

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

SAMSUNG ELECTRONICS CO., LTD., SAMSUNG ELECTRONICS
AMERICA, INC.,
Petitioner

v.

WHIRLPOOL CORPORATION
Patent Owner.

Case No. PGR2026-00043
U.S. Patent No. 12,543,922

**PETITION FOR POST GRANT REVIEW
OF U.S. PATENT NO. 12,543,922**

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LIST OF EXHIBITS¹

Ex. No.	Description
Ex-1001	U.S. Patent No. 12,543,922 (“the ’922 Patent”)
Ex-1002	Declaration of Dr. Kimberly K. Cameron
Ex-1003	Curriculum Vitae of Dr. Kimberly K. Cameron
Ex-1004	Prosecution History of U.S. Patent No. 12,543,922
Ex-1005	U.S. Patent Application Publication No. 2018/0220867 A1 to Carr (“Carr”)
Ex-1006	U.S. Patent Application Publication No. 2008/0169009 A1 to Mailander (“Mailander”)
Ex-1007	D.E. Patent No. 6810173 to Bosch (“Bosch”) (Certified English Translation)
Ex-1008	E.P. Patent No. 2368479 to Fumagalli (“Fumagalli”)
Ex-1009	U.S. Patent No. 9,445,703 B2 to Heidel et al. (“Heidel”)
Ex-1010	INTENTIONALLY LEFT BLANK
Ex-1011	INTENTIONALLY LEFT BLANK
Ex-1012	U.S. Patent No. 10,045,681 B2 to Schessl et al. (“Schessl”)
Ex-1013	U.S. Patent No. 2,910,207 to Andrew et al. (“Andrew”)
Ex-1014	D.E. Patent No. 6810173 to Bosch (“Bosch”)
Ex-1015	U.S. Patent No. 7,365 to Houghton (“Houghton”)
Ex-1016	U.S. Patent No. 10,602,910 B2 to Gutkowski (“Gutkowski”)

¹ Four-digit pin citations that begin with 0 are to the branded numbers added by Samsung in the bottom right corner of the exhibits. All other pin citations are to original page, column, paragraph, or line numbers.

Ex. No.	Description
Ex-1017	U.S. Patent No. 51,000 to Alexander (“Alexander”)
Ex-1018	U.S. Patent No. 355,139 to Cochrane (“Cochrane”)
Ex-1019	G.B. Patent No. 219,103 to Livens (“Livens”)
Ex-1020	INTENTIONALLY LEFT BLANK
Ex-1021	U.S. Patent No. 2,734,520 to Abresch et al. (“Abresch”)
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Ex-1024	U.S. Patent No. 4,402,556 to Schwind (“Schwind”)
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Ex-1026	U.S. Patent No. 4,475,656 to Collier (“Collier”)
Ex-1027	U.S. Patent Application Publication No. 2010/0051069 A1 to Schessl et al. (“Schessl”)
Ex-1028	U.S. Patent Application Publication No. 2013/0002107 A1 to Paschini et al. (“Paschini”)
Ex-1029	U.S. Patent Application Publication No. 2015/0196189 A1 to Shaffer et al. (“Shaffer”)
Ex-1030	U.S. Patent Application Publication No. 2006/0237051 A1 to Bengston et al. (“Bengston”)
Ex-1031	U.S. Patent Application Publication No. 2006/0127051 A1 to Tsumagari et al. (“Tsumagari”)
Ex-1032	U.S. Patent Application Publication No. 2015/0053238 A1 to Lee et al. (“Lee”)

Ex. No.	Description
Ex-1033	U.S. Patent Application Publication No. 2015/0320290 A1 to Hederstierna et al. (“Hederstierna”)
Ex-1034	E.P. Patent No. 2594186 A1 to Milani et al. (“Milani”)
Ex-1035	U.S. Patent Application Publication No. 2014/0190528 A1 to Wegener et al. (“Wegener”)
Ex-1036	U.S. Patent No. 3,402,975 to Smith (“Smith”)
Ex-1037	U.S. Patent No. 3,044,842 to Abresch et al. (“Abresch”)
Ex-1038	U.S. Patent No. 7,032,604 B2 to Welch (“Welch”)
Ex-1039	U.S. Patent No. 2,745,707 to Sebens (“Sebens”)
Ex-1040	INTENTIONALLY LEFT BLANK

I. INTRODUCTION

Samsung Electronics Co., Ltd. and Samsung Electronics America, Inc. (collectively, “Petitioner”) requests post grant review (“PGR”) of Claims 1–4, 7–26 of U.S. Patent No. 12,543,922 (“the ’922 Patent”) (Ex-1001), currently assigned to Whirlpool Corp. (“Patent Owner”).

II. MANDATORY NOTICES UNDER 37 C.F.R. § 42.8

Real Parties-in-Interest: Petitioner identifies the following real parties-in-interest: Samsung Electronics Co., Ltd. and Samsung Electronics America, Inc.

Related Matters: PO has asserted the ’922 Patent against Petitioner in *Whirlpool Corp. v. Samsung Electronics Co., Ltd. et al.*, No. 2:25-cv-01042, (E.D. Tex.).

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III. FEE AUTHORIZATION

The PTO is authorized to charge any fees due during this proceeding to Deposit Account No. LA500639.

IV. GROUNDS FOR STANDING

Petitioner certifies that the '922 Patent is available for review, and Petitioner is not barred or estopped from requesting review. The challenged patent was effectively filed after March 17, 2013, and the petition is being filed within 9 months of patent issuance, thus meeting the requirements for PGR.

V. PRECISE RELIEF REQUESTED

Petitioner requests review and cancellation of Claims 1–4, 7–26 as unpatentable based on the following grounds, supported by a declaration from Dr. Kimberly K. Cameron. Ex-1002 ¶¶25–265; Ex-1003.

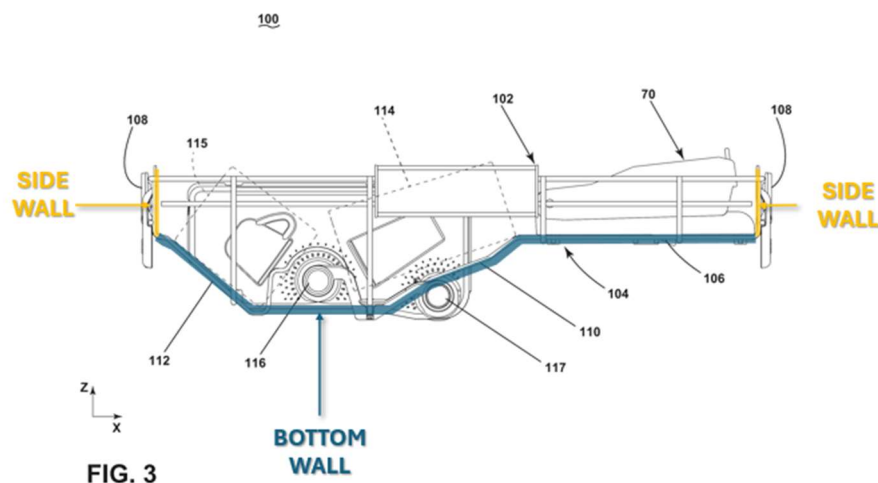
Ground	Summary
1	Claims 1–3 are obvious Mailander (Ex-1006) in view of Carr
2	Claims 1–4 are obvious over Carr (Ex-1005)
3	Claims 1–4, 7–26 are obvious over Andrew (Ex-1013) in view of Gutkowski (Ex-1016)
4	Claim 20 is indefinite under 35 U.S.C. § 112(b)

VI. THE CHALLENGED PATENT

The '922 Patent relates to a dishwasher that shares “many features of a conventional automatic dishwasher.” Ex-1001, 2:45–46. For example, the '922

Patent explains that some “dishwashers can also include a third dish rack, often referred to as a third level rack, of a much shorter height the upper and lower dish racks, with the height being such as to only accommodate silverware or other low profile utensils.” *Id.*, 1:33–37. The ’922 Patent notes that a third level rack can accommodate long-handled items, but cautions if long-handled utensils are “put into the utensil caddy, [they] would extend far enough vertically to interfere with the rotation of the sprayer below the upper rack.” *Id.*, 1:47–49. The ’922 Patent seeks to address the alleged inability of conventional “third” racks to accommodate anything more than short-handled “silverware or other low profile utensils.” *Id.*, 1:33–37.

As shown in Figure 3 below, the ’922 Patent teaches an upper wire-frame dish rack within an automatic dishwasher that includes “bottom wall 104 [(blue)] from which extends a peripheral wall 108 [(yellow)] defining the sides of the dishrack.” Ex-1001, 5:43–44.



The bottom wall “can define multiple planes.” *Id.*, 5:53. For example, the bottom wall has a “first plane transverse to the X-axis” such as planar portion 106 (red), which can receive a utensil caddy 70 (pink). *Id.*, 5:53–57. 6:1–6. The bottom wall also includes a first angled wall that defines a second plane and a second angled wall 112 that defines a third plane. *Id.*, 5:55–5:61. The second angled walls 110 (green), 112 (blue) form a depression (orange), which “forms a first set of cup seats 114 and second set of cup seats 115, which hold cups.” *Id.*, 5:50–52.

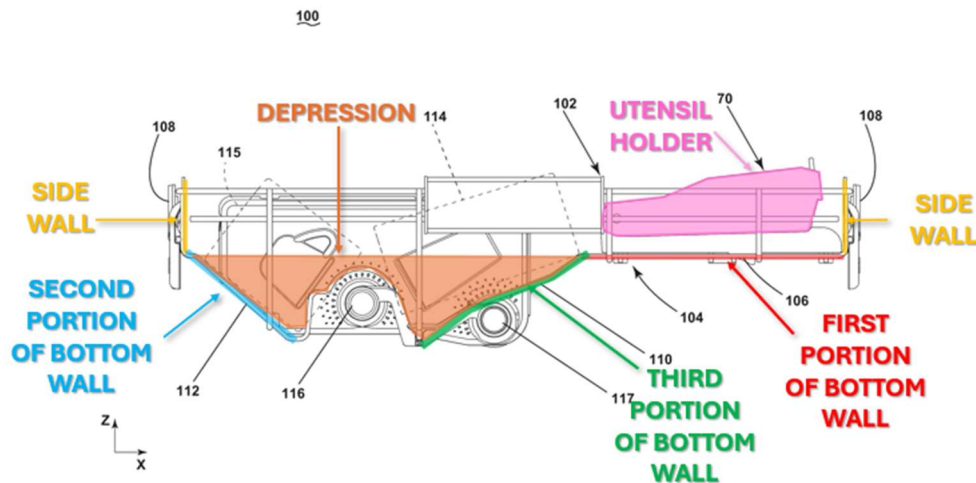


FIG. 3

The '922 Patent purports to provide a benefit of its upper dish rack assembly to accommodate more versatility than traditional dish rack assemblies, because “[u]tensils can be secured within the utensil caddy while cups and mugs can be provided within the cup seats.” Ex-1001, 9:29–35. The patent further discusses that its disclosure provides “improved washing efficiency of utensils,” because all the utensils “are horizontally secured and that all portions of the utensils which need to

be treated are within the spray zone.” *Id.*, 9:55–58, 9:60–62. However, such dishwasher racks were well known, as explained in detail below in Mailander, Carr, and Andrew. Ex-1002 ¶¶54–57.

VII. PROSECUTION HISTORY OF THE ’922 PATENT

The ’922 Patent was filed December 8, 2025, is a continuation of U.S. Patent App. No. 2025/0169672, filed on January 28, 2025, which is a continuation of U.S. Patent No. 12,232,681, filed on December 11, 2023, which is a continuation of U.S. Patent No. 11,864,712, filed on June 2, 2022, which is a continuation of U.S. Patent No. 11,375,874, filed on March 30, 2020.

The ’922 Patent issued without any substantive office actions. On December 10, 2025, the Examiner allowed Claims 1–26 following an Examiner Interview. Ex-1004, 1285–89. The Examiner Interview summary does not detail any note of substance. *Id.*, 1145. The Examiner Interview did result, however, in an Examiner’s Amendment of Claim 1. *Id.*, 1276. The ’922 Patent issued on February 10, 2026. *Id.*, 1392.

During the course of prosecution, the applicant filed several Information Disclosure Statements (“IDS”). None of the asserted references in this Petition were disclosed in the initial IDS filed with the application. Ex-1004, 42–45. Carr (Ex-1005) was disclosed in a subsequent IDS filed on August 26, 2025. *Id.*, 487. Andrew (Ex-1013) was disclosed in a subsequent IDS filed on September 10, 2025. *Id.*, 689.

Mailander (Ex-1006) was disclosed in a post-allowance IDS filed on December 15, 2025. *Id.*, 1206. Although the Examiner indicated the references were considered, none of them were applied to claims in a substantive office action.

This Petition presents new arguments and prior art not considered during prosecution, and nothing precludes considering them in the first instance under 35 U.S.C. § 325(d).

VIII. LEVEL OF ORDINARY SKILL IN THE ART

A person of ordinary skill in the art at the relevant time (“POSITA”) would have had at least a bachelor’s degree in mechanical engineering or a related field, and two years of experience in the design or development of consumer appliances, including dishwashers or comparable fluid-delivery systems, with additional education substituting for experience and vice versa. Ex-1002 ¶¶20–22, 25–53.

IX. PRIORITY DATE

For purposes of this proceeding only, Petitioner applies the earliest alleged priority date of the ’922 Patent: March 30, 2020.²

X. CLAIM CONSTRUCTION

Neither Petitioner nor Patent Owner has yet proposed any terms for construction in the underlying litigation. Regardless, Patent Owner but has taken

² Petitioner respectfully reserves the right to challenge the priority date in other proceedings.

certain positions in the related litigation that appear to, at least, reflect implied claim scope arguments. *See generally* Ex-1022. These implied positions are incorrect for reasons that will be discussed further in the element-by-element analysis below. Ex-1002 ¶63.

For clarity, Petitioner’s understanding of the plain meaning of certain terms is further set out here. Ex-1002 ¶¶64–70.

“Tub”: The plain meaning of this term includes an open-faced component that defines an access opening for the treating chamber. Ex-1001, 2:64–3:2, Fig. 1.

“Cup Seats”: The plain meaning of this term includes seats for various types of cups, such as measuring cups and mugs, and other items to be treated within the treating chamber such as baby bottles, plates, bowls, pans, and the like. Ex-1001, 7:36–38, 7:47–51.

“the planar portion includes a plurality of utensil holders”: The plain meaning of this term means that the planar portion and the plurality of utensil holders are integral components coupled together. The claim term “includes” means that the “plurality of utensil holders” are considered part of the “planar portion.” The ’922 patent explains that “[a] plurality of utensil holders *is disposed* in the planar portion and is configured to horizontally support utensils.” Ex-1001, 1:65–67. The patent further explains that “at least a portion of the utensil caddy 70 can be integrally formed with the planar portion 106 and hence the dish rack 102.” *Id.*, 6:8–10. This

disclosure supports the understanding that the planar portion and the utensil holders comprise one unified structure.

In the underlying litigation, Patent Owner has taken a broader view of this claim term. Specifically, Patent Owner argues that the planar portion must merely support utensil holders, rather than specifically “include” them. In an expert declaration filed in support of this construction, Patent Owner’s expert opines that the term “includes” is equivalent to “comprises” and does not actually have a structural meaning. Ex-1022 ¶¶63–66. Petitioner believes Patent Owner’s view of the recited planar portion including a plurality of utensil holders is incorrect.

Regardless, Grounds 1 and 3 below, based on Mailander (Ground 1) and Andrew (Ground 3), describe how the prior art teaches the claims under the plain meaning that Petitioner believes is correct. Petitioner additionally includes a ground based on Carr (Ground 2) to demonstrate how the prior art teaches the claims under the broader view that Patent Owner advances.

“Bottom wall”: The plain meaning of this term means the structures that form the bottommost portion of the dish rack. Ex-1001, 5:50–55, Fig. 3.

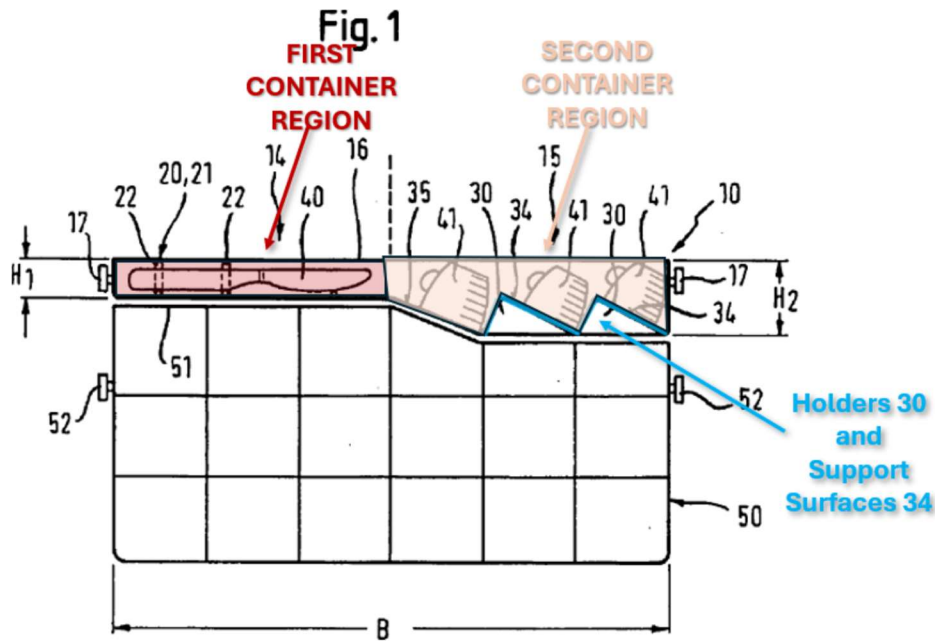
XI. BRIEF DESCRIPTION OF THE APPLIED PRIOR ART

A. Mailander (Ex-1006)

Mailander (U.S. Patent Pub. No. 2008/0169009) was published July 17, 2008, and is prior art to the ’922 Patent under 35 U.S.C. § 102(a)(1). Ex-1002 ¶¶71–76.

Mailander teaches “a washing items support for a dishwasher.” Ex-1006 ¶1. Mailander explicitly claims a “dishwasher,” which includes “a washing space that can be sealed by a door, the washing space having at least one spraying device and at least one removable crockery basket therein; and a washing items support assembly disposed in the washing space.” *Id.*, Cl. 22. Mailander’s washing items support is arranged above a cutlery basket in order to prevent “formation of accumulations of water in the spoon lips or the like because the cutlery lying on its side during washing and drying and not mutually touching,” which can “also considerably shorten the drying programme time.” *Id.* ¶7.

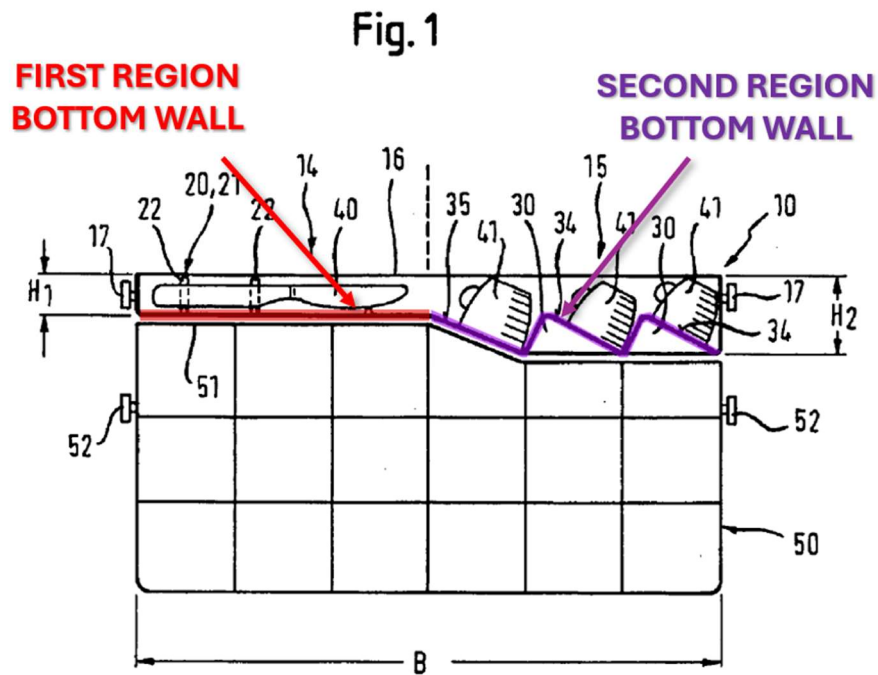
In certain embodiments, Mailander’s washing item support 10 “has a base basket 11 produced from a surrounding wire frame 12, a few base wires 13 running continuously in the transverse or longitudinal direction being located in its base region.” *Id.* ¶28. Mailander’s washing item support 10 includes two container regions, first and second container region 14 and 15, “each of them occupying approximately half width B of washing items support 10.” *Id.* ¶25. As shown in Figure 1 below, the first container region 14 (red) is configured to “arrange pieces of cutlery 4 . . . , lying one next to the other, . . . throughout the depth of washing items support 10.” *Id.* ¶26.



Washing items support 10 includes second container region 15 (peach), which is “washing items holders 30, each of which has a support surface 34 inclined to the horizontal,” so that pieces of crockery can be placed at an angle for an increased drying effect. *Id.* ¶27. Pieces of crockery include “smaller washing items, e.g. cups, shallow glasses, dessert bowls, or alternatively cutlery in the transverse and longitudinal directions, long knives, cooking spoons etc.” *Id.* Mailander teaches that washing items holders 30 and support surface 34 may be inserts or “may be formed integrally together.” *Id.* Mailander also teaches that the “incline” or angle of “support surface 24 of washing goods holder 30 may also be adjustable.” *Id.*

Mailander also teaches embodiments in which washing item holders 30 form part of the bottom wall itself, explaining that “[i]n a further embodiment, not shown, washing items support 10 may consist of only one material, e.g. a plastic, i.e. without

base basket 11.” *Id.* ¶28. In such alternative embodiment, the inclined surfaces of each of Mailander’s washing items support 30 correspond to the bottom wall of Mailander’s rack, as illustrated below:



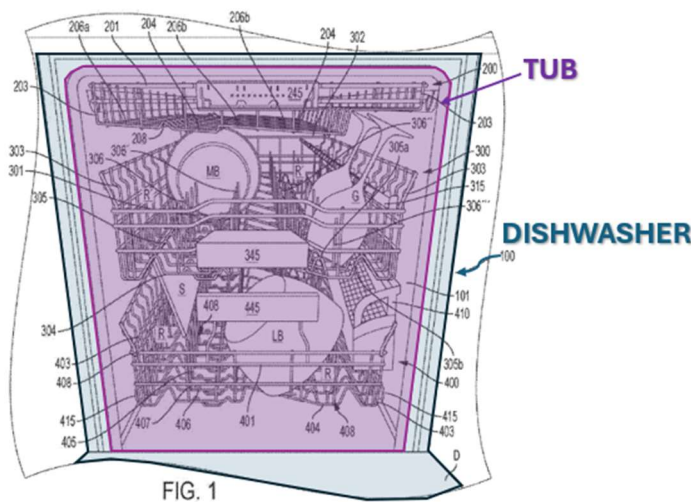
Mailander’s washing items support 10 has, “in the second container region, a height H2 which is greater than height H1.” *Id.* ¶29. Mailander teaches that the “bottom end of first container region 14 is higher in the vertical direction than the bottom end of second container region 15 in the vertical direction.” *Id.* Mailander further teaches that the second container region 15 is provided with a “transition region,” which “represents a support surface 35.” *Id.* Transition region 35 “represents an integral part of the adjacent washing items holder 30” and is angled

in order to transition from the first container region height H1 to the second container region height H2. *Id.*

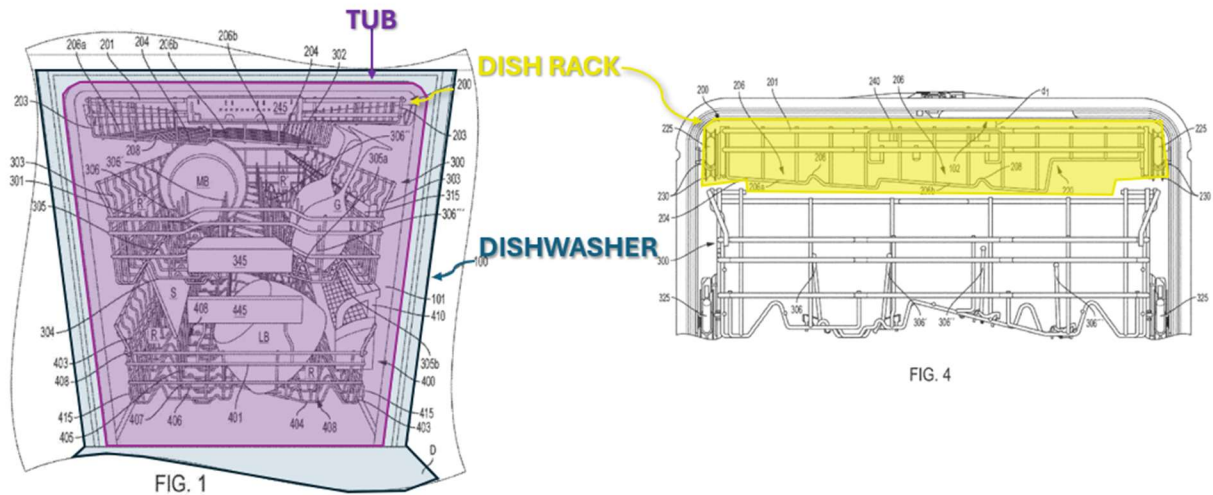
B. Carr (Ex-1005)

Carr (U.S. Patent Publication No. 2018/0220867) was published August 9, 2018, and is prior art to the '922 Patent under 35 U.S.C. § 102(a)(1). Ex-1002 ¶¶77–81.

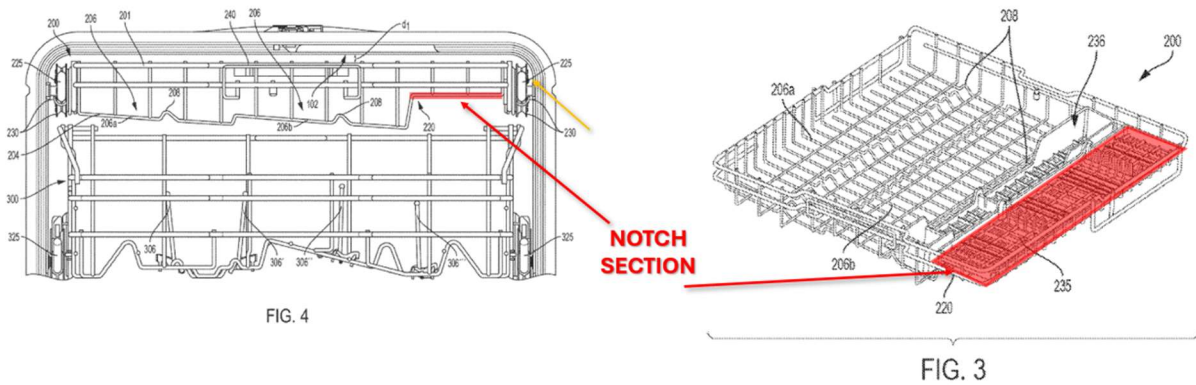
Carr teaches a dishwasher appliance 100 (blue, below). Ex-1005 ¶37. Carr explains that “as is known in the art, the dishwasher appliance 100 includes a tub, a pump and filter assembly, a heating element, one or more wash arms, and a drain hose.” *Id.* Carr provides a “dishwasher, comprising: a dishwashing compartment having a loading opening.” *Id.* ¶10; *see also id.* ¶13. Figure 1, annotated below, shows Carr’s dishwashing appliance (blue) “with the door open so as to reveal the dishwashing compartment,” colored in purple. *Id.* ¶28.



Carr’s dishwasher includes a “top washware rack configured for movement out of and into the dishwashing compartment.” Ex-1005 ¶13. The top washware rack, shown in Figures 1 and 4 below, is “formed of wire thereby to hold washware including cutlery and washware larger than cutlery and to enhance drying performance.” *Id.* Carr’s “top washware rack 200 is configured as a basket and includes front 201, rear 202, and opposing side walls 203 interconnected with a bottom portion 204.” *Id.* ¶41.



As shown in Figure 4, “top washware rack 200 is formed with a notch section 220 along at least one side ... in the bottom portion 204.” Ex-1005 ¶47. Notch section 220 (red, below) accommodates “at least one of cutlery or utensils” (*id.* ¶18) and allows the middle dish rack to accommodate stemmed wine glasses (*id.* ¶47). As shown in Figure 3, a cutlery/utensil accessory insert 235 is shown disposed above the notch section 220. *Id.* ¶48.



The bottom portion 204 of washware rack 200 “includes one or more angled portions 206 that is/are configured to hold bowls at a slight tilt with respect to horizontal in order to drain off water from the bowls.” Ex-1005 ¶43. Carr’s angled portion 206 is “tilted at an angle in a range of 3 to 5 degree with respect to horizontal, and preferable is tilted at an angle of approximately 4 degrees with respect to horizontal.” *Id.* Each angled portion is “configured to hold bowls” at a slight tilt in order to drain water off from the bowls. *Id.* ¶¶43–44. In addition to bowls, the angled portions may also hold “small dishes, . . . cups, as well as cooking utensils.” *Id.* ¶41.

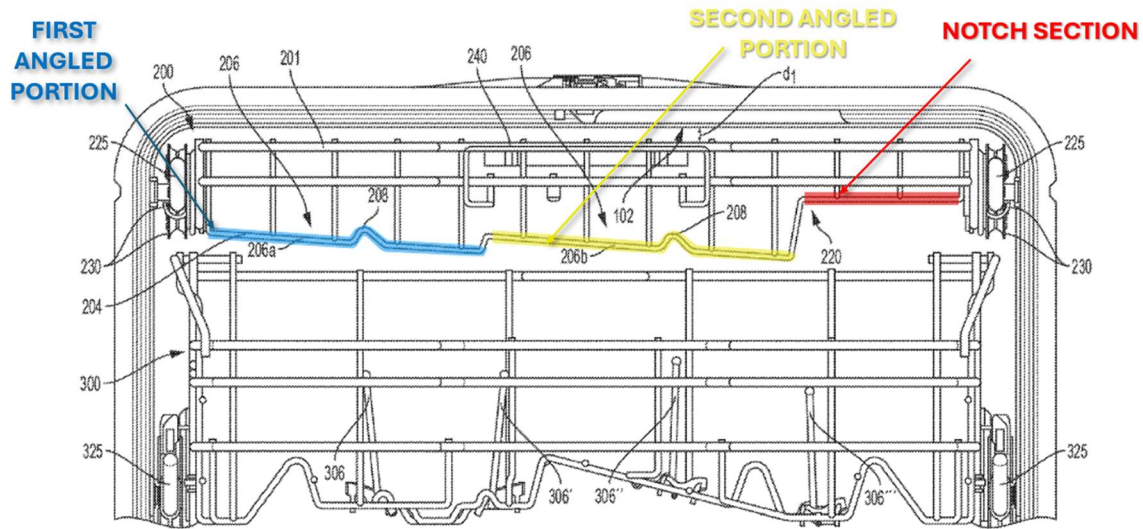


FIG. 4

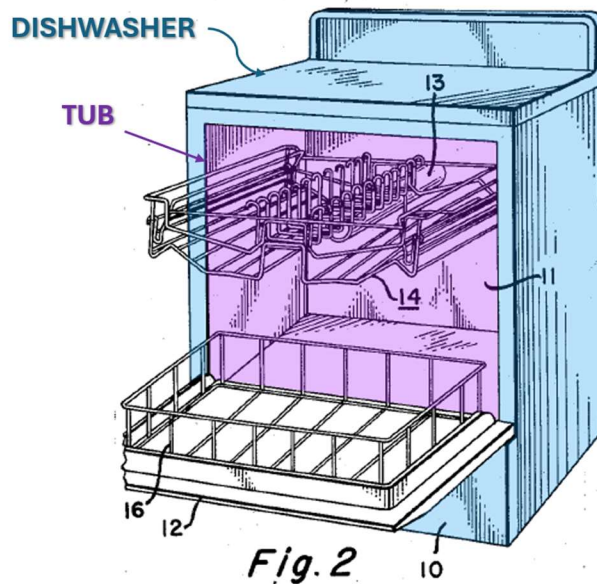
C. Andrew (Ex-1013)

Andrew (U.S. Patent No. 2,910,207) issued October 27, 1959, and is prior art to the '922 Patent under 35 U.S.C. § 102(a)(1). Ex-1002 ¶¶82–87.

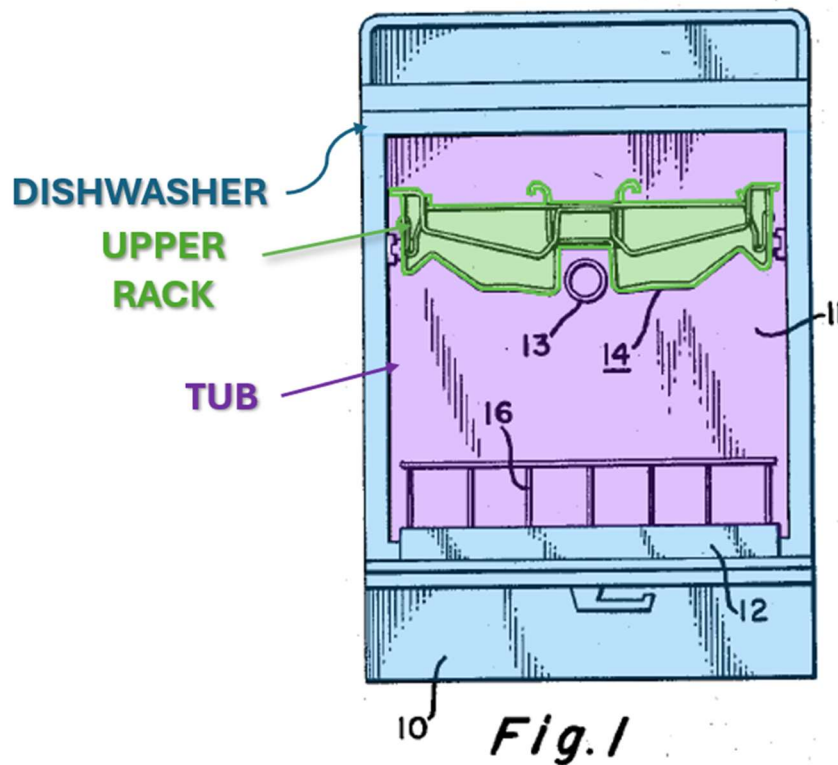
Andrew teaches a dish rack “with an improved and versatile supporting means for holding utensils in a compact manner and arranging the utensils held thereby in positions relative to a liquid spray tube.” Ex-1013, 1:44–48. The dish rack is part of a “dishwasher or dishwashing machine includ[ing] a cabinet 10 having a washing compartment 11 therein for receiving utensils³ to be washed.” *Id.*, 2:39–41.

³ Andrew uses the term “utensils” broadly in its specification, clarifying it includes “for example, [] metal knives, forks, spoons, pans or bowls and ceramic dishes or glassware such as coffee or tea cups, saucers, plates, tumblers, and drinking glasses or culinary items of different kinds.” Ex-1013, 2:33–37.

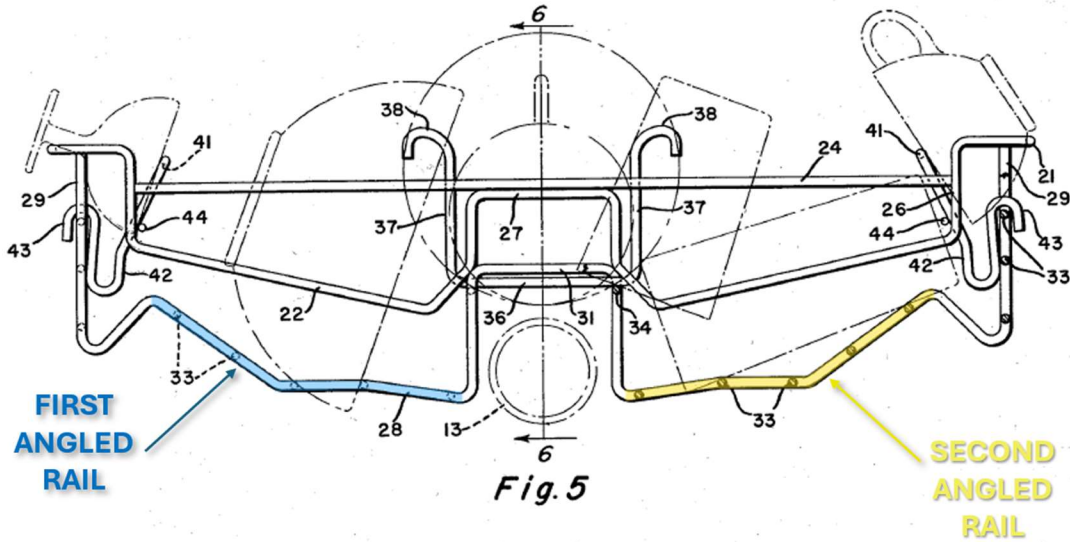
Andrew's Figure 2, annotated below, shows its dishwasher cabinet 10 (blue) and washing compartment 11 (purple). *Id.*



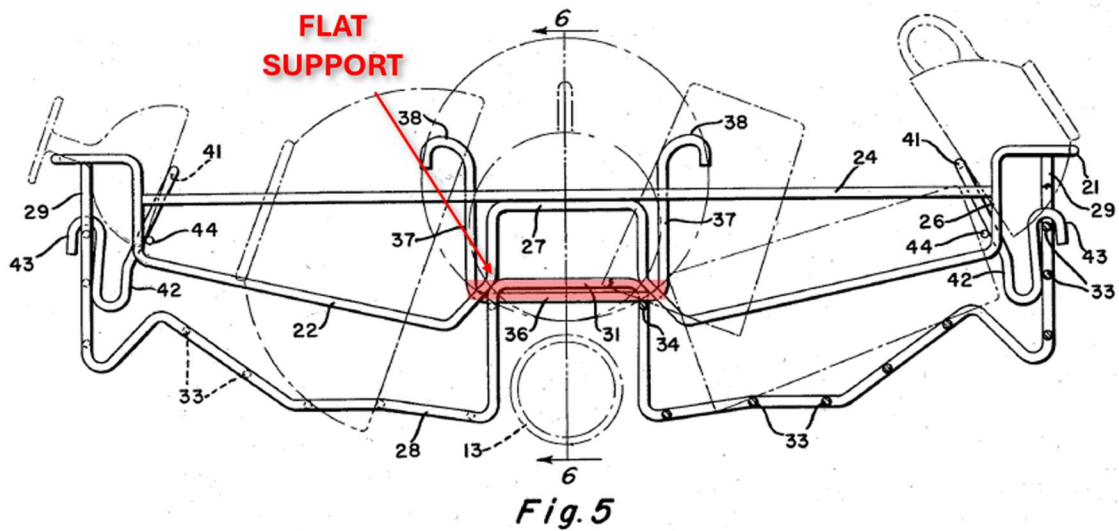
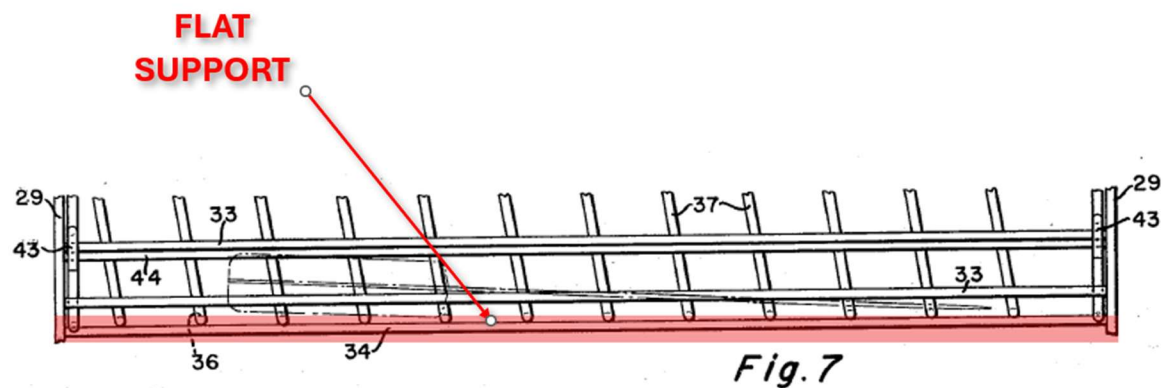
Andrew explains “[u]pper and lower separate and independent racks, generally represented at 14 and 16, respectively, are slidably mounted . . . within compartment 11.” *Id.*, 2:47–50. The upper rack “provide[s] a utensil rack for a dishwashing machine in the form of an open basket-like receptacle provided with . . . sub-receptacles or supports for receiving and selectively supporting various types of utensils.” *Id.*, 1:51–55. Upper rack 14 is generally constructed of “metal wire.” *Id.*, 2:69–71; *see also id.*, 4:13–17. Andrew's Figure 1, annotated below, shows the upper rack 14 (green) within dishwasher cabinet 10 (purple).



Andrew's upper rack 14 has "U-shaped wire members spaced apart along the two elevated central rails 34 with the base 36 of these members spanning and being welded thereto." *Id.*, 3:35–38. Outside of the elevated central rails 34 are wire rails 33 which "provid[e] the bordering portions of the basket-like receptacle, are progressively elevated with respect to one another . . . to provide inclined bottom portions therefor." *Id.*, 3:25–28. The design further allows for "utensils placed on the rails 33 of the bottom portions of the rack." *Id.*, 3:43–45. As can be seen in Figure 5, annotated, below, first rail 33 (blue) and second rail 33 (yellow) may support utensils, such as cups, at an inclined angle.

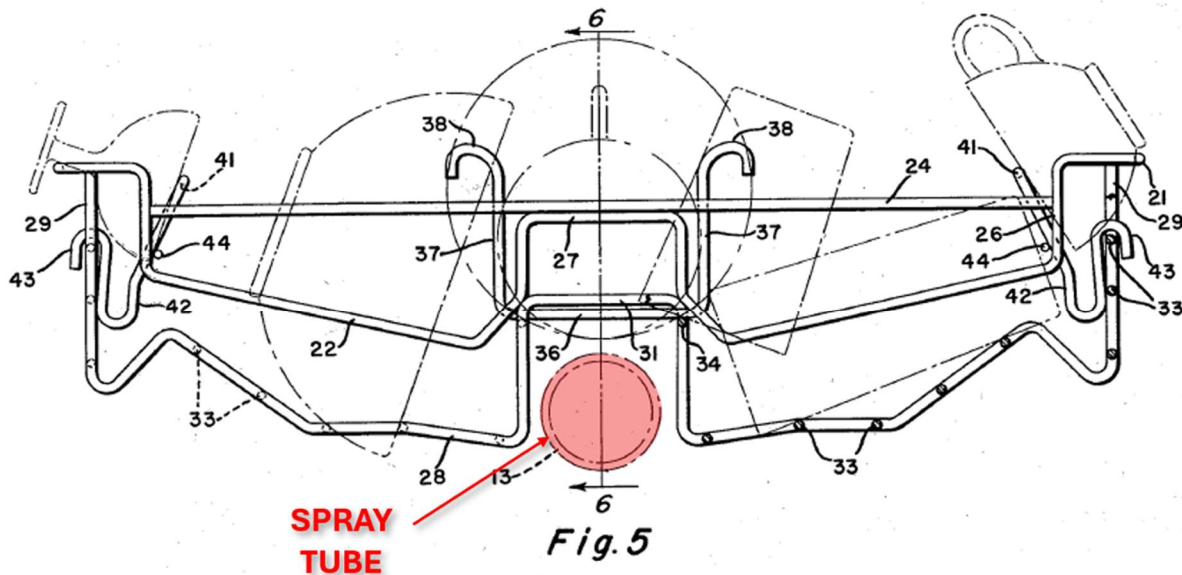


The “[b]ase portion 35 of the U-shaped wire members extends transversely across the two central rails 34 and . . . provides a flat support on rack 14. . . . This flat support and the supports or posts 37 cooperate with one another to selectively receive and support long knives or the like in a horizontal position.” *Id.*, 3:45–52. Andrew additionally adds that the “rack is flexible and versatile” and that it can accommodate “widely diversified arrangements or combinations of utensil support” without diverging from the scope of the invention. *Id.*, 60–68. The flat support section (red) for holding knives, and the like, can be seen in Figures 5 and 7, annotated below.



Andrew also discloses a “liquid spray tube 13 is located centrally within compartment 11 and extends forwardly of the rear wall thereof for spraying a plurality of streams of water in various directions therefrom into compartment 11 and onto utensils therein.” *Id.*, 2:43–47. The spacing of the wire elements are designed to “support cups so that they will be exposed to the water sprays or streams

and will be effectively cleansed and drained.” *Id.*, 4:36–38. Liquid spray tube 13 (red) is shown in Figure 5, annotated below.

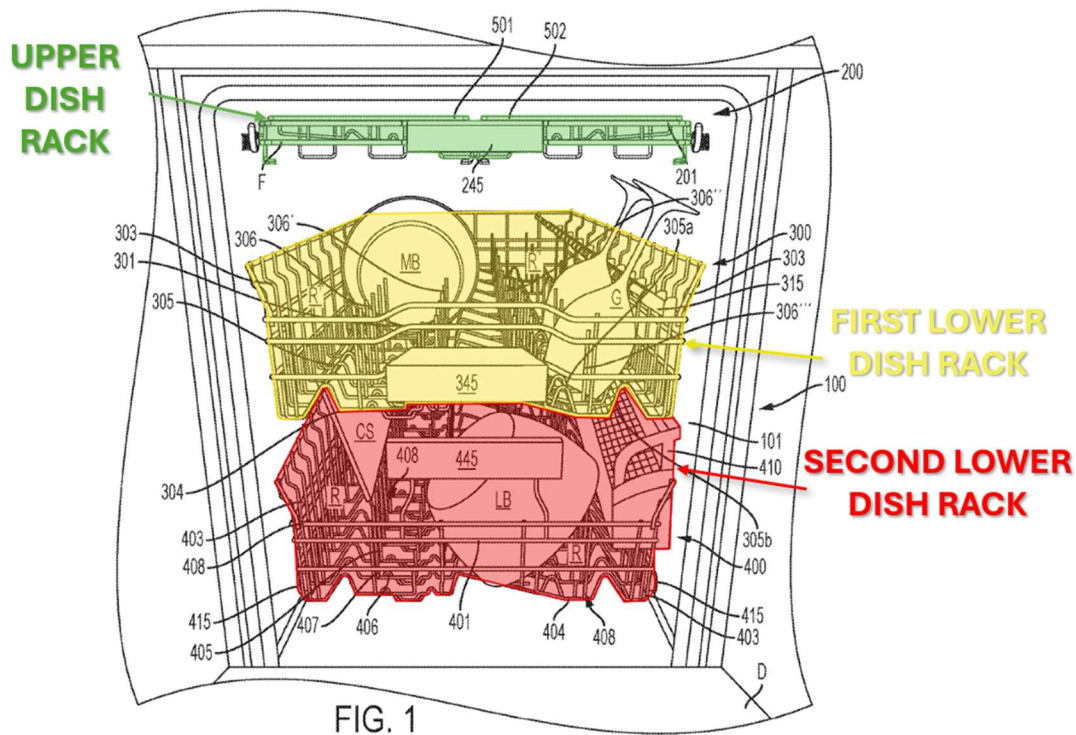


D. Gutkowski (Ex-1016)

Gutkowski (U.S. Patent No. 10,602,910) issued March 31, 2020, and is prior art to the '922 Patent under 35 U.S.C. § 102(a)(1). Ex-1002 ¶¶88–92.

Gutkowski teaches “[a] modular washware rack for a dishwasher, including an open frame having an upper level support structure that is configured to accept at least one basket insert form above.” Ex-1016, Abstract. Gutkowski further teaches “a dishwasher comprising: a dishwashing compartment having a loading opening: a door . . . ; a bottom washware rack . . . ; a middle washware rack . . . and a top washware rack.” *Id.*, 2:48–58. Gutkowski explains that the modular washware rack, which accepts basket inserts, may be the top of the three washware racks. *Id.*, 1:9–

12. Figure 1, annotated below, shows Gutkowski's dishwashing compartment with the upper dish rack (green), first lower dish rack (yellow), and second lower dish rack (red). *Id.*, Fig. 1.



Gutkowski’s modular washware rack is further capable of receiving different “customizable basket inserts.” *Id.*, 1:58–61. Gutkowski explains that “the two basket insert receiving areas have different sizes so as to accept different sized basket inserts.” *Id.*, 3:9–11. These basket inserts may, for example, take the form of a “plastic silverware insert 701” or “a metal wire basket inset 702.” *Id.*, 9:43–48.

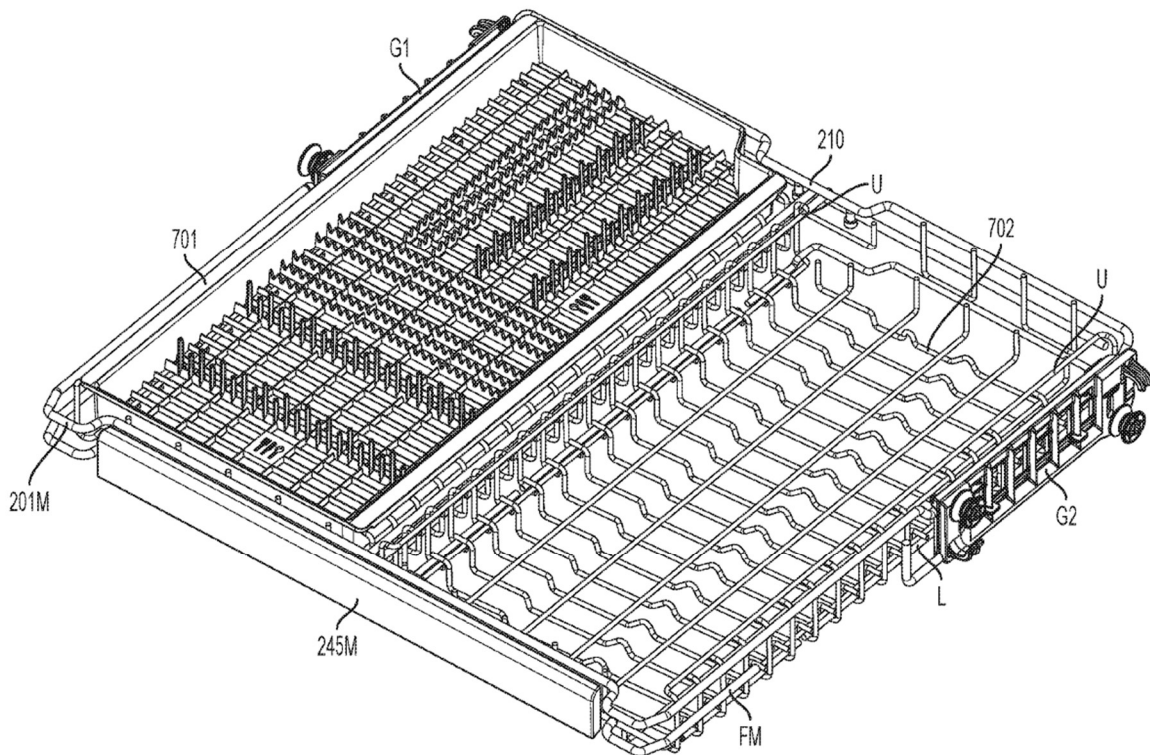


FIG. 8

Gutkowski explains that various means of securing the modular basket inserts are contemplated. For instance, the insert receiving areas may be configured so “that the basket inserts can be slid into either area A1 or A2.” *Id.*, 7:10–14. Gutkowski additionally teaches that “plastic silver basket insert 602 [may be] inserted from above into the basket receiving area A2.” *Id.*, 9:26–29. The receiving area and basket inserts “include a locking feature.” *Id.*, 8:7–17. The locking features “prevents the metal wire basket inserts 501, 502 from sliding out from the lower level L when the user/consumer pulls out the third, top washware rack 200.” *Id.*, 8:45–48.

The silverware basket additionally may have “various utensil holders UTH in the form of tines, prongs, and projections of various shapes.” *Id.* 9:23–25. These utensil holders UTH allow for the silverware basket to support utensils or flatware during the operation of the dishwasher.

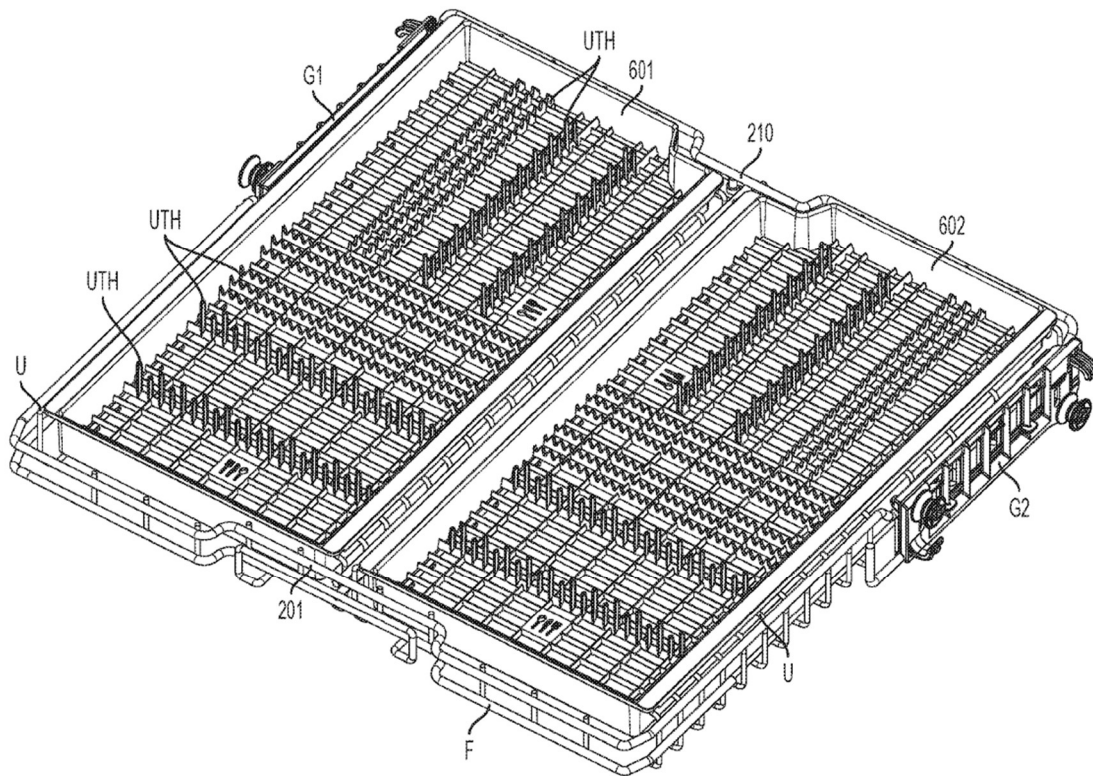


FIG. 7A

XII. DETAILED EXPLANATION OF THE UNPATENTABILITY GROUNDS

A. Ground 1: Claims 1–3 are obvious in view of Mailander and Carr

1. A POSITA would have been motivated to combine Mailander and Carr’s teachings and would have had a reasonable expectation of success.

A POSITA would have been motivated to combine Mailander and Carr's teachings because they are both directed to a top rack of a dishwasher that can hold utensils. For example, Mailander is directed at "a washing items support which is *universally applicable*, allows simple, convenient sorting of pieces of cutlery and other washing items, and in doing so provides an excellent washing and drying result." Ex-1006 ¶8. Mailander further teaches that "[w]ashing items support 10 is preferably arranged above the upper cutlery basket in a dishwasher, as the temperatures in the drying process are highest there." *Id.* ¶34. The frame element of Mailander's base basket are constructed of "wire frame and wires running transversely or longitudinally." *Id.* ¶19. Similarly, Carr relates to "a third or top washware rack that is made out of wire." Ex-1005 ¶1.

Carr further teaches the standard and well-understood use of three dishwasher racks. Ex-1005 ¶¶2–3, Fig. 1. Carr explains that the lower two racks are frequently used to "support items to be washed such as dishware, glassware, kitchen utensils, pots, pans, and the like." *Id.* ¶2.

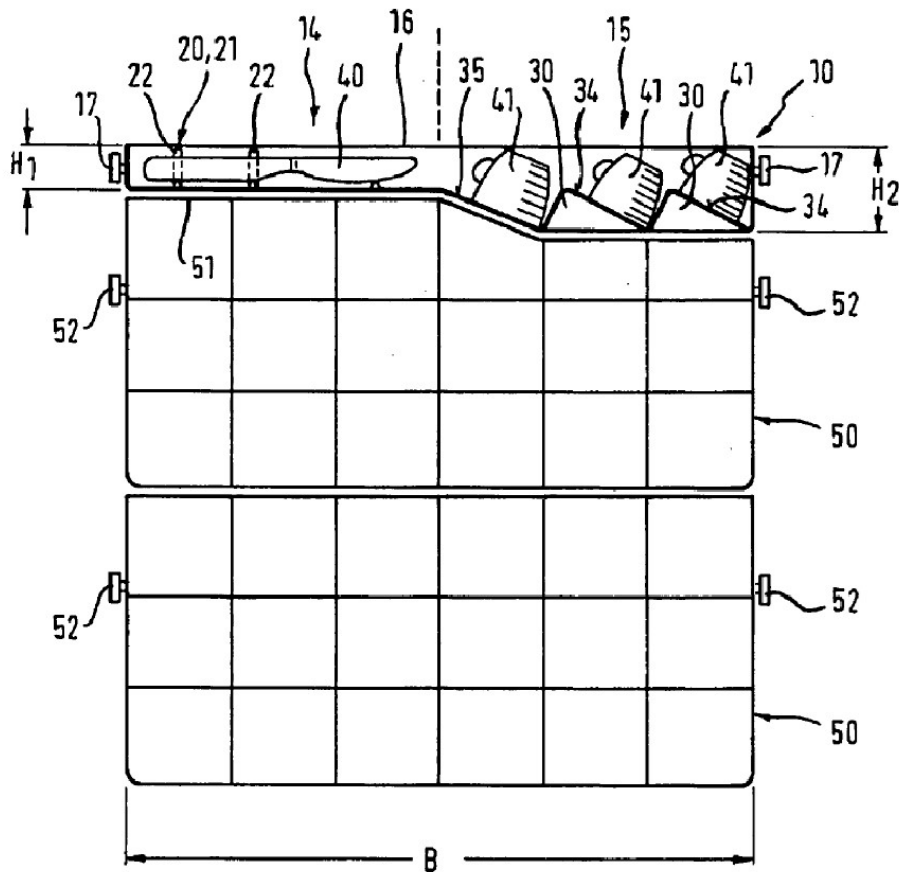
A POSITA would have been motivated to implement the three dishwasher rack arrangement of Carr with the upper dishrack design of Mailander. Mailander recognizes that its invention has "universal usability" with crockery baskets and lower dishware racks. Ex-1006 ¶34. A POSITA would recognize the benefits of using Carr's dishrack arrangement, such as additional capacity for the organization

of dishware. Ex-1002 ¶95. Mailander recognizes that its upper dishrack is beneficial for washing and drying small items, such as “cups, small bowls, shallow glasses or pieces of cutlery.” Ex-1006 ¶11. A POSITA would have further understood that there remains a need to adequately wash and dry larger items and more items concurrently for increased utility, and would be motivated to increase the capacity therefor with the arrangement taught in Carr. By including the two lower dishracks of Carr, the goals of Mailander would be further achieved by allowing for greater capacity while maintaining adequate drying. Ex-1002 ¶95.

A POSITA considering the teachings of Mailander and Carr together would have succeeded in implementing them together, as doing so amounts to a simple combination of well-known techniques in the art. Carr’s lower dishracks and would have been an obvious choice to implement with Mailander’s dishwasher design. Ex-1002 ¶96.

A POSITA implementing Mailander and Carr together would have done so, for example, as depicted in modified Mailander Figure 1, below. Ex-1002 ¶97.

Fig. 1



Here, the additional lower dishware rack is further disposed beneath the first lower dishware rack in order to increase capacity while maintaining adequate washing and drying capability. Ex-1002 ¶98.

2. Independent Claim 1

a. Element 1[pre]: A dishwasher, comprising:

Mailander-Carr teaches the preamble of Claim 1, to the extent it is limiting.

Ex-1002 ¶¶99-100.

Mailander teaches “washing items support for a *dishwasher*. The invention further relates to a *dishwasher* with a suitably designed washing items support.” Ex-1006 ¶1. Mailander explicitly claims a “dishwasher,” which includes “a washing space that can be sealed by a door, the washing space having at least one spraying device and at least one removable crockery basket therein; and a washing items support assembly disposed in the washing space.” *Id.*, Cl. 22.

**b. Element 1[a]: a tub defining a dish treating chamber;
and**

Mailander-Carr teaches element 1[a]. Ex-1002 ¶¶101–102.

Mailander discloses a dishwasher having a washing space that receives dishware during operation. For instance, Mailander teaches a dishwasher that includes “a washing space that can be sealed by a door,” within which crockery basket(s) and “a washing items support assembly” are arranged to hold “cutlery” and other “washing item[s]” during washing. Ex-1006, Cl. 22. A POSITA would have understood that the disclosed “washing space” corresponds to the interior chamber of the dishwasher, within which dishes are treated with washing fluid and drying heat. Ex-1002 ¶102. In conventional dishwasher terminology, this chamber is formed by the dishwasher tub, which defines the access opening for the treating chamber. *Id.* As Mailander explains, its open-faced opening to the treating chamber

is further “sealed by a door,” thus corresponding to the claimed tub in the same manner described by the ’922 patent.

c. Element 1[b]: a first lower dish rack and a second lower dish rack located in the dish treating chamber;

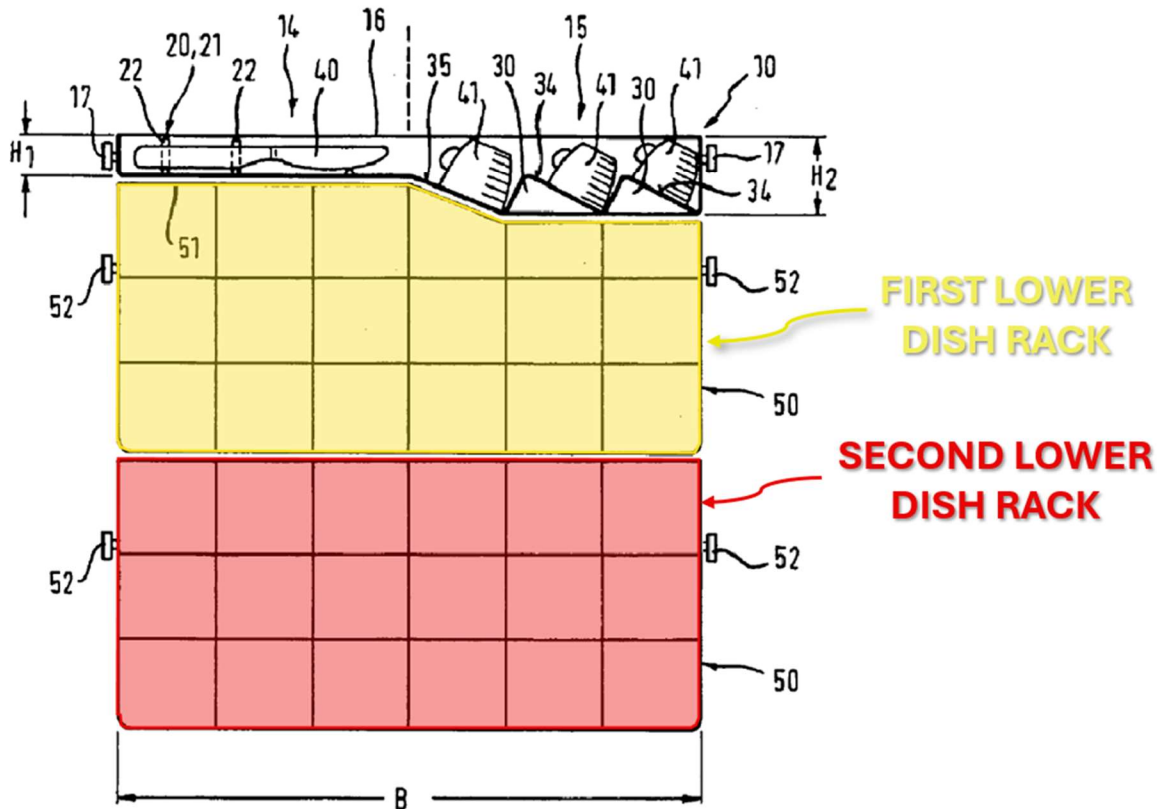
Mailander-Carr teaches element 1[b]. Ex-1002 ¶¶103–106.

Mailander teaches the use of multiple “crockery baskets **[plural]** provided in the dishwasher.” Ex-1006 ¶12. Mailander teaches a washing support 10, which is a cutlery rack, is “arranged above a crockery basket 50 in the washing space of a dishwasher. *Id.* ¶25. The crockery baskets are mounted via fastening means to the tub, which “may for example, be rotatably mounted wheels.” *Id.* ¶30.

Carr, additionally teaches “a dishwashing compartment having . . . **a bottom washware rack** configured for movement out of and into the dishwashing compartment [and] **a middle washware rack** configured for movement out of and into the dishwashing compartment. Ex-1005 ¶16.

The Mailander-Carr combination, illustrated below in modified Figure 1, would have been implemented with a first lower dish rack (yellow) and a second lower dishrack (red) within the dish treating chamber, both below Mailander’s cutlery rack, for the reasons described above in XII.A.1. Ex-1002 ¶106.

Fig. 1



- d. **Element 1[c(i)]: an upper dish rack located above the first lower dish rack and the second lower dish rack in the dish treating chamber,**

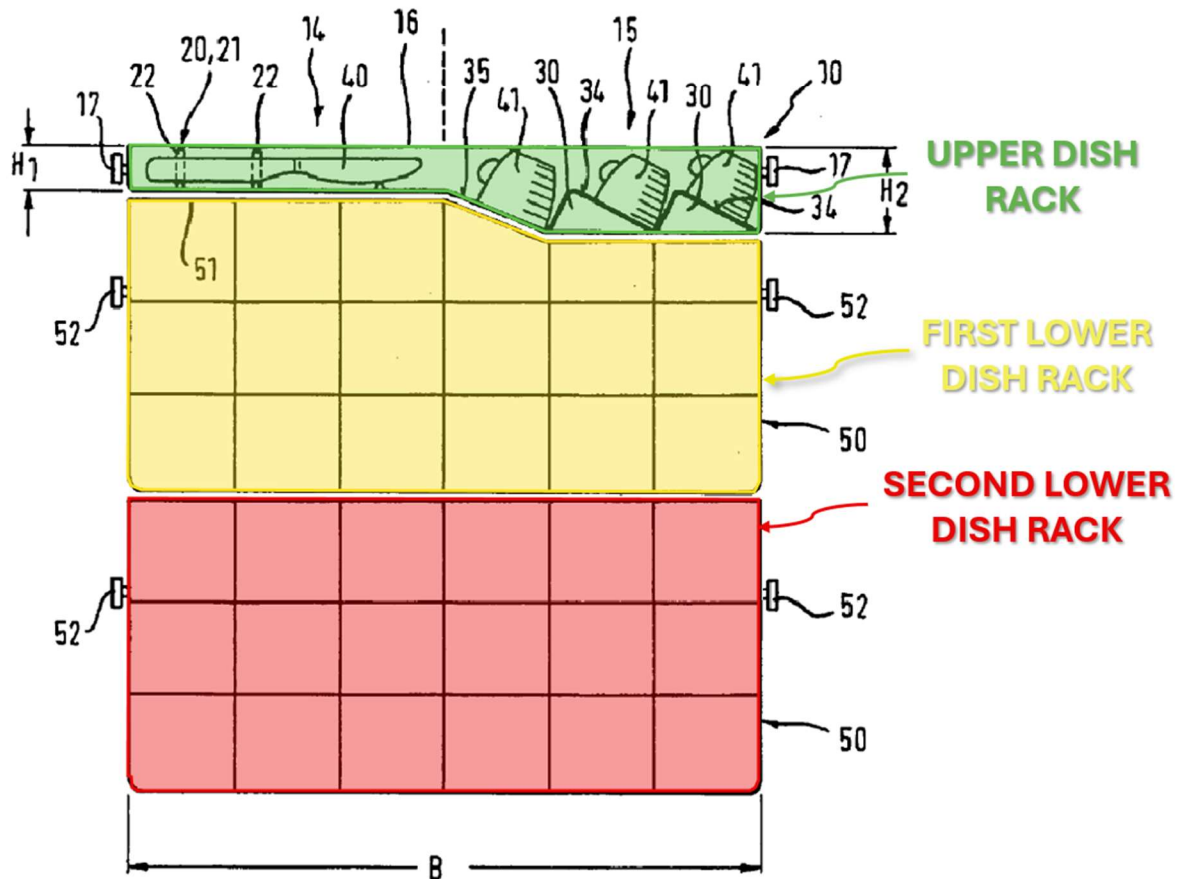
Mailander-Carr teaches element 1[c(i)]. Ex-1002 ¶¶107–109.

Mailander teaches a washing items support 10, which is a cutlery rack, that is “arranged above a crockery basket 50 in the washing space of a dishwasher.” Ex-1006 ¶25. The washing items support 10, which is an upper dish rack, “may in principle [] be used for depositing large area, flat bottom washing items, e.g. cups, small bowls, glasses and the like.” *Id.* ¶2. Mailander explains the “cutlery basket is

arranged so that it can be pulled out of the washing space.” *Id.* ¶5. “Washing items support 10 is preferably arranged above the upper cutlery basket in the dishwasher.” *Id.* ¶34.

The washing items support 10 (green), of Mailander, is further disposed above first (yellow) and second (red) lower dishracks, as is show below. Ex-1002 ¶109.

Fig. 1

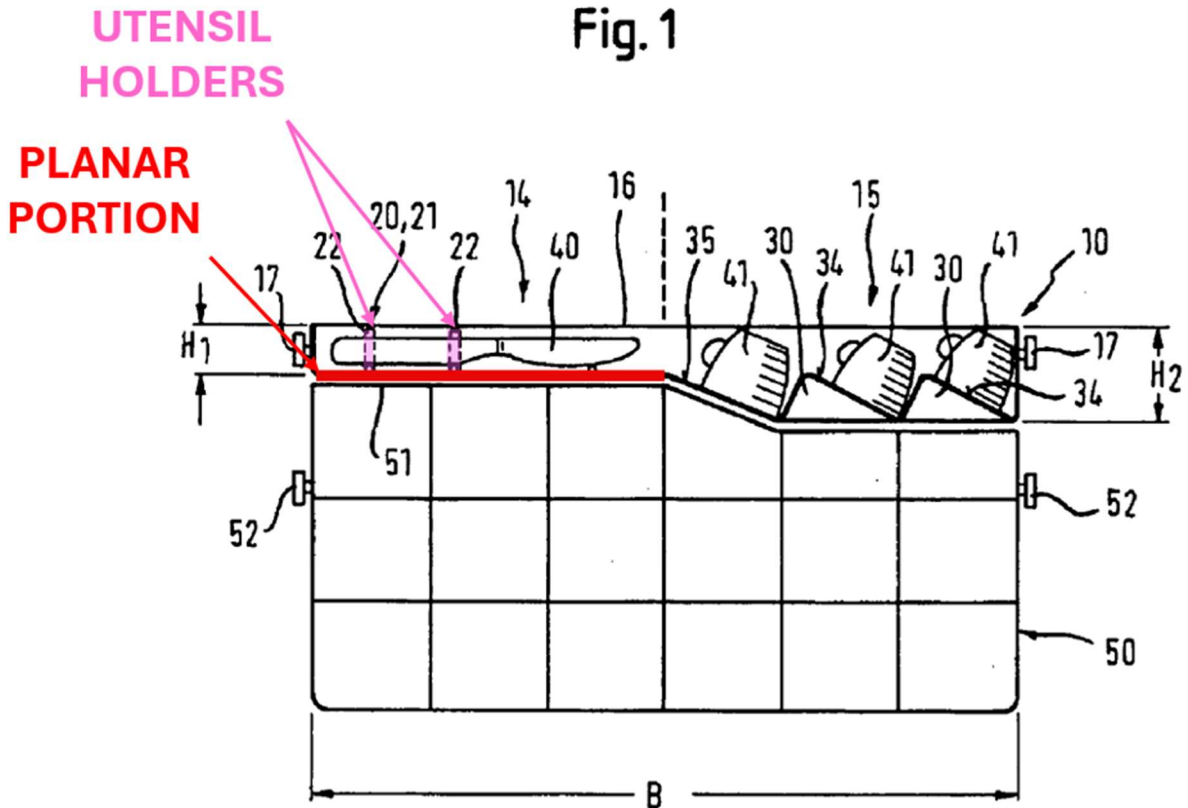


e. Element 1[c(ii)]: the upper dish rack defining a planar portion and a depression,

Mailander-Carr teaches element 1[c(ii)]. Ex-1002 ¶¶110–115.

Mailander teaches that the bottom wall of the washing items support 10 has a first portion defined by a first substantially horizontal planar portion extending across a first portion of the bottom wall at the first end of the dish rack. Washing items support 10 includes first container region 14 to arrange a cutlery insert 20 on it. *Id.* ¶26. As shown in Figure 1 below, the first container region 14 (red) is a planar portion that permits the user to “arrange piece of cutlery 40 . . . , lying one next to the other, . . . throughout the depth of washing items support 10.” *Id.*

Fig. 1

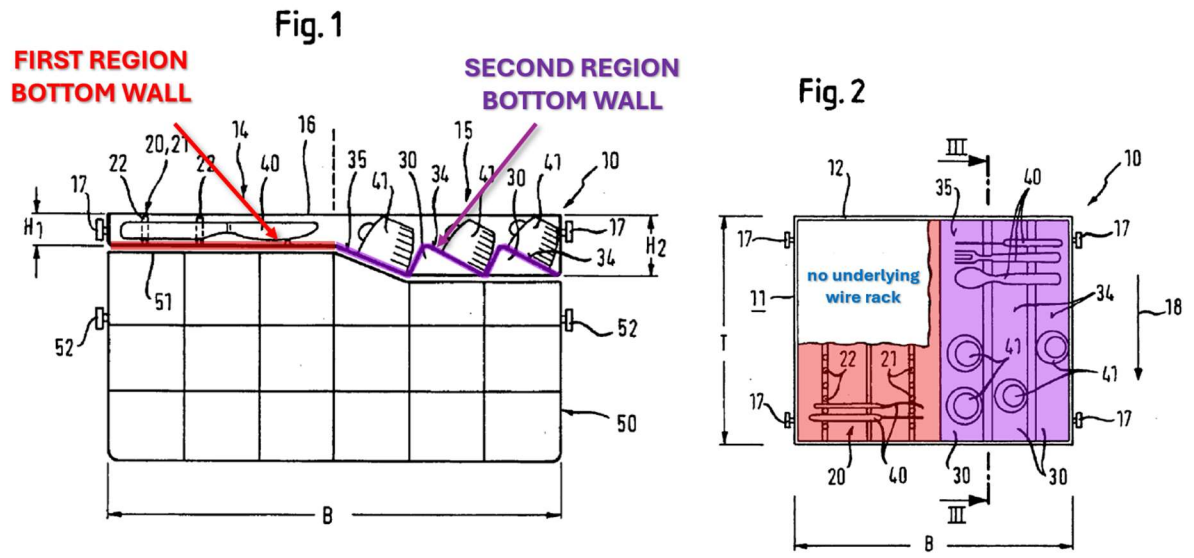


Mailander further teaches that the bottom wall of washing items support 10 has a second portion and defines a depression. Washing items support 10 includes second container region 15, which is “designed with washing items holders 30, each of which has a support surface 34 inclined to the horizontal,” so that pieces of crockery can be placed at an angle for an increased drying effect. Ex-1006 ¶27. A POSITA would have viewed the bottom wall of the dish rack as corresponding to the surface on which items may be place for washing. Ex-1002 ¶112. Thus, in embodiments in which Mailander’s washing items holders 30 are supported by an

underlying wire rack⁴ (Ex-1006 ¶¶28, 32), a POSITA would have viewed the inclined surfaces of those washing items holders 30 as defining part of the bottom wall of the rack. Ex-1002 ¶112.

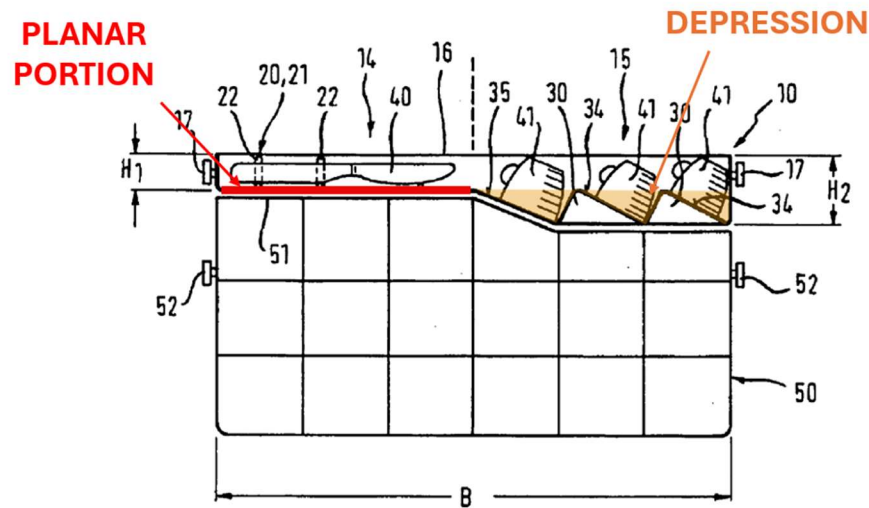
Moreover, Mailander teaches that washing items holders 30 and support surface 34 may be inserts, or “*may be formed integrally together.*” *Id.* ¶27. That is to say that, under Petitioner’s view of the correct construction set out in Section X, above, Mailander’s planar portion is formed in such a way that it includes multiple utensil holders “integrally formed together.” Mailander specifically teaches embodiments in which washing item holders 30 form part of the bottom wall itself, explaining that “[i]n a further embodiment, not shown, washing items support 10 may consist of only one material, e.g. a plastic, i.e. without base basket 11.” *Id.* ¶28. A POSITA would have understood that, according to this teaching, the inclined surfaces of each of Mailander’s washing items support 30 correspond to the bottom wall of Mailander’s rack, given that there would be no underlying structure below those surfaces, as illustrated in modified Figure 1, below. This is further depicted in the below modified top-down view Figure 2, below. The planar portion of the rack does not rest on any underlying structure, and all of the utensil holders (21 and 22) are thus included directly in the bottom wall forming the planar portion.

⁴ As explained above in Section XI, this mere support of a utensil insert is sufficient to teach this claim element under Patent Owner’s view of the term.



Mailander's washing items holder and support surface 34 also define a depression. As explained above, holder 30 and surface 34 provide an angle for each crockery item can be placed at an angle. The pieces of crockery include "smaller washing items, e.g. cups, shallow glasses, dessert bowls, or alternatively cutlery in the transverse and longitudinal directions, long knives, cooking spoons etc." Ex-1006 ¶28. As shown in Figure 1 below, second container region 15 defines a depression (orange). Ex-1002 ¶114.

Fig. 1

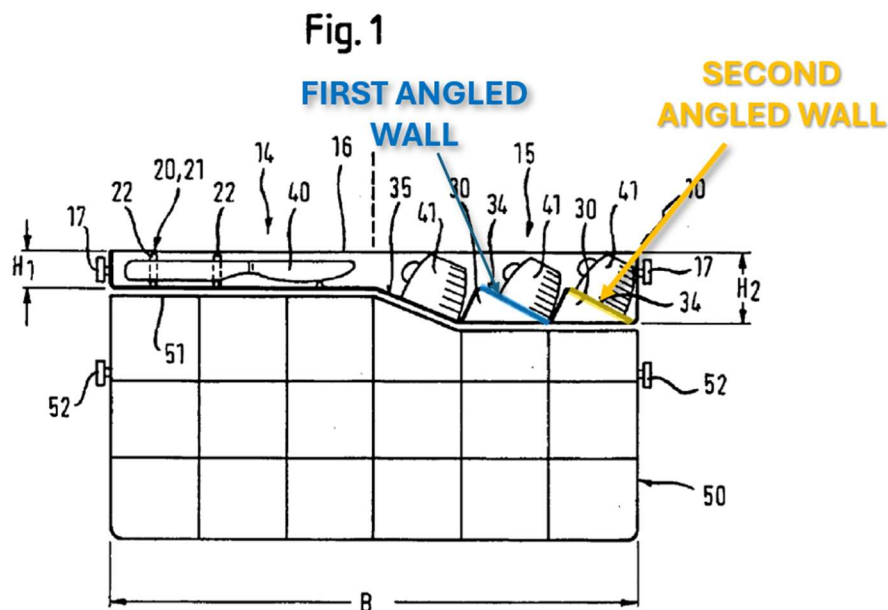


In an expert declaration submitted in opposition to the determination of invalidity, Patent Owner's expert stated Mailander does not disclose a depression as "the depression is not formed by two angled walls" and that support surfaces are "placed along the bottom wall." Ex-1022 ¶¶130–131. This is incorrect. Mailander discloses embodiments in which the support surfaces are integrally formed with the bottom wall of Mailander. *See* Section XI.A. A POSITA could have chosen to implement the integrally formed support surfaces as wire structures. Ex-1002 ¶115. As is shown for this claim element and claim element 1[c(iii)], the depression of Mailander-Carr does include the first and second angled wall. *Id.*

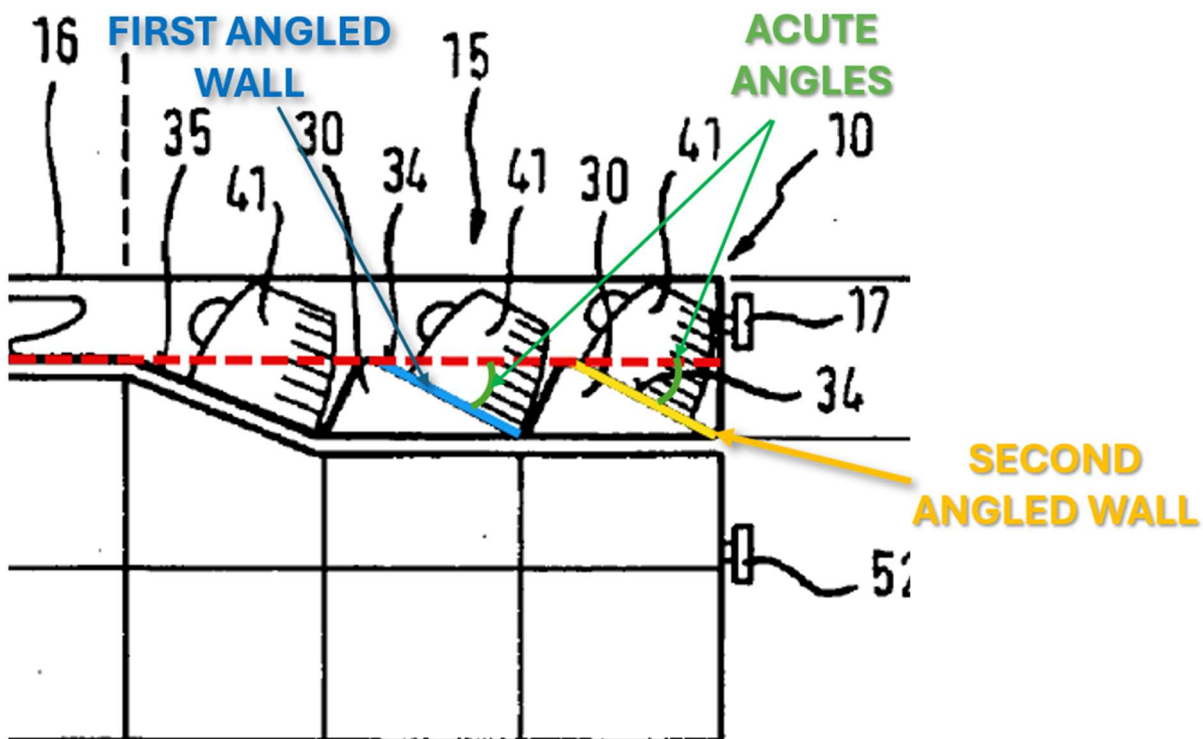
- f. **Element 1[c(iii)]: wherein the depression includes a first angled wall and a second angled wall that each extend at an acute angle relative to the planar portion, and**

Mailander-Carr teaches element 1[c(iii)]. Ex-1002 ¶¶116–118.

Mailander discloses “second container region 15 is provided, for example, with two washing items holders 30, each of which has a support surface 34 inclined to the horizontal. The pieces of crockery are placed in an oblique position on support surfaces 34.” Ex-1006 ¶27. Said support surfaces 34 serve as the recited angled walls, which extend at an acute angle relative to the planar portion. In Figure 1, annotated below, a first support surface 34 (blue) is the first recited angled wall and a second support surface 34 (yellow) is the second recited angled wall. Ex-1002 ¶117.



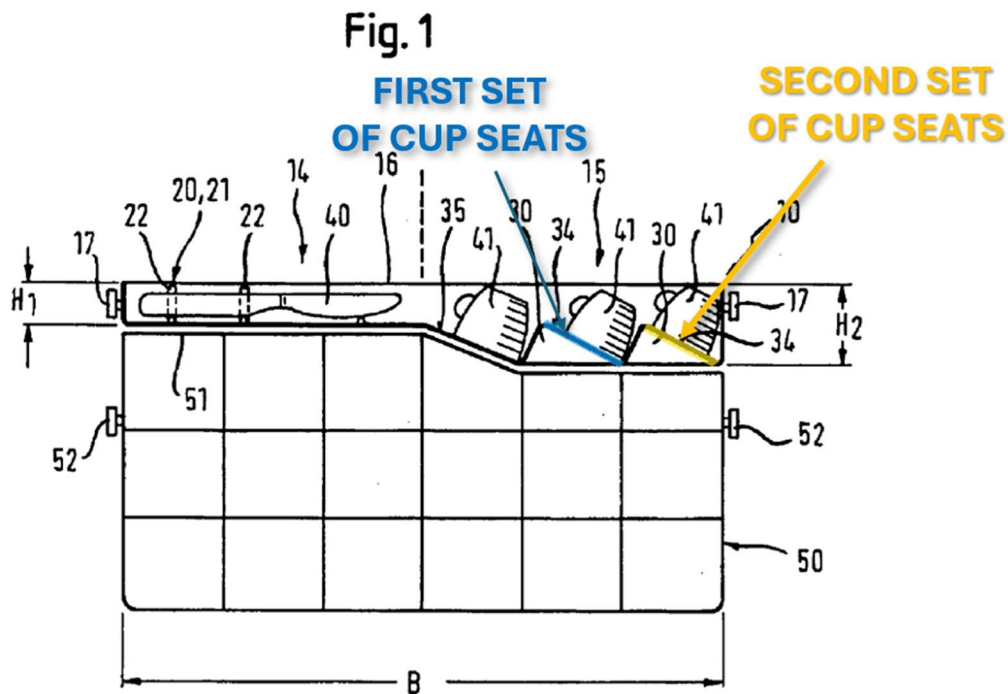
Mailander further explains that the “pieces of crockery” placed on the first and second angled walls “are placed in an oblique position on support surfaces 34, as shown in the figure, so that the drying process is facilitated by the runoff of the water into hollows in the pieces of crockery.” Ex-1006 ¶27. As is shown below, in annotated Figure 1, a POSITA would understand that the support surfaces 34 (blue and yellow) extend at an acute angle in reference to the extension of the planar portion (red, dashed). Ex-1002 ¶118.



- g. Element 1[d]: wherein the first angled wall defines a first set of cup seats, and wherein the second angled wall defines a second set of cup seats;**

Mailander-Carr teaches element 1[d]. Ex-1002 ¶¶119–121.

Mailander teaches washing items support 10 includes second container region 15, which is designed “with two washing items holders 30, each of which has a support surface 34 inclined to the horizontal,” so that pieces of crockery can be placed at an angle for an increased drying effect. Ex-1006 ¶127. Pieces of crockery include “smaller washing items, e.g. *cups*, shallow glasses, [or] dessert bowls.” *Id.* As shown in Figure 1 below, the cups rest on the first and second support surfaces 34, which therefore serve as a first set of cup seats (blue) and second set of cup seats (yellow). Ex-1002 ¶120.



In an expert declaration submitted in opposition to the determination of invalidity, Patent Owner’s expert stated Mailander does not disclose angled walls

forming a set of cup seats as “[t]he ’922 Patent’s innovative cup seats are not only integrated into the structure of the rack but also oriented to cradle larger cups along their cylindrical side—as opposed to on their top.” Ex-1022 ¶132. These alleged restrictions of cradling “larger cups along their cylindrical side,” however, do not appear in the language of the claims. Additionally, there is no support in the file history to support this narrow requirement. *See generally* Ex-1004. Additionally, there is no requirement in the claims that specifies the orientation in which a cup may be cradled, nor is there a requirement for the specific size of cups. Ex-1002 ¶121.

h. Element 1[e]: wherein the planar portion includes a plurality of utensil holders configured to horizontally support utensils; and

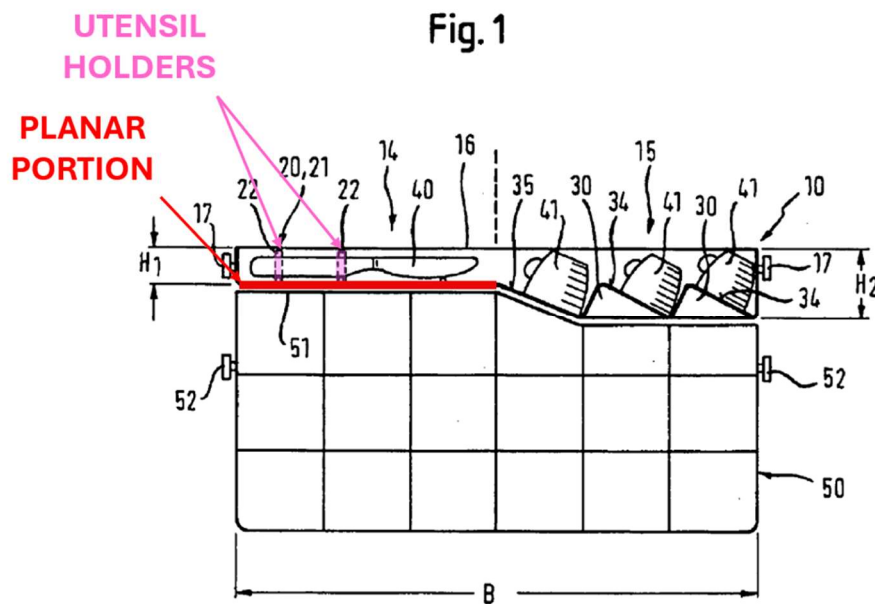
Mailander-Carr teaches element 1[e]. Ex-1002 ¶¶122–126.

Mailander teaches that the first portion includes a first set of utensil holders for supporting one or more utensils. Specifically, first container region 14 includes a first set of utensil holders, in the form of cutlery insert 20. Ex-1006 ¶26. As explained, for Element 1[c][ii], Mailander teaches embodiments in which cutlery insert 20 forms part of the bottom wall itself.

Mailander specifically explains that the “first contain region 14 is arranged [as] a cutlery insert 20 which has, for example, first cutlery containers 21 and cutlery holders 22.” Ex-1006 ¶26. Mailander also explains that the “cutlery insert may be

manufactured from plastic.” *Id.* ¶27. A POSITA appreciating the teachings of Mailander would understand the cutlery insert 20, which includes cutlery holders 22, to be one integral component. Ex-1002 ¶124. This component could be a singular molded piece of plastic, as further taught by Mailander. *Id.*

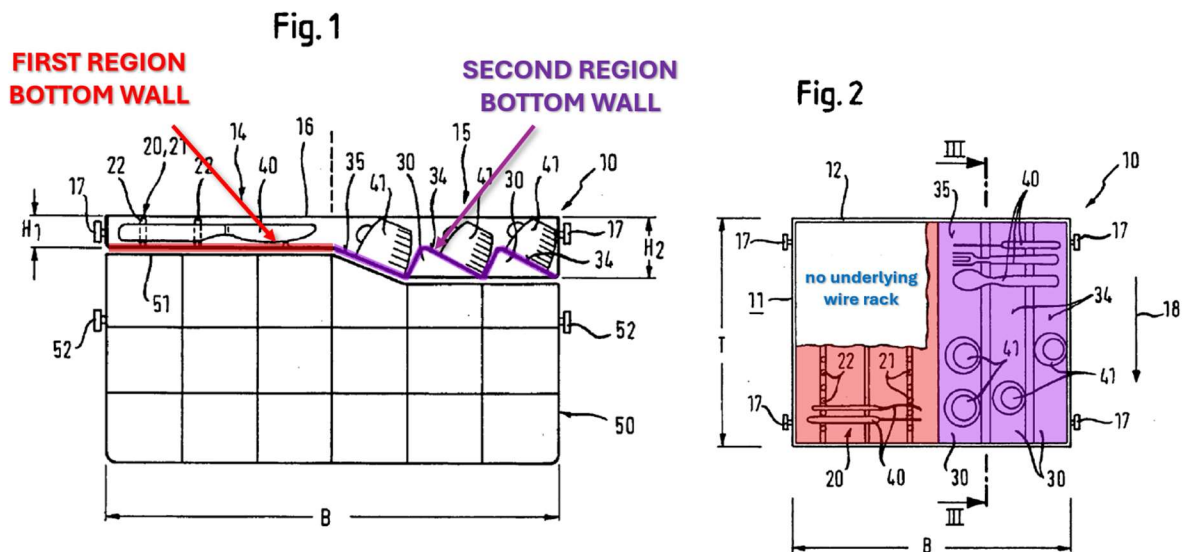
As shown in Figure 1 below, the utensil holder (pink) supports one or more utensils so that the utensils can be arranged by “lying one next to the other, . . . throughout the depth of washing items support 10.” *Id.* ¶26.



Indeed, cutlery insert 20 “enables pieces of cutlery 40 to be filled sorted, is arranged in first container region 14, so that can be loaded with a sufficient quantity of washing fluid without washing shadows.” Ex-1006 ¶31. Mailander also teaches that

the cutlery insert and the washing items holders inserts may be separately releasable from the base basket. *Id.* ¶28.

Therefore, applying Petitioner’s view of the correct construction set forth in Section X, above, Mailander’s planar portion is formed in such a way that it includes multiple utensil holders “integrally formed together.” The planar portion of the rack does not rest on any underlying structure, and all of the utensil holders (21 and 22) are thus included directly in the bottom wall forming the planar portion.

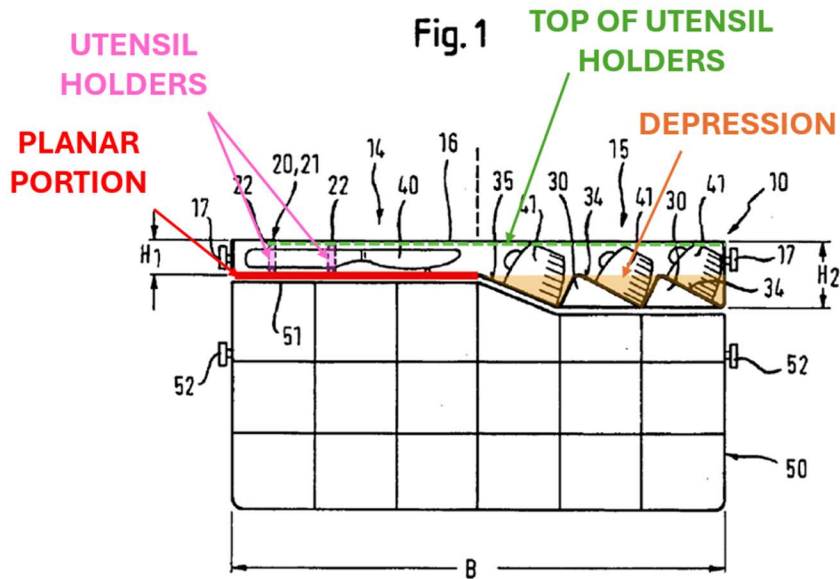


- i. **Element 1[f]: wherein the depression extends entirely below a top of the utensil holder in the planar portion.**

Mailander-Carr teaches element 1[f]. Ex-1002 ¶¶127–129.

Mailander discloses that its depression is entirely below the tops of the utensil holders. As can be appreciated from annotated Figure 1 of Mailander below, the

second container region 15 forms the depression (orange) which is fully below the top of utensil holders 21 and 22 (pink). Ex-1002 ¶128.



During prosecution, the Examiner issued a second notice of allowance after the Patent Owner disclosed additional art, including Mailander, in a post-allowance IDS. See Ex-1004, 1206. In this subsequent Notice of Allowance, the Examiner made a cursory statement that Mailander did not teach this limitation as “the tips of the peak of support surface 34 between the cups in Figure 1 *rise to the height of the planar portion.*” *Id.*, 1288. However, this is not actually what the claim recites. The claim recites that the depression must be below the “*top of the utensil holder* in the planar portion”. As shown in Figure 1, it plainly is below the top of items 21 and 22, which correspond to the claimed utensil holders. Ex-1002 ¶129.

3. Dependent Claims 2–3

- a. Claim 2: The dishwasher of claim 1, wherein the plurality of utensil holders is disposed in a utensil caddy operably coupled to the planar portion.**

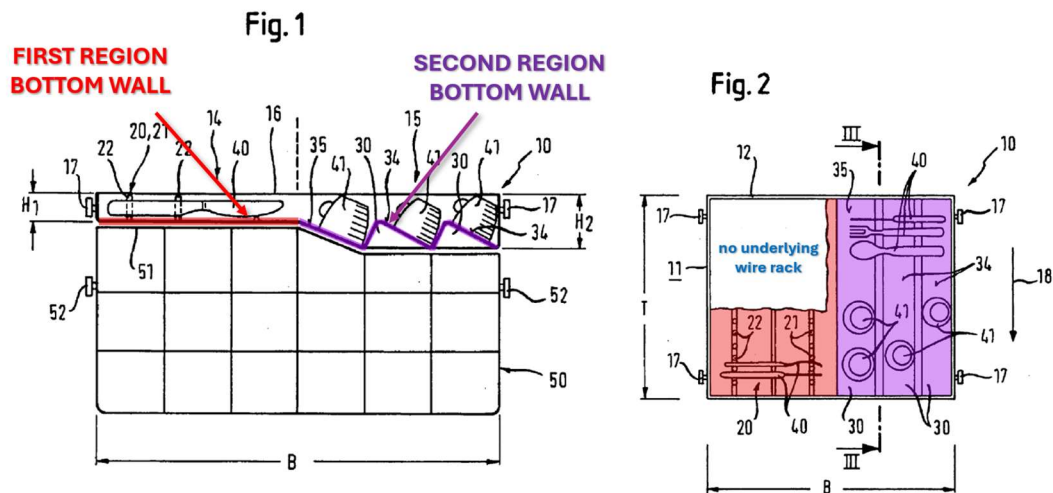
Mailander teaches Claim 2. Ex-1002 ¶¶130–131.

As explained previously, cutlery holders 22 teach the recited utensil holders. *See* Section XII.A.2.h (claim element 1[e]). Mailander teaches that “[t]he washing items holders and cutlery insert . . . may be formed integrally together or they may be provided as separate inserts.” Ex-1006 ¶27. In respect to element 1[e], an embodiment of Mailander teaches the cutlery holders 22 are “formed integrally together.” *Id.* This “integral” embodiment satisfies the “operably coupled” functional requirements of dependent Claim 2. Specifically, the utensil holders, as a part of the utensil insert, are coupled together as a final product because they are joined together. Additionally, they are used together during the operation of the dish treating cycle to horizontally constrain the utensils during washing. They are thus “operably coupled” because they are joined together during the operation of the dishwasher treating cycle, and work together to hold utensils in place while being washed. Ex-1002 ¶131.

- b. Claim 3: The dishwasher of claim 2, wherein the utensil caddy includes a basket that is removably coupled with a bottom wall of the planar portion.**

Mailander teaches Claim 3. Ex-1002 ¶¶132–134.

As explained above, Mailander discloses the utensil holders can be disposed in a utensil caddy operably coupled to the planar portion. *See* Section XII.A.3.a (Cl. 2). Mailander further teaches the caddy includes a basket that is removably coupled. Mailander teaches that “[t]he washing items holders and cutlery insert . . . may be formed integrally together *or they may be provided as separate inserts.*” Ex-1006 ¶27. The cutlery insert may be fully removable, along with the bottom wall of the washing items support 10. *Id.* ¶28; Ex-1002 ¶133. The first region, including the utensil holders integrally formed with the bottom wall, may be removed from the base basket 11 separately from the second region. *Id.* The integral utensil holders are thus “removably coupled” since they are also removed when the cutlery holding basket is removed.



Further, fully removable cutlery inserts that are merely supported at the peripheral edges were well known in the art. Ex-1002 ¶134. Such a design would

have been within the knowledge of a POSITA and thus would be obvious in view of Mailander-Carr. *Id.*

B. Ground 2: Claims 1–4 are obvious over Carr

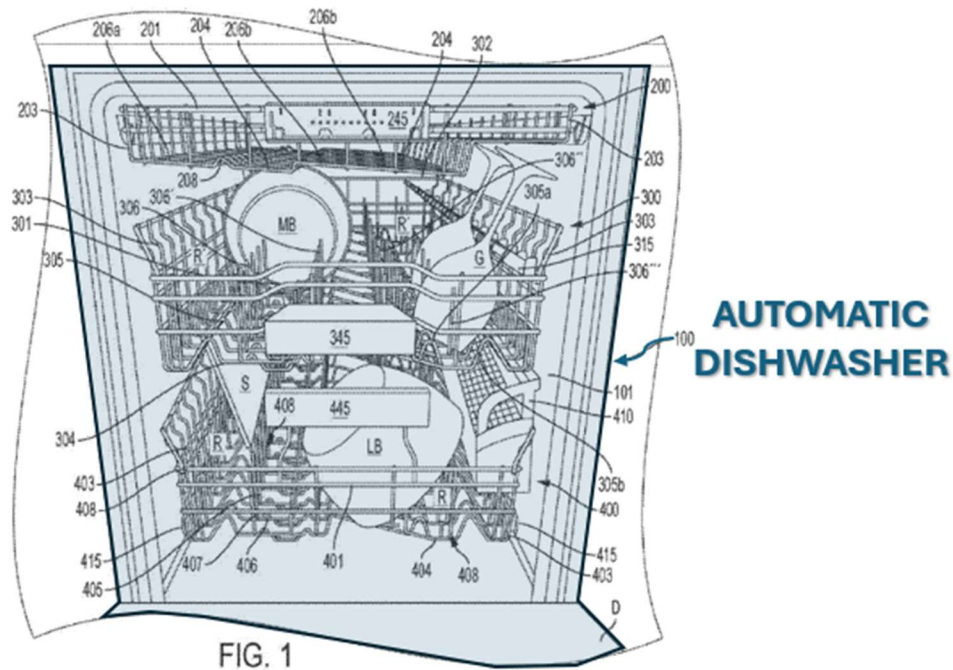
As noted in the claim construction Section X, above, Carr renders obvious the challenged claims under the construction advanced by Patent Owner in the underlying litigation. To be clear, Carr does not teach the challenged claims (specifically, claim element 1[e]) under Petitioner’s view of the correct scope of these claims. Petitioner’s challenge applying the correct scope of the claims is applied in Grounds 1 and 3.

1. Independent Claim 1

a. Element 1[pre]: A dishwasher, comprising:

Carr teaches the preamble of Claim 1, to the extent that it is limiting. Ex-1002 ¶¶136–137.

Carr teaches a dishwasher appliance 100 (blue, below). Ex-1005 ¶37. Carr teaches that “as is known in the art, the dishwasher appliance 100 includes a tub, a pump and filter assembly, a heating element, one or more wash arms, and a drain hose.” *Id.*



**b. Element 1[a]: a tub defining a dish treating chamber;
and**

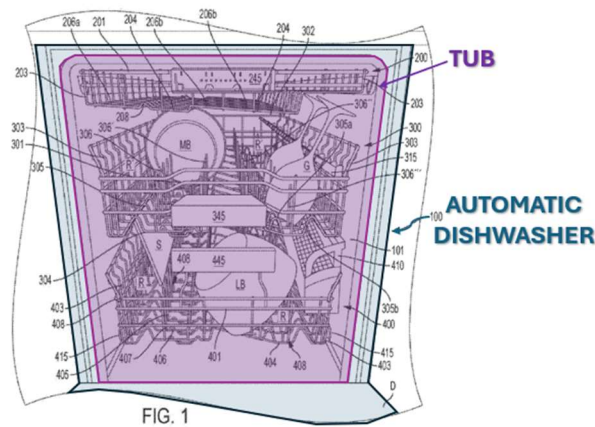
Carr teaches element 1[a]. Ex-1002 ¶¶138–140.

Carr teaches a tub defining a dish treating chamber. Specifically, Carr teaches that “as is known in the art, the dishwasher appliance 100 includes **a tub**, a pump and filter assembly, a heating element, one or more wash arms, and a drain hose.”

Ex-1005 ¶37.⁵

⁵ Carr incorporates by reference U.S. Patent No. 9,445,703 to Hiedel et al. for the detailed description of the “suitable structure and operation of the dishwasher appliance.” Ex-1005 ¶37. Heidel teaches that the dishwasher “further comprises a wash container 5, which can be closed off by a door 6, so that a closed wash chamber 7 results for washing items to be washed.” Ex-1009, 6:21–23.

Carr provides a “dishwasher, comprising: a **dishwashing compartment** having a loading opening.” Ex-1005 ¶10; *see also id.* ¶13. As shown below in Figure 1 below, Carr’s dishwashing appliance (blue) has “with the door open so as to reveal the **dishwashing compartment**,” colored in purple. *Id.* ¶28; Ex-1002 ¶140. Carr’s dishwashing compartment corresponds to the recited “dish treating chamber” because it is the internal portion of the dishwasher where the dishes are washed.

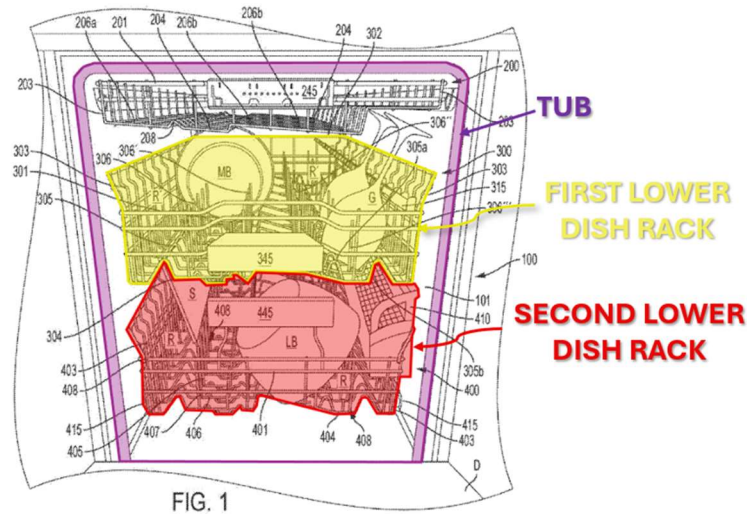


c. **Element 1[b]: a first lower dish rack and a second lower dish rack located in the dish treating chamber;**

Carr teaches element 1[b]. Ex-1002 ¶¶141–142.

Carr teaches a “a first lower dish rack and a second lower dish rack located in the dish treating chamber.” Carr discloses “a dishwashing compartment having . . . a bottom washware rack configured for movement out of and into the dishwashing compartment [and] a middle washware rack configured for movement out of and into the dishwashing compartment. *Id.* ¶16. As shown below in Figure 1, Carr’s

middle washware rack (yellow) and bottom washware rack (red) are disposed within the tub (purple), and correspond to the recited “first” and “second” lower dish racks.

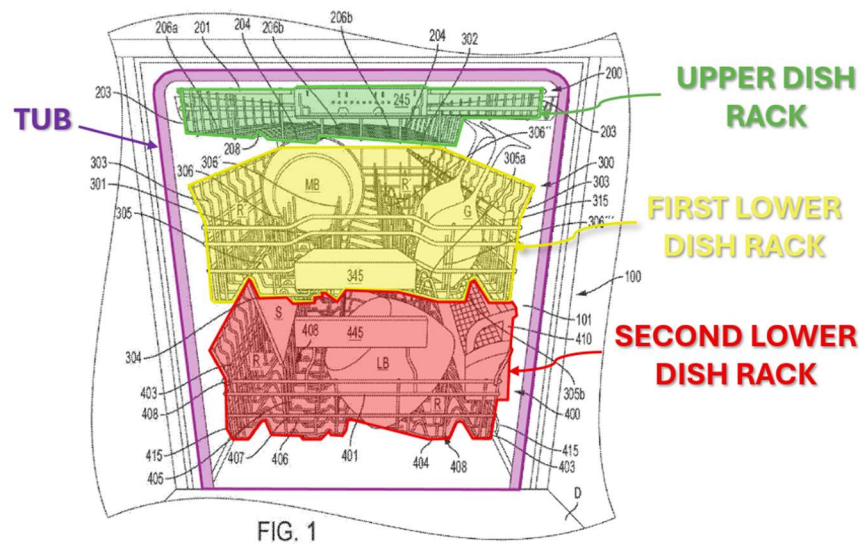


- d. Element 1[c(i)]: an upper dish rack located above the first lower dish rack and the second lower dish rack in the dish treating chamber,**

Carr teaches element 1[c(i)]. Ex-1002 ¶¶143–144.

Carr teaches an upper dish rack located above the first lower dish rack and the second lower dish rack in the dish treating chamber. Specifically, Carr discloses “a dishwashing compartment 101 . . . including a third, top washware rack 200 that is positioned immediately above a second or middle washware 300. The middle washware rack 300 is in turn positioned above a first or bottom washware rack 400.” Ex-1005 ¶36. As shown below in Figure 1, the top washware rack (green) is above

the bottom (red) and middle (yellow) washware racks within the dish treating chamber (purple).



e. Element 1[c(ii)]: the upper dish rack defining a planar portion and a depression,

Carr teaches element 1[c(ii)]. Ex-1002 ¶¶145–146.

Carr teaches that the upper dish rack includes a planar portion and a depression. Specifically, the bottom portion 204 of washware rack 200 “includes one or more angled portions 206 that is/are configured to hold bowls at a slight tilt with respect to horizontal in order to drain off water from the bowls.” Ex-1005 ¶43. Carr teaches that angled portion 206 is “tilted at an angle in a range of 3 to 5 degree with respect to horizontal, and preferably is tilted at an angle of approximately 4 degrees with respect to horizontal.” *Id.* Figure 4, annotated below, shows that angled portions 206 forming the depression (orange) with respect to the planar portion (horizontal

notch portion 220, red). Ex-1002 ¶146. Carr’s horizontal notch portion 220 corresponds to the recited “planar portion, and the area above Carr’s inclined portions 206a and 206b corresponds to the recited depression.

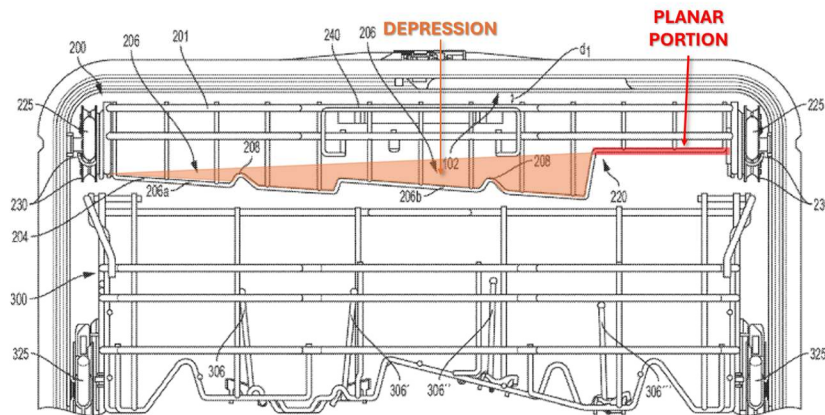


FIG. 4

- f. **Element 1[c(iii)]: wherein the depression includes a first angled wall and a second angled wall that each extend at an acute angle relative to the planar portion, and**

Carr teaches element 1[c(iii)]. Ex-1002 ¶¶147–149.

Carr teaches that the depression includes a first and second angled wall that each extend at an acute angle relative to the planar portion. Specifically, each of Carr’s angled portion(s) 206a and 206b are “tilted at an angle in a range of 3 to 5 degrees with respect to horizontal, and preferably [are] tilted at an angle of approximately 4 degrees with respect to horizontal.” Ex-1005 ¶43. This angle range of 3 to 5 degrees for Carr’s the angled portions 206a and 206b represents an acute

angle for the recited “first angled wall” and “second angled wall,” respectively, relative the planar portion 220, which is horizontal. Ex-1002 ¶148.

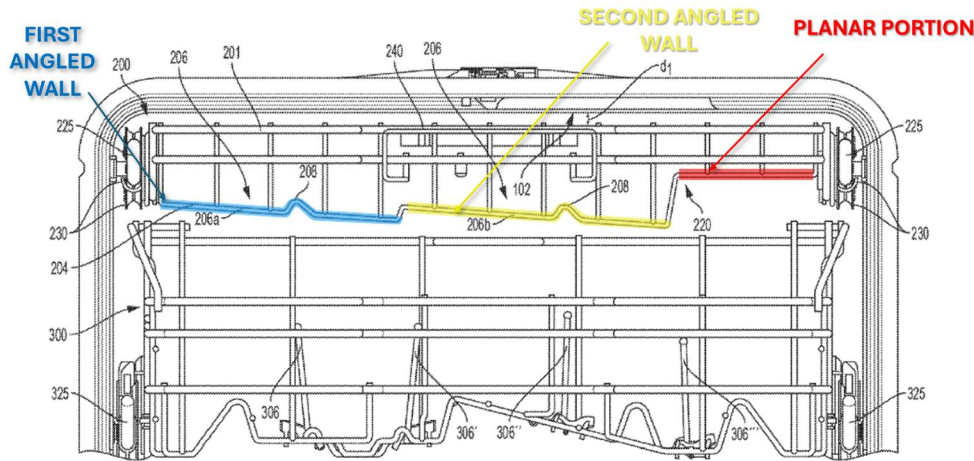


FIG. 4

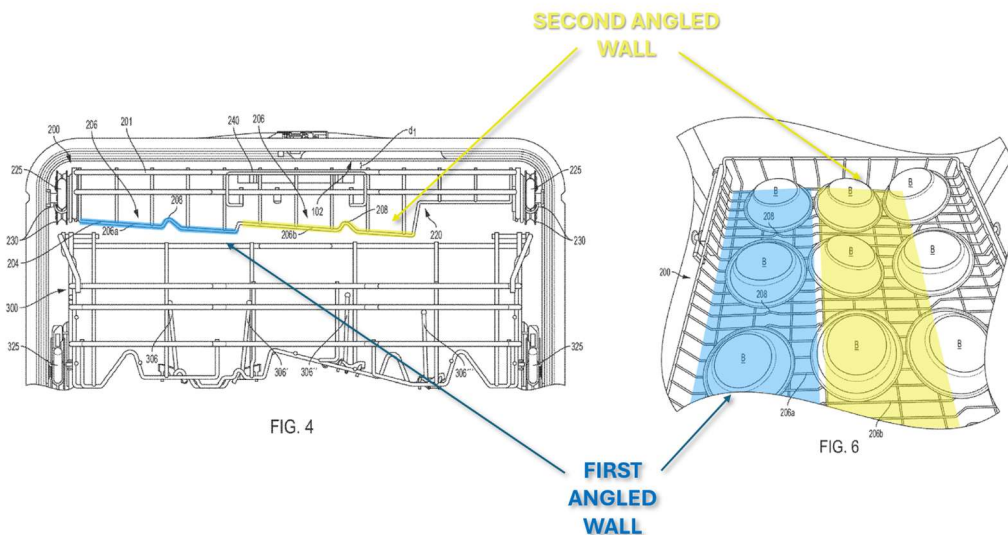
In an expert declaration submitted in opposition to the determination of invalidity, Patent Owner’s expert stated Carr does not disclose two distinct angled walls as they “are simply segments of a single bottom wall.” Ex-1022 ¶106.

However, Carr clearly discloses that its illustrated embodiment has “*two* angled portions 206a and 206b.” Ex-1005 ¶43, Fig. 1. These two distinct angled portions are a deliberate design choice, which allows for various arrangements of dishes to be loaded into the upper dish rack. Ex-1002 ¶149. The two angled portions 206a and 206b disclose the required angled walls recited in claim element 1[c(iii)].

- g. Element 1[d]: wherein the first angled wall defines a first set of cup seats, and wherein the second angled wall defines a second set of cup seats;**

Carr teaches element 1[d]. Ex-1002 ¶¶150–155.

Carr teaches that the first and second angled walls each define respective first and second cup seats, for supporting a set of cups. As previously explained in Section XII.A.1.e (element 1[c(ii)]), each angled portion is “configured to hold bowls” at a slight tilt in order to drain water off from the bowls. Ex-1005 ¶¶43–44. In Figure 6, Carr shows how the angled portion(s) provide a seat for supporting one or more bowls. *Id.* ¶¶33, 50.⁶



While Carr’s figures depict an example using bowls, Carr states that the “top washware rack 200 is configured to hold cutlery and washware..., *but not limited to, small dishes, bowls, cups, as well as cooking utensils.*” Ex-1005 ¶41. As shown below in Figure 4, the depression (orange) defines a cup seat for cups to fit on the Carr’s dishrack, unlike the planar portion (notch section 220, red), which has a

⁶ The rack shown in Figure 6 is the same as the rack shown in Figures 3 and 4, but utensil holder 235 accommodating cutlery appears to have been removed in Figure 6 to make room for additional bowls.

shorter height for utensils. Carr thus teaches, as shown in Figure 4 in orange, space to provide seats for one or more cups in the depression. Ex-1002 ¶152.

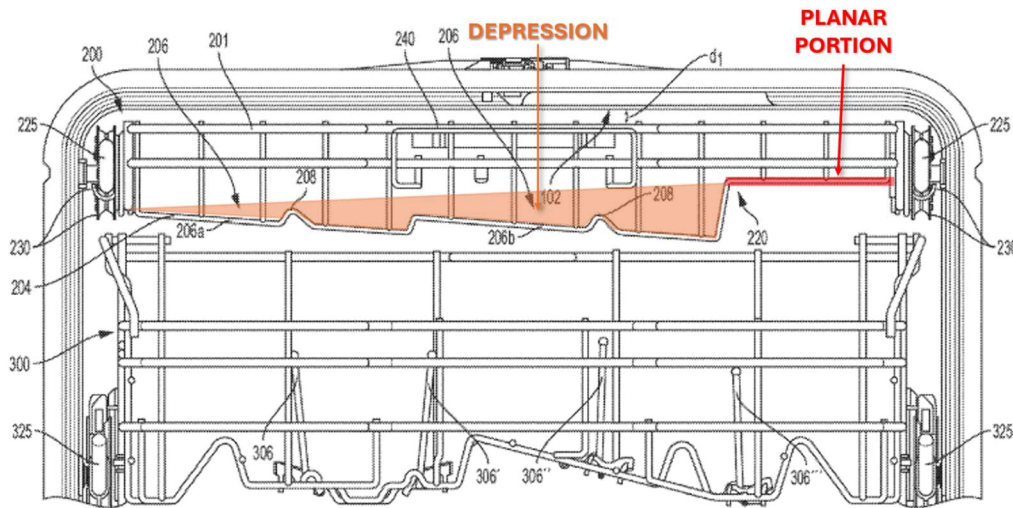


FIG. 4

Indeed, Carr explains that the depression formed by angled portion(s) 206 may “greatly enhance[] the versatility of the third, top washware rack 200 over conventional dishwasher configurations which are limited to holding only cutlery and other very small items due to limited spacing,” by providing a “greater spacing between an upper surface of a deepest portion [] of the third, top washware rack and an inner surface of a top wall 102 of the dishwashing compartment.” Ex-1005 ¶46.⁷ Carr further teaches that angled portions 206a and 206b may include “stopper ribs 208” “to keep bowls” or cups from sliding from front to back on the third rack. *Id.*

⁷ This disclosure in Carr is made in the context of discussing Figure 6, which corresponds to the same embodiment illustrated in Figures 3 and 4, annotated to label the deepest portion of the third, washware rack as “deepest portion 225.” Ex-1005 ¶46.

¶44.

In the related litigation Patent Owner has argued that “[t]he cup seat disclosed in Claim 1 of the ’922 Patent is capable of securely supporting glasses and cups of ordinary dimension along their cylindrical side.” Tanbour ’922 Reply Decl. ¶¶107–108. But there is nothing in the claim that requires these limitations. Specifically, the claim recites only a “cup seat.” It says nothing about the dimensions of any cup or which side of the cup is positioned on the rack. Moreover, the specification specifically teaches washing small cups, such as “measuring cups.” Ex-1001, 7:43–45. The ’922 specification further explains that shallow objects, such as bowls, may be placed in the cup seats: “It will be further appreciated that although illustrated as cups and mugs either the first or the second set of *cup seats 114, 115 can receive other objects* to be treated within the treating chamber 16 such as, but *not limited to, baby bottles, plates, bowls*, pans, or the like.” Ex-1001, 7:47–51.

Here, Carr, specifically teaches that the depression formed by angled portions 206a and 206b “greatly enhances the versatility” of the rack, as compared to “conventional dishwasher configurations which are limited to holding only cutlery and other very small items due to limited spacing” (Ex-1005 ¶46), thus enabling the rack to accommodate “washware which is larger than cutlery, such as . . . *cups*” to be placed in the “second container region,” (Ex-1005 ¶41), directly teaching the claimed cup seats. Ex-1005 ¶16. Regardless, the same second region also

accommodates “bowls,” just like the “cup seats 114 and 115” as taught in the ’922 specification. Ex-1001, 7:47–51.

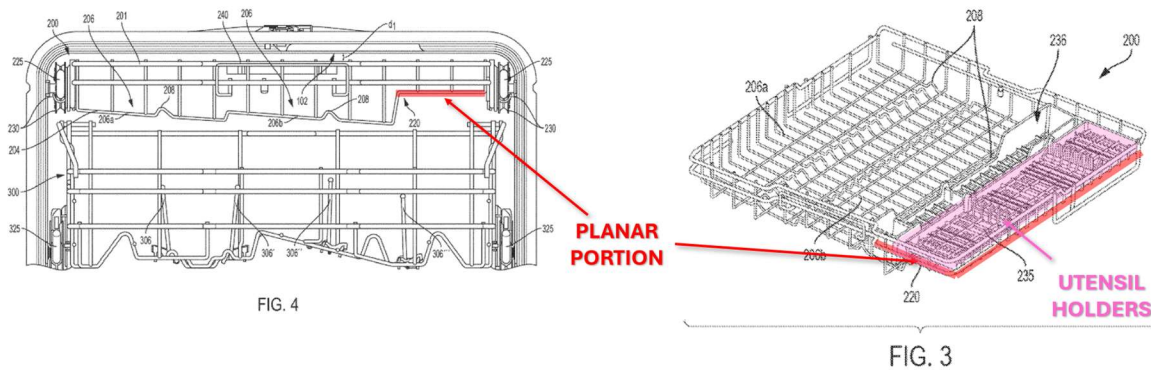
h. Element 1[e]: wherein the planar portion includes a plurality of utensil holders configured to horizontally support utensils; and

Carr teaches element 1[e]. Ex-1002 ¶¶156–159.

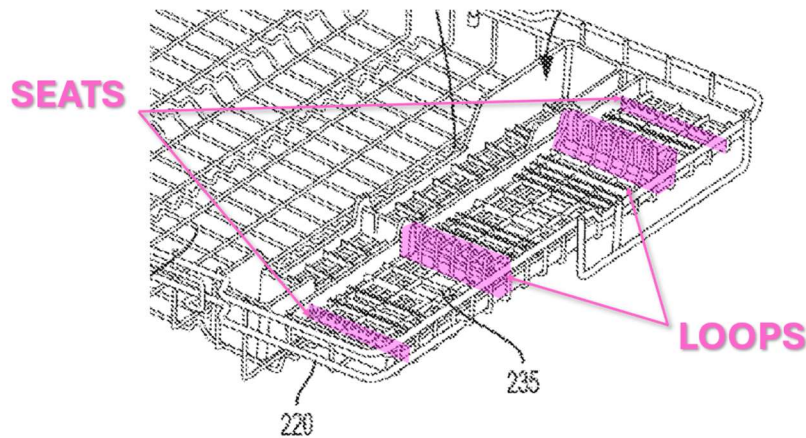
As explained in Section X, above, Petitioner believes that “wherein the planar portion includes a plurality of utensil holders” means “that the planar portion and the plurality of utensil holders are integral components coupled together.” Carr teaches the use of a separate utensil caddy insert that rests on an underlying planar portion. This configuration does not teach claim element 1[e] under what Petitioner believes to be the correct construction. However, in the underlying litigation, Patent owner posits that “the planar portion has or contains a plurality of utensil holders.” Ex-1022 ¶¶63–66. Carr teaches this claim element under Patent Owner’s construction.

As previously explained, Carr teaches a planar portion within its upper washware rack. Specifically, Carr further teaches that the planar portion may contain a plurality of utensil holders configured to horizontally support utensils. Carr explains that “at a location directly above the notch section 220, is configured to accommodate at least one of cutlery or utensils. A cutlery/utensil accessory insert 235 is shown in FIG. 3 disposed above the notch section 220.” Ex-1005 ¶48. As is

shown below in Figures 3 and 4, Carr's plurality of utensil holders (pink) sits above the planar portion (red).



Carr's Figure 3 further shows the series of loops and seats in order for cutlery/utensils to sit in the top rack. The utensil accessory insert is thus a utensil holder which supports one or more utensils, in the same way described by the '922 Patent: "first set of utensil holders illustrated as a set of utensil seats 126 or loops 128. The utensil holders can be configured to retain or hold a set of utensils such as, but not limited to, spoons, forks, sporks, knives, ladles, spatulas, or the like." '922 Patent, 6:54–58. Although not illustrated in Figure 3, the utensils would naturally sit horizontally between the series of loops and seats. Ex-1002 ¶¶158–159. Accordingly, Carr's utensil caddy insert that is supported by planar notch section 220 teaches this claim element as Patent Owner argues it should be construed.



i. Element 1[f]: wherein the depression extends entirely below a top of the utensil holder in the planar portion.

Carr teaches element 1[f]. Ex-1002 ¶¶160–163.

As previously explained in Section XII.A.1.e (element 1[c(ii)]), Carr teaches the use of a planar portion and a depression in its upper washware rack. Carr further teaches that the depression extends entirely below a top of the utensil holder in the planar portion.

Carr explains that “the third, top washware rack 200 is formed with a notch section 220 along at least one side . . . in the bottom portion 204 thereof in order to accommodate base portions of the one or more stemmed wine glasses G . . . that are supported below on the middle washware rack 300.” Ex-1005 ¶47. In relation to the middle washware rack, the notch section 220 is elevated above the bottom portion 204 in order to make room for stemmed wine glasses G. Carr’s bottom portion 204 in turn forms a depression as shown below in Figure 5. Ex-1002 ¶162.

Although not depicted in Figure 5, the utensil holder sits above the planar portion. The top of the utensil holder would therefore be above the planar portion. As the depression is shown to be fully below the planar portion, the depression would further be fully below the top of the utensil holder. Ex-1002 ¶163.

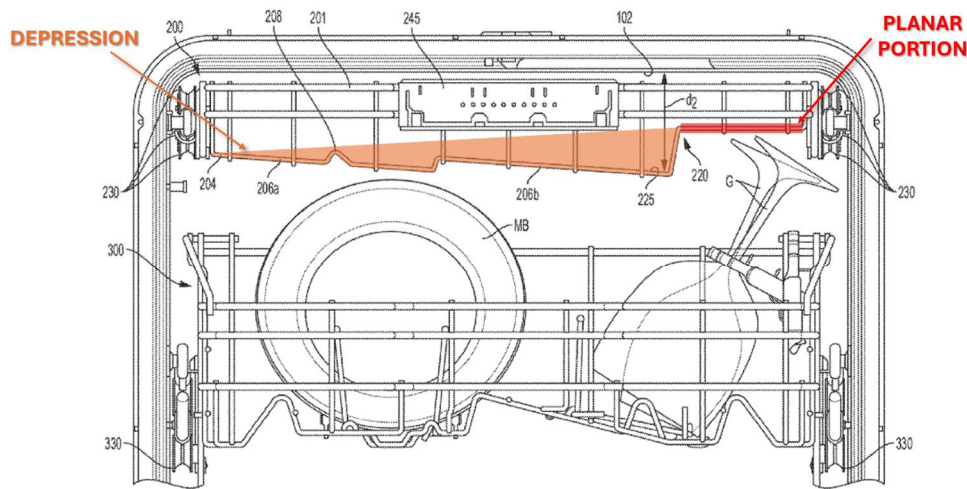


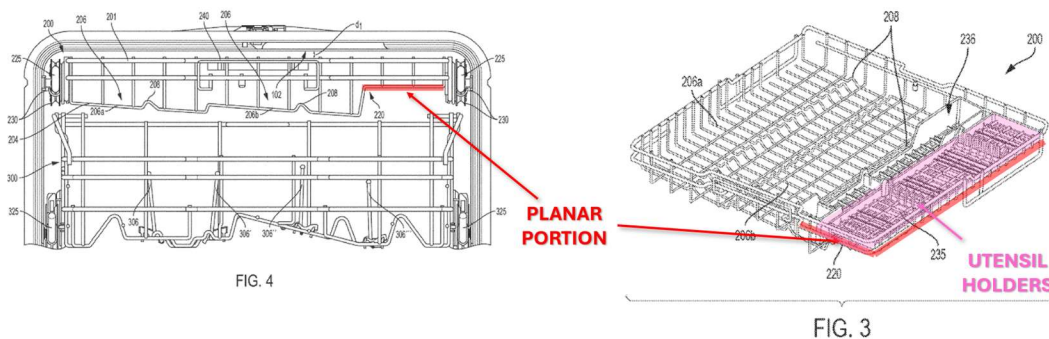
FIG. 5

- 2. Dependent Claim 2: The dishwasher of claim 1, wherein the plurality of utensil holders is disposed in a utensil caddy operably coupled to the planar portion.**

Carr teaches Claim 2. Ex-1002 ¶¶164–165.

Carr teaches the plurality of utensil holders disposed in a utensil caddy operably coupled to the planar portion. Carr explains that “cutlery/utensil accessory insert 235 is shown in Fig. 3 disposed above the notch section 220.” Ex-1005 ¶48. Carr further explains that the insert may be removed to fit additional washware. *Id.* ¶49. As shown below in Figures 3 and 4, the insert 235 (pink) is operably coupled to the notch section 220 (red) of the upper washware rack. Ex-1002 ¶165. As

explained above, Carr teaches this claim element under Patent's owner's view in which a utensil caddy insert being supported by an underlying planar portion is sufficient to be "operably coupled" to it.



3. Dependent Claim 3: The dishwasher of claim 2, wherein the utensil caddy includes a basket that is removably coupled with a bottom wall of the planar portion.

Carr teaches Claim 3 Ex-1002 ¶¶166–167.

Carr teaches the utensil caddy including a basket that is removably coupled from the bottom wall of the planar portion. As previously explained in Section XII.A.2 (Claim 2), Carr teaches the plurality of utensil holders being disposed in a utensil caddy. The utensil accessory insert 235 is a basket, in the same way described by the '922 Patent: "[o]ther dish holders can be provided, such as a silverware basket, separate from or combined with third level, upper, and lower dish racks." '922 Patent, 3:28-30. Carr, teaches "cutlery/utensil accessory insert 235 is shown in Fig. 3 disposed above the notch section 220." Ex-1005 ¶48. Carr teaches this claim

element under Patent's Owner's view in which a utensil caddy insert being supported by an underlying planar portion is sufficient to be "removably coupled" to it.

4. Dependent Claim 4: The dishwasher of claim 2, wherein the utensil caddy defines a periphery defining an interior with an open top.

Carr teaches Claim 4 Ex-1002 ¶¶168–170.

Carr teaches the utensil caddy defining a periphery defining an interior with an open top. As previously explained in Section XII.A.2 (Claim 2), Carr teaches the plurality of utensil holders being disposed in a utensil caddy.

The '922 describes a periphery, for example, as "having at least first and second opposing side walls." '922 Patent, 11:9–11. As illustrated in Figure 3, Carr's utensil insert has two sets of opposing side walls (purple) with an open top (green). Ex-1002 ¶170.

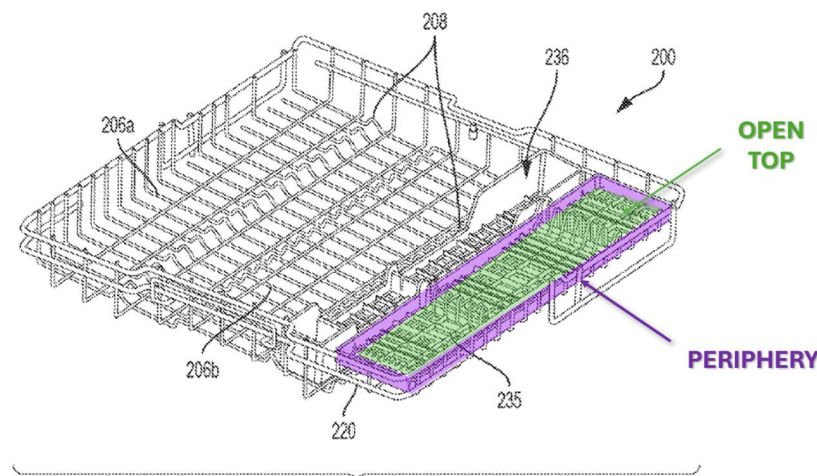


FIG. 3

C. Ground 3: Claims 1–4, 7–26 are obvious over Andrew in view of Gutkowski

- 1. A POSITA would have been motivated to combine Andrew’s and Gutkowski’s teachings and would have had a reasonable expectation of success.**

A POSITA would have been motivated to combine Andrew and Gutkowski based on at least their teachings because they are both directed to a top rack of a dishwasher that can hold utensils. For example, Andrew “relates to a domestic appliance and particularly to a rack for a dishwasher.” Ex-1013, 1:15–16. Andrew further aims to “provide a dish rack with an improved and versatile supporting means for holding utensils in a compact manner.” *Id.*, 1:43–45. The wire elements of Andrew’s dishrack are preferably constructed of metal wire that “may be coated with some suitable resilient substance such as natural or synthetic rubber or vinyl material.” *Id.*, 2:69–70. Similarly, Gutkowski relates to “a third or top modular washware rack.” Ex-1016, 1:11–12. Gutkowski further explains that the frame of the upper washware rack may be “formed of a metal wire frame.” *Id.*, 2:34–35.

Gutkowski further teaches the use of “silverware basket inserts 601 and 602” as is shown in Figures 7A–7E. Ex-1016, 9:16–18. The silverware baskets “can have various utensil holders UTH in the form of tines, prongs, and projections of various shapes.” *Id.* 9:22–25. Figure 7B depicts the “silverware basket insert 602 being inserted from above into the basket receiving area.” *Id.* 9:27–29. The basket is thus

supported on “horizontal wire portions 207U and 207L that extend from front to back of the open frame F in the form of rails.” *Id.* 6:46–51.

A POSITA would have been motivated to combine or apply the removable silverware basket with utensil holders of Gutkowski in place of the flat support section of Andrew. Andrew recognizes that its invention may be improved by “widely diversified arrangements or combinations of utensil support” since the “rack is flexible and versatile.” Ex-1013, 4:60–68. A POSITA would recognize the benefits of using Gutkowski’s insert, such as greater organization of flatware, as well as the ability to remove the insert along with the flatware within. Ex-1002 ¶173. Andrew’s claims recognize that “preventing knives, forks or the like from sliding off the support” is an important property of its dish rack. Ex-1013, Cl. 1. The basket insert of Gutkowski would provide for additional capacity, while also further preventing cutlery from being flung off the upper rack during washing operations. Ex-1002 ¶173. Andrew teaches that “[i]t is desirable to hold the maximum quantity of any of a plurality of like dishes or of all different sorts or combinations and varieties of utensils in such a compact way that none will block the liquid cleaning stream from another and all are held to drain adequately after being washed without trapping liquid therein.” Ex-1013, 1:33–39. Gutkowski additionally explains that its design accommodates “different sized basket inserts” so as to be compatible with the rack of Andrew. Ex-1016, 3:9–11. By including the cutlery insert of Gutkowski,

the goals of Andrew would be further achieved by allowing for greater capacity while maintaining adequate draining. Ex-1002 ¶173.

When combining the silverware basket with Andrew's dishrack, a POSITA would have been motivated to combine the elements in a way that is simple to achieve. A POSITA would have been drawn to the "locking feature 505 and 506" of the metal wire basket inserts as depicted by Gutkowski Figure 3B, below.

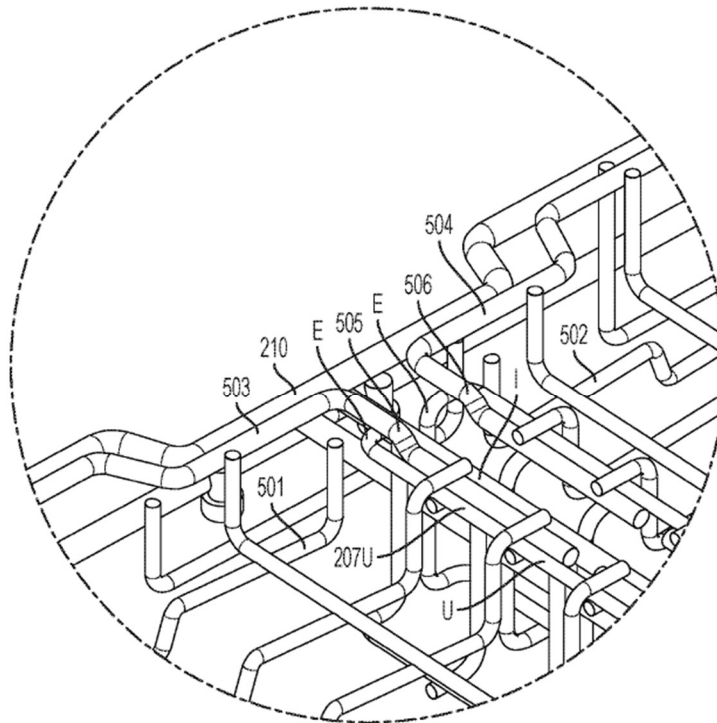
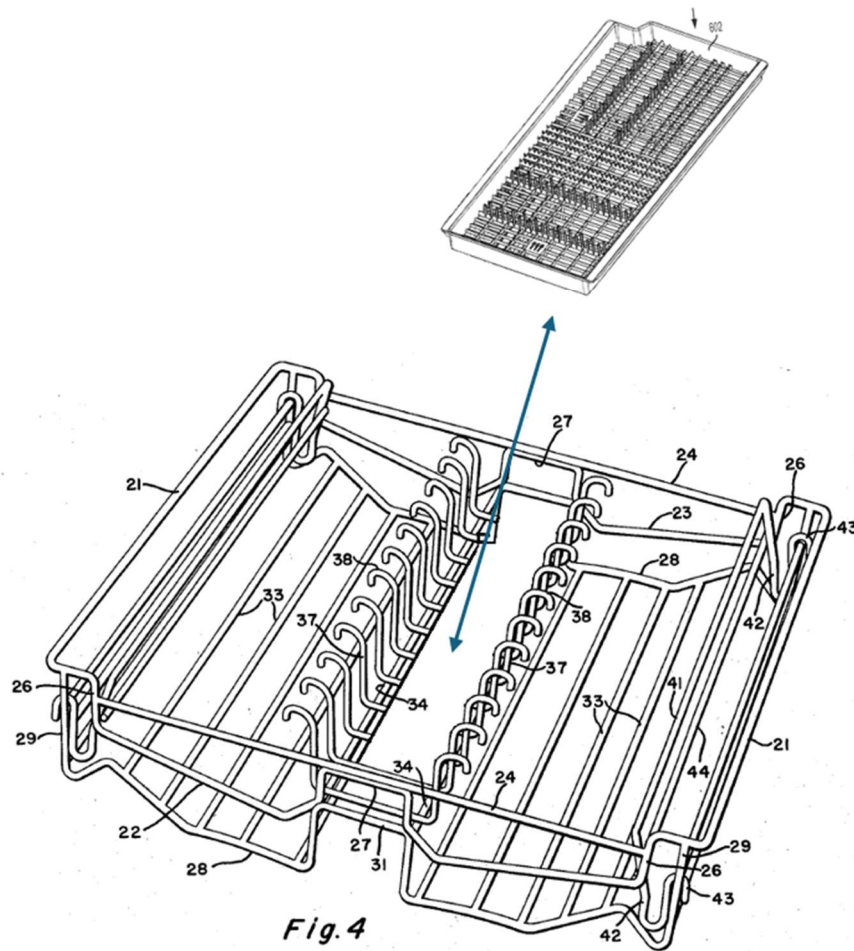
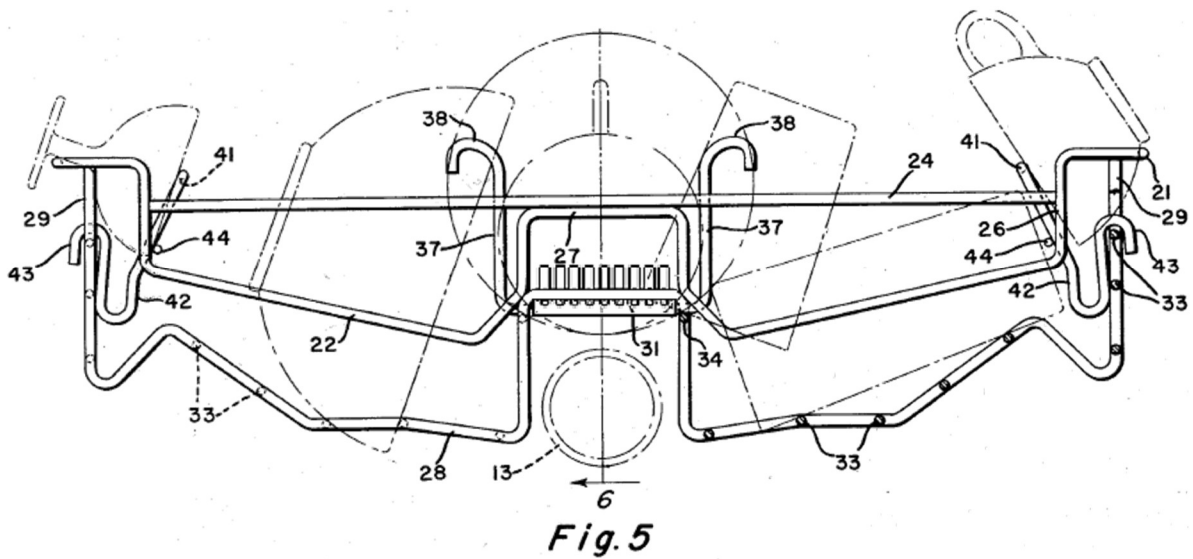


FIG. 3B

Andrew and Gutkowski both utilize metal wire, which may be coated, in their construction. Ex-1013, 4:13–17; Ex-1016, 7:62–66. A POSITA would therefore recognize that the basket of Gutkowski could latch onto wire rails 27 in Andrew's

dishrack in a similar manner. Ex-1002 ¶175. By enhancing Andrew's dishrack with the silverware basket, a POSITA would have been motivated to remove the rail bases 36 so as to remove redundant structure now that the silverware is held within the modified basket. *Id.*

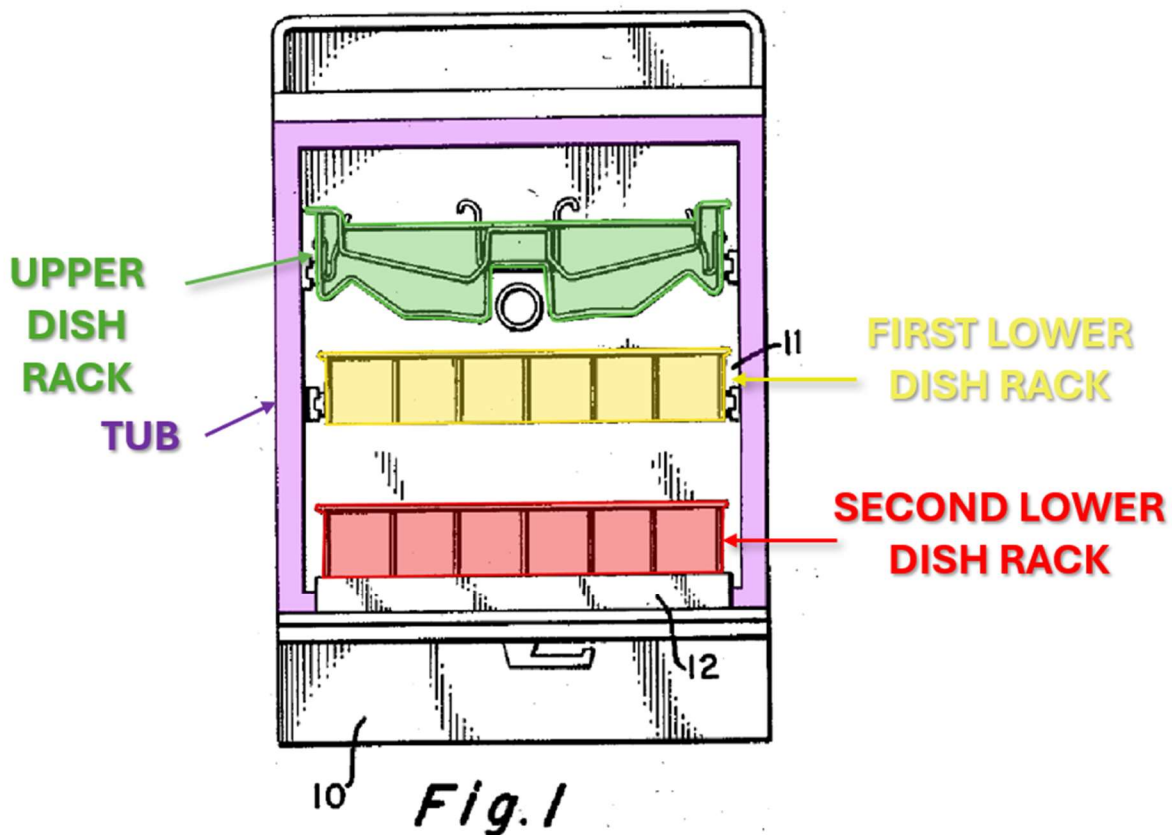




Gutkowski additionally discloses “a dishwasher comprising: a dishwashing compartment having a loading opening: a door . . . ; a bottom washware rack . . . ; a middle washware rack . . . and a top washware rack.” Ex-1016, 2:48–58. Andrew, however, only discloses one lower rack 16 which may hold “larger items or utensils.” Ex-1013, 5:2–3.

A POSITA would have been motivated to combine the teachings of Gutkowski’s second (i.e., middle) lower dish rack with the teachings of Andrew. Ex-1002 ¶177. A POSITA would understand that a modern dishwasher would not be limited to two dishracks as is the case in Andrew, and would have been motivated to use a three dishrack configuration such as in Gutkowski. *Id.* Indeed, a POSITA observing Andrew’s disclose would have recognized the room between the upper and lower dishrack for an additional middle dishrack. *Id.* Utilizing three dishracks

also is consistent with the goals of Andrew. Andrew recognizes “[i]t is desirable to hold the maximum quantity of any of a plurality of like dishes,” Ex-1013, 1:33–35, “to eliminate the necessity of carrying out two or more washing operations,” *id.*, 4:44–46. Thus, adding an additional lower dishrack is consistent with the goals and teachings of Andrew. Ex-1002 ¶177.



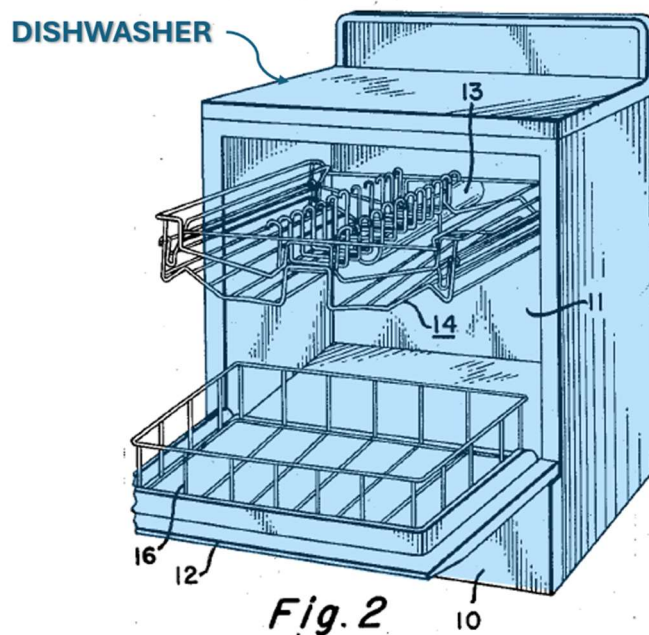
A POSITA considering the combination of Andrew and Gutkowski would have a reasonable likelihood of success, as it amounts to a simple combination of well-known techniques in the art. Ex-1002 ¶178.

2. Independent Claim 1

a. Element 1[pre]: A dishwasher, comprising:

Andrew-Gutkowski teaches the preamble of Claim 1, to the extent it is limiting. Ex-1002 ¶¶179–180.

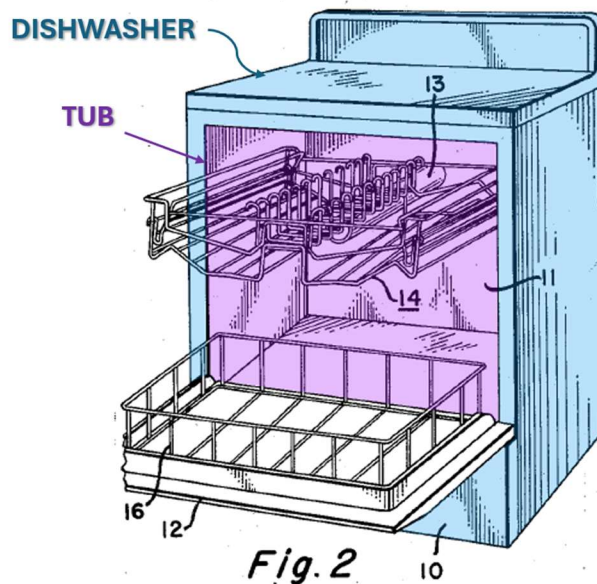
Andrew teaches a dishwasher (blue, below). Ex-1013, 1:15–16. Andrew discloses that “[a]n object of my invention is to provide a dish rack with an improved and versatile supporting means for holding utensils in a compact manner . . . [in] a *dishwashing machine* so that washing and rinsing . . . may be efficiently carried out.” *Id.*, 1:43–50.



**b. Element 1[a]: a tub defining a dish treating chamber;
and**

Andrew-Gutkowski teaches element 1[a]. Ex-1002 ¶¶181–183.

Andrew's dishwasher includes "a cabinet 10 having a washing compartment 11." Ex-1013, 2:38–40. Andrew further provides "with a front access opening leading to compartment 11 and closed by door 12." *Id.*, 2:41–43. Figure 2, annotated below, shows Andrew's dishwasher (blue) with the interior compartment 11 (purple). Ex-1002 ¶182.



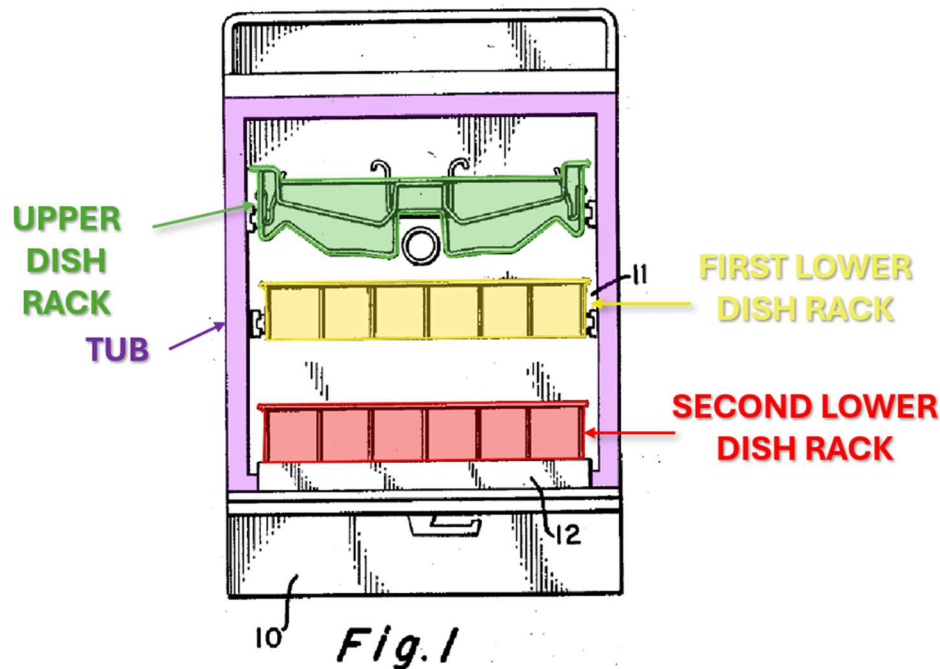
Andrew has "racks 14 and 16 provid[ing] a utensil supporting arrangement in compartment 11 for utensils to be washed and rinsed therein." Ex-1013, 2:53–55. Andrew's compartment 11, therefore, is a tub defining a "dish treating chamber" for washing items to be washed. Ex-1002 ¶183.

c. Element 1[b]: a first lower dish rack and a second lower dish rack located in the dish treating chamber;

Andrew-Gutkowski teaches element 1[b]. Ex-1002 ¶¶184–186.

Gutkowski additionally discloses “a dishwasher comprising: a dishwashing compartment having a loading opening: a door . . . ; a bottom washware rack . . . ; a middle washware rack . . . and a top washware rack.” Ex-1016, 2:48–58. Andrew discloses one lower rack 16 which may hold “larger items or utensils.” Ex-1013, 5:2–3. Andrew further explains that “racks 14 and 16 provide a utensil supporting arrangement in compartment 11 for utensils to be washed and rinsed therein.” *Id.*, 2:53–55.

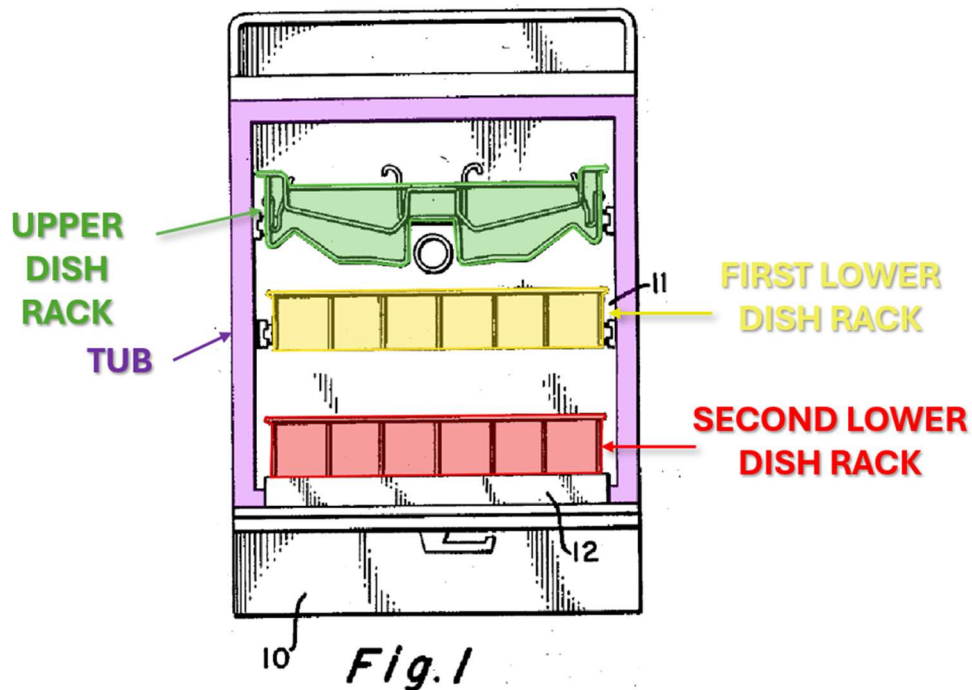
As explained above, a POSITA would have been motivated to combine the teachings of Gutkowski’s second lower dish rack with the teachings of Andrew. *See* Section XII.C.1 (Andrew-Gutkowski motivation to combine). The combination of Andrew-Gutkowski, discloses two lower dish racks within the dish treating chamber. Figure 1, annotated below, shows the first lower dish rack (yellow) and second lower dish rack (red) within the dishwasher tub (purple). Ex-1002 ¶186.



- d. **Element 1[c(i)]: an upper dish rack located above the first lower dish rack and the second lower dish rack in the dish treating chamber,**

Andrew-Gutkowski teaches element 1[c(i)]. Ex-1002 ¶¶187–188.

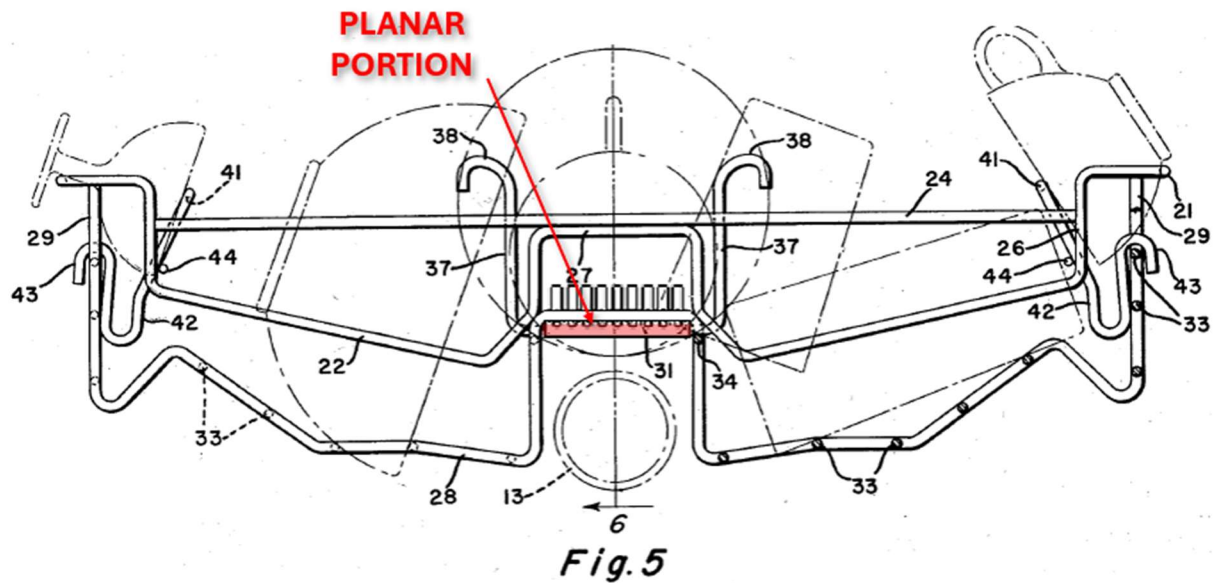
As previously explained, the Andrew-Gutkowski combination has two lower dish racks within the dishwasher tub. *See* Section XII.C.2.c (claim element 1[b]). Andrew further teaches an upper dish rack located above the lower dish racks in the tub. Andrew explains that “racks 14 and 16 provide a utensil supporting arrangement in compartment 11 for utensils to be washed and rinsed therein.” Ex-1013, 2:53–55. Figure 1, annotated below, shows the upper dish rack (green) above the first lower dish rack (yellow) and second lower dish rack (red) within the dishwasher tub (purple). Ex-1002 ¶188.



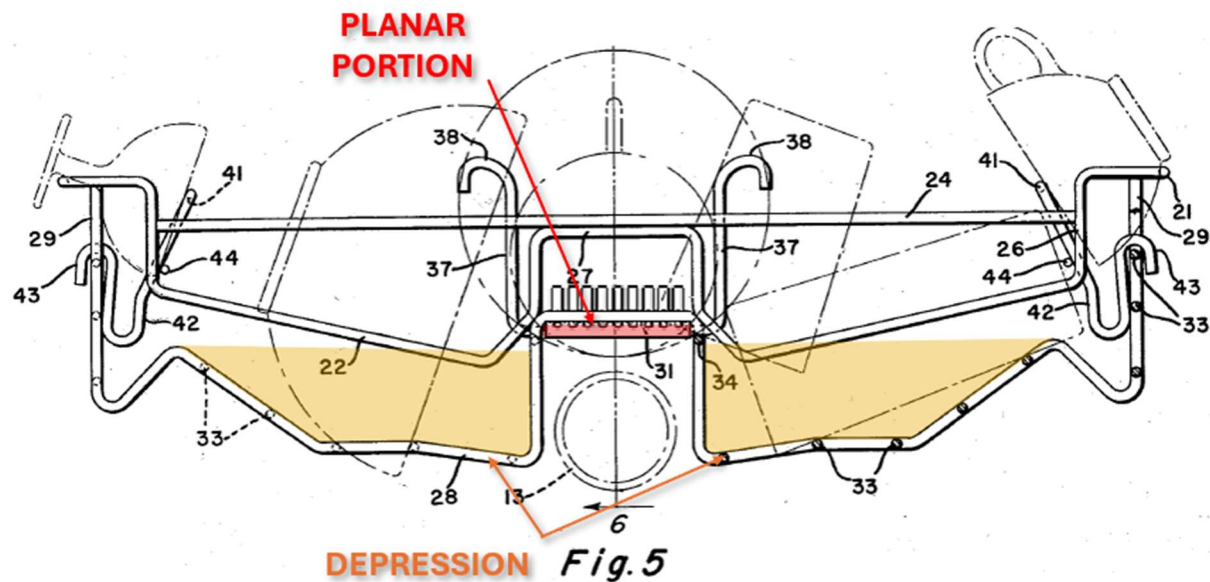
- e. **Element 1[c(ii)]: the upper dish rack defining a planar portion and a depression,**

Andrew- Gutkowski teaches element 1[c(ii)]. Ex-1002 ¶¶189–191.

As previously explained, the Andrew-Gutkowski combination has a silverware basket disposed within the center portion of the Andrew upper dish rack. *See* Section XII.C.1. A POSITA would have been motivated to combine the references in such a way so as to organize and secure utensils during the wash cycle. *Id.* When Gutkowski’s silverware basket is placed within the Andrew dish rack, its bottom wall serves as the recited planar portion. Ex-1002 ¶190. Gutkowski discloses that the metal wire basket inserts have “bottom portions 507 and 508” 8:28–32. A POSITA would further recognize that the basket inserts of Gutkowski are planar. *Id.*



Andrew-Gutkowski further discloses a depression shown in orange in Figure 5 below. Andrew discloses wire rails 33 “provid[e] the bordering portions of the basket-like receptacle, are progressively elevated with respect to one another . . . to provide inclined bottom portions therefor.” Ex-1013, 3:25–28. The design further allows for “utensils placed on the rails 33 of the bottom portions of the rack.” *Id.*, 3:43–45.

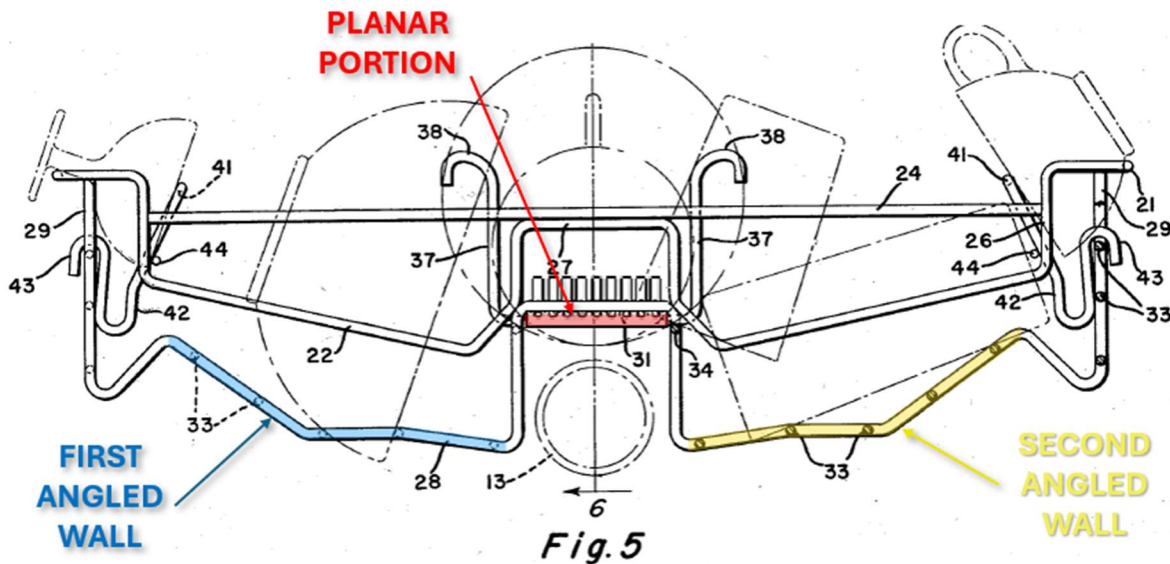


- f. **Element 1[c(iii)]:** wherein the depression includes a first angled wall and a second angled wall that each extend at an acute angle relative to the planar portion, and

Andrew-Gutkowski teaches element 1[c(iii)]. Ex-1002 ¶¶192–193.

Andrew teaches that wire rails 33 “provid[e] the bordering portions of the basket-like receptacle, are progressively elevated with respect to one another . . . to provide inclined bottom portions therefor.” Ex-1013, 3:25–28. The design further allows for “utensils placed on the rails 33 of the bottom portions of the rack.” *Id.*, 3:43–45. “[R]ails 33 extend[] between and hav[e] their ends welded to front and rear portions of the rack,” where the front and rear portions are bar 28. *Id.*, 3:14–15. Andrew’s first bar 28 (blue, below) and second bar 28 (yellow, below) form an “inclined bottom rack portion[.]” *Id.*, 4:1–2. As can be observed in Figure 5,

annotated below, the bars are disposed at an acute angle relative to the horizontal planar portion. Ex-1002 ¶193.

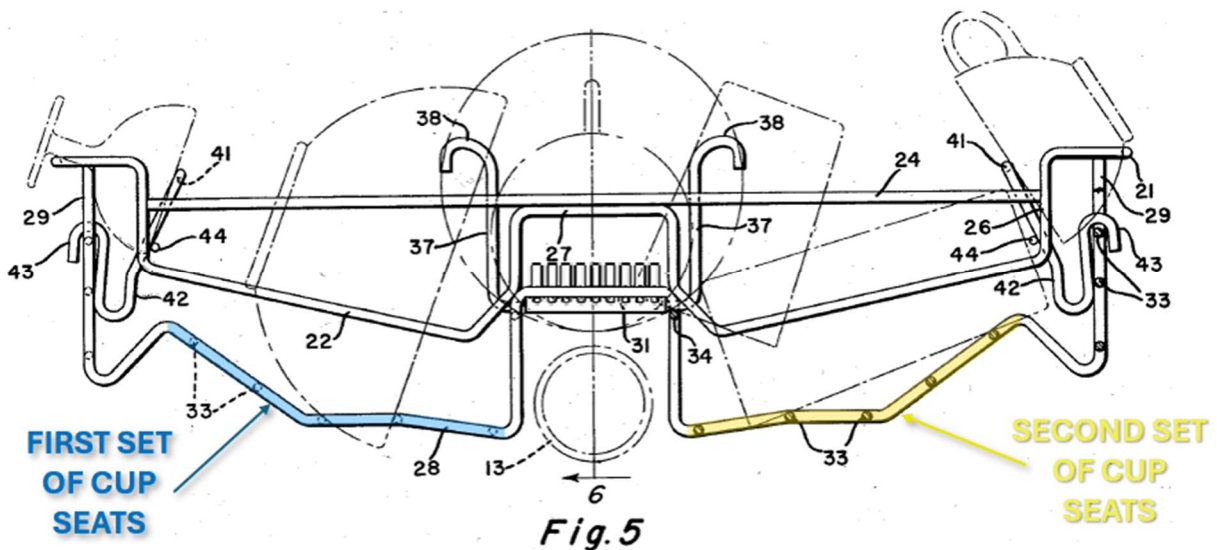


- g. **Element 1[d]: wherein the first angled wall defines a first set of cup seats, and wherein the second angled wall defines a second set of cup seats;**

Andrew-Gutkowski teaches element 1[d]. Ex-1002 ¶¶194–195.

Andrew explains that it allows for “utensils placed on the rails 33 of the bottom portions of the rack.” Ex-1013, 3:43–45. Andrew explains that “utensils” includes “metal knives, forks, spoons, pans or bowls and ceramic dishes or glassware such as coffee or tea *cups*, saucers, plates, tumblers, and drinking glasses or culinary items of different kinds.” *Id.*, 2:33–37. As can be seen in Figure 5, annotated below, first bar 28 (blue) and second bar 28 (yellow) form a support for utensils, such as cups, at an inclined angle. Andrew also provides bars 22, 23, and 24 to “prevent

round utensils such as glasses or bowls placed on the inclined bottom portions of the basket-like receptacle from sliding off the wire supports 33. *Id.*, 29–33. Thus, the angled bars 28 and 28 both define separate cup seats for holding cups. Ex-1002 ¶195.



- h. Element 1[e]: wherein the planar portion includes a plurality of utensil holders configured to horizontally support utensils; and**

Andrew-Gutkowski teaches element 1[e]. Ex-1002 ¶¶196–198.

As previously explained, Andrew-Gutkowski discloses that the silverware basket taught by Gutkowski forms the planar portion required by Claim 1[c(ii)]. *See* Section XII.C.2.e (claim element 1[c(ii)]). Gutkowski further teaches that the silverware basket has utensil holders. Gutkowski explains that “silverware basket inserts 601 and 602 can have various utensil holders UTH in the form of tines, prongs, and projections of various shapes.” Ex-1016, 9:22–25. These UTH projects

are able to receive the utensils horizontally, as is shown in Gutkowski Figure 7A below. Ex-1002 ¶197.

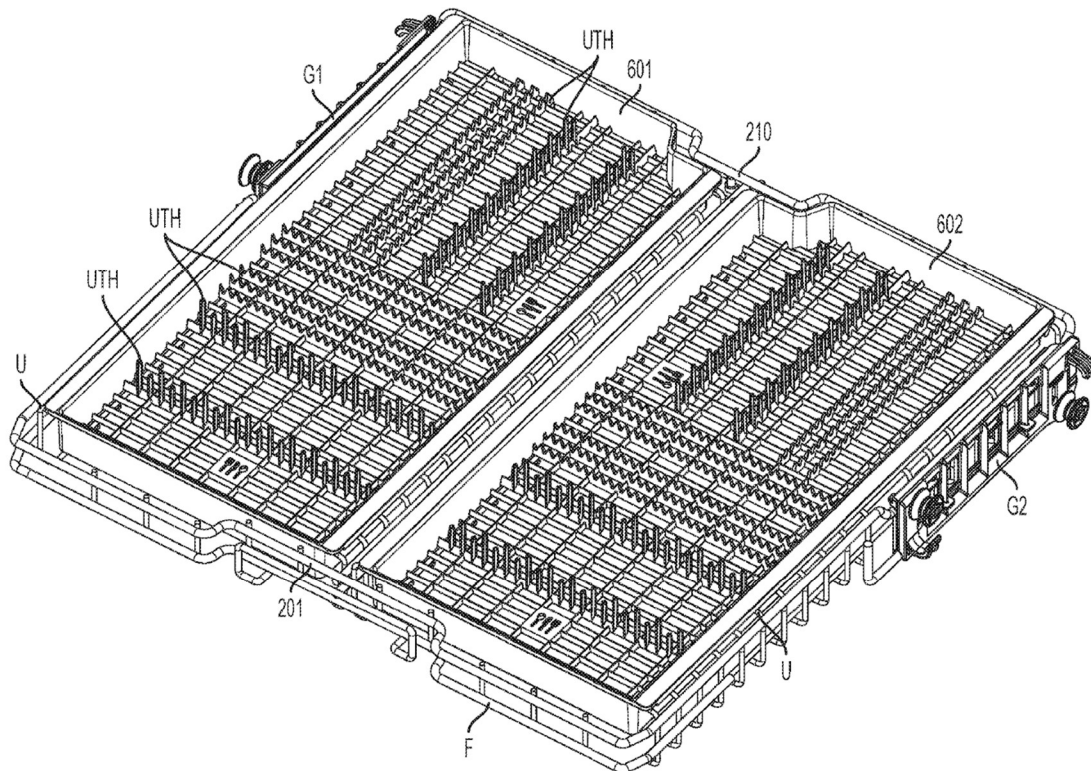
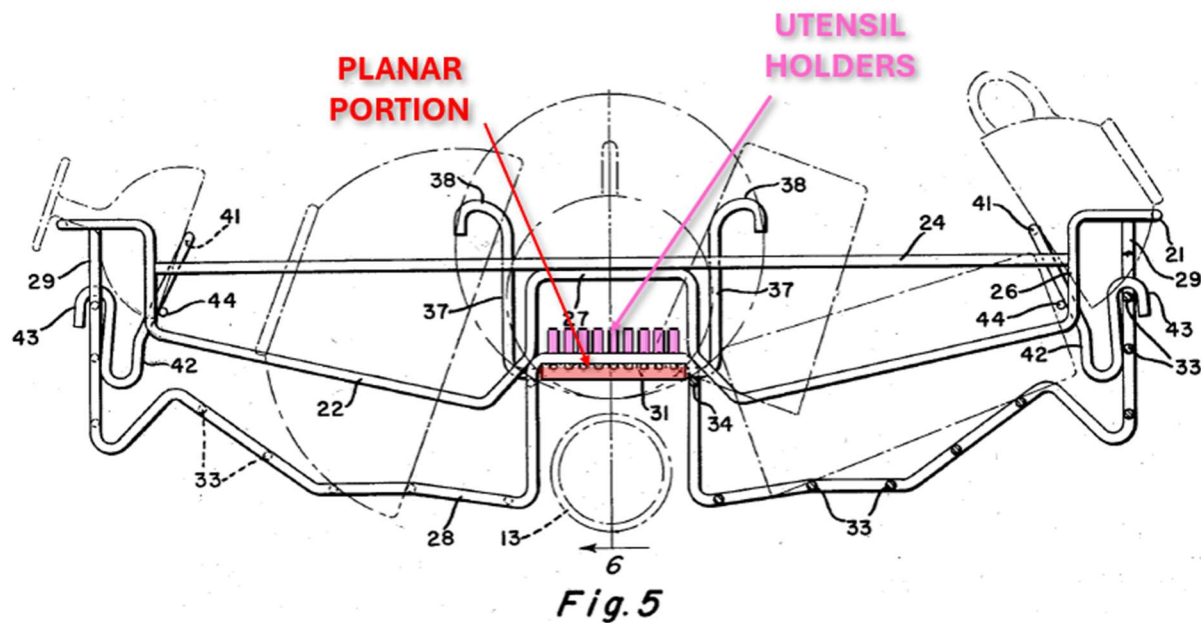


FIG. 7A

As explained above, a POSITA would have found it obvious to modify Andrew's dish rack to include the utensil holders of Gutkowski in place of Andrew's flat support section. *See* Section XII.C.1. Andrew explains that the "flat support and the supports or posts 37 cooperate with one another to selectively receive and support long knives or the like in a horizontal position." Ex-1013, 3:45–52. Andrew additionally adds that the "rack is flexible and versatile" and that it can accommodate "widely diversified arrangements or combinations of utensil support" without

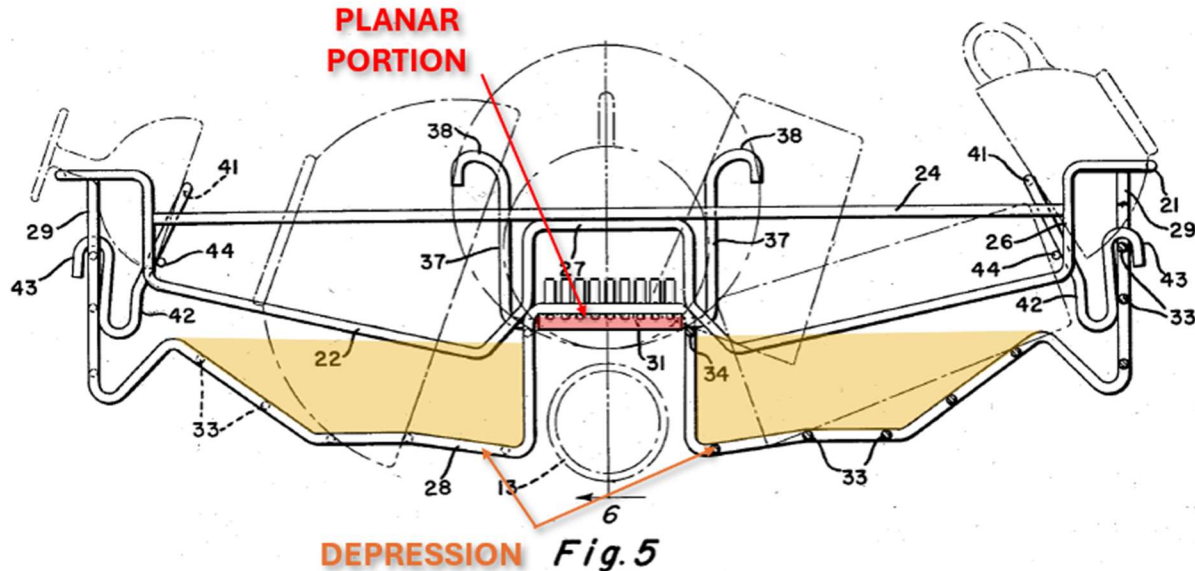
diverging from the scope of the invention. *Id.*, 4:60–68. A POSITA in possession of Gutkowski’s teachings would thus find it obvious to include the utensil holder design in Gutkowski to effectively carry out the washing function. Ex-1002 ¶198.



- i. **Element 1[f]: wherein the depression extends entirely below a top of the utensil holder in the planar portion.**

Andrew-Gutkowski teaches element 1[f]. Ex-1002 ¶¶199–200.

Andrew’s depression extends lower than the top of the utensil holder. Andrew’s bars 28 create a depression at an angle relative to flat support section and extend lower than the flat section so that a cup or bowl can sit within the depression. Ex-1013, 3:33–45, 4:1–2; Ex-1002 ¶200.



3. Dependent Claims 2–4, 6–25

- a. **Claim 2: The dishwasher of claim 1, wherein the plurality of utensil holders is disposed in a utensil caddy operably coupled to the planar portion.**

Andrew-Gutkowski teaches Claim 2. Ex-1002 ¶¶201–202.

As explained above, Gutkowski discloses “silverware basket inserts 601 and 602” as is shown in Figures 7A–7E. Ex-1016, 9:16–18; *see also* Section XII.C.2.h (claim element 1[e]). The silverware basket inserts satisfies the “operably coupled” functional requirements of dependent Claim 2. Specifically, the UTH elements are a part of said silverware basket and are thus coupled together as a final product. Additionally, they are used together during the operation of the dish treating cycle to horizontally constrain the utensils during washing. They are thus “operably

coupled” because they are joined together during the operation of the dishwasher treating cycle, and work together to hold utensils in place. Ex-1002 ¶202.

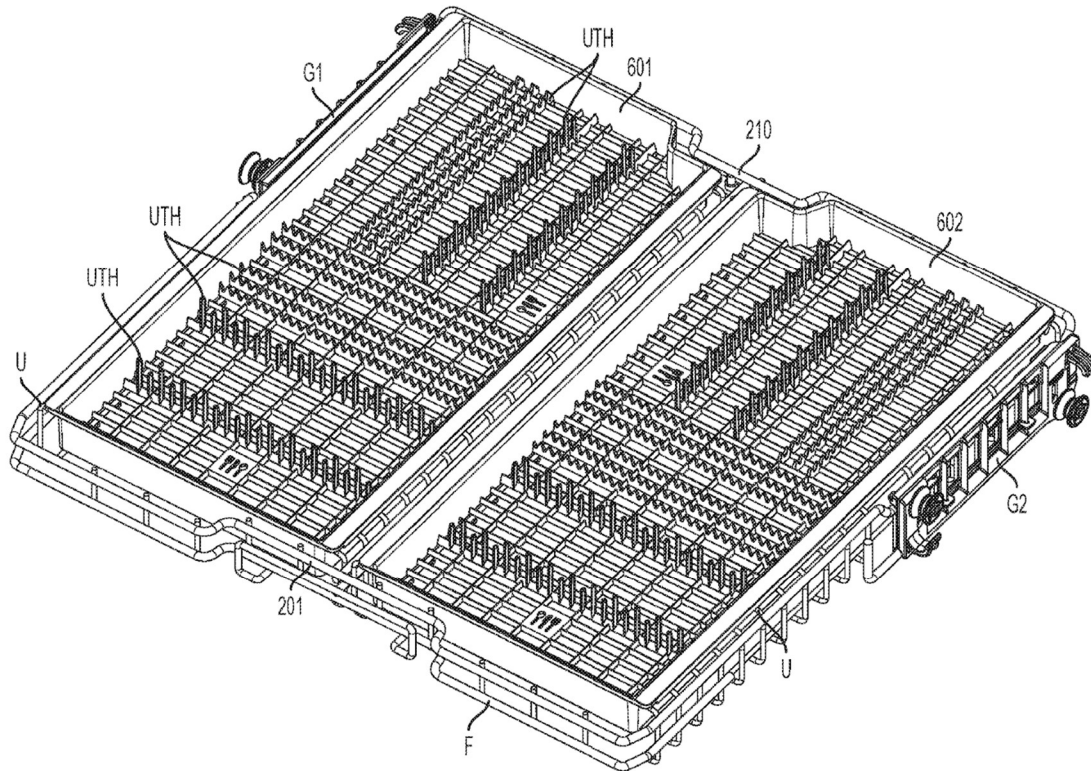
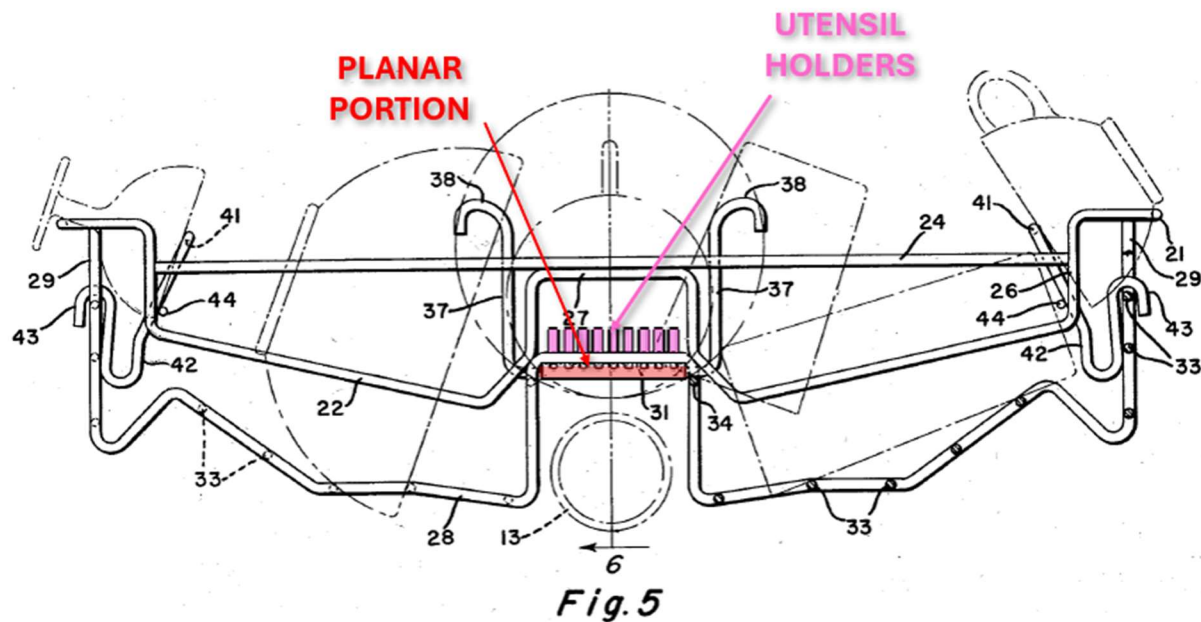


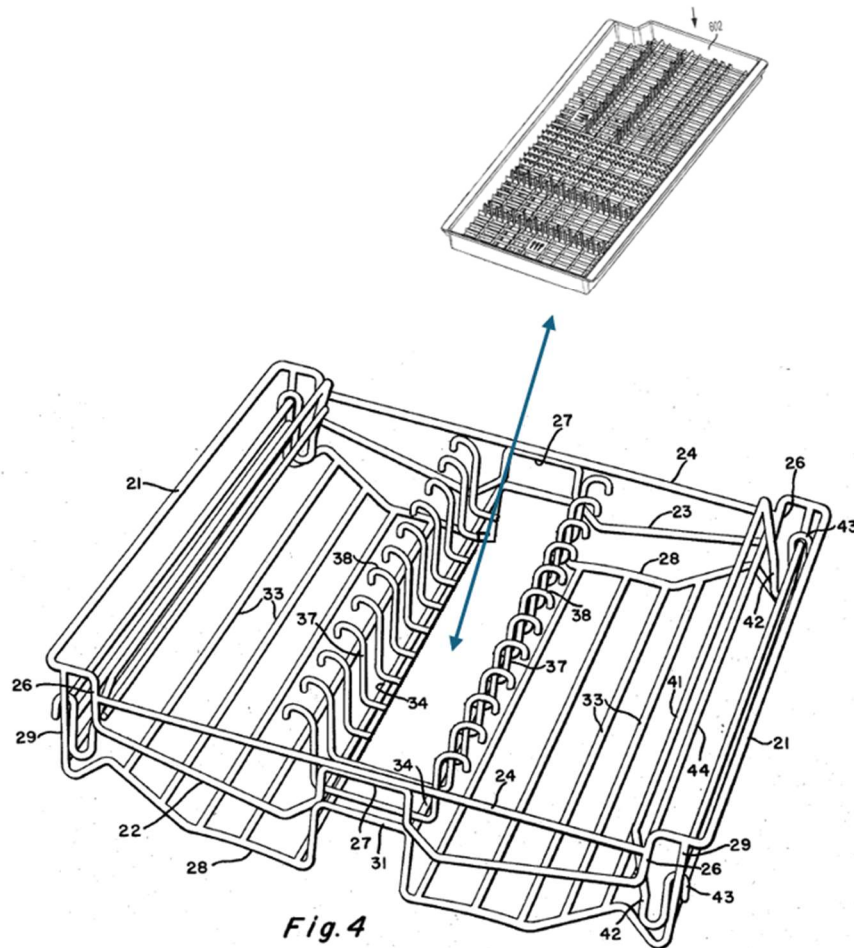
FIG. 7A



- b. **Claim 3:** The dishwasher of claim 2, wherein the utensil caddy includes a basket that is removably coupled with a bottom wall of the planar portion.

Andrew-Gutkowski teaches Claim 3. Ex-1002 ¶¶203–206.

As explained above, Gutkowski discloses that its silverware basket “allows the user/customer to completely remove the basket inserts from the modular washware rack if desired to facilitate the unloading process. Ex-1016, 1:66–2:1. The removal of the basket between operation is further enabled by the Andrew-Gutkowski combination. *See* Section XII.C.1.



The Andrew-Gutkowski combination therefore fulfills the requirements of Claim 3. Here, Andrew-Gutkowski teaches that the basket may be removed in such a manner where the “basket is removably coupled *with* a bottom wall.” The bottom wall of the planar portion, taught by the silverware basket of Gutkowski is thus removably coupled. Ex-1002 ¶205.

As explained above, when combining the silverware basket of Gutkowski with Andrew’s dishrack, a POSITA would have been motivated to combine the

elements in a way utilizes the “locking feature 505 and 506” of the metal wire basket inserts as depicted by Gutkowski Figure 3B, below. *See* Section XII.C.1. The basket of Gutkowski could latch onto wire rails 27 in Andrew’s dishrack in a similar manner. Ex-1002 ¶206.

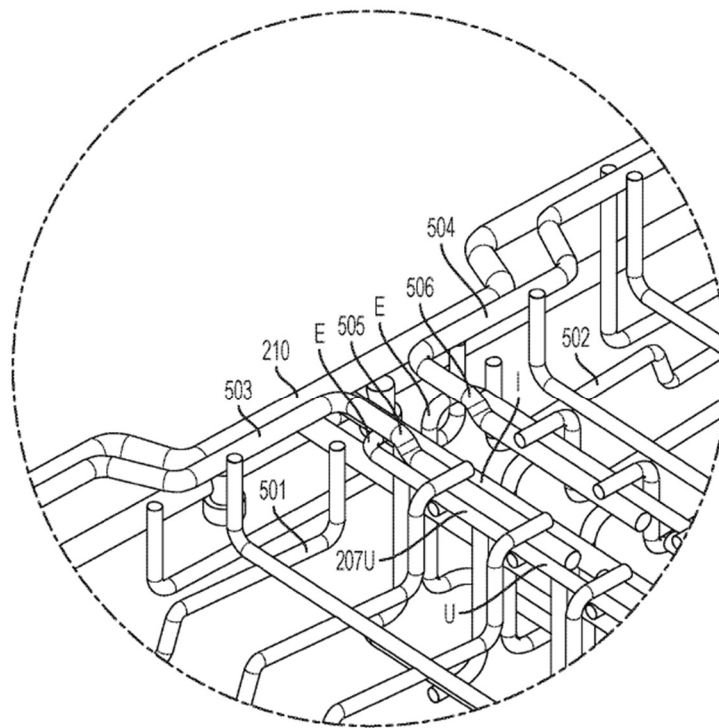
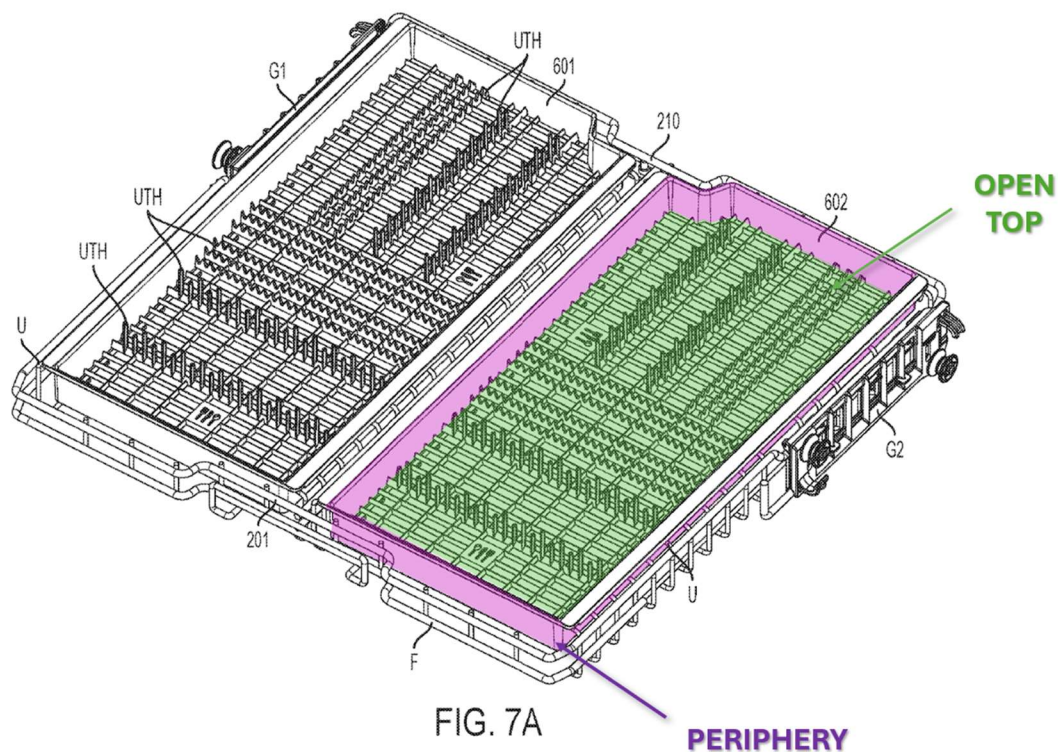


FIG. 3B

- c. **Claim 4:** The dishwasher of claim 2, wherein the utensil caddy defines a periphery defining an interior with an open top.

Andrew-Gutkowski teaches Claim 4. Ex-1002 ¶¶207–208.

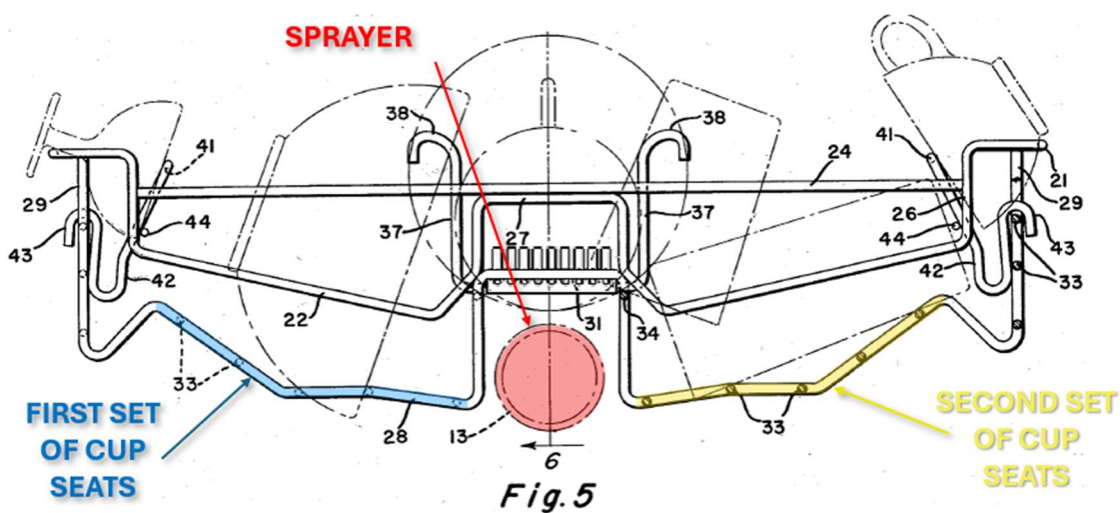
As explained above, Gutkowski discloses a “silverware basket inserts 601 and 602 [that] can have various utensil holders UTH in the form of tines, prongs, and projections of various shapes.” Ex-1016, 9:22–25; *see also* Section XII.C.2.h (Cl. 1[e]). Gutkowski’s silverware basket further has a periphery defining an interior with an open top. As illustrated in Figure 7A, Gutkowski’s silverware basket has two sets of opposing side walls forming a periphery (purple) with an open top (green). Ex-1002 ¶208.



- d. **Claim 7: The dishwasher of claim 2, further comprising: at least one sprayer adjacent to the first set of cup seats and configured to emit a spray of water into a cup held by the first set of cup seats.**

Andrew-Gutkowski teaches Claim 7. Ex-1002 ¶¶209–211.

Andrew discloses a “liquid spray tube 13 is located centrally within compartment 11 and extends forwardly of the rear wall thereof for spraying a plurality of streams of water in various directions . . . and onto utensils.” Ex-1013, 2:43–47. Andrew states rack 14 is designed to “provide[] ample and proper support for washing, rinsing, and draining of tumblers, *cups*, saucers, . . . and drinking glasses. *Id.*, 4:19–22. As previously explained, the first bar 28 (blue) and second bar 28 (yellow) for cup seats. *See* Section XII.C.2.g (claim element 1[d]); *see also* Ex-1013, 3:43–35. As can be seen in Figure 5, annotated below, the liquid spray tube 13 (red) is adjacent to the first cup seat (blue). Ex-1002 ¶210.

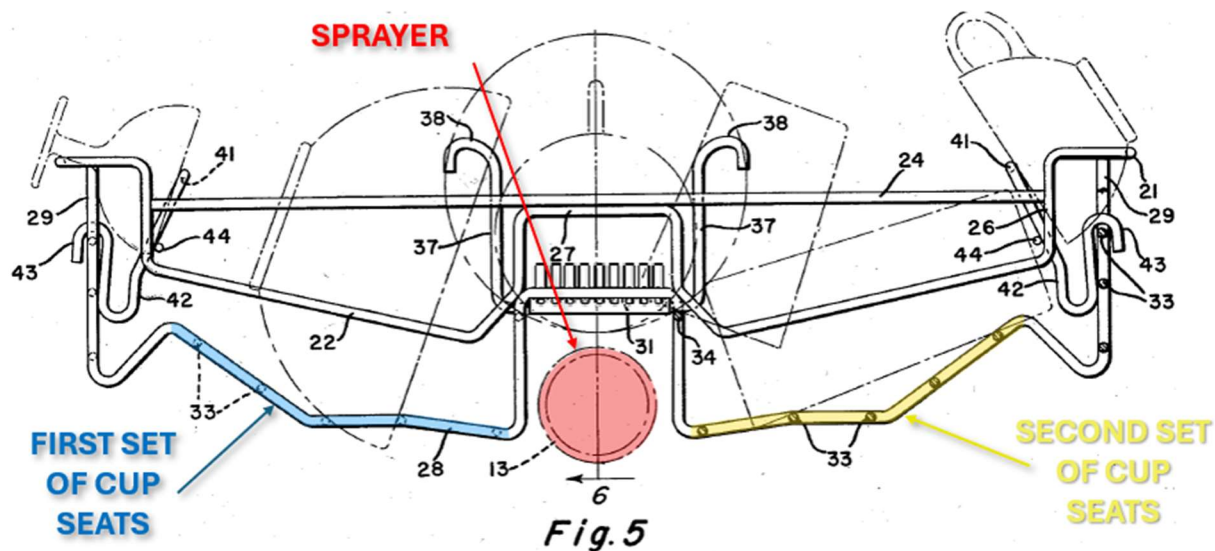


Although Figure 5 of Andrew only depicts a cup on the above annotated second cup seat, a POSITA would understand that a cup may also be placed above the annotated first cup seat, as the overall rack 14 is symmetrical. Thus, sprayer 13 would wash and rinse (i.e., emit a spray of water into) the adjacent cups held by the set of cup seats. Ex-1002 ¶211.

- e. **Claim 8: wherein the at least one sprayer is located between the first set of cup seats and the second set of cup seats.**

Andrew-Gutkowski teaches Claim 8. Ex-1002 ¶¶212–213.

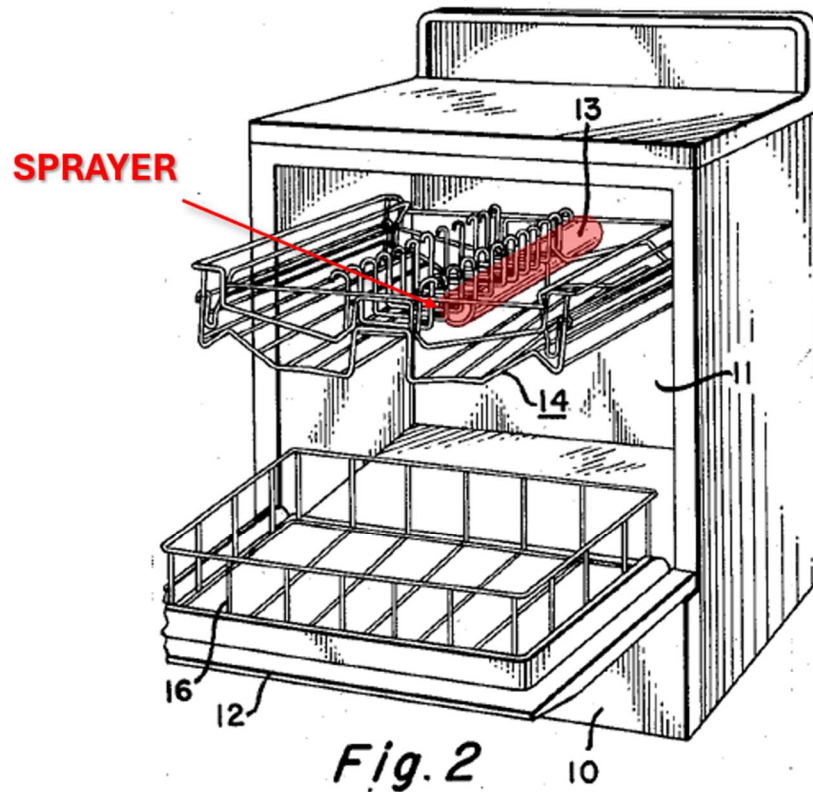
As explained for Claim 7, Andrew discloses the liquid spray tube 13 being adjacent to the first set of cup seats. *See* Section XII.C.3.d (Cl. 7). Andrew further discloses the sprayer is between the first and second set of cup seats. Andrew explains that the upper rack “straddles a centrally located liquid spray tube.” Ex-1013, 1:59–60. As can be seen in Figure 5, annotated below, the spray tube (red) is between the first cup seat (blue) and second cup seat (yellow). Ex-1002 ¶213.



- f. **Claim 9:** The dishwasher of claim 7, wherein the at least one sprayer extends from a front of the upper dish rack to a back of the upper dish rack.

Andrew-Gutkowski teaches Claim 9. Ex-1002 ¶¶214–215.

Andrew discloses a “liquid spray tube 13 is located centrally within compartment 11 and extends forwardly of the rear wall.” Ex-1013, 2:43–45. Andrew explains that the central portion of rack 14 “straddles a centrally located liquid spray tube.” *Id.*, 1:60–61. The design of the rack and its utensil support “affords entrance of ample water from the sprayed streams thereof from [spray] tube 13 into each cup.” *Id.*, 4:47–49. As can be seen in Figure 2, annotated below, the liquid spray tube 13 (red) extends the depth of the washing compartment 11, and therefore from the front of the upper dish rack to the back of the upper dish rack. Ex-1002 ¶215.

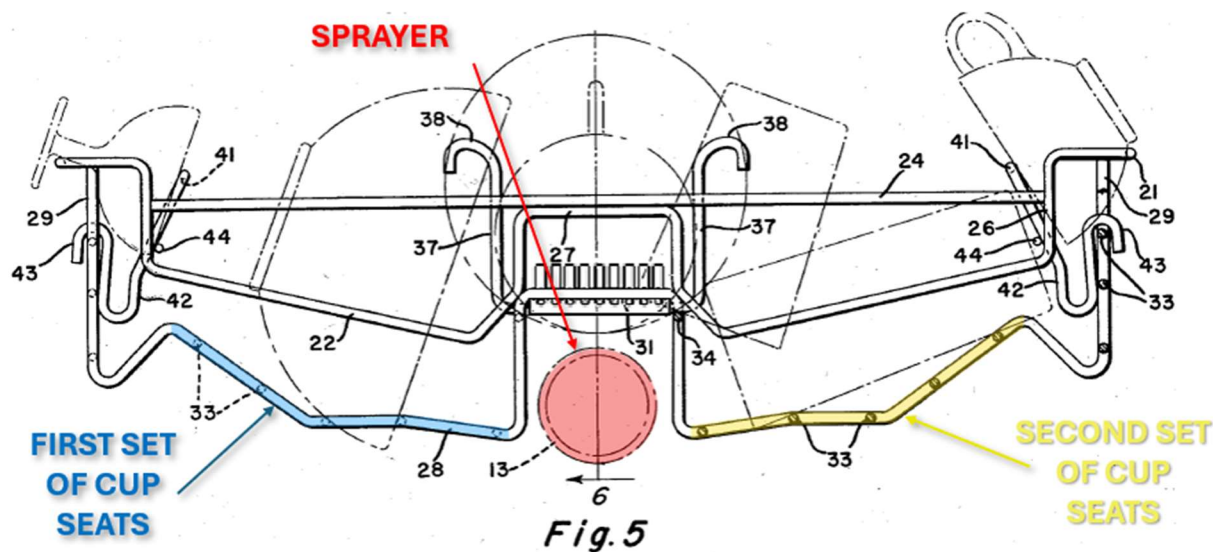


- g. **Claim 10:** The dishwasher of claim 7, wherein the at least one sprayer is also configured to emit the spray of water into a cup held by the second set of cup seats.

Andrew-Gutkowski teaches Claim 10. Ex-1002 ¶¶216–217.

For the same reasons as Claim 7, Andrew discloses the sprayer emitting the spray of water into a cup held by the second set of cup seats. *See* Section XII.C.3.d (Cl. 7). Andrew states rack 14 is designed to “provide[] ample and proper support for washing, rinsing, and draining of tumblers, *cups*, saucers, . . . and drinking glasses. Ex-1013, 4:19–22. Spray tube is configured “for spraying a plurality of streams of water in various directions . . . and onto utensils” including the cup held

by the second set of cup seats. *Id.*, 2:45–47. As can be seen in Figure 5, annotated below, the cup held by the second set of cup seats (yellow) would receive a spray of water from the sprayer (red). Ex-1002 ¶217.

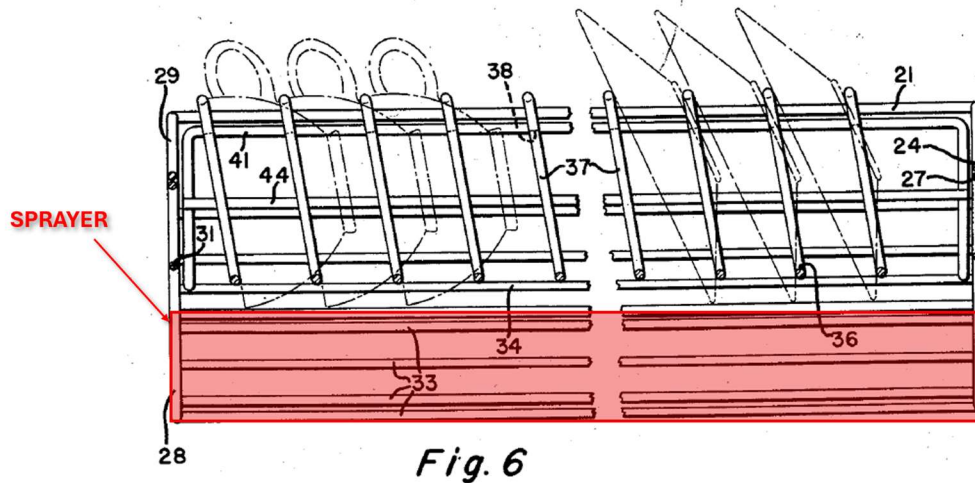


- h. **Claim 11:** The dishwasher of claim 7, wherein the at least one sprayer is configured to provide a straight-line stream of water.

Andrew-Gutkowski teaches Claim 11. Ex-1002 ¶¶218–221.

Andrew explains that liquid spray tube 13 is configured “for spraying a plurality of streams of water in various directions.” Ex-1013, 2:43–45. When cups or bowls are arranged on the center rails 34, as seen in Figure 6 below, it “affords entrance of ample water from the sprayed streams [] from tube 13 into each cup and adjacent exterior cup surfaces form splash baffles for directing water striking one

cup into another adjacent cup.” *Id.*, 4:47–51. Although liquid spray tube 13 is not shown in Figure 6, the approximate location is annotated in red below. Ex-1002 ¶219.



Further, Andrew incorporates by reference U.S. Patent No. 2,734,520 to Abresch et al. for the “full and comprehensive description of details of such a dishwasher. Ex-1013, 2:58–63 (“as the present invention is concerned, it is particularly applicable to washing machines of the type shown in Abresch et al. Patent 2,734,520 . . . and this patent is referred to for a full and comprehensive description of details of such a dishwasher”). Abresch teaches that “[t]he spray tube is perforated to provide solid streams of water or cleansings liquid having sufficient force to thoroughly clean the articles.” Ex-1021, 1:60–63. Figure 12, depicted below, illustrates “jets of liquid” 148, 150, 152 emitted form the perforated apertures on the spray tube. *Id.*, 4:23–59.

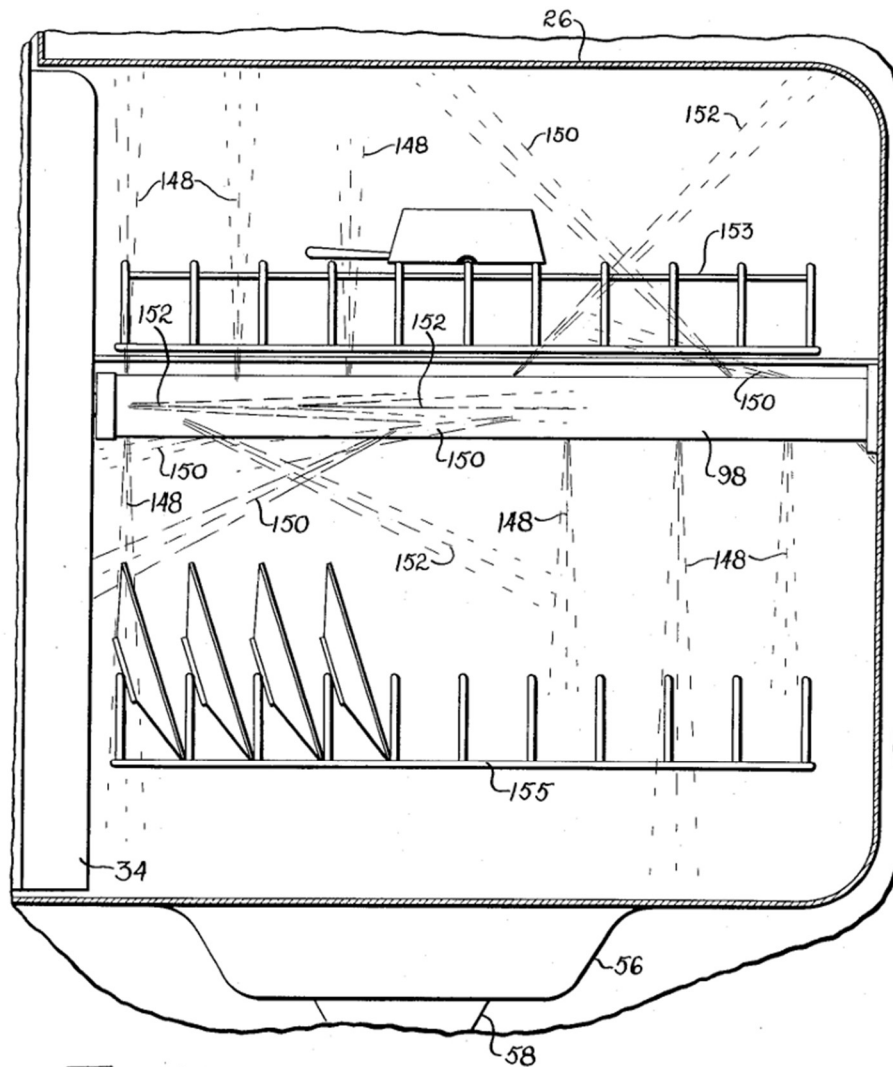


Fig. 12

Abresch's spray tube with jets of water is readily applied to the liquid spray tube 13 of Andrew. Abresch is expressly incorporated to provide, among other things, additional information on how a POSITA would implement the liquid spray tube of Andrew. Andrew, therefore, discloses the limitations of Claim 11. Ex-1002 ¶221.

- i. **Claim 12: The dishwasher of claim 7, wherein the at least one sprayer includes a plurality of nozzles, and wherein each of the spray nozzles is configured to rotate as the at least one sprayer emits the spray of water into the cup held by the first set of cup seats.**

Andrew-Gutkowski teaches Claim 12. Ex-1002 ¶¶222–224.

Andrew discloses a liquid spray tube 13 and, as explained for Claim 11, Andrew further incorporates by reference Abresch. *See* Section XII.C.3.h. (Cl. 11). Abresch teaches that its spray tube is “rotatably mounted.” Ex-1021, 3:63–66. Abresch’s spray tube “is provided with three vanes 145 projecting radially inward against which the rotating inlet water impinges to apply a rotating impulse.” *Id.*, 4:16–18. Abresch’s spray tube is further “formed with a series of longitudinal apertures 147, . . . which are arranged generally in the form of a helix on the tube 98. . . . All of these longitudinal apertures provide jets of liquid.” *Id.*, 4:23–30. Abresch’s longitudinal apertures 147 are a plurality of nozzles. Ex-1002 ¶223. Abresch Figures 6–11, below, illustrate the apertures along the spray tube, cross-sectional views of the spray tube, and sectional views of the apertures themselves.

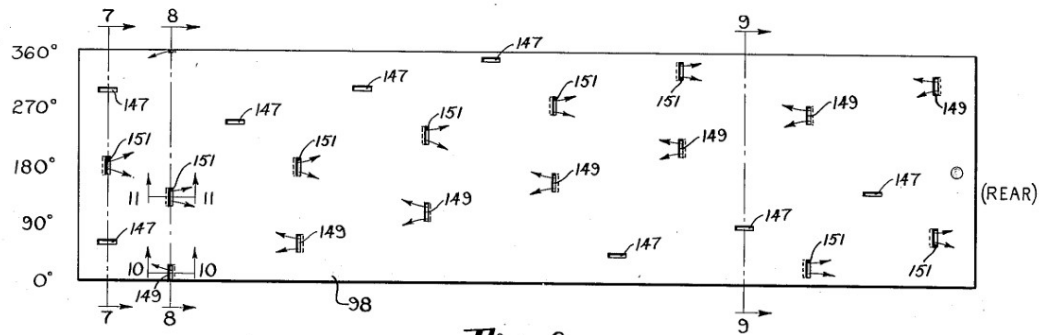


Fig. 6

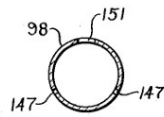


Fig. 7

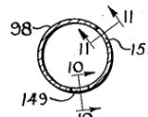


Fig. 8

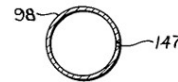


Fig. 9



Fig. 10



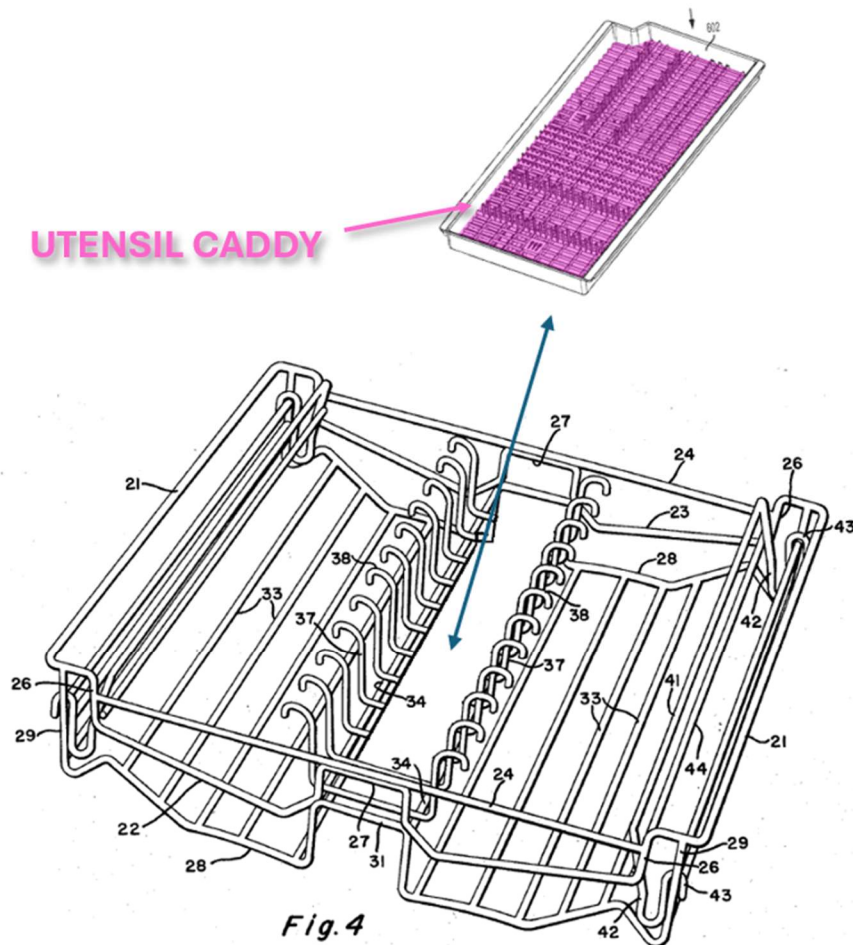
Fig. 11

Abresch's rotating tube and apertures are readily applied to liquid spray tube 13 of Andrew. When the spray tube rotates, the nozzles located in a helical pattern on said tube rotate as well. As the tube spins, water would be sprayed into the cup held by the first set of cup seats. See Section XII.C.3.d (Cl. 7). Andrew, therefore, teaches "the at least one sprayer includ[ing] a plurality of nozzles, and wherein each of the spray nozzles is configured to rotate as the at least one sprayer emits the spray of water into the cup held by the first set of cup seats." Ex-1002 ¶224.

- j. **Claim 13: The dishwasher of claim 7, wherein the utensil caddy includes a diffuser that diffuses the spray of water emitted by the at least one sprayer.**

Andrew-Gutkowski teaches Claim 13. Ex-1002 ¶¶225–226.

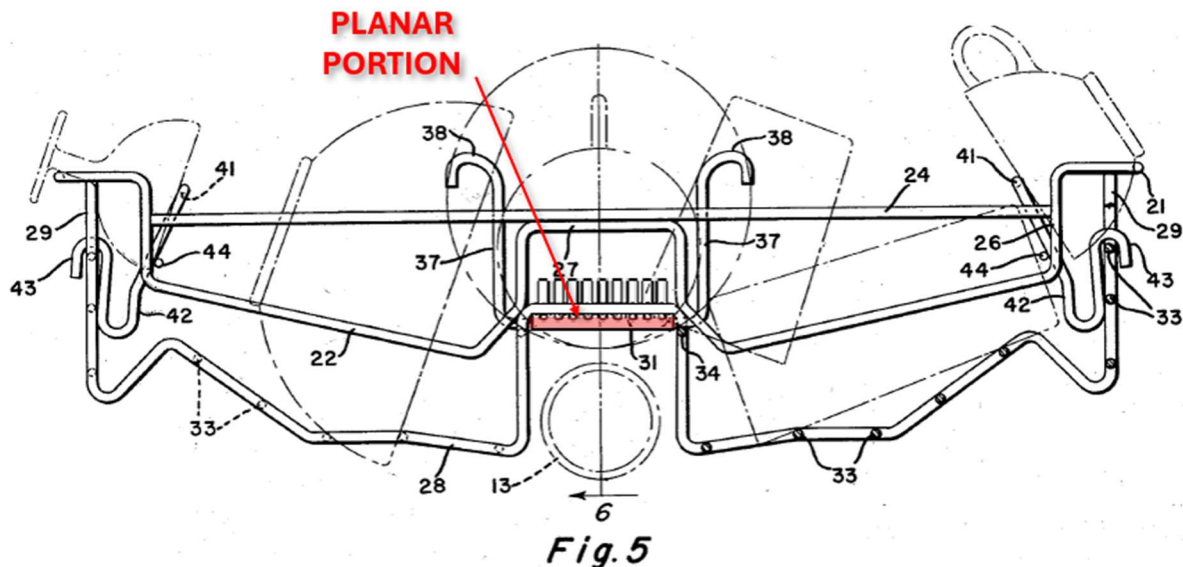
Andrew, as modified by Gutkowski, has a silverware basket in place of the flat support section of Andrew's rack 14. *See* Section XII.C.2.h (claim element 1[e]). The bottom wall of the utensil caddy (pink) sits above liquid spray tube 13. Streams of water emitted from the spray tube would thereby strike the bottom wall of the utensil caddy and become diffused. The flat support section (red) and utensil caddy (pink) acts as the recited diffuser. Ex-1002 ¶226.



- k. **Claim 14:** The dishwasher of claim 7, wherein the at least one sprayer is configured to emit a straight-line stream of water to the planar portion of the upper dish rack.

Andrew-Gutkowski teaches Claim 14. Ex-1002 ¶¶227–228.

As explained for Claim 11, Andrew’s liquid spray tube emits a straight-line stream of water. *See* Section XII.C.3.h (Cl. 11); *see also* Ex-1013, 4:47–51. Andrew explains that the sprayer is configured “for spraying a plurality of streams of water in various directions,” including to the flat support section directly above said spray tube. Ex-1013, 2:43–45. As such, the at least one sprayer will emit a straight-line stream of water to the planar portion (red). Ex-1002 ¶228.



- l. **Claim 15:** The dishwasher of claim 7, wherein the at least one sprayer is configured to emit a fan pattern of water.

Andrew-Gutkowski teaches Claim 15. Ex-1002 ¶¶229–232.

As explained for Claim 13, Andrew's spray tube emits a stream of water that is diffused by the bottom wall of the utensil caddy. *See* Section XII.C.3.j (Cl. 13). When the straight-line stream of water is diffused by structures, such as the utensil caddy wall, the result is a fan pattern of water. Ex-1002 ¶230.

The '922 Patent specification further explains its understanding of the term "fan pattern of water." The specification states that placing a diffuser "in the path of the stream of water can diffuse the stream of water outward to form a fan pattern covering a larger area than the straight-line stream." Ex-1001, 7:62–66. The '922 Patent further states "[o]nce the stream of water hits the diffuser section, the stream of water can fan-out or form a cone-shaped spray area." *Id.* at 8:5–7.

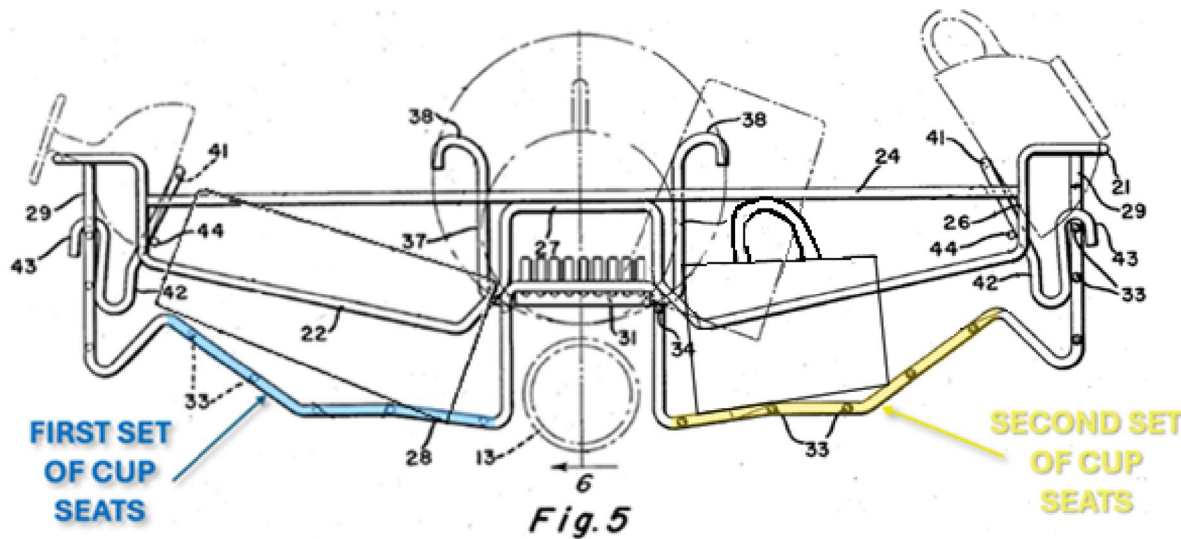
The liquid spray tube 13 is therefore configured to emit a fan pattern of water. Ex-1002 ¶232.

- m. Claim 16: The dishwasher of claim 1, wherein the first set of cup seats is configured to support a set of cups and the second set of cup seats is configured to support a set of mugs.**

Andrew-Gutkowski teaches Claim 16. Ex-1002 ¶¶233–234.

As explained for claim element 1[d], Andrew's bars 28 form a first set of cup seats and a second set of cup seats. *See* Section XII.C.2.g (element 1[d]). Andrew allows for "utensils placed on the rails of the bottom portions of the rack." Ex-1013, 3:43–45. As shown in the modified Figure 5 below, utensils may include a cup.

Further, Andrew explains that a utensils also may include “glassware such as *coffee or tea cups*.” Ex-1013, 2:30–37. A POSITA would understand a coffee cup is or could be a “mug.” Ex-1002 ¶234. Thus, the first set of cup seats is configured to support a set of cups and the second set of cup seats is configured to support a set of mugs. *Id.* The below Figure 5 has been modified to illustrate the first set of cup seats may support a cup and how the second set of cup seats may support a mug.

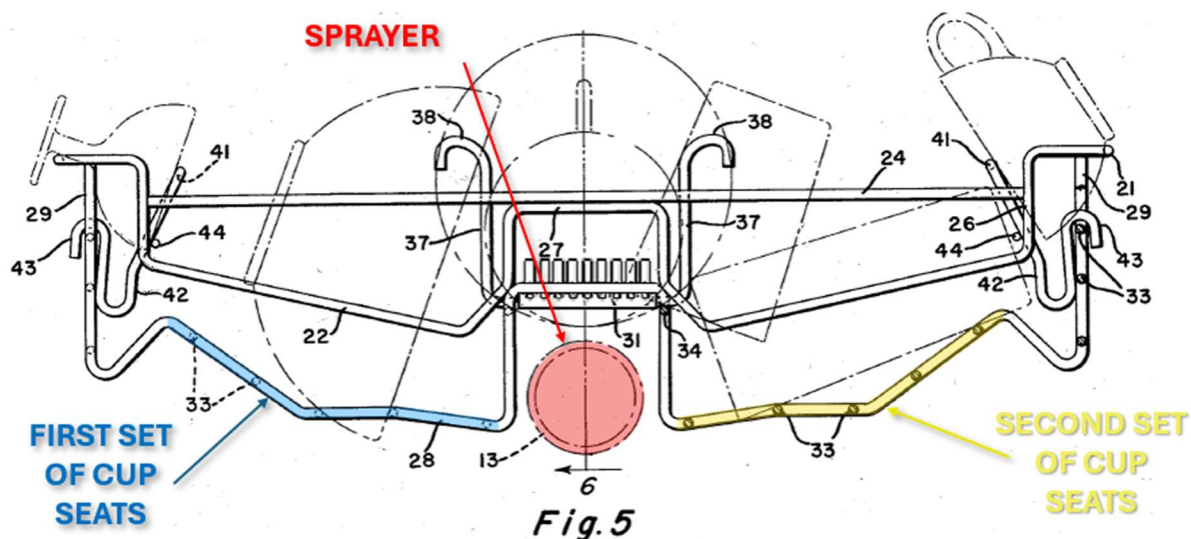


- n. **Claim 17:** The dishwasher of claim 7, wherein the at least one sprayer is located between the first set of cup seats and second set of cup seats, the at least one sprayer configured to emit a spray of water into drinking vessels held by the first set and second sets of cup seats.

Andrew-Gutkowski teaches Claim 17. Ex-1002 ¶¶235–236.

As explained for Claim 8, the liquid spray tube 13 is located between the first set of cup seats and the second set of cup seats. *See* Section XII.C.3.e (Cl. 8). Further,

the liquid spray tube is configured to emit a spray of water into vessels held by the first and second set of cup seats. Andrew explains that a “liquid spray tube 13 is located centrally within compartment 11 and extends forwardly of the rear wall thereof for spraying a plurality of streams of water in various directions . . . and onto utensils.” Ex-1013, 2:43–47. Andrew states rack 14 is designed to “provide[] ample and proper support for washing, rinsing, and draining of tumblers, *cups*, saucers, . . . and drinking glasses. *Id.*, 4:19–22. As is shown in Figure 5 below, the sprayer (red) emits a spray of water in the vessels held by the first cup seat (blue) and second cup seat (yellow). Ex-1002 ¶236.



- o. **Claim 18:** The dishwasher of claim 7, wherein a portion of the spray of water emitted by the at least one sprayer is directed toward the plurality of utensil holders.

Andrew-Gutkowski teaches Claim 18. Ex-1002 ¶¶237–238.

Andrew explains that a “liquid spray tube 13 is located centrally within compartment 11 and extends forwardly of the rear wall thereof for spraying a plurality of streams of water in various directions . . . and onto utensils.” Ex-1013, 2:43–47. This includes toward the silverware basket of Gutkowski placed immediately above the liquid spray tube. When center rails 34 above the spray tube are used to hold cups or bowls, Andrew explains that water is upward “from tube 13 into each cup.” *Id.*, 4:47–50. Thus, when the recited utensil holders are placed above the sprayer, a portion of the water emitted by the at least one sprayer will be directed toward the utensil holders. Ex-1002 ¶238.

p. Claim 19: The dishwasher of claim 7, wherein the upper dish rack includes a wire frame construction that forms the first angled wall and second angled wall.

Andrew-Gutkowski teaches Claim 19. Ex-1002 ¶¶239–242.

As explained in claim element 1[c][iii], bars 28 serve as the recited first angled wall and second angled wall. *See* Section XII.C.2.f (claim element 1[c][iii]). Andrew further discloses the angled walls being formed of a wire frame construction. Andrew explains that “[a]ll of the wire elements, bars 22, 24 **28**, rails 33, 34, 41 and 44 and other *wire members of rack 14* may be coated with some suitable resilient substance such as natural or synthetic rubber or vinyl material.” Ex-1013, 4:13–17.

Gutkowski explains that its alternative embodiments depict “metal wire basket inserts” being used in place of the silverware baskets. Ex-1016, 9:16–20. The

metal wire baskets may be formed “entirely out of metal (such as stainless steel) or metal (such as carbon steel) dipped in, for example, a Nylon powder so that the wire is coated.” *Id.* 7:62–66. A POSITA would have understood that the wireframe construction of the “metal wire baskets” maybe used in combination with the utensil holders of the silverware basket. Ex-1002 ¶241. Gutkowski teaches that “the various features described in connection with a particular embodiment can be used (mixed and matched) with the other embodiments.” Ex-1016, 11:18–19.

Andrew-Gutkowski therefore teaches the requirements of Claim 19. Ex-1002 ¶242.

q. Claim 20: The dishwasher of claim 19, wherein the wire frame construction also forms the planar portion and side walls of the upper dish rack.

Andrew-Gutkowski teaches Claim 20. Ex-1002 ¶¶243–246.

As explained in Claim 19, the rails forming the claimed angled walls have a wire frame construction. *See* Section XII.C.3.p (Cl. 19). The planar portion and side walls are formed from a wire frame construction.

Andrew discloses that “upper rack 14 comprises a perimeter metal wire having straight portions providing opposed horizontal *side rails*.” Ex-1013, 2:69–71. Thus, Andrew has side walls of a wire frame construction. Ex-1002 ¶245.

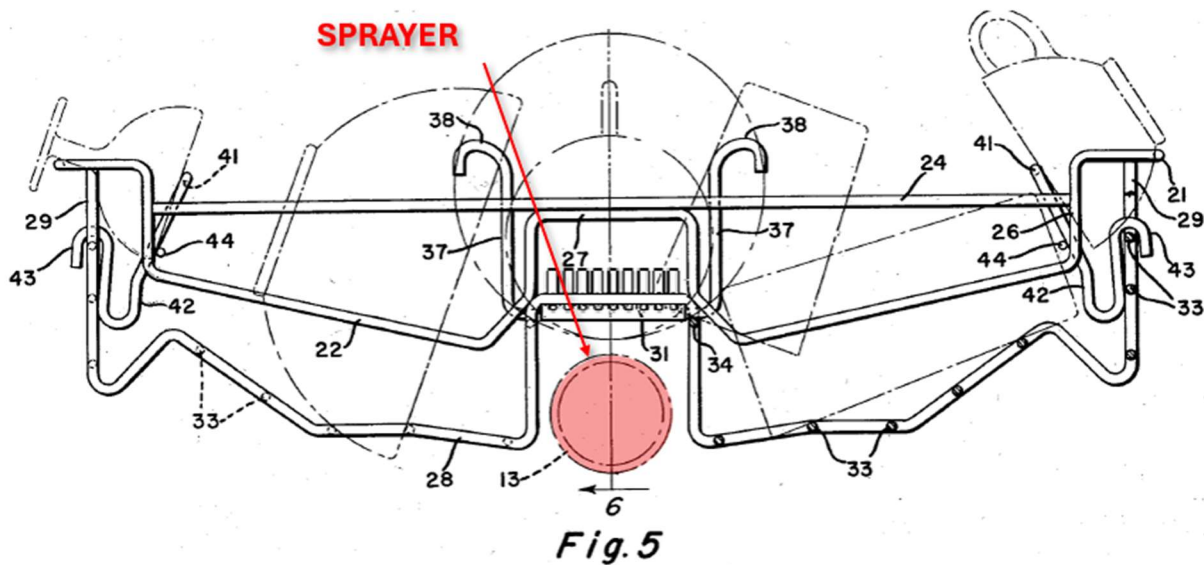
The silverware basket of Gutkowski, as relied upon in the Andrew-Gutkowski combination, also has a bottom wall comprised of a wire frame construction. *See*

Section XII.C.1. Gutkowski teaches the use of “metal wire baskets” that may be formed “entirely out of metal (such as stainless steel) or metal (such as carbon steel) dipped in, for example, a Nylon powder so that the wire is coated.” Ex-1016, 7:62–66. A POSITA would have understood that the metal wire basket design is compatible with the other silverware basket embodiments disclosed in Gutkowski, and that the resulting basket is further compatible with the upper dishrack of Andrew. *See* Section XII.C.1. Thus, Andrew-Gutkowski teaches a planar portion of a wire frame construction. Ex-1002 ¶246.

r. Claim 21: The dishwasher of claim 19, wherein a plurality of spray nozzles of the at least one sprayer are located beneath the wire frame construction.

Andrew-Gutkowski teaches Claim 21. Ex-1002 ¶¶247–248.

As explained for Claims 18 and 19, Andrew’s rack 14 is of a wire frame construction and the silverware basket of the Andrew-Gutkowski silverware basket is further constructed of metal wire. *See* Sections XII.C.3.p, XII.C.3.q (Cls. 19–20). The plurality of spray nozzles are further located beneath the wire frame construction. As can be seen below, liquid spray tube 13 (red) is located below base portion 36 of the U-shaped wire members. Ex-1013, 3:57–60. As explained for claim 12, Abresch’s spray tube (incorporated herein) is formed with a series of apertures (nozzles). *See* Section XII.C.3.i (Cl. 12); Ex-1002 ¶248.



- s. **Claim 22: The dishwasher of claim 21, wherein the plurality of spray nozzles are configured to rotate during said dishwasher operation.**

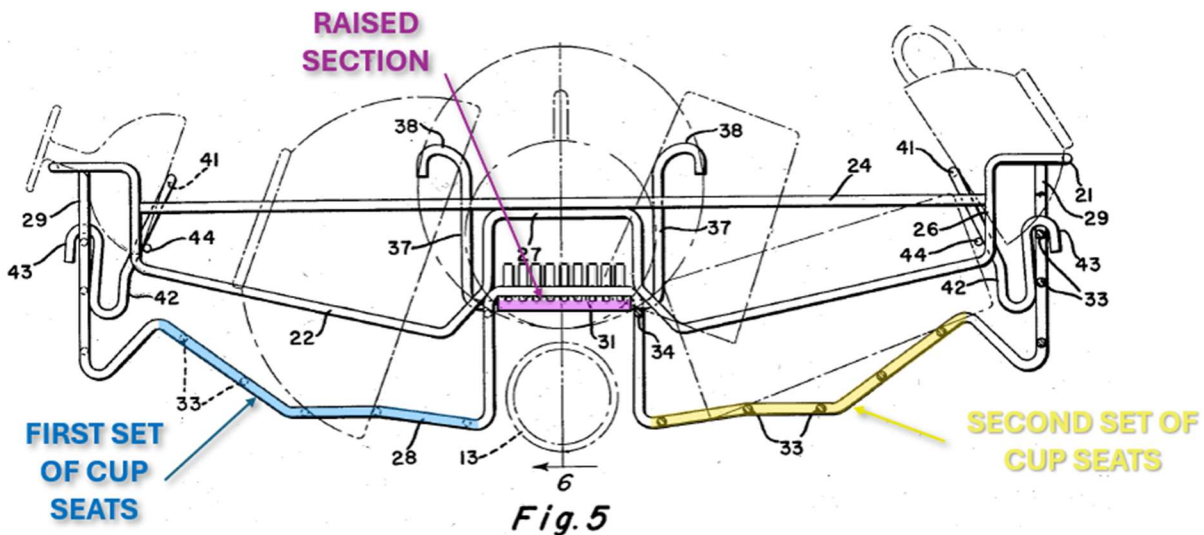
Andrew-Gutkowski teaches Claim 22. Ex-1002 ¶¶249–250.

As explained for Claim 12, the spray nozzles located on the spray tube of Andrew are configured to rotate, based on the incorporated disclosures of Abresch. *See* Section XII.C.3.i (Cl. 12). Said nozzles are further disposed beneath the wire frame construction. *See* Section XII.C.3.r (Cl. 21). Andrew-Gutkowski, therefore, teaches the limitations of Claim 22. Ex-1002 ¶250.

- t. **Claim 23: The dishwasher of claim 21, wherein the wire frame construction includes a raised section disposed between the first set of cup seats and the second set of cup seats.**

Andrew-Gutkowski teaches Claim 23. Ex-1002 ¶¶251–252.

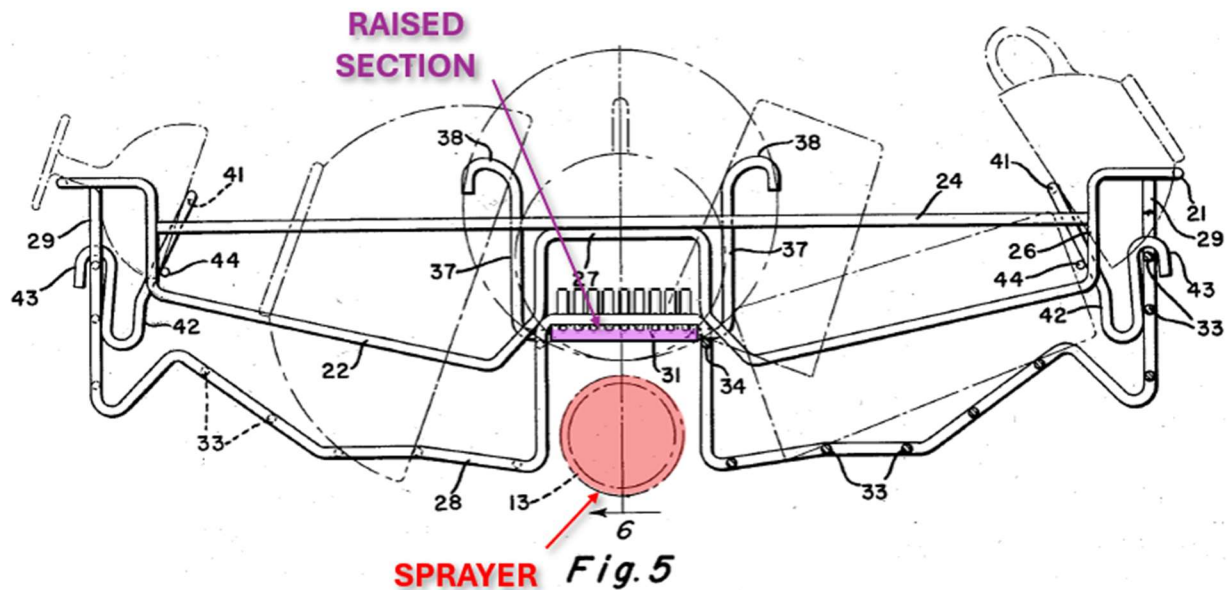
As explained for Claim 20, Andrew-Gutkowski teaches that the silverware basket disposed between the first and second set of cup seats is of a wire frame construction. *See* Section XII.C.3.q (Cl. 20). The silverware basket is a further raised section between said cup seats. As can be seen in Figure 5 below, the silverware basket constitutes a raised section that is both above and between the first and second set of cup seats. Ex-1002 ¶252.



- u. **Claim 24:** The dishwasher of claim 23, wherein the plurality of spray nozzles are disposed below a portion of the raised section.

Andrew-Gutkowski teaches Claim 24. Ex-1002 ¶¶253–254.

As explained for Claim 12, Andrew's liquid spray tube 13 has a series of apertures (spray nozzles). *See* Section XII.C.3.i (Cl. 12). As can be seen in Figure 5 below, the apertures of spray tube 13 (red) are disposed below the raised section (purple). Ex-1002 ¶254.



- v. **Claim 25:** The dishwasher of claim 7, wherein a lowermost portion of the first set of cup seats and a lower most portion of the second set of cup seats is disposed below the at least one sprayer.

Andrew-Gutkowski teaches Claim 25. Ex-1002 ¶¶255–257.

As explained for Claim 11, Andrew incorporates by reference the Abresch patent. *See* Section XII.C.3.h (Cl. 11). Abresch also discloses a spray tube and upper rack. Abresch teaches “the upper rack may be used or both flat articles and cupped articles since the cupped articles can be supported in the upper rack in an inverted position and receive in their interior jets of water directly from the spray tube 98.” Ex-1021, 5:74–6:3. As can be seen in Abresch’s Figure 2, annotated below, the lowermost portions of the upper rack (green) are disposed below the spray tube (red). Ex-1002 ¶256.

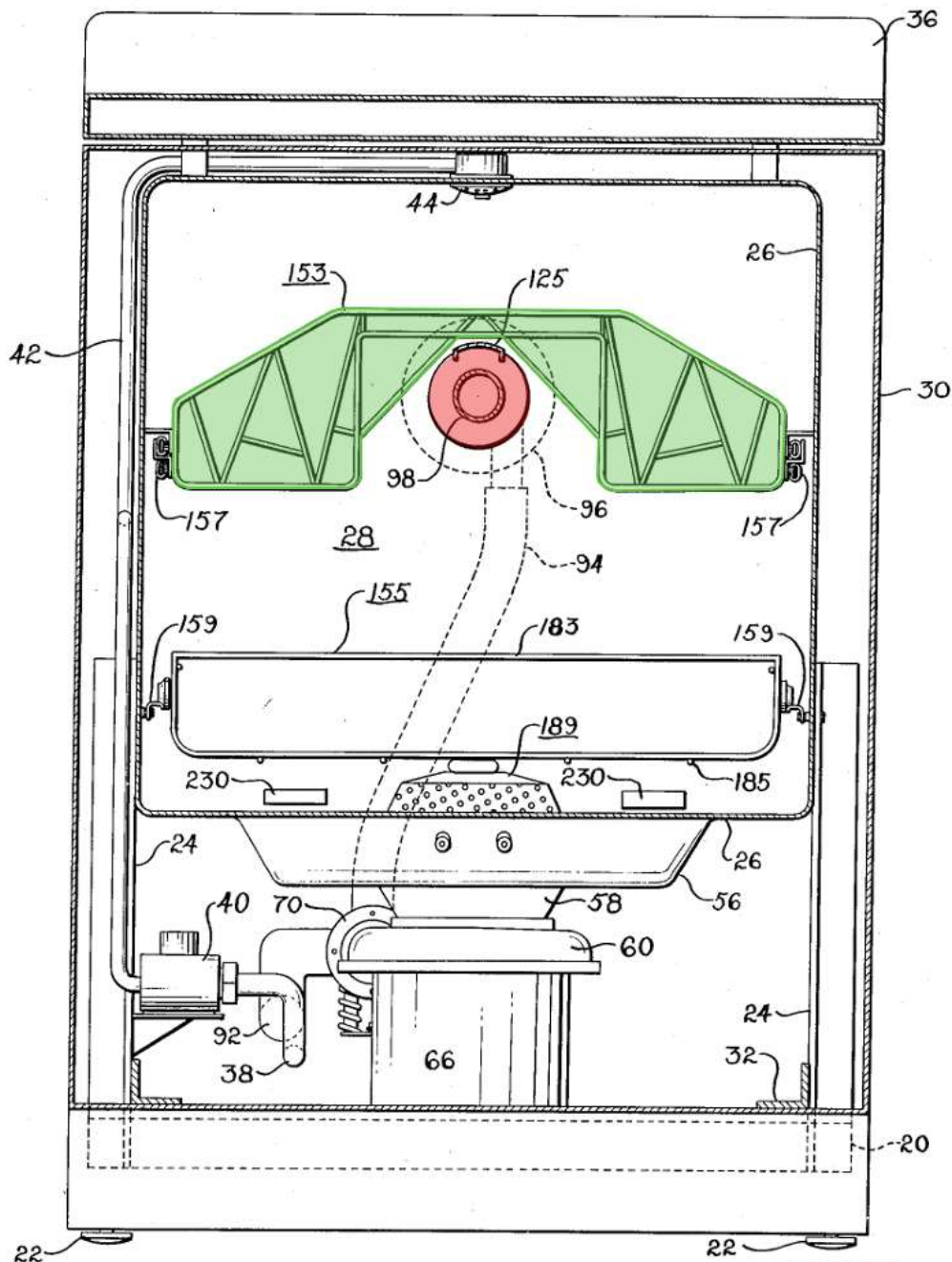
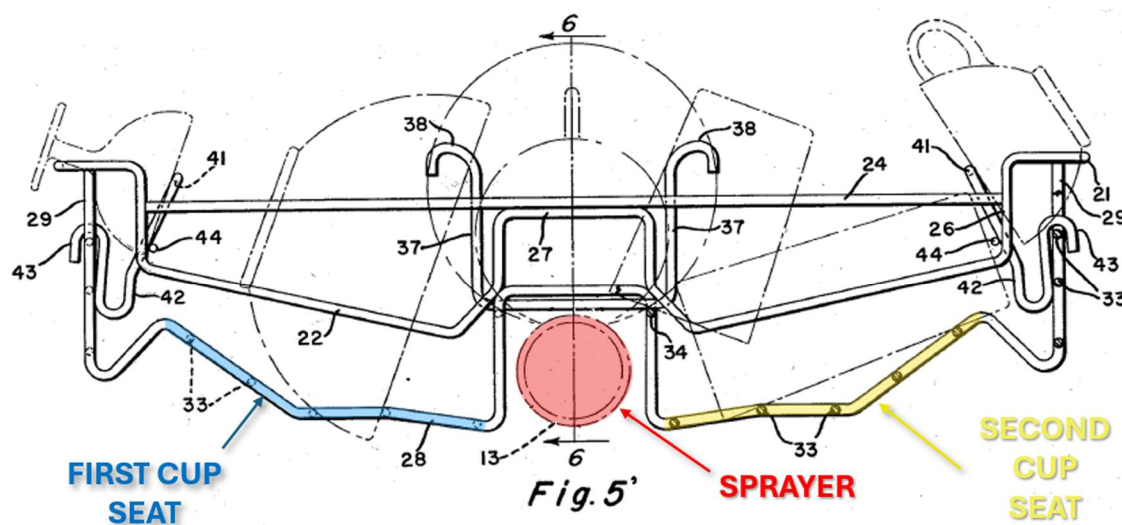


Fig. 2

INVENTOR.
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The disposition of the spray tube in Abresch is readily applied to Andrew. Ex-
1002 ¶257. Andrew aims to “provide[] ample and proper support for washing,

rinsing, and draining of tumblers, *cups*, saucers, . . . and drinking glasses. Ex-1013, 4:19–22. Abresch confirms that it is still possible to spray directly into the sets of cups placed on the cup seats of the upper rack with the spray tube disposed above the lowermost points of said cup seats. Ex-1002 ¶257. As applied to Andrew, the spray tube would thus be raised in relation to the upper rack and the first and second set of cup seats. This is depicted, below, in modified Figure 5' where the lower most point of the first set of cup seats (blue) and second set of cup seats (yellow) is disposed below the liquid spray tube (red). Ex-1002 ¶257.



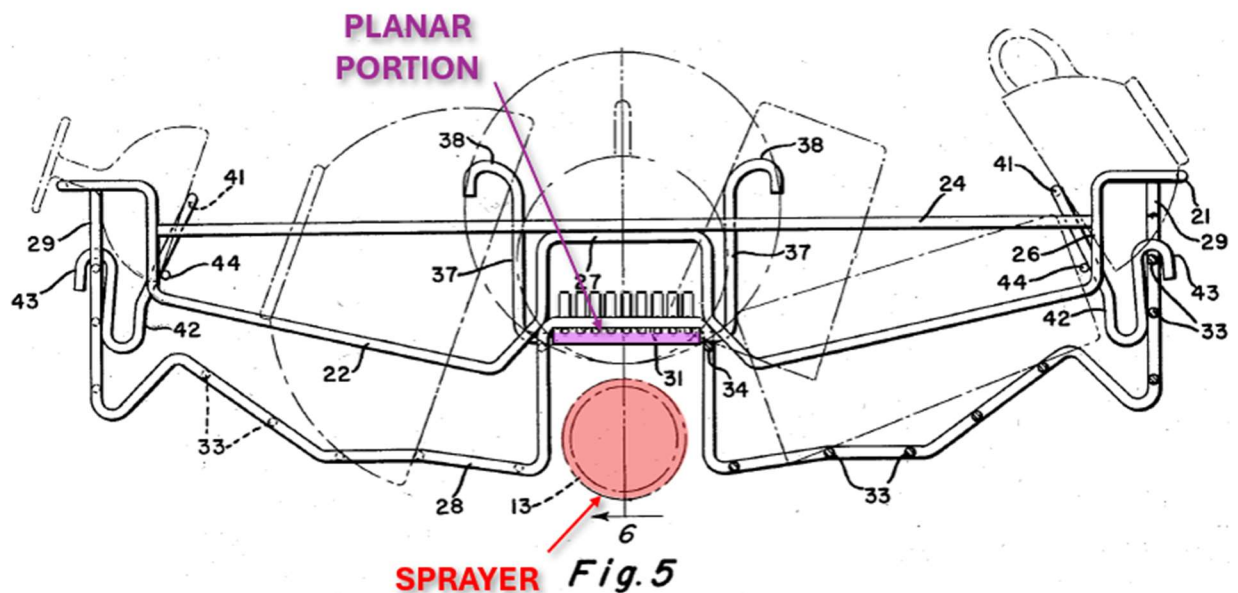
A POSITA would have viewed the precise location of the sprayer in relation to the lowest most portion of the cup seats to be an simple matter of expedient design choice. Ex-1002 ¶258. Further, there is an advantage to the slight modification of raising the spray tube of Andrew. In the modified orientation, more of the washing

liquid is able to enter the cup mouth and therefore achieve the goals of Andrew of thoroughly washing the inside of the cup set in its upper rack. A POSITA would therefore have found the modification to be a simple design choice, and would have been motivated to make this choice to further the goals of Andrew. *Id.* ¶258.

w. Claim 26: The dishwasher of claim 7, wherein the at least one sprayer is disposed below the planar portion.

Andrew-Gutkowski teaches Claim 26. Ex-1002 ¶¶259–260.

As explained for Claim 24, Andrew's liquid spray tube 13 is disposed below the raised section. *See* Section XII.C.3.u (Cl. 24). As can be seen in Figure 5 below, for similar reasons, the at least one sprayer (red) is additionally disposed below the planar portion (purple). Ex-1002 ¶260.



D. Ground 4: Claim 20 is Indefinite under § 112(b)

Claim 20 is indefinite under 35 U.S.C. § 112(b). Ex-1002 ¶¶261–264.

Claim 20 recites “[t]he dishwasher of claim 19, wherein the wire frame construction also forms the planar portion and side walls of the upper dish rack.” §112(b) requires that each claim “particularly point[s] out and distinctly claim[s] the subject matter which the inventor or a joint inventor regards as the invention.” 35 U.S.C. § 112(b). Claims terms that do not particularly point out the claimed subject matter are subsequently indefinite.

Claim 20 specifically limits the “**side walls** of the upper dish rack.” However, Patent Owner fails to distinctly claim said “side walls.” The term lacks antecedent basis, as there is no other mention of “side walls” in the claims to which Claim 20 is dependent. *See* Ex-1001, Cls. 1, 2, 7, 19. The lack of antecedent basis thus renders a POSITA unable to readily determine the scope of the claimed term.

Claim 20 is therefore indefinite under § 112(b). Ex-1002 ¶264.

XIII. CONCLUSION

Petitioner requests institution of PGR for Claims 1–4 and 7–26 of the ’922 Patent based on each of the grounds in this Petition.

Respectfully submitted,

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CERTIFICATE OF WORD COUNT

Pursuant to 37 C.F.R. § 42.24(d), Petitioner certifies that this petition includes 15,760 words, as measured by Microsoft Word, exclusive of the table of contents, mandatory notices under § 42.8, certificates of service, word count, and exhibits.

CERTIFICATE OF SERVICE (37 C.F.R. §42.6(e)(1))

The undersigned hereby certifies that the above document was served on April 14, 2026, by filing this document through the Patent Trial and Appeal Board P-TACTS System, as well as delivering a copy via express mail upon the following attorneys of record for the Patent Owner:

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