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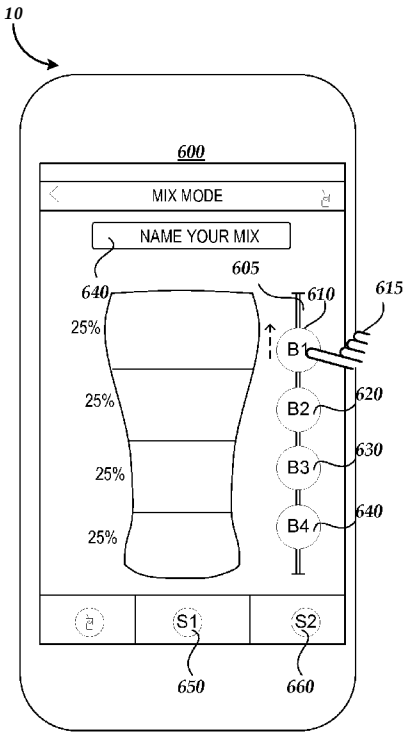

FIG. 6A

(57) Abstract: The dynamic adjustment of ratios of beverages to be mixed and dispensed in creating mixed or blended beverages is provided. A selection of beverages may be received from a user interface menu displayed by a computing device. A representation of a mixed beverage comprising the beverage selections may then be displayed according to pre-assigned default ratios. An input may then be received to adjust an assigned ratio associated with one or more of the beverage selections. The computing device may then adjust an assigned ratio associated with the one or more beverage selections in response to receiving the input. The computing device may then automatically adjust assigned ratios associated with other beverage selections in the representation of the mixed beverage. The computing device may then display a representation of the mixed beverage with the adjusted ratios in the user interface.

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DYNAMICALLY ADJUSTING RATIOS OF BEVERAGES IN A MIXED BEVERAGE

[0001] This patent application is being filed as a PCT International application and claims priority to U.S. Patent Application Serial No. 61/863,269, filed August 7, 2013, the disclosure of which is incorporated herein by reference in its entirety.

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BACKGROUND

[0003] Today, many consumers enjoy creating custom beverages by manually dispensing various branded beverages in desired ratios in a single container. The above however, suffers from drawbacks in that consumers have no way of determining the exact ratios needed in order to replicate the creation of a custom beverage (i.e., the consumer is forced to "guestimate" or "eyeball" the beverages as they are dispensed). As a result, consumers attempting to manually create custom beverages may receive a different ratio of branded beverages each time a drink is dispensed thereby leading to decreased drink consistency. It is with respect to these considerations and others that the various embodiments of the present invention have been made.

SUMMARY

[0004] This summary is provided to introduce a selection of concepts in a simplified form that are further described below in the Detailed Description. This summary is not intended to identify key features or essential features of the claimed subject matter, nor is it intended as an aid in determining the scope of the claimed subject matter.

[0005] Embodiments are provided for dynamically adjusting ratios of beverages to be mixed and dispensed in the creation of mixed or blended beverages. A selection of beverages may be received from a user interface menu displayed by a computing

device. A representation of a mixed beverage comprising the beverage selections may then be displayed according to pre-assigned default ratios. An input may then be received in a user interface to adjust an assigned ratio associated with one or more of the beverage selections. The computing device may then adjust an assigned ratio associated with the one or more beverage selections in response to receiving the input. The computing device may then automatically adjust assigned ratios associated with other beverage selections in the representation of the mixed beverage. The computing device may then display a representation of the mixed beverage with the adjusted ratios in the user interface. These and other features and advantages will be apparent from a reading of the following detailed description and a review of the associated drawings. It is to be understood that both the foregoing general description and the following detailed description are illustrative only and are not restrictive of the invention as claimed.

BRIEF DESCRIPTION OF THE DRAWINGS

[0006] FIGURE 1A is a computing device screen display of a user interface which may be utilized for selecting beverages for mixing, in accordance with an embodiment;

[0007] FIGURE 1B is a computing device screen display of a user interface which may be utilized for selecting beverages for mixing, in accordance with an embodiment;

[0008] FIGURE 1C is a computing device screen display of a user interface which may be utilized for selecting beverages for mixing, in accordance with an embodiment;

[0009] FIGURE 2A is a computing device screen display of a user interface which may be utilized for selecting beverages for mixing, in accordance with an alternative embodiment;

[0010] FIGURE 2B is a computing device screen display of a user interface which may be utilized for selecting beverages for mixing, in accordance with an alternative embodiment;

[0011] FIGURE 3A is a computing device screen display of a user interface which may be utilized for dynamically adjusting ratios of beverages within a mixed beverage, in accordance with an embodiment;

[0012] FIGURE 3B is a computing device screen display of a user interface which may be utilized for dynamically adjusting ratios of beverages within a mixed beverage, in accordance with an embodiment;

[0013] FIGURE 4A is a computing device screen display of a user interface which may be utilized for dynamically adjusting ratios of beverages within a mixed beverage, in accordance with an alternative embodiment;

[0014] FIGURE 4B is a computing device screen display of a user interface which may be utilized for dynamically adjusting ratios of beverages within a mixed beverage, in accordance with an alternative embodiment;

[0015] FIGURE 5A is a computing device screen display of a user interface which may be utilized for dynamically adjusting ratios of beverages within a mixed beverage, in accordance with another alternative embodiment;

[0016] FIGURE 5B is a computing device screen display of a user interface which may be utilized for dynamically adjusting ratios of beverages within a mixed beverage, in accordance with another alternative embodiment;

[0017] FIGURE 6A is a computing device screen display of a user interface which may be utilized for dynamically adjusting ratios of beverages within a mixed beverage, in accordance with yet another alternative embodiment;

[0018] FIGURE 6B is a computing device screen display of a user interface which may be utilized for dynamically adjusting ratios of beverages within a mixed beverage, in accordance with yet another alternative embodiment;

[0019] FIGURE 7A is a computing device screen display of a user interface which may be utilized for dynamically adjusting ratios of beverages within a mixed beverage, in accordance with yet another alternative embodiment;

[0020] FIGURE 7B is a computing device screen display of a user interface which may be utilized for dynamically adjusting ratios of beverages within a mixed beverage, in accordance with yet another alternative embodiment;

[0021] FIGURE 7C is a computing device screen display of a user interface which may be utilized for dynamically adjusting ratios of beverages within a mixed beverage, in accordance with yet another alternative embodiment;

[0022] FIGURE 8 is a computing device screen display of a user interface which may be utilized for dynamically adjusting ratios of beverages within a mixed beverage, in accordance with yet another alternative embodiment;

[0023] FIGURE 9A is a computing device screen display of a user interface which may be utilized for saving favorite beverages, in accordance with an embodiment;

[0024] FIGURE 9B is a computing device screen display of a user interface which may be utilized for saving favorite mixes created by dynamically adjusting ratios of beverages within mixed beverages, in accordance with an embodiment;

[0025] FIGURE 9C is a computing device screen display of a user interface which may be utilized for displaying ratios in a saved favorite mixed beverage, in accordance with an embodiment;

[0026] FIGURE 10A is a computing device screen display of a user interface which may be utilized for randomly selecting beverages for mixing and randomly adjusting beverage ratios, in accordance with an embodiment;

[0027] FIGURE 10B shows an agitation input for randomly selecting beverages for mixing and randomly adjusting beverage ratios, in accordance with an embodiment;

[0028] FIGURE IOC is a computing device screen display of a user interface which may be utilized for displaying randomly selecting beverages and beverage mix ratios for a mixed beverage, in accordance with an embodiment;

[0029] FIGURE 11A is a computing device screen display of a user interface which may be utilized for randomly adjusting ratios of beverages within a mixed beverage, in accordance with an embodiment;

[0030] FIGURE 1IB shows a tilt input for randomly adjusting ratios of beverages within a mixed beverage, in accordance with an embodiment;

[0031] FIGURE 11C is a computing device screen display of a user interface which may be utilized for displaying randomly adjusted ratios of beverages within a mixed beverage, in accordance with an embodiment;

[0032] FIGURE 12 is a flow diagram illustrating a routine for dynamically adjusting ratios of beverages within a mixed beverage, in accordance with an embodiment; and

[0033] FIGURE 13 is a simplified block diagram of a computing device with which various embodiments may be practiced.

DETAILED DESCRIPTION

[0034] Embodiments are provided for dynamically adjusting ratios of beverages to be mixed and dispensed in the creation of mixed or blended beverages. A selection of beverages may be received from a user interface menu displayed by a computing device. A representation of a mixed beverage comprising the beverage selections may then be displayed according to pre-assigned default ratios. An input may then be

received in a user interface to adjust an assigned ratio associated with one or more of the beverage selections. The computing device may then adjust an assigned ratio associated with the one or more beverage selections in response to receiving the input. The computing device may then automatically adjust assigned ratios associated with other beverage selections in the representation of the mixed beverage. The computing device may then display a representation of the mixed beverage with the adjusted ratios in the user interface. These and other features and advantages will be apparent from a reading of the following detailed description and a review of the associated drawings.

[0035] In the following detailed description, references are made to the accompanying drawings that form a part hereof, and in which are shown by way of illustrations specific embodiments or examples. These embodiments may be combined, other embodiments may be utilized, and structural changes may be made without departing from the spirit or scope of the present invention. The following detailed description is therefore not to be taken in a limiting sense, and the scope of the present invention is defined by the appended claims and their equivalents.

[0036] Today, software applications enable consumers to create custom beverages by mixing various branded beverages with predetermined flavors in a dispenser. For example, a user may create a custom beverage containing a mix of a cola beverage and a lemon flavor. The created custom beverage may then be immediately dispensed for consumption or saved for later use. Current applications utilized to create custom beverages however, suffer from a number of drawbacks. For example, current applications limit consumers to creating custom beverages using standard drink recipes containing predetermined fixed ingredient amounts or ratios (e.g., a 50/50 ratio of lemon and lime) which are incapable of dynamic adjustment. Some consumers enjoy creating custom beverages by manually dispensing various branded beverages in desired ratios in a single container. The above however, suffers from drawbacks in that consumers have no way of determining the exact ratios needed in order to replicate the creation of a custom beverage (i.e., the consumer is forced to "guestimate" or "eyeball" the beverages as they are dispensed). As a result, consumers attempting to manually create custom beverages may receive a different ratio of branded beverages each time a drink is dispensed thereby leading to decreased drink consistency.

[0037] Referring now to the drawings, in which like numerals represent like elements through the several figures, various aspects of the present invention will be described. FIGURES 1A-1C show a computing device screen display of a user

interface 100 which may be utilized for selecting beverages for mixing, in accordance with an embodiment. The user interface 100 may be generated by a software application program running on a computing device 10, which may comprise a desktop computing device or a mobile computing device such as a smartphone, a tablet personal computer, a laptop computer, and the like. Turning now to FIGURE 1A, the user interface 100 displayed on the computing device 10 includes a menu 110 displaying various beverage options (e.g., beverages B1-B12) which may be selected by a user to create mixed beverages. For example, the computing device 10 may include a user interface (such as a touchscreen) from which a user may select a core beverage brand 120 (identified as "B5") as a part of a custom mixed beverage. In accordance with various embodiments, the menu 110 may display beverages so that they may be readily identified by a consumer. For example, a beverage option may be displayed as an icon showing a brand logo associated with a particular family or "core brand" of beverage products (e.g., cola drinks, root beer, flavored beverages, etc.) or as a beverage product name. Other identifying indicia may also be utilized. It should be understood that the user interface 100 may be capable of displaying hundreds of beverages which a user may view by scrolling through a list on the computing device 10, accessing a sub-menu, or via a combination of the aforementioned methods. Other methods may also be utilized.

[0038] The user interface 100 may also include a Menu button 105 and a Favorites button 107. In accordance with an embodiment, the Menu button 105 may be utilized to navigate to other features/menus associated with the software application program utilized to generate the user interface. For example, the Menu button 105 may be utilized to return to a main or "home" menu from which a user may be presented with a number of options including, without limitation: the aforementioned user interface 100 for selecting beverages for mixing; a map option for viewing various locations of customer outlets near a consumer's present location (e.g., the location of dispensers providing a beverage product of interest to a consumer); a profile option for saving information associated with a user such as achievements (e.g., activities earned by a user associated with the purchase or redemption of consumer offers for the purchase of various items), challenges (e.g., contests which may be tied to a consumer reward such as a predetermined number of check-ins at one or more restaurants in order to receive discounted pricing), reward points, activity history, etc.; an offers option for displaying offers associated with a consumer item or service available for purchase; a "mixes"

option for viewing various saved beverage mixes created by a consumer; a favorites option for saving a list of a consumer's preferred beverages, and a "connect" option for connecting the consumer to various access portals (e.g., URLs) for obtaining additional information pertaining to a consumer product or sharing information (e.g., favorite beverages or favorite beverage mixes) with others such as through social networking websites. Other options are also possible. The Favorites button 107 may be utilized to display a previously saved list of a consumer's preferred beverages. Consumers may also drag beverages from the menu 110 directly to the Favorites button 107 to save as favorite beverages. A counter may further be used in conjunction with the Favorites button 107 to indicate that a dragged item has been added as a favorite beverage. The user interface 100 also includes a Mix user control 150. In accordance with an embodiment, after selecting a beverage (e.g., the beverage 120), a user may tap and drag a selected beverage icon to the Mix user control 150 to add the beverage to a list 160 of the constituent beverages to include in a mixed beverage as shown in FIGURE 1C.

[0039] Returning now to FIGURE 1A, once a beverage has been selected (e.g., by tapping with finger 125 or via other means) from the menu 110 in the user interface 100, the user interface 100 may then transition to displaying a menu 110a of additional related beverage options as shown in FIGURE IB. The additional related beverage options may include, for example, different flavored versions of a core brand beverage, low or no calorie versions of a core brand beverage, decaffeinated versions of a core brand beverage, etc. It should be understood that additional options as well as combinations of any of the aforementioned options are also possible. In accordance with an embodiment, the additional related beverage options in the menu 110a may be displayed as a carousel surrounding a previously selected "core" beverage (e.g., the beverage B5) from which a related beverage option (e.g., the beverage option 115 (i.e., "B5a") may be selected. The user interface 100 may also display adjoining core beverages from a previous screen display (e.g., the user interface 100 of FIGURE 1A) which allows a user to navigate to beverages from the previous screen without having to navigate back through the menu 105. For example, a user may swipe down to navigate up to beverage B2. Similarly, a user may swipe up, left, or right to navigate to beverages B8, B6 or B4, respectively. The user interface 100 of FIGURE IB also includes a Mix user control 150. In accordance with an embodiment, after selecting a related beverage option (e.g., the beverage 115), a user may tap and drag a selected

beverage icon to the Mix user control 150 to add the beverage to the list 160 as shown in FIGURE 1C. In accordance with an embodiment, the list 160 of FIGURE 1C may comprise a tray for displaying selected beverages from the user interfaces 110 and/or 110a for mixing. The Mix user control 150 may then be selected to initiate a "mix mode" for setting the ratios of the selected beverages to be included in a mixed beverage as will be described in further detail below with respect to FIGURES 3A-6B.

[0040] FIGURES 2A-2B show a computing device screen display of a user interface 200 which may be utilized for selecting beverages for mixing, in accordance with an alternative embodiment. Turning now to FIGURE 2A, the user interface 200 displayed on the computing device 10 includes a menu 220 of beverage options associated with a previously selected core beverage 210 (i.e., beverage "B3"). As discussed above with respect to FIGURE IB, the menu 220 may comprise varieties of core beverage options previously selected by a user. In accordance with an embodiment, the beverage options may be selected by moving a user control 230 (using finger 235 or via other means) along an arc to highlight and select one of the options "a" through "y" shown in the menu 220. For example, the menu 220 of beverage options may comprise a range of beverage flavors beginning with darker colored flavors and progressing toward lighter colored flavors. Other options are also possible. Once one of the options in the menu 220 has been selected, the user may drag the selected option to mix mode user control 240 to add to a list 250 of the constituent beverages to include in a mixed beverage as shown in FIGURE 2B. Turning now to FIGURE 2B, the user interface 200 includes a user control 260 for navigating to a user interface for dynamically mixing the selected beverages in the list 250. Alternatively, a beverage brand selection may be made via selecting one of options "a" through "y" and then a flavor selection may be made for that brand using user control 230. For example, a beverage brand may be selected via selecting option "c" and then the user control 230 may be moved to select various flavor options associated with brand "c" (Cherry brand "c", Lemon brand "c", etc.).

[0041] FIGURES 3A-3B show a computing device screen display of a user interface 300 which may be utilized for dynamically adjusting ratios of beverages within a mixed beverage, in accordance with an embodiment. Turning now to FIGURE 3A, the user interface 300, which may be displayed on the computing device 10, may include a default ratio assigned or allocated to the selected beverages contained in the mixed beverage. For example, the user interface 300 shows three selected beverages

310, 320 and 330 having equal ratios (e.g., 33.3%) which are also displayed below indicators 370, 380 and 390 (fewer or more beverages may also be utilized). It should be understood that the default allocations do not necessarily have to be equal. For example, in accordance with an embodiment, different ratios could be utilized which correspond to previously defined mixed beverage recipes from a provider. The user interface 300 also includes user controls 340, 350 and 360 which are associated with each of the displayed beverages. In accordance with an embodiment, each of the user controls 340, 350 and 360 may be rotated in either a clockwise or counterclockwise direction to adjust the default ratios for two adjoining ingredients. For example, rotating the user control 340 in a clockwise direction (e.g., using finger 305 or via other means) may cause the ratio of the beverage 320 to decrease while dynamically increasing the ratio of the beverage 310. Similarly, rotating the user control 350 in a clockwise direction may cause the ratio of the beverage 310 to decrease while dynamically increasing the ratio of the beverage 330. Finally, rotating the user control 360 in a clockwise direction may cause the ratio of the beverage 330 to decrease while dynamically increasing the ratio of the beverage 320. Conversely, rotating the user control 340 in a counter-clockwise direction may cause the ratio of the beverage 320 to increase while dynamically decreasing the ratio of the beverage 310, rotating the user control 350 in a counter-clockwise direction may cause the ratio of the beverage 310 to increase while dynamically decreasing the ratio of the beverage 330 and rotating the user control 360 in a counter-clockwise direction may cause the ratio of the beverage 330 to increase while dynamically decreasing the ratio of the beverage 320. It should be understood that the aforementioned examples are illustrative only and that other rotation schemes may also be utilized.

[0042] FIGURE 3B shows the user interface 300 after an adjustment of the default ratios has been received by the computing device 10. In particular, the ratio of the beverage 320 has increased to 50% (by virtue of moving the user control 340 in a clockwise direction) with a corresponding dynamic decrease in the ratio of the beverage 310 (as shown by indicators 370, 380 and 390). As discussed above with respect to FIGURE 3A, the default ratio of the beverage 330 remains the same since it was not affected by the rotation of the user control 340. As a result of the dynamically adjusted ratios, a new beverage mix may be created. It should be understood that by adjusting ratios in the above-described matter, there are a large number of possible combinations of beverages that may be created.

[0043] FIGURES 4A-4B show a computing device screen display of a user interface 400 which may be utilized for dynamically adjusting beverage ratios for creating a mixed beverage, in accordance with an alternative embodiment. Turning now to FIGURE 4A, the user interface 400, which may be displayed on the computing device 10, may include a default ratio allocation for previously selected beverages. For example, the user interface 400 shows representations of three selected beverages 410, 420 and 430 having equal ratios (as indicated by the diameters of each of the three representations of the aforementioned beverages). Fewer or more beverages may also be utilized. In accordance with an embodiment, the ratios of each of the three beverages 410, 420 and 430 may be increased by dragging, pinching out or zooming out (e.g., using fingers 405 or via other means) the associated representation as shown in FIGURE 4B. Conversely, the ratios of each of the three beverages 410, 420 and 430 may be decreased by squeezing, pinching in or zooming in the associated representation. It should be understood that the ratios of the non-selected beverages may also be dynamically increased or decreased to correspond to the aforementioned user adjustments. For example, in response to the increase in the beverage 430, the representations associated with the beverages 410 and 420 have both decreased so that the total ratio of beverages remains at 100%. It should be understood that as a result of the dynamically adjusted ratios, a new beverage mix may be created.

[0044] FIGURES 5A-5B show a computing device screen display of a user interface 500 which may be utilized for dynamically adjusting beverage ratios for creating a mixed beverage, in accordance with another alternative embodiment. Turning now to FIGURE 5A, the user interface 500, which may be displayed on the computing device 10, may include a default ratio allocation for previously selected beverages. For example, the user interface 500 shows representations of three selected beverages 510, 520 and 530 on a slider bar 505. In accordance with an embodiment, the ratios of each of the three beverages 510, 520 and 530 may be adjusted by sliding their respective representations up or down the slider bar 505 (fewer or more beverages may also be utilized). For example, the ratio of the beverage 510 may be increased by sliding the representation up (e.g., using finger 515 or via other means) on the slider bar 505 in order to increase the ratio from 30% to 35% as shown in FIGURE 5B. At the same time, the ratio of the beverage 520 is dynamically decreased while the ratio of the beverage 530 remains fixed. Alternatively, the ratios of beverages 530 and 530 may be dynamically adjusted based on increasing the ratio of the beverage 510. It should be

understood that as a result of the dynamically adjusted ratios, a new beverage mix may be created. The user interface 500 also includes a text box 540 which may be utilized to name the newly mixed beverage. A similar text box may be used in conjunction with any of the embodiments described herein to name the mixed beverage.

[0045] FIGURES 6A-6B show a computing device screen display of a user interface 600 which may be utilized for dynamically adjusting ratios of beverages within a mixed beverage, in accordance with yet another alternative embodiment. Turning now to FIGURE 6A, the user interface 600, which may be displayed on the computing device 10, may include a default ratio allocation for previously selected beverages. For example, the user interface 600 shows representations of four selected beverages 610, 620, 630 and 640 on a slider bar 605 (fewer or more beverages may also be utilized). In accordance with an embodiment, the ratios of each of the beverages 610, 620, 630 and 640 may be adjusted by sliding their respective representations up or down the slider bar 605. For example, the ratio of the beverage 610 may be increased by sliding the representation up (e.g., using finger 615 or via other means) on the slider bar 605 in order to increase the ratio from 25% to 45% as shown in FIGURE 6B. At the same time, the ratios of the beverages 620, 630, and 640 are dynamically decreased proportionally down to 20%. It should be understood that as a result of the dynamically adjusted ratios, a new beverage mix may be created. The user interface 600 also includes a text box 640 which may be utilized to name the newly mixed beverage as well as user interface buttons 650 and 660 which may be utilized for sharing the beverage mix via social networks via the computing device 10.

[0046] FIGURES 7A-7C show a computing device screen display of a user interface 700 which may be utilized for dynamically adjusting ratios of beverages within a mixed beverage, in accordance with yet another alternative embodiment. Turning now to FIGURE 7A, the user interface 700, which may be displayed on the computing device 10, may include a default ratio allocation for previously selected beverages. For example, the user interface 700 shows representations of three selected beverages 712, 714 and 716 separated by sliders 720 and 730. In accordance with an embodiment, the ratios of each of the beverages 712, 714 and 716 may be adjusted by moving the slider bars 720 and 730 in an upward or downward direction. For example, the ratio of the beverage 712 may be increased by moving the slider 712 down (e.g., using finger 715 or via other means) in order to increase a default ratio to 50%. At the same time, the ratios of the beverages 714 and 716 are dynamically decreased

proportionally down to 25%. The dynamically adjusted ratios of each of the beverages may be shown in information panel 745 as shown in FIGURE 7B. The information panel 745 may be accessed by selecting the Beverages tap 740 as shown in FIGURE 7A. It should be understood that as a result of the dynamically adjusted ratios, a new beverage mix may be created. The user interface 700 also includes a text box which may be utilized to name the newly mixed beverage as well as an Action tab 750 which may be utilized for saving the newly mixed beverage as a favorite beverage, a favorite mix or sharing via one or more social networks via the computing device 10 (see FIGURES 7A and 7C).

[0047] FIGURE 8 shows a computing device screen display of a user interface 800 which may be utilized for dynamically adjusting beverage ratios for creating a mixed beverage, in accordance with another alternative embodiment. The user interface 800, which may be displayed on the computing device 10, shows a mixed beverage represented by three selected beverages 805, 810 and 815. Each of the beverages 805, 810 and 815 are associated with a respective slider bar 820, 825 and 830. The ratios 860, 865 and 870 of each of the beverages 805, 810 and 815 in the mixed beverage may be adjusted by sliding respective user controls 840, 845 and 850 (e.g., using finger 835 or via other means) along the slider bars 820, 825 and 830. For example, a user may increase the ratio 860 of the beverage 805 (i.e., "Bl") from 33% by sliding the user control 840 in the direction of the dashed arrow. At the same time the ratio 860 of the beverage 805 is being increased, the ratios 865 and 870 of the beverages 810 and 815 may be proportionally decreased such that the total percentage of beverages in the mixed beverage equals *100%*. It should be understood that as a result of the adjusted ratios, a new mixed beverage may be created.

[0048] FIGURES 9A-9C show a computing device screen display of a user interface 900 which may be utilized for saving favorite beverages and favorite mixes created from dynamically adjusting ratios of beverages within mixed beverages, in accordance with an embodiment. Turning now to FIGURE 9A, the user interface 900 (which may be displayed on the computing device 10) shows a list of favorite beverages (e.g., top 5) in a carousel configuration (other configurations may also be utilized) including beverages 910, 920 and 930 which have been previously saved by a consumer. The user interface 900 also shows a list 935 of other beverages saved by the consumer as favorite beverages. In accordance with an embodiment, a consumer may

add or remove beverages to and from the favorite beverages carousel by dragging the displayed beverage icons.

[0049] FIGURE 9B shows a list of mixed beverages (e.g., top 3) in a carousel configuration including mixed beverages 940, 950 and 960 with a currently selected mixed beverage (i.e., the mixed beverage 950) being identified by a previously assigned name (e.g., "Jason's Mix"). The user interface 900 also includes a list of other consumer created mixed beverages (such as the mixed beverage 980). In accordance with an embodiment, a consumer may add or remove beverages to and from the favorite mixed beverages carousel by dragging the displayed mixed beverage icons.

[0050] FIGURE 9C shows further details of as selected mixed beverage from the favorites displayed in the carousel shown in FIGURE 9B. For example, upon a selection of the mixed beverage 950 in FIGURE 9B, the user interface 900 may further display the corresponding ratios of the beverages (i.e., beverages 970, 980 and 990) which comprise the mixed beverage 950.

[0051] FIGURES lOA-lOC show a computing device which may be utilized for randomly selecting and mixing beverages for mixing, in accordance with an embodiment. Turning now to FIGURE 10A, a user interface 1000 is displayed on the computing device 10 which includes a menu 1010 displaying various beverage options (e.g., beverages B1-B12) which may be selected by a user to create mixed beverages. For example, as discussed above with respect to FIGURE 1, the computing device 10 may include a user interface (such as a touchscreen) from which a user may select a core beverage brand as a part of a custom mixed beverage. In accordance with various embodiments, the menu 1005 may display beverages so that they may be readily identified by a consumer. For example, a beverage option may be displayed as an icon showing a brand logo associated with a particular family or "core brand" of beverage products (e.g., cola drinks, root beer, flavored beverages, etc.) or as a beverage product name. Other identifying indicia may also be utilized. It should be understood that the user interface 1000 may be capable of displaying hundreds of beverages which a user may view by scrolling through a list on the computing device 10, accessing a sub-menu, or via a combination of the aforementioned methods. Other methods may also be utilized.

[0052] The user interface 1000 may also include a Menu button 1005 and a Favorites button 1007. In accordance with an embodiment, the Menu button 1005 may be utilized to navigate to other features/menus associated with a software application

program utilized to generate the user interface. For example, the Menu button 1005 may be utilized to return to a main or "home" menu from which a user may be presented with a number of options including, without limitation: the aforementioned user interface 1000 for selecting beverages for mixing; a map option for viewing various locations of customer outlets near a consumer's present location (e.g., the location of dispensers providing a beverage product of interest to a consumer); a profile option for saving information associated with a user such as achievements (e.g., activities earned by a user associated with the purchase or redemption of consumer offers for the purchase of various items), challenges (e.g., contests which may be tied to a consumer reward such as a predetermined number of check-ins at one or more restaurants in order to receive discounted pricing), reward points, activity history, etc.; an offers option for displaying offers associated with a consumer item or service available for purchase; a "mixes" option for viewing various saved beverage mixes created by a consumer; a favorites option for saving a list of a consumer's preferred beverages, and a "connect" option for connecting the consumer to various access portals (e.g., URLs) for obtaining additional information pertaining to a consumer product or sharing information (e.g., favorite beverages or favorite beverage mixes) with others such as through social networking websites. Other options are also possible. The Favorites button 1007 may be utilized to display a previously saved list of a consumer's preferred beverages. Consumers may also drag beverages from the menu 1010 directly to the Favorites button 1007 to save as favorite beverages. A counter may further be used in conjunction with the Favorites button 1007 to indicate that a dragged item has been added as a favorite beverage.

[0053] The user interface 1000 also includes a Mix user control 1050. In accordance with an embodiment, after selecting the Mix user control 1050, a user may shake or agitate the computing device 10 (as shown in FIGURE 10B) to initiate a random selection of beverages from the menu 1010 as well as randomly assign beverage ratios to create a mixed beverage as shown in FIGURE IOC. In particular, the computing device 10, which may comprise an accelerometer, may be configured to detect an agitation or shaking motion and, in response, automatically initiate the random selection of beverages from the menu 1010 as well as randomly assign beverage ratios to create a mixed beverage. For example, as shown in FIGURE IOC, after detecting an agitation of the computing device 10, the user interface 1000 is automatically updated to display randomly selected beverages 1015 ("B3"), 1020

("BIO") and 1025 ("B7") from the menu 1010. The user interface 1000 further includes randomly selected ratios for each of the randomly selected beverages 1015, 1020 and 1025. For example, the user interface 1000 displays ratio indicators 1030 (61%), 1035 (34%) and 1040 (25%) which have been randomly assigned to beverages B10, B7 and B3, respectively and which collectively represent a custom mixed beverage. It should be understood that in some embodiments, the initiation of the random selection of beverages and beverage ratios may not necessarily require the selection of the Mix user control 1050 (discussed above). Instead, the user may simply shake or agitate the computing device 10 whenever the menu 1010 is displayed in the user interface 1000.

[0054] FIGURES 11A-1 1C show a computing device which may be utilized for randomly adjusting ratios of beverages within a mixed beverage, in accordance with an embodiment. Turning now to FIGURE 11A, a user interface 1100 may be displayed on the computing device 10 which includes a default ratio assigned or allocated to previously selected beverages contained in a mixed beverage. For example, the user interface 1100 shows two selected beverages 1110 and 1120 equal ratios (i.e., 50%) which are also displayed below indicators 1130 and 1140 (it should be understood that a mixed beverage may also contain additional beverages). As discussed above with respect to FIGURE 3, it should be understood that the default allocations do not necessarily have to be equal. Thus, different ratios may be utilized which correspond to previously defined mixed beverage recipes from a provider.

[0055] In accordance with an embodiment, the computing device 10, which may comprise an accelerometer, may be tilted about an axis to initiate a random adjustment of ratios assigned to beverages displayed in the user interface 1100. It should be understood that, in accordance with various embodiments, the computing device 10 may be rotated in any of a number of directions or angles with respect to a horizontal axis (i.e., x-axis), a vertical axis (i.e., y-axis) and a depth axis (i.e., z-axis) to initiate a random adjustment of ratios with respect to the beverages 1110 and 1120. For example, as shown in FIGURE 11B, the computing device 10 is rotated in a counterclockwise direction with respect to a vertical axis and, as a result, previously assigned beverage ratios associated with the beverages 1110 and 1120 are automatically and randomly adjusted as shown in FIGURE 11C.

[0056] FIGURE 12 is a flow diagram illustrating a routine 1200 for dynamically adjusting ratios for mixing beverages, in accordance with an embodiment. When

reading the discussion of the routines presented herein, it should be appreciated that the logical operations of various embodiments of the present invention are implemented (1) as a sequence of computer implemented acts or program modules running on a computing device or system and/or (2) as interconnected machine logical circuits or circuit modules within the computing device or system. The implementation is a matter of choice dependent on the performance requirements of the computing device or system implementing the invention. Accordingly, the logical operations illustrated in FIGURE 12 and making up the various embodiments described herein are referred to variously as operations, structural devices, acts or modules. It will be recognized by one skilled in the art that these operations, structural devices, acts and modules may be implemented in software, in firmware, in hardware, in special purpose digital logical, and any combination thereof without deviating from the spirit and scope of the present invention as recited within the claims set forth herein.

[0057] The routine 1200 begins at operation 1205, where an application executing on the computing device 10, may display a menu of beverage selections for mixing into a custom beverage.

[0058] From operation 1205, the routine 1200 continues to operation 1210, where the application executing on the computing device 10, may receive selected beverages from the menu displayed at operation 1205. In accordance with various embodiments, the beverages may be selected in response to a user tapping and dragging a selected beverage (as described above with respect to FIGURES 1A-1C), moving a user control along an arc to highlight and select one of a plurality of displayed beverage options (as described above with respect to FIGURES 2A-2B) or by agitating the mobile computing device 10 to randomly select beverage options from a menu (as described above with respect to FIGURES 1OA-IOC).

[0059] From operation 1210, the routine 1200 continues to operation 1215, where the application executing on the computing device 10, may display a representation of a mixed beverage according to assigned (e.g., default) ratios. In accordance with an embodiment, the assigned ratios may be equal for each of the selected beverages comprising the mix.

[0060] From operation 1215, the routine 1200 continues to operation 1220, where the application executing on the computing device 10, may receive an input to adjust assigned beverage ratios for the mixed beverage. In accordance with various embodiments, the input may comprise a selection of a user control to adjust the

assigned beverage ratios according to a desired preference of a user (as described above with respect to FIGURES 3-9) or a tilting of the mobile computing device 10 by a user to rotate the mobile computing device 10 about an axis so as to randomly adjust the assigned beverage ratios.

[0061] From operation 1220, the routine 1200 continues to operation 1225, where the application executing on the computing device 10, may adjust the assigned beverage ratio. In accordance with an embodiment, the assigned ratio may be adjusted by dragging a user control in at least one of a clockwise direction and a counter-clockwise direction. In accordance with another embodiment, the assigned ratio may be adjusted by zooming in a user control to decrease the assigned ratio. In accordance with another embodiment, the assigned ratio may be adjusted by zooming out a user control to increase the assigned ratio. In accordance with another embodiment, the assigned ratio may be adjusted by sliding a user control (e.g., an icon) along a slider to adjust the assigned ratio. In accordance with another embodiment, the assigned ratio may be adjusted by agitating or rotating the computing device 10.

[0062] From operation 1225, the routine 1200 continues to operation 1230, where the application executing on the computing device 10, may automatically (i.e., dynamically) adjust other assigned beverage ratios in response to the adjustment made to the assigned beverage ratio at operation 1225. It should be understood that in adjusting the other beverage ratios, the application may optionally be configured to maintain an assigned ratio for one of the other beverage selections comprising the mixed beverage.

[0063] From operation 1230, the routine 1200 continues to operation 1235, where the application executing on the computing device 10, may display a representation of a mixed beverage based on the adjusted ratios. From operation 1235, the routine 1200 then ends.

[0064] It should be understood that the various above-described embodiments may be utilized by consumers to create and dispense custom beverage recipes. A software application for creating custom beverage recipes may be downloaded from a digital application distribution platform to a consumer device. Once the software application has been downloaded, the consumer may follow prompts and other directions for creating a custom beverage. The custom beverage may comprise a combination of core brands and flavors according to desired ratios or percentages set by the consumer. Once a custom beverage recipe has been created, a consumer may save it within the

software application. It should be understood that a consumer may create and save multiple custom beverage recipes within the software application. The software application may also include functionality which allows the consumer to share custom beverage recipes via social media websites. Other functionality which may be provided includes the awarding of "reward points" in connection with the sharing of recipes. The sharing functionality may be performed automatically by the software application or, alternatively, manually by the consumer. Additionally, after a recipe has been saved, the software application may enable a consumer to wirelessly transfer the recipe to a dispenser via a handshaking procedure. The handshake may be accomplished via any of a number of connection methods including, but not limited to, Bluetooth wireless technology, NFC, Long Polling, Wi-Fi, etc. During the handshake, the consumer's data is transferred to the dispenser. The data may include the consumer's custom recipes as well as consumer profile information. The data may be stored and transmitted to a dispenser provider immediately or during nightly data transfers. Once the dispenser has received the consumer's information a custom screen may be displayed with a personalized greeting (e.g., "Welcome, Nadia!"). The personalized greeting allows the dispenser vendor to provide consumers with a personal experience when interacting with their dispensers. The dispenser may also be configured to display icons for each of a consumer's saved custom beverage recipes. The consumer may then select a desired recipe and dispense the beverage from the dispenser. Reward points may be also awarded upon dispensing. In addition to providing icons for custom beverage recipes, the dispenser display may also include an icon that allows the consumer to navigate to a standard main display for the dispenser. For example, the consumer may want to connect with the dispenser to earn reward points but may not want his or her custom beverage. It should be understood that reward points may be awarded throughout the different stages. For example, points may be awarded for downloading the software application, creating a first custom recipe with increasing points for subsequent recipes, connecting to a dispenser, sharing the custom recipe via social media websites, sharing the dispensing of the beverage via social media, etc.

[0065] FIGURE 13 is a simplified block diagram of a computing device with which various embodiments may be practiced. In a basic configuration, the computing device 10 is a handheld computer having both input elements and output elements. Input elements may include touch screen display 1305 which allows the user to enter information into the mobile computing device 10, microphone 1315 and camera 1320.

In alternative embodiments, the computing device 10 may incorporate additional input elements such as microphone 1315 and a physical keypad (not shown). A "soft" keypad (not shown) may also be generated on the touch screen display 1305. The touch screen display 1305 on the computing device 10 may also comprise an output element which can display a graphical user interface (GUI). Other output elements include speaker 1310. Additionally, the computing device 10 may incorporate a vibration module (not shown), which causes the computing device 10 to vibrate to notify the user of an event. In yet another embodiment, the computing device 10 may incorporate a headphone jack (not shown) for providing another means of providing output signals.

[0066] The computing device 10 may also comprise a number of components for implementing some embodiments. The components may include processor 1325, memory 1330, radio functions 1335 and accelerometer 1340 and GPS receiver 1345. The memory 1330 may be utilized for storing an operating system 1350 and include data storage 1355. The memory 1330 may also include a number of applications including, but not limited to, a beverage mixing application 1360, mobile phone application, a data processing application, games, an Internet browser, navigation, a camera/video application and other applications. The radio functions 1335 may support wireless communications via NFC, BLUETOOTH wireless technology, Wi-Fi or other wireless technologies. It should be understood that the radio functions 1335 may also be utilized to connect to the Internet (or other types of networks) as well as to remote computing systems.

[0067] It should be understood that various embodiments may be implemented as a computer process (method), a computing system, or as an article of manufacture, such as a computer program product or computer readable media. The computer program product may be a computer storage media readable by a computer system and encoding a computer program of instructions for executing a computer process.

[0068] The term computer readable media as used herein may include computer storage media. Computer storage media may include volatile and nonvolatile, removable and non-removable media implemented in any method or technology for storage of information (such as computer readable instructions, data structures, program modules, or other data) in hardware. The memory 1330 in the computing device 10 is an example of computer storage media (i.e., memory storage.) Computer storage media may include, but is not limited to, RAM, ROM, electrically erasable read-only memory

(EEPROM), flash memory or other memory technology, CD-ROM, digital versatile disks (DVD) or other optical storage, magnetic cassettes, magnetic tape, magnetic disk storage or other magnetic storage devices, or any other medium which can be used to store information and which can be accessed by the computing device 10. Any such computer storage media may also be part of the computing device 10. Computer storage media does not include a carrier wave or other propagated or modulated data signal.

[0069] The term computer readable media as used herein may also include communication media. Communication media may be embodied by computer readable instructions, data structures, program modules, or other data in a modulated data signal, such as a carrier wave or other transport mechanism, and includes any information delivery media. The term "modulated data signal" may describe a signal that has one or more characteristics set or changed in such a manner as to encode information in the signal. By way of example, and not limitation, communication media may include wired media such as a wired network or direct-wired connection, and wireless media such as acoustic, radio frequency (RF), infrared, and other wireless media.

[0070] Various embodiments are described above with reference to block diagrams and/or operational illustrations of methods, systems, and computer program products. The operations/acts noted in the blocks may be skipped or occur out of the order as shown in any flow diagram. For example, two or more blocks shown in succession may in fact be executed substantially concurrently or the blocks may sometimes be executed in the reverse order, depending upon the functionality/acts involved.

[0071] Although the invention has been described in connection with various illustrative embodiments, those of ordinary skill in the art will understand that many modifications can be made thereto within the scope of the claims that follow. Accordingly, it is not intended that the scope of the invention in any way be limited by the above description, but instead be determined entirely by reference to the claims that follow.

WHAT IS CLAIMED IS:

1. A method of dynamically adjusting ratios for mixing beverages, comprising:

receiving a plurality of beverage selections from a user interface menu;

displaying a representation of a mixed beverage comprising the plurality of beverage selections according to assigned ratios;

receiving, in a user interface, an input to adjust an assigned ratio associated with at least one beverage selection from the plurality of beverage selections;

adjusting the assigned ratio associated with the at least one beverage selection in response to receiving the input;

automatically adjusting, by the computing device, an assigned ratio associated with at least one other beverage selection from the plurality of beverage selections; and

displaying, in the user interface, the representation of the mixed beverage comprising the plurality of beverage selections based on the adjusted assigned ratios for the at least one beverage selection and the at least one other beverage selection.

2. The method of claim 1, wherein displaying a representation of the mixed beverage comprising the plurality of beverage selections according to assigned ratios comprises displaying the representation of the mixed beverage having equal ratios of each of the plurality of beverage selections.

3. The method of claim 1, wherein adjusting the assigned ratio associated with the at least one beverage selection in response to receiving the input comprises dragging a user control in at least one of a clockwise direction and a counter-clockwise direction to adjust the assigned ratio.

4. The method of claim 1, wherein adjusting the assigned ratio associated with the at least one beverage selection in response to receiving the input comprises zooming in a user control to decrease the assigned ratio associated with the at least one beverage selection.

5. The method of claim 1, wherein adjusting the assigned ratio associated with the at least one beverage selection in response to receiving the input comprises

zooming out a user control to increase the assigned ratio associated with the at least one beverage selection.

6. The method of claim 1, wherein adjusting the assigned ratio associated with the at least one beverage selection in response to receiving the input comprises sliding an icon along a slider to adjust the assigned ratio associated with the at least one beverage selection.

7. The method of claim 1, wherein automatically adjusting, by the computing device, an assigned ratio associated with at least one other beverage selection from the plurality of beverage selections, is further operative to maintain another assigned ratio for another beverage selection from the plurality of beverage selections.

8. The method of claim 1, wherein receiving a plurality of beverage selections from a user interface menu comprises receiving an input on the computing device to receive a plurality of randomly selected beverage selections from the user interface menu.

9. The method of claim 8, wherein displaying a representation of a mixed beverage comprising the plurality of beverage selections according to assigned ratios comprises:

in response to receiving the input, randomly assigning ratios to the randomly selected beverage selections; and

displaying the representation of the mixed beverage according to the randomly assigned ratios.

10. The method of claim 8, wherein receiving an input on the computing device to receive a plurality of randomly selected beverage selections from the user interface menu comprises receiving an agitation input on the computing device.

11. The method of claim 8, wherein receiving an input on the computing device to receive a plurality of randomly selected beverage selections from the user interface menu comprises receiving a tilt input on the computing device.

12. The method of claim 1, wherein adjusting the assigned ratio associated with the at least one beverage selection in response to receiving the input comprises:

receiving a tilt input to rotate the computing device about an axis; and

randomly adjusting the assigned ratio associated with the at least one beverage selection in response to receiving the tilt input;

13. A mobile computing device for dynamically adjusting ratios for mixing beverages, comprising:

a memory for storing executable program code; and

a processor, functionally coupled to the memory, the processor being responsive to computer-executable instructions contained in the program code and operative to:

receive a plurality of beverage selections from a user interface menu;

display a representation of a mixed beverage comprising the plurality of beverage selections according to assigned ratios;

receive an input to adjust an assigned ratio associated with at least one beverage selection from the plurality of beverage selections;

adjust the assigned ratio associated with the at least one beverage selection in response to receiving the input;

automatically adjust an assigned ratio associated with at least one other beverage selection from the plurality of beverage selections; and

display the representation of the mixed beverage comprising the plurality of beverage selections based on the adjusted assigned ratios for the at least one beverage selection and the at least one other beverage selection.

14. The mobile computing device of claim 13, wherein the processor, in displaying a representation of the mixed beverage comprising the plurality of beverage selections according to assigned ratios, is operative to display the representation of the mixed beverage having equal ratios of each of the plurality of beverage selections.

15. The mobile computing device of claim 13, wherein the processor, in adjusting the assigned ratio associated with the at least one beverage selection in response to receiving the input, is operative to drag a user control in at least one of a clockwise direction and a counter-clockwise direction to adjust the assigned ratio.

16. The mobile computing device of claim 13, wherein the processor, in adjusting the assigned ratio associated with the at least one beverage selection in response to receiving the input, is operative to zoom in a user control to decrease the assigned ratio associated with the at least one beverage selection.

17. The mobile computing device of claim 13, wherein the processor, in adjusting the assigned ratio associated with the at least one beverage selection in response to receiving the input, is operative to zoom out a user control to increase the assigned ratio associated with the at least one beverage selection.

18. The mobile computing device of claim 13, wherein the processor, in adjusting the assigned ratio associated with the at least one beverage selection in response to receiving the input, is operative to slide an icon along a slider to adjust the assigned ratio associated with the at least one beverage selection.

19. The mobile computing device of claim 13, wherein the processor, in automatically adjusting an assigned ratio associated with at least one other beverage selection from the plurality of beverage selections, is further operative to maintain another assigned ratio for another beverage selection from the plurality of beverage selections.

20. The mobile computing device of claim 13, wherein the processor, in receiving a plurality of beverage selections from a user interface menu is operative to receive an input on the computing device to receive a plurality of randomly selected beverage selections from the user interface menu.

21. The mobile computing device of claim 20, wherein the processor, in displaying a representation of a mixed beverage comprising the plurality of beverage selections according to assigned ratios, is operative to:

in response to receiving the input, randomly assign ratios to the randomly selected beverage selections; and

display the representation of the mixed beverage according to the randomly assigned ratios.

22. The mobile computing device of claim 20, wherein the processor, in receiving an input on the computing device to receive a plurality of randomly selected beverage selections from the user interface menu is operative to receive an agitation input on the computing device.

23. The mobile computing device of claim 20, wherein the processor, in receiving an input on the computing device to receive a plurality of randomly selected beverage selections from the user interface menu is operative to receive a tilt input on the computing device.

24. The mobile computing device of claim 13, wherein the processor, in adjusting the assigned ratio associated with the at least one beverage selection in response to receiving the input, is operative to:

receive a tilt input to rotate the computing device about an axis; and

randomly adjust the assigned ratio associated with the at least one beverage selection in response to receiving the tilt input;

25. A computer-readable storage medium storing computer executable instructions which, when executed by a computing device, will cause the computing device to perform a method of dynamically adjusting ratios for mixing beverages, the method comprising:

displaying a menu of beverage selections in a user interface;

receiving a plurality of the beverage selections from the menu;

displaying a representation of a mixed beverage comprising the plurality of beverage selections according to assigned ratios;

receiving an input to adjust an assigned ratio associated with at least one beverage selection from the plurality of beverage selections;

adjusting the assigned ratio associated with the at least one beverage selection in response to receiving the input;

automatically adjusting, by the computing device, an assigned ratio associated with at least one other beverage selection from the plurality of beverage selections; and

displaying, in a user interface, the representation of the mixed beverage comprising the plurality of beverage selections based on the adjusted assigned ratios for the at least one beverage selection and the at least one other beverage selection.

26. The computer-readable storage medium of claim 25, wherein displaying a representation of the mixed beverage comprising the plurality of beverage selections according to assigned ratios comprises displaying the representation of the mixed beverage having equal ratios of each of the plurality of beverage selections.

27. The computer-readable storage medium of claim 25, wherein adjusting the assigned ratio associated with the at least one beverage selection in response to receiving the input comprises dragging a user control in at least one of a clockwise direction and a counter-clockwise direction to adjust the assigned ratio.

28. The computer-readable storage medium of claim 25, wherein adjusting the assigned ratio associated with the at least one beverage selection in response to receiving the input comprises zooming in a user control to decrease the assigned ratio associated with the at least one beverage selection.

29. The computer-readable storage medium of claim 25, wherein adjusting the assigned ratio associated with the at least one beverage selection in response to receiving the input comprises zooming out a user control to increase the assigned ratio associated with the at least one beverage selection.

30. The computer-readable storage medium of claim 25, wherein adjusting the assigned ratio associated with the at least one beverage selection in response to receiving the input comprises sliding an icon along a slider to adjust the assigned ratio associated with the at least one beverage selection.

31. The computer-readable storage medium of claim 25, wherein receiving a plurality of beverage selections from a user interface menu comprises receiving an

input on the computing device to receive a plurality of randomly selected beverage selections from the user interface menu.

32. The computer-readable storage medium of claim 31, wherein displaying a representation of a mixed beverage comprising the plurality of beverage selections according to assigned ratios comprises:

in response to receiving the input, randomly assigning ratios to the randomly selected beverage selections; and

displaying the representation of the mixed beverage according to the randomly assigned ratios.

33. The computer-readable storage medium of claim 31, wherein receiving an input on the computing device to receive a plurality of randomly selected beverage selections from the user interface menu comprises receiving an agitation input on the computing device.

34. The computer-readable storage medium of claim 31, wherein receiving an input on the computing device to receive a plurality of randomly selected beverage selections from the user interface menu comprises receiving a tilt input on the computing device.

35. The computer-readable storage medium of claim 25, wherein adjusting the assigned ratio associated with the at least one beverage selection in response to receiving the input comprises:

receiving a tilt input to rotate the computing device about an axis; and

randomly adjusting the assigned ratio associated with the at least one beverage selection in response to receiving the tilt input;

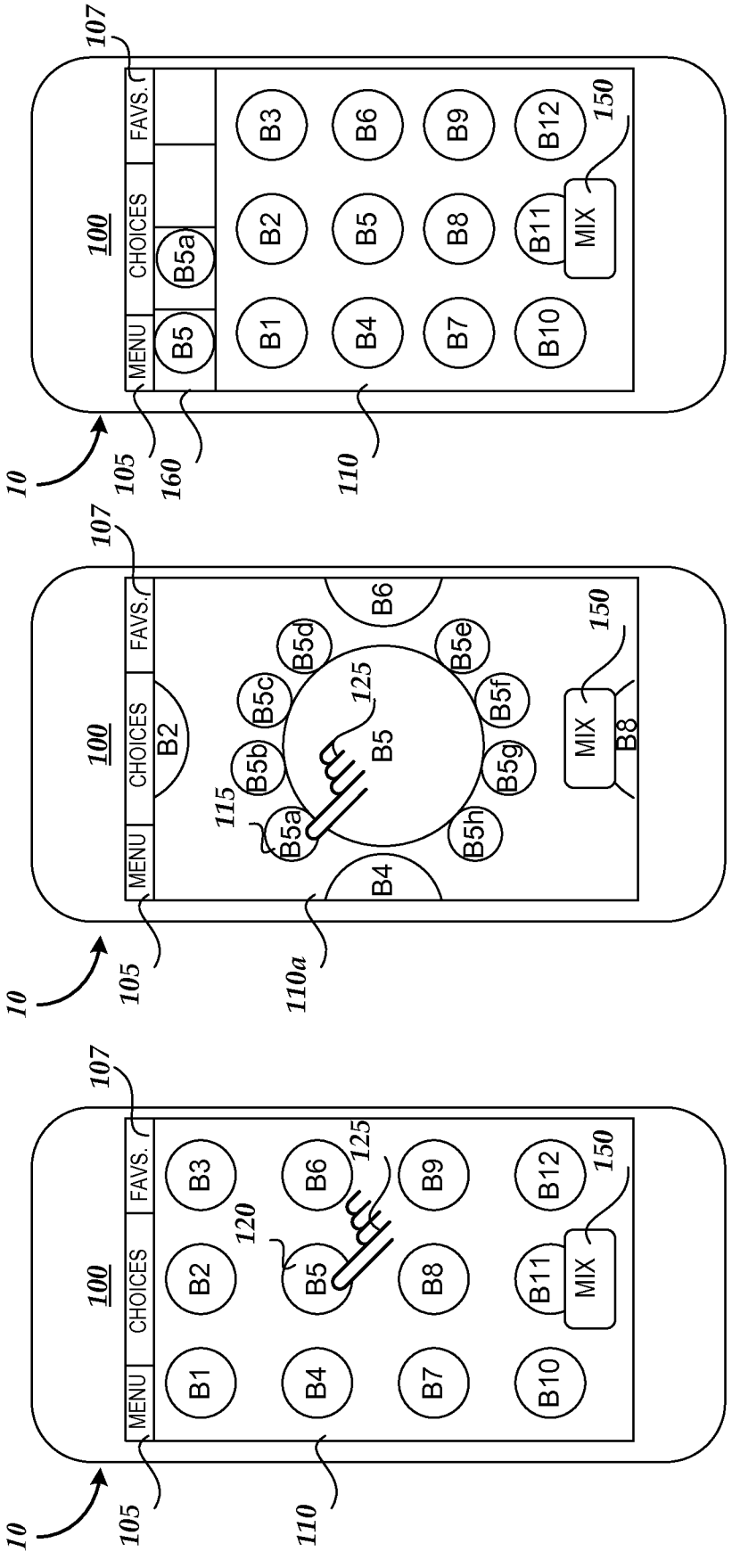

FIG. 1A

FIG. 1B

FIG. 1C

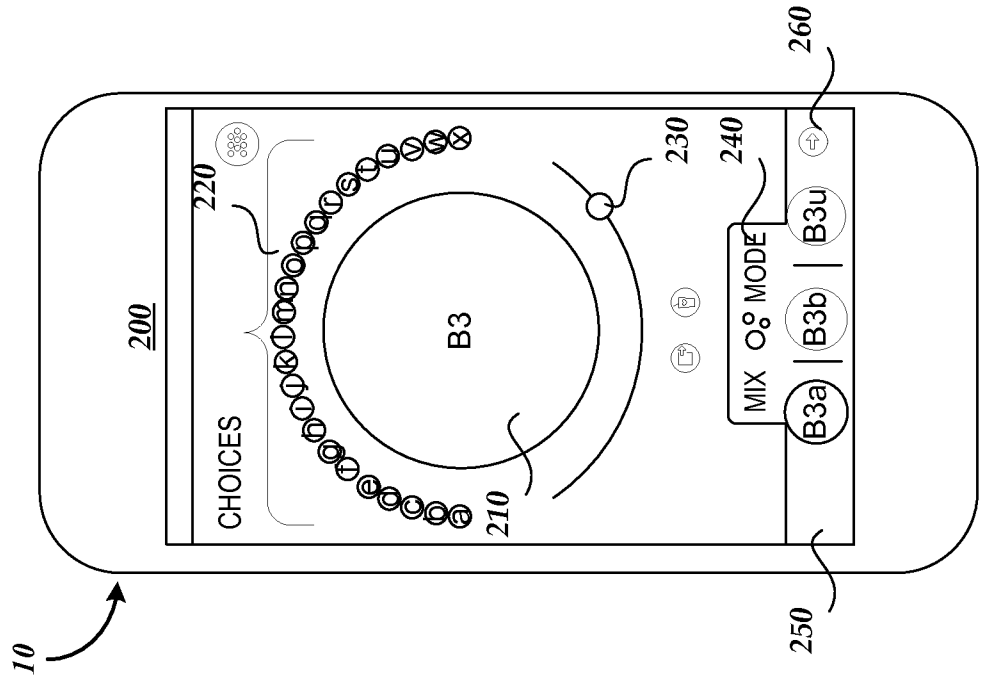
10
200
CHOICES
220
B3
210
230
240
MIX
MODE
B3a
B3b
B3u
250
260

FIG. 2B

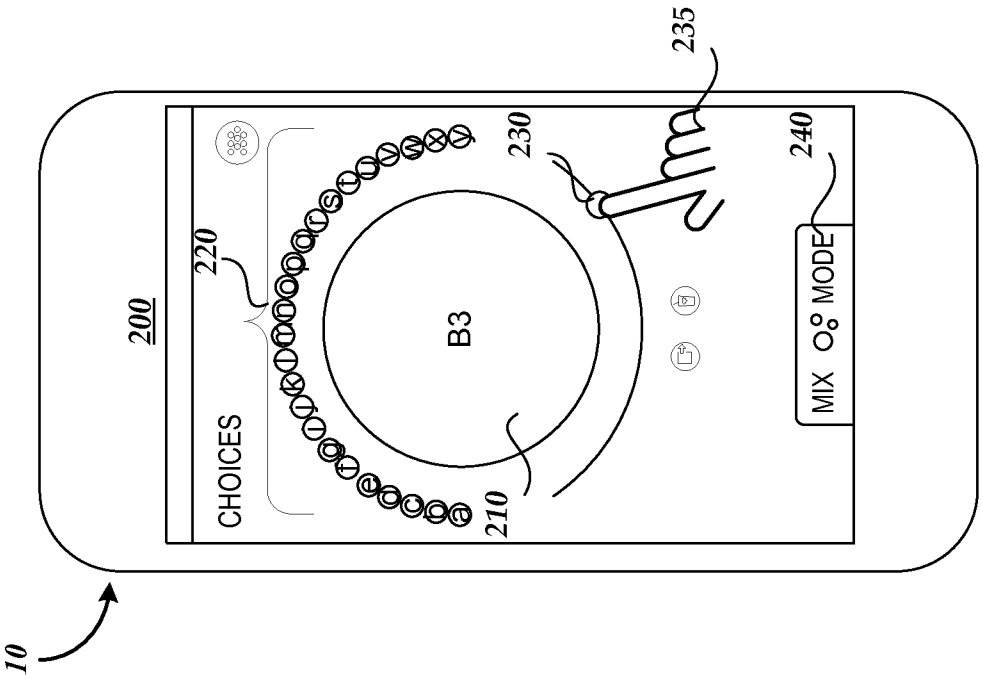
10
200
CHOICES
220
B3
210
230
235
240
MIX
MODE

FIG. 2A

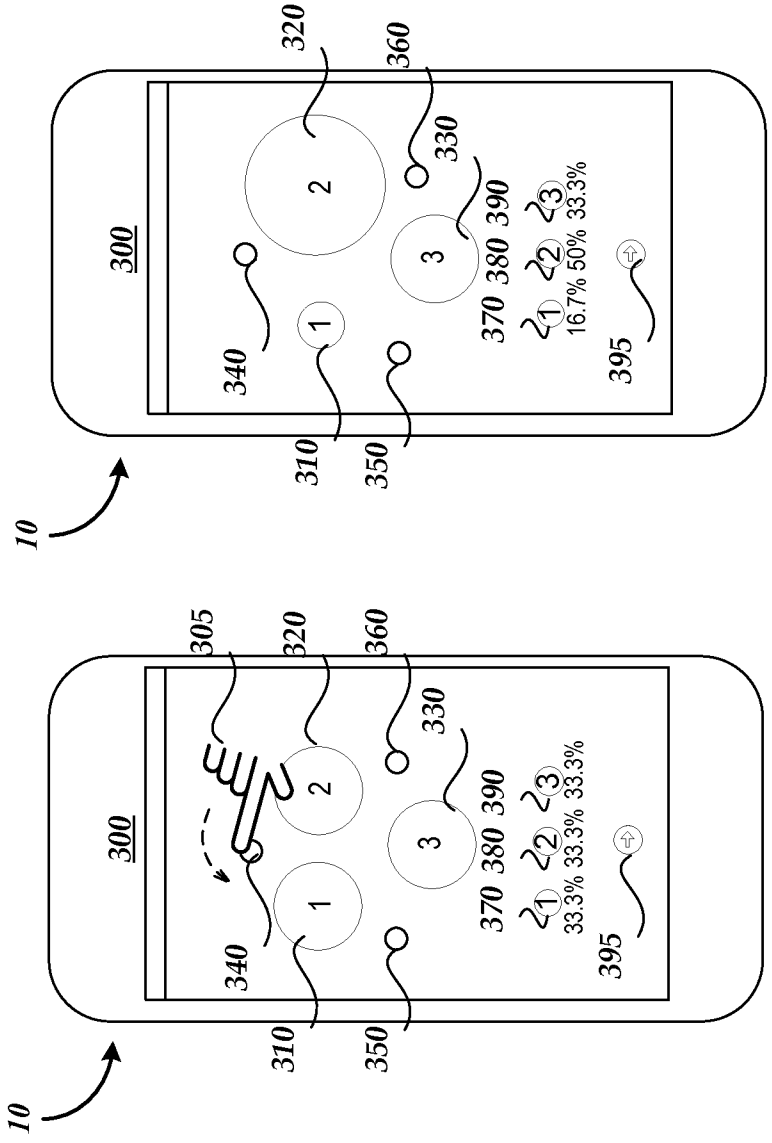
10
300
305
320
360
330
340
310
350
370 380 390
16.7% 50% 33.3%
33.3% 33.3% 33.3%
395
1
2
3

FIG. 3A

FIG. 3B

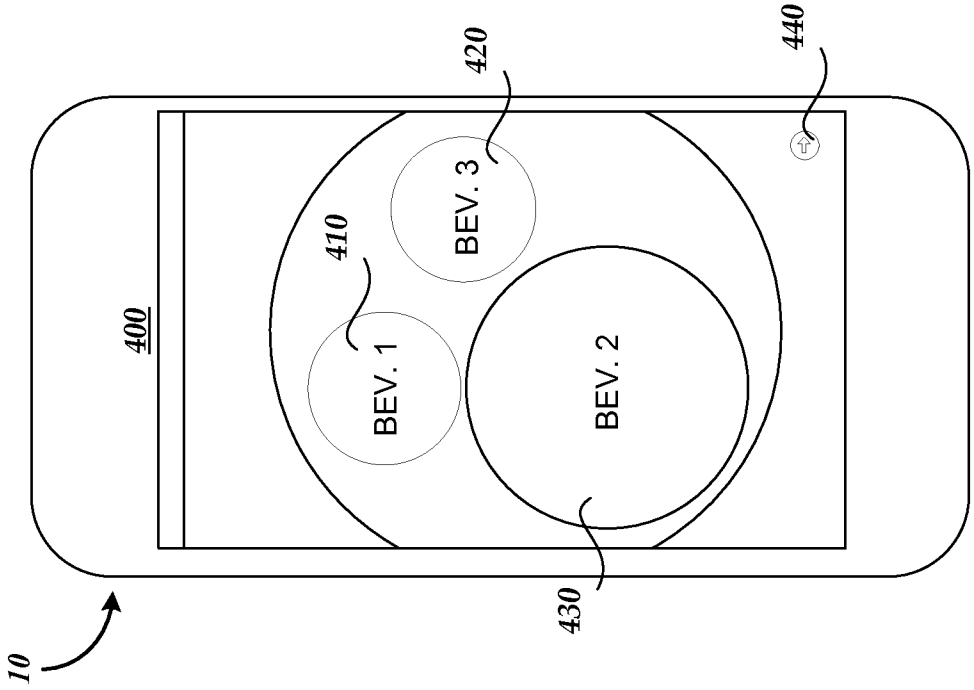
10
400
410
BEV. 1
BEV. 3
BEV. 2
420
430
440

FIG. 4B

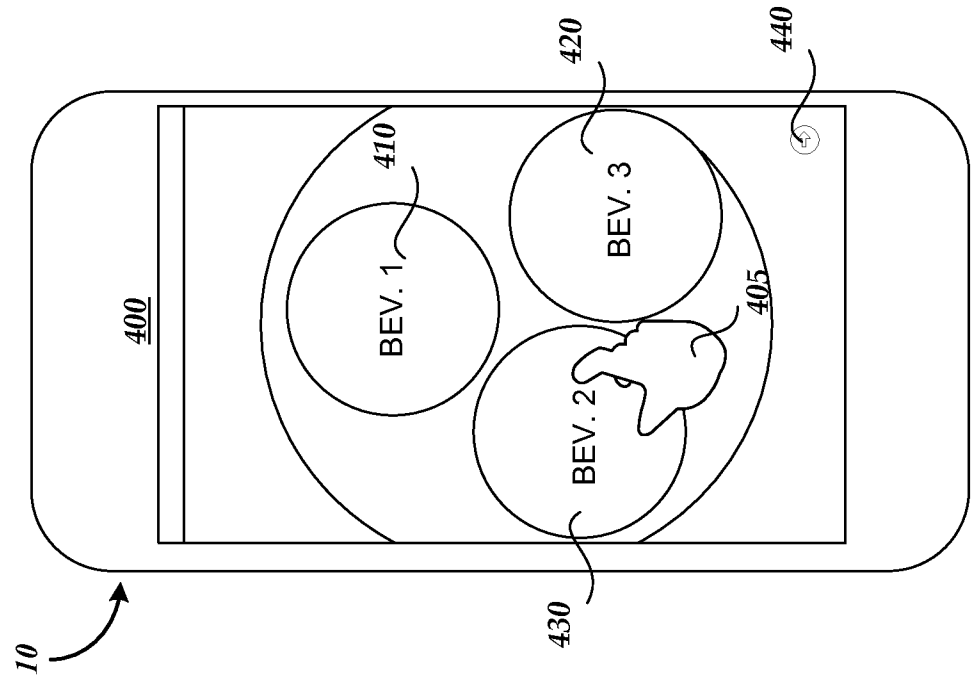
10
400
410
BEV. 1
BEV. 3
BEV. 2
405
420
430
440

FIG. 4A

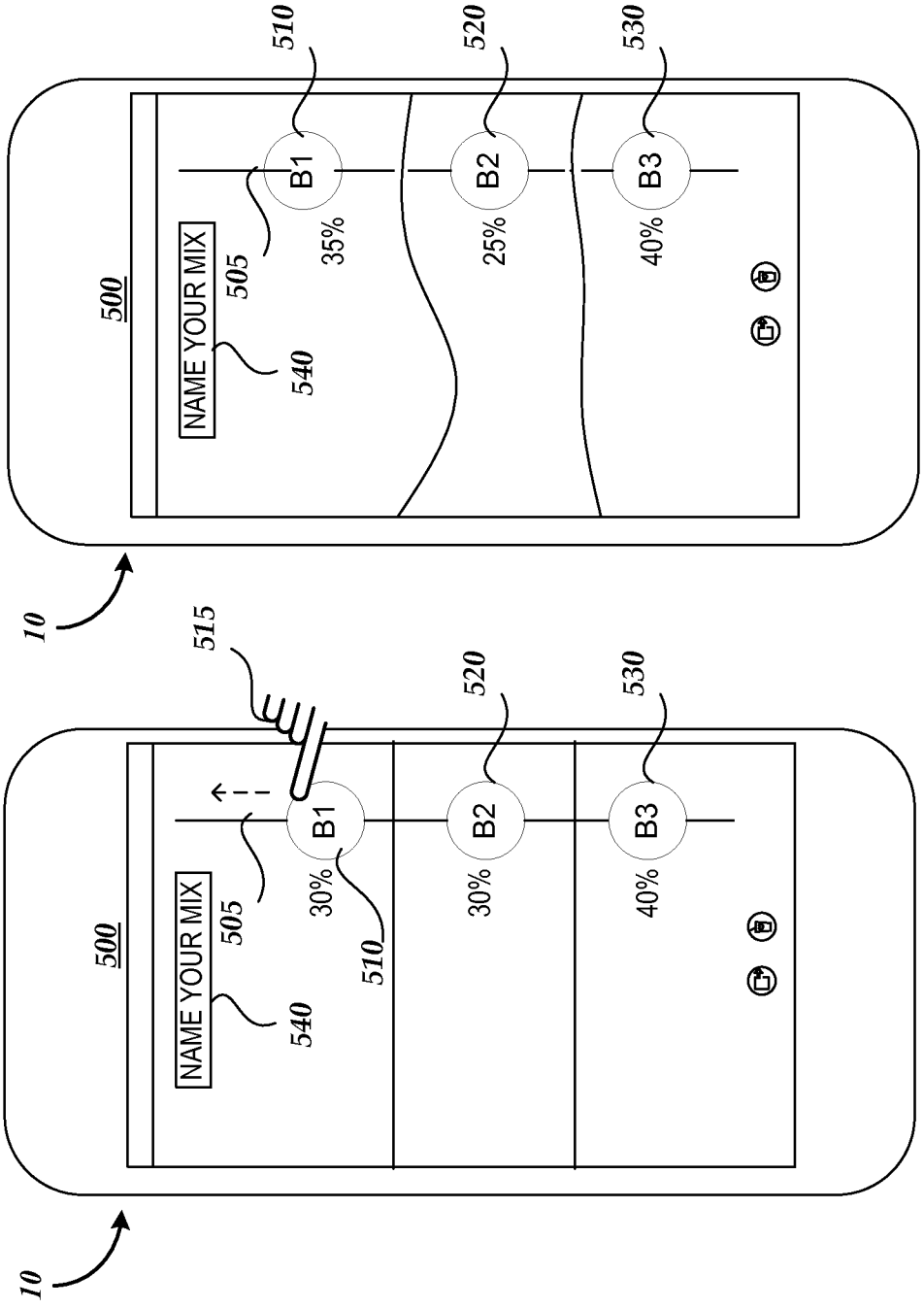
510
520
530
B1
B2
B3
35%
25%
40%
NAME YOUR MIX
505
540
500
10
515
30%
30%
40%
510

FIG. 5B

FIG. 5A

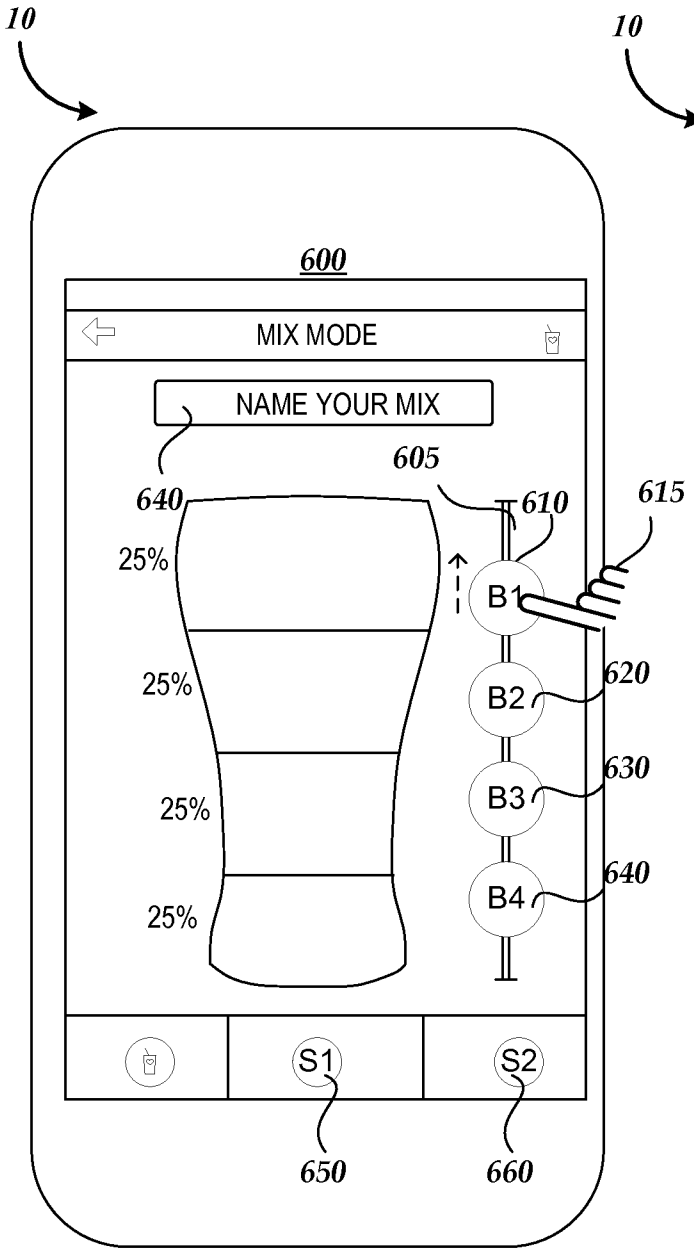
10
600
MIX MODE
NAME YOUR MIX
605
640
610
615
25%
B1
25%
620
B2
630
25%
B3
640
25%
B4
S1
S2
650
660

FIG. 6A

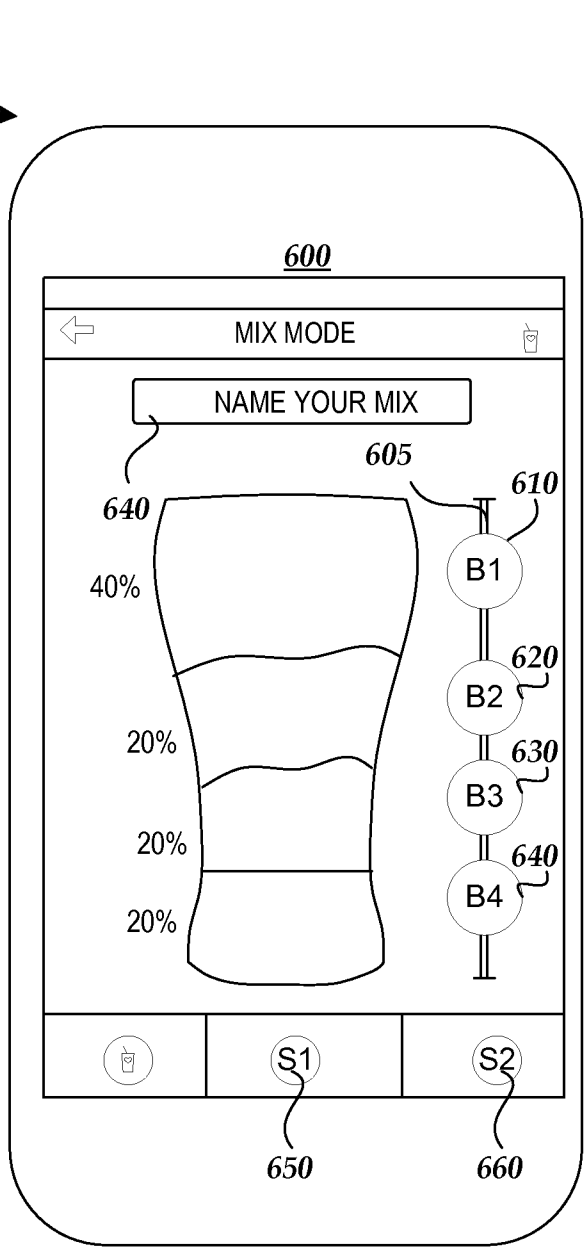
10
600
MIX MODE
NAME YOUR MIX
605
640
610
40%
B1
620
B2
20%
630
B3
20%
640
B4
20%
S1
S2
650
660

FIG. 6B

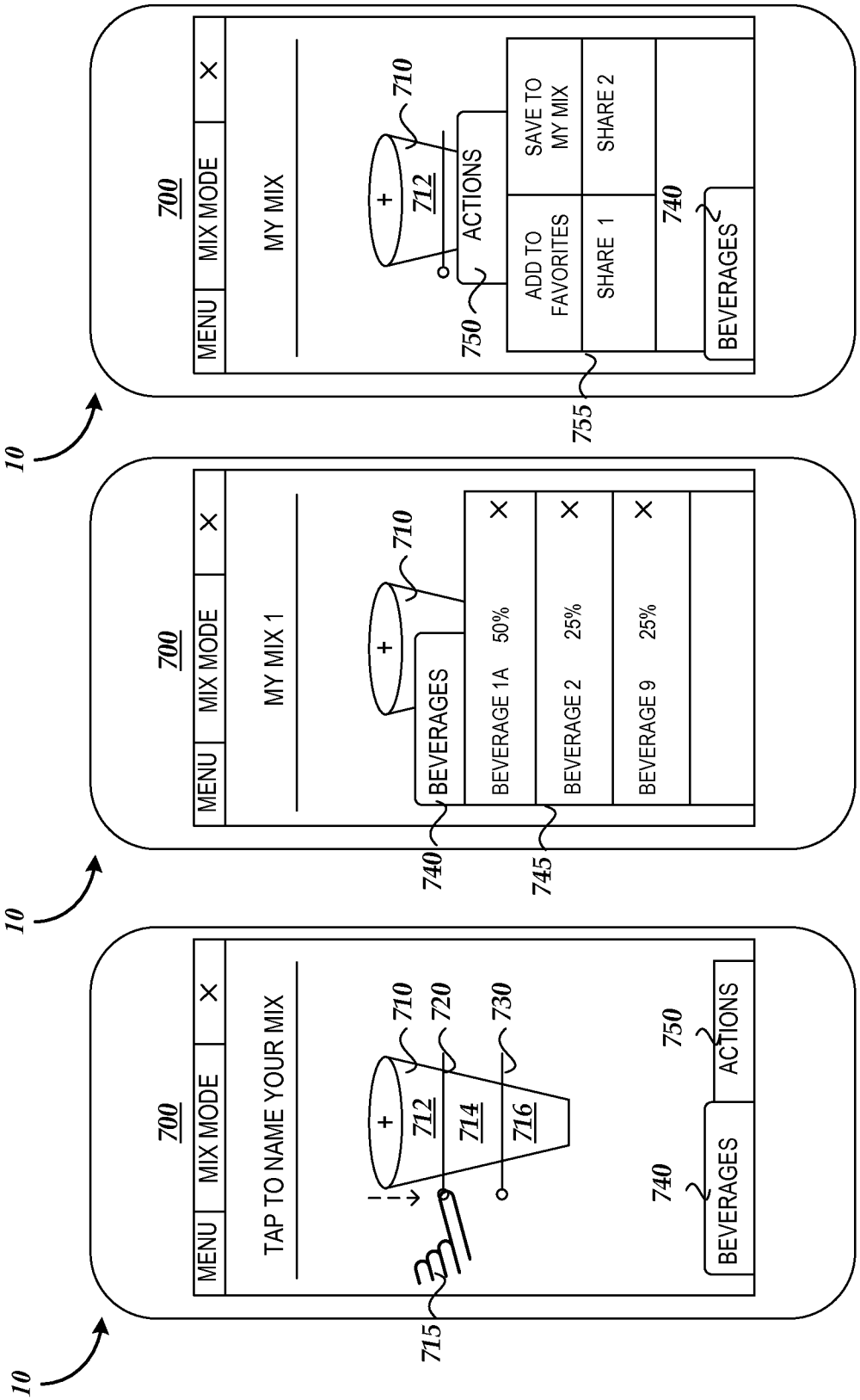

FIG. 7A

FIG. 7B

FIG. 7C

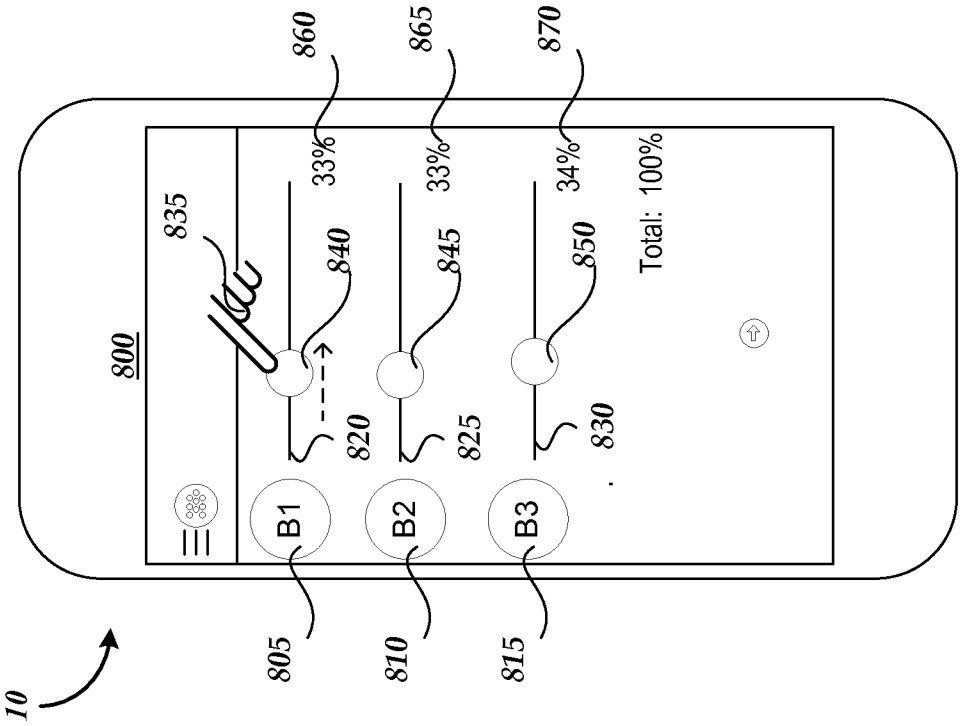
10
800
805
810
815
820
825
830
835
840
845
850
860
865
870
B1
B2
B3
33%
33%
34%
Total: 100%

FIG. 8

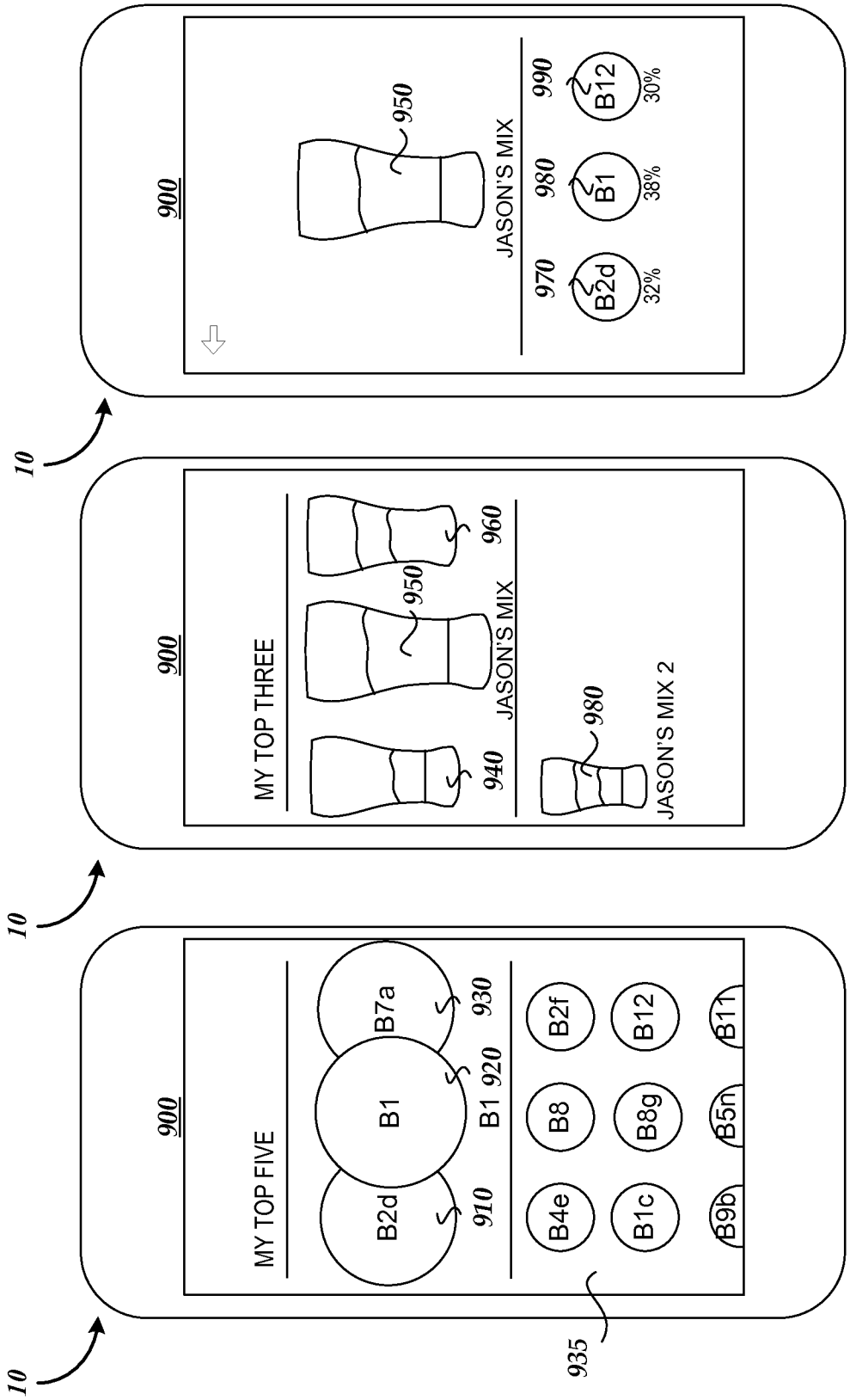

FIG. 9A

FIG. 9B

FIG. 9C

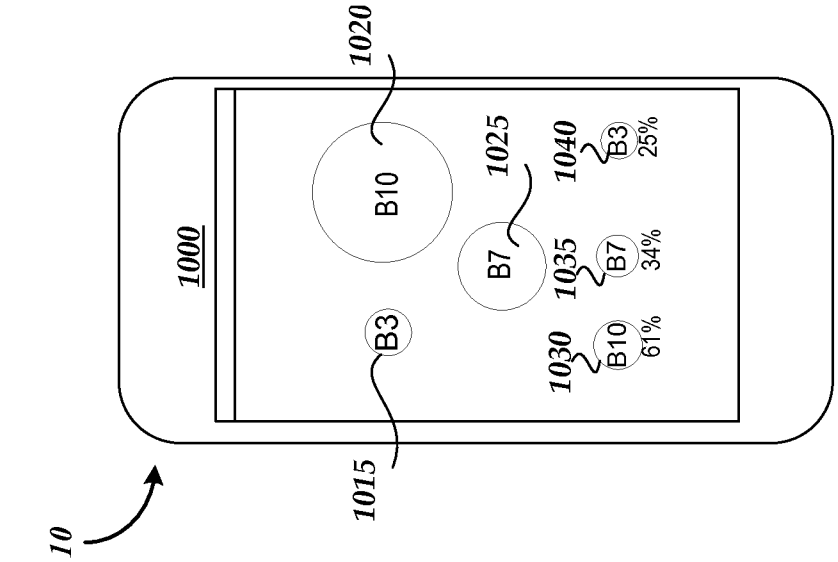

FIG. 10C

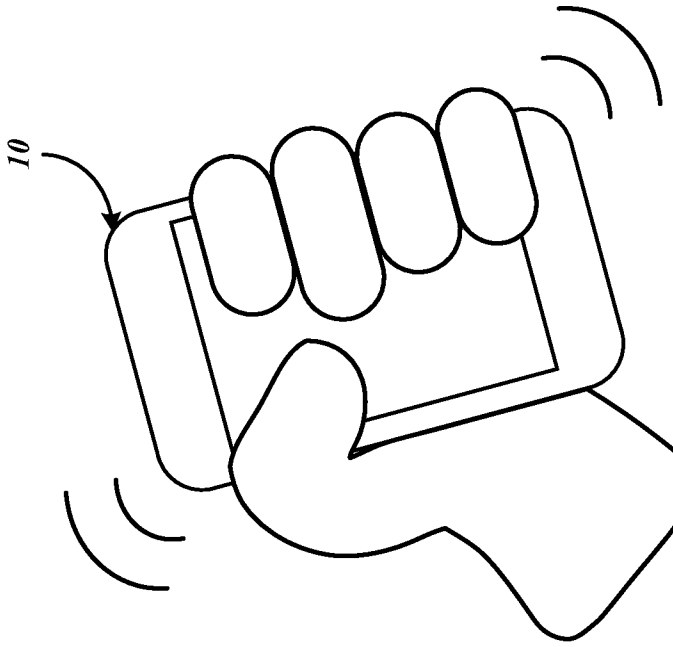

FIG. 10B

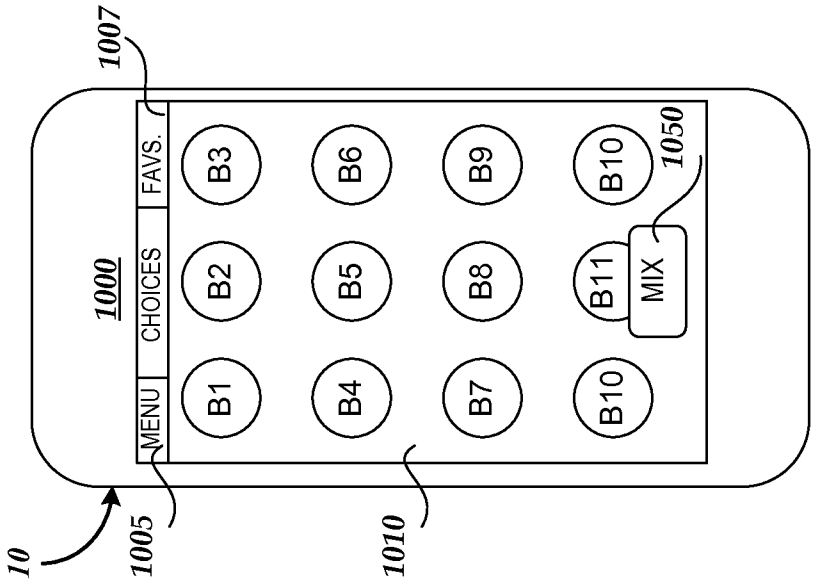

FIG. 10A

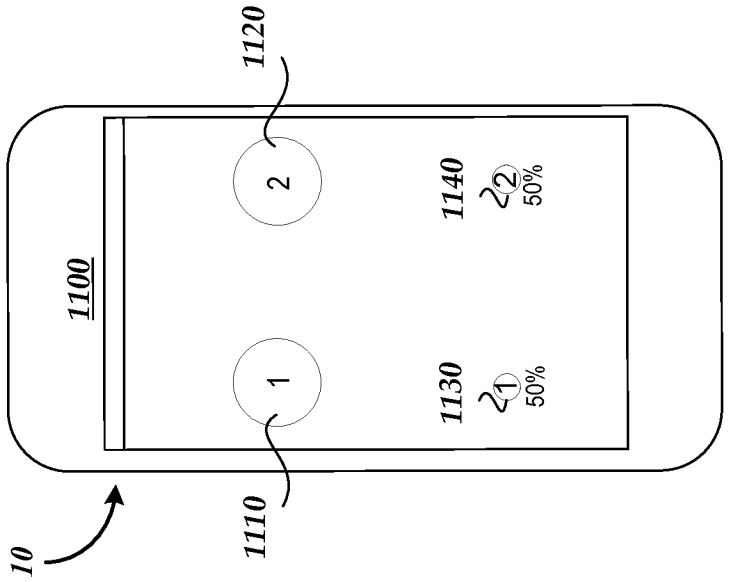

FIG. 11A

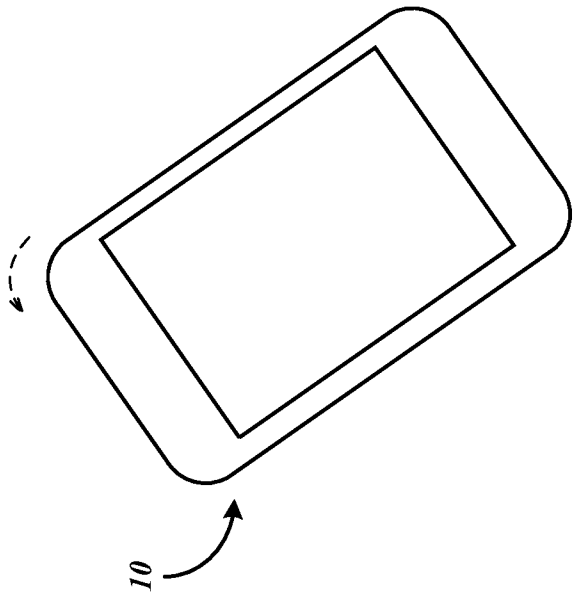

FIG. 11B

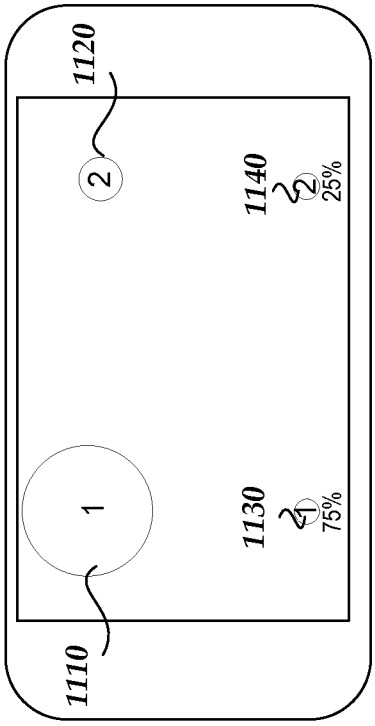

FIG. 11C

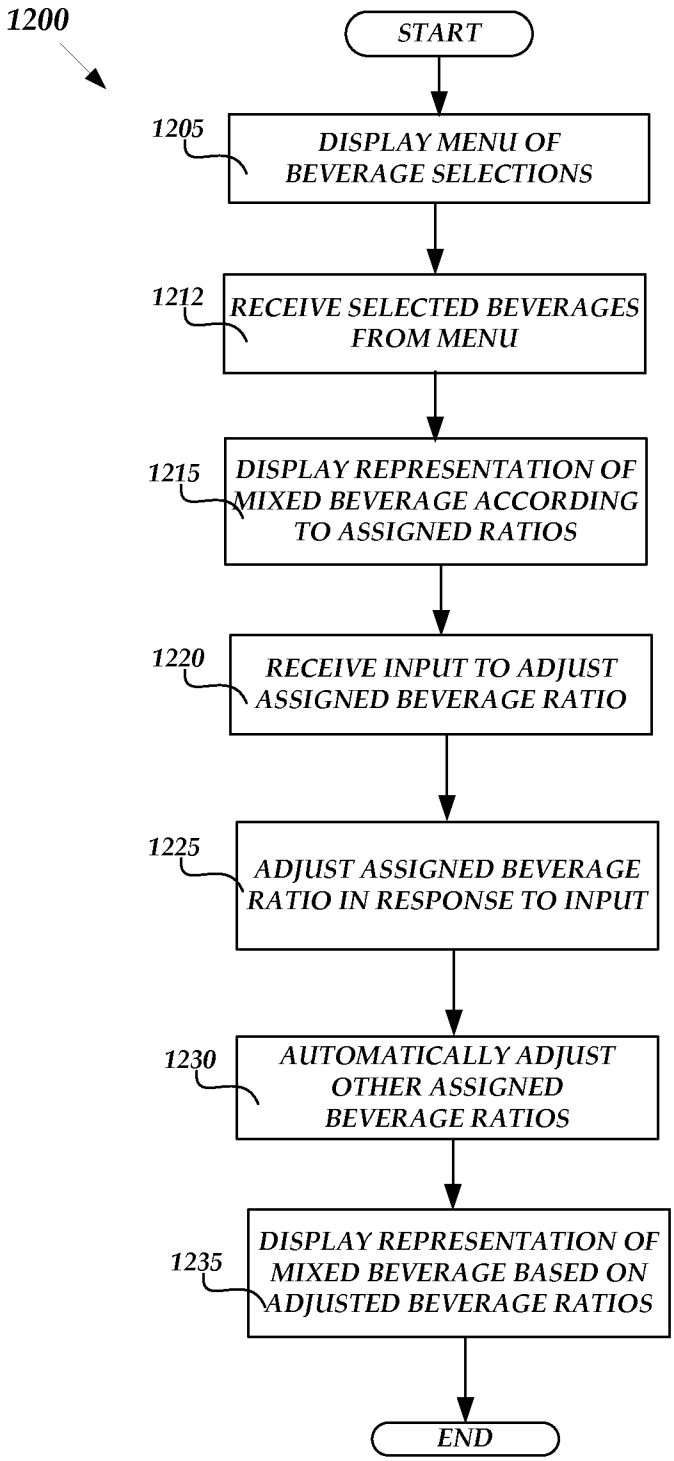
1200
START
1205
DISPLAY MENU OF BEVERAGE SELECTIONS
1212
RECEIVE SELECTED BEVERAGES FROM MENU
1215
DISPLAY REPRESENTATION OF MIXED BEVERAGE ACCORDING TO ASSIGNED RATIOS
1220
RECEIVE INPUT TO ADJUST ASSIGNED BEVERAGE RATIO
1225
ADJUST ASSIGNED BEVERAGE RATIO IN RESPONSE TO INPUT
1230
AUTOMATICALLY ADJUST OTHER ASSIGNED BEVERAGE RATIOS
1235
DISPLAY REPRESENTATION OF MIXED BEVERAGE BASED ON ADJUSTED BEVERAGE RATIOS
END

FIG. 12

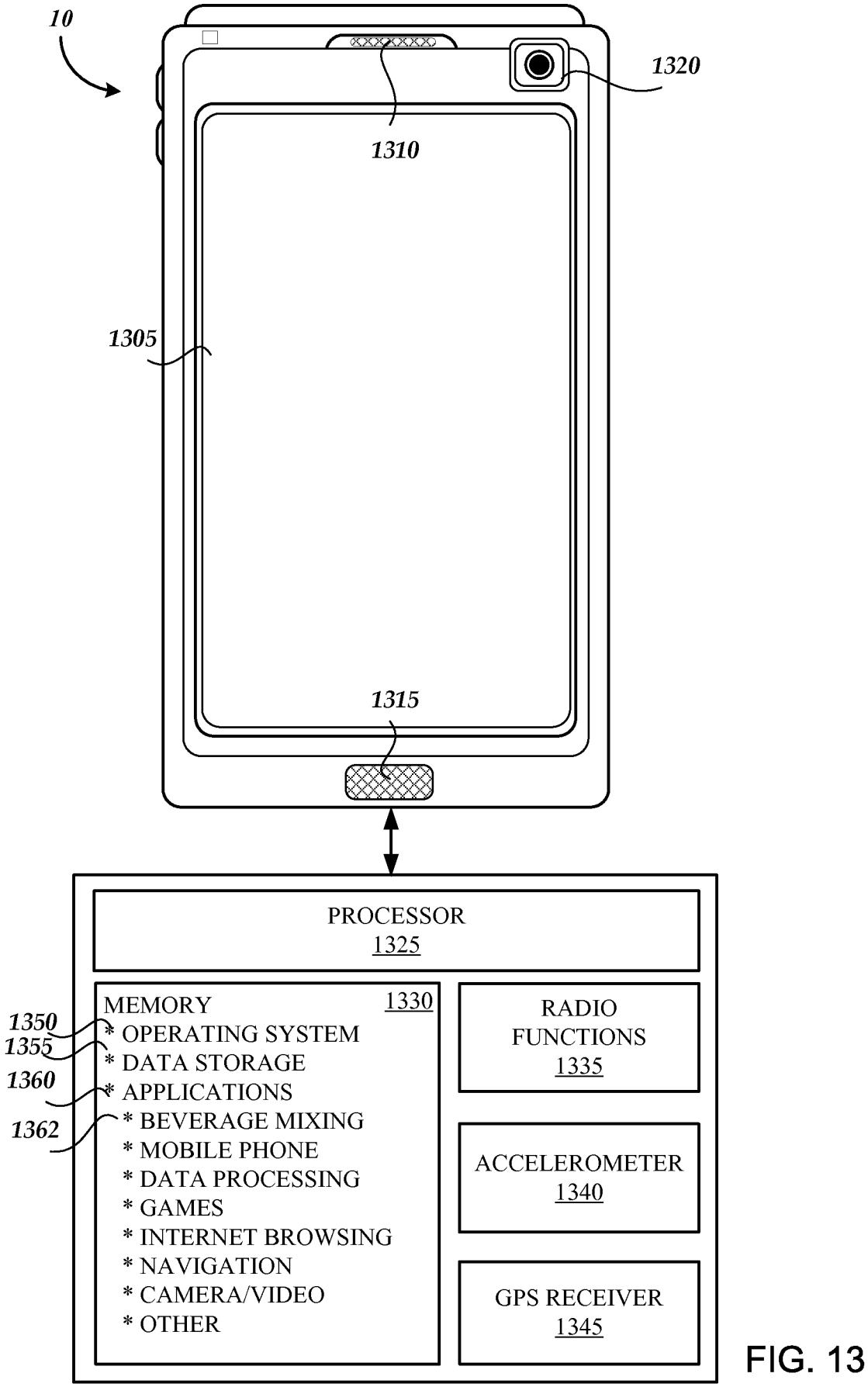
10
1320
1310
1305
1315
PROCESSOR
1325
MEMORY
1330
1350
* OPERATING SYSTEM
1355
* DATA STORAGE
1360
* APPLICATIONS
1362
* BEVERAGE MIXING
* MOBILE PHONE
* DATA PROCESSING
* GAMES
* INTERNET BROWSING
* NAVIGATION
* CAMERA/VIDEO
* OTHER
RADIO FUNCTIONS
1335
ACCELEROMETER
1340
GPS RECEIVER
1345

FIG. 13

INTERNATIONAL SEARCH REPORT

International application No
PCT/US2014/05Q196

A. CLASSIFICATION OF SUBJECT MATTER
INV. G06F3/Q488 G07F13/06 GO6F3/0484
ADD.

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
G06F G07F

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
EPO-Internal , WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 2011/072938 Al (IBM [US] ; SI EB CHRISTOPH [DE] ; DAUM SIMONE [DE] ; ABRAHAM STEFAN [DE] ;) 23 June 2011 (2011-06-23)	1 ,2, 6-14, 18-26, 30-35
Y	page 14, l ine 10 - page 17, l i ne 7	3-5, 15-17 , 27-29

-/ - -

[X] Further documents are listed in the continuation of Box C.

[X] See patent family annex.

* Special categories of cited documents :

"A" document defining the general state of the art which is not considered to be of particular relevance

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"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&" document member of the same patent family

Date of the actual completion of the international search	Date of mailing of the international search report
6 November 2014	02/12/2014

Name and mailing address of the ISA/	Authorized officer
European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Fax: (+31-70) 340-3016	Anti col i , Cl aud

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Form PCT/ISA/210 (second sheet) (April 2005)

INTERNATIONAL SEARCH REPORT

International application No
PCT/US2014/05Q196

C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	Anonymous : "Wel come ¦ Top Shel f - The i Phone Cocktai l Reference" , , 28 July 2013 (2013-07-28) , XP055151157, Retri eved from the Internet: URL: https ://web.archi ve.org/web/2013072812 2501/http ://www. dri nksapp . com/ [retri eved on 2014-11-05]	1,2, 6-14, 18-26, 30-35
Y	the whole document	3-5, 15-17 , 27-29

Y	US 2012/110517 Al (SPARKS ROBERT W [US] ET AL) 3 May 2012 (2012-05-03) paragraph [0001] - paragraph [0007]	3-5, 15-17 , 27-29

A	MX 2010 002 290 A (COCA COLA CO [US]) 1 Apri l 2010 (2010-04-01) page 1, l i ne 1 - page 5, l ine 15	1-35

1

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No
PCT/US2014/05Q196

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
WO 2011072938 Al	23-06-2011	TW 201142692 A	01-12-2011
		WO 2011072938 Al	23-06-2011
US 2012110517 Al	03-05-2012	CN 102609176 A	25-07-2012
		EP 2447823 A2	02-05-2012
		KR 20120046059 A	09-05-2012
		TW 201229874 A	16-07-2012
		US 2012110517 Al	03-05-2012
MX 2010002290 A	01-04-2010	AU 2008296471 Al	12-03-2009
		AU 2014202685 Al	12-06-2014
		CN 101855657 A	06-10-2010
		CN 103462499 A	25-12-2013
		CN 103473856 A	25-12-2013
		EP 2198409 Al	23-06-2010
		EP 2535879 Al	19-12-2012
		EP 2562728 Al	27-02-2013
		JP 2010537909 A	09-12-2010
		PsU 2010110467 A	20-10-2011
		US 2009069932 Al	12-03-2009
		US 2012223096 Al	06-09-2012
		US 2013240559 Al	19-09-2013
		WO 2009032686 Al	12-03-2009