

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

BJ'S WHOLESALE CLUB HOLDINGS, INC.,
Petitioner,

v.

WALMART APOLLO, LLC,
Patent Owner.

IPR2022-01471
Patent 10,121,133 B2

Before NEIL T. POWELL, MITCHELL G. WEATHERLY, and
ARTHUR M. PESLAK, *Administrative Patent Judges*.

WEATHERLY, *Administrative Patent Judge*.

DECISION
Denying Institution of *Inter Partes* Review
35 U.S.C. § 314

I. INTRODUCTION

A. Background

BJ's Wholesale Club Holdings, Inc. ("Petitioner") filed a petition (Paper 2, "Pet.") to institute an *inter partes* review of claims 1–6 (the "challenged claims") of U.S. Patent No. 10,121,133 B2 (Ex. 1001, "the '133 patent"). 35 U.S.C. § 311. Walmart Apollo, LLC ("Patent Owner")

timely filed a Preliminary Response. Paper 6 (“Prelim. Resp.”). Institution of an *inter partes* review is authorized by statute when “the information presented in the petition filed under section 311 and any response filed under section 313 shows that there is a reasonable likelihood that the petitioner would prevail with respect to at least 1 of the claims challenged in the petition.” 35 U.S.C. § 314(a). Based on our review of the record, we conclude that Petitioner is not reasonably likely to prevail with respect to at least one of the challenged claims. Accordingly, we do not institute *inter partes* review.

Petitioner challenges the patentability of claims as follows:

Claim(s) challenged	35 U.S.C. §¹	Reference(s)
1–5	103	Watanabe, ² Giordano ³
6	103	Watanabe, Giordano, Ogilvy ⁴
1–5	103	O’Hagan, ⁵ Watanabe, Giordano
6	103	O’Hagan, Watanabe, Giordano, Ogilvy

¹ The Leahy-Smith America Invents Act (“AIA”) included revisions to 35 U.S.C. §§ 102 and 103 that became effective March 16, 2013. The application for the ’133 patent was filed on November 16, 2010, before the effective date of the AIA. Accordingly, we apply the pre-AIA version of 35 U.S.C. § 102 when considering claims of the ’133 patent.

² U.S. Pat. Pub. No. 2008/0228591 A1 (Ex. 1005, “Watanabe”).

³ U.S. Pat. Pub. No. 2008/0011825 A1 (Ex. 1006, “Giordano”).

⁴ U.S. Pat. Pub. No. 2008/0099961 A1 (Ex. 1007, “Ogilvy”).

⁵ U.S. Pat. Pub. No. 2002/0145038 A1 (Ex. 1008, “O’Hagan”).

B. Related Proceedings

Petitioner identified as a related proceeding the co-pending district court proceeding of *Sam's West, Inc. et al. v. BJ's Wholesale Club Holdings, Inc.*, No. 6:2022-cv-00587 (M.D. Fl., Mar. 22, 2022). Pet. 1; Paper 3, 2. Patent Owner further identifies pending U.S. Application No. 17/004,819 as related to the '133 patent. Paper 3, 2.

C. The '133 Patent

The '133 patent discloses techniques “for purchasing an item using a mobile device” that enable a user to “save time by not having to remove items from a shopping cart for scanning at a traditional cashier or a self-checkout station.” Ex. 1001, code (57), 3:11–15. The technique involves mobile device 200 that (i) executes a mobile self-checkout application, and (ii) connects wirelessly to a remote server 240 associated with a store. *Id.* at 5:56–61. The user may scan barcodes on items of interest in a store to obtain “identification information 222,” which mobile device 200 sends to remote server 240 as part of a potential purchase transaction. *Id.* at 6:18–20, 7:48–61, 8:60–9:36. Collectively, mobile device 200 and server 240 employ methods that enables server 240 “to support more users 610 and ultimately more orders 452.” *Id.* at 16:7–8.

These methods are performed using “terminal sales application 620 residing on the remote server 240.” *Id.* at 13:34–36. “Terminal sales application 620 includes a session manager 650 in communication with a Virtual Terminal Sales Application (VTSA) 640 and a transaction state container 660.” *Id.* at 13:22–25. These applications and their interactions are illustrated in part in Figure 19, reproduced below.

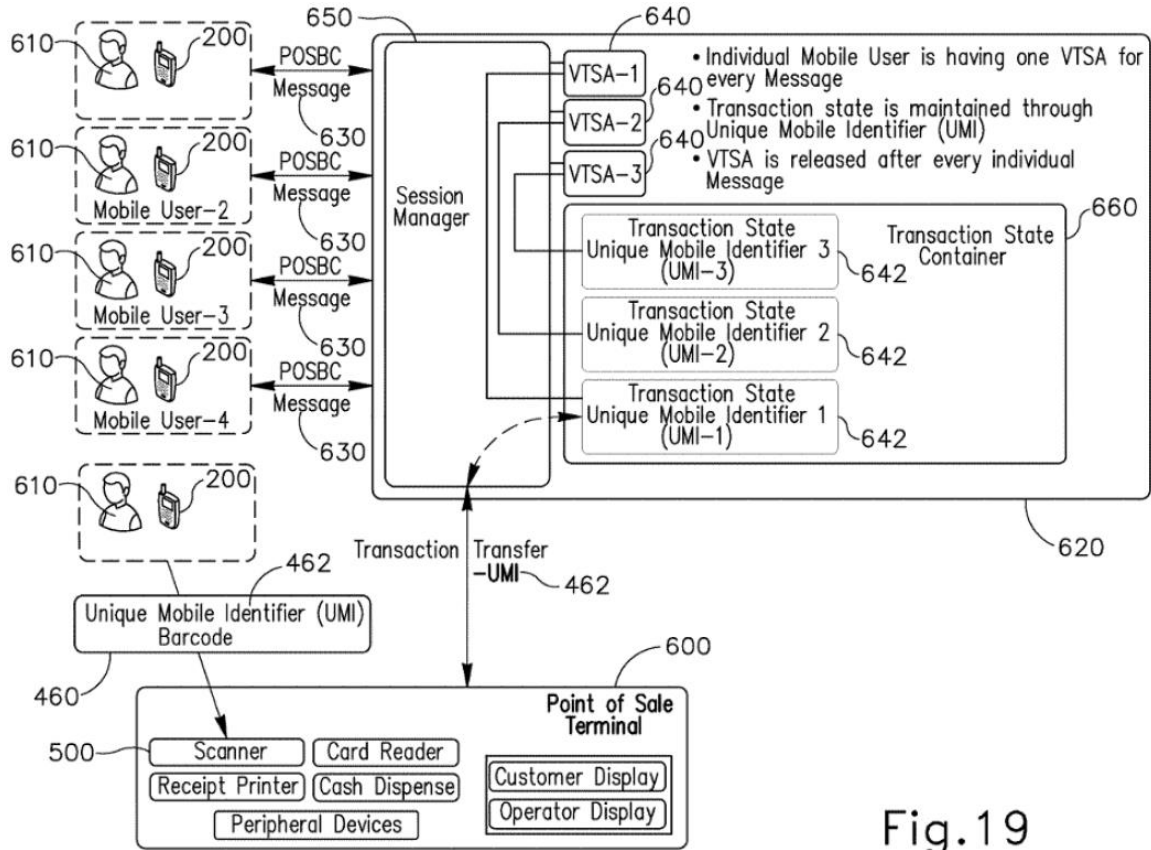


Fig.19

Session manager 650 “transmits and receives POS messages 630 to and from” the mobile self-checkout application 400 executed by the mobile device 200. *Id.* at 14:11–13. The ’133 patent explains that “[e]ach time a POS message 630 is received from the mobile self-checkout application 400, the POS message 630 is routed by session manager 650 to an open session of an available VTSA 640 within terminal session manager 620.” *Id.* at 14:22–26. “The unique identifier 462 embedded within POS message 630 is used by session manager 650 to locate transaction state information 642 associated with that unique identifier 462 used to conduct the virtual transaction for user 610.” *Id.* at 14:26–30. “VTSA 640 . . . acts upon the contents of the POS message 630 and updates the transaction state information 642 associated with that particular POS message 430.” *Id.* at 15:17–21. “For example, if a particular POS message 430 includes

information that an additional item 220 has been added to a user 610's virtual shopping cart 433, then the transaction state information 642 associated with that particular POS message 430 is updated to reflect this new information.” *Id.* at 15:21–26. Subsequently, “any change in the transaction state information 642 is saved by VTSA 640 in the transaction state container 660[,] and the transaction state information 642 is exported from the VTSA 640.” *Id.* at 15:56–59.

“By importing, changing, and then exporting the transaction state information 642 each time a POS message 630 is received from a mobile device 200, instead of just keeping transaction state information 642 constantly open, the VTSA 640 allows the server 240 to support more users 610 and ultimately more orders 452.” *Id.* at 16:3–8.

If the session manager 650 did not use [this technique], users 610 would be limited to the number of sessions of VTSA 640 running on the server 240 since each mobile user 610 would be statically connected to an instance of a VTSA 640 until the order 452 was complete. If, for example, ten sessions were running on the remote server 240, then remote server 240 would only be able to handle the virtual transactions of only ten mobile users 610 at one time.

Id. at 16:16–23.

Claim 1, which is the only independent claim among the challenged claims, recites:

1. A method for purchasing an item using a mobile device comprising:
executing a first application on a server (session manager 650?
Terminal sales application 620?);
receiving, on the server, from a mobile device, identification information for each item to be purchased in response to an

interaction between a user and a user interface of the mobile device;

executing a second application on the server (VTSA 640?), in response to receiving the identification information for each item from the mobile device;

creating, on the server, an order associated with the session including item information upon receiving, from the mobile device, the identification information for each item to be purchased as the identification information is received by the server;

generating dynamically, on the server, a unique identifier representing the order;

storing the order including item information associated with the item and the dynamically generated unique identifier for the order, in a state container within the first application on the server,

the item information being identified based on the identification information;

importing, by the second application, the order from the state container;

transmitting the item information imported by the second application on the server to the mobile device,

the item information being included in a virtual shopping cart that is (i) representative of the order stored on the server, (ii) accessible on the mobile device, and (iii) associated with an optical machine-readable representation dynamically generated by the mobile device to include the dynamically generated unique identifier encoded therein,

the item information being kept in the virtual shopping cart for a predefined period of time, after which the item information is deleted;

optically scanning, via an optical scanning machine of a point-of-sale terminal, the optical machine-readable representation displayed by the mobile device and corresponding to the order

to extract and decode the unique identifier encoded in the optical machine-readable representation;

transmitting the dynamically generated unique identifier from the point-of-sale terminal to the server to retrieve the order;

importing, by the second application, the order using the dynamically generated unique identifier from the state container;

receiving the order from the second application on the server sever at the point-of-sale terminal in response to transmission of the unique identifier to the server;

completing, via the point-of-sale terminal, a transaction based on the order received by the point-of-sale terminal from the server; and

generating, by the point-of-sale terminal, a receipt acknowledging completion of the transaction.

Id. at 21:17–22:24.

II. ANALYSIS

A. Claim Interpretation

We interpret claims in the same manner used in a civil action under 35 U.S.C. § 282(b) “including construing the claim in accordance with the ordinary and customary meaning of such claim as understood by one of ordinary skill in the art and the prosecution history pertaining to the patent.” 37 C.F.R. § 42.100(b). When applying that standard, we interpret the claim language as it would have been understood by one of ordinary skill in the art in light of the specification. *Wasica Fin. GmbH v. Cont’l Auto. Sys., Inc.*, 853 F.3d 1272, 1279–80 (Fed. Cir. 2017). Thus, we give claim terms their ordinary and customary meaning as understood by an ordinarily skilled artisan. *See Phillips v. AWH Corp.*, 415 F.3d 1303, 1312–13 (Fed. Cir. 2005) (en banc). Only terms that are in controversy need to be construed,

and then only to the extent necessary to resolve the controversy. *Nidec Motor Corp. v. Zhongshan Broad Ocean Motor Co.*, 868 F.3d 1013, 1017 (Fed. Cir. 2017).

Neither party identifies any language in the claims that must be expressly addressed to determine whether to institute review, and we discern none either.

B. Legal Standards

The Supreme Court in *KSR International Co. v. Teleflex Inc.*, 550 U.S. 398 (2007), reaffirmed the framework for determining obviousness as set forth in *Graham v. John Deere Co.*, 383 U.S. 1 (1966). The *KSR* Court summarized the four factual inquiries set forth in *Graham* that we apply in determining whether a claim is reasonably likely to be unpatentable as obvious under 35 U.S.C. § 103(a) as follows: (1) determining the scope and content of the prior art, (2) ascertaining the differences between the prior art and the claims at issue, (3) resolving the level of ordinary skill in the pertinent art, and (4) considering objective evidence indicating obviousness or nonobviousness. *KSR*, 550 U.S. at 406. With these standards in mind, we address each challenge below.

C. Relevant Prior Art

1. Watanabe

Watanabe discloses a shopping system that allows a customer to purchase merchandise displayed in a store window of a sales store (SS) outside store shopping hours via a payment store (PS). Ex. 1005 ¶¶ 3, 63–64; Ex. 1002 ¶ 87. In Watanabe, a merchandise server tracks merchandise for consumer purchase based on “a transaction ID.” Ex. 1005 ¶¶ 140, 141, 167, 168; Ex. 1002 ¶¶ 88–93. “The transaction ID is a code for

identifying each commercial transaction of the representation payment with the mobile terminal 1.” Ex. 1005 ¶ 76; Ex. 1002 ¶ 93. Once the consumer is ready to purchase the merchandise, the consumer proceeds to a payment terminal to initiate an electronic payment for the merchandise and a mobile terminal of the consumer transmits “the transaction ID” to the payment terminal, which uses “the transaction ID” to retrieve “transaction detail information” for merchandise payment. Ex. 1005 ¶¶ 169, 190, 191, 193, 195, 198, 201, 204, 207, 217, 218, 223; Ex. 1002 ¶¶ 94–102.

2. O’Hagan

O’Hagan discloses a shopping system wherein a customer uses a customer information terminal (CIT) for purchasing items and that communicates with a merchant host computer, which maintains “a customer’s running receipt” for items to be purchased by the customer. Ex. 1008 ¶¶ 57, 60, 70, 85 109, 110, Fig. 1; Ex. 1002 ¶¶ 125–129. O’Hagan discloses that the CIT instructs the customer to proceed to a cashier’s terminal, and once payment has been made, the terminal provides a confirmation to the computer. Ex. 1008 ¶¶ 112, 113, Fig. 1; Ex. 1002 ¶¶ 130–131.

3. Giordano

Giordano discloses a payment system that includes a service center, readers, and handheld electronic devices. Ex. 1006 ¶ 24; Ex. 1002 ¶ 107. Each electronic device can include barcode generation data that provides a barcode representing “a unique code,” and, at a POS, the consumer uses the electronic device to present “the unique code” to a reader, which detects “the unique code” so that a consumer ID can be identified. Ex. 1006 ¶¶ 10, 27–29, 51, 57–59; Ex. 1002 ¶¶ 108–111.

The reader acquires payment transaction data that “includes a payment amount, and optionally includes descriptions of the products or services paid for by the transaction.” Ex. 1006, ¶ 59; Ex. 1002 ¶ 111. The payment transaction data is provided to the service center to settle a payment transaction. Ex. 1006, ¶ 64; Ex. 1002 ¶¶ 111–112.

D. Claims 1–6: Obviousness in View of Watanabe, Giordano, and Ogilvy

Petitioner contends that the combined teachings of Watanabe and Giordano render claims 1–5 unpatentable as obvious, Pet. 13–40, and further combines teachings of Ogilvy to this combination as a basis for contending that dependent claim 6 is unpatentable as obvious, *id.* at 40–42. For the reasons expressed below, we conclude that Petitioner has failed to demonstrate a reasonable likelihood of proving that independent claim 1 is unpatentable for this ground.

Patent Owner argues, and we agree, that Petitioner fails to demonstrate that Watanabe describes the step of “importing, by the second application, the order from the state container.” Prelim. Resp. 22–35. Petitioner identifies Watanabe’s nonvolatile memory 83, including various “areas” 87–89, as the claimed “state container” from which the second application imports an order including item information and a unique identifier. Pet. 15, 23–24 (citing Ex. 1002 ¶¶ 143, 170–175). For the importing step itself, Petitioner contends that Watanabe describes retrieving “purchased merchandise information from the application area” (i.e., the claimed state container) “as shown in *annotated* Figure 29,” which we reproduce below.

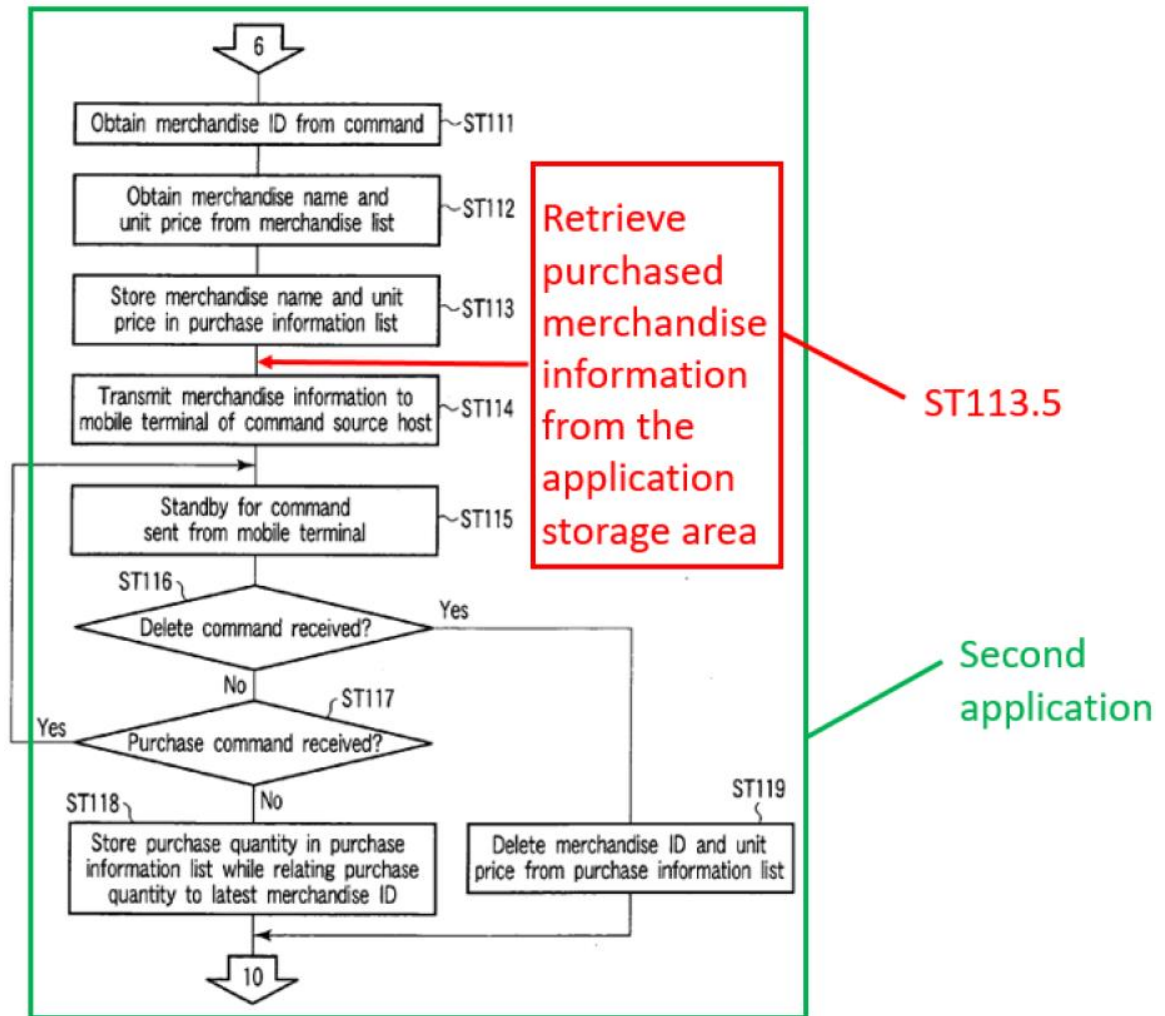


FIG. 29

Watanabe describes Figure 29 as a flowchart illustrating the processing by CPU 81 of merchandise server 8 in response to receiving a “shopping command” from mobile device at step ST99 of Figure 28. Ex. 1005 ¶¶ 42, 43, 139, 140. Without citing any objective evidence in support, Dr. Shamos testifies that an ordinarily skilled artisan would understand that Watanabe’s CPU 81 performs step ST113.5, which he added in red to the annotated Figure 29 above and is not expressly described by Watanabe. Ex. 1002 ¶ 152. Later, when addressing the “importing” step, Dr. Shamos testifies, again without citing objective evidence in support, that

an ordinarily skilled artisan would understand that Watanabe’s “second application” retrieves “purchased merchandise information” from “application storage area” (i.e., the claimed “state container”) at step ST113.5. *Id.* ¶ 181.

Patent Owner persuasively argues that Dr. Shamos’s opinion is inconsistent with Watanabe’s express disclosure. Prelim. Resp. 30–35. In step ST111, Watanabe’s CPU 81 obtains merchandise ID from the shopping command sent by its mobile device. Ex. 1005 ¶ 140. In step ST112, Watanabe’s CPU 81 uses the merchandise ID to search merchandise list 87L to retrieve merchandise name and unit price from that list. *Id.* In step ST113, CPU 81 stores the merchandise ID and unit price in purchase information list 85L (which is not part of the identified “state container”). *Id.* Then, in step ST114, CPU 81 transmits “merchandise information including the merchandise ID, merchandise name, and unit price to the mobile terminal 1” that originally sent the shopping command that was received in step ST111. *Id.*

Patent Owner contends, and we agree, that Watanabe transmits the information listed in step ST114 without ever having to “retrieve” it in an intermediate step ST113.5 as Petitioner contends. We find that Dr. Shamos’s testimony, which is unsupported by objective evidence and fails to explain why Watanabe would execute step ST113.5, is inconsistent with Watanabe’s express disclosure. To the extent that the “order” recited in the importing step includes “the dynamically generated unique identifier for the order,” Petitioner also fails to address or describe how Watanabe “imports” this identifier from the identified “state container” before the

second application transmits “item information . . . to the mobile device.”
Pet. 24.

Patent Owner also persuasively points out that the claimed “importing” step is “not a trivial one for the claimed invention” because the step enables the method to support more users in a smaller number of sessions on the server. Prelim. Resp. 22–23 (citing Ex. 1001, 16:3–8, 16:16–23, 16:33–36).

For all these reasons, we find that Petitioner has failed to demonstrate a reasonable likelihood of establishing that the combined teachings of Watanabe and Giordano render claim 1 unpatentable as obvious. Because claims 2–6 depend ultimately from claim 1, Petitioner also fails to demonstrate a reasonable likelihood of establishing that claims 2–6 are obvious.

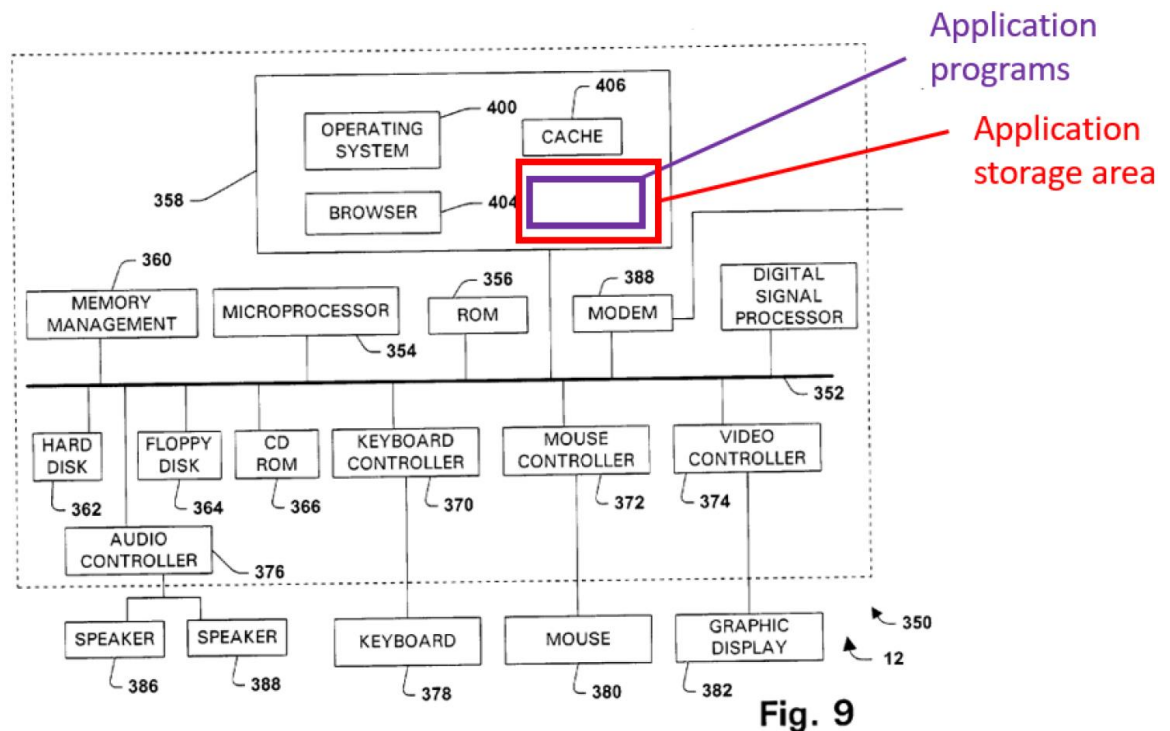
E. Claims 1–6: Obviousness in View of O’Hagan, Watanabe, Giordano, and Ogilvy

Petitioner contends that the combined teachings of O’Hagan, Watanabe, and Giordano render claims 1–5 unpatentable as obvious, Pet. 42–75, and further combines teachings of Ogilvy to this combination as a basis for contending that dependent claim 6 is unpatentable as obvious, *id.* at 75–77. For the reasons expressed below, we conclude that Petitioner has failed to demonstrate a reasonable likelihood of proving that independent claim 1 is unpatentable for this ground.

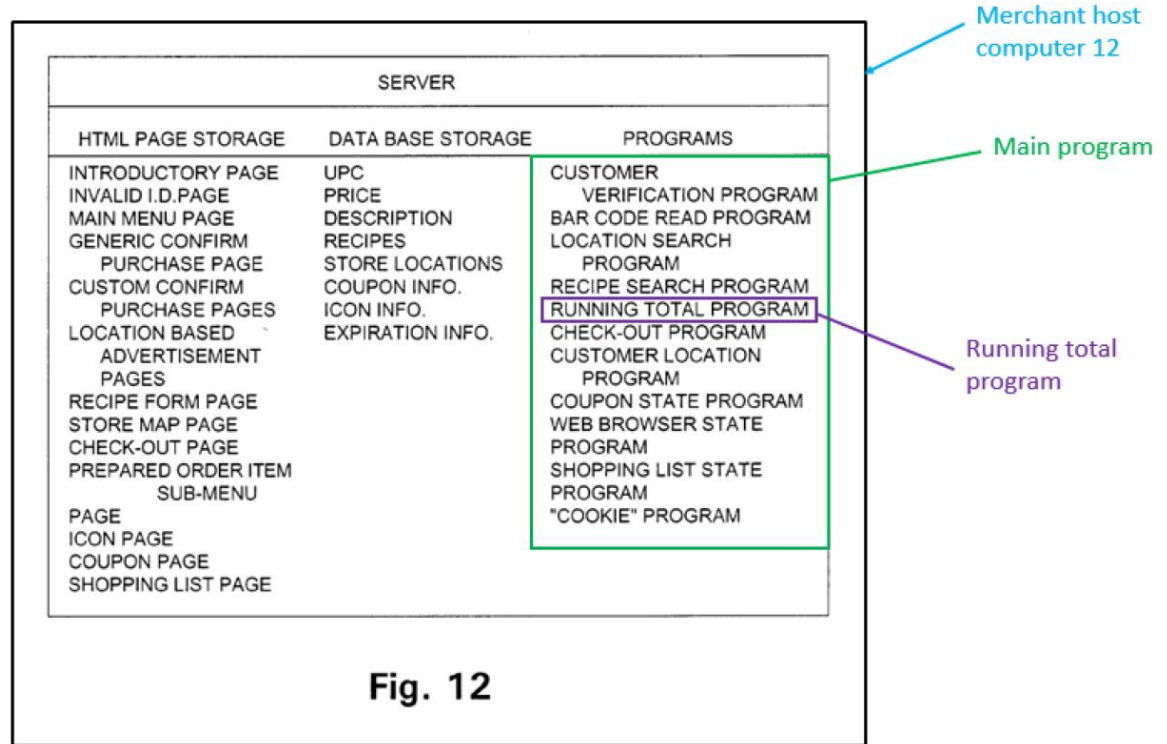
1. State Container

Patent Owner argues, and we agree, that Petitioner fails to demonstrate that the combined teachings of O’Hagan and Watanabe describe the claimed “state container within the first application.” Prelim. Resp. 47–52.

Petitioner identifies O'Hagan's "main program" as the claimed "first application," Pet. 43–44, and its "application storage area" in RAM 358 of server 12 as the claimed "state container," *id.* at 50–51. Petitioner identifies the "main program" and "application storage area" by adding undisclosed details from O'Hagan to its Figures 9 and 12 as shown in the annotated versions of these figures taken from the Petition and reproduced below.



O'Hagan's Figure 9 is a block diagram of selected modules and circuitry of server 12, Ex. 1008 ¶¶ 25, 91, with annotations added by Dr. Shamos in blue and red to indicate an alleged "application storage area" in RAM 358, Ex. 1002 ¶ 298.



O’Hagan’s Figure 12 is a “table of programs and data stored at the host computer” 12, Ex. 1008 ¶¶ 27, 105, with annotations added by Dr. Shamos in green to indicate the alleged “main program” that Petitioner identifies as the “first application,” Ex. 1002 ¶ 296.⁶

Patent Owner argues, and we agree, that Petitioner provides no persuasive evidence that O’Hagan describes the “main program” (i.e., the claimed “first application”) or the “application storage area” (i.e., the claimed “state container”). As with step ST113.5 added to Watanabe that is discussed in Part II.D above, Dr. Shamos cites no objective evidence to support his testimony that an ordinarily skilled artisan would understand O’Hagan as describing the main program or the application storage area.

⁶ The Petition contains a version of this annotated figure that identifies the “main program” with a red box that is coextensive with the green box in Dr. Shamos’s Declaration. *Compare* Pet. 44, with Ex. 1002 ¶ 296.

See Ex. 1002 ¶¶ 299, 300 (expressing opinion that O’Hagan includes a “main program” and “application storage area” without citing objective evidence to support the opinion).

2. Second “Importing” Step

Patent Owner also argues, and we agree, that Petitioner provides no persuasive evidence that the combination of O’Hagan, Watanabe, and Giordano describes the claimed step of “importing, by the second application, the order using the dynamically generated unique identifier from the state container.” Prelim. Resp. 53–57. This step is performed after the step of “transmitting the dynamically generated unique identifier from the point-of-sale terminal to the server to retrieve the order.” Ex. 1001, 12:11–16.

Petitioner concedes that the “O’Hagan-Giordano combination” does not disclose this step. Pet. 63. Petitioner appears to identify Watanabe as describing importing the order from the state container using a unique identifier. *Id.* (citing Ex. 1005 ¶¶ 203, 204; Ex. 1002 ¶¶ 397, 398). First, Petitioner fails to account for its reliance on O’Hagan as describing the “state container” and “first application” and fails to explain how and why an ordinarily skilled artisan would combine teachings of O’Hagan and Watanabe to perform the claimed second importing step.

Second, Petitioner unpersuasively argues that: “Having considered Watanabe, a POSITA would have been motivated to configure the “running total program,” like that disclosed by the O’Hagan-Giordano combination, to import an order from a state container, like that disclosed by Watanabe, to allow the customer complete a transaction for an item at the POS terminal.” Pet. 64 (citing Ex. 1005 ¶¶ 204, 216, 217; Ex. 1002 ¶ 401).

Patent Owner argues, and we agree, that O'Hagan's running total program plays no role in completing a transaction at a point-of-sale terminal and thus an ordinarily skilled artisan would have no reason modify that program to use Watanabe's method of importing an order from a state container. Prelim. Resp. 54–56 (citing Ex. 1008 ¶¶ 31, 98, 99, 108–110, Fig. 15).

For all these reasons, we find that Petitioner has failed to demonstrate a reasonable likelihood of establishing that the combined teachings of O'Hagan, Watanabe, and Giordano render claim 1 unpatentable as obvious. Because claims 2–6 depend ultimately from claim 1, Petitioner also fails to demonstrate a reasonable likelihood of establishing that claims 2–6 are obvious.

F. Exercise of Discretion Under 35 U.S.C. § 325(d)

Because we have determined that Petitioner fails to demonstrate a reasonable likelihood of establishing that any claim of the '133 patent is unpatentable, we need not reach Patent Owner's argument that we should exercise discretion under 35 U.S.C. § 325(d) to deny the Petition. Accordingly, we express no opinion on the issue.

III. CONCLUSION

For the reasons expressed above, we determine that Petitioner has failed to demonstrate a reasonable likelihood of showing that any claim of the '133 patent is unpatentable as obvious. Accordingly, we do not institute *inter partes* review.

IV. ORDER

For the reasons given, it is:

ORDERED that *inter partes* review of claims 1–6 of U.S. Patent No. 10,121,133 B2 is *not instituted*.

IPR2022-01471
Patent 10,121,133 B2

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