

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

APPLE INC.,
Petitioner,

v.

MOZIDO CORFIRE-KOREA, LTD.,
Patent Owner.

IPR2022-01149
Patent 10,223,692 B2

Before KRISTEN L. DROESCH, MICHAEL R. ZECHER, and
PAUL J. KORNICZKY, *Administrative Patent Judges*.

KORNICZKY, *Administrative Patent Judge*.

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

I. INTRODUCTION

Apple Inc. (“Petitioner”) filed a Petition requesting an *inter partes* review of claims 1–13 of U.S. Patent No. 10,223,692 B2 (Ex. 1001, “the ’692 patent”). Paper 2 (“Pet.”). Mozido Corfire-Korea Ltd. (“Patent Owner”) filed a Preliminary Response opposing institution. Paper 6 (“Prelim. Resp.”).

Under 35 U.S.C. §§ 6(b)(4), 314 and 37 C.F.R. § 42.4(a), we have authority to institute an *inter partes* review if “the information presented in the petition . . . and any response . . . 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) (2018).

After considering the Petition, Preliminary Response, and other evidence of record, we determine that Petitioner has demonstrated a reasonable likelihood of showing the unpatentability of at least one of the challenged claims. Thus, we institute an *inter partes* review on all challenged claims on all asserted grounds. 37 C.F.R. § 42.108(a). Specifically, we grant Petitioner’s request to institute an *inter partes* review of claims 1–13 of the ’692 patent.

II. BACKGROUND

A. *Real Parties-in-Interest*

As required by 37 C.F.R. § 42.8(b)(1), each party identifies the real party-in-interest. Petitioner identifies Apple Inc. as a real party-in-interest. Pet. 1. Patent Owner identifies Fintiv, Inc. as a real party-in-interest. Paper 4, 1.

B. Related Proceedings

As required by 37 C.F.R. § 42.8(b)(2), Petitioner and Patent Owner identify the judicial or administrative matters that would affect or be affected by a decision in this proceeding. Petitioner states it is unaware of any related matters. Pet. 1. Patent Owner states the '692 patent is the subject of *Fintiv, Inc. v. Paypal Holdings, Inc.*, Civil Act. 6:22-cv-00288 (W.D. Tex. March 17, 2022). Paper 4, 1.

C. Overview of the '692 Patent (Ex. 1001)

The '692 patent is titled “Method for Setting Temporary Payment Card and Mobile Device Applying the Same.” Ex. 1001, code (54). The '692 patent describes “a method for setting a mobile payment card to be used for payment and a mobile device applying the same.” *Id.* at 1:16–20. The '692 patent states that, “[w]hen the user temporarily uses another mobile payment card to make a payment (for example, for one-time payment), the user should recover the original main payment card after finishing the payment.” *Id.* at 1:32–35. However, “the operation of recovering the original main payment card may be a cumbersome procedure and may cause inconvenience to the user” and “changing the main payment card to another payment card may also cause inconvenience.” *Id.* at 1:35–43. The '692 patent’s method sets a temporary payment card so “a user can change the temporary payment card more easily, swiftly, naturally, amusingly, and intuitively.” *Id.* at 1:49–57.

Figures 10 and 11 of the '692 patent are reproduced below.

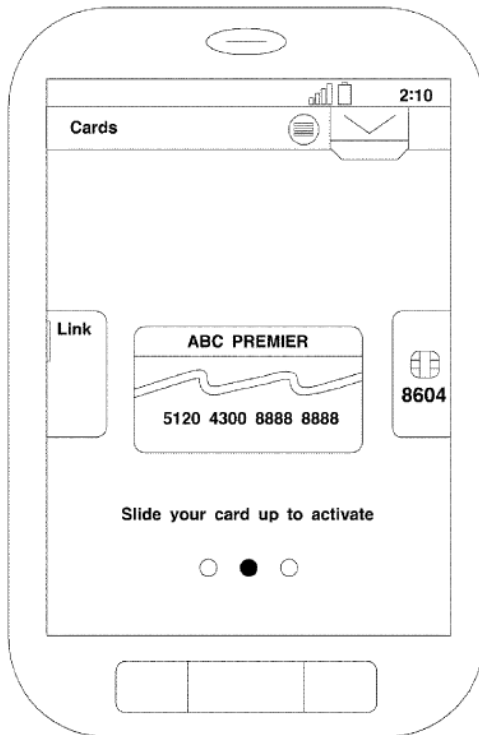


FIG. 10

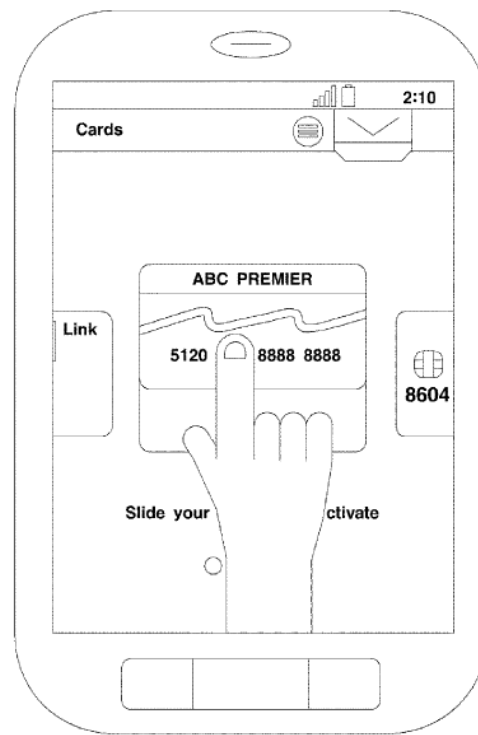


FIG. 11

Figure 10 illustrates a mobile device which displays a payment card selection screen of a mobile wallet application and a list of mobile payment cards. Ex. 1001, 4:36–40. Figure 11 illustrates that the user may select a mobile payment card (i.e., “ABC PREMIER”) from the mobile payment card list to use as a temporary payment card by sliding up the mobile payment card. *Id.* at 4:41–48.

The '692 patent states that the “payment by the temporary payment card should be made within a ‘payable time’” and, “when the payable time passes, the setting of the temporary payment card is reset and a payment is made by a main payment card.” Ex. 1001, 4:62–65.

Figures 15 and 16 of the '692 patent are reproduced below.

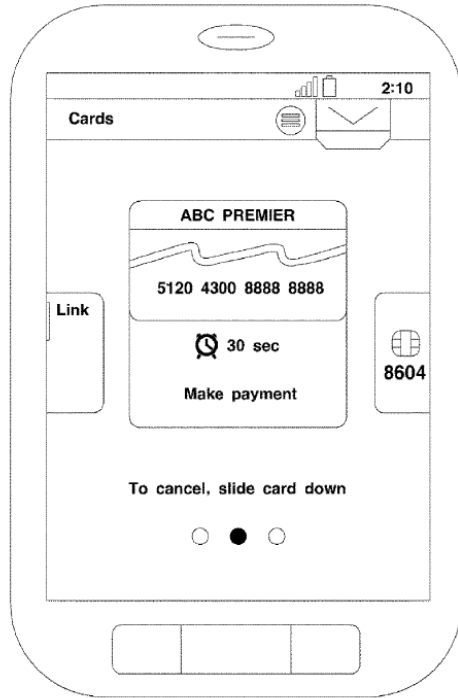


FIG. 15

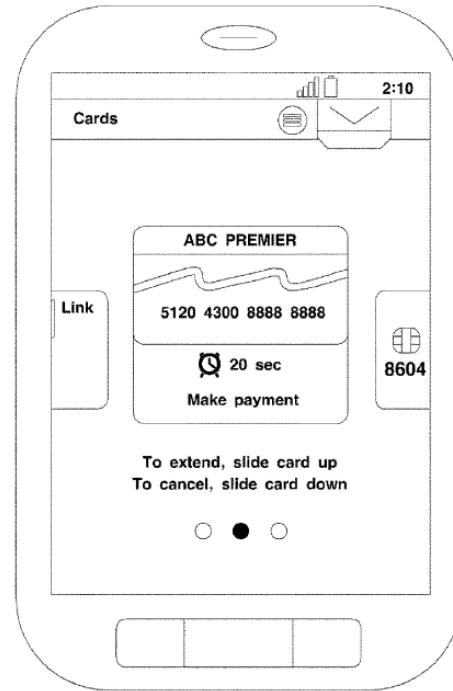


FIG. 16

Figure 15 illustrates a payment card selection screen showing when a mobile payment card is slid up by the user and is selected/set as a temporary payment card and Figure 16 illustrates the same screen after 10 seconds pass. Ex. 1001, 3:36–40. In Figure 15, the screen also displays a payable time (e.g., 30 seconds) while the temporary card is active. *Id.* at 4:66–5:2, 5:42–43. As the time decreases, Figure 16 shows the remaining payable time (i.e., 20 seconds) and the temporary card (ABC PREMIER) slowly slides down as the payable time passes and returns to the original position. *Id.* at 5:53–58.

D. Illustrative Claim

As mentioned above, Petitioner challenges claims 1–13 of the '692 patent. Independent claim 1 is reproduced below.¹ Ex. 1001, 7:41–8:6.

1. [1.0] A method for setting a temporary payment card, comprising:

[1.1] displaying a list of mobile payment cards at a first portion of a touch screen interface;

[1.2] receiving, through the touch screen interface, a user input selecting a mobile payment card from the list of mobile payment card;

[1.3] detecting the user input sliding the mobile payment card from the first portion of the touch screen interface to a second portion of the touch screen interface;

[1.4] based upon the user input sliding the mobile payment card, setting, as a temporary card, the mobile payment card, wherein while the mobile payment card is set as the temporary card, payments will be made by the mobile payment card;

[1.5] displaying a numerical indicator of a payable time, wherein the numerical indicator initially indicates a first remaining time amount;

[1.6.1] simultaneously:

[1.6.2] moving the mobile payment card a first distance from the first portion of the screen towards a second portion of the touch screen, and

[1.6.3] decrementing the numerical indicator a first difference to display a remaining payable time,

wherein:

¹ For ease of reference, we use Petitioner's claim recitation numbering scheme as indicated by the bracketed numbers.

[1.7.1] the first distance is proportional to an amount of payable time that has passed, and

[1.7.2] the first difference is proportional to the amount of payable time that has passed: and

[1.8] resetting the setting of the temporary payment card when the payable time passes such that the mobile payment card is no longer set as the temporary card and payments are made through a main card.

E. Evidence and Asserted Grounds

Petitioner relies upon the following evidence:

- (1) US 2009/0288012 A1, published November 19, 2009 (“Hertel,” Ex. 1005);
- (2) US 2009/0037326 A1, published February 5, 2009 (“Chitti,” Ex. 1006);
- (3) US 8,296,686 B1, issued October 23, 2012 (“Tedesco,” Ex. 1007);
- (4) US 2012/0123937 A1, published May 17, 2012 (“Spodak,” Ex. 1008);
- (5) US 7,967,196 B1, issued June 28, 2011 (“Bierbaum,” Ex. 1010);
- (6) US 2012/0197743 A1, published August 2, 2012 (“Grigg,” Ex. 1012);
- (7) US 2009/0183120 A1, published July 16, 2009 (“Ording,” Ex. 1016); and
- (8) US 9,116,596 B2, issued August 25, 2015 (“Roman,” Ex. 1017).

Petitioner submits a declaration from Dr. Henry Houh (Ex. 1003).

Patent Owner submits a declaration from Michael I. Shamos, Ph.D (Ex. 2001).

Petitioner challenges the patentability of the '692 patent claims based on the following grounds (Pet. 13):

Ground	Claim(s) Challenged	35 U.S.C. § ²	Reference(s)/Basis
1	1–4, 11–13	103	Hertel, Chitti, Spodak, Tedesco
2	5, 6, 10	103	Hertel, Chitti, Spodak, Tedesco, Bierbaum
3	7	103	Hertel, Chitti, Spodak, Tedesco, Bierbaum, Grigg
4	8	103	Hertel, Chitti, Spodak, Tedesco, Ording
5	9	103	Hertel, Chitti, Spodak, Tedesco, Roman

III. ANALYSIS

A. *Legal Standards*

Petitioner bears the burden of persuasion to prove unpatentability, by a preponderance of the evidence, of the claims challenged in the Petition.

² The relevant sections of the Leahy-Smith America Invents Act (“AIA”), Pub. L. No. 112–29, 125 Stat. 284 (Sept. 16, 2011), took effect on March 16, 2013. Because the '692 patent claims priority to an application filed after this date, our citations to 35 U.S.C. § 103 in this Decision are to the post-AIA version. Our decision is not impacted, however, by which version of the statute applies.

35 U.S.C. § 316(e). Except in limited circumstances not present here, this burden of persuasion does not shift to Patent Owner. *Dynamic Drinkware, LLC v. Nat'l Graphics, Inc.*, 800 F.3d 1375, 1378 (Fed. Cir. 2015). The Board may authorize an *inter partes* review if we determine that the information presented in the Petition and Patent Owner's Preliminary Response shows that there is a reasonable likelihood that Petitioner will prevail with respect to at least one of the claims challenged in the Petition. 35 U.S.C. § 314(a).

As mentioned above, Petitioner's challenges are based on obviousness. Pet. 13. A claim is unpatentable under 35 U.S.C. § 103 if the differences between the claimed invention and the prior art are such that the claimed invention as a whole would have been obvious before the effective filing date of the claimed invention to a person having ordinary skill in the art to which the claimed invention pertains. *KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 406 (2007). The question of obviousness is resolved based on underlying factual determinations including: (1) the scope and content of the prior art; (2) any differences between the claimed subject matter and the prior art; (3) the level of ordinary skill in the art; and (4) when in the record, objective evidence of nonobviousness.³ *Graham v. John Deere Co.*, 383 U.S. 1, 17–18 (1966).

B. Level of Ordinary Skill in the Art

The level of ordinary skill in the art is “a prism or lens” through which we view the prior art and the claimed invention. *Okajima v. Bourdeau*, 261

³ At this stage of the proceeding, Patent Owner has not directed us to any objective evidence of non-obviousness. See Prelim. Resp.

F.3d 1350, 1355 (Fed. Cir. 2001). The person of ordinary skill in the art is a hypothetical person presumed to have known the relevant art at the time of the invention. *In re GPAC Inc.*, 57 F.3d 1573, 1579 (Fed. Cir. 1995). In determining the level of ordinary skill in the art, we may consider certain factors, including the “type of problems encountered in the art; prior art solutions to those problems; rapidity with which innovations are made; sophistication of the technology; and educational level of active workers in the field.” *Id.*

Petitioner states a person of ordinary skill in the art would have had a working knowledge of mobile payment techniques pertinent to the '692 Patent, including software development in the field of mobile payment techniques. Such [person of ordinary skill in the art] would have had a bachelor's degree in electrical engineering, computer science, or equivalent training, and approximately two years of work experience in software development. Lack of work experience can be remedied by additional education, and vice versa.

Pet. 7 (citing Ex. 1003 ¶¶ 20–22).

Patent Owner states a person of ordinary skill in the art would have had

a bachelor's degree in electrical engineering, computer science, or equivalent training, and approximately two years of work experience in software development involving network-based monetary transaction systems. Lack of work experience can be remedied by additional education, and vice versa. Appropriate experience could substitute for education.

Prelim. Resp. 5 (citing Ex. 2001 ¶ 5).

We do not see any substantive difference between the parties' proposals. We adopt Petitioner's definition of the level of ordinary skill for the purposes of institution, but note that our obviousness evaluation at this

stage of the proceeding would not differ if we were to apply Patent Owner's definition of the level of ordinary skill in the art.

C. Claim Construction

In an *inter partes* review, the claims are construed using the same claim construction standard that would be used to construe the claim in a civil action under 35 U.S.C. § 282(b). *See* 37 C.F.R. § 42.100(b) (2021). This claim construction standard includes construing the claim in accordance with the ordinary and customary meaning of such claims as would have been understood by one of ordinary skill in the art. *Id.*; *see Phillips v. AWH Corp.*, 415 F.3d 1303, 1312–13 (Fed. Cir. 2005). In construing claims in accordance with their ordinary and customary meaning, we consider intrinsic evidence such as the specification and the prosecution history of the patent. *Phillips*, 415 F.3d at 1315–17. Extrinsic evidence, including expert and inventor testimony, dictionaries, and treatises, may also be used but is less significant than the intrinsic record. *Id.* at 1315. Usually, the specification is dispositive, and it is the single best guide to the meaning of a disputed term. *Id.* Any special definitions for claim terms must be set forth in the specification with reasonable clarity, deliberateness, and precision. *See In re Paulsen*, 30 F.3d 1475, 1480 (Fed. Cir. 1994).

In its Petition, Petitioner states that the “claim terms carry their ordinary and accustomed meaning” except for the limitation “from the first portion of the screen.” Pet. 7–8. Petitioner also argues that certain limitations lack weight under the printed-matter doctrine. *Id.* at 11.

1. *“from the first portion of the screen”*

The limitation “the first portion of the screen” is recited in each of independent claims 1 and 13. The relevant portions of claim 1 is reproduced below, with the relevant language highlighted in color:

[1.1] displaying a list of mobile payment cards at a **first portion of a touch screen interface**;

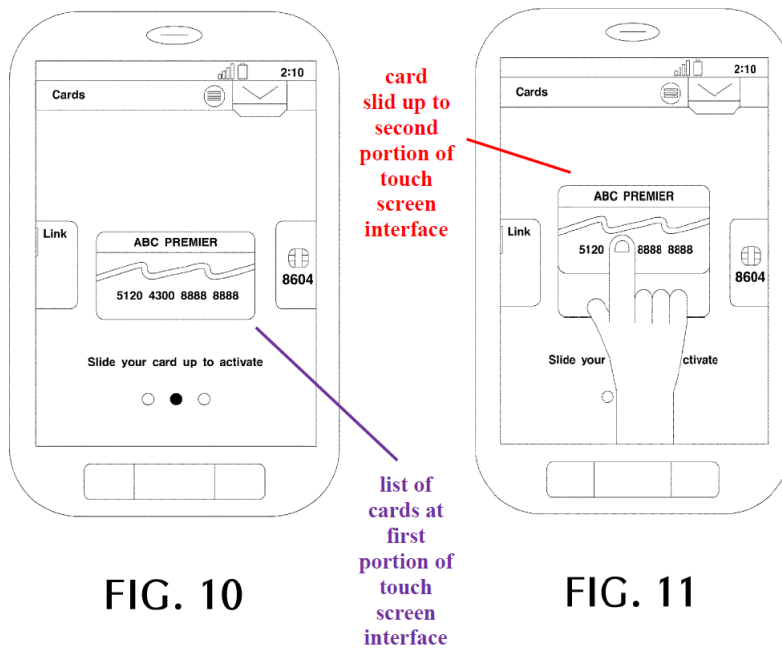
[1.2] receiving, through the **touch screen interface**, a user input selecting a mobile payment card from the list of mobile payment card;

[1.3] detecting the user input sliding the mobile payment card from the **first portion of the touch screen interface** to a **second portion of the touch screen interface**; and

[1.6.2] moving the mobile payment card a first distance from **the first portion of the screen** towards a **second portion of the touch screen**.

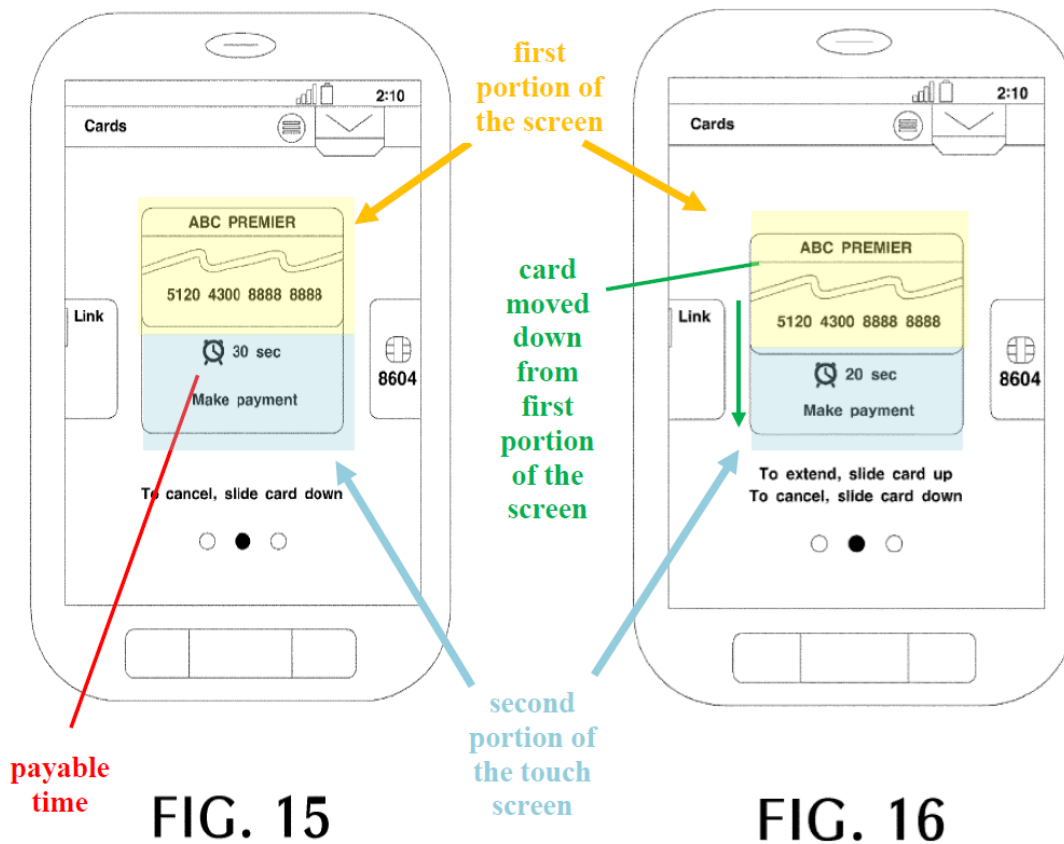
Ex. 1001, 8:43–50, 8:60–62. Petitioner contends that claim 1 uses the term “first portion of the touch screen interface” differently than the term “first portion of the screen.” Pet. 8 (citing Ex. 1003 ¶ 44). In contrast, Patent Owner contends that (1) the terms “touch screen interface” and “touch screen” are “coextensive” and (2) “screen” means “content that is displayed on the touch screen.” See Prelim. Resp. 6–7 (citing Ex. 2001 ¶ 49).

Figures 10–11 of the '692 patent, as annotated by Petitioner, are reproduced below.



Pet. 9 (citing Ex. 1003 ¶ 45). Figures 10 and 11 of the '692 patent illustrate “a mobile device displaying a payment card selection screen of a mobile wallet application” and a payment card selection screen when the user slides up a mobile payment card, respectively. Ex. 1001, 3:23–27, 4:36–45. Petitioner has annotated Figures 10–11 to illustrate the disputed limitation in claim 1.

Figures 15 and 16 of the '692 patent, as annotated by Petitioner, are reproduced below.



Pet. 10 (citing Ex. 1003 ¶ 46). Figures 15 and 16 of the '692 patent illustrate a payment card selection “screen when a mobile payment card is slid up by the user and is selected/set as a temporary payment card” and “a view showing a payment card selection screen when 10 seconds of a payable time pass,” respectively. Ex. 1001, 3:36–40, 5:42–44. Petitioner has annotated Figures 15–16 to illustrate the disputed limitation in claim 1.

According to Petitioner,

As shown in Figure 10, a list of cards is displayed at a first portion of a touch screen interface located towards a lower portion of the touch screen interface. Limitation [1.1]. . . . Then, as shown in Figure 11, the user “slide[s] the mobile payment card from the first portion of the touch screen interface

to a second portion of the touch screen interface.” Limitation [1.3]. . . . As shown in Figure 11, the “second portion of the touch screen interface” is located toward the upper portion of the touch screen interface. . . .

After the user has slid the card up to the second portion of the touch screen interface (Figure 11), a different operation is performed as the “payable time” passes. . . . As shown in Figures 15-16, below, claims 1 and 13 recite “moving the mobile payment card a first distance **from** [a] first portion of the screen towards a second portion of the touch screen,” while the “payable time” decrements. Limitation [1.6.2]. . . .

The term “from the first portion of the screen” in Limitation [1.6.2] should thus be construed as “from a first portion of the screen” because the card is slid down from the “first portion of the screen” (Limitation [1.6.2]) and thus the “first portion of the screen” is different than the “first portion of the touch screen interface.” As discussed above, the card is slid up from the “first portion of the touch screen interface” to the “second portion of the touch screen interface.” Limitation [1.3]. The moving of the card “**from** [a] first portion of the screen” in Limitation [1.6.2] occurs after the user has “slid[] the mobile payment card **from** the first portion of the touch screen interface **to** a second portion of the touch screen interface” in Limitation [1.3].

Pet. 8–11 (citing Ex. 1001, 4:36–48; 5:39–47; Ex. 1003 ¶¶ 45–47) (citations and internal reference to claim 13 omitted, alterations in original, emphases omitted).

In response to Petitioner’s proposed claim construction, Patent Owner contends that Petitioner’s argument that “there must be some intended difference between ‘the screen’ and ‘the touch screen’ on which ‘the touch screen interface’ is displayed” is erroneous because Petitioner ignores “the fact that the ’692 Patent uses the term ‘screen’ to mean content that is displayed on the touch screen.” Prelim. Resp. 6–7 (citing Ex. 2001 ¶ 49).

According to Patent Owner, “[i]n every instance, the ‘screen’ referred to in the ’692 Patent refers to what is displayed on the touch screen interface, which is coextensive with the ‘touch screen.’” *Id.*

As we understand Patent Owner’s argument, Patent Owner contends that the recited “touch screen interface” and “touch screen” are used interchangeably in the ’692 patent and this touch screen interface/touch screen is ***different*** from the recited “screen” which is the content displayed on the touch screen interface/touch screen. Because the touch screen interface/touch screen is different from the touch screen, it follows that the recited “first portion of the *touch screen interface*” is ***different*** from the “first portion of the *screen*” as argued by Petitioner. Thus, it appears that Patent Owner agrees with Petitioner that independent claims 1 and 13 use the “first portion of the touch screen interface” differently from the “first portion of the screen.” If Patent Owner contends that the term “first portion of the touch screen interface” is the same as the “first portion of the screen,” the parties should address this claim construction dispute during trial.

Based on the present record and for purposes of institution, we adopt Petitioner’s construction that the “first portion of the screen” is different from the “first portion of the touch screen interface.” We encourage the parties to develop a full record on meaning of these two claim terms.

We further determine that we do not need to expressly construe any other terms to resolve the parties’ disputes on the current record. *See Nidec Motor Corp. v. Zhongshan Broad Ocean Motor Co.*, 868 F.3d 1013, 1017 (Fed. Cir. 2017) (“[W]e need only construe terms ‘that are in controversy, and only to the extent necessary to resolve the controversy.’” (quoting *Vivid Techs., Inc. v. Am. Sci. & Eng’g, Inc.*, 200 F.3d 795, 803 (Fed. Cir. 1999))).

2. *Printed Matter*

Petitioner contends that

Although Limitations [1.5]-[1.7.2] and [13.6]-[13.8.2] would have been obvious (*see* §VIII.C.5), they lack patentable weight under the printed-matter doctrine. *Praxair Distribution v. Mallinckrodt Hosp. Prod. IP*, 890 F.3d 1024, 1033 (Fed. Cir. 2018) (addressing during claim construction). These limitations are “directed to the content of the information conveyed” (time remaining) and “merely inform[] people of the claimed information” rather than “create a new functionality in a claimed device or [] cause a specific action in a claimed process.” *C R Bard Inc. v. AngioDynamics*, 979 F.3d 1372, 1381-82 (Fed. Cir. 2020). Although the temporary card is reset when the “payable time” expires (Limitations [1.8]/[13.9]), that occurs based on “payable time” expiring and would occur regardless of whether or how remaining time is *displayed*.

Pet. 11.

In response to Petitioner’s argument, Patent Owner contends

Petitioner argues that limitations [1.5]-[1.7.2] and [13.6]-[13.8.2] lack patentable weight under the “printed matter doctrine,” citing *C R Bard Inc. v. AngioDynamics*, 979 F.3d 1372, 1381-82 (Fed. Cir. 2020) for the proposition that the limitation are “‘directed to the content of the information conveyed’ (time remaining) and ‘merely inform[] people of the claimed information’ rather than ‘create a new functionality in a claimed device or [] cause a specific action in a claimed process’.” (Pet. at 11.) However, printed matter is given patentable weight if the printed matter and its associated product are in a “functional relationship.” MPEP § 2111.05. ([Ex. 2001] ¶ 61.) Such a functional relationship exists in the cited limitations, which are drawn to the simultaneous display of a moving timer and a numerical indicator of a remaining payable time. The “specific action” is the movement of the timer, the “functional relationship” is the coordination of the numerical indicator along with the moving timer. A moving timer is not “printed matter” for the simple reason that the underlying software makes it move. A changing numerical

indicator is also not “printed matter” for the simple reason that it changes as the underlying software determined how much payable time remains. If Petitioner’s argument were correct, then no display features could be accorded patentable weight because they would constitute no more than “printed matter.” ([Ex. 2001] ¶ 61.)

Prelim. Resp. 11.

For purposes of institution, we determine that we do not need to expressly construe these terms to resolve the parties’ disputes on the current record, because regardless of whether limitations 1.5–1.7.2 and 13.6–13.8.2 lack patentable weight under the printed matter doctrine, Petitioner presents sufficient evidence at this stage of the proceeding that would support a finding that the applied prior art teaches these limitations (Pet. 37–57, 78–79). *See Nidec Motor*, 868 F.3d at 1017.

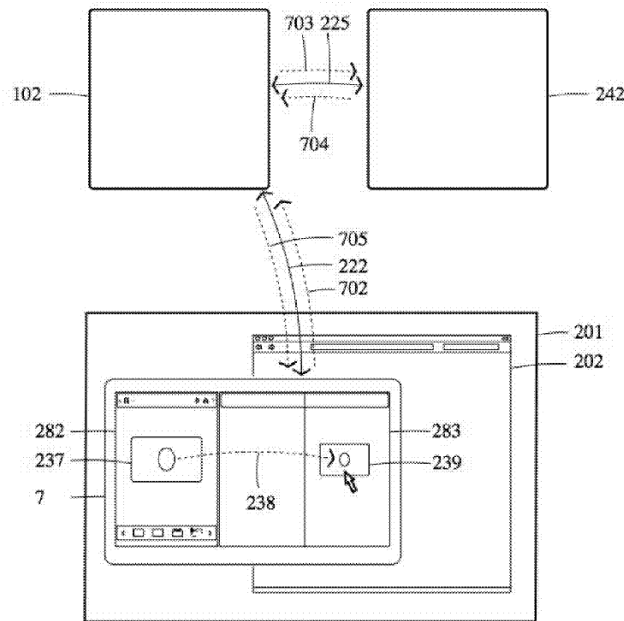
D. Ground 1: Asserted Obviousness of Claims 1–4 and 11–13 Over Hertel, Chitti, Spodak, and Tedesco

Petitioner asserts that claims 1–4 and 11–13 are unpatentable under 35 U.S.C. § 103 as being obvious over Hertel (Ex. 1005), Chitti (Ex. 1006), Spodak (Ex. 1008), and Tedesco (Ex. 1007). Pet. 14–79. Patent Owner filed a Preliminary Response opposing Petitioner’s challenge. Prelim. Resp. 25–32. Based on the present record, and for the reasons identified below, we determine Petitioner has shown a reasonable likelihood of prevailing on its obviousness challenge at least as to claim 1.

Below, we present a brief overview of Hertel, Chitti, Spodak, and Tedesco and then we address Petitioner’s and Patent Owner’s contentions.

1. Overview of Hertel (Ex. 1005)

Hertel is a U.S. patent publication titled “Secured Electronic Transaction System.” Ex. 1005, code (54). Hertel describes a payment system having a user interface that acts as a visual wallet simulator. *Id.* at code (57). Figure 17 of Hertel is reproduced below.



Payment receptacle displayed in conjunction with electronic wallet

FIG. 17

Figure 17 illustrates Hertel’s electronic wallet 7 and screen 201 of user computer 100 (not shown) for “initiating (or providing) for display and execution a payment receptacle.” *Id.* ¶¶ 33, 206. Transaction authority 102, credit card payment gateway 242, and user computer 101 (not shown) are communicatively coupled through a network (not shown). *Id.* ¶ 206. Screen 201 of user computer 101 displays a user interface of web browser 202 and user interface 282 of electronic wallet 7. *Id.* Digital object 237, which corresponds to a deactivated credit card, is displayed in

electronic wallet program 282. *Id.* To activate digital object/credit card 237, the user selects credit card 237 and moves it by dragging 238 and dropping it on target 239. *Id.* ¶ 207. Target 239 is payment receptacle module 283 displayed in electronic wallet 282. *Id.* When digital object/credit card 237 is dropped on drop target 239, payment receptacle program 283 transmits through user computer 100 an instruction 702 containing identification information of the credit card and activates the credit card. *Id.*

After the user is done with the digital object/credit card 237, the user drags digital object/credit card from payment receptacle module 283 to the user interface portion 282, where the credit card is deactivated. Ex. 1005 ¶¶ 218, 288.

2. *Overview of Chitti (Ex. 1006)*

Chitti is a U.S. patent application titled “Virtual Card Selector for a Portable Electronic Device.” Ex. 1006, code (54). Chitti describes a mobile telephone which is equipped with a virtual card application configured to manage a plurality of virtual credit cards. *Id.* at code (57). Chitti recognizes the concept of a “default card,” which is used unless a different card is selected. *Id.* ¶ 26. The default card is the card having the highest “priority” among a selection of cards. *Id.* The priority of a card can be determined automatically, according to a schedule/calendar, location, usage history or other criteria. *Id.* The user also may select a specific card to be used in a given transaction. *Id.* ¶ 25. The portable device on which the cards reside may detect a payment terminal, and automatically select a payment card appropriate for that terminal. *Id.* ¶ 42.

3. *Overview of Spodak (Ex. 1008)*

Spodak is a U.S. patent application titled “Portable-E-wallet and Universal Card.” Ex. 1008, code (54). Spodak generally relates to e-wallets with payment cards. *Id.* at code (57). Spodak discloses a programmable “universal card,” programmed using an e-wallet application, to emulate any card in the e-wallet. *Id.* ¶¶ 28–30. A user may program the universal card in a “default card mode, where the universal card always emulates a specific [default] card, unless programmed otherwise.” *Id.* ¶ 52. In this default mode, “the universal card is always configured to emulate the default card, unless the user re-programs the universal card to temporarily act as another card or to change to a new default card.” *Id.* A user may program the card in a “temporary card mode” to temporarily emulate a nondefault card for a time period (e.g., three hours), then have the card “revert back to the default” card (e.g., where a certain card is preferred in a particular location or context). *Id.* ¶¶ 52, 90.

4. *Overview of Tedesco (Ex. 1007)*

Tedesco is a U.S. patent titled “Portable Prompting Aid for the Developmentally Disabled.” Ex. 1007, code (54). Tedesco discloses an application running on a mobile device that aids developmentally disabled individuals to follow a schedule by alerting them to upcoming events (e.g., by displaying a timer). *Id.* at 2:39–45. Tedesco’s graphical timer animation could take any form, such as a bar graph (Figure 18), hourglass, car traveling down a road, “a sun rising/setting,” or an animation symbolizing “finality.” *Id.* at 8:14–24.

5. *Claim 1*

Petitioner, relying on Dr. Houh’s testimony, provides a limitation-by-limitation comparison of Hertel, Chitti, Spodak, and Tedesco to independent claim 1. Pet. 18–59.

a) *[1.0] A method for setting a temporary payment card*

Petitioner contends that the preamble is not limiting but, regardless, Hertel teaches this preamble because it describes “a method for setting a card to use for a particular transaction (*a method for setting a temporary payment card*).” Pet. 18. Petitioner explains that, in Hertel, a user sets a payment instrument (e.g., a particular card) to use for a transaction by dragging and dropping that card from its location (drag origin) in the e-wallet into a target payment receptacle. *Id.* (citing Ex. 1005 ¶¶ 203–204, 216, 230, 330 (drag-and-drop selection); Ex. 1005 ¶¶ 177–179, 347–350 (how drag-and drop animation works); Ex. 1003 ¶¶ 73–74).

Petitioner argues that, to the extent Patent Owner contends Hertel does not explicitly disclose a temporary payment card, using a temporary payment card was well-known, as shown in Chitti. Pet. 20 (citing Pet. 35–37 (Section VIII.C.5[1.4]); Ex. 1003 ¶ 78). Alternatively,

Petitioner contends that Hertel in view of Chitti teaches this preamble. *Id.*

(1) *Patent Owner's Argument*

Patent Owner contends that Hertel does not disclose a “temporary” payment card because the “fact that a user ma[y] select a given card from a wallet for use in a specific transaction does not make it a ‘temporary card,’ for the simple reason that the card can be used for the next transaction, and the next, ad infinitum.” Prelim. Resp. 27 (citing Ex. 2001 ¶ 103). Patent Owner argues it “is not in any sense temporary, in the same way that a user would not consider the use of a particular Visa card ‘temporary’ just because it was being used to make a current payment,” and it “is further not ‘temporary’ because the payment application on the mobile device never reverts to a main (default) payment card.” *Id.* at 28.

Based on the present record, we do not agree with Patent Owner’s argument for several reasons. First, we understand Petitioner to contend that Hertel discloses more than one card so that the user may select and temporarily activate a first card and, when the transactions are completed, the user may deselect and deactivate the first card and subsequently, use a second card. In this situation, the first card is temporarily used for the first transactions and the second card is used for the second transactions. Pet. 18. Second, we understand Hertel to disclose that one card may be temporarily used for certain time period. Ex. 1005 ¶ 167 (if an electronic wallet “remains unused for too long a period of time, it can lock itself, requiring the

user to re-authenticate in order to open it”). Third, Patent Owner does not address Petitioner’s contention that the combined teachings of Hertel and Chitti disclose a temporary payment card. Pet. 20, 35–37.

We encourage the parties to address whether the preamble should be treated as limiting.

b) [1.1] displaying a list of mobile payment cards at a first portion of a touch screen interface

Petitioner contends that Hertel teaches this limitation by disclosing its e-wallet may reside on a mobile device. Pet. 20 (citing Ex. 1005 ¶¶ 58, 95, 182, 227; Ex. 1003 ¶¶ 80–81). Petitioner contends that Hertel teaches “mobile payment cards” by disclosing its e-wallet “stores ‘digital representations of the kinds of objects typically found in a real-world purse or wallet,’ such as ‘credit cards, debit cards, gift cards,’ and other items (*mobile payment cards*)” and these “objects perform different functions, including payment.” *Id.* at 22–23 (citing Ex. 1005 ¶¶ 58, 59, 61, 103–104, 107, 190, 191; Ex. 1003 ¶¶ 83–84). Petitioner further contends that Hertel teaches “displaying a list of mobile payment cards” by disclosing its digital objects (e.g., credit cards) are “displayed to the user in a selectable form, e.g., list or menu.” *Id.* at 23–25 (citing Ex. 1005 ¶ 229; Ex. 1003 ¶¶ 85–86).

Petitioner's annotated Figure 17 of Hertel is reproduced below.

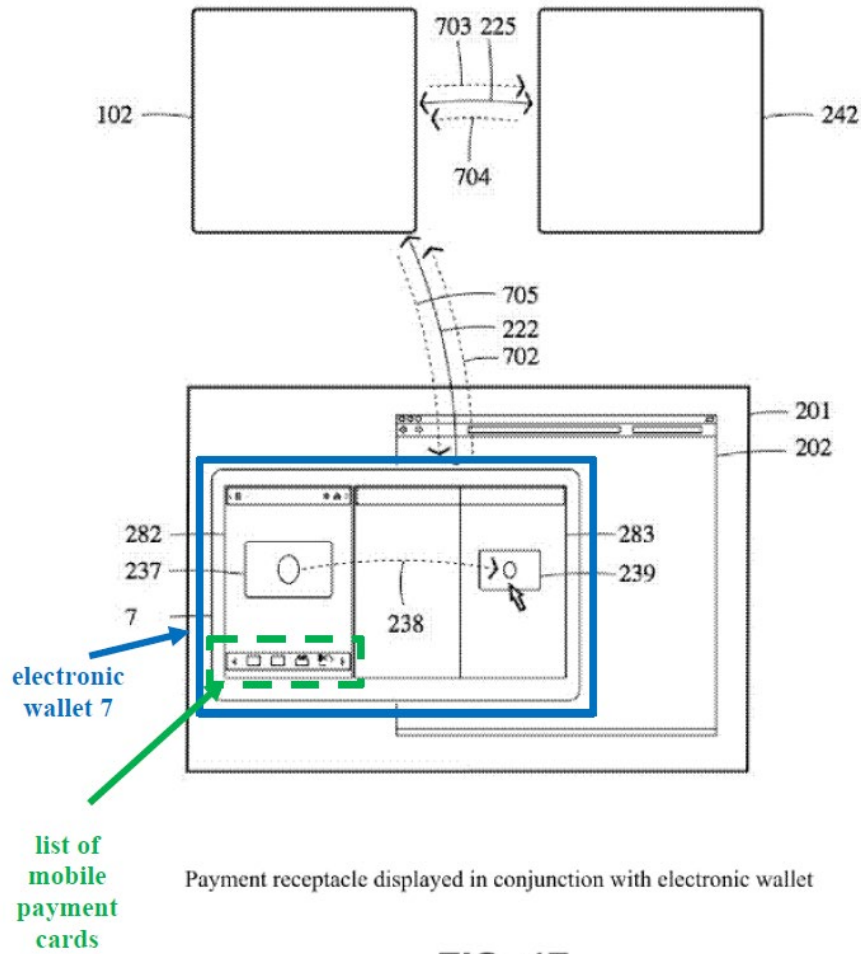
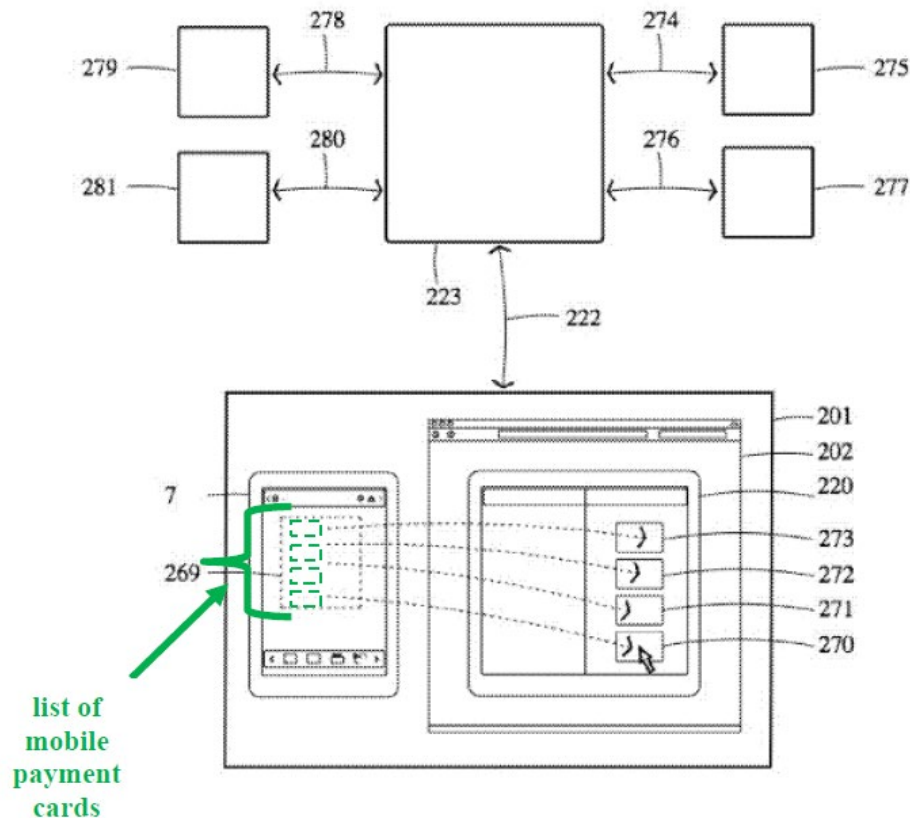


FIG. 17

Pet. 24 (citing Ex. 1003 ¶ 86).

Petitioner's annotated Figure 20 of Hertel is reproduced below.



Multiple local drags and drops instruct transaction authority to apply multiple forms of payment to an online transaction

FIG. 20

Pet. 25 (citing Ex. 1005 ¶ 207 (#238 is a “drag”); Ex. 1003 ¶ 87). Figures 17 and 20 illustrate a list of cards for use by the user. Ex. 1005 ¶¶ 33, 86 (Fig. 17), 36, 215–216 (Fig. 20). Petitioner has annotated the figures reproduced above to show a list of mobile payment cards which the user may drag to the payment receptacle from their original locations in the e-wallet. Pet. 23–24 (citing Ex. 1005 ¶¶ 216, 330; Ex. 1003 ¶ 87).

Patent Owner does not contest Petitioner's contentions.

- c) [1.2] *receiving, through the touch screen interface, a user input selecting a mobile payment card from the list of mobile payment card*

Petitioner contends that Hertel teaches this limitation by disclosing a touch-screen interface to obtain user input. Pet. 27 (citing Ex. 1003 ¶¶ 94, 82). Petitioner further contends that Hertel teaches “*receiving, through the touch screen interface, a user input*” by disclosing a “touch sensitive screen” with a “graphical user interface” “configured to receive input from a user for interaction with the electronic wallet.” *Id.* (citing Ex. 1005 ¶ 176; Ex. 1003 ¶ 95) (emphasis omitted). Petitioner explains that the user interface may obtain input through a “drag and drop” interaction on a touch sensitive screen of a user’s device and “the user drags and drops (e.g., with touch sensitive screen embodiments of a mobile phone) payment instruments in order to pay.” *Id.* at 27–28 (citing Ex. 1005 ¶¶ 104, 230; Ex. 1003 ¶ 95).

Finally, Petitioner contends that Hertel discloses “the user input received is selection of a payment card from a list of cards (*a user input selecting a mobile payment card from the list of mobile payment card*)” because “Hertel displays a list of payment cards” and “a user selects a card from that list to use for payment by dragging and dropping it from its location in the e-wallet into the payment receptacle (*selecting a mobile payment card from the list of mobile payment card*).” Pet. 28 (citing Ex. 1003 ¶ 96).

Patent Owner does not contest Petitioner contentions.

- d) [1.3] detecting the user input sliding the mobile payment card from the first portion of the touch screen interface to a second portion of the touch screen interface

Petitioner contends that Hertel discloses this limitation. Pet. 29 (citing Ex. 1003 ¶¶ 99, 100, 82–88). Hertel’s Figure 17, as annotated by Petitioner, is reproduced below.

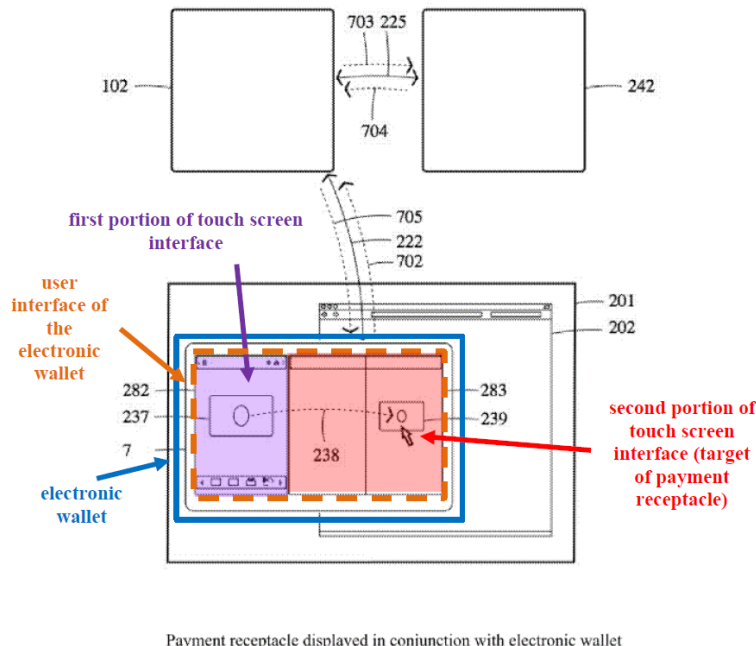


FIG. 17

Id. at 30 (citing Ex. 1003 ¶ 102). Figure 17 illustrates Hertel’s payment receptacle and electronic wallet. Ex. 1005 ¶ 33. Petitioner annotated Figure 17 to show that Hertel’s “cards in an e-wallet may be displayed in a list, e.g., toward the left portion of the e-wallet’s user interface (*the first portion of the touch screen interface*)” and Hertel’s “payment receptacle may be displayed toward the right of an e-wallet (*a second portion of the touch screen interface*), e.g., at a different location than the card list.” *Id.* at 29 (citing Ex. 1005 ¶¶ 69–70, 76, 184, 198, 204, 206–207, Fig. 17 (payment receptacles in e-wallet); Ex. 1003 ¶¶ 100–102, 83).

According to Petitioner,

[Hertel's] user sets a card for use in payment by dragging and dropping it from its original location, e.g., on the left side of the e-wallet where payment instruments are displayed, into the payment receptacle, e.g., on the e[-]wallet's right side (*user input sliding the mobile payment card from the first portion of the touch screen interface to a second portion of the touch screen interface*).

Pet. 30–31 (citing Ex. 1005 ¶¶ 176, 204; Ex. 1003 ¶ 103). Petitioner explains that a person of ordinary skill in the art would have understood “Hertel's drag-and-drop animation is equivalent to *sliding* a card across the touch screen interface.” *Id.* at 32–33 (citing Ex. 1019; Ex. 1005 ¶¶ 347–350 (how drag-and-drop animation works); Ex. 1003 ¶ 106 (discussing Ex. 1019)).

Patent Owner does not contest Petitioner's contentions.

- e) [1.4] based upon the user input sliding the mobile payment card, setting, as a temporary card, the mobile payment card, wherein while the mobile payment card is set as the temporary card, payments will be made by the mobile payment card

Petitioner contends that the combined teachings of Hertel and Chitti account for this limitation. Pet. 35. According to Petitioner, Hertel discloses “setting a mobile payment card as a temporary card for a transaction, where the selected card is then set for use in payment, and setting a card for payment by dragging and dropping it into a payment receptacle (*the user input sliding the mobile payment card*).” *Id.* (citing Ex. 1003 ¶ 111; Pet. 18–20 (Section VIII.C.5[1.0]); Ex. 1003 ¶ 111).

Petitioner also explains that Chitti teaches a temporary payment card by disclosing that Chitti's virtual wallet includes a designation of a card as

the “top of the wallet card,” which is “the default card” used in a transaction. Pet. 35 (citing Ex. 1006, code (57), ¶¶ 26–27; Ex. 1003 ¶ 112). According to Petitioner, “Chitti’s ‘top of the wallet card’ is used for payments” but a “user may set a different card, rather than the default, for a particular transaction or context (*a temporary payment card*) by temporarily making a selected card the top-of-the-wallet card.” *Id.* (citing Ex. 1006 ¶¶ 26–27, 31, 66 (“the user may override the automatic selection of the arranger module” “[a]t any time”)). Petitioner explains that, “[u]nless the user selects a temporary card, the default card is used for payment,” and “after the transaction at the particular location occurs,” the virtual wallet may “revert back to the default” card as the top-of-the-wallet card. *Id.* at 36 (citing Ex. 1006, code (57), ¶¶ 26–27, 31; Ex. 1003 ¶ 112).

Petitioner explains that, in view of “Chitti’s disclosure of a user being able to set a temporary payment card for a particular transaction,” a person of ordinary skill in the art would have been motivated to “modify Hertel in view of Chitti so that a user can set a temporary payment card for a particular transaction.” Pet. 36 (citing Ex. 1003 ¶¶ 112–113; Ex. 1006 ¶ 31 (discussing making a card top-of-the-wallet at a particular location); Ex. 1008 ¶ 90 (Spodak describing desiring a different card at a mall)). According to Petitioner, “Hertel already discloses choosing from a list of cards (*see* Limitation [1.1]), and including Chitti’s temporary card in Hertel would provide the user with the convenience of a default card, while still permitting selection of a temporary card for a particular context.” *Id.* (citing Ex. 1006 ¶ 31; Ex. 1008 ¶ 90; Ex. 1003 ¶¶ 112–113).

(1) *Patent Owner's Argument*

In response to Petitioner's arguments, Patent Owner contends that

Chitti does not disclose a "temporary card," and does not even use the term. [Ex. 2001 ¶ 105.] It does disclose a "default card," which is used if no other card is selected, either automatically or by express action of the user. (*Id.*) As explained earlier, Chitti uses either (1) the default card; (2) the card having highest determined priority; or (3) a card selected by the user. (*Id.*) This choice is made each time a payment is to be made. (*Id.*) There is no notion in Chitti of a "temporary card" *that is only used for a predetermined time*, after which a reversion to a default card is made. (*Id.*)

Prelim. Resp. 28 (emphasis added).

Based on the present record, we do not agree with Patent Owner's argument. Patent Owner's argument is not commensurate in scope with limitation 1.4 because this limitation does not require that the temporary payment card is "only used for a predetermined time." *See In re Self*, 671 F.2d 1344, 1348 (CCPA 1982) (explaining that limitations not appearing in the claims cannot be relied upon for patentability). Patent Owner appears to be combining the requirements in claim limitations 1.4 and 1.8 and mischaracterizing Petitioner's position. As discussed below, Petitioner contends that the combined teachings of Hertel, Chitti, and Spodak account for limitation 1.8.

f) *[1.5] displaying a numerical indicator of a payable time, wherein the numerical indicator initially indicates a first remaining time amount*

Petitioner contends that the combined teachings of Hertel, Chitti, Spodak, and Tedesco account for this limitation. Pet. 37 (citing Ex. 1003 ¶¶ 115–126). According to Petitioner, Chitti describes a temporary

payment card and “Spodak, which also discloses temporary and default payment cards, expressly describes a time limit for using a temporary payment card (*a payable time*).” *Id.* (citing Ex. 1003 ¶ 116). For example, Petitioner explains that Spodak discloses “a VISA card may have been selected as a default card,” but a user may use “a DISCOVER card **for a three-hour period and then revert back to the default** VISA card” and this “may occur when the user is planning to spend several hours at a shopping mall and wants to use the DISCOVER card while at the mall.” *Id.* (citing Ex. 1008 ¶ 90; Ex. 1003 ¶ 117).

Petitioner further contends that a person of ordinary skill in the art would have been motivated to incorporate Spodak’s payable time for a temporary card in Hertel because “Hertel already discloses a similar timer and for the reason suggested by both Chitti and Spodak: a user may desire to use a particular card (e.g., a Macy’s card) only while the user is at a particular location or in a particular transaction” and “[s]etting a time limit for using the temporary card would prevent the user from continuing to use the temporary card beyond the intended context.” Pet. 38 (citing Ex. 1008 ¶ 90 (different card at mall); Ex. 1006 ¶ 31 (particular card in given location); Ex. 1003 ¶ 119). Petitioner explains that this

would have been a combination of prior art elements (Hertel’s selection of a temporary card for a transaction (e.g., Chitti’s temporary card), with Spodak’s time limit for a temporary card) according to known methods (implementation in software in an e-wallet) to yield predictable results (having a time period during which the temporary card may be used for payments).

Id. (citing Ex. 1003 ¶ 119).

Petitioner states that, “while Spodak does not explicitly describe displaying its timer, displaying a countdown timer to a user was well-known,

as in Tedesco.” Pet. 38 (citing Ex. 1007, 8:14–24, Fig. 18; Ex. 1003 ¶ 120). According to Petitioner, “Tedesco describes displaying a ‘countdown screen’ including a ‘graphical timer’ and a ‘digital countdown 224’ (*a numerical indicator*) showing how much time remains in a time period.” *Id.* at 39 (citing Ex. 1007, 8:14–24; Ex. 1003 ¶ 121).

According to Petitioner, a person of ordinary skill in the art would have been motivated to “use Tedesco’s numerical countdown indicator with Hertel’s selection of a temporary card (e.g., Chitti’s temporary card) to provide an indication of the payable time period” because (1) the “numerical display of a timer was well-known before the ’692 patent” and (2) “[w]ithout a countdown timer being displayed, a user would not understand how much time remains to use the temporary card and would be confused when the time period terminates unexpectedly.” Pet. 40 (citing Ex. 1003 ¶ 123). Petitioner further explains that the skilled artisan would have been motivated to “have the countdown begin by displaying the full amount of time permitted (*wherein the numerical indicator initially indicates a first remaining time amount*)” because this “would inform the user of the time limit and is consistent with typical countdown timers well-understood and common before the ’692 Patent.” *Id.* at 40 (citing Ex. 1009, 17:34–36, Fig. 16; Ex. 1003 ¶ 124 (discussing Ex. 1009)).

(1) *Patent Owner’s Argument*

Patent Owner contends that Petitioner has not shown that limitation 1.5 is disclosed by the combination of Hertel, Chitti, Spodak, and Tedesco. Prelim. Resp. 29 (citing Ex. 2001 ¶ 109).

First, Patent Owner argues that Tedesco is not analogous art and has nothing to do with payments. Prelim. Resp. 29 (citing Ex. 2001 ¶ 109). According to Patent Owner, “Tedesco is devoid of any disclosure of payment instruments, default cards, temporary cards, or selection of cards,” and a skilled artisan “looking to develop a process for selecting a temporary payment card would not look to unrelated disclosures of interfaces for developmentally disabled individuals that have nothing to do with making payments.” *Id.* at 18 (citing Ex. 2001 ¶ 79).

Based on the present record, we do not agree with Patent Owner’s arguments. To qualify as prior art for an obviousness analysis, a reference must qualify as “analogous art,” i.e., it must satisfy one of the following conditions: (1) the reference must be from the same field *of the inventor’s* endeavor; or (2) the reference must be reasonably pertinent to the particular problem *with which the inventor is involved*. *K-TEC, Inc. v. Vita-Mix Corp.*, 696 F.3d 1364, 1375 (Fed. Cir. 2012). “Whether a prior art reference is ‘analogous’ is a question of fact.” *Innovation Toys, LLC v. MGS Entertainment, Inc.*, 637 F.3d 1314, 1321 (Fed. Cir. 2011). Based on the present record, it appears that one of the problems addressed by the inventor of the ’692 patent relates to the display of time for certain payment-related activities and Tedesco, which addresses the display of time for different activities, is reasonable pertinent to this problem. *See* Ex. 1001, 2:4–5. Here, Petitioner argues a person of ordinary skill in the art would have been motivated to “use Tedesco’s numerical countdown indicator with Hertel’s selection of a temporary card (e.g., Chitti’s temporary card) to provide an indication of the payable time period” because (1) the “numerical display of a timer was well-known before the ’692 patent” and (2) “[w]ithout a

countdown timer being displayed, a user would not understand how much time remains to use the temporary card and would be confused when the time period terminates unexpectedly.” Pet. 40 (citing Ex. 1003 ¶ 123). As Petitioner generally alleges that Tedesco addresses one of the problems addressed by the ’692 patent and Patent Owner has placed the issue of whether Tedesco is analogous art to the ’692 patent in controversy, Petitioner is invited to brief the matter during trial.

Second, Patent Owner argues that “Spodak discloses a universal card that may be programmed with a payable time” and “Petitioner does not explain why a [person of ordinary skill in the art] would eliminate the secure universal card of Spodak, thus discarding its security function, to make the proposed combination.” Prelim. Resp. 29 (citing Ex. 2001 ¶ 108).

Based on the present record, we do not agree with Patent Owner’s argument. Petitioner’s rationale for combining Hertel, Chitti, Spodak, and Tedesco need not be the same as Spodak’s goals. On the preliminary record, Petitioner provides a reasoned explanation for combining the teachings of Hertel, Chitti, Spodak, and Tedesco that is supported by sufficient rational underpinnings.

g) [1.6.1] simultaneously:

Petitioner contends that Hertel in view of Tedesco, or in view of the knowledge of a person of ordinary skill in the art, teaches this limitation. Pet. 41 (citing Ex. 1003 ¶¶ 127–131). According to Petitioner, as described below in limitations 1.6.2 and 1.6.3, Tedesco displays a graphical countdown timer (a bar graph) that decreases to visually depict time remaining at the same time the corresponding numerical indication of time

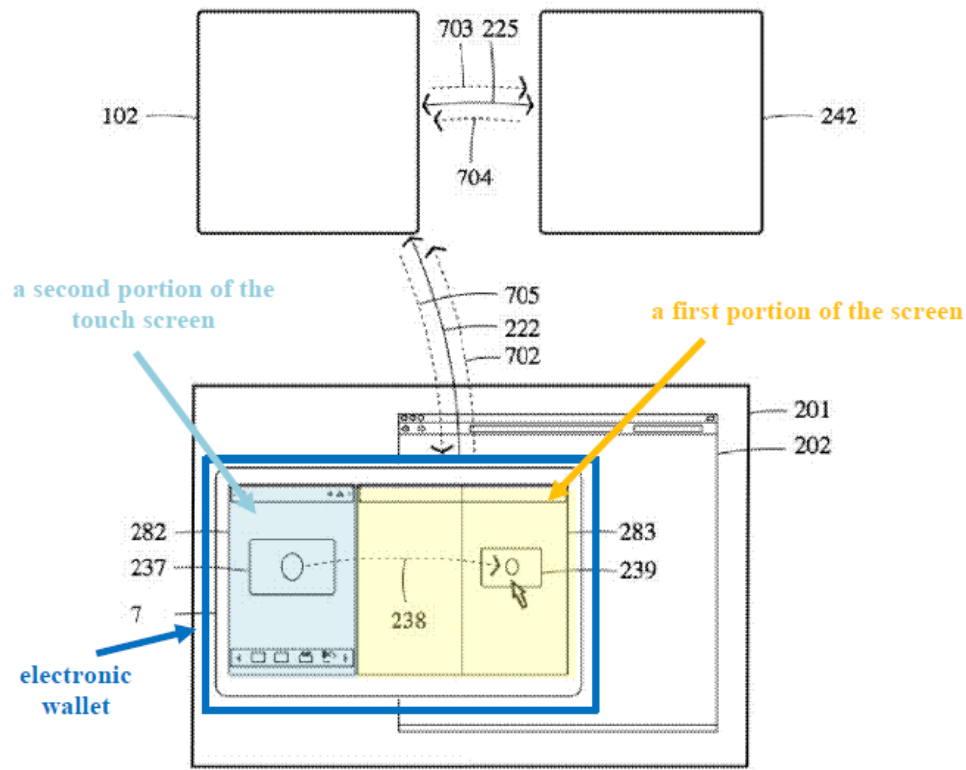
remaining decreases. *Id.* (citing Ex. 1003 ¶ 128). Petitioner explains, in part, that the skilled artisan would have understood that “Tedesco’s graphical display and numerical indicator correspond to one another and decrease at the same time because having both indicators of remaining time updated simultaneously is the best way to accurately depict time remaining for user awareness.” *Id.* at 41–42 (citing Ex. 1003 ¶ 128).

Patent Owner does not contest Petitioner’s contentions.

h) [1.6.2] moving the mobile payment card a first distance from the first portion of the screen towards a second portion of the touch screen

Petitioner contends that the combined teachings of Hertel, Chitti, Spodak, and Tedesco accounts for this limitation. Pet. 43 (citing Ex. 1003 ¶¶ 132–151). According to Petitioner, “Spodak describes a time period for using a temporary card,” and “Hertel describes a user moving a payment method back toward the list of inactive cards when the card is changed from an active to inactive state.” *Id.* (citing Ex. 1003 ¶¶ 133–134).

Hertel's Figure 17, as annotated by Petitioner, is reproduced below.



Payment receptacle displayed in conjunction with electronic wallet

FIG. 17

Pet. 44 (citing Ex. 1003 ¶ 135). Figure 17 illustrates Hertel's payment receptacle in conjunction with its electronic wallet 7. Ex. 1005, Fig. 17. Referring to annotated Figure 17, Petitioner states that "Hertel describes selecting a temporary card to use as the active card for payment by dragging and dropping it from its location in the e-wallet into a payment receptacle" which is on "the right side of the e-wallet (*[a] first portion of the screen*), while the inactive cards are toward the left (*a second portion of the touch screen*)." Pet. 43–44 (citing Ex. 1003 ¶ 135).

Hertel's Figure 37, as annotated by Petitioner, is reproduced below.

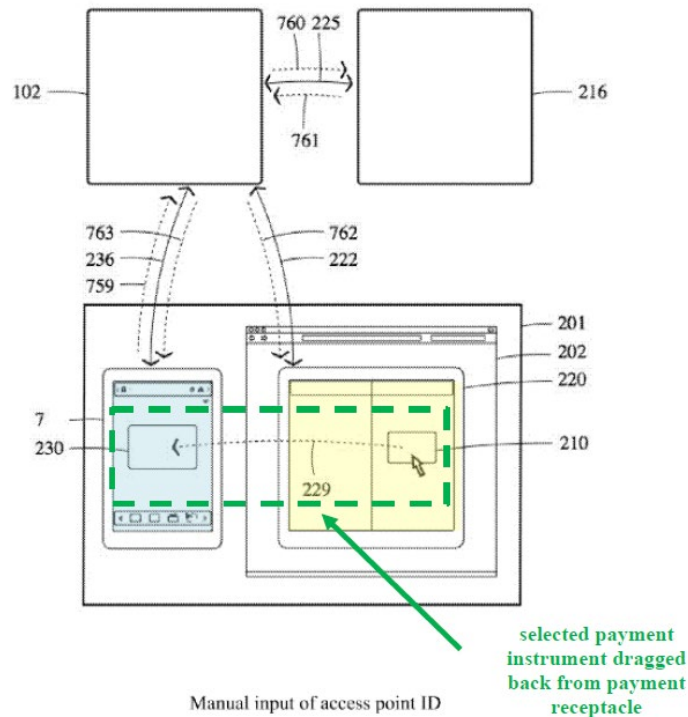


FIG. 37

Pet. 46 (citing Ex. 1003 ¶ 136). Petitioner annotated Figure 37 to show that, “[t]o cancel application of a card, a user drags and drops it from the payment receptacle back to where the inactive cards are displayed. *Id.* (citing Ex. 1005 ¶¶ 218, 288; Ex. 1003 ¶ 136). Petitioner states, “Hertel describes using a moving-card animation (drag-and-drop) to illustrate a card being deactivated” and a “user manually cancels use of a card in this way, such that the selected card is no longer active for payment.” *Id.* at 45 (citing Ex. 1005 ¶¶ 218, 288; Ex. 1003 ¶ 136).

According to Petitioner, “Hertel’s drag-and-drop animation was well-known before the ’692 Patent” (Pet. 47 (citing Ex. 1003 ¶ 137) and, in “a drag-and-drop animation, the object being dragged ‘appear[s] to move with the cursor’ between the drag origin and drop target, so it ‘appears to be

moving with the drag operation” (*id.* (citing Ex. 1005 ¶ 349; *see also* Ex. 1005 ¶¶ 177–179, 347–350 (how drag-and-drop animation works))). Petitioner contends “[i]t was well-known a drag-and-drop was a type of animation, as shown by [Ex.] 1015.” *Id.* (citing Ex. 1015, code (57); Ex. 1003 ¶ 138 (discussing Ex. 1015)).

Petitioner further contends that, “[w]hile Hertel describes movement from the payment receptacle back to the list of inactive cards occurring when a user manually deactivates a card, a [person of ordinary skill in the art] would have been motivated to use the same animation upon timer expiration” because “Hertel already uses this animation to show deactivation.” Pet. 47 (citing Ex. 1003 ¶ 139; Ex. 1005 ¶ 288, Fig. 37).

(1) Patent Owner’s Argument

Patent Owner contends that Petitioner’s arguments are wrong. According to Patent Owner,

Petitioner argues, based on Ledet ([Ex. 1015]), that “It was well-known in the art by the time of the ’692 Patent that a drag-and drop operation was a type of animation.” First, a disclosure in a single reference does not make something “well-known in the art.” ([Ex. 2001] ¶ 111.) Second, Petitioner misinterprets Ledet. (*Id.*) It is apparent that the action of a user in dragging and dropping is itself not an animation, as it is not performed by a computer. (*Id.*) What Petitioner might mean is that the computer “animates” the drag-and-drop by causing the object being dragged to move on the screen as the user’s finger moves. (*Id.*) The significance of this observation is mysterious because Tedesco, on which Petitioner improperly relies (because it is addressed to the problems of developmentally displaced people), discloses animation of a countdown timer, but not any animation of the movement of a payment card (or any object other than the timer itself). (*Id.*)

Prelim. Resp. 29–30.

Based on the present record, we do not agree with Patent Owner’s arguments because Patent Owner appears to mischaracterize Petitioner’s position. We understand Petitioner to contend that “Hertel describes selecting a temporary card to use as the active card for payment by dragging and dropping it from its location in the e-wallet into a payment receptacle” which is on “the right side of the e-wallet (*[a] first portion of the screen*), while the inactive cards are toward the left (*a second portion of the touch screen*).” Pet. 43–44 (citing Ex. 1003 ¶ 135). Patent Owner’s arguments about whether Ledet (Ex. 1015) or Tedesco illustrate a drag-and-drop animation do not address squarely Petitioner’s position.

- i) *[1.6.3] decrementing the numerical indicator a first difference to display a remaining payable time*

Petitioner contends that the combined teachings of Hertel, Chitti, Spodak, and Tedesco account for this limitation. Pet. 54 (citing Ex. 1003 ¶¶ 152–156). According to Petitioner, Spodak discloses “a timer corresponding to time remaining to use a temporary card” and “Tedesco describes a ‘digital countdown 224’ (*the numerical indicator*) showing time remaining in a countdown (*to display a remaining payable time*).” *Id.* at 54–55 (citing Ex. 1007, 8:14–24; Ex. 1003 ¶ 153).

Petitioner explains that a person of ordinary skill in the art would have understood Tedesco’s digital countdown is decremented based on how much time has elapsed from a countdown at a given point in time (*a first difference*). A [person of ordinary skill in the art] would have understood a countdown timer starts with a certain amount of time (e.g., 30 seconds), decreases as time passes, and the amount by which

remaining time decreases (*a first difference*) corresponds to time elapsed (*the first difference is proportional to the amount of payable time that has passed*). For example, in a 30-second timer, once 10 seconds have elapsed, the initial 30 seconds will be decremented by 10 seconds to show 20 seconds remaining. Countdown timers were well-known in software, and this is how countdown timers traditionally and necessarily operated at the time of the '692 Patent (and operate today), as shown by [Ex.] 1009 and [Ex.] 1011, which Dr. Houh discusses as examples. Moreover, to the extent this is not explicitly present, it would have been obvious to a [person of ordinary skill in the art] that a countdown timer is decremented by the elapsed time, as shown by [Ex.] 1009 and [Ex.] 1011, which Dr. Houh discusses as examples.

Pet. 56 (citing Ex. 1003 ¶ 155).

(1) *Patent Owner's Argument*

According to Patent Owner, Petitioner has failed to meet its burden to show that limitations 1.6.1 and 1.6.3 are taught by the alleged combination. Prelim. Resp. 30 (citing Ex. 2001 ¶ 115). Patent Owner contends that the “step of decrementing must take place simultaneously with the step of ‘moving’ in 1.6.2, but Petitioner has not shown that the ‘moving’ step as claimed ever occurs.” *Id.* (citing Ex. 2001 ¶ ¶ 114–115).

Based on the present record, we do not agree with Patent Owner's argument. As discussed in Section III.D.5.f, we find that Petitioner adequately shows for purposes of institution that, to cancel application of a card, Hertel's user drags and drops it from the payment receptacle (i.e., the first portion of the screen) back to where the inactive cards are displayed (i.e., the second portion of the touch screen). Pet. 46 (citing Ex. 1005

¶¶ 218, 288; Ex. 1003 ¶ 136). In annotated Figure 37, reproduced above, Petitioner illustrates how the payment card “moves” between these two positions.

j) [1.7.1] *the first distance is proportional to an amount of payable time that has passed*

Petitioner contends that Hertel’s animation of a card moving between two distinct locations within a screen based on whether the card is active for payment, combined with Spodak’s payable time and Tedesco’s animation to visually depict the time elapsed in a countdown, teaches this limitation. Pet. 54 (citing Ex. 1003 ¶¶ 132–151). More specifically, Petitioner asserts that both Tedesco and the knowledge of a person of ordinary skill in the art sufficiently demonstrate that “the card in Hertel’s animation moves by a *first distance* (as required by Limitation [1.6.2]) that is *proportional to an amount of payable time that has passed* (as required by Limitation [1.7.1]).” *Id.* at 52 (citing Ex. 1003 ¶ 148).

Figure 18 of Tedesco, as annotated by Petitioner, is reproduced below.

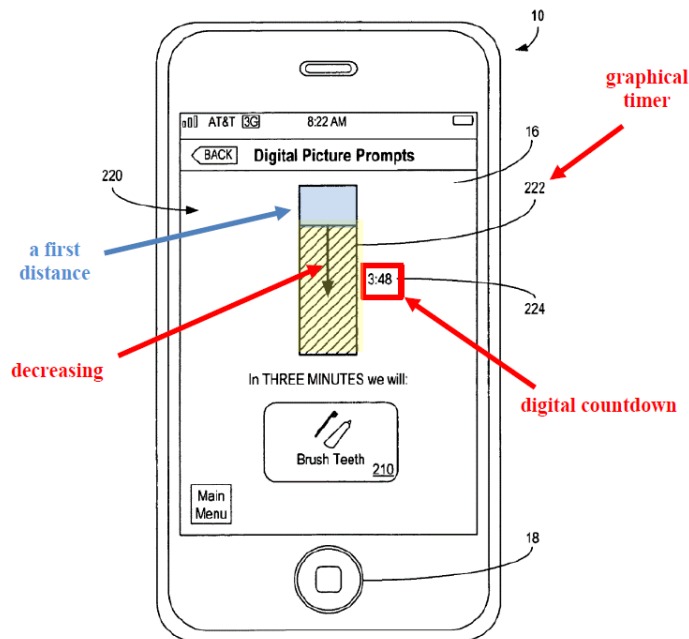


FIG. 18

Pet. 53 (citing Ex. 1003 ¶ 149). Annotated Figure 18 shows the countdown timer being decreased by a certain distance (a first distance). *Id.* at 52. According to Petitioner, a skilled artisan would have been motivated “to ensure Tedesco’s ‘graphical timer 222’ is decreased proportionally to time elapsed in the countdown.” *Id.* at 53 (citing Ex. 1003 ¶ 150). Petitioner explains that the “purpose of Tedesco’s timer animation is ‘to convey visually that time is elapsing,’ . . . so a user ‘has a graphical indication of an amount of time remaining until a change in activity is to occur,’” and the “most accurate way of conveying this information is to have the graphical depiction move proportionally to time elapsed.” *Id.* at 53–54 (citing Ex. 1007, claim 1, 2:44–47; Ex. 1003 ¶ 150). Petitioner further explains that, “[i]f the animation’s movement does not correspond proportionally to elapsed time, a user would be misled and confused by the visual representation of time remaining, thus defeating the point of the display.”

Id. at 54 (citing Ex. 1003 ¶ 150). Finally, Petitioner contends that it was well-known to “use a graphical animation in which the distance by which an animation moves corresponds to time elapsed and remaining as shown by [Ex.] 1011, Fig. 16, which Dr. Houh discusses.” *Id.* (citing Ex. 1003 ¶ 150).

(1) Patent Owner’s Argument

Patent Owner repeats its argument that Petitioner failed to meet its burden to show that limitation 1.7.1 is taught by the alleged combination because Petitioner did not show that “the ‘moving’ step, which defines the distance, ever occurs” for reasons discussed above in connection with limitation 1.6.2. Prelim. Resp. 31 (citing Ex. 2001 ¶¶ 116–117). For the reasons identified above with respect to limitation 1.6.2, we do not agree with Patent Owners’ arguments.

k) [1.7.2] the first difference is proportional to the amount of payable time that has passed

Petitioner contends that the combined teachings of Hertel, Chitti, Spodak, and Tedesco account for this limitation, as explained in limitation 1.6.3. Pet. 57 (citing Ex. 1003 ¶¶ 152–156, 158).

(1) Patent Owner’s Argument

Patent Owner contends that Petitioner failed to meet its burden to show that limitation 1.7.2 is taught by the alleged combination for the same reasons discussed above in connection with limitation 1.6.3. Prelim. Resp. 31 (citing Ex. 2001 ¶¶ 118–119). For the reasons identified above with respect to limitation 1.6.3, we do not agree with Patent Owners’ arguments.

- l) *[1.8] resetting the setting of the temporary payment card when the payable time passes such that the mobile payment card is no longer set as the temporary card and payments are made through a main card*

Petitioner contends the combined teachings of Hertel, Chitti, and Spodak account for this limitation. Pet. 57 (citing Ex. 1003 ¶¶ 159–166). As discussed above, Petitioner contends a person of ordinary skill in the art would have been motivated to modify Hertel “to have a temporary payment card for a particular transaction” as taught by Chitti (the setting of the temporary payment card) and “to have a period of time to use the temporary card, as in Spodak (*the payable time*).” *Id.* (citing Ex. 1003 ¶¶ 160–162).

According to Petitioner,

both Chitti and Spodak disclose resetting the temporary payment card to a default card, such that payments are then made by the default card, rather than the temporary card (*resetting the setting of the temporary payment card . . . such that the mobile payment card is no longer set as the temporary card and payments are made through a main card*).

Pet. 58 (citing Ex. 1006 ¶ 31; Ex. 1008 ¶ 90; Ex. 1003 ¶ 164). Petitioner contends that “Chitti explains that ‘the top of wallet selection may revert back to the default’ after a transaction at a particular location occurs” (*id.* (citing Ex. 1006 ¶ 31; Ex. 1003 ¶ 164)), and “Spodak explains that, at the end of the time limit, a temporary card will ‘revert back to the default VISA card’” (*id.* (citing Ex. 1008 ¶ 90; Ex. 1003 ¶ 164)).

Petitioner further contends that a person of ordinary skill in the art would have been motivated to “reset the temporary payment card in Hertel, as modified to use Chitti’s temporary card, based on Spodak’s teaching of a payable time and both Chitti’s and Spodak’s teachings of reverting to a

default card from the temporary card” because “[r]everting back to a default card from the temporary card, as in Chitti and Spodak, after a period of time would prevent the user from accidentally using the temporary card beyond the anticipated time period, location, transaction, or context.” Pet. 58–59 (citing Ex. 1003 ¶ 165). Petitioner explains

[t]his would have been a simple combination of prior art elements used in their expected ways (Hertel’s setting of a temporary card (e.g., Chitti’s card) and Spodak’s time limits corresponding to temporary payment cards, with Chitti’s and Spodak’s teachings of reverting to a default card), according to known methods (implementation in software for an e-wallet on a mobile device) to yield the predictable result of having a time-delimited period when the temporary card may be used, such that the temporary card automatically becomes deactivated when that period expires and the default card is reactivated.

Id. at 59 (citing Ex. 1003 ¶ 165).

(1) Patent Owner’s Argument

Repeating arguments made in connection with the limitations above, Patent Owner contends Petitioner fails to show that limitation 1.8 is taught by the combined teachings of Hertel, Chitti, and Spodak because (1) “there is no ‘temporary card’ or ‘main card’ in Hertel, just a card that is being used in a given transaction,” (2) “Chitti does not disclose a ‘temporary card,’ as claimed,” and (3) “[w]hat Spodak refers to as a ‘temporary’ card” is one that has been specifically programmed by the user to be active for a programmed time period, and is not designed by the user by ‘sliding,’ as required by limitation 1.3.” Prelim. Resp. 32 (citing Ex. 2001 ¶¶ 121–122). We considered Patent Owner’s arguments and we find them unpersuasive for the reasons identified above.

m) Conclusion

Petitioner's contentions for each limitation and the preamble of independent claim 1 is supported by Dr. Houh's testimony or the cited disclosures in the applied references or both. Patent Owner's arguments are unavailing for the reasons set forth above. Based on the record before us, we determine Petitioner demonstrates a reasonable likelihood of prevailing in showing that the subject matter of independent claim 1 would have been obvious over the combination of Hertel, Chitti, Spodak, and Tedesco.

6. Independent Claim 13

Independent claim 13 recites limitations similar to the limitations recited in independent claim 1 and Petitioner relies on its analysis addressing independent claim 1 to address independent claim 13. *See* Ex. 1001, 8:55–9:19; Pet. 73–79 (citing Pet. 18–59; Ex. 1003 ¶¶ 213–229, 79–166). Patent Owner's arguments addressing independent claim 13 rely on the same arguments addressed above in the context of independent claim 1. *See* Prelim. Resp. 38–39. Accordingly, for the same reasons as those explained above addressing independent claim 1, for purposes of institution and based on the record before us, Petitioner establishes sufficiently that the subject matter of independent claim 13 would have been obvious over the combination of Hertel, Chitti, Spodak, and Tedesco.

7. Dependent Claims 2–4, 11, and 12

Claims 2–4, 11, and 12 depend directly from independent claim 1. *See* Ex. 1001, 8:7–25, 8:46–54. We have reviewed Petitioner's contentions

and cited supporting evidence addressing how the combination of Hertel, Chitti, Spodak, and Tedesco teaches or suggests each of the additional limitations recited in these dependent claims. *See* Pet. 32–73 (citations omitted). As we preliminarily conclude that Petitioner demonstrates a reasonable likelihood of prevailing with respect to its obviousness challenge to independent claims 1 and 13, we institute review on all challenged claims on all grounds set forth in the Petition, including Petitioner’s challenge to dependent claims 2–4, 11, and 12 as unpatentable over Hertel, Chitti, Spodak, and Tedesco. 37 C.F.R. § 42.108(a).

E. Grounds 2–5: Asserted Obviousness of Claims 5–10

Petitioner asserts that

(1) dependent claims 5, 6, and 10 are unpatentable as obvious over Hertel, Chitti, Spodak, Tedesco, and Bierbaum (Pet. 79–83);

(2) dependent claim 7 is unpatentable as obvious over Hertel, Chitti, Spodak, Tedesco, Bierbaum, and Grigg (*id.* at 84–86);

(3) dependent claim 8 is unpatentable as obvious over Hertel, Chitti, Spodak, Tedesco, and Ording (*id.* at 87–91); and

(4) dependent claim 9 is unpatentable as obvious over Hertel, Chitti, Spodak, Tedesco, and Roman (*id.* at 91–94). As we preliminarily conclude that Petitioner demonstrates a reasonable likelihood of prevailing with respect to its patentability challenge to independent claims 1 and 13, we institute review on all challenged claims on all grounds set forth in the Petition, including Petitioner’s challenge to dependent claims 5–10. 37 C.F.R. § 42.108(a).

F. Conclusion

After considering the evidence and arguments presented in the current record, we determine that Petitioner demonstrates a reasonable likelihood of prevailing in establishing that at least one of the challenged claims of the '692 patent is unpatentable. We, therefore, institute trial on all challenged claims and all grounds raised in the Petition.

At this stage of the proceeding, we have not made a final determination as to the patentability of any challenged claim or as to the construction of any claim term. Any final determination will be based on the record developed during trial. We place Patent Owner on express notice that any argument not asserted in a timely-filed Response to the Petition, or in another manner permitted during trial, shall be deemed waived, even if that argument was presented in the Preliminary Response. Similarly, if the parties do not present their proposed claim constructions in their briefs, or in another manner permitted during trial, they will be precluded from presenting such arguments and their arguments shall be deemed waived.

IV. ORDER

In consideration of the foregoing, it is hereby:

ORDERED that, *inter partes* review of claims 1–13 of U.S. Patent No. 10,223,692 B2 is instituted on all grounds raised in the Petition; and

FURTHER ORDERED that pursuant to 35 U.S.C. § 314(c) and 37 C.F.R. § 42.4, notice is hereby given of the institution of a trial; the trial will commence on the entry date of this decision.

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