longitudinal axis, and the central body of the fluid discharge member is received within the opening of the mounting shank and movable along the longitudinal axis.”*

145. In my opinion, Thomas discloses the mounting member (**mounting base 50**) comprising a mounting shank (**mounting shank or post 52**) defining an opening (**passageway 54**) extending along a longitudinal axis and the central body (**body 48 via sprayer outlet tube 46**) of the fluid discharge member (**sprayer assembly 42**) is received within the opening of the mounting shank and movable along the longitudinal axis. *See* Ex. 1008 at [0033] & Fig. 2.

3. Claim 5

- i. *The vessel rinsing apparatus of claim 1, wherein the drain channel slopes away from the fluid discharge member and the drain bowl.*

146. In my opinion, Hotaling discloses a drain channel (**trough 105, passage**) sloped away from a fluid discharge member (**rinse station 106**) and a drain

bowl (**water collection tray 101**). For example, Hotaling explains that the “lowest point, 103, in the rinse station **water collection tray, 101**, is connected to a high point, 104, in the drip tray, 102, by a continuous **trough, 105**, through which water is conducted from the **rinse station, 106**, to the drip tray, 102.” Ex. 1010 at [0018]. In my opinion, the trough 105 is sloped away from the rinse station 106 and tray 101 to facilitate the flow of water to the lower drip tray 102. *See* Figs. 2 & 3.

147. It is fundamental that water naturally flows from a high point to a low point due to gravity. Using gravity to assist draining water with a sloped surface is a trivial design feature. In my opinion, it would have been obvious to one having ordinary skill in the art, having the teachings of Boursier and Hotaling before him before the effective filing date of the claimed invention, to modify the drain bowl of Boursier to incorporate the sloped trough of Hotaling to predictably facilitate drainage from the drain bowl into a sink basin.

4. Claim 6

- i. *“The vessel rinsing apparatus of claim 1, wherein the fluid discharge member is in selective fluid communication with an outlet of a faucet mixing valve.”*

148. In my opinion, Thomas discloses a fluid discharge member (**sprayer assembly 42 via sprayer outlet tube 46**) in selective fluid communication with an outlet of a faucet mixing valve (**inlet tube 22 of mixing valve 20**). *See* Ex. 1008 at [0033], [0045], Figs. 2 & 15C.

5. Claim 7

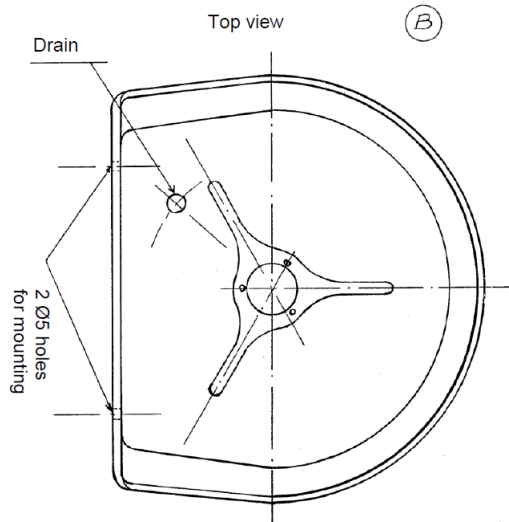
- i. *“The vessel rinsing apparatus of claim 6, further comprising a diverter valve fluidly coupled intermediate the outlet of the faucet mixing valve and the fluid discharge member.”*

149. Thomas discloses a diverter valve (**diverter valve 78**) fluidly coupled intermediate the outlet of the faucet mixing valve (**inlet tube 22 of mixing valve 20**) and the fluid discharge member (**sprayer assembly 42 via sprayer outlet tube 46**). *See* Ex. 1008 at [0040], [0045], Figs. 13 & 14.

6. Claim 10

- i. *“The vessel rinsing apparatus of claim 1, wherein the trigger of the fluid discharge member includes a plurality of arms extending radially outwardly from the central body of the fluid discharge member.”*

150. In my opinion, Boursier further discloses a trigger (**3-branch pusher 2**) of a fluid discharge member (**drinking water outlet 6**) including a plurality of arms extending radially outwardly from the central body of the fluid discharge member (**three 120° branches**). For example, Boursier explains that “the molded pusher [2] comprises **three 120° branches** on which the edge of the glass rests.” Ex. 1009 at 2; *see* Fig. B below:



151. In my opinion, a single arm or point of contact would provide an unstable method of activating the trigger by pressing with a round piece of glassware. A single point of contact would require users to spend extra time to ensure no unwanted splashing or damage to the glassware occurred. Basic design principles state that to make stable contact with a plane, like that created by the rim of a glass or container, requires at least 3 points of contact, or arms in this case. In my opinion, it would have been obvious to one having ordinary skill in the art to combine the vessel rinsing apparatus of Thomas with the trigger with a plurality of arms of Boursier to predictably improve the trigger response to circular glasses.

7. Claim 11

i. "A vessel rinsing apparatus" (preamble)

152. In my opinion, Thomas discloses a vessel rinsing apparatus (**a side sprayer/auxiliary fluid dispenser/fluid delivery device**). See Ex. 1008 at [0002],

[0033] & Fig. 2.

- ii. *“a drain bowl including a lower wall, an upwardly extending wall operably coupled to the lower wall, and a drain channel extending through the upwardly extending wall, the drain channel configured to receive water from the drain bowl and discharge water above and into a sink basin supported by a mounting deck”*

153. In my opinion, Boursier discloses a drain bowl (**tray or reservoir 1**) including a lower wall (**shown in red**), an upwardly extending wall (**shown in orange**) operably coupled to the lower wall, and a drain channel (**drain 7, wastewater outlet**) configured to receive water from the drain bowl and discharge water. *See* Ex. 1009 at 1 & Fig. A.

154. Boursier does not explicitly disclose mounting the tray/reservoir 1 to a mounting member. However, in my opinion, Boursier does teach that the tray 1 is “itself fastened to a wall or other partition by means of two screws.” *Id.* at 1. In my opinion, it would have been obvious to one having ordinary skill in the art to combine the mounting base 50 of Thomas with the tray/reservoir 1 of Boursier to provide a mounting method adapted to a deck mount solution by combining the drain bowl mount with the deck mounting member. This has the predictable advantage of reducing part count, complexity, and cost.

155. Boursier further does not explicitly disclose a drain channel extending through an upwardly extending wall. However, Boursier does disclose a drain 7 or wastewater. Ex. 1009 at 1. Boursier also discloses an upwardly extending wall. *See*

Fig. A (annotated). In my opinion, Hotaling discloses a drain channel (**trough 105, passage**) extending through an upwardly extending wall (**shown in red**) of a drain bowl (**water collection tray 101**). *See* Ex. 1010 at [0018]. In my opinion, the Hotaling drip tray 102 is analogous to a sink basin. *See* Figs. 2 & 3.

156. There are a limited number of ways to remove water from a bowl shape: either a hole in the bottom or a gap in the side wall. Any other solution would require costly and complex motors and pumps to remove water from the rinser. In my opinion, it would have been obvious to one having ordinary skill in the art to combine the drain channel and upwardly extending wall of Boursier with the drain channel extending through the upwardly extending wall of Hotaling to predictably improve water drainage into a sink basin.

iii. “a mounting member operably coupled to the drain bowl, the mounting member configured to couple the drain bowl to the mounting deck”

157. In my opinion, Thomas discloses a mounting member (**mounting base 50**) operably coupled to an auxiliary fluid dispenser (**spray assembly 42**), *i.e.*, the trays of Boursier and Hotaling, the mounting member configured to couple the drain bowl to the mounting deck (**mounting deck 4**). *See* Ex. 1008 at [0033] & Fig. 1.

iv. “a fluid discharge member including a central body supporting a plurality of nozzles and a trigger, the central body being movable relative to the mounting member”

158. In my opinion, Thomas discloses a fluid discharge member (**sprayer assembly 42**) with a central body (**body 48**) supporting a plurality of nozzles

(**handheld sprayer 44**) and a trigger (**trigger 47**), the central body (**body 48**) being moveable relative to the mounting member (**mounting base 50**). *See* Ex. 1008 at [0033] & Fig. 2.

- v. *“a valve member operably coupled to the fluid discharge member and configured to control water flow through the central body to the plurality of nozzles”*

159. In my opinion, Thomas discloses a valve member (**valve member 90**) operably coupled to the fluid discharge member (**sprayer assembly 42**) and configured to control water flow through the central body (**body 48 via the sprayer tube 46**) to the plurality of nozzles (**handheld sprayer 44**). *See* Ex. 1008 at [0040], [0041], [0045] & Fig. 15C.

- vi. *“wherein the drain channel slopes away from the fluid discharge member and the drain bowl to facilitate water drainage into the sink basin”*

160. In my opinion, Hotaling discloses a drain channel (**trough 105, passage**) sloped away from a fluid discharge member (**rinse station 106**) and a drain bowl (**water collection tray 101**). Hotaling explains that the “lowest point, 103, in the rinse station **water collection tray, 101**, is connected to a high point, 104, in the drip tray, 102, by a continuous **trough, 105**, through which water is conducted from the **rinse station, 106**, to the drip tray, 102.” Ex. 1010 at [0018]. In my opinion, the trough 105 is sloped away from the rinse station 106 and tray 101 to facilitate the flow of water to the lower drip tray 102. *See* Figs. 2 & 3.

161. It is well known that water naturally flows from a high point to a low

point due to gravity. Using gravity to assist draining water is a trivial design feature. In my opinion, it would have been obvious to one having ordinary skill in the art and basic knowledge of water flow, having the teachings of Boursier and Hotaling before him before the effective filing date of the claimed invention, to modify the drain bowl of Boursier to incorporate the sloped trough of Hotaling to facilitate drainage from the drain bowl into a sink basin.

8. Claim 12

- i. *“The vessel rinsing apparatus of claim 11, wherein the mounting member extends along a longitudinal axis, the mounting member configured to extend through a mounting aperture formed within the mounting deck.”*

162. In my opinion, Thomas discloses a mounting member (**mounting base 50**) extending along a longitudinal axis, the mounting member configured to extend through a mounting aperture (**nut 56**) within the mounting deck (**mounting deck 4**). See Ex. 1008 at [0033], Fig. 1 & Fig. 2.

9. Claim 13

- i. *“The vessel rinsing apparatus of claim 12, wherein the mounting member comprises a mounting shank defining an opening extending along the longitudinal axis, and the central body of the fluid discharge member is received within the opening of the mounting shank and movable along the longitudinal axis.”*

163. In my opinion, Thomas discloses the mounting member (**mounting base 50**) comprising a mounting shank (**mounting shank or post 52**) defining an

opening (**passageway 54**) extending along a longitudinal axis, and the central body (**body 48 via sprayer outlet tube 46**) of the fluid discharge member (**sprayer assembly 42**) is received within the opening of the mounting shank and movable along the longitudinal axis. *See* Ex. 1008 at [0033] & Fig. 2.

10. Claim 14

- i. *“The vessel rinsing apparatus of claim 11, wherein the valve member comprises a valve shaft configured to move with the trigger.”*

164. In my opinion, Thomas discloses a valve member (**valve member 90**) comprising a valve shaft (**poppet or stem 98**) configured to move with the trigger (**sprayer trigger 47**). *See* Ex. 1008 at [0041], [0045] & Fig. 15C.

11. Claim 16

- i. *“The vessel rinsing apparatus of claim 11, wherein the fluid discharge member is in selective fluid communication with an outlet of a faucet mixing valve.”*

165. In my opinion, Thomas discloses a fluid discharge member (**sprayer assembly 42 via sprayer outlet tube 46**) in selective fluid communication with an outlet of a faucet mixing valve (**inlet tube 22 of mixing valve 20**). *See* Ex. 1008 at [0031], [0033], [0045], Fig. 2 & Fig. 15C.

12. Claim 17

- i. *“The vessel rinsing apparatus of claim 16, further comprising a diverter valve fluidly coupled intermediate the outlet of the faucet mixing valve and the fluid discharge member.”*

166. In my opinion, Thomas discloses a diverter valve (**diverter valve 78**) fluidly coupled intermediate the outlet of the faucet mixing valve (**inlet tube 22 of mixing valve 20**) and the fluid discharge member (**sprayer assembly 42 via sprayer outlet tube 46**). See Ex. 1008 at [0040], [0045], Figs. 13 & 14.

13. Claim 20

- i. *“A fluid delivery device” (preamble)*

167. In my opinion, Thomas discloses a fluid delivery device. See Ex. 1008 at [0003].

- ii. *“a vessel rinsing apparatus”*

168. In my opinion, Thomas discloses a vessel rinsing apparatus (**a side sprayer 42/auxiliary fluid dispenser/fluid delivery device**). See Ex. 1008 at [0002], [0033] & Fig. 2.

- iii. *“a drain bowl including a lower wall and an upwardly extending wall, and a drain channel extending through the upwardly extending wall, the drain channel configured to receive water from the drain bowl and discharge water above and into a sink basin supported by a mounting deck”*

169. In my opinion, Boursier discloses a drain bowl (**tray or reservoir 1**) including a lower wall (**shown in red**), an upwardly extending wall (**shown in**

orange) operably coupled to the lower wall, and a drain channel (**drain 7, wastewater outlet**) configured to receive water from the drain bowl and discharge water. *See* Ex. 1009 at 1 & Fig. A (annotated) *supra*.

170. Boursier does not explicitly disclose a drain channel extending through an upwardly extending wall. However, in my opinion, Boursier does disclose a drain 7 for wastewater. Ex. 1009 at 1. In my opinion, Boursier also discloses an upwardly extending wall. *See* Fig. A (annotated) *supra*. In my opinion, Hotaling discloses a drain channel (**trough 105, passage**) extending through an upwardly extending wall (**shown in red**) of a drain bowl (**water collection tray 101**). *See* Ex. 1010 at [0018]. In Hotaling, the drip tray 102 is analogous to a sink basin. *See* Figs. 2 & 3 (annotated) *supra*.

171. There are a limited number of ways to remove water from a bowl shape: either a hole in the bottom or a gap in the side wall. Any other solution would require costly and complex motors and pumps to remove water from the rinser. In my opinion, it would have been obvious to one having ordinary skill in the art to combine the drain channel and upwardly extending wall of Boursier with the drain channel extending through the upwardly extending wall of Hotaling to predictably improve water drainage into a sink basin.

- iv. *“a mounting member operably coupled to the drain bowl, the mounting member configured to couple the drain bowl to the mounting deck”*

172. In my opinion, Thomas discloses a mounting member (**mounting base 50**) operably coupled to an auxiliary fluid dispenser (**spray assembly 42**), *i.e.*, the drain bowl (**tray or reservoir 1** of Boursier), the mounting member configured to couple the drain bowl to the mounting deck (**mounting deck 4**). *See* Ex. 1008 at [0033] & Fig. 1.

173. Boursier does not explicitly disclose mounting the tray/reservoir 1 to a mounting member. However, in my opinion, Boursier does teach that the tray 1 is “itself fastened to a wall or other partition by means of two screws.” *Id.* at 1. In my opinion, it would have been obvious to one having ordinary skill in the art to combine the mounting base 50 of Thomas with the tray/reservoir 1 of Boursier to provide a mounting method adapted to a deck mount solution by combining the drain bowl mount with the deck mounting member. This has the predictable advantage of reducing part count, complexity, and cost.

- v. *“a fluid discharge member including a central body supporting a plurality of nozzles and a trigger, the central body being movable relative to the mounting member”*

174. In my opinion, Thomas discloses a fluid discharge member (**sprayer assembly 42**) with a central body (**body 48**) supporting a plurality of nozzles (**handheld sprayer 44**) and a trigger (**trigger 47**), the central body (**body 48, sprayer outlet tube 46**) being moveable relative to the mounting member

(**mounting base 50**). See Ex. 1008 at [0033] & Fig. 2.

- vi. *“a valve member operably coupled to the fluid discharge member and configured to control water flow through the central body to the plurality of nozzles”*

175. In my opinion, Thomas discloses a valve member (**valve member 90**) operably coupled to the fluid discharge member (**sprayer assembly 42**) and configured to control water flow through the central body (**body 48 via the sprayer tube 46**) to the plurality of nozzles (**handheld sprayer 44**). See Ex. 1008 at [0040], [0041], [0045] & Fig. 15C.

- vii. *“a faucet”*

176. In my opinion, Thomas discloses a faucet (**faucet assembly 10**). See Ex. 1008 at [0031] & Fig. 1.

- viii. *“a delivery spout having a water outlet”*

177. In my opinion, Thomas discloses a delivery spout (**delivery spout 28**) having a water outlet (**outlet 31**). See Ex. 1008 at [0032] & Fig. 1.

- iv. *“a valve fluidly coupled to the delivery spout, the valve configured to control water flow to the water outlet”*

178. In my opinion, Thomas discloses a valve (**mixing valve 20**) fluidly coupled to the delivery spout (**delivery spout 28**), the valve (**mixing valve 20**) configured to control water flow to the water outlet (**outlet 31**). See Ex. 1008 at [0031] & Fig. 2.

- v. *“wherein the fluid discharge member of the vessel rinsing apparatus is in selective fluid communication with the valve of the faucet”*

179. In my opinion, Thomas discloses wherein a fluid discharge member (**sprayer assembly 42**) of a vessel rinsing apparatus is in selective fluid communication with the valve of the faucet (**mixing valve 20**). In Thomas, in my opinion, the fluid discharge member is in selective fluid communication with the valve of the faucet via the diverter assembly 12 via the sprayer tube 46. *See* Ex. 1008 at [0045] & Fig. 15C.

14. Claim 21

- i. *“The fluid delivery device of claim 20, further comprising a diverter valve fluidly coupled intermediate the valve of the faucet and the fluid discharge member of the vessel rinsing apparatus.”*

180. In my opinion, Thomas discloses a diverter valve (**diverter valve 78**) fluidly coupled intermediate the outlet of the faucet mixing valve (**inlet tube 22 of mixing valve 20**) and the fluid discharge member (**sprayer assembly 42 via sprayer outlet tube 46**). *See* Ex. 1008 at [0040], [0045], Figs. 13 & 14.

15. Claim 23

- i. *“The vessel rinsing apparatus of claim 20, wherein the mounting member extends along a longitudinal axis, the mounting member configured to extend through a mounting aperture formed within the mounting deck.”*

181. In my opinion, Thomas discloses a mounting member (**mounting base**

50) extending along a longitudinal axis, the mounting member configured to extend through a mounting aperture (**nut 56**) within the mounting deck (**mounting deck 4**).
See Ex. 1008 at [0033], Figs. 1 & 2.

16. Claim 24

- i. “The vessel rinsing apparatus of claim 23, wherein the mounting member comprises a mounting shank defining an opening extending along the longitudinal axis, and the central body of the fluid discharge member is received within the opening of the mounting shank and movable along the longitudinal axis.”*

182. In my opinion, Thomas discloses a mounting member (**mounting base 50**) comprising a mounting shank (**mounting shank or post 52**) defining an opening (**passageway 54**) extending along a longitudinal axis, and the central body (**body 48 via sprayer outlet tube 46**) of the fluid discharge member (**sprayer assembly 42**) is received within the opening of the mounting shank and movable along the longitudinal axis. *See* Ex. 1008 at [0033] & Fig. 2.

VIII. SECONDARY CONSIDERATIONS

183. I am unaware of any secondary considerations supporting the non-obviousness of the ‘277 Patent.

IX. CONCLUSION

184. Overall, I find the ‘277 Patent combines commercially available components in an obvious manner to yield predictable results. For example, any POSITA would be looking for ways to reduce the number of parts to simplify

assembly and reduce costs by combining available components. Plumbing components use standardized sizes and are designed to combine in a limited number of ways to achieve the fluid flow and control required. So there is not a broad variety of available components to select from.

185. In my opinion, the '277 Patent combines the sprayers of Shin Wei and Van Der Linden, with the drain bowls of Boursier, Hotaling, and Van Linden. The claimed draining method is the simplest method possible to drain water using gravity. The opening in the side described in the Van Der Linden and Hotaling patents is simply the lowest point that allows water to flow over the edge of the rinser bowl and directly into the sink or drain basin to which the rinser is mounted. Any POSITA knows water flows from high to low points and would direct the water with an opening, trough, or lip without any additional and costly components like motors and pumps.

186. Shin Wei also uses the same style of mounting member which is used in existing deck mount faucets. Combining the bowl with the mounting member is also obvious because it is very simple to either fabricate the mounting member and drain bowl as one component or use a hole in the drain bowl with the aperture in the deck. To do anything else would require more parts and complexity.

187. Finally, connecting the rinser to the mixing and diverter valves from Thomas in place of the hand sprayer is an obvious and simple combination. Thomas

uses a hand sprayer as the most common auxiliary fluid dispenser but teaches any type of fluid dispenser can be attached to the diverter and mixer. The '277 Patent shows a diverter valve that hangs below the faucet; however, faucets have been made with diverters built into the faucet body for many years with hand sprayers and can just as easily connect to a rinser. For many years, faucets have used diverter valves that are fluidly coupled to the hot and cold water inlets and the diverter to vary the water temperature to either the main faucet or the auxiliary discharge. In my opinion, a POSITA would recognize this solution.

188. In connection with the above, I have reviewed, had input into, and endorse as set forth fully herein Grounds 1-3 in the accompanying petition showing that each and every element of claims 1-7, 10-17, 20-21, and 23-24 are disclosed and/or taught by the combinations set forth therein, and that, as set forth above, a person of ordinary skill in the art would have combined the teachings of the references as claimed.

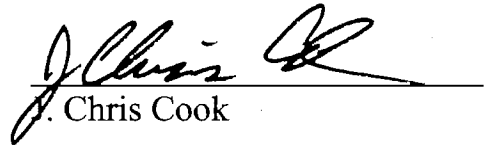
189. For my efforts in connection with the preparation of this declaration, I have been compensated at my standard hourly rate for this type of consulting activity. My compensation is in no way contingent on the results of these or any other proceedings relating to the above-captioned patent.

190. In signing this declaration, I understand that the declaration will be filed as evidence in a review proceeding before the PTAB of the USPTO. I acknowledge

that I may be subject to cross examination in the case and that cross examination will take place within the United States for the time allotted.

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of the Title 18 of the United States Code and that such willful false statements may jeopardize the results of these proceedings.

DATED: Aug 16, 2023


J. Chris Cook

APPENDIX A

J. Chris Cook

Allen, Texas 75002

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Mechanical Engineering Consultant

Solutions-Focused Engineering | Project Management

Well-rounded Engineering leader working on products ranging from semiconductors to large tower structures and everything in between. Skilled at taking products from concept to mass production utilizing a wide range of tools.

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PROFESSIONAL EXPERIENCE

Delta EOC, LLC- www.delta-eoc.com

Owner/Consultant

NOV 2021-PRESENT

- Mechanical Design and Analysis of client products
- Engineering process definition
- CAD, PDM, PLM, and ERP setup
- Project Management
- Expert Witness services

COMMSCOPE (Dallas/Fort Worth, TX)

MAY 2011 – Oct 2021

Director of Engineering

Jun 2018 – Oct 2022

- Led teams of Mechanical Engineers, Designers, and Change Coordinators to design and release the latest concealment solutions for mmWave and sub-6GHz small cells, power cabinets, cable management accessories, and tower/pole/rooftop macro structural mounts
- Defined requirements with clients and project managers to incorporate new innovations
- Streamlined processes and expenses for best engineering processes to improve time to market and quality
- Hired 11 Engineers, Designers, and ERP Admins over a 12 month period using direct and contract-to-hire models, growing Engineering teams from six FTEs to 20 FTEs in 18 months
- Designed and launched several product families to increase revenue from \$8M to \$24M in two years
- Leadership team for enterprise-wide ERP and PDM tools upgrade
- Patent review team member where we evaluated new internal applications and renewals and competitive patents

Senior Engineering Manager

Jun 2013 - Jun 2017

- Managed cross functional teams of 10-22 FTEs each, consisting of mechanical and product engineers, tech writers, CAD specialists, and electrical/reliability labs while overseeing a \$3.2M annual budget
- Developed and qualified multiple NPI (New Product Introductions), addressed key quality issues, and developed full documentation sets for product release
- Facilitated and process improvement initiatives to include: statistical analysis, drawing checking process, Lessons Learned database, and general improvements to project management practices
- Negotiated software licensing for multiple business units for simulation tools

Principal Mechanical Engineer

May 2011 - Jun 2013

- Led team of three engineers and designers, from concept to manufacturing, for all aspects of system and mechanical design for indoor DAS system, conducting thermal analysis and testing of all system components while coordinating with EE and supply chain teams for design and manufacturing
- Scheduled design activities, prototype builds, and physical testing for program with eight major products and dozens of accessories
- Selected and mentored summer interns and junior rotational engineers
- Organized thermal design community group of engineers across all business units with regular meetings and central SharePoint site for shared collaboration

CALIDITECH (Dallas/Fort Worth, TX)

SEP 2009 - MAY 2018

Owner/Consultant

- Provided mechanical design, structural/thermal analysis and project management consulting services to clients using cloud hosted Ansys packages
- Reduced time to market by eliminating design iterations required to release products meeting customer needs
- Improved project management methods for privately held software company and managed customer implementation for \$100K project
- Implemented quick-turn thermal analysis for customer in under two weeks, requiring new software tool, requirements gathering and completed report
- Clients included: Raytheon, Commscope, JMA, and Optimal Electronics

TEXAS INSTRUMENTS (Dallas/Fort Worth, TX)

FEB 2005 - JAN 2009

Application Engineer and Project Manager

- Supported RFID product line in the U.S. valued at \$30M annually
- Provided technical support and customer service as key marketing differentiator for the Business Unit
- Identified and fixed product problems in collaboration with production machine vendors

EDUCATION & TRAINING

SOUTHERN METHODIST UNIVERSITY (Dallas, TX)

Master of Science (MS) in Engineering Management

TEXAS A&M UNIVERSITY (College Station, TX)

Bachelor of Science (BS) in Mechanical Engineering

APPENDIX B

I considered the following documents in preparing this Declaration in support of the Petition for *inter partes* review of the Challenged Claims:

1. Exhibit 1001 – U.S. Patent No. 11,473,277
2. Exhibit 1002 – U.S. Patent No. 10,914,056
3. Exhibit 1003 – File Wrapper of the ‘277 Patent
4. Exhibit 1004 – File Wrapper of the ‘056 Patent
5. Exhibit 1006 - U.S. Patent Application Publication No. 2008/0142095
to Van Der Linden
6. Exhibit 1007 - Chinese Patent No. 203281567 to Shen Wei
7. Exhibit 1008 - U.S. Patent Application Publication No. 2011/0061754
to Thomas
8. Exhibit 1009 - French Patent No. 2606622 to Boursier
9. Exhibit 1010 - U.S. Patent Application Publication No. 2012/0204242
to Hotaling