

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

APPLE INC.,
Petitioner,

v.

PEER GLOBAL INC.,
Patent Owner.

Case No. IPR2026-00436
U.S. Patent No. 11,137,878

PETITION FOR *INTER PARTES* REVIEW

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EXHIBITS

Exhibit	Description
EX1001	U.S. Patent No. 11,137,878 B2 to Tran (“the ’878 patent”)
EX1002	Prosecution History of U.S. Patent No. 11,137,878 B2
EX1003	Declaration of Ben Bederson, Ph.D.
EX1004	CV of Ben Bederson, Ph.D.
EX1005	U.S. Patent Appl. Pub. No. 2014/0282114 A1 to Walkin et al. (“ <i>Walkin</i> ”)
EX1006	U.S. Patent Appl. Pub. No. 2012/0044173 A1 to Homma et al. (“ <i>Homma</i> ”)
EX1007	U.S. Patent Appl. Pub. No. 2010/0257059 A1 to Fujioka et al. (“ <i>Fujioka</i> ”)
EX1008	U.S. Patent Appl. Pub. No. 2014/0344754 A1 to Lai et al. (“ <i>Lai</i> ”)
EX1009	U.S. Patent Appl. Pub. No. 2015/0355813 A1 to Hughes et al. (“ <i>Hughes</i> ”)
EX1010	U.S. Patent Appl. Pub. No. 2012/0306748 A1 to Fleizach et al. (“ <i>Fleizach</i> ”)
EX1011	U.S. Patent No. 5,657,049 to Ludolph et al. (“ <i>Ludolph</i> ”)
EX1012	Brad A. Myers, <i>Window Interfaces: A Taxonomy of Window Manager User Interfaces</i> , IEEE Comput. Graphics & Appls., Vol. 8, No. 5 (Sep. 1988), pp. 65-84, https://doi.org/10.1109/38.7762 .
EX1013	<i>Macintosh Human Interface Guidelines</i> , Apple Computer, Inc. (Nov. 1992).
EX1014	Benjamin B. Bederson & James D. Hollan, <i>Pad++: A Zooming Graphical Interface for Exploring Alternate Interface Physics</i> , in UIST ’94: Proceedings of the 7th Annual ACM Symposium on User Interface Software and Technology (Nov. 2-4, 1994), pp. 17-26,

	https://doi.org/10.1145/192426.192435 .
EX1015	Benjamin B. Bederson, <i>PhotoMesa: A Zoomable Image Browser Using Quantum Treemaps and Bubblemaps</i> , in UIST '01: Proceedings of the 14th Annual ACM Symposium on User Interface Software and Technology (Nov. 11-14, 2001), pp. 71-80, https://doi.org/10.1145/502348.502359 .
EX1016	Amy K. Karlson, Benjamin B. Bederson & John SanGiovanni, <i>AppLens and LaunchTile: Two Designs for One-Handed Thumb Use on Small Devices</i> , in CHI '05: Proceedings of the SIGCHI Conference on Human Factors in Computing Systems (Apr. 2-7, 2005), pp. 201-210, https://doi.org/10.1145/1054972.1055001 .
EX1017	U.S. Patent Appl. Pub. No. 2010/0100849 A1 to Fram (“ <i>Fram</i> ”)

I. PRELIMINARY STATEMENT

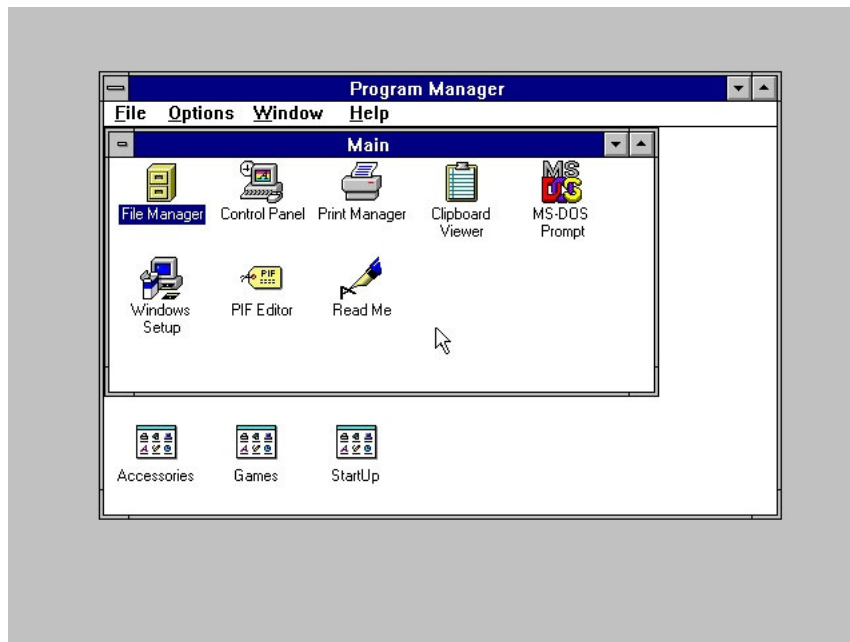
The '878 patent purports to invent graphical user interfaces (GUIs) that allow the user to select various icons based on user manipulation of a “selection ring.” EX1001, claims 1-18. But all the features recited in the claims were routine and conventional functionalities of GUI design, and at least *Walkin*, *Homma*, and *Fujioka* demonstrate that these concepts were already well known and obvious in the field at least before 2016.

Walkin discloses a user interface including the core functionality recited in the claims: a user selects a circular selection tool within a GUI, icons are displayed in response to that selection, and the user drags the selection tool to select one of the icons. *Homma* teaches implementing a variety of selection tool shapes, including semi-transparent ring shapes, to improve GUI visibility and ease the icon selection process. *Fujioka* teaches previewing information associated with an icon by hovering a cursor over the icon without requiring the user to select and launch the icon. As shown by the grounds below, these references collectively render claims 1-18 of the '878 patent unpatentable. Apple thus respectfully requests *inter partes* review and cancellation of these claims.

II. TECHNICAL OVERVIEW

In computing, whether mobile or desktop, a user interface is the boundary where interactions between humans and computers occur. EX1003, ¶47. GUIs

offer visual interfaces on display screens that are designed for simplicity and ease of learning. EX1003, ¶47. A common and well-known example of a GUI uses the “desktop metaphor,” where files and applications of the computer system are represented as graphical icons on a virtual desktop shown on the computer screen, and where the user interacts with those icons using a pointing device such as a mouse cursor. EX1003, ¶47. Windows 3.1, released by Microsoft in 1992, was one example of such a GUI:



EX1003, ¶47.

One of the main goals of GUIs was to make the user interface more intuitive and easy to learn by implementing concepts that are analogues to the real world – dragging an icon to move across the computer screen “desktop,” for example,

resembles the act of moving an object in the real world that a user is already familiar with. EX1003, ¶48.

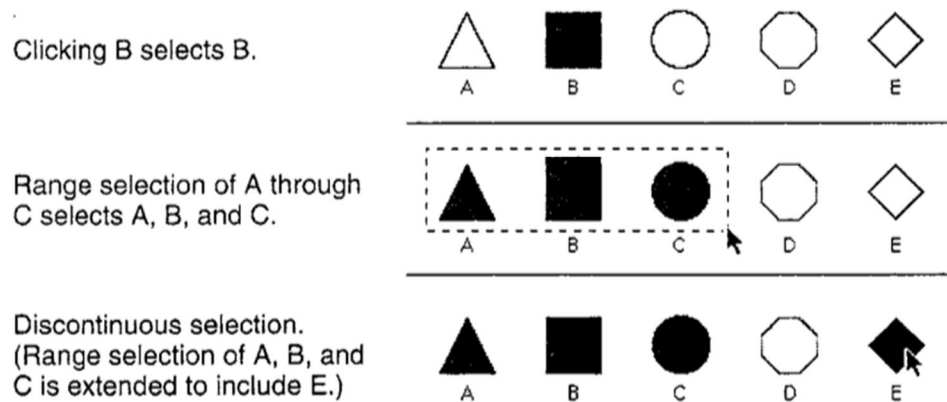
To interact with a particular graphical element such as an icon, a user must indicate which element they are interacting with. EX1003, ¶49. That happens through a process called “selection” where a person uses a mouse, touch screen or other input device to visually identify the element. EX1003, ¶49. The input device used is typically a pointing device so the user can directly indicate the item in question by pointing directly at the item on the screen either directly through touch or with the use of a cursor controlled by another input device. EX1003, ¶49.

Apple’s 1992 *Macintosh Human Interface Guidelines* provides various examples of how a graphical element (such as an icon) can be selected by clicking on it. EX1013, 286-289; EX1003, ¶50. It further explains that the selection is not limited to clicking, and that a wide range of interactions may be used to select items, as shown below. EX1013, 286-289; EX1003, ¶50.

Selection Methods

This section describes various selection techniques: selection by clicking, selection by dragging, extending a selection, and discontinuous selection. Figure 10-15 shows some of the methods.

Figure 10-15 Selection techniques



EX1013, 288. These kinds of selection have been ubiquitous in GUIs since at least the 1970s when Xerox PARC broadly introduced the GUI through their office machines such as the Xerox Alto. EX1003, ¶51. Icon selection was more broadly available when Apple introduced the Macintosh in 1984 and then when Microsoft introduced Windows 3.1 in 1992. EX1003, ¶51. These and many other commercial GUIs that use input devices to select icons are summarized in a 1988 paper describing Window Manager User Interfaces. *See generally* EX1012.

III. THE '878 PATENT

The '878 patent was filed on August 7, 2020; issued on October 5, 2021; and claims priority to U.S. Provisional Application No. 62/334,318, filed May 10,

2016. EX1001, codes (22), (45), (60). While Petitioner does not necessarily concede that the claims of the '878 patent are each entitled to the priority date of the provisional application (May 10, 2016), the claims were at least obvious by that date based on the prior art discussed herein.

A. The '878 Patent Specification

The '878 patent relates to graphical user interfaces (GUIs) and processes for accessing and manipulating GUI content. *E.g.*, EX1001, 17:39-44. Figures 3B-3H illustrate “a plurality of exemplary user interface 113 ‘screen shots’”—each characterized by one or more “icons” and an icon selection tool called a “selection ring.” EX1001, 14:60-63, 17:39-44, 18:11-52, 19:4-54, 22:19-29, Figs. 3B-3H. As shown in Figures 3D-3F, a user “has selected the selection ring 152,” “caus[ing] presentation” of icons 162, 164, and 166. EX1001, 18:16-19, 18:28-30, Figs. 3D-3F. Once presented, the selection ring may be “manipulated and positioned above” any one of the icons, resulting in presentation of a “selection ring siren,” or information box, for the icon. EX1001, 18:20-52. Annotated Figure 3D illustrates the **selection ring 152** “manipulated and positioned above” **icon 162**, and the resulting **selection ring siren 160**, which indicates that **icon 162** corresponds to “a time travel feature interface” the user can launch by selecting the icon. EX1001, 18:40-43, Fig. 3D.

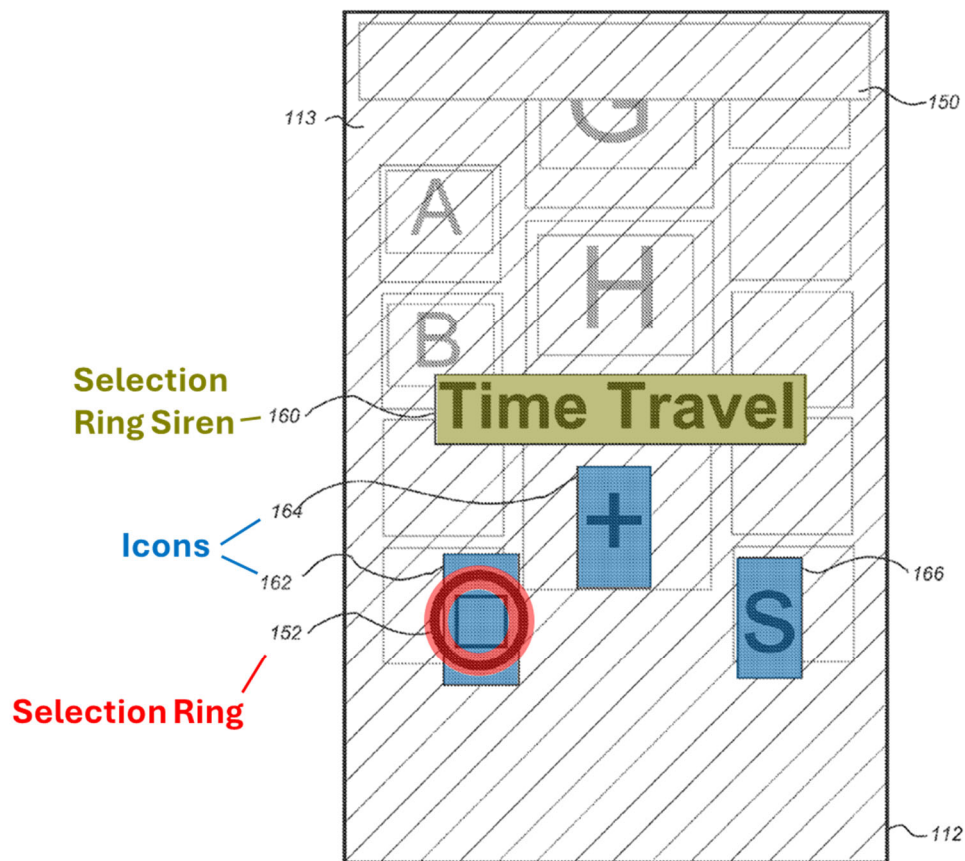


FIG. 3D

EX1001, Fig. 3D (annotated).

Figure 3G below is a screenshot of the display after the user selects icon 162 in the first user interface to enter the “time travel feature interface,” thus launching a second user interface. EX1001, 18:40-43, 18:53-54, 19:4-26, Fig. 3G.

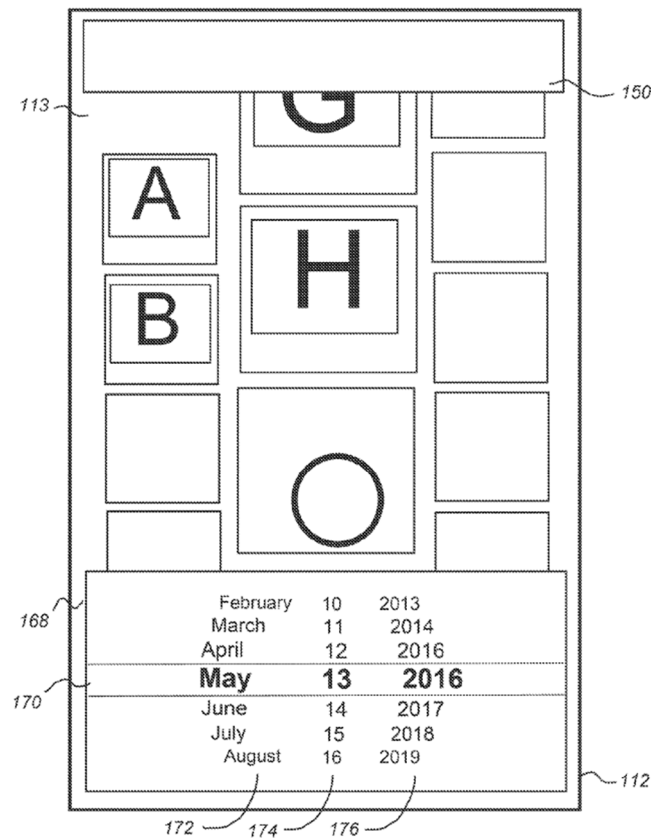


FIG. 3G

EX1001, Fig. 3G.

B. Prosecution History

The pending claims were twice rejected in Office Actions before the claims were allowed. EX1002, 118-136, 163-183. In the first, non-final rejection, the Examiner rejected the initial prosecution claims as obvious over the 2009 version of “Windows 7 for Dummies,” authored by Andy Rathbone (“Rathbone”), in view of a webpage describing “CircleSpin Cursors” created by sixλxis (“sixλxis”).

EX1002, 118-136. After considering Applicant’s responsive claim amendments

and arguments (EX1002, 149-160), the Examiner issued a final Office Action rejecting the proposed claims as obvious over (i) Rathbone and sixλxis, and (ii) Rathbone, sixλxis, and a webpage describing a TouchMouse Pointer (“TouchMouse”). EX1002, 163-183. This Petition does not rely on Rathbone, sixλxis, or TouchMouse.

Applicant filed a response after final action with numerous amendments and arguments. EX1002, 194-210. The Examiner found that Applicant’s response raised new issues and that “US 2008/0163119 A1 appear[ed] to anticipate” and, in combination with other references, render obvious the then-pending independent claims. EX1002, 213, 217. Applicant then filed a request for continued examination, incorporating several claim amendments initially raised in the response after final action. *Compare* EX1002, 221-243, *with* EX1002, 194-210. Applicant amended the claims to require, inter alia, (1) that user manipulation of the selection ring does not “alter[] a location of the plurality of icons within” the user interface, and (2) that receiving a selection of an icon is based on “user manipulation” of the selection ring. EX1002, 230-234, 240-242.

The Examiner did not consider any of *Walkin*, *Homma*, or *Fujioka* during prosecution of the ’878 patent or any related patents. *See generally* EX1002.

C. Claim Construction

Claims must be construed only to the extent necessary to resolve a controversy. *Nidec Motor Corp. v. Zhongshan Broad Ocean Motor Co.*, 868 F.3d 1013, 1017 (Fed. Cir. 2017). Here, no terms require construction to resolve the controversy in this forum.

IV. STATEMENT OF PRECISE RELIEF REQUESTED

The following prior art and grounds render obvious claims 1-18:

Exhibit	Prior Art	Filed	Published	Prior Art Statutory Basis
EX1005	<i>Walkin</i> (U.S. 2014/0282114 A1)	Dec. 5, 2013	Sep. 18, 2014	(AIA) 35 U.S.C. §102(a)(1)
EX1006	<i>Homma</i> (U.S. 2012/0044173 A1)	Aug. 4, 2011	Feb. 23, 2012	(AIA) 35 U.S.C. §102(a)(1)
EX1007	<i>Fujioka</i> (U.S. 2010/0257059 A1)	Mar. 24, 2010	Oct. 7, 2010	(AIA) 35 U.S.C. §102(a)(1)

And the following grounds render the claims obvious under 35 U.S.C. §103:

Ground	Claims	Prior Art
1	1, 2, 5-8, 11-13, 17, and 18	<i>Walkin</i> and <i>Homma</i>
2	3, 4, 9, 10, and 14-16	<i>Walkin</i> , <i>Homma</i> , and <i>Fujioka</i>

V. LEVEL OF ORDINARY SKILL IN THE ART

A person of ordinary skill in the art (“POSITA”) in the field of the ’878 patent would have had a bachelor’s degree in computer science, computer engineering, or a similar field, and two to three years of experience in designing graphical user interfaces. Additional relevant work experience can compensate for less education, and vice versa. EX1003, ¶57.

VI. GROUND 1: CLAIMS 1, 2, 5-8, 11-13, 17, AND 18 ARE UNPATENTABLE OVER *WALKIN* AND *HOMMA*

A. Prior Art Overview

1. *Walkin*

Walkin discloses GUI systems and related processes for viewing, accessing, and manipulating information and content. EX1005, Abstract, ¶¶55, 57, 64-71, Figs. 5M-5Q, 6B. As in the ’878 patent, *Walkin*’s GUI (including, e.g., an interface for a “socialized dash”) includes “one or more interactive elements” (icons) and an icon selection tool called a “control bauble,” which are displayed over other information in the GUI. EX1005, ¶¶57, 65-66, 68-69. Figures 5M-5Q “illustrate example user interfaces with interactive elements.” EX1005, ¶¶9, 66, 68-69, Figs. 5M-5Q.

Walkin’s “control bauble” is presented within the GUI and can be selected by a user to cause “**interactive elements** ([e.g.,] **icons 558, 560, and 562**) . . . [to] appear in the socialized dash.” EX1005, ¶¶66, 68, Figs. 5M-5N. Annotated

Figures 5M and 5N below respectively illustrate the appearance of the GUI before (Figure 5M) and after (Figure 5N) a user selects the **control bauble 556**, thus causing the **icons 558, 560, and 562** to appear. EX1005, ¶¶66, 68, Figs. 5M-5N.

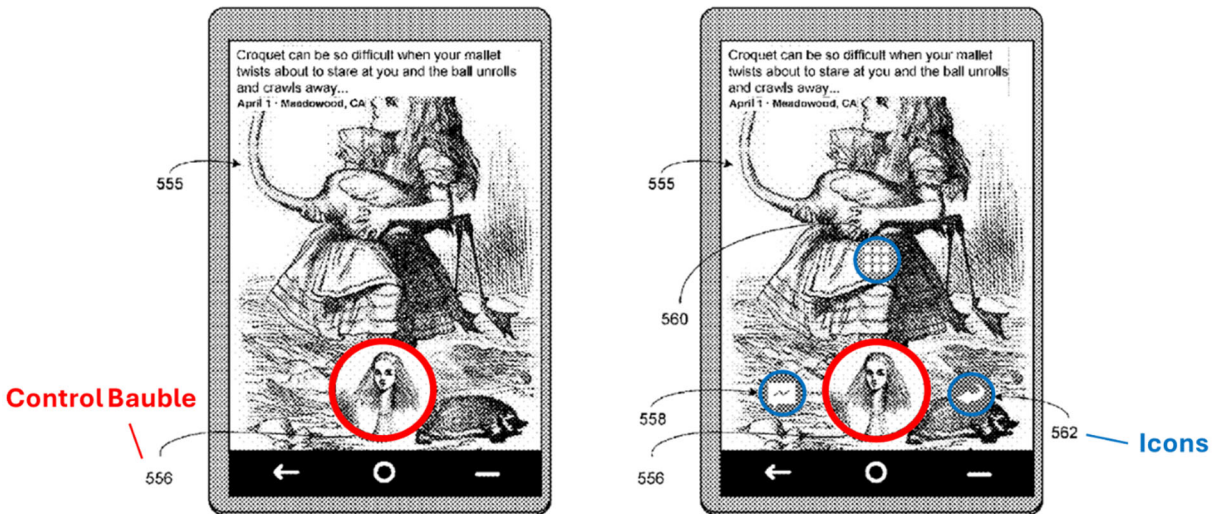


FIG. 5M

FIG. 5N

EX1005, Figs. 5M-5N (annotated).

Walkin's icons may also be associated with "labels" containing information regarding the icon. EX1005, ¶¶4, 68, 71. For example, icon 560 is associated with label 561 ("Apps") "indicating that icon 560 is associated with an application launcher and that selection [of] icon 560 opens the application launcher interface." EX1005, ¶68, Fig. 5P.

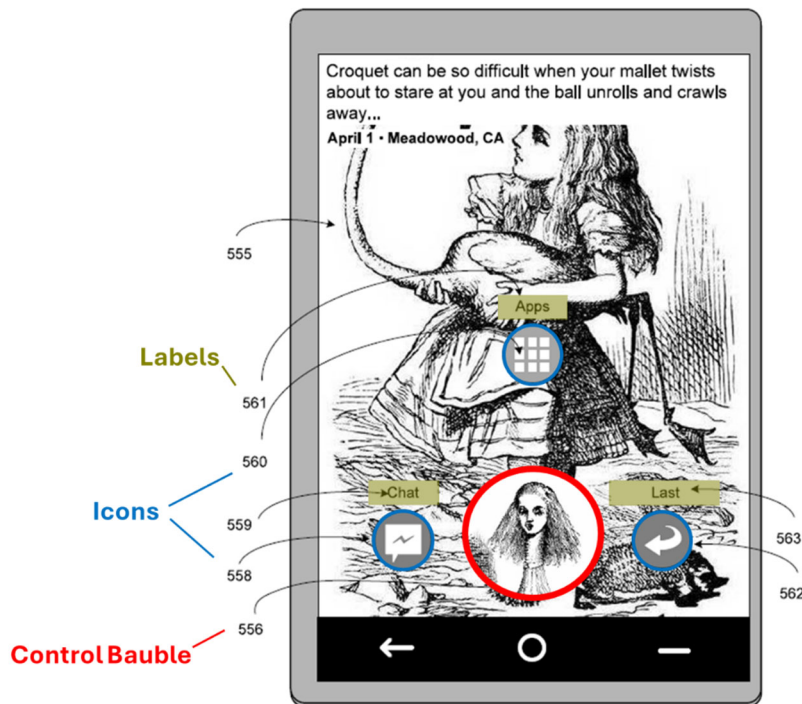


FIG. 5P

EX1005, Fig. 5P (annotated).

Once the icons are presented, “the user may then drag **control bauble 556** onto a particular interactive element (e.g., onto **icon 560**, as shown in FIG. 5P) in order to select it.” EX1005, ¶69, Figs. 5P-5Q. Annotated Figure 5P below illustrates a **dragging gesture** for placing the **control bauble** onto **icon 560**.

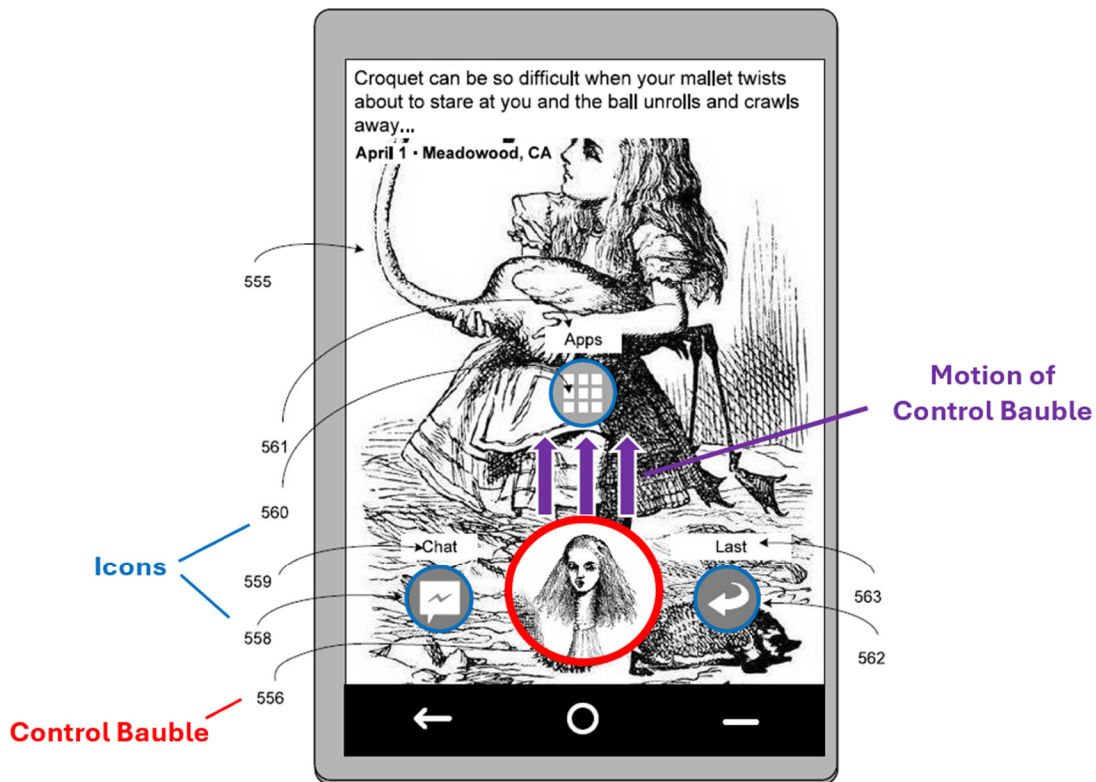


FIG. 5P

EX1005, ¶69, Fig. 5P (annotated).

As in the '878 patent, selecting an icon within the GUI causes the user interface to transition from a first interface to a second interface. For example, selecting the “Apps” icon 560 causes a second interface to “move into view,” e.g., by “overlay[ing]” the second interface “on top of” the first interface. EX1005, ¶¶60, 68. The second interface can be, for example, a “launch screen offering the user various application options for selecting and launching.” EX1005, ¶¶60, 68. Figure 6B summarizes *Walkin*’s process for transitioning between the first and second user interfaces using the interactive elements:

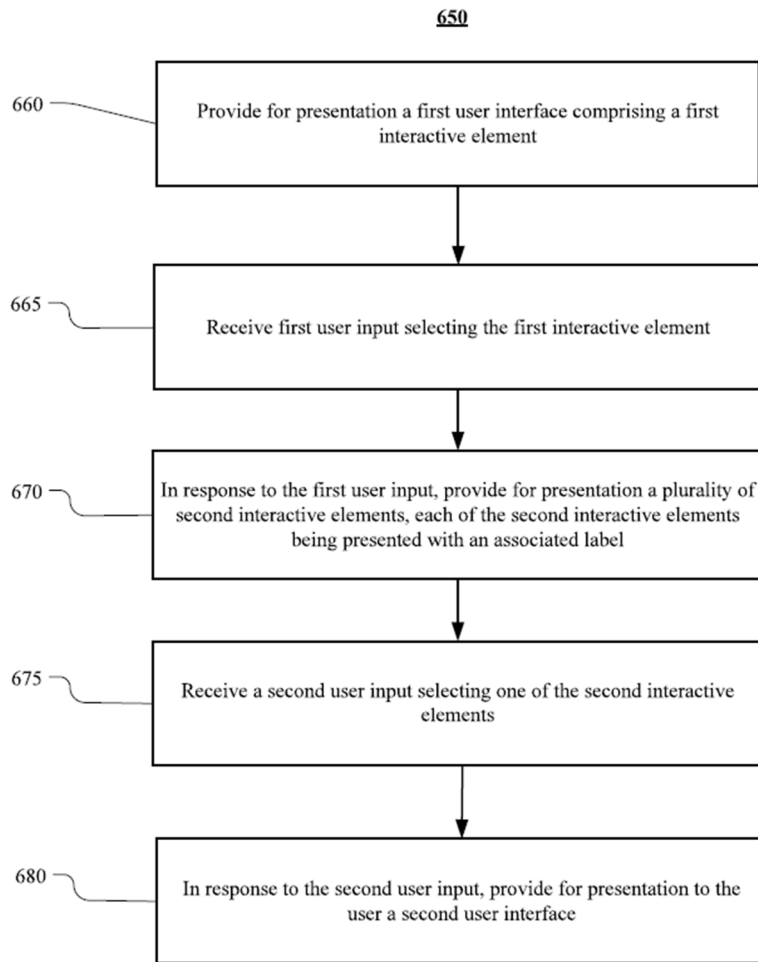


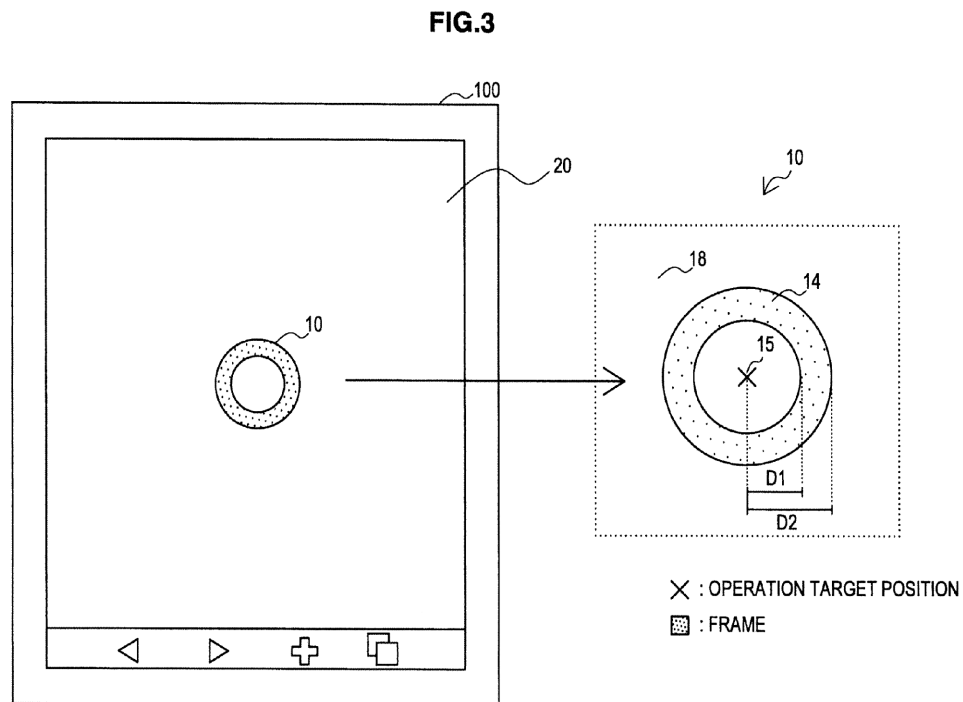
FIG. 6B

EX1005, ¶71, Fig. 6B. At step 665, the user selects the first interactive element, such as the control bauble. EX1005, ¶71, Fig. 6B; *see also* EX1005, ¶65. At step 670, in response to receiving the first user input selecting the first interactive element (control bauble), the system presents a plurality of “second interactive elements” (e.g., icons). EX1005, ¶71, Fig. 6B; *see also* EX1005, ¶66. At step 675, the system receives a “second user input selecting one of the second interactive elements” (e.g., user manipulation of the control bauble to select an icon), and at

step 680, in response to the second user input (e.g., the user's selection of an icon using the control bauble), the first user interface transitions to a second user interface. EX1005, ¶71, Fig. 6B.

2. *Homma*

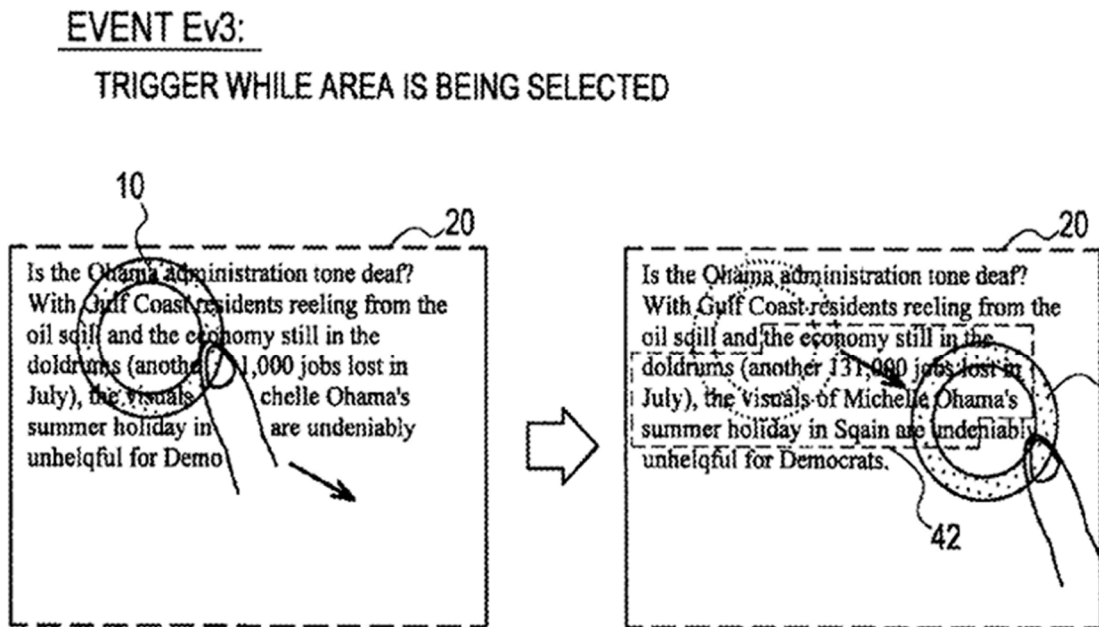
Homma discloses GUI elements and selection tools of various shapes and sizes, including a cursor rendered as a ring-shaped frame with different inner and outer circumferences. EX1006, ¶¶104, 130, 172, Fig. 3. Figure 3 illustrates the ring-shaped cursor 10:



EX1006, ¶104, Fig. 3. *Homma* discloses that the frame 14 of cursor 10 may be “semi-transparent so that an object on the screen that overlaps the frame 14 is

visible.” EX1006, ¶104, Fig. 3; *see also* EX1006, Figs. 8C, 9B, 10. *Homma*’s ring-shaped cursor allows the user to see the user interface behind the cursor, affording the user improved clarity and control over the precise position of the cursor’s target. EX1006, ¶¶104, 130, 172; *see also* EX1006, Figs. 8C, 9B, 10.

FIG.8C



EX1006, Fig. 8C (excerpted).

B. The *Walkin-Homma* Combination

1. *Walkin* and *Homma* Are Analogous Art

Walkin and *Homma* are each analogous art to the ’878 patent at least because they are in the same field of endeavor: graphical user interfaces for a computing

system. *See, e.g.*, EX1001, Title (“Selection Ring User Interface”), 14:60-63 (“a plurality of exemplary user interface 113 ‘screen shots’ of a user’s computer device 112”), 17:39-44, Figs. 3A-3H; EX1005, ¶¶2-4, Figs. 5L-5Q; EX1006, ¶¶3, 7, 42, 103-104; EX1003, ¶90. For example, *Walkin* relates to “a user interface” for a computing device (e.g., a smartphone) that includes user-selectable “interactive elements” (icons). EX1005, ¶¶2-4, 15, Figs. 5L-5Q; *see also* EX1003, ¶¶63-69, 90. *Homma* likewise relates to “novel and improved” computing processes for implementing “a wide variety of user interfaces on a screen without an operation target being covered,” such as through using a “ring shape[d]” cursor 10. EX1006, ¶¶7, 42, 108, Figs. 3, 5, 9B; *see also* EX1003, ¶¶70-71, 90.

Walkin and *Homma* are also reasonably pertinent to the problems facing the inventors of the ’878 patent: improving processes for navigating a graphical user interface. EX1001, 18:16-52 (describing processes for using a selection tool to access icons and navigate between user interfaces); EX1005, ¶¶66-69, 71, Fig. 6B (same); EX1006, ¶¶3, 7, 172 (describing an improved selection process for navigating a user interface); EX1003, ¶¶63-71, 91.

2. Modifying *Walkin*’s “Control Bauble” in View of *Homma*

A POSITA would have been motivated to modify *Walkin* to implement *Homma*’s semi-transparent, ring-shaped cursor design in place of *Walkin*’s “control bauble” (yielding the “*Walkin-Homma* combination”) to improve the

user's visibility of both the underlying GUI and the target icon being selected.

EX1006, ¶¶7, 103-104; EX1003, ¶92. Such a modification would have improved the user's experience and the functionality of *Walkin*'s device by allowing the information and user interface elements underlying the selection ring to be more visible to the user. EX1006, ¶¶7, 103-104, 172; EX1003, ¶92.

Annotated Figure 5P below illustrates *Walkin*'s GUI modified to implement *Homma*'s ring-shaped selection tool design in place of *Walkin*'s control bauble and the resulting improvement in GUI visibility. EX1003, ¶93; EX1005, Figs. 5P-5Q. The transparency of the selection tool would also allow the user to see more of the target icon when the selection ring is manipulated by the user to overlap with the icon as part of the icon selection process. EX1003, ¶93.

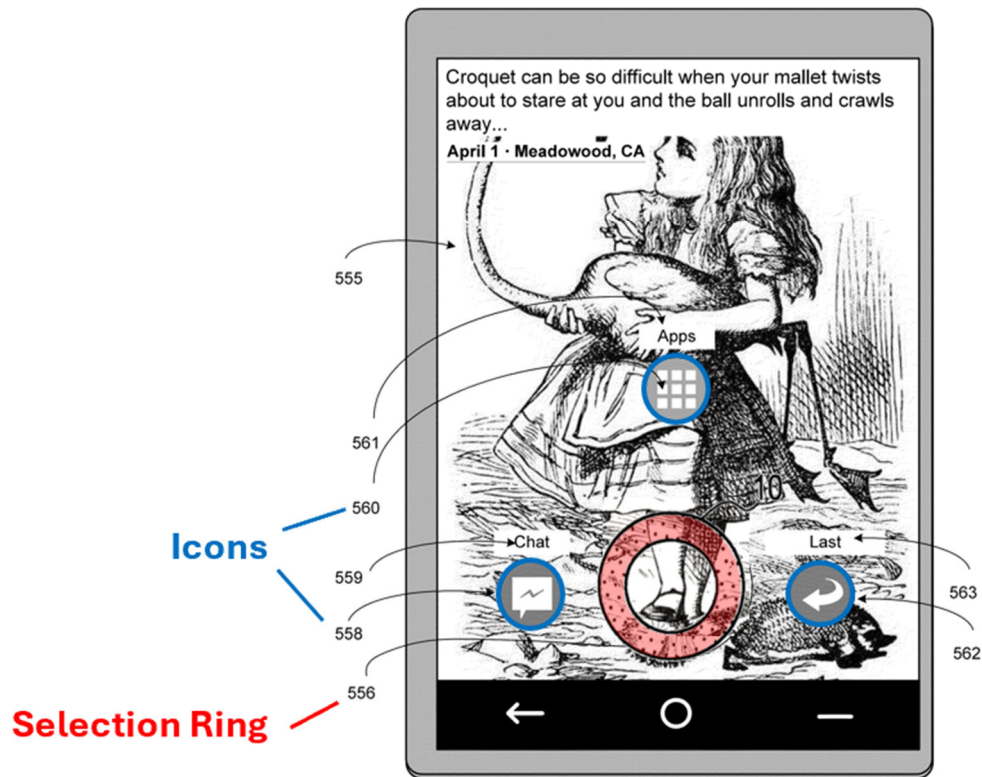


FIG. 5P

EX1005, Fig. 5P (modified and annotated representation of replacing *Walkin*'s **control bauble** design with *Homma*'s **selection ring** shape).¹

¹ For the other claim elements discussed in this Petition, the functionalities depicted for *Walkin*'s control bauble 556 in annotated figures apply equally to this modification of *Walkin*'s control bauble to incorporate *Homma*'s ring-shaped GUI element. EX1003, ¶93 n.8.

A POSITA would have also found it obvious to configure *Walkin*'s control bauble to utilize the ring-shaped design because doing so would have merely required the substitution of one known icon selection tool shape for another known shape to achieve predictable results in a GUI. EX1003, ¶94; *see KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 417 (2007) ("If a person of ordinary skill can implement a predictable variation, § 103 likely bars its patentability."); *Uber Techs., Inc. v. X One, Inc.*, 957 F.3d 1334, 1340-41 (Fed. Cir. 2020) (finding obviousness because the modification was a "predictable variation" requiring only routine skill to implement (quoting *KSR*, 550 U.S. at 417)); *see also Ex parte Spangler*, Appeal No. 2018-003800, Application No. 11/679,958, 5-6, 8-9 (PTAB Feb. 20, 2019) (informative) (affirming a finding of obvious design choice where the claimed design was "immaterial to providing" the claimed function).

As an alternative, based on the teachings of *Homma*, a POSITA would have additionally found it obvious as a matter of routine design choice to remove the interior image of *Walkin*'s control bauble to make the underlying GUI visible, as shown in annotated Figure 5P below. EX1003, ¶95; EX1005, Fig. 5P.

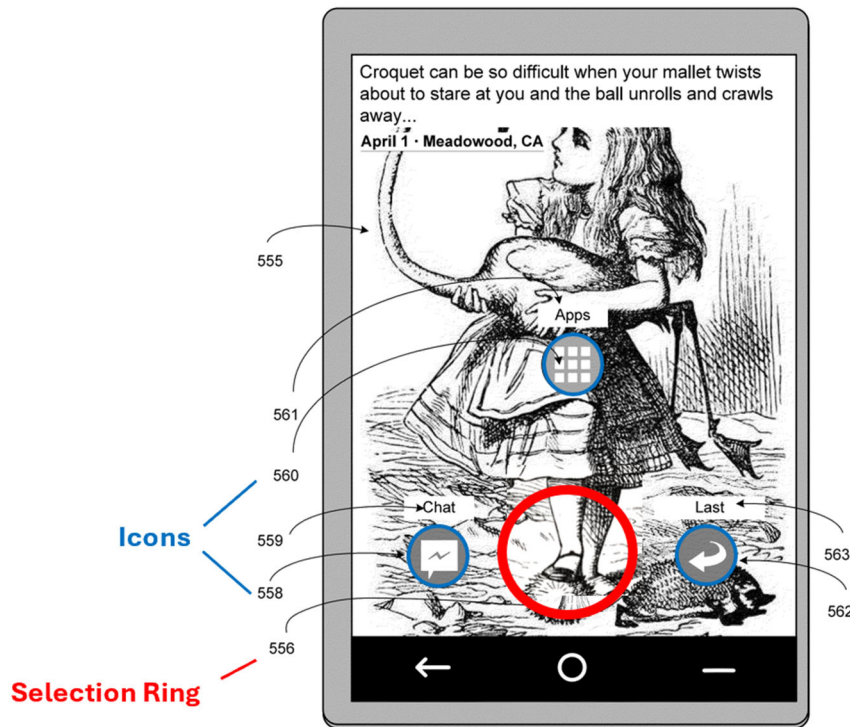


FIG. 5P

EX1005, Fig. 5P (modified to remove interior image of control bauble 556).

Walkin expressly notes that the exemplary image depicted within the “control bauble” in its figures is an optional feature of the GUI element’s design and contemplates a variety of icon selection tool shapes and designs. *See* EX1005, Figs. 5B, 5H, 5I, 5L, 5M, ¶65 (“[C]ontrol bauble 556 . . . *may* display an image associated with the user of the computing device (e.g., the user’s profile picture).” (emphasis added)); EX1003, ¶95. Furthermore, it was well known in the art to use a variety of shapes, including ring shapes, within a GUI to facilitate icon selection. *See, e.g.*, EX1006, ¶¶16-17, 103-104, Fig. 3; EX1009, ¶53 (“[A]ttributes of the selection indicators may include shapes (e.g., rectangular, polygonal, angular

wedge shape, [or] *annular shape*)” (emphasis added)); EX1010, ¶336 (“In some embodiments, the first visual indicator comprises one of: *a ring, donut, circle, oval, ellipse, arrow, cross, I-beam, star, or virtual finger.*” (emphasis added)). Thus, a POSITA would have also recognized the ring-shaped design to be an obvious matter of design choice and found it obvious to modify *Walkin* for the same reason. EX1003, ¶96.

For either of these exemplary modifications of *Walkin*’s control bauble, a POSITA would have had a reasonable expectation of success in implementing *Homma*’s ring-shaped selection tool design. EX1003, ¶97. The proposed modification would have merely required routine and conventional GUI programming and design techniques, including incorporating known GUI shapes and elements (e.g., a transparent, ring-shaped cursor) into another GUI element to obtain known design benefits, thus yielding predictable results for a more user-friendly, higher-visibility GUI. *KSR*, 550 U.S. at 416-17; EX1003, ¶98.

Underscoring the similarities (and compatibility) of the references, both *Walkin* and *Homma* use a circular selection tool to allow a user to select icons in a GUI. EX1005, ¶¶65-66, 68, 71, Figs. 5M-5P; EX1006, ¶¶103-104, Figs. 6, 8C; EX1003, ¶98. Furthermore, each uses executable computer instructions (including through a computer operating system) to implement such GUI functionalities. EX1005, ¶¶75-76, Fig. 7; EX1006, ¶¶39, 93. Moreover, *Homma* expressly discloses that its cursor

may be implemented in a “variety of user interfaces” (EX1006, ¶42), and a POSITA would have understood that modifying *Walkin* to incorporate the design of *Homma*’s ring-shaped selection tool would have only required routine skill and knowledge in the field to implement. EX1003, ¶98.

C. Independent Claim 8

The three independent claims (1, 8, and 13) of the ’878 patent have extensive overlap in claim elements. Claim 8 recites a system including most elements of independent claims 1 and 13, as well as additional claim limitations, and is addressed first below. The analysis for independent claims 1 and 13 follows.

1. [8preamble]: “An interactive user interface control system, comprising:”

Walkin discloses claim element [8preamble]. EX1003, ¶79. For example, it discloses a “client system” for implementing and controlling “first” and “second” “user interface[s]” having a plurality of “interactive elements.” EX1005, ¶¶4, 15, 20, 71, Fig. 6B; EX1003, ¶79. The client system “may be a mobile electronic or computing device . . . such as a [s]martphone, tablet computer, or laptop computer.” EX1005, ¶20. Figures 5M-5P illustrate an embodiment of the client system having “example user interfaces with interactive elements.” EX1005, ¶¶9, 65-68, Figs. 5M-5P.

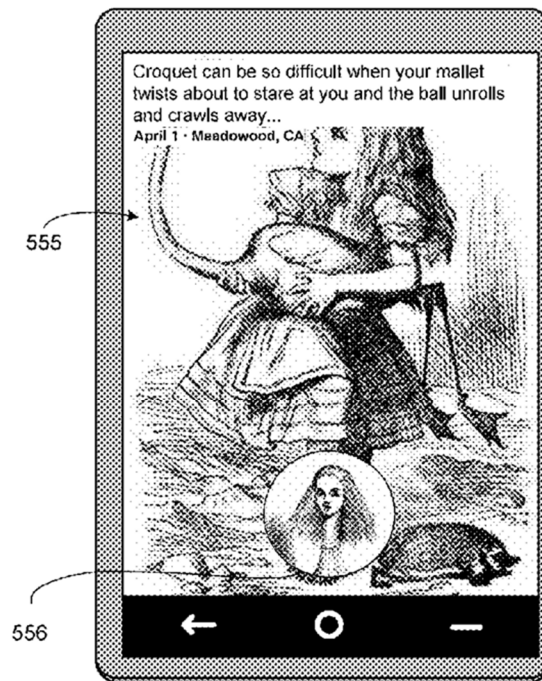


FIG. 5M

EX1005, Fig. 5M.

2. [8a]: “a display device;”

Walkin discloses claim element [8a]. EX1003, ¶¶80-82. For example, *Walkin*’s client system (e.g., a smartphone) “include[s] a touchscreen capable of receiving touch input” and displaying user interfaces. EX1005, ¶¶4, 21-22, 52, 65; EX1003, ¶81. Figure 5M illustrates a user interface “occup[ying] the entire or nearly the entire display area (e.g., the screen of an electronic device).” EX1005, ¶52, Fig. 5M; *see also* EX1005, ¶65 (describing “displayable region 555”).

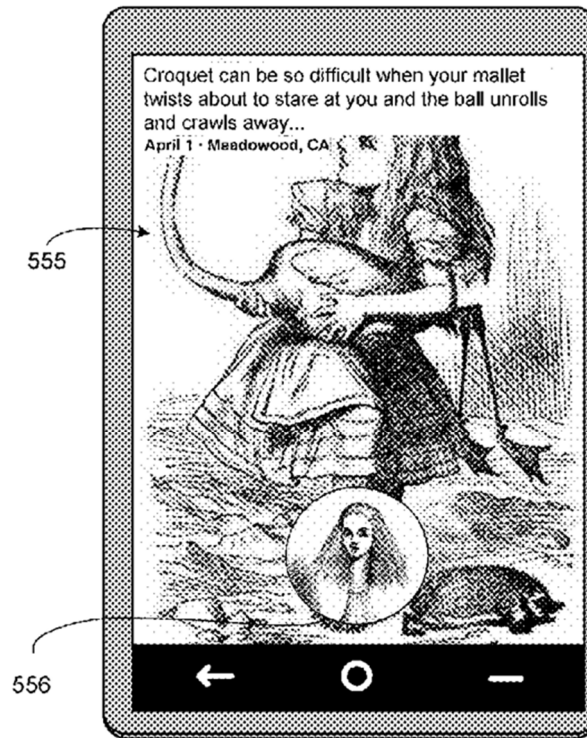


FIG. 5M

EX1005, Fig. 5M. This is consistent with the '878 patent, which similarly describes “a user interface 13 such as a display,” whereby “[t]he user interface 13 may include a touch screen capable of receiving input from a user that touches the screen.” EX1001, 8:65-9:1.

3. [8b]: “a memory that stores computer instructions; and”

Walkin discloses claim element [8b]. EX1003, ¶¶83-84. For example, *Walkin*’s client system (e.g., a smartphone) comprises “memory 704 includ[ing] main memory for storing instructions for processor 702 to execute.” EX1005,

¶¶20, 74-76; EX1003, ¶84. For the client system “to execute instructions, processor 702 may retrieve (or fetch) the instructions from an internal register, an internal cache, memory 704, or storage 706; decode and execute them; and then write one or more results to an internal register, an internal cache, memory 704, or storage 706.” EX1005, ¶75; *see also* EX1005, ¶76 (describing embodiments where “processor 702 executes only instructions in one or more internal registers or internal caches or in memory 704 (as opposed to storage 706 or elsewhere)”).

Figure 7 below illustrates a client system (computer system) including memory 704 for storing instructions for performing the “methods” and “functionality described” with respect to Figures 5M-5P. EX1005, ¶¶72, 74-76
Fig. 7.

700

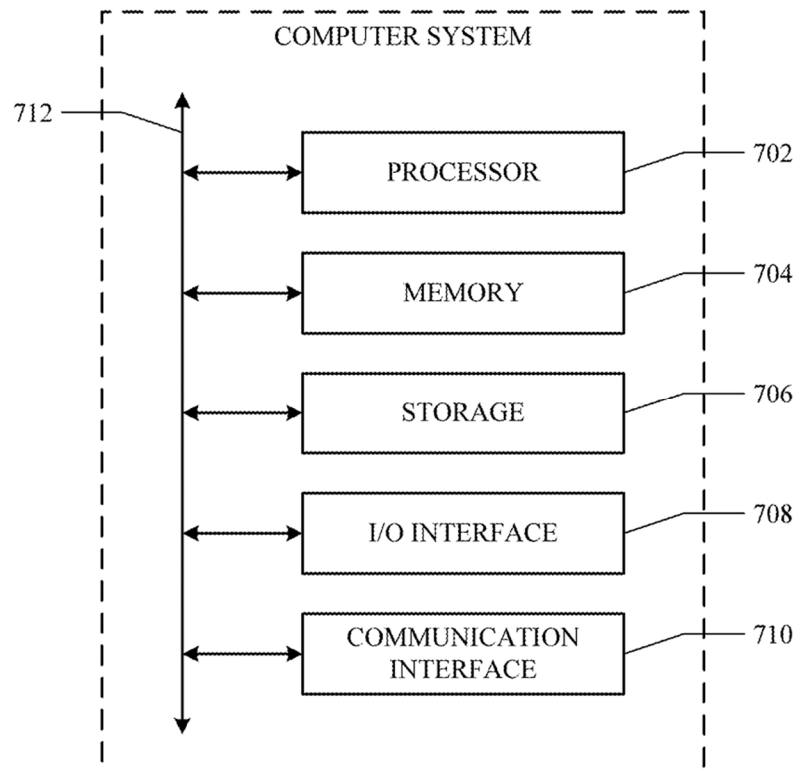


FIG. 7

EX1005, Fig. 7.

4. [8c]: “at least one processor that executes computer instructions to:”

Walkin discloses claim element [8c]. EX1003, ¶¶85-86. For example, its client system “includes a processor 702” “for executing instructions, such as those making up a computer program” stored in memory 704. EX1005, ¶¶74-76; EX1003, ¶86. The processor “may retrieve (or fetch) the instructions from an internal register, an internal cache, memory 704, or storage 706; decode and

execute them; and then write one or more results to an internal register, an internal cache, memory 704, or storage 706.” EX1005, ¶75. Figure 7 below illustrates a client system (computer system) including processor 702 for executing instructions that perform the “methods” and “functionality described” with respect to Figures 5M-5P and claim elements [8d]-[8i] below. EX1005, ¶¶72, 74-76, Fig. 7.

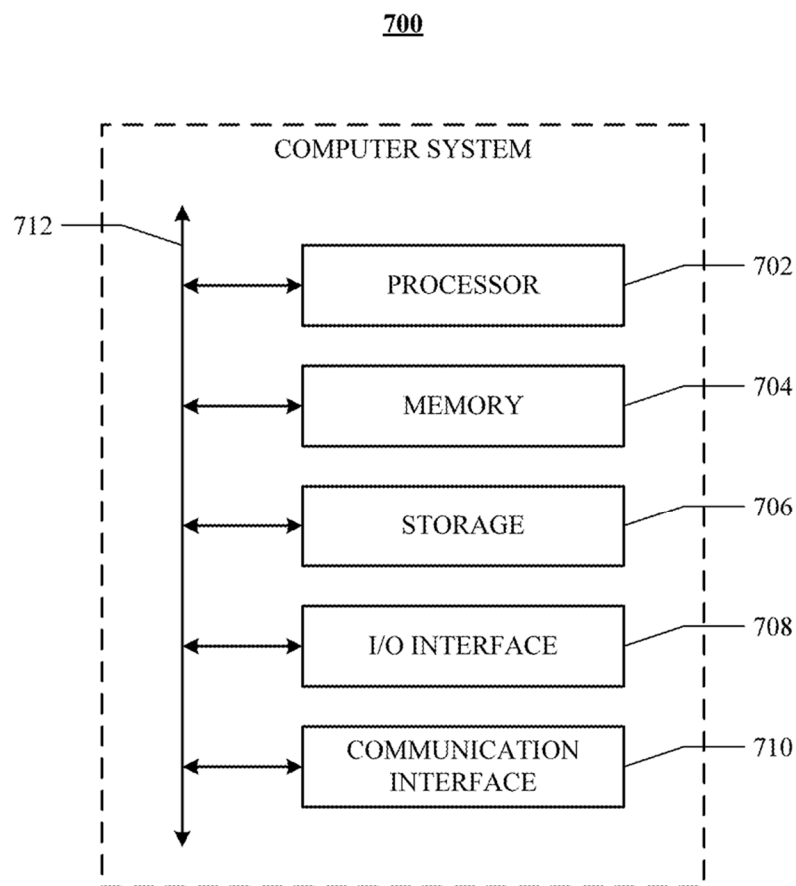


FIG. 7

EX1005, Fig. 7.

5. [8d]: “present, on the display device, the selection ring to a user in a first graphical user interface;”

Walkin in view of *Homma* renders obvious claim element [8d]. EX1003, ¶¶87-98.

Walkin discloses presenting, on the display device, a selection tool (“control bauble”) in a first graphical user interface (e.g., a “socialized dashboard” or “socialized dash”). EX1005, ¶65, Fig. 5M. For example, *Walkin* discloses “an interactive element in the form of a control bauble” that is displayed over other information in the “socialized dash.” EX1005, ¶65. The “**control bauble 556**” is a **selection tool** that a **user moves to select** an **interactive element** (e.g., icon). EX1005, ¶69 (“[F]or example, if the user placed their finger onto control bauble 556 to cause icons 558, 560, and 562 to appear, the user may then drag control bauble 556 onto a particular interactive element (e.g., onto icon 560, as shown in FIG. 5P) in order to select it.”), Fig. 5P. The socialized dash may be “a home or default screen” of the computing device. EX1005, ¶65. Figure 5M below illustrates the “socialized dash” and “**control bauble 556**” presented on the “displayable region 555.” EX1005, ¶65, Fig. 5M.

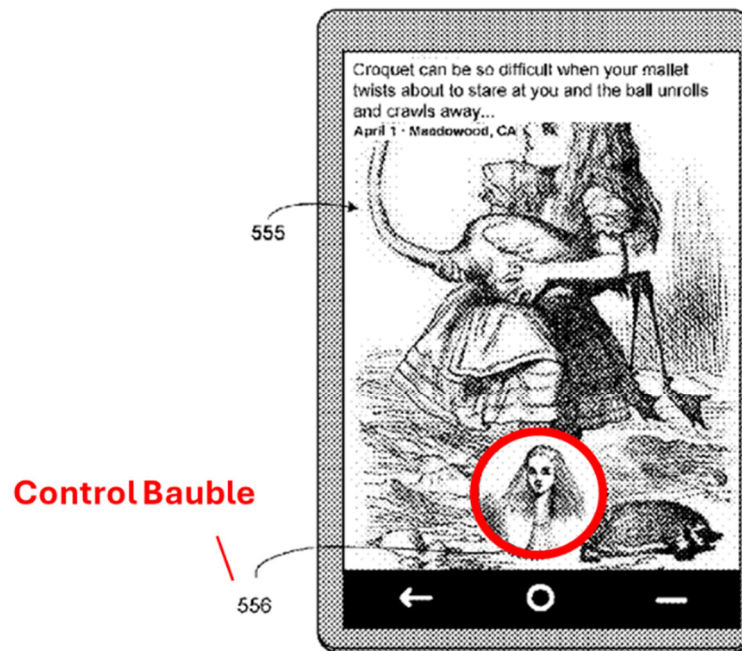


FIG. 5M

EX1005, Fig. 5M (annotated). Annotated Figure 5P below illustrates a dragging motion of the control bauble that may be used to select an icon.

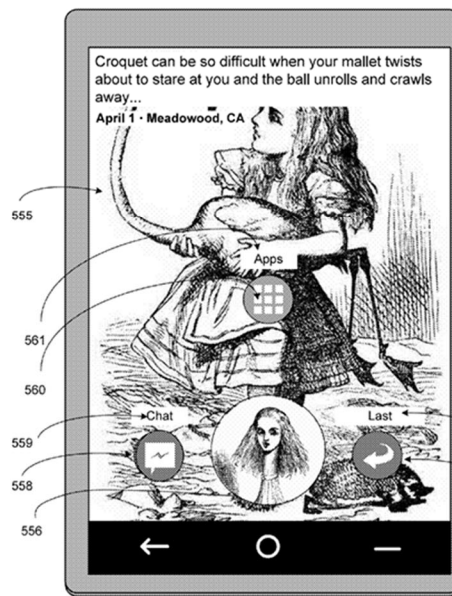


FIG. 5P

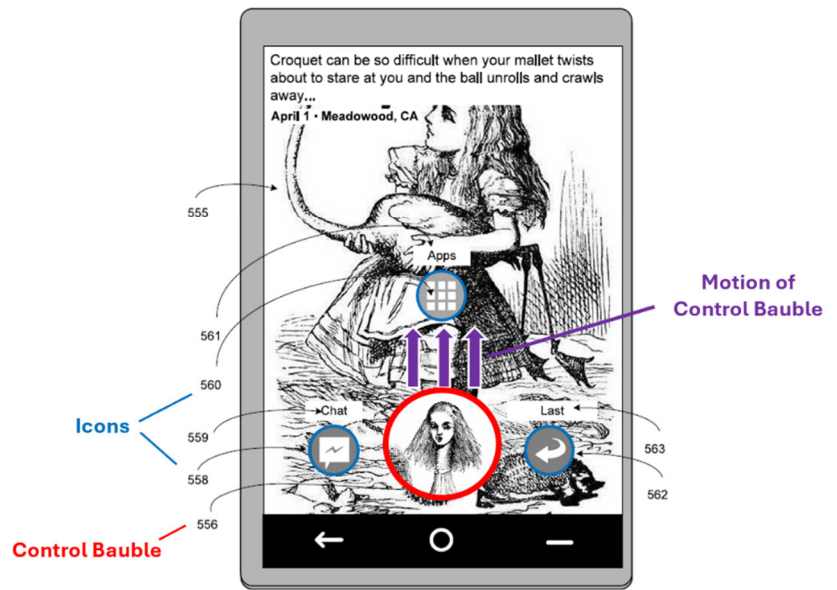


FIG. 5P

Walkin, Fig. 5P (original (left); annotated (right)).

As discussed above regarding the *Walkin-Homma* combination, a POSITA would have been motivated to modify *Walkin*'s control bauble through the *Walkin-Homma* combination to implement *Homma*'s ring-shaped selection tool design, thereby improving the visibility of both the underlying GUI and the target icon being selected. EX1003, ¶92. Annotated Figure 5P below illustrates *Walkin*'s GUI modified to implement *Homma*'s selection tool design. EX1003, ¶93; EX1005, Figs. 5P-5Q.

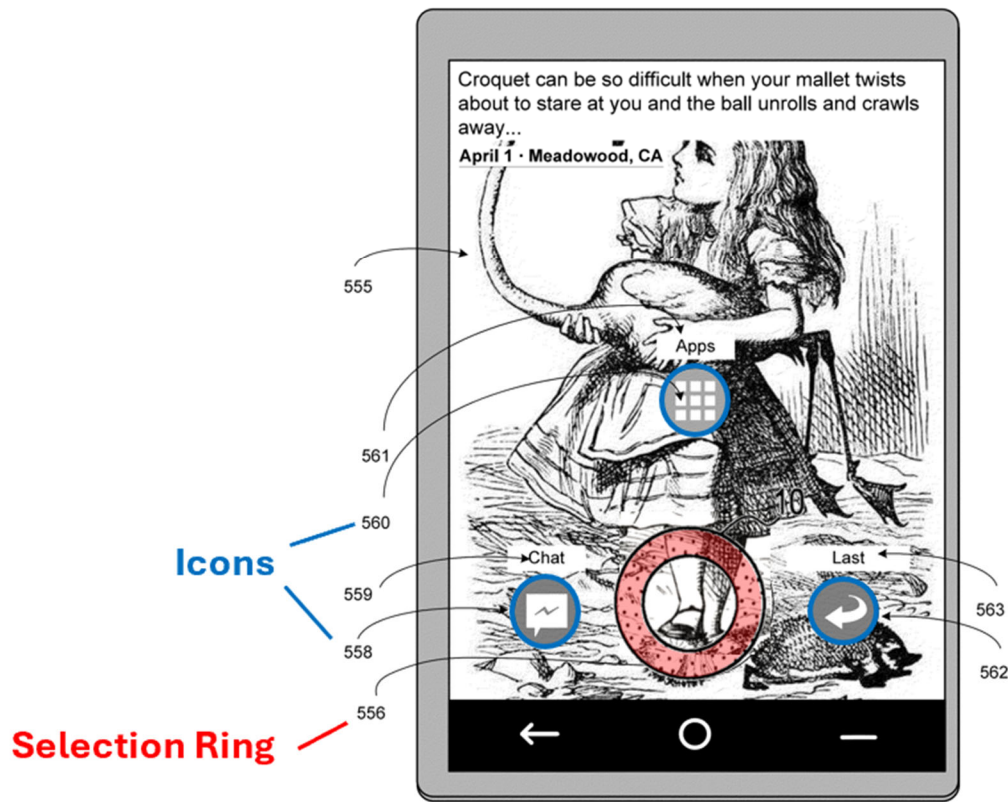


FIG. 5P

EX1005, Fig. 5P (annotated representation of replacing *Walkin*'s **control bauble** design with *Homma*'s **selection ring** shape).

As further discussed above regarding the *Walkin-Homma* combination, an additional example of how a ring-shaped selection ring would have been obvious to implement is shown below, where *Walkin*'s control bauble has been modified based on *Homma*'s teachings to remove its interior image, yielding a selection ring with a transparent center, thereby improving GUI visibility for a user. EX1003, ¶¶95-98; EX1005, Fig. 5P.

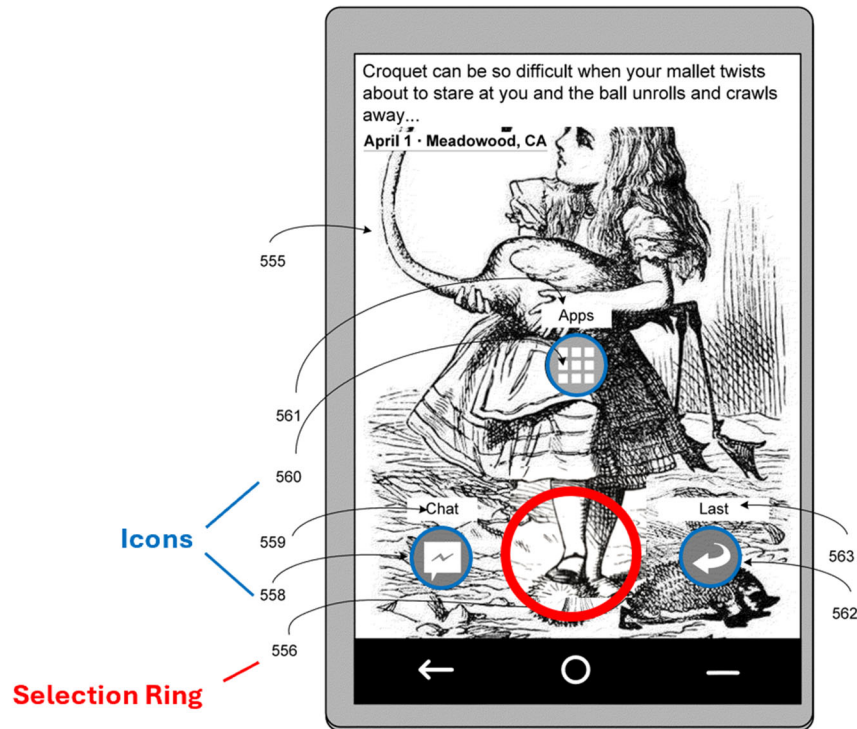


FIG. 5P

EX1005, Fig. 5P (annotated to remove the image within the control bauble).

Both of these examples result in the presentation of a selection ring in a first graphical user interface on a display device based on the *Walkin-Homma* combination. EX1003, ¶¶93-98.

6. [8e]: “prior to selection of the selection ring by the user, hide a plurality of icons from the first graphical user interface;”

Walkin and *Homma* render obvious claim element [8e]. EX1003, ¶¶99-102.

As explained for claim element [8d], the *Walkin-Homma* combination renders obvious the selection ring shape. The addition of *Homma* does not otherwise alter the functionality associated with *Walkin*’s modified control bauble. EX1003, ¶99.

For example, *Walkin*'s modified control bauble is a **selection ring** (in the *Walkin-Homma* combination) that a user selects to display **additional interactive elements** (e.g., **icons 558, 560, and 562**). EX1005, ¶66, Figs. 5M-5N.

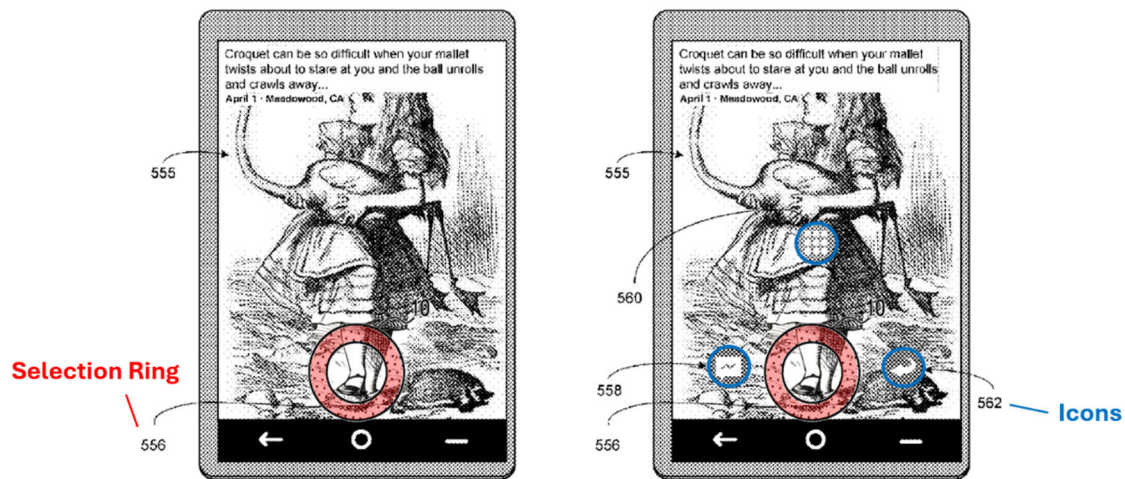


FIG. 5M

FIG. 5N

EX1005, Figs. 5M-5N (modified, annotated). Prior to the selection of the modified **control bauble**, as shown in Figure 5M above, the **additional “interactive elements”** (e.g., icons 558, 560, and 562) hide in “a position behind the **control bauble**” and are not visible in *Walkin*'s “socialized dash” (first graphical user interface) prior to the selection of the **control bauble**. EX1005, ¶¶66, 68-69, Figs. 5M-5N; EX1003, ¶100. The **additional interactive elements** may also “fly out in all directions from behind the **control bauble** toward their final positions in the user interface” “in response to selection of a **control bauble**.” EX1005, ¶66; EX1003, ¶100. A POSITA would have understood that these exemplary

“additional interactive elements” are hidden prior to a user’s selection of *Walkin*’s modified control bauble because they do not appear prior to the user’s selection of the control bauble. EX1005, ¶66, Figs. 5M-5N; EX1003, ¶100.

Moreover, it was well known in the art to hide interactive interface elements (e.g., icons) on a GUI until a user provides input, and to then un-hide the icons upon receiving the user’s input to allow the user to interact with the icons. EX1008, ¶¶33, 47, Figs. 3, 5-6; EX1011, 12:14-29; EX1003, ¶101. For example, decades-old prior art systems allowed users to selectively “reveal one or more additional icons” that were previously “hidden,” and to hide “previously visible [icons].” EX1008, ¶¶33, 47, Figs. 3, 5-6; *see also* EX1011, 4:55-61 (describing a prior art “pull down menu” for displaying icons when a particular “logo” is “activated”), 12:14-29 (explaining that “icons” may be “visible” so that they are “accessible” or “hidden” such that they do not occupy the GUI). Indeed, a POSITA would have understood that hiding icons until they are needed advantageously reduces GUI “clutter,” thereby enhancing “display screen management” and the user’s experience. *See, e.g.*, EX1011, 3:10-46, 4:6-9, 4:55-61 (explaining that undesirable GUI “clutter” arises when multiple icons and windows appear on the screen—and is reduced by selectively presenting icons); EX1003, ¶101. A POSITA would have understood that hiding and selectively presenting icons also

improves system efficiency and responsiveness by avoiding unnecessary re-computation or re-rendering of graphical elements. EX1003, ¶101.

As a further example of “hiding” icons before they are presented in the GUI in response to a user’s selection of the control bauble (selection ring in the *Walkin-Homma* combination), *Walkin* describes an exemplary embodiment in which the “additional interactive elements” (icons) disappear “after a lack of user input.” EX1005, ¶64; EX1003, ¶102. *Walkin* further discloses that a user may select the control bauble multiple times. *See, e.g.*, EX1005, ¶66 (“Similarly, if *user input selecting the control bauble is received once again*, the interactive elements may appear to fly back from their final positions to a position behind the control bauble in the user interface.” (emphasis added)). Thus, after a user first selects *Walkin*’s modified control bauble and icons appear, those icons disappear (are hidden) from the user interface until the user selects the control bauble again, causing those icons to un-hide and re-appear. EX1005, ¶64; EX1003, ¶102. In this example, the user’s second selection of the control bauble (*Walkin-Homma* selection ring) causing the icons to re-appear is the claimed “selection of the selection ring by the user,” and the disappearance of icons from the GUI constitutes hiding the plurality of icons from the first GUI prior to that selection. EX1003, ¶102.

7. [8f]: “receive a selection of the selection ring by the user;”

Walkin and *Homma* render obvious claim element [8f]. EX1003, ¶¶103-106.

As explained for [8d], the *Walkin-Homma* combination renders obvious the claimed “selection ring.” The addition of *Homma* does not otherwise alter *Walkin*’s functionality for a user’s selection of *Walkin*’s control bauble as modified in view of *Homma*. EX1003, ¶103.

For example, *Walkin* presents a control bauble 556 and a “user clicks on, touches a finger on, hovers over, or otherwise provides input selecting [the] control bauble” (receive a selection of the selection ring by the user). EX1005, ¶66; EX1003, ¶104; *see also* EX1005, ¶¶59, 65-66 (describing numerous user inputs for “selecting” an interactive element, including the control bauble), claim 1 (“in response to the first user input, providing for presentation a plurality of second interactive elements”), ¶71 (“At step 670, in response to the first user input, a plurality of second interactive elements is provided for presentation, each of the second interactive elements being presented with an associated label.”), Figs. 5N, 6B.

Figure 6B below illustrates “an example method 650 for selecting an interactive element of a user interface.” EX1005, ¶71, Fig. 6B.

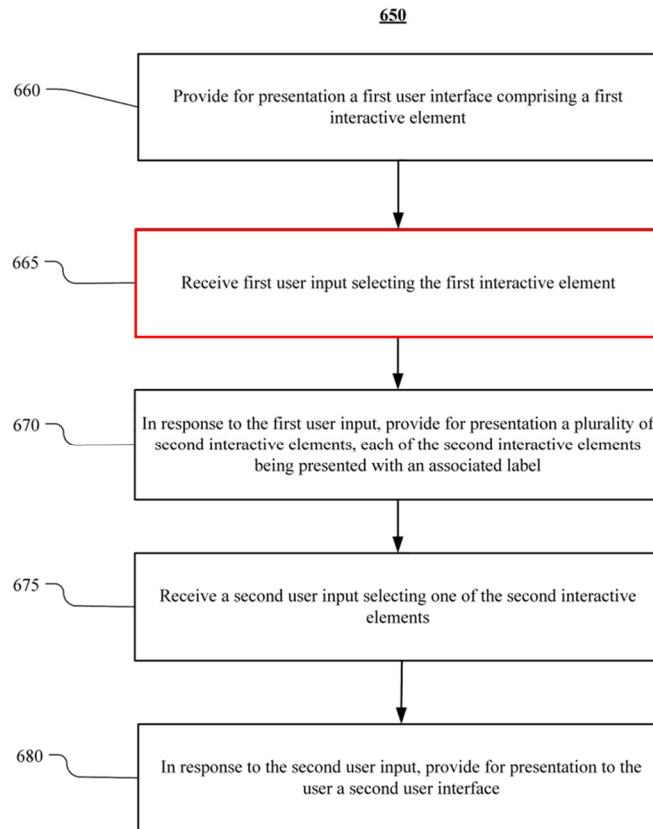


FIG. 6B

EX1005, Fig. 6B (annotated).

8. **[8g(i)]: “in response to the selection of the selection ring by the user: activate the selection ring to enable the user to manipulate a position of the selection ring within the first graphical user interface; and”**

Walkin and *Homma* render obvious claim element [8g(i)]. EX1003, ¶¶107-110. As explained for [8d], the *Walkin-Homma* combination renders obvious the claimed “selection ring.” The addition of *Homma* does not otherwise alter *Walkin*’s functionality for a user’s selection of *Walkin*’s control bauble (as

modified in view of *Homma*) or *Walkin*'s related functionality for a user's manipulation of the control bauble. EX1003, ¶107.

For example, *Walkin* discloses allowing a user to manipulate the position of the control bauble after the user selects it. EX1003, ¶¶108-110. As discussed above for claim element [8f], *Walkin*'s Figure 6B illustrates “an example method 650 for selecting an interactive element of a user interface.” EX1005, ¶71, Fig. 6B. At step 665, “first user input selecting the first interactive element[] is received” (e.g., the user selects the control bauble). EX1005, ¶71, Fig. 6B. At step 670, “in response to the first user input” (e.g., after the user selects the control bauble), “a plurality of second interactive elements” (e.g., a plurality of icons) “is provided for presentation.” EX1005, ¶71, Fig. 6B. Next, in step 675, “a **second user input selecting** one of the second interactive elements is received.” EX1005, ¶71, Fig. 6B.

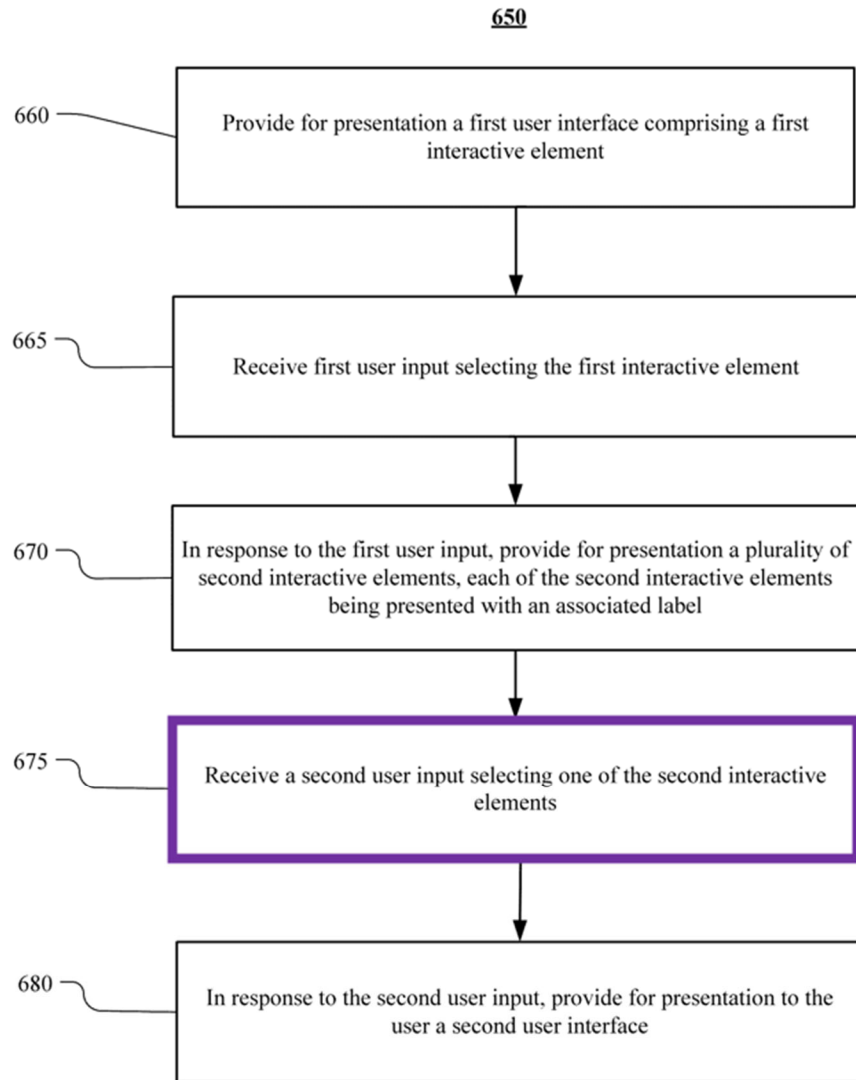
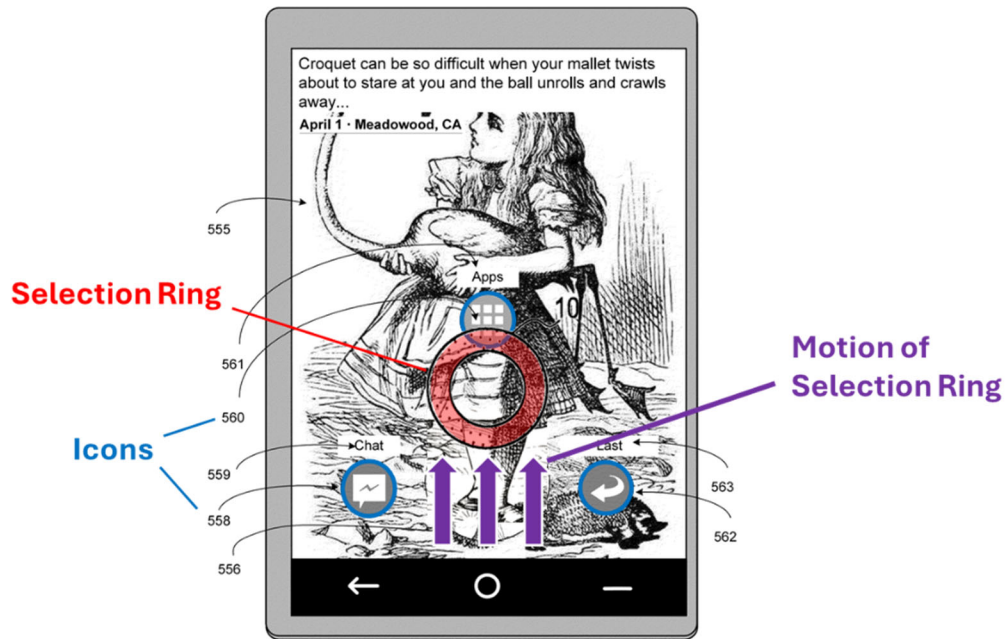


FIG. 6B

EX1005, Fig. 6B (annotated).

For example, “if the user placed their finger onto control bauble 556 to cause icons 558, 560, and 562 to appear” (as described in claim element [8f]), “the user *may then drag control bauble 556 onto a particular interactive element* (e.g., onto **icon 560**, as shown in FIG. 5P) in order to select it.” EX1005, ¶69

(emphasis added), Figs. 5P-5Q; *see also* EX1005, claim 5 (“[T]he *second* user input selecting one of the second interactive elements comprises a touch gesture comprising dragging the first interactive element toward the one of the second interactive elements.” (emphasis added)). In this example, a user’s selection of *Walkin*’s modified control bauble (i.e., the selection ring of the *Walkin-Homma* combination) is a precursor to dragging (e.g., manipulating a position of) the selection ring. A POSITA would have therefore understood that the *Walkin-Homma* system, in response to a user’s selection of the selection ring, enables the user to then manipulate the position of the selection ring to select an icon within the GUI. EX1003, ¶110. Annotated Figure 5P below, which has been modified to depict the motion of the modified **control bauble (selection ring)**, illustrates an exemplary **dragging gesture for manipulating a position** of the **selection ring** to select **icon 560**. EX1005, ¶69, Figs. 5N, 5P-5Q.



EX1005, Fig. 5P (modified, annotated).

9. [8g(ii)]: “[in response to the selection of the selection ring by the user:] un-hide and present, on the display device, the plurality of icons to the user in the first graphical user interface;”

Walkin and *Homma* render obvious claim element [8g(ii)]. EX1003, ¶¶111-115. As explained for [8d], the *Walkin-Homma* combination renders obvious the “selection ring.” The modification does not otherwise alter *Walkin*’s functionality regarding the presentation of several icons in response to a user’s selection of the control bauble. EX1003, ¶111.

For example, in response to the selection of the selection ring (*Walkin*’s modified control bauble) by the user, “additional interactive elements” (e.g., a

plurality of icons) are un-hidden and then “appear in the socialized dash” and are thus presented within the first graphical user interface. EX1005, ¶¶66; EX1003, ¶112; *see also* EX1005, ¶¶59, 65-66, 71 (describing numerous user inputs for “selecting” an interactive element, including the control bauble), claim 1 (“in response to the first user input, providing for presentation a plurality of second interactive elements”), Figs. 5N, 6B.

Walkin’s Figure 6B below illustrates “an example method 650 for selecting an interactive element of a user interface.” EX1005, ¶71, Fig. 6B. First, in step 660, “a first user interface comprising a first interactive element” (e.g., the control bauble) “is provided for presentation.” EX1005, ¶71, Fig. 6B. Next, at step 665, “first user input selecting the first interactive element[] is received” (e.g., the user selects the control bauble). EX1005, ¶71, Fig. 6B. Then, at step 670, “in response to the first user input, **a plurality of second interactive elements**” (e.g., a **plurality of icons**) “is provided for presentation.” EX1005, ¶71, Fig. 6B.

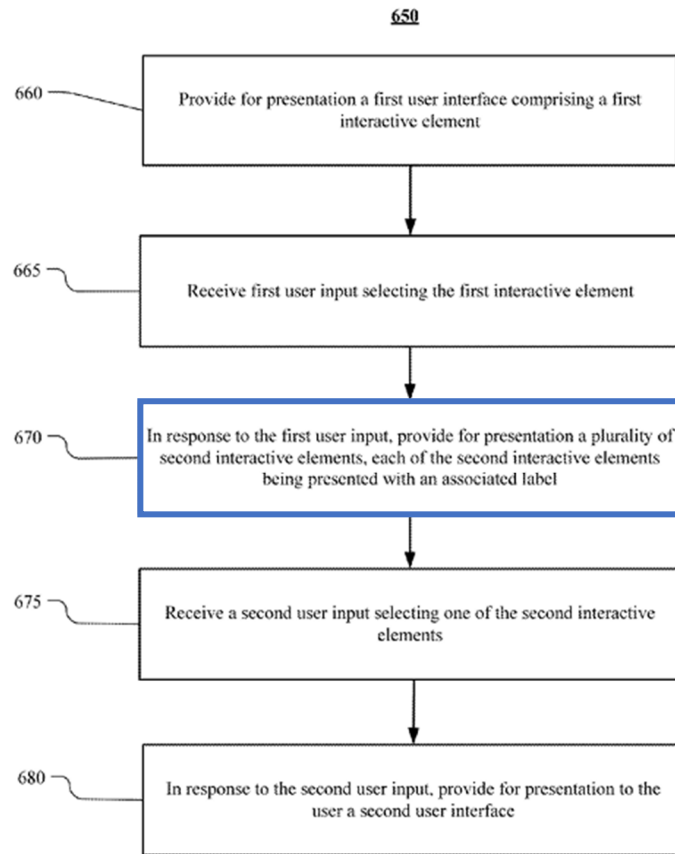


FIG. 6B

EX1005, Fig. 6B (annotated).

As explained for claim element [8e], *Walkin* discloses an exemplary embodiment in which the “additional interactive elements” (icons) are hidden “after a lack of user input.” EX1005, ¶64; EX1003, ¶114. The reference further discloses that a user may select the control bauble multiple times. EX1005, ¶66. Thus, after a user first selects the control bauble and icons appear, those icons disappear (are hidden) from the user interface until the user selects the control bauble again, causing those icons to un-hide and re-appear. EX1005, ¶64; EX1003,

¶114. Moreover, “in response to selection of a control bauble,” the additional “interactive elements may appear to fly out in all directions from behind the control bauble toward their final positions in the user interface.” EX1005, ¶66; EX1003, ¶114. After the interactive elements are un-hidden, they are “arranged in a triangle formation” (as illustrated in Figure 5N) or other “suitable arrangement . . . , depend[ing] on the number or type of interactive elements presented.” EX1005, ¶66, Fig. 5N. For example, “an interactive element associated with a particular action or functionality (or general category of action or functionality) may consistently be displayed to the user in a particular location (or general region) in the user interface.” EX1005, ¶66. Thus, each icon of the plurality of icons also has an icon position within the socialized dash. EX1005, ¶66.

Figures 5M and 5N below illustrate the un-hidden “**additional interactive elements**” 558, 560, and 562 (plurality of icons) presented in a triangle formation (e.g., having an icon position) on the “socialized dash” (first graphical user interface) after the user selects the modified **control bauble (selection ring)**. EX1005, ¶66, Figs. 5M-5N.

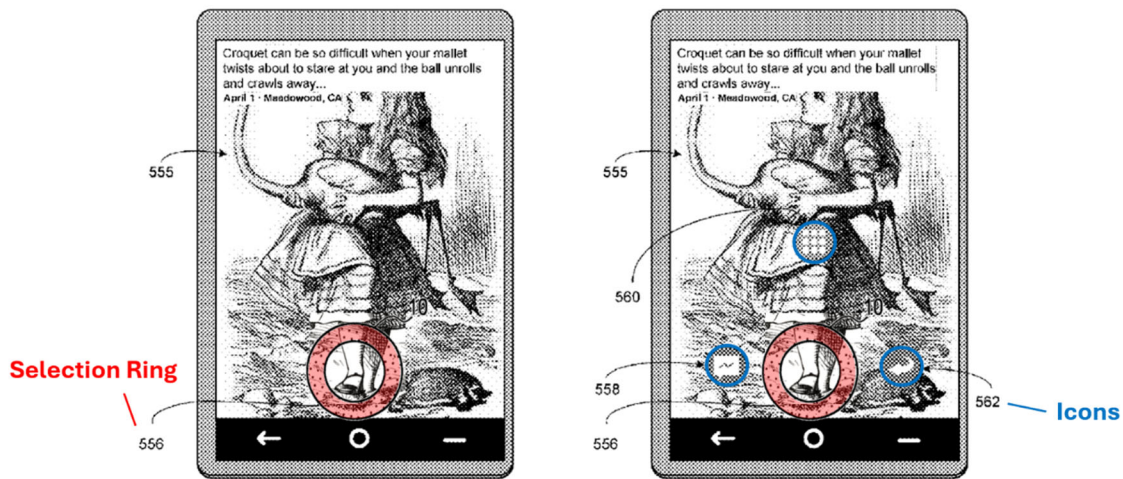


FIG. 5M

FIG. 5N

EX1005, Figs. 5M-5N (annotated).

10. [8h(i)]: “while the selection ring is selected: receive a user manipulation that drags positioning of the selection ring within the first graphical user interface without altering a location of the plurality of icons within the first graphical user interface; and”

Walkin and *Homma* render obvious claim element [8h(i)]. EX1003, ¶¶116-119. As explained for [8d], the *Walkin-Homma* combination renders obvious the “selection ring.” The modification does not otherwise alter the functionality of *Walkin* regarding the selection and manipulation of a selection ring to select an icon. EX1003, ¶116.

As explained above for claim element [8g(i)], when a user provides an input selecting *Walkin*’s modified control bauble (e.g., by placing their finger on the bauble) to cause interactive elements to appear, the user may then “drag” the

control bauble “onto a particular interactive element . . . to select it.” EX1005, ¶69,² claim 5; EX1003, ¶117. As explained for claim element [8g(ii)], the interactive elements (plurality of icons) have a set position within the socialized dash because they are “consistently . . . displayed to the user in a particular location.” EX1005, ¶66 (“interactive elements . . . appear . . . [and] com[e] to rest in their final positions”), Fig. 5N. Thus, a user dragging the control bauble to an icon to select it does not alter the location of the target icon or other icons within the socialized dash interface. EX1003, ¶117.

Annotated Figure 5P below illustrates an exemplary dragging gesture for **manipulating the position** of the **control bauble (selection ring)** relative to **interactive elements (icons) 558, 560, and 562**. EX1005, ¶69, Figs. 5P-5Q.

² *Walkin* additionally discloses “particular embodiments” in which the icon to be selected moves toward the control bauble through a “gravity-based” animation model. EX1005, ¶69. To be clear, Petitioner relies on *Walkin*’s described embodiments in which a user drags the control bauble to a stationary icon to be selected and not to *Walkin*’s alternative embodiments in which the target icon moves during the selection process. EX1005, ¶69.

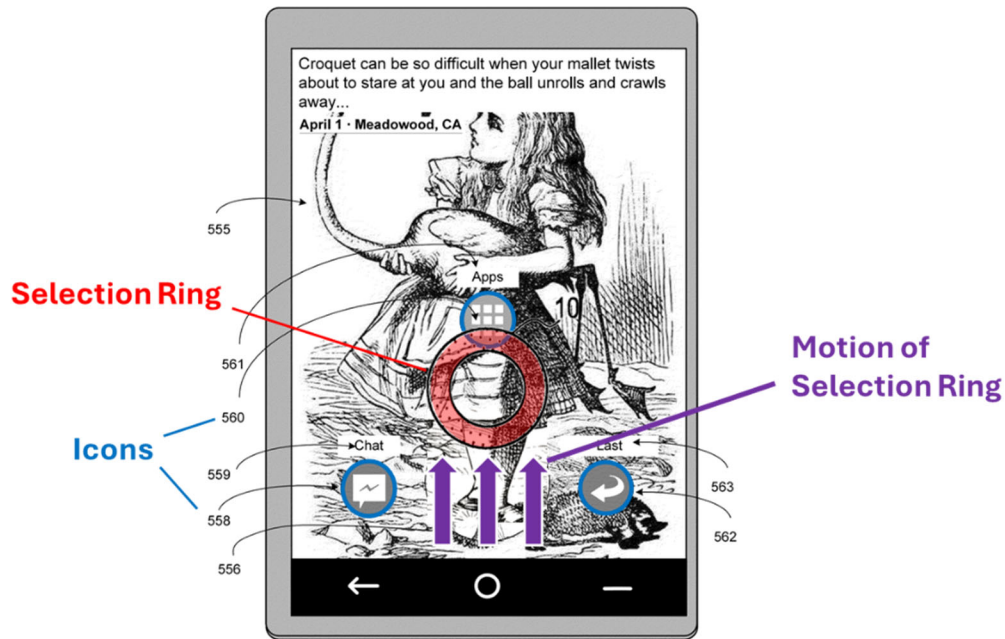


FIG. 5P

EX1005, Fig. 5P (modified, annotated).

A POSITA would have understood, from *Walkin*'s disclosure, that the user selects an icon by **moving** the **selection ring** "onto" the target **icon**, as shown in annotated Figure 5P above. EX1003, ¶119; EX1005, ¶69, Figs. 5P-5Q.

11. [8h(ii)]: "[while the selection ring is selected:] receive a selection of an icon from the plurality of icons based on a position of the selection ring in the first graphical user interface relative to the icon in response to the user manipulation; and"

Walkin and *Homma* render obvious claim element [8h(ii)]. EX1003, ¶¶120-121. As explained for [8d], the *Walkin-Homma* combination renders obvious the "selection ring." The modification does not otherwise alter the

functionality of *Walkin* regarding the selection and manipulation of an icon based on the user's positioning of the selection ring. EX1003, ¶120.

As explained above for claim element [8h(i)], a user of *Walkin*'s system may manipulate the position of **control bauble 556** by “drag[ing]” it “onto a particular interactive element” (e.g., dragging the control bauble onto **icon 560**, as shown in Figure 5P) “in order to select it.” EX1005, ¶69, Figs. 5P-5Q; *see also* EX1005, ¶68 (“[S]election [of] icon 560 opens the application launcher interface.”), claim 5 (“[T]he second user input selecting one of the second interactive elements comprises a touch gesture comprising dragging the first interactive element toward the one of the second interactive elements.”); EX1003, ¶121. *Walkin*'s system therefore receives a user's selection of one of a **plurality of icons** in response to the user's manipulation of the position of the modified **control bauble (selection ring)** relative to the icon within the GUI. EX1003, ¶121.

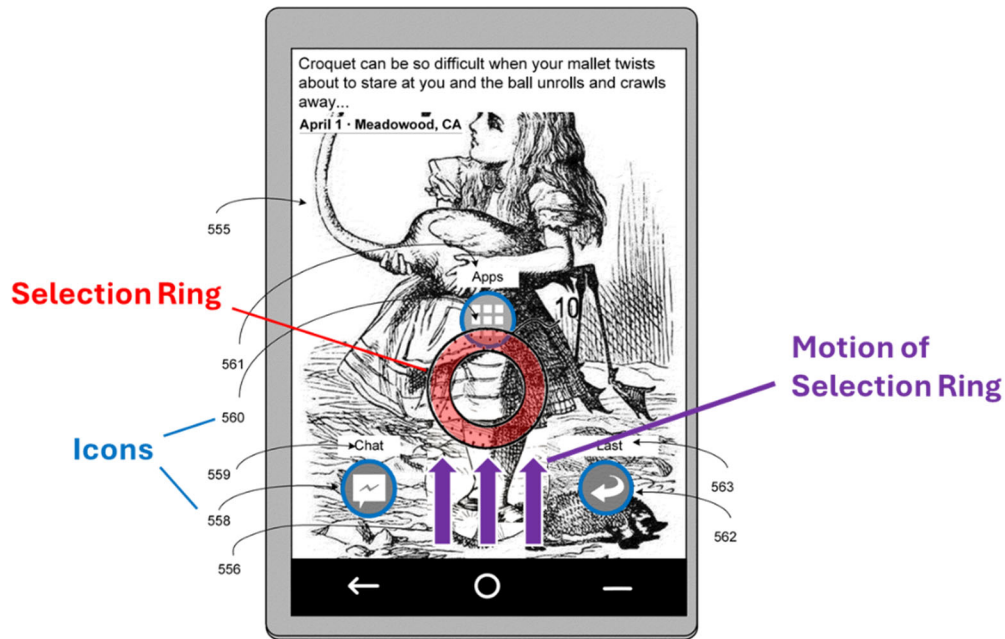


FIG. 5P

EX1005, Fig. 5P (modified, annotated).

12. [8i]: “transition the first graphical user interface into a second graphical user interface in response to the selected icon.”

Walkin and *Homma* render obvious claim element [8i]. EX1003, ¶¶122-125.

As explained for [8d], the *Walkin-Homma* combination renders obvious the “selection ring.” The combination does not otherwise alter the functionality of *Walkin* regarding the use of the selection ring to launch a second user interface after a user’s icon selection. EX1003, ¶122.

After a user of *Walkin*’s system selects an icon (one of the “additional interactive elements”), a “**second user interface** is provided for presentation.”

EX1005, ¶¶68-69, 71, Fig. 6B (step 680); EX1003, ¶123; *see also* EX1005,

Abstract (“The computing device receives a second user input selecting one of the second interactive elements and, in response to the second user input, provides for presentation a second user interface.”), ¶¶4, 60 (similar), claim 1, Fig. 6B.

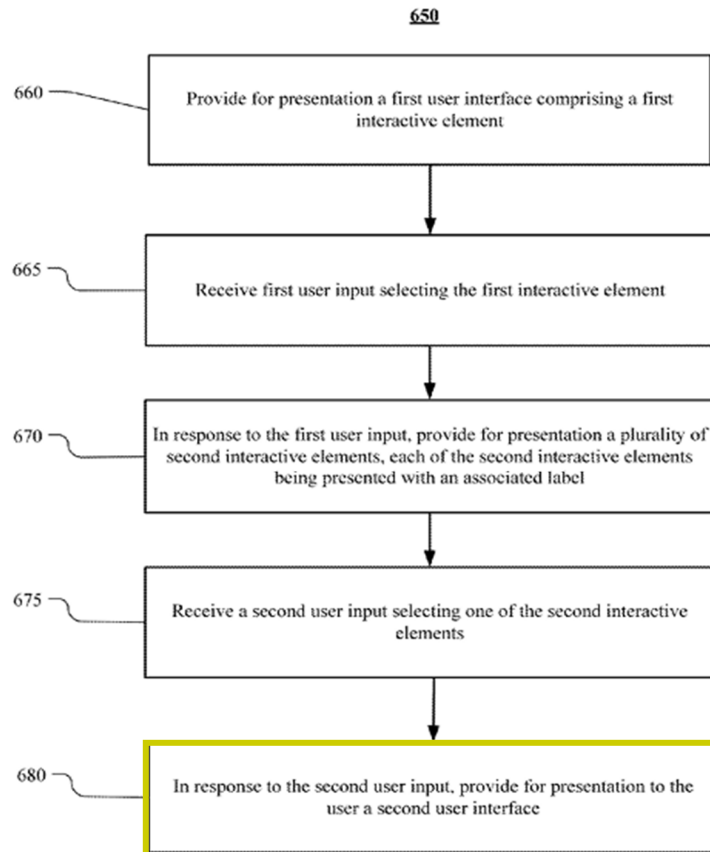


FIG. 6B

EX1005, Fig. 6B (annotated).

During this process, *Walkin*’s first graphical user interface transitions into a second graphical user interface. For example, when the user selects “Apps” icon 560 on the “socialized dash” (the first graphical user interface) using the control bauble (selection ring), a second user interface “may move into view in any

suitable fashion,” such as by “overlay[ing]” the second user interface “on top of the first user interface (e.g. until it is closed or otherwise dismissed).” EX1005, ¶¶60, 68. The “second user interface may . . . be a screen of the operating system such as a launch screen offering the user various application options for selecting and launching.” EX1005, ¶60; *see also* EX1005, ¶68 (“[S]election [of] icon 560 opens the application launcher interface.”).

This is consistent with the ’878 patent, which explains that “[i]f the user selects the first icon, the user interface 113 partially or wholly transitions into an interface where the user can view, respond to, or otherwise take action based on certain notifications.” EX1001, 17:45-49. Thus, *Walkin* discloses transitioning between first and second GUIs, such as from a “socialized dash” (first graphical user interface) to an application “launch screen” (second user interface) based on an icon 560 selected by a user’s manipulation of the control bauble. EX1005, ¶¶60, 68; EX1003, ¶125.

D. Independent Claim 1

1. [1preamble]: “A method, comprising:”

The *Walkin-Homma* combination renders obvious claim element [1preamble] because *Walkin* discloses a “method” for selecting an icon using a selection tool (control bauble) and the *Walkin-Homma* combination further renders obvious doing so using a “selection ring,” as discussed above for claim 8 and as

illustrated in Figure 6B below. EX1005, ¶¶68, 71, Fig. 6B; EX1003, ¶126. The method as a whole is obvious for substantially the same reasons as claim 8.

EX1003, ¶126.

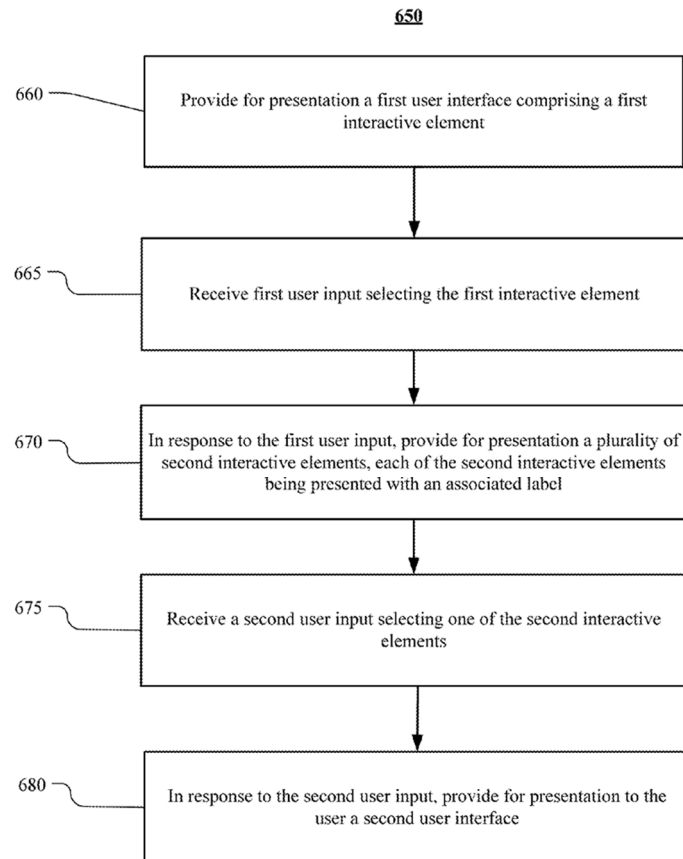


FIG. 6B

EX1005, Fig. 6B.

2. [1a]: “presenting, by a processor of a computing device, a first graphical user interface;”

For substantially the same reasons discussed above for claim elements [8c]-[8d], the *Walkin-Homma* combination renders this claim limitation obvious.

EX1003, ¶¶127-128.

For example, *Walkin* displays a “socialized dash,” which is “a user interface that may be displayed on the computing device.” EX1005, ¶65. Figure 5M below illustrates the “socialized dash” presented on the “displayable region 555” of *Walkin*’s “client system” (e.g., a “computing device” such as a smartphone). EX1005, ¶¶15, 65, Fig. 5M. The client system also “includes a processor 702” “for executing instructions, such as those making up a computer program” stored in memory 704 or storage 706, including computer code relating to the presentation of a GUI on the computing device. EX1005, ¶¶72-77, Fig. 7; EX1003, ¶128.

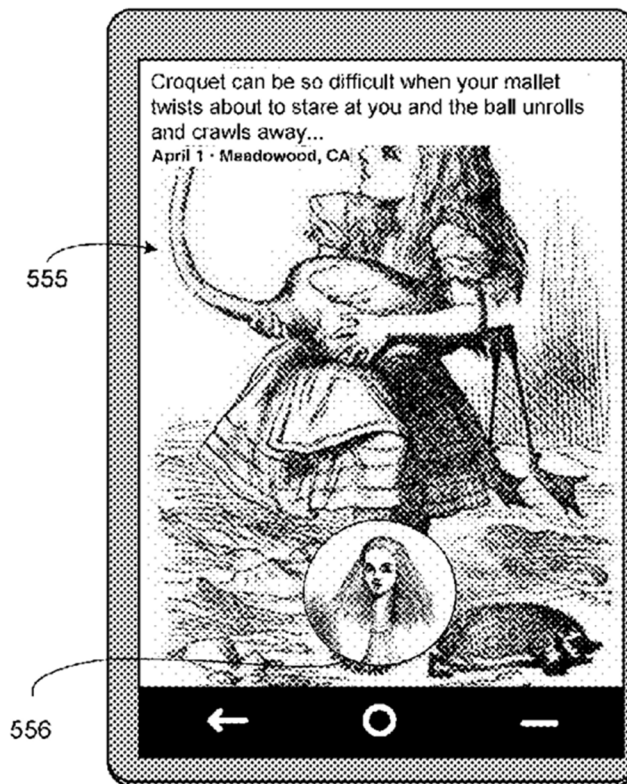


FIG. 5M

EX1005, Fig. 5M.

3. [1b]: “enabling, by the processor, a user to control presentation of information within the first graphical user interface;”

For substantially the same reasons discussed above for claim elements [8c]-[8d], [8g(i)]-[8g(ii)], and [1a], the *Walkin-Homma* combination renders this claim limitation obvious. EX1003, ¶¶129-132.

Additionally, *Walkin* discloses enabling a user to control presentation of information within the socialized dash (first graphical user interface). For example, a user “consume[s] or interact[s] with a specific content item” on the socialized dash when the “user scrolls, opens up, views, listens to, selects, reviews, comments on, clicks on, or taps the content item.” EX1005, ¶54 (“This disclosure contemplates any applicable means for a user to consume or interact with a content item.”). As another example, a user may “navigat[e] the content of [a] social-networking website,” including “profile pages” and “a linear timeline of objects, such as, for example and without limitation, photos, photo albums, check-ins, comments from other users, attended events, tags, applications the user has added to the profile page, stories, songs the user has listened to, [and] playlists.” EX1005, ¶48.

Walkin also discloses displaying a **control bauble 556** overlaid on the “socialized dashboard . . . in displayable region 555,” as shown in Figure 5M

below. EX1005, ¶65, Fig. 5M. As explained for claim elements [8g(i)]-[8g(ii)], the display of the user-selectable control bauble enables a user to control the presentation of information within the socialized dash, including the ability to manipulate the bauble's position and display additional interactive elements.

EX1003, ¶132.

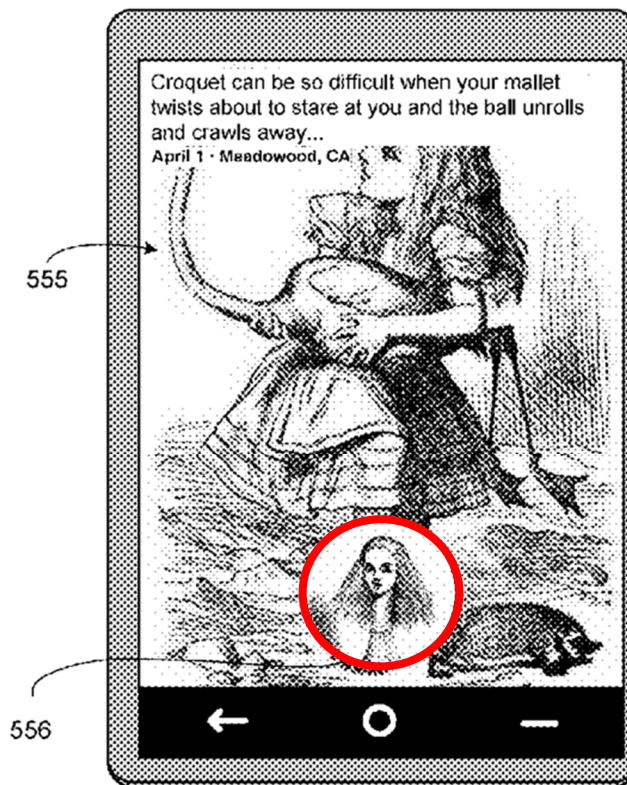


FIG. 5M

EX1005, Fig. 5M (annotated).

4. [1c]: “presenting, by the processor, a selection ring to the user in the first graphical user interface without altering the presentation of information within the first graphical user interface;”

For substantially the same reasons discussed above for claim elements [8c]-[8d], [8h(i)], and [1a]-[1b], the *Walkin-Homma* combination renders this claim limitation obvious. EX1003, ¶¶133-134.

Additionally, *Walkin* overlays a **control bauble 556** on the “socialized dash” without otherwise altering the information presented in the GUI (e.g., the information in the user interface separate from the control bauble), as shown in Figure 5M below. EX1005, ¶65, Fig. 5M; EX1003, ¶134.

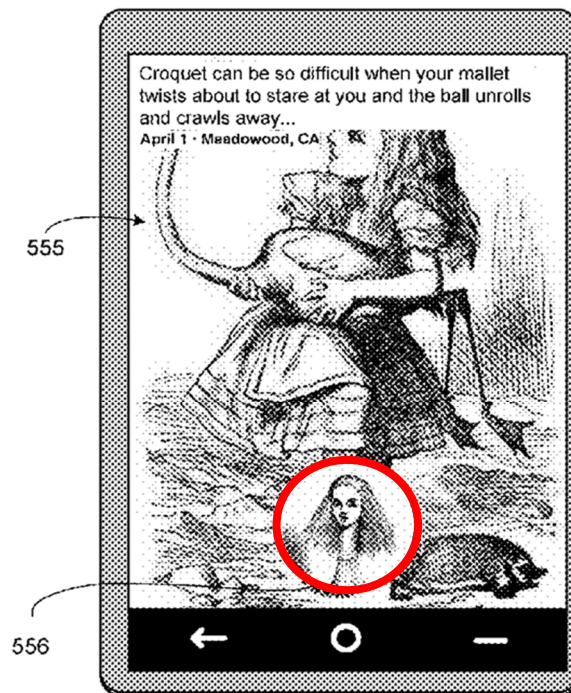


FIG. 5M

EX1005, Fig. 5M (annotated). This is consistent with the '878 patent, which discloses overlaying the selection ring on top of the information presented in the first graphical user interface. *See* EX1001, 17:39-44, 18:11-52, Figs. 3B-3F.

5. **[1d]: “receiving, by the processor, a selection of the selection ring by the user to enable the user to manipulate a position of the selection ring within the first graphical user interface;”**

For substantially the same reasons discussed above for claim elements [8c], [8f], [8g(i)], and [1a]-[1c], the *Walkin-Homma* combination renders this claim limitation obvious. EX1003, ¶135.

6. **[1e]: “presenting, by the processor, a plurality of icons to the user in the first graphical user interface in response to the selection of the selection ring;”**

For substantially the same reasons discussed above for claim elements [8c], [8g(ii)], and [1a]-[1d], the *Walkin-Homma* combination renders this claim limitation obvious. EX1003, ¶136.

7. **[1f]: “receiving, by the processor, a user manipulation of positioning of the selection ring within the first graphical user interface without altering the information being presented within the first graphical user interface and without altering a location of the plurality of icons in the first graphical user interface;”**

For substantially the same reasons discussed above for claim elements [8c], [1a], [1c], and [8h(i)], the *Walkin-Homma* combination renders this claim limitation obvious. EX1003, ¶¶137-139.

Additionally, *Walkin* discloses that the received user manipulation of the control bauble (selection ring) during an icon selection process does not alter information presented in the first GUI or the locations of the plurality of icons. For example, as explained for claim element [8h(i)], in *Walkin*'s system, a user manipulates the position of the control bauble within the socialized dash to select one of the additional interactive elements, which have a consistent position in the GUI that is not altered by the user's manipulation of the position of the control bauble. Both the control bauble and additional interactive elements are overlaid on the socialized dash. *See* discussion of claim element [8e]. Similarly, the manipulation of the control bauble to select an interactive element occurs on top of the socialized dash and does not alter the information being presented within the GUI. EX1003, ¶138.

For example, Figure 5P below illustrates a **dragging gesture for manipulating a position** of the modified **control bauble 556 (selection ring)** to select **interactive element (icon) 560**; such manipulation occurs on top of the socialized dash in displayable region 555 without otherwise altering the information presented in the dash or altering the locations of the icons within the GUI. EX1005, ¶¶65, 69, Figs. 5P-5Q.

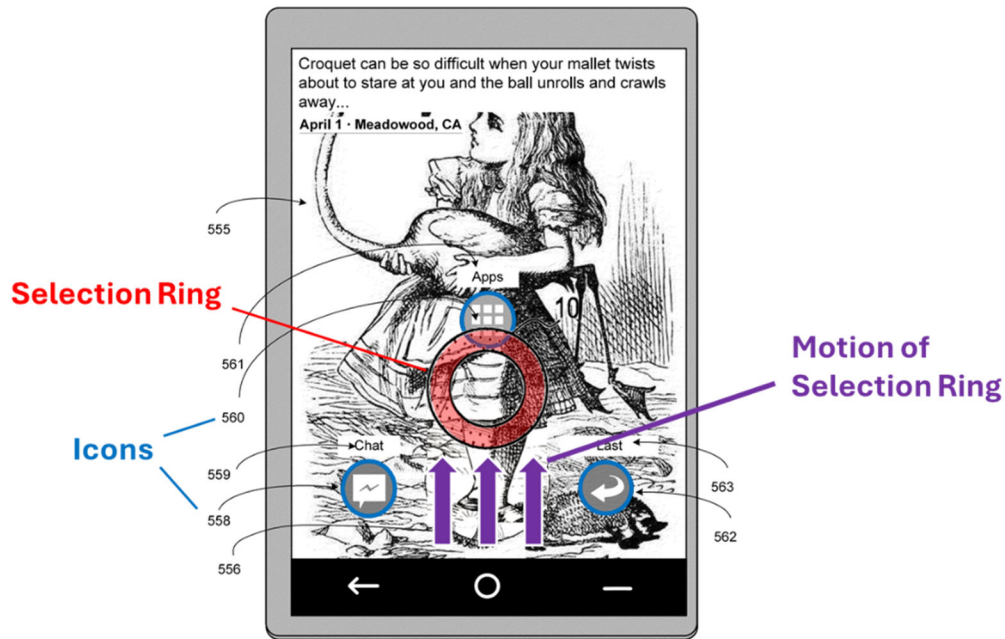


FIG. 5P

EX1005, Fig. 5P (annotated).

8. [1g]: “receiving, by the processor, a selection of an icon from the plurality of icons based on a position of the selection ring in the first graphical user interface relative to the icon in response to the user manipulation of the positioning of the selection ring; and”

For substantially the same reasons discussed above for claim elements [8c], [8h(ii)], and [1a], the *Walkin-Homma* combination renders this claim limitation obvious. EX1003, ¶140.

9. [1h]: “presenting, by the processor, a second graphical user interface to the user based on the selected icon.”

For substantially the same reasons discussed above for claim elements [8c], [8i], and [1a], the *Walkin-Homma* combination renders this claim limitation obvious. EX1003, ¶141.

E. Independent Claim 13

1. [13preamble]: “A non-transitory computer readable medium that stores computer instructions that, when executed by at least one processor, cause the at least one processor to perform operations, the operations comprising:”

Walkin discloses claim element [13preamble]. EX1003, ¶¶142-144. For example, *Walkin* discloses “a computer-readable non-transitory storage medium or media” such as “memory 704 . . . for storing instructions for processor 702 to execute,” resulting in the processor performing certain operations related to GUI functionality, as described for the additional claim terms below. EX1005, ¶¶75-76, 81, claim 9. Figure 7 depicts *Walkin*’s computer system including processor 702 and memory 704. EX1005, ¶74, Fig. 7; EX1003, ¶143. A POSITA would have understood that computer memory, such as *Walkin*’s memory 704, may be “non-transitory” computer memory, as the use of such computer memory was routine and conventional in the field at least by the earliest possible priority date in 2016. EX1005, ¶81; EX1003, ¶143.

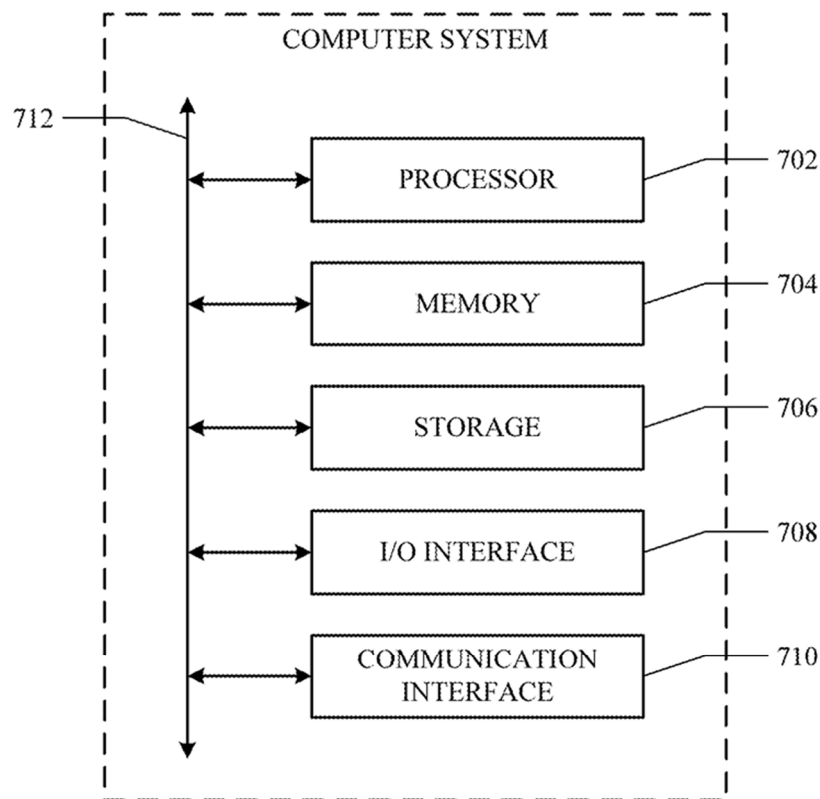


FIG. 7

EX1005, Fig. 7. As an additional example of a non-transitory computer readable medium storing computer instructions executed by a processor to perform the claimed GUI functionalities, *Walkin* further discloses storage 706, which “includes mass storage for data or instructions.” EX1005, ¶77. Storage 706 may be, for example, a hard disk drive, optical disc, USB drive, or “non-volatile, solid-state memory.” EX1005, ¶77. The processor 702 may retrieve computer instructions (including to perform the GUI functionalities recited in other claim elements) from

either memory 704 or storage 706 (EX1005, ¶75), and storage 706 is therefore a “non-transitory computer readable medium that stores computer instructions that, when executed by at least one processor, cause the at least one processor to perform operations” (EX1005, ¶81). EX1003, ¶144.

2. [13a]: “displaying a first graphical user interface on a display device;”

For substantially the same reasons discussed above for claim elements [8d] and [1a], the *Walkin-Homma* combination renders this claim limitation obvious. EX1003, ¶145.

3. [13b]: “displaying a plurality of information within the first graphical user interface;”

For substantially the same reasons discussed above for claim elements [8d] and [1b], the *Walkin-Homma* combination renders this claim limitation obvious. EX1003, ¶¶146-147.

For example, *Walkin*’s first user interface (e.g., the “socialized dashboard” or “socialized dash”) includes “an interactive element in the form of a control bauble” that is displayed over other information in the dash (plurality of information within the first graphical user interface). EX1005, ¶65. Figure 5M below illustrates the “socialized dash” and “**control bauble 556**” presented on the “displayable region 555,” which includes a **plurality of information** underneath the **control bauble**. EX1005, ¶65, Fig. 5M.

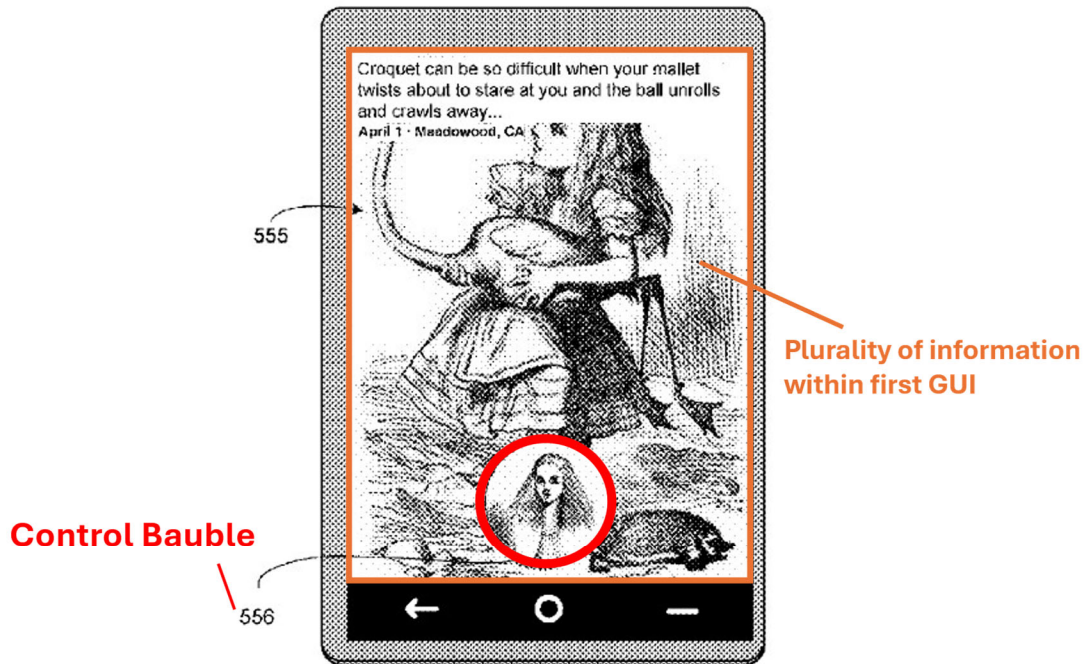


FIG. 5M

EX1005, Fig. 5M (annotated). The modified control bauble (selection ring) of the *Walkin-Homma* combination does not otherwise alter this feature of *Walkin*'s GUI and similarly includes a plurality of information within the GUI, thus rendering obvious "displaying a plurality of information within the first graphical user interface." EX1003, ¶147.

4. [13c]: "enabling a user to control display of the plurality of information within the first graphical user interface;"

For substantially the same reasons discussed above for claim elements [8d] and [1b], the *Walkin-Homma* combination renders this claim limitation obvious. EX1003, ¶148.

5. **[13d]: “displaying a selection ring over the plurality of information in the first graphical user interface without altering the underlying display of the plurality of information within the first graphical user interface;”**

For substantially the same reasons discussed above for claim elements [8d] and [1c], the *Walkin-Homma* combination renders this claim limitation obvious. EX1003, ¶149.

6. **[13e]: “receiving a selection of the selection ring by the user to enable the user to manipulate a position of the selection ring over the plurality of information within the first graphical user interface;”**

For substantially the same reasons discussed above for claim elements [8f], [8g(i)], and [1f], the *Walkin-Homma* combination renders this claim limitation obvious. EX1003, ¶150.

7. **[13f]: “displaying, in response to selection of the selection ring, a plurality of icons over the plurality of information in the first graphical user interface without altering the underlying display of the plurality of information within the first graphical user interface, wherein the plurality of icons were previously hidden prior to selection of the selection ring;”**

For substantially the same reasons discussed above for claim elements [1f], [8e], and [8g(ii)], the *Walkin-Homma* combination renders this claim limitation obvious. EX1003, ¶¶151-152.

Additionally, *Walkin* discloses that the display of additional interactive elements (plurality of icons), which are hidden prior to a user’s selection of

Walkin's control bauble, does not alter the underlying display of information within the first GUI. For example, the additional interactive elements are displayed on top of the socialized dash and do not alter the information being presented within the GUI. EX1003, ¶152. Figure 5N below illustrates the **additional interactive elements** that are displayed on top of the socialized dash in displayable region 555 without altering the information presented in the dash. EX1005, ¶¶65-66, Fig. 5N.

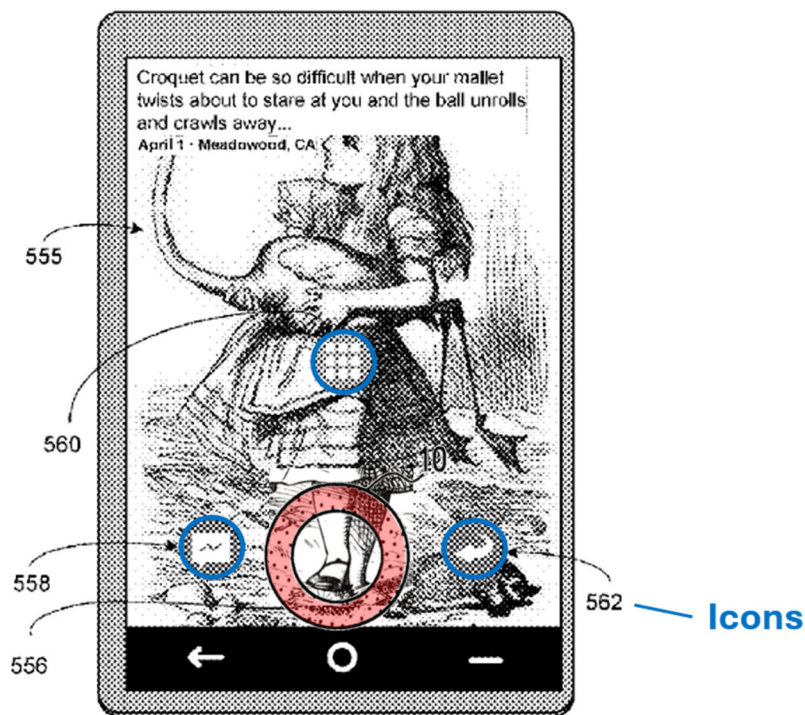


FIG. 5N

EX1005, Fig. 5N (annotated).

8. [13g]: “receiving a user manipulation of positioning of the selection ring over the plurality of information within the first graphical user interface without altering the underlying display of the plurality of information within the first graphical user interface and without altering a location of the plurality of icons within the first graphical user interface;

For substantially the same reasons discussed above for claim elements [8h(i)] and [1f], the *Walkin-Homma* combination renders this claim limitation obvious. EX1003, ¶153.

9. [13h]: “receiving a selection of an icon from the plurality of icons based on a position of the selection ring in the first graphical user interface relative to the icon in response to the user manipulation of the positioning of the selection ring; and”

For substantially the same reasons discussed above for claim element [8h(ii)], the *Walkin-Homma* combination renders this claim limitation obvious. EX1003, ¶154.

10. [13i]: “displaying a second graphical user interface to the user based on the selected icon.”

For substantially the same reasons discussed above for claim element [8i], the *Walkin-Homma* combination renders this claim limitation obvious. EX1003, ¶155.

F. Dependent Claims

The dependent claims of the '878 patent are addressed below in the same order as the independent claims above. Thus, certain claims depending from

independent claim 8 (claims 11 and 12) are addressed first, followed by claims depending from independent claim 1 (claims 2 and 5-7) and claims depending from independent claim 13 (claims 17 and 18).

1. **Claim 11: “The interactive user interface control system of claim 8, wherein the at least one processor further executes the computer instructions to: present, on the display device, a second plurality of icons to the user in the second graphical user interface based on manipulation of the selection ring.”**

The *Walkin-Homma* combination renders obvious the additional limitations of claim 11. EX1003, ¶¶157-160. As explained for [8d], the *Walkin-Homma* combination renders obvious the “selection ring.” The addition of *Homma* does not otherwise alter the aforementioned functionality of *Walkin*’s GUI, including the use of the selection ring (modified control bauble) to present additional icons within a GUI. EX1003, ¶157.

As explained for claim elements [8c], [8h(i)], and [8i], a user’s manipulation of *Walkin*’s modified control bauble (selection ring) to select the “Apps” icon 560 results in the presentation of a second user interface, such as an application “launch screen.” EX1005, ¶¶55, 60, 68, 71, Fig. 6B; EX1003, ¶158. *Walkin* further discloses that “[w]hen the *launch screen is displayed*, a user may be able to *see and access one or more applications* installed . . . in the form of *one or more application icons*.” EX1005, ¶55 (emphases added). Thus, a second plurality of

icons (“application icons”) are presented in the second graphical user interface (“launch screen”) based on the user’s manipulation of the selection ring to select the “Apps” icon 560. EX1005, ¶¶55, 60, 68, 71, Fig. 6B; EX1003, ¶158. The first plurality of icons (*Walkin*’s icons surrounding selection ring 556 upon its selection by a user, annotated blue in Figure 5P) is distinct from the second plurality of icons (*Walkin*’s launch-screen icons presented based on the user’s selection of the “Apps” icon 560 from the first plurality of icons). EX1005, ¶¶55, 60, 68, Fig. 5P; EX1003, ¶158.

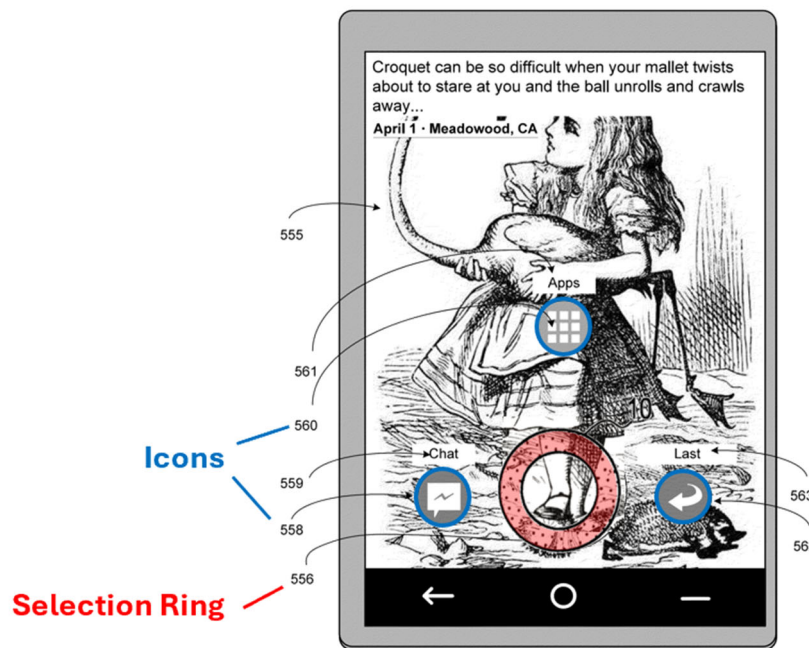


FIG. 5P

EX1005, Fig. 5P (modified, annotated).

As an additional example of an alternative “second plurality of icons” presented to a user in the second interface, *Walkin* discloses that the steps of the process of Figure 6B may be repeated. EX1005, ¶71, Fig. 6B. Thus, after transitioning to a second user interface, *Walkin* discloses again presenting the control bauble (or “first interactive element”) in the second user interface to provide users with “a convenient shortcut to perform several different actions or access particular functionalities on the computing device.” EX1005, ¶¶65, 71; *see* discussion of claim elements [8d]-[8i]; EX1003, ¶159. A POSITA would have understood that *Walkin*’s modified “control bauble” or “first interactive element” functions across multiple interfaces of the computing device, since such a configuration beneficially maintains a consistent user mechanism for initiating core navigation functions, thereby improving efficiency and usability in a multi-interface environment. EX1003, ¶159. The presentation of a plurality of second icons within the second graphical user interface is thus based on the user’s manipulation of the selection ring in the first graphical user interface to launch the second graphical user interface. EX1003, ¶159.

Under the process described in Figure 6B, after using the selection ring to select an icon and launch a second graphical user interface, the user can again select *Walkin*’s modified control bauble 556 (selection ring), resulting in the presentation of additional icons (a second plurality of icons) around the control

bauble within the second user interface, such as interactive elements for navigating to other user-interface screens. EX1005, ¶71, Fig. 6B; EX1003, ¶160. For example, as shown in Figure 5P below, a user can manipulate the modified **control bauble (selection ring)** in the first user interface to select **icon 562** (e.g., from the first plurality of icons) to launch the most-recently used application. EX1005, ¶66, Fig. 5P; *see* discussion of claim elements [8f)-[8h(ii)] above. The subsequent selection of the modified control bauble within the launched second user interface is facilitated (and based on) the user's selection of the icon in the first graphical user interface. EX1003, ¶160.

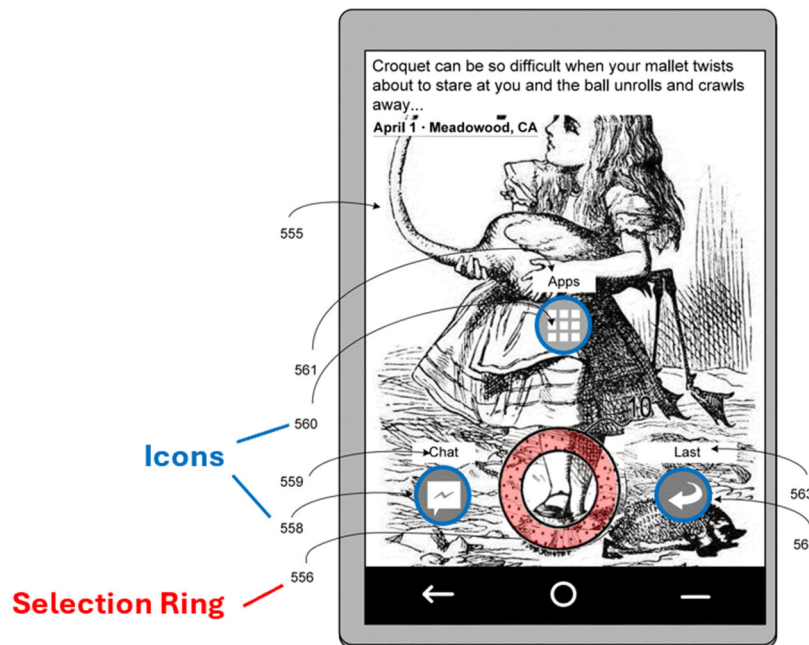


FIG. 5P

EX1005, Fig. 5P (modified, annotated).

2. **Claim 12: “The interactive user interface control system of claim 11, wherein the at least one processor further executes the computer instructions to: receive a selection of an icon from the second plurality of icons based on a position of the selection ring in the second graphical user interface.”**

The *Walkin-Homma* combination renders obvious the additional limitations of claim 12. EX1003, ¶¶161-165. As explained for [8d], the *Walkin-Homma* combination renders obvious the “selection ring.” The addition of *Homma* does not otherwise alter the aforementioned functionality of *Walkin*’s GUI, including the use of the selection ring (modified control bauble) to present and select additional icons within a GUI. EX1003, ¶161.

As explained for claim 11, *Walkin* discloses presenting a second plurality of icons (“application icons”) in the second graphical user interface (“launch screen”) when “Apps” icon 560 is selected by the user. EX1005, ¶¶55, 60, 68, 71, Fig. 6B; EX1003, ¶162. *Walkin* further discloses selecting one of the applications in the launch screen based on a position of the control bauble (selection ring) in the launch screen. For example, *Walkin* discloses that “[c]ontrol bauble 556 may . . . perform several different actions or access particular functionalities on the computing device including, for example, *launching applications via an application launcher*.” EX1005, ¶65 (emphasis added).

Additionally, as noted above, *Walkin* explains that “[p]articular embodiments may repeat one or more steps of the method of FIG. 6B, where appropriate.” EX1005, ¶71, Fig. 6B. A POSITA would have understood, for example, that selecting an interactive element (such as an application icon in the second user interface) by dragging the bauble over the icon to “select it” is one such step. EX1003, ¶163. Indeed, the control bauble is used to select each of the icons on the user interface. EX1005, Fig. 6B (step 675), ¶65 (control bauble 556 may “launch[] applications”), ¶69 (“[D]rag control bauble 556 onto a particular interactive element . . . in order to select it.”), ¶71. As further explained for claim elements [8g(i)]-[8h(ii)], annotated Figure 5P illustrates an exemplary **dragging gesture for manipulating a position** of the modified **control bauble (selection ring)** to select an **icon**. EX1005, ¶¶23, 59, 69, Figs. 5P-5Q.

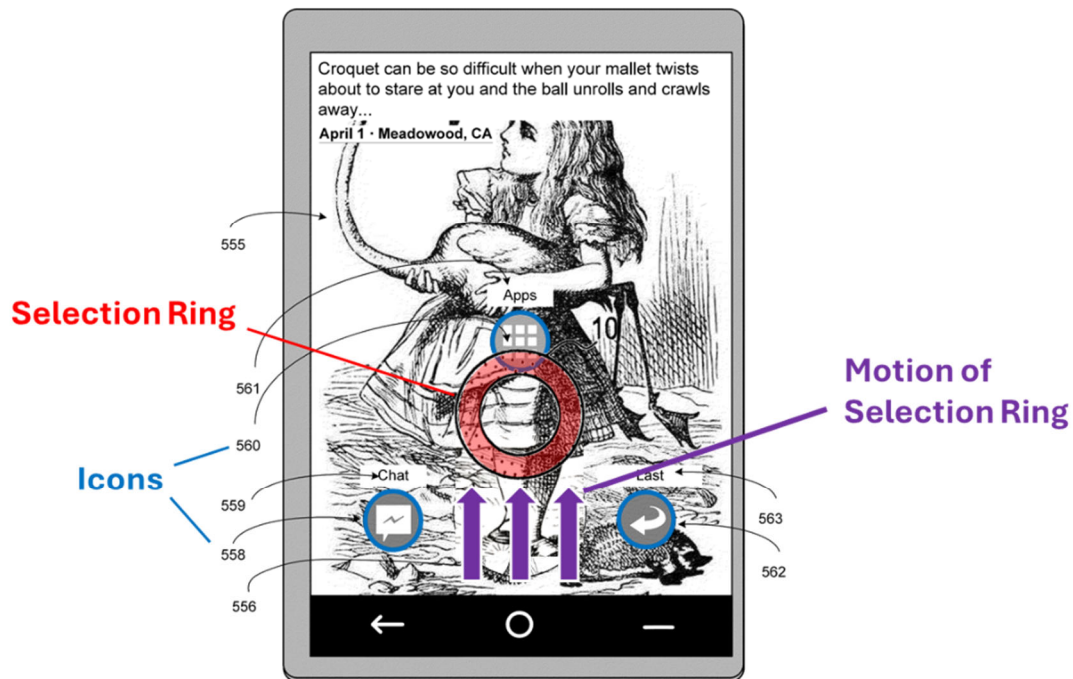


FIG. 5P

EX1005, Fig. 5P (modified, annotated).

Moreover, for the additional set of icons presented in the second user interface around the interactive element (selection ring) when it is selected by a user (an alternative option for the claimed “second plurality of icons”), *Walkin* discloses that a user can drag the interactive element to select one of those icons within the second user interface. *See, e.g.*, EX1005, ¶¶23, 59, 65, 69, 71, Figs. 5P-5Q, 6B.

A POSITA would have therefore understood that selecting an icon from the second plurality of icons (e.g., either “application icons” within the application launcher interface or the icons presented upon selection of the interactive element,

see claim 11 above) is similarly “based on” a position of the selection ring because the selection ring is moved “onto” an icon by the user to select the icon in either example. EX1005, ¶¶23, 55, 59, 69; EX1003, ¶165.

3. Claim 2: “The method of claim 1, wherein the plurality of icons were previously hidden in the first graphical user interface prior to selection of the selection ring.”

The *Walkin-Homma* combination renders obvious the additional limitations of claim 2 for substantially the same reasons discussed above for claim element [8e]. EX1003, ¶166.

4. Claim 5: “The method of claim 1, further comprising: presenting, by the processor, a second plurality of icons to the user in the second graphical user interface based on manipulation of the selection ring.”

The *Walkin-Homma* combination renders obvious the additional limitations of claim 5 for substantially the same reasons discussed above for claim 11. EX1003, ¶167.

5. Claim 6: “The method of claim 1, further comprising: presenting, by the processor, a second plurality of icons to the user in the second graphical user interface.”

The *Walkin-Homma* combination renders obvious the additional limitations of claim 6 for substantially the same reasons discussed above for claim 11. EX1003, ¶168.

6. **Claim 7: “The method of claim 6, further comprising: receiving, by the processor, a selection of an icon from the second plurality of icons based on a position of the selection ring in the second graphical user interface.”**

The *Walkin-Homma* combination renders obvious the additional limitations of claim 7 for substantially the same reasons discussed above for claim 12.

EX1003, ¶169.

7. **Claim 17: “The non-transitory computer readable medium of claim 13, wherein execution of the computer instructions by the at least one processor, cause the at least one processor to perform further operations, the further operations comprising: presenting a second plurality of icons to the user in the second graphical user interface.”**

The *Walkin-Homma* combination renders obvious the additional limitations of claim 17 for substantially the same reasons discussed above for claim 11.

EX1003, ¶170.

8. **Claim 18: “The non-transitory computer readable medium of claim 13, wherein the operations are performed by an operating system.”**

The *Walkin-Homma* combination renders obvious the additional limitations of claim 18. EX1003, ¶¶171-173. As explained for [13d], [8d], and [1c], the *Walkin-Homma* combination renders obvious the selection ring shape. The addition of *Homma* does not otherwise alter the functionality associated with *Walkin*’s modified control bauble. EX1003, ¶171.

For example, *Walkin*’s “socialized dash”—the claimed first graphical user interface—is a “user interface associated with an operating system.” EX1005, ¶¶55, 65, Figs. 5M-5Q. The operating system “running on the computing device (or a managing application running on the computing device) may provide one or more screens for the computing device and its applications including, for example, a home screen, a lock screen, or a launch screen.” EX1005, ¶55.

Specifically, *Walkin* explains that the computing device (via its operating system) receives user input and, in response, causes the opening of operating-system screens or applications, demonstrating that the claimed operations recited in claim 13 and disclosed by *Walkin* are executed by the operating system itself. EX1003, ¶173. For example, *Walkin*’s “computing device” receives user input to “open one or more pre-determined applications or screens of the operating system.” EX1005, ¶¶56, 60. Further, the “user interface” associated with the “operating system of the computing device may include one or more interactive elements.” EX1005, ¶57.

VII. GROUND 2: CLAIMS 3, 4, 9, 10, AND 14-16 ARE UNPATENTABLE OVER *WALKIN* IN VIEW OF *HOMMA* AND *FUJIOKA*

A. Prior Art Overview

1. *Fujioka*

Fujioka relates to “a graphical user interface (GUI) for a computing system.” EX1007, ¶3. The computing system includes, *inter alia*, a processor, “at least one

memory device,” “a display device,” and “any input/output device capable of conveying user movements and/or commands” to “allow the user to effectuate movement of a cursor . . . within [the] GUI.” EX1007, ¶31. The cursor “movement” caused by the input “may be reflected on the display device.” EX1007, ¶31.

Figures 6-8 of *Fujioka* illustrate exemplary GUIs. EX1007, Figs. 6-8. Each GUI includes a “tile bar” containing “numerous icons,” each of which “may be selected, in whole or in part, by the user.” EX1007, ¶¶32-36, 39, Figs. 6-8. “[T]he icons on the tile bar may represent, for example, applications, windows, documents, tasks, utilities, files, [and] links,” and “may be linked to the items represented, such as to enable launch of the item from the tile bar, such as by shortcut linking or the like.” EX1007, ¶34.

Fujioka further describes a process through which a user can preview the contents of a folder or icon within the GUI without opening or launching it. For example, *Fujioka* explains that “placement of the cursor over an icon in the tile bar may provide for a previewing, or monitoring, feature for those items represented by the icon.” EX1007, ¶35. The preview may present “linked locations or remote applications” associated with the icon (EX1007, ¶35) or “include content previews” that “show the content,” such as files, associated with the icon (EX1007,

¶¶34, 36). Figure 6 below depicts an exemplary preview presented to a user upon placement of the cursor over the “folder” icon in the tile bar. EX1007, ¶36, Fig. 6.

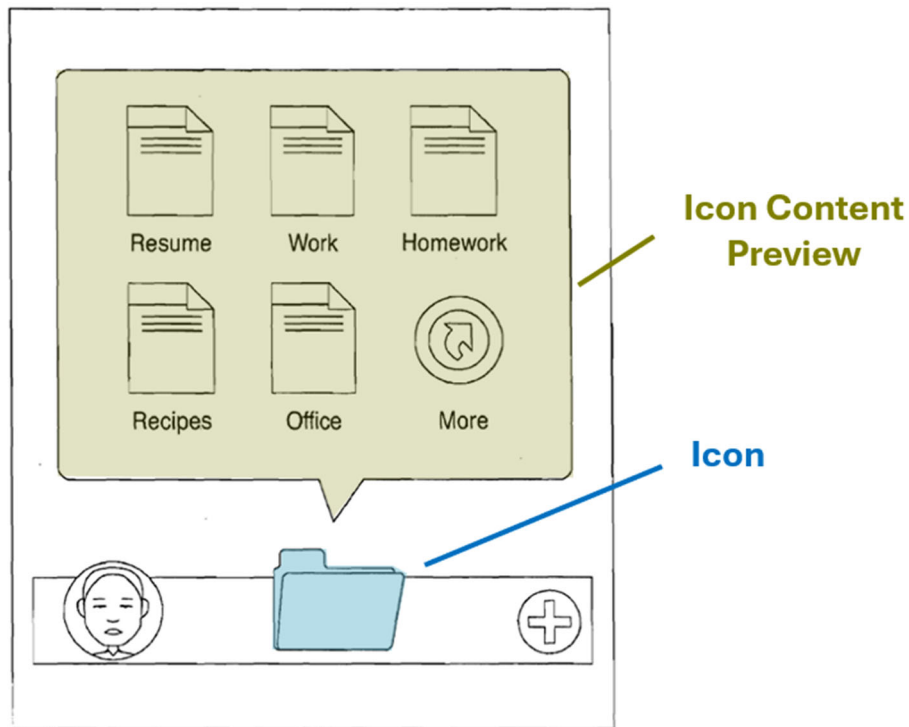


FIG. 6

EX1007, Fig. 6 (annotated). *Fujioka* further explains that its preview functionality is beneficial because it prevents the need to “launch” an icon to see its contents, which “generally takes unwanted time, in part because processing must be performed in order to ‘launch’ the icon into the item to which it is to be exploded, and such a launch necessitates execution of computing code associated with the application, file[,] or new window.” EX1007, ¶¶8, 35-36.

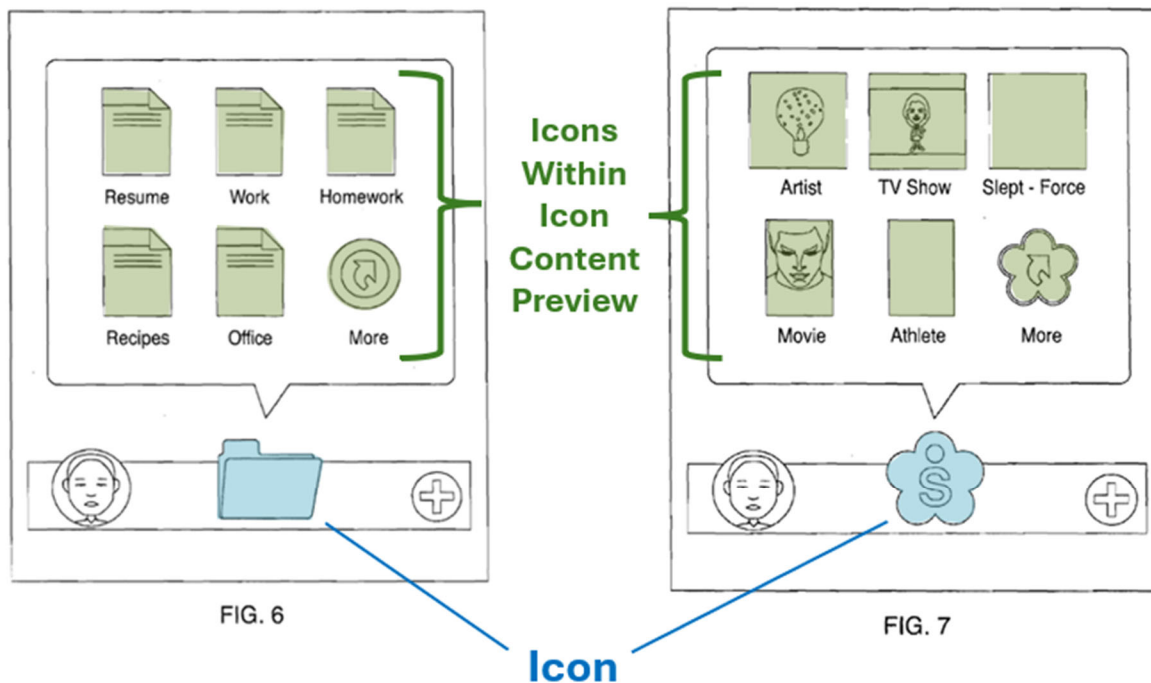
B. Combining *Fujioka* with *Walkin* and *Homma*

Fujioka is analogous art to the '878 patent at least because it is in the same field of endeavor: graphical user interfaces for a computing system. EX1007, Title, ¶¶2-3; EX1001, Title, 14:60-63, 17:39-44, Figs. 3A-3H; EX1003, ¶¶73-76, 174.

Fujioka is also reasonably pertinent to the problem facing the inventors of the '878 patent: improving processes for navigating a graphical user interface. EX1007, Abstract, ¶¶5-9; EX1001, 18:16-52, Figs. 3D-3F; EX1003, ¶¶73-76, 174.

As discussed above, *Fujioka* discloses GUI functionality for previewing the content of an icon before selecting and opening it. A POSITA would have been motivated to incorporate *Fujioka*'s icon-preview functionality into the GUI of *Walkin* (as modified based on *Homma*) and would have found it obvious to do so. EX1003, ¶¶73-76, 175.

As *Fujioka* explains, its icon-preview process advantageously allows a user to visualize an icon's content without incurring the processing power or "unwanted time" associated with "launch[ing]" the icon itself. EX1007, ¶¶8, 35-36; EX1003, ¶¶76, 176. And because the preview is only presented when the cursor is proximate to (or overlapping with) the target icon, the GUI otherwise includes less content and therefore appears less cluttered when the preview is not in use, which is a desirable aspect of GUI design well known to skilled artisans in the field of GUI development. EX1003, ¶¶176-177; EX1007, ¶¶35-36, Figs. 6-7.



EX1007, Figs. 6-7 (annotated).

A POSITA would have been motivated to implement *Fujioka*'s icon-preview feature into *Walkin*'s GUI (modified in view of *Homma* as described above) to obtain the same benefits described in *Fujioka*. EX1003, ¶177. For example, a POSITA integrating *Fujioka*'s icon-preview functionality into *Walkin*'s GUI would have expected to achieve *Fujioka*'s stated benefits of doing so, such as allowing the GUI user to ascertain the contents of the icon without requiring the time or processing power needed to launch the icon or to transition to an alternative user-interface screen to see the contents of the icon, thereby providing a

more efficient and less cluttered GUI. EX1003, ¶177; EX1007, ¶¶8, 35-36, Figs. 6-7.

A POSITA would have appreciated, for example, that a user of *Walkin*’s “Apps” icon (an application launcher) would have benefited from *Fujioka*’s preview feature. For example, previewing would have allowed the user to see each of the “application icons” represented by the app launcher when the control bauble is dragged to (and hovered over) the “Apps” icon—just as the preview feature allows the user in *Fujioka* to see each of the applications represented by an icon when the cursor is positioned proximate to the icon. EX1005, ¶¶55, 68-69; EX1007, ¶¶35-36; EX1003, ¶178. A POSITA would have found it obvious to implement *Fujioka*’s preview feature into *Walkin*’s GUI by adding the preview information box adjacent to the target icon within the user interface, consistent with *Fujioka*’s disclosure. EX1003, ¶179; EX1005, ¶¶55, 68-69; EX1007, ¶¶35-36. In view of *Walkin*’s broad disclosure of using a wide variety of different potential actions and gestures to select an icon, a POSITA would have understood that a user would then have been able to select the icon after seeing the icon preview, for example, by releasing the hovered selection ring when it is positioned in contact with the icon. *See, e.g.*, EX1005, ¶¶23 (“Different touch input events may result in different responses and this disclosure contemplates any applicable gesture”), 59 (“Different user inputs may result in selection of the interactive element, and this

disclosure contemplates any applicable user input for selection. Additionally, different types of user inputs may be mapped by the computing device to different types of behaviors within a user interface.”); EX1003, ¶179. Such selection mechanisms (launching an icon upon releasing a selection tool) have been known in the art of GUI design for several decades. *See, e.g.*, EX1012, 80 (“When the button is pressed in a particular area, the cursor changes to show what will happen (see Figure 12). If *the button is released, the operation happens*, but if the cursor is moved away before releasing, the operation is aborted.”) (emphasis added); *see also* EX1017, Figs. 1b-1d, ¶58 (“[A]n icon is temporarily selected by depressing the right button 132 in order to initiate display of the graphical menu, moving the cursor 170 towards (and/or partially or fully over) a desired icon in order to temporarily select the icon, and releasing the right button 132 to permanently select the desired icon in order to initiate execution of an operation associated with the selected icon.”).

Annotated *Walkin* Figure 5P below depicts an exemplary combination of *Walkin*’s GUI (modified in view of *Homma*) with *Fujioka*’s preview feature, resulting in a GUI in which the user can **preview** the contents of *Walkin*’s “**Apps**” **icon** by **dragging** the modified **control bauble 556 (selection ring)** to the **icon** and hovering over it. EX1003, ¶179; EX1005, ¶¶68-69, Figs. 5P-5Q.

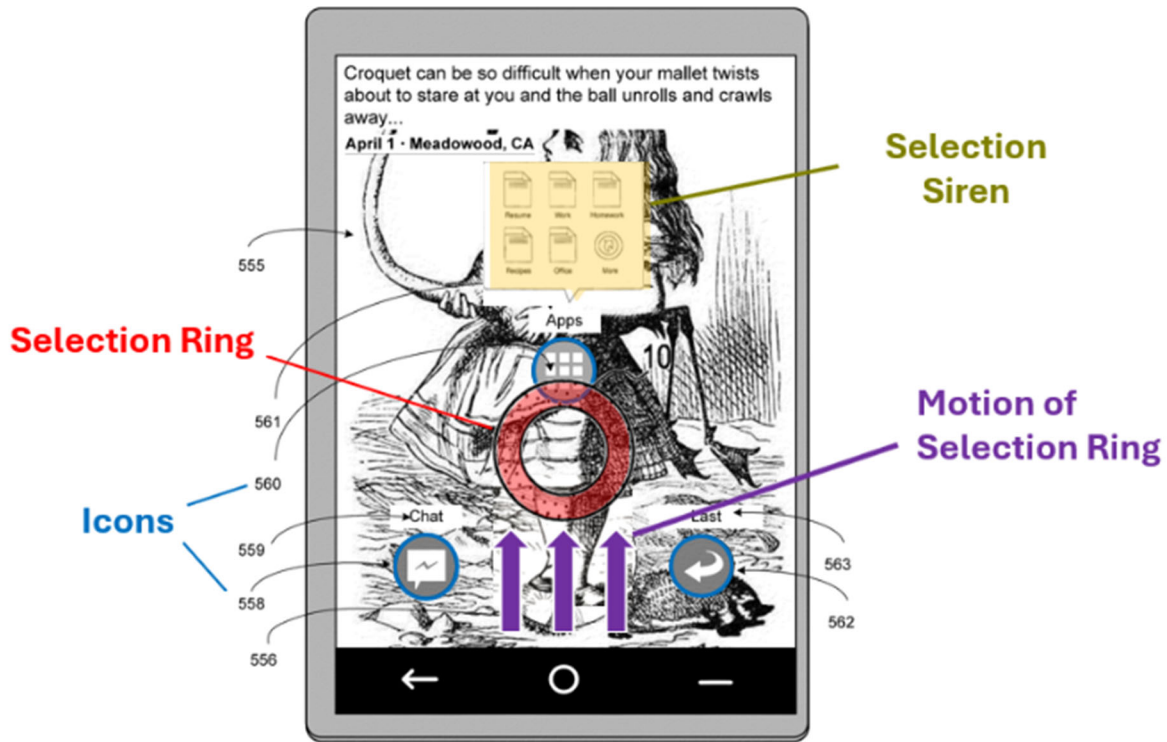


FIG. 5P

EX1005, Fig. 5P (modified, annotated).

A POSITA would have had at least had a reasonable expectation of success in further modifying the *Walkin-Homma* combination in view of *Fujioka* because modifying *Walkin*'s GUI in the aforementioned manner would have merely required known, routine GUI programming techniques implemented in a conventional manner to obtain predictable results. *KSR*, 550 U.S. at 416-17; EX1003, ¶180. As *Fujioka* recognizes, GUIs are “a well-understood and long established mechanism whereby a user gains access to computing data, commands, applications, information, network protocols, outcomes, files, and the like.”

EX1007, ¶5. The references describe GUIs with similar functionalities and uses, including using an icon selection tool (e.g., *Walkin*'s control bauble or *Fujioka*'s cursor) to select an icon on a GUI. EX1005, ¶¶65-66, 68, 71; EX1007, ¶¶33, 35-36, 38-39; EX1003, ¶181. A POSITA would have thus had a reasonable expectation of success in incorporating the icon-preview functionality of *Fujioka* into *Walkin*'s GUI. EX1003, ¶181. Moreover, each reference contemplates presenting information about an icon before launching the icon. EX1005, ¶68, Fig. 5P; EX1007, ¶¶35-36, 39, Figs. 6-8; EX1003, ¶181. Further still, each uses executable instructions or a computer program to implement its GUI functionalities. EX1005, ¶¶75-76, Fig. 7; EX1007, ¶31, Fig. 1. Thus, a POSITA would have understood that modifying *Walkin* to perform *Fujioka*'s preview functionality would have only required routine skill to implement. EX1003, ¶181.

As discussed above regarding the *Walkin-Homma* combination and for claim element [8d], a POSITA would have found it obvious to implement the ring-shaped cursor of *Homma* into *Walkin*'s GUI in place of the control bauble, providing the claimed "selection ring." Modifying *Walkin*'s control bauble in this manner would not otherwise alter the aforementioned integration of *Fujioka*'s icon-preview functionality into *Walkin*'s GUI. EX1003, ¶¶87-98, 182.

C. Dependent Claims

The dependent claims of the '878 patent are addressed below in the same order as the independent claims above. Thus, certain claims depending from independent claim 8 (claims 9 and 10) are addressed first, followed by claims depending from independent claim 1 (claims 3 and 4) and claims depending from independent claim 13 (claims 14-16).

1. **Claim 9: “The interactive user interface control system of claim 8, wherein the at least one processor further executes the computer instructions to: present, on the display device, a selection siren to the user in the first graphical user interface based on the user manipulation.”**

The combination of *Walkin*, *Homma*, and *Fujioka* renders obvious the additional limitations of claim 9. EX1003, ¶¶184-187.

As discussed above regarding the *Walkin-Homma-Fujioka* combination, a POSITA would have found it obvious to implement *Fujioka*'s icon-preview functionality into *Walkin-Homma*'s GUI. The modification results in the processor of *Walkin*'s device executing computer instructions to present an **icon information box (selection siren)** previewing information about an **icon** that appears when a user of *Walkin*'s GUI **manipulates** (e.g., moves) the **selection ring** to contact a target **icon** and hover over it, as shown in annotated *Walkin* Figure 5P below. EX1003, ¶¶174-182, 185; EX1005, ¶¶66, 68-69, 72, 75-76, Figs. 5N-5Q, claim 5; *see* discussion of claim elements [8c] and [1a].

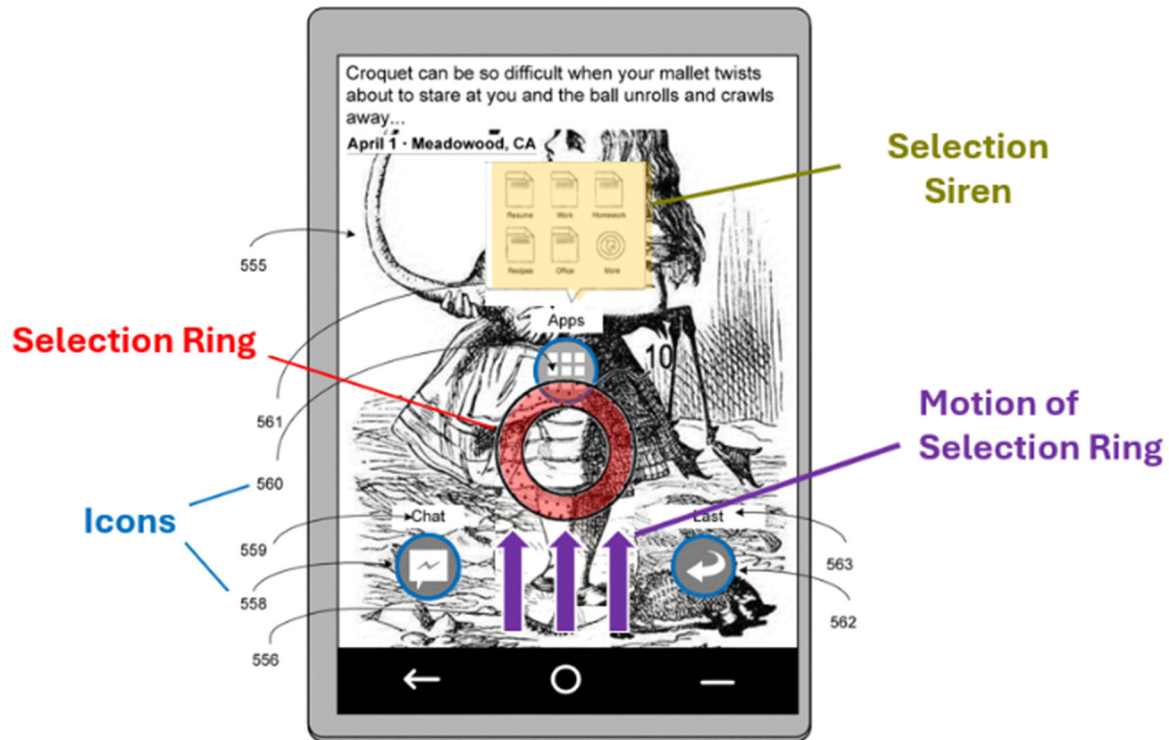


FIG. 5P

EX1005, Fig. 5P (modified, annotated).

Accordingly, modifying *Walkin-Homma* in further view of *Fujioka* renders obvious presenting, on a display device, a selection siren (e.g., an information box or label previewing information about an icon) to the user in the first graphical user interface based on the user's manipulation of the selection ring (e.g., positioning the selection ring over the icon). EX1003, ¶186.

This is consistent with the '878 patent, which describes its exemplary "siren" as an information box configured to "present contextual information" (e.g., "visual," "audio," and/or "tactile information") that is "associated with

manipulation of the selection ring.” EX1001, 18:21-27. Thus, for example, when a selection ring of the ’878 patent “has been manipulated and positioned above” icon 162, a “siren 160” is presented that “indicates that selecti[ng] . . . the fourth icon 162 *will permit* the user to enter a time travel feature interface.” EX1001, 18:40-43 (emphasis added), Fig. 3D. In other words, the siren previews the functionality associated with an icon when the selection ring is positioned over that icon in the same manner as the *Walkin-Homma-Fujioka* combination. EX1001, 18:40-52, Figs. 3D-3F; EX1003, ¶187.

2. Claim 10: “The interactive user interface control system of claim 9, wherein the selection siren includes information regarding an icon associated with the position of the selection ring in the first graphical user interface.”

The combination of *Walkin*, *Homma*, and *Fujioka* renders obvious the additional limitations of claim 10. EX1003, ¶¶188-190.

As discussed above regarding the *Walkin-Homma-Fujioka* combination and for claim 9, a POSITA would have found it obvious to implement *Fujioka*’s icon-preview functionality into *Walkin-Homma*’s GUI. The modification results in the processor of *Walkin*’s device executing computer instructions to present an **icon information box (selection siren)** that appears when a user of *Walkin*’s GUI **manipulates** (e.g., moves) the **selection ring** to contact a target **icon**, as shown in

annotated *Walkin* Figure 5P below. EX1003, ¶¶174-182, 189; EX1005, ¶¶68-69, 71, 75-76, Fig. 5P; *see* discussion of claim elements [8c] and [1a].

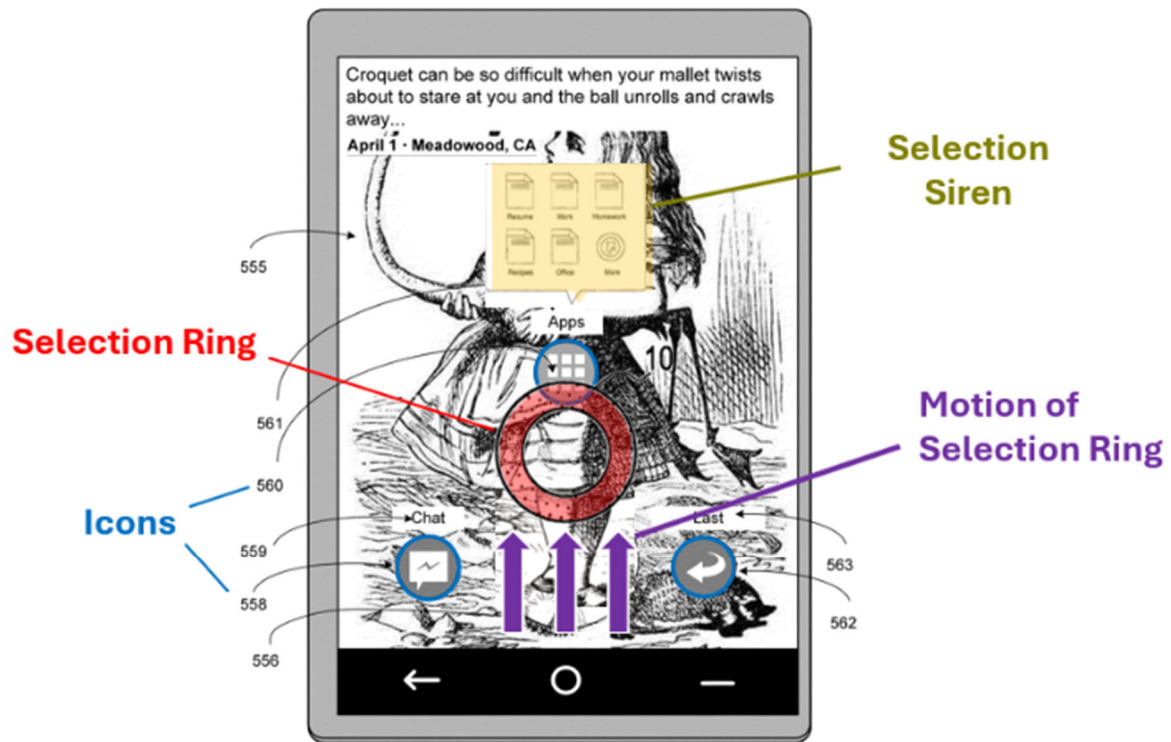


FIG. 5P

EX1005, Fig. 5P (modified, annotated).

Accordingly, further modifying *Walkin* in view of *Fujioka* renders obvious that the selection siren includes information regarding an icon associated with the position of the selection ring in the first graphical user interface. EX1003, ¶190.

3. **Claim 3: “The method of claim 1, further comprising: presenting, by the processor, a selection siren to the user in the first graphical user interface based on the user manipulation.”**

The combination of *Walkin*, *Homma*, and *Fujioka* renders obvious the additional limitations of claim 3 for substantially the same reasons discussed above for claim 9. EX1003, ¶191.

4. **Claim 4: “The method of claim 3, wherein the selection siren includes information regarding an icon associated with the position of the selection ring in the first graphical user interface.”**

The combination of *Walkin*, *Homma*, and *Fujioka* renders obvious the additional limitations of claim 4 for substantially the same reasons discussed above for claim 10. EX1003, ¶192.

5. **Claim 14: “The non-transitory computer readable medium of claim 13, wherein execution of the computer instructions by the at least one processor, cause the at least one processor to perform further operations, the further operations comprising: presenting a selection siren to the user in the first graphical user interface based on the user manipulation.”**

The combination of *Walkin*, *Homma*, and *Fujioka* renders obvious the additional limitations of claim 14 for substantially the same reasons discussed above for claim 9. EX1003, ¶193.

6. **Claim 15: “The non-transitory computer readable medium of claim 14, wherein the selection siren includes information regarding an icon associated with the position of the selection ring in the first graphical user interface.”**

The combination of *Walkin*, *Homma*, and *Fujioka* renders obvious the additional limitations of claim 15 for substantially the same reasons discussed above for claim 10. EX1003, ¶194.

7. **Claim 16: “The non-transitory computer readable medium of claim 13, wherein execution of the computer instructions by the at least one processor, cause the at least one processor to perform further operations, the further operations comprising: presenting a second plurality of icons to the user in the first graphical user interface based on manipulation of the selection ring.”**

The combination of *Walkin*, *Homma*, and *Fujioka* renders obvious the additional limitations of claim 16. EX1003, ¶¶195-197.

As discussed above regarding the *Walkin-Homma-Fujioka* combination and for claim 9, a POSITA would have found it obvious to implement *Fujioka*’s icon-preview functionality into *Walkin-Homma*’s GUI. The modification results in the processor of *Walkin*’s device executing computer instructions to present an **icon information preview** that appears when a user of *Walkin*’s GUI **manipulates** (e.g., moves) the modified **selection ring** to contact a target **icon**, where that **information preview** includes a **plurality of additional icons** within it, as shown in annotated *Walkin* Figure 5P below. EX1003, ¶¶174-182, 196; EX1005, ¶¶68-

69, 71, 75-76, Fig. 5P; EX1007, ¶35; *see* discussion of claim elements [8c] and [1a].

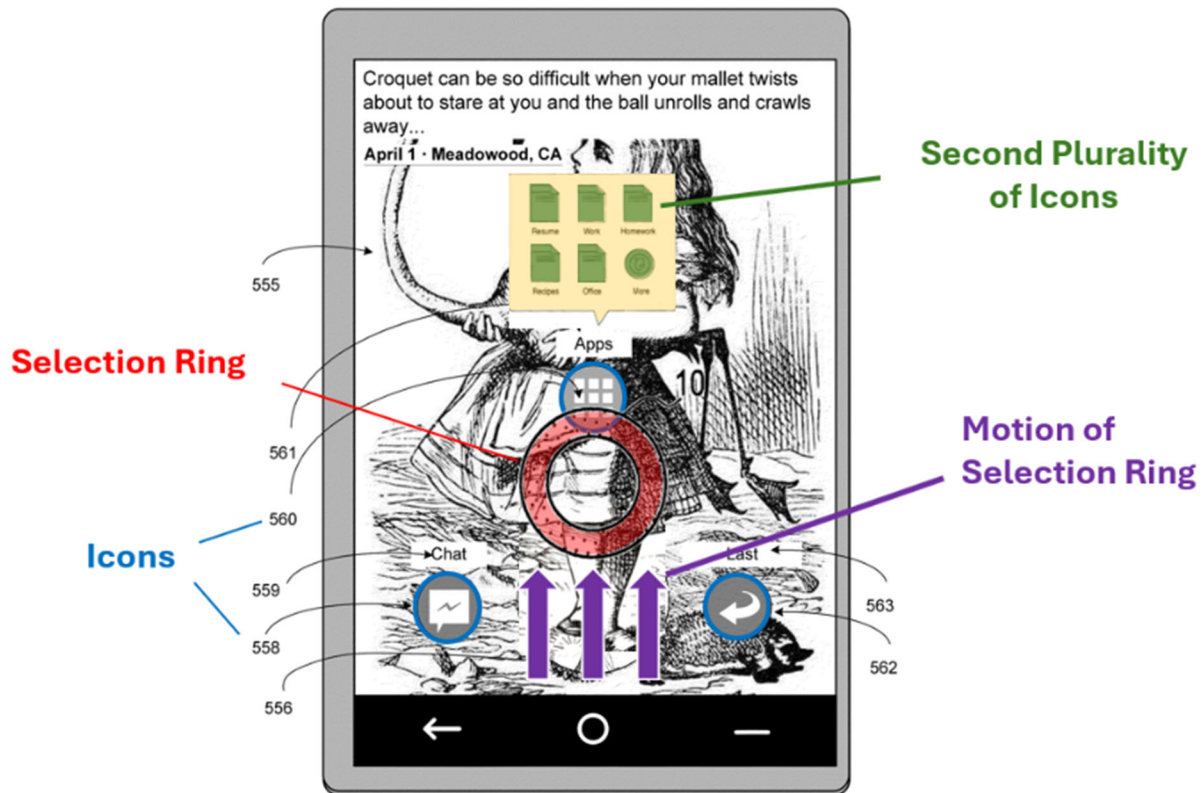


FIG. 5P

EX1005, Fig. 5P (modified, annotated).

As shown in the annotated figure above, the icon information preview that appears in the modified *Walkin-Homma-Fujioka* user interface includes a plurality of icons (which, relative to the **first set of icons annotated in blue** above, constitute a **“second” plurality of icons**); EX1003, ¶197; EX1007, ¶35 (*Fujioka* stating a “smaller preview of icons proximate to the icon over which the cursor is

placed may also be provided, such as a text bubble or informational bubble indicative of the item correspondent to an icon.”). Those icons may, for example, be **application icons** for *Walkin*’s “application launcher” icon that the user selects by moving the **selection ring** (e.g., control bauble 556) to **icon 560**, as depicted above, and thus represent icons that a user would expect to see within the application launcher after selecting application launcher icon 560. EX1005, ¶68 (“Icon 560 has an associated label 561 of ‘Apps,’ indicating that icon 560 is associated with an application launcher and that selection [of] icon 560 opens the application launcher interface.”); EX1003, ¶197. Accordingly, further modifying *Walkin-Homma* in view of *Fujioka* renders obvious presenting, on the display device, a second plurality of icons to the user in the first graphical user interface based on the user manipulation of the selection ring. EX1003, ¶197.

VIII. MANDATORY NOTICES

A. Real Parties-in-Interest Under 37 C.F.R. §42.8(b)(1)

Apple Inc. is the real party-in-interest.

B. Related Matters Under 37 C.F.R. §42.8(b)(2)

Petitioner identifies the following related matters:

Name	Number	Court	Filed
<i>Bangera v. Peer, Inc.</i>	24-2-05948	King Cnty. Super. Ct.	Mar. 18, 2024

Name	Number	Court	Filed
<i>Peer Global Inc. v. Apple Inc.</i>	7:26-cv-00033	W.D. Tex.	Jan. 29, 2026
<i>Apple Inc. v. Peer Global Inc.</i>	IPR2026-00437	P.T.A.B.	Aug. 17, 2026
<i>Apple Inc. v. Peer Global Inc.</i>	IPR2026-00438	P.T.A.B.	Aug. 17, 2026

C. Lead and Backup Counsel Under 37 C.F.R. §42.8(b)(3)

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D. Service Information Under 37 C.F.R. §42.8(b)(4)

Please address correspondence to lead and backup counsel at the email addresses above. Petitioner consents to electronic service by e-mail.

IX. GROUNDS FOR STANDING

Petitioner certifies that the '878 patent is available for IPR and that Petitioner is not barred or estopped from requesting IPR challenging the claims on the grounds identified herein.

X. CONCLUSION

For the reasons above, Petitioner requests institution of IPR and cancellation of each challenged claim.

The Office may charge any required fees to Deposit Account No. 06-0916.

Date: August 17, 2026

Respectfully submitted,

/Joshua L. Goldberg/
Joshua L. Goldberg, Lead Counsel
Reg. No. 59,369

CERTIFICATION OF WORD COUNT

Pursuant to 37 C.F.R. § 42.24(a)(1)(i), the undersigned hereby certifies that the foregoing PETITION FOR *INTER PARTES* REVIEW contains 13,543 words, excluding the parts of this Petition that are exempted under 37 C.F.R. § 42.24(a), as measured by the word-processing system used to prepare this paper.

/Joshua L. Goldberg/
Joshua L. Goldberg, Lead Counsel
Reg. No. 59,369

CERTIFICATE OF SERVICE

Pursuant to 37 C.F.R. §§42.6(e) and 42.105(a), the undersigned certifies that on August 17, 2026, a copy of the foregoing **Petition for *Inter Partes* Review of U.S. Patent No. 11,137,878**, the **associated power of attorney**, and **Exhibits EX1001-EX1017** were served by FedEx Priority Overnight® on the correspondence address of record indicated in the Patent Office's public Patent Center system for U.S. Patent No. 11,137,878:

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Date: August 17, 2026

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