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(54) **SPLIT-SCREEN DISPLAY METHOD AND ELECTRONIC DEVICE**

(57) This application provides a split-screen display method and an electronic device. By performing the method, the electronic device such as a mobile phone and a tablet computer may display N user interfaces in an N-split-screen manner. In an N-split-screen display scenario, the electronic device may display, on a background interface, a split-screen card corresponding to the N-split-screen scenario. A user may select the split-screen card and another application card in the back-

ground interface, and in the N-split-screen scenario, continue to add a new user interface that requires split-screen display. The user may also create new screen splitting tasks of different styles and different content for a user interface that is displayed in the background interface and already participates in screen splitting and/or a user interface that is in the background interface and does not participate in screen splitting.

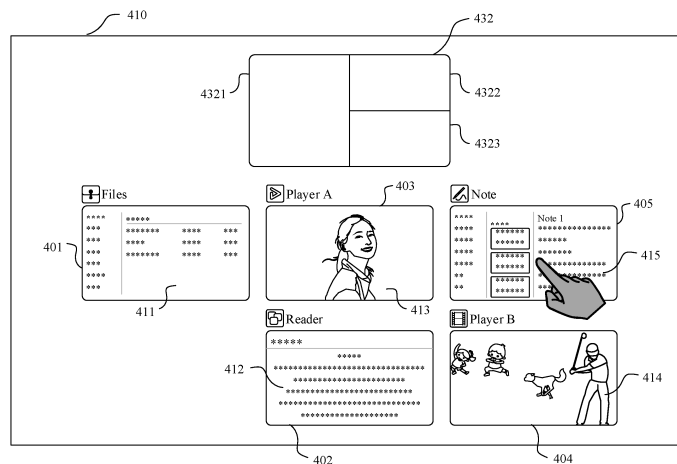


FIG. 4G

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## Description

**[0001]** This application claims priorities to Chinese Patent Application No. 202410245257.7, filed with the China National Intellectual Property Administration on February 29, 2024 and entitled "SPLIT-SCREEN DISPLAY METHOD AND ELECTRONIC DEVICE", and Chinese Patent Application No. 202410309569.X, filed with the China National Intellectual Property Administration on March 18, 2024 and entitled "SPLIT-SCREEN DISPLAY METHOD AND ELECTRONIC DEVICE", which are incorporated herein by reference in their entireties.

## TECHNICAL FIELD

**[0002]** This application relates to the field of terminals, and in particular, to a split-screen display method and an electronic device.

## BACKGROUND

**[0003]** Currently, a user can only open one user interface at a time to perform split-screen display with a currently displayed user interface, and cannot open a plurality of user interfaces at a time to perform split-screen display operations such as 3-screen splitting and 4-screen splitting, which cannot meet a personalized split-screen requirement of the user. In addition, before entering split-screen display, the user cannot preview a split-screen effect, and cannot preview and adjust a split-screen layout. As a result, a final split-screen effect does not meet an actual requirement of the user, which brings inconvenience to the user.

## SUMMARY

**[0004]** This application provides a split-screen display method and an electronic device.

**[0005]** According to a first aspect, this application provides a split-screen display method, where the method may be applied to an electronic device such as a mobile phone and a tablet computer, and the method includes: displaying N user interfaces in a split-screen manner; detecting a first user operation and displaying a background interface, where the background interface includes a first application card and a first split-screen card, the first application card corresponds to a first user interface, and the first split-screen card corresponds to the N user interfaces; and the first user interface is a user interface provided by a first application; and detecting user operations on the first application card and the first split-screen card, and displaying the N user interfaces and the first user interface in a split-screen manner.

**[0006]** By implementing the method provided in the first aspect, in an N-split-screen scenario, the electronic device may display, on a background interface, a split-

screen card corresponding to the N-split-screen scenario. A user may select the split-screen card and another application card in the background interface, and in the N-split-screen scenario, continue to add a new user interface that requires split-screen display. It is unnecessary to re-select all user interfaces in the N-split-screen scenario, which helps reduce user operations and improve convenience.

**[0007]** In some embodiments, after the displaying a background interface, the method further includes: displaying a plurality of split-screen style controls, where one split-screen style control corresponds to one split-screen style, and a split-screen style includes a quantity of user interfaces for screen splitting and an arrangement layout of the user interfaces; and detecting a user operation on a first split-screen style control in the plurality of split-screen style controls, where a quantity of user interfaces for screen splitting in a split-screen style corresponding to the first split-screen style control is N+1; and the detecting user operations on the first application card and the first split-screen card, and displaying the N user interfaces and the first user interface in a split-screen manner specifically includes: detecting user operations on the first application card and the first split-screen card, and that a total quantity of user interfaces corresponding to the first application card and the first split-screen card reaches N+1, and displaying the N user interfaces and the first user interface in a split-screen manner.

**[0008]** The user may control, by using the split-screen style control, a layout of a plurality of user interfaces displayed by the electronic device in a split-screen manner, so that a final split-screen display effect meets a usage habit of the user, and experience of the user browsing the plurality of user interfaces in a split-screen manner is improved.

**[0009]** In some embodiments, before the displaying a plurality of split-screen style controls, the method further includes: detecting a second user operation, where the second user operation is used to trigger displaying of a split-screen style control.

**[0010]** In this way, in a scenario in which no screen splitting is required, the electronic device does not display the split-screen style control, thereby avoiding occupying the display region of the background interface. The electronic device may display more application cards or other elements in the background interface.

**[0011]** In some embodiments, the second user operation is specifically a slide-downward operation, and a start point of the slide-downward operation is below a screen upper edge of the electronic device. A slide-downward operation whose start point is below the screen upper edge of the electronic device may further be different from a current slide-downward operation downward from the screen upper edge (the slide-downward operation downward from the screen upper edge is usually used to control display of a drop-down notification interface or a control center interface), to avoid a

conflict.

**[0012]** In some embodiments, the background interface includes at least one application card, the at least one application card includes the first application card, and the second user operation is specifically: a long

**[0013]** In some embodiments, after the detecting a user operation on a first split-screen style control in the plurality of split-screen style controls, the method further includes: displaying the first preview control, where the first preview control includes the N+1 windows; the detecting user operations on the first application card and the first split-screen card includes: detecting a third user operation on the first split-screen card, and detecting a fourth user operation on the first application card; after the detecting a third user operation on the first split-screen card, the method further includes: respectively displaying, in N windows of the first preview control, the N user interfaces corresponding to the first split-screen card; and after the detecting a fourth user operation on the first application card, the method further includes: displaying, in a first window of the first preview control, the first user interface corresponding to the first application card, where the first window is a window other than the N windows in the N+1 windows.

**[0014]** The displaying, in the window of the preview control, the user interface corresponding to the card specifically includes: displaying, in the window of the preview control, a thumbnail of the user interface corresponding to the card or a partial screenshot of the thumbnail.

**[0015]** The user may preview, by using the preview control and content displayed in the preview control according to a user operation, a screen splitting effect, so as to adjust a split-screen layout in a timely manner, so that a final split-screen display effect meets a usage habit of the user, and experience of the user browsing the plurality of user interfaces in a split-screen manner is improved.

**[0016]** In some embodiments, the background interface further includes a second application card, and after the detecting a third user operation on the first split-screen card, and before the detecting a fourth user operation on the first application card, the method further includes: detecting a fifth user operation on the second application card, and displaying, in the first window of the first preview control, the second user interface corresponding to the second application card, where the second user interface is different from the first user interface; and detecting a sixth user operation on a first edit control, and stopping displaying the second user interface in the first window.

**[0017]** After the user selects a user interface, the electronic device may display a first edit control, for example, an undo control. The user may undo the user interface selected in the previous step by using the

undo control, so that the user adjusts the user interface at any time.

**[0018]** In some embodiments, the displaying the N user interfaces and the first user interface in a split-screen manner specifically includes: displaying the N user interfaces and the first user interface in a split-screen manner after a user operation on the first preview control is detected.

**[0019]** In this way, after a quantity of user interfaces selected by the user reaches a quantity of user interfaces indicated by the split-screen style control, the user may have enough time to determine whether the split-screen display effect indicated by the preview control meets the usage habit, so as to avoid invalid screen splitting.

**[0020]** In some embodiments, the N+1 windows include at least one vertical window, the N user interfaces corresponding to the first split-screen card and a first-type interface in the first user interface preferentially occupy the vertical window for display, and the first-type interface is a user interface commonly used for portrait display. In some embodiments, the first-type interface includes one or more of the following: a short video playback interface, a document browsing interface, and an information transceiving interface.

**[0021]** In this way, after the user selects the first-type interface, the electronic device may automatically match the first-type interface with a vertical window, and display the first-type interface by using the vertical window, so as to improve screen utilization, improve the split-screen display effect, and better meet a screen splitting requirement of the user.

**[0022]** In some embodiments, after the detecting a third user operation on the first split-screen card, the method further includes: marking the first split-screen card to indicate that the N user interfaces corresponding to the first split-screen card are selected; and after the detecting a fourth user operation on the first application card, the method further includes: marking the first application card to indicate that the first user interface corresponding to the first application card is selected. In some embodiments, the marking specifically includes: covering with a shadow.

**[0023]** In this way, the user can intuitively determine which cards are selected in the background interface and which unselected cards can be selected.

**[0024]** In some embodiments, the N user interfaces include a third user interface provided by the first application, and the third user interface is different from the first user interface.

**[0025]** That is, one application may provide a plurality of user interfaces, for example, a reader may provide one browsing interface for one document. The electronic device may display, on the background interface, different application cards corresponding to a same application, where one application card corresponds to one application interface provided by the application. The user can select a plurality of user interfaces of one

application. The electronic device may display a plurality of user interfaces of one application in a split-screen manner.

**[0026]** In some embodiments, the N user interfaces correspond to N applications, the N applications are different from each other, and the N applications do not include the first application.

**[0027]** According to a second aspect, this application provides a split-screen display method, where the method is applied to an electronic device, and the method includes: displaying N user interfaces in a split-screen manner; detecting a first user operation and displaying a background interface, where the background interface includes a third application card and a fourth application card, the third application card corresponds to a third user interface, the fourth application card corresponds to a fourth user interface, and the third user interface is a user interface in the N user interfaces; and detecting user operations on the third application card and the fourth application card, and displaying the third user interface and the fourth user interface in a split-screen manner.

**[0028]** By implementing the method provided in the second aspect, in a split-screen scenario, after the background interface is re-entered, a user may create new screen splitting tasks of different styles and different content for a user interface that already participates in screen splitting and/or a user interface that does not participate in screen splitting.

**[0029]** In some embodiments, the background interface further includes a first split-screen card, the first split-screen card corresponds to the N user interfaces, and after the displaying the third user interface and the fourth user interface in a split-screen manner, the method further includes: detecting the first user operation, and displaying the background interface again, where the background interface includes the first split-screen card and a second split-screen card, and the second split-screen card corresponds to the third user interface and the fourth user interface; and after a user operation on the first split-screen card is detected, displaying the N user interfaces in a split-screen manner.

**[0030]** In some embodiments, the method further includes: after a user operation on the second split-screen card is detected, continuing to display the third user interface and the fourth user interface in a split-screen manner.

**[0031]** In a scenario in which two or more screen splitting tasks are created, the background interface may display a split-screen card corresponding to each screen splitting task. The user may quickly enter a corresponding split-screen display scenario by using a user operation, such as a tap operation, that acts on any split-screen card.

**[0032]** In some embodiments, the N user interfaces do not include the fourth user interface. That is, in the split-screen scenario, after the background interface is re-entered, the user may create new screen splitting

tasks of different styles and different content for a user interface that already participates in screen splitting and a user interface that does not participate in screen splitting.

**[0033]** In some embodiments, the fourth user interface is a user interface in the N user interfaces, and the third user interface is different from the fourth user interface. That is, in the split-screen scenario, after the background interface is re-entered, the user may create new screen splitting tasks of different styles and different content for two or more user interfaces that already participate in screen splitting.

**[0034]** In some embodiments, the third user interface and the fourth user interface are provided by one application. For example, the third user interface and the fourth user interface may be two document browsing interfaces that may be provided by a reader application.

**[0035]** In some embodiments, the third user interface and the fourth user interface are provided by two different applications. For example, the third user interface may be a video playback page provided by a player application, and the fourth user interface may be a file management interface provided by a file management application.

**[0036]** In some embodiments, after the displaying a background interface, the method further includes: displaying a plurality of split-screen style controls, where one split-screen style control corresponds to one split-screen style, and a split-screen style includes a quantity of user interfaces for screen splitting and an arrangement layout of the user interfaces; and detecting a user operation on a second split-screen style control in the plurality of split-screen style controls, where a quantity of user interfaces for screen splitting in a split-screen style corresponding to the second split-screen style control is 2; and the detecting user operations on the third application card and the fourth application card, and displaying the third user interface and the fourth user interface in a split-screen manner specifically includes: detecting user operations on the third application card and the fourth application card, and that a total quantity of user interfaces corresponding to the third application card and the fourth application card reaches 2, and displaying the third user interface and the fourth user interface in a split-screen manner.

**[0037]** In some embodiments, before the displaying a plurality of split-screen style controls, the method further includes: detecting a second user operation, where the second user operation is used to trigger displaying of a split-screen style control.

**[0038]** In some embodiments, the second user operation is specifically a slide-downward operation, and a start point of the slide-downward operation is below a screen upper edge of the electronic device.

**[0039]** In some embodiments, the background interface includes at least one application card, the at least one application card includes the third application card and the fourth application card, and the second user

operation is specifically: a long press operation acting on any one of the at least one application card.

[0040] In some embodiments, after the detecting a user operation on a second split-screen style control in the plurality of split-screen style controls, the method further includes: displaying the second preview control, where the second preview control includes two windows; the detecting user operations on the third application card and the fourth application card includes: detecting a seventh user operation on the third application card, and detecting an eighth user operation on the fourth application card; after the detecting a seventh user operation on the third application card, the method further includes: displaying, in one of the two windows, the third user interface corresponding to the third application card; and after the detecting an eighth user operation on the fourth application card, the method further includes: displaying, in the other one of the two windows, the fourth user interface corresponding to the fourth application card.

[0041] The displaying, in the window of the preview control, the user interface corresponding to the card specifically includes: displaying, in the window of the preview control, a thumbnail of the user interface corresponding to the card or a partial screenshot of the thumbnail.

[0042] In some embodiments, the displaying the third user interface and the fourth user interface in a split-screen manner specifically includes: displaying the third user interface and the fourth user interface in a split-screen manner after a user operation on the second preview control is detected.

[0043] In some embodiments, the two windows include at least one vertical window, a first-type interface in the third user interface and the fourth user interface preferentially occupies the vertical window for display, and the first-type interface is a user interface commonly used for portrait display. In some embodiments, the first-type interface includes one or more of the following: a short video playback interface, a document browsing interface, and an information transceiving interface.

[0044] In some embodiments, after the detecting a seventh user operation on the third application card, the method further includes: marking the third application card to indicate that the third user interface corresponding to the third application card is selected; and after the detecting an eighth user operation on the fourth application card, the method further includes: marking the fourth application card to indicate that the fourth user interface corresponding to the fourth application card is selected. In some embodiments, the marking specifically includes: covering with a shadow.

[0045] It may be understood that the second aspect provides some embodiments corresponding to some embodiments of the first aspect. Therefore, for beneficial effects that can be achieved by the second aspect, references may be made to beneficial effects of corre-

sponding embodiments in the method of the first aspect, and details are not described herein again.

[0046] According to a third aspect, this application provides a split-screen display method. The method is applied to an electronic device such as a mobile phone or a tablet computer. The method includes: when a first interface of a fifth application is displayed, detecting a first operation on a first control; displaying a second interface and a first card in response to the first operation, where a plurality of icons are displayed on the second interface, one icon corresponds to one application, and the first card includes a first icon corresponding to the fifth application; detecting a second operation on N icons in the plurality of icons, and updating the first card, where the updated first card includes the first icon and the N icons, and  $N \geq 1$ ; and detecting a third operation on the updated first card, and displaying M user interfaces in a split-screen manner, where the M user interfaces are provided by applications corresponding to the N icons and the fifth application, and  $M \geq N+1$ .

[0047] By implementing the method provided in the third aspect, the electronic device may display a preset interface (second interface) that includes a plurality of application program icons and a split-screen card (first card) after detecting a preset operation (first operation). Then, the electronic device may determine, according to a user operation acting on one or more application program icons, target applications that participate in screen splitting, further split a display screen according to a quantity of the target applications, and display user interfaces of the target applications on the split screens. In this way, the user may open a plurality of applications at a time, and browse user interfaces of the plurality of applications in a split-screen manner, to meet a more complex split-screen requirement of the user.

[0048] In some embodiments, the detecting a second operation on N icons in the plurality of icons, and updating the first card, where the updated first card includes the first icon and the N icons specifically includes: detecting an operation on a second icon in the plurality of icons, and updating the first card, where the updated first card includes the first icon and the second icon; and detecting an operation on a third icon in the plurality of icons, and continuing to update the first card, where the updated first card includes the first icon, the second icon, and the third icon.

[0049] By implementing the method, each time one target application is determined, the electronic device may add an icon of the application to the split-screen card, so as to indicate that the user has selected the application, for the user to determine the selected target application at any time.

[0050] In some embodiments, the method further includes: detecting an operation on the third icon again, and continuing to update the first card; and the updated first card includes two third icons, or the updated first

card further includes first indication information, and the first indication information is used to indicate that a user has selected the third icon twice.

**[0051]** In this case, the M user interfaces include two user interfaces provided by an application corresponding to the third icon.

**[0052]** By implementing the method, the user may select one application a plurality of times. The electronic device may display a plurality of user interfaces of one application in a split-screen manner according to a plurality of selection operations of the user, so as to meet a multi-opening requirement of the user for some applications.

**[0053]** In some embodiments, the applications corresponding to the third icon include: a browser, a reader, and an instant messaging application. The user often has a multi-opening requirement for these applications.

**[0054]** In some embodiments, the detecting an operation on a second icon in the plurality of icons specifically includes: detecting an operation of dragging the first card to the second icon by the user; and the detecting an operation on a third icon in the plurality of icons specifically includes: detecting an operation of continuing to drag the updated first card to the third icon by the user.

**[0055]** By implementing the method, the user may perform an operation of dragging a split-screen card to any application program icon, to indicate the electronic device to select an application program corresponding to the icon as a target application that participates in screen splitting, and quickly select a plurality of target applications by using a continuous drag operation passing through a plurality of icons.

**[0056]** In some embodiments, the detecting a third operation on the updated first card specifically includes: detecting an operation of lifting a finger to release the updated first card. Screen splitting is triggered by using an operation of lifting a finger to release, which helps reduce user operations. The user does not need to perform any touch operation on the split-screen card.

**[0057]** In some embodiments, when a user touch point is within the second icon, the electronic device determines that the user drags the first card to the second icon.

**[0058]** In some embodiments, when the user drags the first card, a display position of the first card in a screen varies with the user touch point, and the user touch point is in a corner region of the first card. That is, the electronic device always keeps the corner edge of the split-screen card on the user touch point, which helps reduce shielding of an application program icon by the split-screen card in a drag process.

**[0059]** In some embodiments, the detecting an operation on a second icon in the plurality of icons specifically includes: detecting a first touch operation acting on the second icon; and the detecting an operation on a third icon in the plurality of icons specifically includes: detecting a first touch operation acting on the third icon.

**[0060]** By implementing the method, the user does not need to drag a card, which helps avoid a false selection caused by shielding of the application program icon by the split-screen card in the drag process, and further avoids affecting screen splitting experience of the user.

**[0061]** In some embodiments, the detecting a third operation on the updated first card specifically includes: detecting a second touch operation on the updated first card.

**[0062]** The first touch operation is one of the following operations: a tap operation, a long press operation, and a slide operation. The second touch operation is one of the following operations: a tap operation, a long press operation, and a slide operation. The first touch operation and the second touch operation may be the same, for example, both are a tap operation. The first touch operation and the second touch operation may alternatively be different.

**[0063]** In some embodiments, before the displaying M user interfaces in a split-screen manner, the method further includes: displaying at least one M-split-screen style control; and detecting a fourth operation on a fifth split-screen style control in the at least one M-split-screen style control; and the displaying M user interfaces in a split-screen manner specifically includes: displaying the M user interfaces in a split-screen manner according to a layout corresponding to the fifth split-screen style.

**[0064]** In this way, the user can simply and quickly preview the screen splitting effect by using the split-screen style control, thereby improving screen splitting experience of the user.

**[0065]** In some embodiments, the method further includes: displaying M delete controls in a third interface, where the third interface includes the at least one M-split-screen style control, the M delete controls are in a one-to-one correspondence with the M user interfaces, and one delete control is used to delete one corresponding user interface.

**[0066]** In this way, the user can delete a corresponding target application by using the delete control, so as to more flexibly adjust an application that participates in screen splitting and a final screen splitting effect, thereby improving screen splitting experience of the user.

**[0067]** In some embodiments, applications corresponding to the N icons and the fifth application include a second target application, the second target application is commonly used for portrait display, the M user interfaces include a user interface provided by the second target application, and the M user interfaces displayed in a split-screen manner include a user interface provided by the second target application and displayed in a vertical rectangular region.

**[0068]** The second target application includes: a short video application, a reader, or an instant messaging application.

**[0069]** When allocating display regions in a split-

screen manner, the electronic device may preferentially allocate a vertical rectangular region to an application commonly used for portrait display, so as to increase an effective display region of the screen, and in addition, display of a user interface in each display region obtained after screen splitting is more consistent with a user habit, thereby improving screen splitting experience of the user.

**[0070]** In some embodiments, the first control is displayed on an upper edge of the screen, and the first operation on the first control specifically includes: dragging the first control to slide downward.

**[0071]** According to a fourth aspect, this application provides an electronic device. The electronic device includes one or more processors and one or more memories. The one or more memories are coupled to the one or more processors. The one or more memories are configured to store a computer program. When the one or more processors execute the computer program, the electronic device is enabled to perform the method described in any one of the first aspect and the possible implementations of the first aspect, or perform the method described in any one of the second aspect and the possible implementations of the second aspect, or perform the method described in any one of the third aspect and the possible implementations of the third aspect.

**[0072]** According to a fifth aspect, this application provides a computer-readable storage medium including a computer program. When the computer program is run on an electronic device, the electronic device performs the method described in any one of the first aspect and the possible implementations of the first aspect, or performs the method described in any one of the second aspect and the possible implementations of the second aspect, or performs the method described in any one of the third aspect and the possible implementations of the third aspect.

**[0073]** According to a sixth aspect, this application provides a computer program product including instructions. When the computer program product is run on an electronic device, the electronic device performs the method described in any one of the first aspect and the possible implementations of the first aspect, or performs the method described in any one of the second aspect and the possible implementations of the second aspect, or performs the method described in any one of the third aspect and the possible implementations of the third aspect.

**[0074]** It may be understood that the electronic device provided in the fourth aspect, the computer storage medium provided in the fifth aspect, and the computer program product provided in the sixth aspect are all configured to perform the method provided in this application. Therefore, for beneficial effects that can be achieved by the electronic device, the computer storage medium, and the computer program product, refer to the beneficial effects in the corresponding method.

Details are not described herein.

## BRIEF DESCRIPTION OF DRAWINGS

5 **[0075]**

FIG. 1A-FIG. 1C are a group of schematic diagrams for split-screen display according to an embodiment of this application;

10 FIG. 2A-FIG. 2E are a group of user interfaces enabling split-screen display according to an embodiment of this application;

FIG. 3A-FIG. 3D are another group of user interfaces enabling split-screen display according to an embodiment of this application;

15 FIG. 4A-FIG. 4M are a group of user interfaces enabling split-screen display according to an embodiment of this application;

FIG. 5A-FIG. 5C are a group of user interfaces for undoing a selection operation according to an embodiment of this application;

FIG. 6A-FIG. 6Q are a group of user interfaces for implementing a continue-screen-splitting operation according to an embodiment of this application;

25 FIG. 7A-FIG. 7B are other user interfaces for triggering display of a plurality of split-screen style controls according to an embodiment of this application;

FIG. 8A-FIG. 8B are other user interfaces for selecting a split-screen style control and an application card according to an embodiment of this application;

30 FIG. 9A-FIG. 9J are another group of user interfaces enabling split-screen display according to an embodiment of this application;

FIG. 10 is a schematic diagram of numbering windows of a preview control in a left-to-right sequence according to an embodiment of this application;

FIG. 11 is a schematic diagram of numbering windows of a preview control in a clockwise sequence according to an embodiment of this application;

35 FIG. 12A-FIG. 12J are a group of user interfaces for split-screen display according to an embodiment of this application;

FIG. 13A-FIG. 13D are a group of user interfaces for deleting a target application according to an embodiment of this application;

40 FIG. 14A-FIG. 14C are another group of user interfaces for deleting a target application according to an embodiment of this application;

FIG. 15A-FIG. 15K are another group of user interfaces for split-screen display according to an embodiment of this application;

45 FIG. 16A-FIG. 16D are a group of user interfaces for multi-opening for an application in a split-screen scenario according to an embodiment of this application;

FIG. 17 is another user interface for marking a multi-open application according to an embodiment of this application;

FIG. 18 is a schematic diagram of numbering display regions in different split-screen layouts in a left-to-right and top-to-bottom sequence according to an embodiment of this application;

FIG. 19 is a schematic diagram of numbering display regions in different split-screen layouts in a clockwise sequence according to an embodiment of this application; and

FIG. 20 is a schematic diagram of a structure of an electronic device 100 according to an embodiment of this application.

## DESCRIPTION OF EMBODIMENTS

[0076] Terms used in the following embodiments of this application are merely intended to describe specific embodiments, but not intended to limit this application.

[0077] An electronic device 100 includes a display screen, and supports split-screen display. Split-screen display means that the display screen is split into a plurality of display regions, and one display region is used to display one user interface provided by one application.

[0078] The electronic device 100 is, for example, a mobile phone or a tablet computer. In addition to a mobile phone or a tablet computer, the electronic device 100 may alternatively be a desktop computer, a laptop computer, a handheld computer, a notebook computer, an ultra-mobile personal computer (ultra-mobile personal computer, UMPC), a netbook, a cellular phone, a personal digital assistant (personal digital assistant, PDA), an augmented reality (augmented reality, AR) device, a virtual reality (virtual reality, VR) device, an artificial intelligence (artificial intelligence, AI) device, a wearable device, a vehicle-mounted device, a smart home device, and/or a smart city device. A specific type of the electronic device 100 is not specially limited in this embodiment of this application.

[0079] FIG. 1A is a schematic diagram of split-screen display according to an embodiment of this application.

[0080] As shown in FIG. 1A, an electronic device 100 may split a display screen of the electronic device 100 into two display regions, denoted as a region 10 and a region 11. The region 10 and the region 11 are horizontally arranged.

[0081] The electronic device 100 may display a user interface 101 in the region 10, and display a user interface 111 in the region 11. As shown in FIG. 1A, the user interface 101 may be a note interface provided by a note application, and the user interface 111 may be an album browsing interface provided by a gallery application.

[0082] FIG. 1B is another schematic diagram of split-screen display according to an embodiment

of this application.

[0083] As shown in FIG. 1B, the electronic device 100 may display a user interface 102 in the region 10 and a user interface 112 in the region 11. The user interface 102 may be a document browsing interface provided by a reader application, for example, a browsing interface of document test1.pdf, and the user interface 112 may be another document browsing interface provided by the reader application, for example, a browsing interface of document test2.pdf.

[0084] With reference to FIG. 1A and FIG. 1B, it may be learned that the "split-screen display" in this embodiment of this application includes: performing split-screen display on user interfaces provided by different applications, and performing split-screen display on different user interfaces provided by one application.

[0085] "Splitting a display screen into M display regions" may be referred to as M-screen splitting. "Splitting the display screen into two display regions" shown in FIG. 1A and FIG. 1B is 2-split-screen. Split-screen display of the two user interfaces shown in FIG. 1A and FIG. 1B is also referred to as 2-split-screen display. It may be understood that the electronic device 100 may further split the display screen into more display regions, for example, three or four, so as to display more user interfaces. Correspondingly, "splitting the display screen into three display regions" is 3-split-screen. "Splitting the display screen into four display regions" is 4-split-screen. Examples are not exemplified one by one herein.

[0086] 3-split-screen is used as an example. Referring to FIG. 1C, the electronic device 100 may split the display screen into three display regions: a region 10, a region 12, and a region 13. The region 12 is vertically arranged with the region 13, and the region 10 is horizontally arranged with the region 12 and the region 13. In a specific split-screen scenario, as shown in FIG. 1C, the electronic device 100 may display the user interface 101 (a note interface provided by a note application) in the region 10, display the user interface 102 (a document browsing interface provided by a reader application, for example, a browsing interface of document test1.pdf) in the region 12, and display the user interface 112 (another document browsing interface provided by the reader application, for example, a browsing interface of document test2.pdf) in the region 13.

[0087] As shown in FIG. 1C, in the M-screen splitting described in this embodiment of this application, "performing split-screen display on user interfaces provided by different applications" and "performing split-screen display on different user interfaces provided by one application" may be performed simultaneously. In split-screen display that splits the display screen into more display regions, such as 3-split-screen display and 4-split-screen display, the electronic device 100 may perform split-screen display on user interfaces provided by different applications, and perform split-screen display on different user interfaces provided by one application.

**[0088] FIG. 2A-FIG. 2E are a group of user interfaces for split-screen display according to an embodiment of this application.**

**[0089]** Referring to FIG. 2A, the electronic device 100 may first display a user interface 201 in full screen. For example, the user interface 201 may be a note interface provided by a note application, for example, a browsing interface of a note 1. When the user interface 201 is displayed in full screen, the electronic device 100 may further display a horizontal bar control 211 at a top of a screen.

**[0090]** The electronic device 100 may detect an operation of a user on the horizontal bar control 211, for example, a long press operation and a tap operation. In response to the operation, the electronic device 100 may float the horizontal bar control 211. Floating the control is setting the control to be in a floating state in which the control can be dragged. Referring to FIG. 2B, after the horizontal bar control 211 is floating, the electronic device 100 may detect an operation of dragging the horizontal bar control 211 to a region on a right side of the screen by the user. In response to the operation, the electronic device 100 may split a display screen into two display regions, continue to display the user interface 201 in one region, and display a split-screen menu interface 202 in the other region.

**[0091]** Referring to FIG. 2C, the electronic device 100 may split the display screen into two display regions: a region 10 and a region 11. The electronic device 100 may continue to display the user interface 201 (note interface) in the region 11, and the electronic device 100 may display the split-screen menu interface 202 in the region 10. It may be understood that, because of a change in an area of a display region, a user interface provided by an application may be adapted to increase or decrease some content according to the change in the area of the display region. For example, compared with the user interface 201 (browsing interface of the note 1) in FIG. 2A, the user interface 201 in FIG. 2C may include less content, for example, no longer includes directory information such as note classification and text classification, to adapt to the smaller display region 11.

**[0092]** The split-screen menu interface 202 includes two regions: a recommended-application region and a split-screen-supported region. The recommended-application region is used to display an icon of an application program recommended by the electronic device 100 for split-screen display, and the split-screen-supported region is used to display icons of all application programs that support split-screen display installed on the electronic device 100. Each region may include a plurality of application program icons. For example, the recommended-application region may include a reading icon, a gallery icon, a player A icon, and the like. The split-screen-supported region may include an information icon, a netdisk icon, a document presentation icon, and the like. One application program icon corre-

sponds to one application.

**[0093]** Not limited to the operation of dragging the horizontal bar control 211 shown in FIG. 2B to the region on the right side of the screen, the electronic device 100 may trigger, by using another operation on the horizontal bar control 211, 2-split-screen shown in FIG. 2C. This is not limited in the embodiments of this application.

**[0094]** For example, the electronic device 100 may trigger the 2-split-screen shown in FIG. 2C after detecting an operation of dragging the horizontal bar control 211 to slide downward. Alternatively, in some embodiments, the electronic device 100 may display a full-screen display control, a split-screen display control, a floating display control, and the like after detecting an operation of the user on the horizontal bar control 211. After detecting a user operation on a split-screen display control, the electronic device 100 may display the user interface shown in FIG. 2C.

**[0095]** After the split-screen menu interface 202 is displayed, the user may select one application program icon from a plurality of application program icons displayed on the split-screen menu interface 202. The electronic device 100 may detect the user operation. In response to the operation, the electronic device 100 may run an application corresponding to the application program icon, and display a user interface of the application in the region 10.

**[0096]** Referring to FIG. 2D, the electronic device 100 may detect a touch operation of the user on the player A icon. In response to the operation, the electronic device 100 may run a player A application corresponding to the player A icon. Then, referring to FIG. 2E, the electronic device 100 may display a user interface 203, such as a video playback interface, of the player A application in the region 10.

**[0097]** Therefore, the user may view a video by using the user interface 203 (video playback interface) displayed in the region 10, and at the same time, browse and edit a note by using the user interface 201 (note interface of the note 1) displayed in the region 11.

**[0098] FIG. 3A-FIG. 3D are another group of user interfaces for split-screen display according to an embodiment of this application.**

**[0099]** Referring to FIG. 3A, when displaying a user interface 201 in full screen, the electronic device 100 may further detect a slide-leftward operation of sliding from a right edge of a display screen to the left. Referring to FIG. 3B, in response to the operation, the electronic device 100 may display a split-screen menu window 301 in a region on a right side of the display screen. The split-screen menu window 301 may also be used to display a plurality of application program icons, such as a reading icon, a gallery icon, and a player A icon. One application program icon corresponds to one application.

**[0100]** After the split-screen menu window 301 is displayed, the user may select one application program

icon from a plurality of application program icons displayed on the split-screen menu window 301. The electronic device 100 may detect the user operation. In response to the operation, the electronic device 100 may split the display screen into two display regions, continue to display the user interface 201 in one region, and display, in the other region, one user interface of an application corresponding to the application program icon.

[0101] Referring to FIG. 3C, the electronic device 100 may detect a touch operation of the user on the player A icon. Referring to FIG. 3D, in response to the operation, the electronic device 100 may split the display screen into two display regions: a region 10 and a region 11. The electronic device 100 may continue to display the user interface 201 (note interface of the note 1) in the region 11, and at the same time, the electronic device 100 may display a user interface 203 (video playback interface) of the player A application in the region 10.

[0102] In some embodiments, after detecting a user touch operation on the player A icon, the electronic device 100 may first create a floating window in the user interface 201, and display the user interface 203 (video playback interface) of the player A application in the floating window. After detecting an operation of the user on the horizontal bar control 211, the electronic device 100 may display a full-screen display control, a split-screen display control, a floating display control, and the like. Then, after detecting a user operation on the split-screen display control, the electronic device 100 may display a user interface shown in FIG. 3D, and display the user interface 201 (browsing interface of the note 1) and the user interface 203 (video playback interface) in a split-screen manner.

[0103] Therefore, the user may also view a video by using the user interface 203 (video playback interface) displayed in the region 10, and browse and edit a note by using the user interface 201 (note interface) displayed in the region 11, which meets a requirement of the user to view a video by using the user interface 203 (video playback interface), and browse and edit a note by using the user interface 201 (browsing interface of the note 1) at the same time.

[0104] In another embodiment, the electronic device 100 may also trigger split-screen display according to another touch operation acting on the split-screen menu window 301. This is not limited in the embodiments of this application.

[0105] In the split-screen display method shown in FIG. 2A-FIG. 2E and FIG. 3A-FIG. 3D, the user can only open one user interface at a time to perform split-screen display with a currently displayed user interface, and cannot open a plurality of user interfaces at a time to perform split-screen display operations such as 3-split-screen display and 4-split-screen display, which is inefficient and cannot provide a preview of a split-screen effect. Consequently, a final split-screen effect

easily does not meet a user requirement and brings inconvenience to the user.

[0106] In view of this, **an embodiment of this application provides a split-screen display method.** The method may be applied to an electronic device 100.

[0107] When implementing this method, the electronic device 100 may display a background interface. The background interface includes a plurality of application cards. One application card corresponds to one running application. After displaying the background interface, the electronic device 100 may display a plurality of split-screen style controls. One split-screen style control corresponds to one split-screen style. After detecting a user operation on any split-screen style control, the electronic device 100 may display a preview control corresponding to the split-screen style control. Then, after detecting a user operation on any application card in the background interface, the electronic device 100 may display, in the preview control, a user interface thumbnail corresponding to the application card, for a user to preview a screen splitting effect.

[0108] The plurality of split-screen style controls displayed on the background interface include a split-screen style control corresponding to 2-split-screen display, a split-screen style control corresponding to 3-split-screen display, and a split-screen style control corresponding to 4-split-screen display. In this way, the user may select three or more user interfaces at a time to perform split-screen display operations such as 3-split-screen display and 4-split-screen display.

[0109] **FIG. 4A-FIG. 4M are a group of user interfaces enabling split-screen display according to an embodiment of this application.**

[0110] Referring to FIG. 4A, when displaying the user interface 201 in full screen, the electronic device 100 may further detect a slide-upward operation of sliding from a lower edge of the display screen to the top.

[0111] Referring to FIG. 4B, in response to the operation, the electronic device 100 may display a background interface 410. As shown in FIG. 4B, the background interface 410 may include a plurality of application cards, such as an application card 401, an application card 402, an application card 403, an application card 404, and an application card 405. The application card 401 corresponds to a file management application, the application card 402 corresponds to a reader application, the application card 403 corresponds to a player A application, the application card 404 corresponds to a player B application, and the application card 405 corresponds to a note application. Therefore, the application card 401 is also referred to as a file management card, the application card 402 is also referred to as a reader card, the application card 403 is also referred to as a player A card, the application card 404 is also referred to as a player B card, and the application card 405 is also referred to as a note card. In addition, the application cards 401~405 in the background interface further indicate that the corresponding

file management application, reader application, player A application, player B application, and note application are enabled.

**[0112]** The application card 405 is used as an example. The application card 405 may display a user interface thumbnail 415. The user interface thumbnail 415 may be used to indicate one frame of user interface recently displayed by the note application corresponding to the application card 405. The user interface thumbnail 415 may be obtained by using a snapshot (snapshot). Correspondingly, the other application cards 401~404 may also display user interface thumbnails 411~414 that indicate one recent frame of user interface of each of the corresponding applications. Details are not described herein again.

**[0113]** The background interface 410 may further include a delete control 417. The electronic device 100 may detect an operation of dragging any application card to the delete control 417 by the user. In response to the operation, the electronic device 100 stops displaying the application card, and stops running an application corresponding to the application card.

**[0114]** Referring to FIG. 4C, the electronic device 100 may detect a slide-downward operation. In response to the operation, the electronic device 100 may display a plurality of split-screen style controls in the background interface 410. A start point of the slide-downward operation is lower than an upper edge of the display screen. In this way, the electronic device 100 may distinguish the slide-downward operation from a slide-downward operation of sliding downward from the upper edge of the display screen, so as to avoid a conflict with a current common slide-downward display notification interface. Optionally, while displaying a plurality of split-screen style controls, the electronic device 100 may stop displaying the delete control 417, so as to provide more display regions for displaying more split-screen style controls.

**[0115]** Referring to FIG. 4D, the electronic device 100 may display split-screen style controls 421~427 in an upper region of the application cards 401~405. The split-screen style control 421 corresponds to 2-split-screen display, the split-screen style controls 422, 423, 424, and 425 correspond to 3-split-screen display, and the split-screen style controls 426 and 427 correspond to 4-split-screen display. Any one of the split-screen style controls 422~425 indicates a specific 3-split-screen arrangement layout, and any one of the split-screen style controls 426 and 427 indicates a specific 4-split-screen arrangement layout. It may be understood that the electronic device 100 may further display more split-screen style controls, which are not exemplified one by one herein.

**[0116]** For example, referring to FIG. 4E, the electronic device 100 may detect a user operation, such as a tap operation, that acts on the split-screen style control 422. In response to the operation, the electronic device 100 may display a preview control corresponding to the

split-screen style control 422.

**[0117]** Referring to FIG. 4F, the electronic device 100 may display a preview control 432 corresponding to the split-screen style control 422. The preview control 432 includes three windows: a window 4321, a window 4322, and a window 4323. One window may be used to display one user interface thumbnail. After detecting an operation of the user on an application card, the electronic device 100 may display, in a window in the preview control 432, a user interface thumbnail corresponding to the application card, for the user to preview a screen splitting effect.

**[0118]** Referring to FIG. 4G, the electronic device 100 may detect a user operation, such as a tap operation, that acts on the application card 405. In response to the operation, the electronic device 100 may display, in the window 4321, a user interface thumbnail 415 on the application card 405. Referring to FIG. 4H, it may be understood that the electronic device 100 may also display a partial screenshot of the user interface thumbnail 415 in the window 4321 to match a display region of the window 4321. The user interface thumbnail 415 corresponds to one frame of user interface recently displayed by the note application, for example, the user interface 201 (note interface) shown in FIG. 4A. Optionally, the electronic device 100 may simultaneously mark the application card 405 to indicate that the application card 405 is selected. Referring to FIG. 4H, the electronic device 100 may mark the application card 405 in a shadow-covered manner.

**[0119]** Referring to FIG. 4I, FIG. 4J, and FIG. 4K, the electronic device 100 may further sequentially detect user operations on the application card 403 and the application card 402. In response to the operations, the electronic device 100 may display a user interface thumbnail 413 on the application card 403 in the window 4322, and display a user interface thumbnail 412 on the application card 402 in the window 4323. The user interface thumbnail 413 corresponds to one frame of user interface recently displayed by the player A application, such as a user interface 203 (video playback interface). The user interface thumbnail 412 corresponds to one frame of user interface recently displayed by the reader application, such as a user interface 102 (browsing interface of a document test1.pdf). Similarly, when displaying the user interface thumbnail 413 in the window 4322, the electronic device 100 may mark the application card 403 in a shadow-covered manner. When displaying the user interface thumbnail 412 in the window 4323, the electronic device 100 may mark the application card 402 in a shadow-covered manner.

**[0120]** After the application cards 405, 403, and 402 are selected, the electronic device 100 may determine that a total quantity of user interfaces corresponding to the application cards 405, 403, and 402 reaches a quantity of user interfaces required by the preview control 432. The user interfaces corresponding to the ap-

plication cards 405, 403, and 402 include the user interface 201, the user interface 203, and the user interface 102, that is, three user interfaces. A quantity of user interfaces required by the preview control 432 corresponding to 3-split-screen display is 3.

**[0121]** Then, referring to FIG. 4L, the electronic device 100 may detect a user operation, such as a tap operation, that acts on a control 432.

**[0122]** Referring to FIG. 4M, in a scenario in which a quantity of user interfaces corresponding to a selected card reaches a quantity of user interfaces required by a preview control, in response to the operation, the electronic device 100 may split the display screen into three display regions: a region 10, a region 12, and a region 13 according to the preview control 432. A quantity of display regions is the same as a quantity of windows of the preview control, and an arrangement layout of the display regions is the same as an arrangement layout of the windows of the preview control. Therefore, the electronic device 100 may display, in a display region corresponding to a window, a user interface corresponding to a user interface thumbnail in the window. As shown in FIG. 4M, the electronic device 100 may display, in the region 10, the user interface 201 (note interface) corresponding to the user interface thumbnail 415, display, in the region 12, the user interface 203 (video playback interface) corresponding to the user interface thumbnail 413, and display, in the region 13, the user interface 102 (browsing interface of the document test1.pdf) corresponding to the user interface thumbnail 412.

**[0123]** In this case, the user may browse the foregoing three user interfaces at the same time through split-screen display. Further, the user may control, by using an operation acting on the region 10/12/13, a corresponding user interface to meet an interaction requirement of the user.

**[0124]** Some applications may provide a plurality of user interfaces at the same time. Referring to FIG. 1B, the reader application may provide a plurality of document browsing interfaces. After the slide-upward operation is detected as shown in FIG. 4A, the electronic device 100 may display a plurality of application cards of one application in the background interface 410. One application card corresponds to one user interface provided by the application. When selecting application cards that participate in screen splitting, the user can select a plurality of application cards of one application. Accordingly, the electronic device 100 may display, in a split-screen manner, a plurality of user interfaces provided by one application.

**[0125]** After an application card is selected (that is, displaying of a user interface corresponding to the application card in a split-screen manner is selected), the user may further undo a selection operation on the application card by using an undo control, that is, undo displaying of the user interface corresponding to the application card in a split-screen manner.

**[0126]** FIG. 5A-FIG. 5C are a group of user interfaces for undoing a selection operation according to an embodiment of this application.

**[0127]** Referring to FIG. 5A, after determining an application card selected by the user (for example, the application card 405), the electronic device 100 may further display an undo control 511 (first edit control). Referring to FIG. 5B, the electronic device 100 may detect a user operation acting on the undo control 511. In response to the operation, the electronic device 100 may undo a previous selection operation, for example, an operation of selecting the application card 405. Referring to FIG. 5C, the electronic device 100 may stop displaying the user interface thumbnail 415 in the window 4321, and the electronic device 100 may remove the shadow on the application card 405.

**[0128]** Accordingly, referring to FIG. 4J, after the user selects the application card 403, the electronic device 100 may also display the undo control 511. After detecting a user operation acting on the undo control 511, the electronic device 100 may undo a previous selected operation: an operation of selecting the application card 403. Therefore, the electronic device 100 may stop displaying the user interface thumbnail 413 in the window 4322, and remove the shadow on the application card 403. Further, if the user taps the undo control 511 again, the electronic device 100 may further undo the selection operation on the application card 405 in response to the user tapping the undo control 511 again, the electronic device 100 may stop displaying the user interface thumbnail 415 in the window 4321, and the electronic device 100 may remove the shadow on the application card 405.

**[0129]** Referring to FIG. 4K, after the user selects the application card 402, the electronic device 100 may also display the undo control 511. After detecting a user operation acting on the undo control 511, the electronic device 100 may undo a previous selected operation: an operation of selecting the application card 402. Therefore, the electronic device 100 may stop displaying the user interface thumbnail 412 in the window 4323, and remove the shadow on the application card 402. Further, in response to a plurality of times of tapping the undo control 511 by the user, the electronic device 100 may undo, in a sequence, selection operations on the application card 402, the application card 403, and the application card 405.

**[0130]** By analogy, each time determining an application card selected by the user, the user may undo a previous selection operation by using the undo control 511, so that the user conveniently adjusts, at any time in a preview process, a user interface that participates in split-screen display.

**[0131]** Referring to FIG. 5A, the electronic device 100 may further display a cancel control 512. The electronic device 100 may further detect a user operation acting on the cancel control 512. In response to the operation, the electronic device 100 may exit screen splitting. Op-

tionally, in an implementation, after exiting screen splitting, the electronic device 100 may re-display in full screen one recent frame of user interface before entering the background interface 410, for example, the user interface 201 shown in FIG. 4A.

**[0132]** By implementing the method shown in FIG. 4A-FIG. 4M and FIG. 5A-FIG. 5C, the user may select two or more user interfaces at a time to perform split-screen display operations such as 2-screen splitting, 3-screen splitting, and 4-screen splitting, and can preview a screen splitting effect in real time, thereby improving user experience. In another aspect, in a process of previewing the screen splitting effect, the user may further undo at any time a selected user interface that participates in screen splitting, so as to adjust the screen splitting effect at any time, and further improve user experience.

**[0133]** After a plurality of user interfaces are displayed in a split-screen manner, the user may further add or reduce a user interface based on the plurality of user interfaces currently displayed in a split-screen manner, and adjust a split-screen display style, so as to adjust the screen splitting effect.

**[0134]** An operation of adding or reducing a user interface on the basis of displaying a plurality of user interfaces in a split-screen manner, so as to adjust a split-screen display style is recorded as a continue-screen-splitting operation. **FIG. 6A-FIG. 6Q are a group of user interfaces for implementing a continue-screen-splitting operation according to an**

#### **embodiment of this application.**

**[0135]** Referring to FIG. 6A, when the user interface 201 (note interface), the user interface 203 (video playback interface), and the user interface 102 (browsing interface of the document test1.pdf) are displayed in a 3-split-screen display manner, the electronic device 100 may detect a slide-upward operation (first user operation). In response to the operation, the electronic device 100 may display a background interface 410.

**[0136]** Referring to FIG. 6B, in this case, the background interface 410 further includes a split-screen card 406 (first split-screen card). A user interface thumbnail 416 may be displayed on the split-screen card 406. The user interface thumbnail 416 corresponds to a 3-split-screen display interface 601 shown in FIG. 6A, that is, a combined user interface including the user interface 201, the user interface 203, and the user interface 102.

**[0137]** Referring to FIG. 6C, the electronic device 100 may detect a slide-downward operation (second user operation). Referring to FIG. 6D, in response to the operation, the electronic device 100 may display a plurality of split-screen style controls, such as split-screen style controls 421~427, in the background interface 410.

**[0138]** It is assumed that the user wants to add a

user interface based on the 3-split-screen display shown in FIG. 6A. In this case, the user may select a split-screen style control corresponding to 4-split-screen display, for example, the split-screen style control 426 (first split-screen style control). Referring to FIG. 6E, the electronic device 100 may detect a user operation acting on the control 426. Referring to FIG. 6F, in response to the operation, the electronic device 100 may display a preview control 611 (first preview control) corresponding to the split-screen style control 426. The preview control 611 corresponding to 4-split-screen display includes four windows: a window 6111, a window 6112, a window 6113, and a window 6114.

**[0139]** Then, referring to FIG. 6G, the electronic device 100 may detect a user operation, such as a tap operation, that acts on the split-screen card 406. Referring to FIG. 6H, in response to the operation, the electronic device 100 may display, in the windows 6111~6113, thumbnails of the user interface 201 (note interface), the user interface 203 (video playback interface), and the user interface 102 (browsing interface of the document test1.pdf) that correspond to the split-screen card 406, that is, the user interface thumbnails 415, 413, and 412. Similarly, the electronic device 100 may mark the split-screen card 406 in a shadow-covered manner to indicate that the split-screen card 406 is selected.

**[0140]** Referring to FIG. 6I-FIG. 6J, the electronic device 100 may further detect a user operation on an application card 404 (first application card). In response to the operation, the electronic device 100 may display, in the window 6114 (first window), a user interface thumbnail 414 corresponding to the application card 404. The user interface thumbnail 414 corresponds to one frame of user interface recently displayed by the player B application, such as a user interface 204 (another video playback interface, that is, first user interface). Similarly, when displaying the user interface thumbnail 414 in the window 6114, the electronic device 100 may mark the application card 404 in a shadow-covered manner, to indicate that the application card 404 is selected.

**[0141]** After the split-screen card 406 and the application card 404 are selected, the electronic device 100 may determine that a total quantity of user interfaces corresponding to the split-screen card 406 and the application card 404 reaches a quantity of user interfaces required by the preview control 611. The user interfaces corresponding to the split-screen card 406 and the application card 404 include the user interface 201, the user interface 203, the user interface 102, and the user interface 204, that is, four user interfaces. The quantity of user interfaces required by the preview control 611 corresponding to 4-split-screen display is 4.

**[0142]** Then, referring to FIG. 6K, the electronic device 100 may detect a user operation, such as a tap operation, that acts on the control 611.

**[0143]** Referring to FIG. 6L, in a scenario in which a

quantity of user interfaces corresponding to a selected card reaches a quantity of user interfaces required by a preview control, in response to the operation, the electronic device 100 may split the display screen into four display regions: a region 14, a region 15, a region 12, and a region 13 according to the preview control 611. A quantity of display regions is the same as a quantity of windows of the preview control, and an arrangement layout of the display regions is the same as an arrangement layout of the windows of the preview control. Then, the electronic device 100 may display, in a display region corresponding to a window, a user interface corresponding to a user interface thumbnail in the window. As shown in FIG. 6L, the electronic device 100 may display, in the region 14, the user interface 201 (note interface) corresponding to the user interface thumbnail 415, display, in the region 12, the user interface 203 (video playback interface) corresponding to the user interface thumbnail 413, display, in the region 13, the user interface 102 (browsing interface of the document test1.pdf) corresponding to the user interface thumbnail 412, and display, in the region 15, the user interface 204 (another video playback interface) corresponding to the user interface thumbnail 414.

**[0144]** It may be understood that in the method shown in FIG. 6A-FIG. 6L, after detecting that the user selects a card (for example, the split-screen card 406 or the application card 404), the electronic device 100 may also display the undo control 511 shown in FIG. 5A. The user may also undo a previous selection operation. Details are not described herein again.

**[0145]** In the method shown in FIG. 6A-FIG. 6L, the user may further add or reduce a user interface based on split-screen display, thereby conveniently and quickly adjusting a split-screen display style, adjusting a screen splitting effect, and better meeting a constantly changing user requirement.

**[0146]** Similarly, based on a plurality of user interfaces that may be provided by some applications at the same time, the electronic device 100 may display a plurality of application cards of the application in the background interface 410. When selecting application cards that participate in screen splitting, the user can select a plurality of application cards of one application. Accordingly, the electronic device 100 may display, in a split-screen manner, a plurality of user interfaces provided by one application.

**[0147]** Referring to FIG. 6B, while displaying the split-screen card 406, the electronic device 100 may further continue to display application cards of an application that has participated in screen splitting, such as the card 402, the card 403, and the card 405. In this case, the electronic device 100 may further support the user to enable a new split screen for the application that has participated in screen splitting.

**[0148]** Referring to FIG. 6M, after a plurality of split-screen style controls are invoked according to a slide-downward operation (second user operation), the elec-

tronic device 100 may detect a user operation acting on a control 421 (second split-screen style control). Referring to FIG. 6N, in response to the operation, the electronic device 100 may display a preview control 612 (second preview control) corresponding to the split-screen style control 421. The preview control 612 corresponding to 2-split-screen display includes two windows: a window 6121 and a window 6122. Then, referring to FIG. 6N-FIG. 6O, the electronic device 100 may detect user operations acting on the application card 403 and the application card 401. Therefore, the electronic device 100 may display, in the window 6121, the user interface thumbnail 413 corresponding to the application card 403, and display, in the window 6122, the user interface thumbnail 411 corresponding to the application card 401.

**[0149]** After the application card 403 (third application card) and the application card 401 (fourth application card) are selected, the electronic device 100 may determine that a total quantity of user interfaces corresponding to the application card 403 and the application card 401 reaches a quantity of user interfaces required by the preview control 612. Then, referring to FIG. 6P, the electronic device 100 may detect a user operation, such as a tap operation, that acts on the control 612. Referring to FIG. 6Q, in a scenario in which a quantity of user interfaces corresponding to a selected card reaches a quantity of user interfaces required by a preview control, in response to the operation, the electronic device 100 may split the display screen into two display regions: a region 10 and a region 11 according to the preview control 612. Then, the electronic device 100 may display, in the region 10, a video playback interface (third user interface) corresponding to the user interface thumbnail 413, and display, in the region 11, a file management interface (fourth user interface) corresponding to the user interface thumbnail 411.

**[0150]** After the 2-screen splitting operation shown in FIG. 6Q is implemented, when displaying the background interface 410 again according to the slide-upward operation, the electronic device 100 may display, on the background interface 410, a split-screen card corresponding to 2-split-screen, which is denoted as a second split-screen card. In addition, the electronic device 100 may continue to display the split-screen card 406 (first split-screen card) of the previous 4-split-screen. The electronic device 100 may quickly perform, according to an operation acting on the second split-screen card, 2-split-screen display corresponding to the second split-screen card, or quickly perform, according to an operation acting on the split-screen card 406, 4-split-screen display corresponding to the split-screen card 406, so as to provide more convenient and efficient split-screen experience for the user.

**[0151]** It may be understood that in the method shown in FIG. 6M-FIG. 6Q, after detecting that the user selects a card (for example, the application card 403 or

the application card 401), the electronic device 100 may also display the undo control 511 shown in FIG. 5A. The user may also undo a previous selection operation. Details are not described herein again.

[0152] Similarly, based on a plurality of user interfaces that may be provided by some applications at the same time, the electronic device 100 may display a plurality of application cards of the application in the background interface 410. When selecting application cards that participate in screen splitting, the user can select a plurality of application cards of one application. Accordingly, the electronic device 100 may display, in a split-screen manner, a plurality of user interfaces provided by one application.

**[0153] FIG. 7A-FIG. 7B are other user interfaces for triggering display of a plurality of split-screen style controls according to an embodiment of this application.**

[0154] In some embodiments, the electronic device 100 may also be configured to trigger display of a plurality of split-screen style controls by using a long press operation acting on any application card.

[0155] Referring to FIG. 7A, after displaying the background interface 410, the electronic device 100 may detect a long press operation acting on any application card, for example, a long press operation acting on the application card 405. Referring to FIG. 7B, in response to the operation, the electronic device 100 may display a plurality of split-screen style controls, split-screen style controls 421~427, in the background interface 410.

[0156] Then, referring to FIG. 4E-FIG. 4M, the electronic device 100 may display a corresponding preview control according to a split-screen style control selected by the user, and determine user interfaces that are selected by the user and that participate in screen splitting, so as to display, in a split-screen manner according to an arrangement layout corresponding to the preview control, the user interfaces that are selected by the user and that participate in screen splitting.

[0157] It may be understood that in a process of continuing to perform screen splitting as shown in FIG. 6A-FIG. 6M, after displaying the background interface 410, the electronic device 100 may also detect a long press operation acting on any application card, and display a plurality of split-screen style controls after detecting a long press operation acting on any application card.

**[0158] FIG. 8A-FIG. 8B are other user interfaces for selecting a split-screen style control and an application card according to an embodiment of this application.**

[0159] In some embodiments, the electronic device 100 may also be configured to select a split-screen style control and the 1st application card by using a drag operation.

[0160] Specifically, after displaying the split-screen style control, the electronic device 100 may detect a user operation of dragging any application card to any

split-screen style control and releasing the application card by the user. The electronic device 100 may determine a target application card and a target split-screen style control according to the operation.

5 [0161] Referring to FIG. 8A, the electronic device 100 may detect a user operation of dragging the application card 405 (note card) to the split-screen style control 422 and releasing the application card by the user. In response to the operation, the electronic device 100 may determine that the split-screen style control 422 is a target split-screen style control, and the application card 405 is a target application card.

10 [0162] Then, the electronic device 100 may display a preview control corresponding to the target split-screen style control. Referring to FIG. 8B, the electronic device 100 may display a preview control 432 corresponding to the split-screen style control 422. As shown in FIG. 8B, after the preview control corresponding to the target split-screen style control is triggered for display, the electronic device 100 may stop displaying the split-screen style control.

[0163] In addition, in a process of displaying the preview control corresponding to the target split-screen style control, the electronic device 100 may display, in the window 4321, the user interface thumbnail 415 on the application card 405, and mark the application card 405 in a shadow-covered manner to indicate that the application card 405 is selected, that is, indicate that the user interface 201 (note interface) corresponding to the application card 405 is used as a user interface participating in screen splitting.

[0164] Then, referring to FIG. 4I-FIG. 4M, the electronic device 100 may determine, according to a user operation acting on another application card, for example, a tap operation or a drag operation, another user interface that participates in screen splitting, and further display, according to an arrangement layout corresponding to a preview control, the user interfaces that are selected by the user and that participate in screen splitting.

[0165] It may be understood that after the target application card and the target split-screen style control are selected by using the drag operation shown in FIG. 8A, the electronic device 100 may also display the undo control 511 and the cancel control 512 shown in FIG. 5A, so that the user conveniently adjusts, at any time in a preview process, a user interface that participates in split-screen display.

[0166] It may be understood that in a process of continuing to perform screen splitting as shown in FIG. 6A-FIG. 6M, after displaying the background interface 410, the electronic device 100 may also detect a user operation of dragging any card to any split-screen style control and releasing the card, and determine a target card and a target split-screen style control according to the user operation. In this case, the card that the user chooses to drag may be an application card, or may be a split-screen card corresponding to a plurality of user

interfaces. After the target split-screen style control is determined, the electronic device 100 may display a preview control corresponding to the target split-screen style control, and display, in the preview control, a user interface thumbnail corresponding to the target card, for the user to preview the screen splitting effect.

[0167] Compared with the method for selecting a split-screen style control and the 1st application card that participates in split-screen display shown in FIG. 4E-FIG. 4H, the method shown in FIG. 8A-FIG. 8B can reduce user operations. The user may simultaneously determine the target split-screen style and the 1st user interface that participates in split-screen display by using one drag operation.

**[0168] FIG. 9A-FIG. 9J are another group of user interfaces enabling split-screen display according to an embodiment of this application.**

[0169] Referring to FIG. 9A, after displaying the background interface 410, the electronic device 100 may detect a long press operation acting on any application card, for example, a long press operation acting on the application card 405 (note card).

[0170] In response to the operation, the electronic device 100 may display a circle control near each application card. Referring to FIG. 9B, the electronic device 100 may display a circle control 911 after the name "files" of the application card 401, display a circle control 912 after the name "reader" of the application card 402, display a circle control 913 after the name "player A" of the application card 403, display a circle control 914 after the name "player B" of the application card 404, and display a circle control 915 after the name "note" of the application card 405.

[0171] The electronic device 100 may determine, by using user operations acting on a plurality of circle controls, that application cards corresponding to the plurality of circle controls are target application cards. Then, the electronic device 100 may display a split-screen style control corresponding to a quantity of the target application cards.

[0172] Referring to FIG. 9C, the electronic device 100 may detect a user operation acting on the circle control 915. Referring to FIG. 9D, in response to the operation, the electronic device 100 may display a selected control 925 to replace the original circle control 915, indicating that the application card 405 is selected. Then, referring to FIG. 9D-FIG. 9E, the electronic device 100 may detect a user operation acting on the circle control 913. In response to the operation, the electronic device 100 may display a selected control 923 to replace the original circle control 913.

[0173] In addition, based on two determined target application cards: the application card 405 and the application card 403, the electronic device 100 may determine that a quantity of user interfaces that currently require split-screen display is 2, and then the electronic device 100 may display a split-screen style control corresponding to 2-split-screen display. Referring to FIG.

9E, the electronic device 100 may display split-screen style controls 420 and 421 corresponding to 2-split-screen display.

[0174] The electronic device 100 may continue to detect user operations acting on more circle controls. In response to the operations, a quantity of target application cards increases constantly, that is, data of user interfaces that participate in split-screen display continuously increases. In this case, the electronic device 100 may update the split-screen style control in real time according to a current quantity of target application cards.

[0175] Referring to FIG. 9E-FIG. 9F, the electronic device 100 may continue to detect a user operation acting on the circle control 912. In response to the operation, the electronic device 100 may display a selected control 922 to replace the original circle control 912, indicating that the application card 402 is selected. In this case, based on three determined target application cards: the application card 405, the application card 403, and the application card 402, the electronic device 100 may display split-screen style controls 422~425 corresponding to 3-split-screen display.

[0176] After determining all user interfaces that need to be displayed in a split-screen manner, the user may select one of currently displayed split-screen style controls that match a quantity of the user interfaces displayed in a split-screen manner as a target split-screen style control. Then, the electronic device 100 may display previously selected user interfaces according to an arrangement layout corresponding to the target split-screen style control.

[0177] Referring to FIG. 9G, the electronic device 100 may detect a user operation acting on the split-screen style control 422. In response to the operation, the electronic device 100 may display a preview control corresponding to the target split-screen style control, and display, in the preview control, a user interface thumbnail corresponding to the target application card, for the user to preview the split-screen display effect.

[0178] Referring to FIG. 9H, the electronic device 100 may display a preview control 432 corresponding to the split-screen style control 422. In addition, the electronic device 100 may display, in a window 4321 of the preview control 432, the user interface thumbnail 415 of the application card 405, display, in a window 4322 of the preview control 432, the user interface thumbnail 413 of the application card 403, and display, in a window 4323 of the preview control 432, the user interface thumbnail 412 of the application card 402.

[0179] Referring to FIG. 9H, the electronic device 100 may further display split-screen style controls 423~425 that also correspond to 3-split-screen display, so that the user switches different arrangement layouts at any time, thereby better meeting a split-screen requirement of the user.

[0180] Referring to FIG. 9H, the electronic device 100 may further display a confirm control 932. After

determining, by using the preview control, that the screen-split display requirement of the user is met, the user may enter split-screen display by using the confirm control 932. Referring to FIG. 9I, the electronic device 100 may detect a user operation acting on the confirm control 932. In response to the operation, the electronic device 100 selects a user interface 201, a user interface 203, and a user interface 102 before split-screen display according to the arrangement layout shown in the preview control 432.

**[0181]** Referring to FIG. 9J, the electronic device 100 may split the display screen into three display regions: a region 10, a region 12, and a region 13 according to the preview control 432. Then, as shown in FIG. 4M, the electronic device 100 may display, in the region 10, the user interface 201 (note interface) corresponding to the user interface thumbnail 415, display, in the region 12, the user interface 203 (video playback interface) corresponding to the user interface thumbnail 413, and display, in the region 13, the user interface 102 (browsing interface of the document test1.pdf) corresponding to the user interface thumbnail 412.

**[0182]** Then, the user may browse the three user interfaces at the same time.

**[0183]** In an embodiment, the electronic device 100 may display, in a window of a preview control in a left-to-right sequence, user interface thumbnails of application cards selected by the user, that is, display user interfaces corresponding to the user interface thumbnails in split display regions in a left-to-right sequence.

**[0184]** FIG. 10 is a schematic diagram of numbering windows of a preview control in a left-to-right sequence according to an embodiment of this application. Based on the left-to-right sequence shown in FIG. 10, the electronic device 100 may sequentially display, in the window of the preview control, user interface thumbnails of application cards selected by the user.

**[0185]** In another embodiment, the electronic device 100 may display, in the window of the preview control in a clockwise sequence, the user interface thumbnails of the application cards selected by the user.

**[0186]** FIG. 11 is a schematic diagram of numbering windows of a preview control in a clockwise sequence according to an embodiment of this application. Based on the clockwise sequence shown in FIG. 11, the electronic device 100 may sequentially display, in the window of the preview control, user interface thumbnails of application cards selected by the user.

**[0187]** In some other embodiments, the electronic device 100 may further record a typical window mode of each user interface: a horizontal window or a vertical window. The electronic device 100 may display, in the typical window mode in the window of the preview control, the user interface thumbnails of the application cards selected by the user.

**[0188]** For example, the user generally runs a short video application and a reader application by using a vertical window. Therefore, a typical window mode of

the short video application and the reader application may be a vertical window. Using the short video application as an example, after detecting an operation of selecting a short video application card by the user, the electronic device 100 may preferentially display, in a vertical window of the preview control, a user interface thumbnail of the short video application card, that is, preferentially display, in a split vertical display region, a user interface of the short video application. Specifically, referring to FIG. 4I, after detecting a user operation on the application card 403, the electronic device 100 may display the user interface thumbnail 413 of the application card 403 in the window 4321. The electronic device 100 may move the user interface thumbnail 415 of the application card 405 originally displayed in the window 4321 into the window 4322. Therefore, the electronic device 100 may display, in the region 10, the user interface 203 (video playback interface) corresponding to the user interface thumbnail 413, and display, in the region 12, the user interface 201 (note interface) corresponding to the user interface thumbnail 415.

**[0189]** In this way, when a plurality of user interfaces are displayed in a split-screen manner, the user can obtain a better split-screen display effect.

**[0190]** An embodiment of this application further provides a split-screen display method. The method may be applied to an electronic device 100.

**[0191]** When implementing the method, the electronic device 100 may display a home screen and a split-screen card after detecting a preset operation. A plurality of application program icons are displayed on the home screen, and one application program icon corresponds to one application. Not limited to the home screen, the electronic device 100 may also display another interface that includes a plurality of application program icons. After displaying the home screen and the split-screen card, the electronic device 100 may determine, according to a user operation acting on one or more application program icons in the home screen, target applications that participate in screen splitting and a quantity of split-screen regions. Then, the electronic device 100 may split the display screen according to the quantity of split-screen regions to obtain a corresponding quantity of display regions, and display user interfaces of the target applications in the display regions. In this way, the user may open a plurality of applications at a time, and browse user interfaces of the plurality of applications in a split-screen manner, to meet a more complex split-screen requirement of the user.

**[0192]** Before the corresponding quantity of display regions are obtained by splitting the display screen according to the quantity of split-screen regions, the electronic device 100 may further display a plurality of split-screen style controls. One split-screen style control corresponds to one split-screen layout. A split-screen layout indicates a quantity of split-screen regions in the

layout and an arrangement manner of display regions. The electronic device 100 may split the display screen according to a split-screen layout corresponding to the split-screen style control selected by the user, to obtain a plurality of display regions, and then display the user interfaces of the target applications in the plurality of display regions. In this way, the user can simply and quickly preview the screen splitting effect by using the split-screen style control, thereby improving screen splitting experience of the user.

**[0193]** FIG. 12A-FIG. 12J are a group of user interfaces for split-screen display according to an embodiment of this application.

**[0194]** When displaying a user interface (for example, the user interface 201, also referred to as a first interface) in full screen, the electronic device 100 may detect a user operation of dragging a horizontal bar control 211 (first control) to slide downward. Referring to FIG. 12A, for example, the electronic device 100 may detect a user operation of dragging the horizontal bar control 211 downward to the lower right. Not limited to the lower right, the user operation of dragging the horizontal bar control 211 downward may alternatively be a user operation of sliding in another direction, for example, the lower left and right below. This is not limited in this embodiment of this application.

**[0195]** Referring to FIG. 12B-FIG. 12D, in response to the operation, the electronic device 100 may close the user interface 201 that is currently being displayed in full screen, and display a user interface 510 (second interface).

**[0196]** As shown in FIG. 12D, preferably, the user interface 510 is a home screen of the electronic device 100. The home screen includes a plurality of application program icons, such as a note icon 471, a chat icon 472, and a reader icon 473. The note icon 471 corresponds to a note application, the chat icon 472 corresponds to a chat application, and the reader icon 473 corresponds to a reader application. The user may determine, by using a user operation acting on one or more of the plurality of application program icons, a target application that participates in screen splitting. Not limited to the home screen, the user interface 510 may alternatively be another interface that includes a plurality of application program icons. This is not limited in this embodiment of this application.

**[0197]** Referring to FIG. 12B-FIG. 12D, in a process of closing the user interface 201 and displaying the user interface 510, the electronic device 100 may display a split-screen card 481 (first card) at a position of a touch point of a finger of the user on the screen, and a display position of the split-screen card 481 may change with the position of the touch point in a drag operation. Preferably, the touch point is in a corner region of the split-screen card 481. Using the rectangular split-screen card 481 as an example, corner regions of the split-screen card 481 include an upper left corner region, an upper right corner region, a lower left corner

region, and a lower left corner region. In addition, referring to FIG. 12B-FIG. 12D, a size of the split-screen card 481 may be reduced as a drag distance increases. In addition, the split-screen card 481 may further display an application program icon, that is, a note icon 471 (first icon), of the note application (fifth application) to which the user interface 201 belongs, indicating that the note application is a target application selected by the user to participate in screen splitting.

**[0198]** After the user interface 510 is displayed, the user may select a target application in the user interface 510.

**[0199]** Referring to FIG. 12E, the electronic device 100 may detect a user operation of dragging the split-screen card 481 to a chat icon 472 (second icon) by the user. In a specific embodiment, in a drag process, when the touch point is in the chat icon 472, the electronic device 100 may determine that the user drags the split-screen card 481. In response to the user operation of dragging the split-screen card 481 to the chat icon 472 by the user, the electronic device 100 may determine that the chat application corresponding to the chat icon 472 needs to participate in split-screen display, that is, the chat application corresponding to the chat icon 472 is a target application. In addition, the electronic device 100 may increase a quantity of split-screen regions from 1 to 2.

**[0200]** After determining, according to the user operation, the target application that needs to participate in split-screen display, the electronic device 100 may update the split-screen card 481. Referring to FIG. 12F, after determining that the chat application corresponding to the chat icon 472 is a target application, the electronic device 100 may add the chat icon 472 to the split-screen card 481 for display. In this case, the split-screen card 481 includes the note icon 471 and the chat icon 472, indicating that target applications that the user selects to participate in split-screen display include the note application and the chat application.

**[0201]** Optionally, the electronic device 100 may mark a selected application program icon for differentiation. Referring to FIG. 12F, for example, the electronic device 100 may mark the selected note icon 471 and chat icon 472 in a shadow-covered manner. In another embodiment, the electronic device 100 may alternatively display a red dot at an upper right corner of a selected application program icon. This is not limited in the embodiments of this application.

**[0202]** Referring to FIG. 12G-FIG. 12H, the electronic device 100 may detect a user operation of continuing to drag the split-screen card 481 to a reader icon 473 (third icon) by the user. In response to the operation, the electronic device 100 may determine that a reader application corresponding to the reader icon 473 is a target application, and in addition, increase the quantity of split-screen regions from 2 to 3. Accordingly, the electronic device 100 may continue to add the reader

icon 473 to the split-screen card 481 for display. In this case, the split-screen card 481 includes the note icon 471, the chat icon 472, and the reader icon 473, indicating that target applications that the user selects to participate in split-screen display include the note application, the chat application, and the reader application.

**[0203]** Then, the electronic device 100 may detect an operation of lifting a finger to release the split-screen card 481. Referring to FIG. 12I, in response to the operation, the electronic device 100 may display a user interface 520 (third interface).

**[0204]** The user interface 520 includes split-screen style controls 446~450 that match the current quantity 3 of split-screen regions. The user may learn, by using any split-screen style control, a split-screen layout corresponding to the control, that is, a quantity of split-screen regions and an arrangement manner of display regions. A split-screen style control that matches the quantity 3 of split-screen regions is also referred to as a 3-split-screen style control. Correspondingly, a split-screen style control that matches the quantity 2 of split-screen regions is also referred to as a 2-split-screen style control, and a split-screen style control that matches the quantity 4 of split-screen regions is also referred to as a 4-split-screen style control. It may be understood that when a quantity of target applications selected by the user is different, a quantity of split-screen regions determined by the electronic device 100 is different, and a split-screen style control corresponding to the quantity of split-screen regions displayed on the user interface 520 is different.

**[0205]** The user may determine, by using a touch operation acting on any split-screen style control, that a split-screen layout corresponding to the split-screen style control is a target split-screen layout. The touch operation includes but is not limited to a tap operation, a long press operation, and a slide operation. Referring to FIG. 12I, for example, the electronic device 100 may detect a tap operation acting on a split-screen style control 446 (fifth split-screen style control). In response to the operation, the electronic device 100 may determine that a split-screen layout corresponding to the split-screen style control 446 is a target split-screen layout.

**[0206]** The user interface 520 further includes a confirm control 451. After the target split-screen layout is determined, the electronic device 100 may detect a touch operation acting on the confirm control 451. In response to the operation, the electronic device 100 may perform a split-screen display operation.

**[0207]** Referring to FIG. 12J, after it is determined that the split-screen layout corresponding to the split-screen style control 446 is the target split-screen layout, and a touch operation acting on the confirm control 451 is detected, the electronic device 100 may split the display screen into three display regions according to the target split-screen layout: a region 31, a region 32, and a region 33. A quantity of display regions is the

same as a quantity of split-screen regions. Then, the electronic device 100 may respectively display user interfaces of target applications in the three display regions. As shown in FIG. 12J, the electronic device 100 may display the user interface 205 in the region 31, display the user interface 201 (browsing interface of the note 1) in the region 32, and display the user interface 207 in the region 33. The user interface 207 is a user interface, such as a chat interface, provided by a chat application selected by the user. The user interface 205 is a user interface provided by a reader application selected by the user, for example, a browsing interface of a document XXX.pdf.

**[0208]** In this case, the user can browse the user interfaces of the note application, the chat application, and the reader application at the same time through split-screen display. Further, the user may control, by using an operation acting on the region 31/32/33, a corresponding user interface to meet an interaction requirement of the user.

**[0209]** Referring to the split-screen card 481 shown in FIG. 12H, in some embodiments, the electronic device 100 may display, in parallel, application program icons selected by the user on the split-screen card 481. In addition, the electronic device 100 may add a newly selected application program icon to two sides of the 1st displayed application program icon by using the 1st displayed application program icon as a center. For example, the electronic device 100 may first add the chat icon 472 to the right of the note icon 471 for display, and then add the reader icon 473 to the left of the note icon 471 for display.

**[0210]** When all display regions in the target split-screen layout are parallel (for example, a split-screen layout corresponding to the split-screen style control 446 and a split-screen layout corresponding to a split-screen style control 812), preferably, as shown in FIG. 12J, the electronic device 100 may allocate the display regions according to an icon arrangement sequence in the split-screen card 481.

**[0211]** For another split-screen layout, the electronic device 100 may randomly allocate a display region, or may allocate a display region according to another policy. For details, refer to descriptions in FIG. 18-FIG. 19, which are not described in detail herein.

**[0212]** Referring to FIG. 12D, when the user interface 510 is a home screen, the user interface 510 may further include a commonly-used application tray 429 and a recent application tray 428. The commonly-used application tray 429 includes icons of commonly-used application programs set by a plurality of users, and the recent application tray 428 includes icons of one or more application programs used by the user in a recent period of time. Optionally, the user may also drag the split-screen card 481 to any application program icon in the commonly-used application tray 429 or the recent application tray 428. The electronic device 100 may determine, according to the operation, that an applica-

tion corresponding to the icon selected by the user is a target application.

[0213] It may be understood that when the home screen of the electronic device 100 includes a plurality of pages, the user may drag the split-screen card 481 to a left side edge or a right side edge region. The electronic device 100 may switch the home screen according to the operation, and display more application program icons for the user to select.

[0214] In some embodiments, the user interface 520 may further include a delete control used to delete a selected application program icon, that is, delete a target application, thereby reducing a split-screen region.

[0215] Referring to FIG. 13A, the user interface 520 may further include delete controls 513~515. The delete control 514 corresponds to the reader icon 473, that is, corresponds to the reader application. The delete control 515 corresponds to the note icon 471, that is, corresponds to the note application. The delete control 513 corresponds to the chat icon 472, that is, corresponds to the chat application.

[0216] The user may delete a corresponding target application by using an operation acting on one or more of the delete controls 514~513. Referring to FIG. 13B-FIG. 13C, the electronic device 100 may detect a touch operation acting on the delete control 514. In response to the operation, the electronic device 100 may remove the reader application corresponding to the delete control 514 from the target application, that is, delete the reader application. In addition, the electronic device 100 may correspondingly update the split-screen card 481 to stop displaying the reader icon 473 corresponding to the delete control 514.

[0217] After deleting one or more target applications according to a touch operation acting on the delete control, the electronic device 100 also correspondingly reduces the quantity of split-screen regions, and updates the split-screen style control according to a latest quantity of split-screen regions. For example, after deleting the reader application, the electronic device 100 may reduce the quantity of split-screen regions from 3 to 2. Therefore, the electronic device 100 may display 2-split-screen style controls 521~522 that match the latest quantity 2 of split-screen regions, to replace the previous 3-split-screen style controls 446~450.

[0218] Then, the electronic device 100 may detect a touch operation acting on any split-screen style control in the split-screen style controls 521~522, and determine a target split-screen layout according to the operation. After detecting a touch operation acting on the confirm control 451, the electronic device 100 may split the display screen according to the target split-screen layout to obtain a plurality of display regions, and then display user interfaces of target applications in the display regions.

[0219] Referring to FIG. 13C, the electronic device 100 may detect a touch operation acting on the split-screen style control 521, and determine, according to

the operation, that a split-screen style corresponding to the split-screen style control 521 is a target split-screen layout. Referring to FIG. 13C-FIG. 13D, after detecting a touch operation acting on the confirm control 451, the electronic device 100 may split the display screen into two display regions: a region 10 and a region 11 according to the target split-screen layout. The electronic device 100 may display the user interface 201 (browsing interface of the note 1) in the region 10, and display the user interface 207 (chat interface) in the region 11.

[0220] In some embodiments, by using a slide operation acting on any icon in the split-screen cards 481, the user may also delete the icon, that is, delete a target application corresponding to the icon. In this case, the electronic device 100 does not need to additionally display the delete control.

[0221] Referring to FIG. 14A, the electronic device 100 may detect a slide-upward operation acting on the reader icon 473. In response to the operation, the electronic device 100 may determine that the reader application corresponding to the reader icon 473 no longer participates in split-screen display, that is, delete the reader application from the target applications. Referring to FIG. 14B, correspondingly, the electronic device 100 may update the split-screen card 481 and stop displaying the reader icon 473. In addition, the electronic device 100 may update the quantity of split-screen regions to 2, and then display 2-split-screen style controls 521~522 that match the latest quantity of split-screen regions. Referring to FIG. 14B-FIG. 14C, after detecting a touch operation acting on the split-screen style control 521 and a touch operation acting on the confirm control 451, the electronic device 100 may split the display screen into two display regions: a region 10 and a region 11 according to a target split-screen layout corresponding to the split-screen style control 521. The electronic device 100 may display the user interface 201 (browsing interface of the note 1) in the region 10, and display the user interface 207 (chat interface) in the region 11.

**[0222] FIG. 15A-FIG. 15K are another group of user interfaces for split-screen display according to an embodiment of this application.**

[0223] Referring to FIG. 15A-FIG. 15D, the electronic device 100 may detect a user operation of dragging the horizontal bar control 211 (first control) downward. In response to the operation, the electronic device 100 may close the user interface 201 (first interface) and display the user interface 510 (second interface). In addition, the electronic device 100 may display the split-screen card 481 (first card) at the position of the touch point of the finger of the user on the screen. Similarly, a display position of the split-screen card 481 may change with the position of the touch point in the drag operation, a size of the split-screen card 481 may decrease with an increase of a drag distance, and the split-screen card 481 may display the note icon 471 (first icon) of the note application (fifth application) to

which the user interface 201 belongs.

**[0224]** After detecting an operation of lifting the finger to release the split-screen card 481, the electronic device 100 may display the split-screen card 481 in a fixed region of the user interface 510. As shown in FIG. 15D, the fixed region is, for example, a lower right corner region of the screen.

**[0225]** Then, the user may select, by using a touch operation acting on one or more application program icons in the user interface 510, an application program corresponding to the one or more application program icons to participate in split-screen display. The electronic device 100 may determine, by using the user operation, a target application that participates in screen splitting.

**[0226]** Referring to FIG. 15E-FIG. 15F, the electronic device 100 may detect a touch operation (first touch operation) acting on the chat icon 472 (second icon). In response to the operation, the electronic device 100 may determine that the chat application corresponding to the chat icon 472 is a target application. Therefore, the electronic device 100 may increase the quantity of split-screen regions and update the split-screen card 481. The electronic device 100 may increase the quantity of split-screen regions from 1 to 2. The electronic device 100 may add the chat icon 472 to the split-screen card 481 for display. Similarly, the electronic device 100 may mark the selected chat icon 472 in a shadow-covered manner or otherwise.

**[0227]** Referring to FIG. 15G-FIG. 15H, the electronic device 100 may continue to detect a touch operation (first touch operation) acting on the reader icon 473 (third icon). In response to the operation, the electronic device 100 may continue to determine that the chat application corresponding to the reader icon 473 is a target application. The electronic device 100 continues to increase the quantity of split-screen regions, and updates the split-screen card 481. The electronic device 100 may increase the quantity of split-screen regions from 2 to 3. The electronic device 100 may add the reader icon 473 to the split-screen card 481 for display, and mark the selected reader icon 473 in a shadow-covered manner or otherwise.

**[0228]** Then, referring to FIG. 15I-FIG. 15J, the electronic device 100 may detect a touch operation (second touch operation) acting on the split-screen card 481. In response to the operation, the electronic device 100 may display a user interface 520 (third interface).

**[0229]** Referring to FIG. 15J-FIG. 15K, the electronic device 100 may determine a corresponding split-screen style as a target split-screen layout according to a touch operation acting on any split-screen style control. After detecting a touch operation acting on the confirm control 451, the electronic device 100 may split the display region according to the target split-screen layout, and then display user interfaces of target applications in the split display regions. Details are not described herein again.

**[0230]** In some embodiments, after the user interface 510 and the split-screen card 481 are displayed, the user may also press and hold the split-screen card 481 with one finger, and tap an application program icon in the user interface 510 with another finger, to add the application program icon to the split-screen card 481. In this case, after detecting a user operation of lifting the finger to release the split-screen card 481, the electronic device 100 may display the user interface 520 shown in FIG. 15J.

**[0231]** Referring to FIG. 13A-FIG. 13D and FIG. 14A-FIG. 14C, in the method shown in FIG. 15A-FIG. 15K, the user interface 520 may also include a delete control, used to delete a selected application program, or the electronic device 100 also supports the user to delete a target application corresponding to any icon in the split-screen card 481 by using a slide operation acting on the icon. Details are not described herein again.

**[0232]** In some embodiments, the user may further increase the quantity of split-screen regions by using a touch operation acting on an application program icon for a plurality of times (twice or more), so as to display user interfaces of a corresponding application in a plurality of display regions obtained after screen splitting, thereby meeting a multi-opening requirement of the user for some application programs.

**[0233]** Referring to FIG. 16A, after the reader application is selected, the electronic device 100 may detect a touch operation acting on the reader icon 473 (third icon) again. In response to the operation, the electronic device 100 may continue to increase the quantity of split-screen regions: increase the quantity of split-screen regions from 3 to 4, and determine that the reader application corresponding to the reader icon 473 occupies two display regions obtained after screen splitting.

**[0234]** Similarly, the electronic device 100 may continue to update the split-screen card 481, so as to indicate that the user selects an application program for a plurality of times. Referring to FIG. 16B, the electronic device 100 may display an identifier 811 (first indication information) at a lower left corner of the reader icon 473, indicating that the user selects the reader icon 473 twice, that is, selects the reader application twice. Optionally, referring to FIG. 17, the electronic device 100 may alternatively add one reader icon 473 to the split-screen card 481 for display, that is, display two reader icons 473, indicating that the user selects the reader application twice. This is not limited in the embodiments of this application.

**[0235]** Referring to FIG. 16B-FIG. 16C, the electronic device 100 may detect a touch operation acting on the split-screen card 481. In response to the operation, the electronic device 100 may display the user interface 520 (third interface). As shown in FIG. 16C, in this case, the electronic device 100 may display 4-split-screen style controls 812~815 that match the latest

quantity 4 of split-screen regions.

**[0236]** For example, the electronic device 100 may detect a touch operation acting on the 4-split-screen style control 814 (fifth split-screen style control). In response to the operation, the electronic device 100 may split the display screen according to a split-screen layout corresponding to the 4-split-screen style control 814 to obtain display regions with a corresponding quantity and arrangement manner. Referring to FIG. 16D, the electronic device 100 may split the display screen into four display regions: a region 86, a region 87, a region 88, and a region 89, and then display user interfaces of target applications in the display regions 86~89. For example, the electronic device 100 may display the user interface 205 (browsing interface of the document XXX.pdf) in the region 86, display the user interface 206 (another user interface provided by the reader application, such as a browsing interface of a document YYY.pdf) in the region 87, display the user interface 201 (browsing interface of the note 1) in the region 88, and display the user interface 207 (chat interface) in the region 89.

**[0237]** Not limited to the reader application, an application such as a browser application or an instant messaging application (for example, a chat application) is also an application program that is often faced with a multi-opening requirement of the user. Therefore, in a split-screen scenario, for the foregoing applications, the user may conveniently open and create a plurality of display regions by using the method shown in FIG. 16A-FIG. 16D, and different user interfaces of the foregoing application programs are displayed in the plurality of display regions, for the user to conveniently browse.

**[0238]** It may be understood that in the method for selecting an application program by dragging the split-screen card 481 to an application program icon shown in FIG. 12A-FIG. 12J, the user may increase the quantity of split-screen regions by dragging the split-screen card 481 to an application program icon for a plurality of times, thereby providing the functions shown in FIG. 16A-FIG. 16D for the user. This is not limited in the embodiments of this application.

**[0239]** In this way, in the split-screen display method shown in FIG. 12A-FIG. 12J, the electronic device 100 may also support the user to select an application program for a plurality of times to create a plurality of display regions for the application, and further display different user interfaces of the application in the plurality of display regions, so as to meet a multi-opening requirement of the user for some applications, for the user to conveniently browse.

**[0240]** In some embodiments, the electronic device 100 may number display regions in different split-screen layouts in a left-to-right and top-to-bottom sequence. FIG. 18 is a schematic diagram of numbering display regions in different split-screen layouts in a left-to-right and top-to-bottom sequence according to an

embodiment of this application.

**[0241]** The electronic device 100 may determine, according to a sequence of selecting application programs by the user and display region numbers shown in FIG. 18, that a user interface of which application program is to be displayed in which display region. A sequence of selecting application programs shown in FIG. 15A-FIG. 15I and FIG. 16A-FIG. 16D: the note application, the chat application, the reader application, and the reader application, and the target split-screen layout are used as an example. With reference to the left-to-right and top-to-bottom numbering sequence shown in FIG. 18, the electronic device 100 may display the user interface 201 (browsing interface of the note 1) in the region 86 obtained after screen splitting, display the user interface 207 (chat interface) in the region 87, display the user interface 205 (browsing interface of the document XXX.pdf) in the region 88, and display the user interface 206 (browsing interface of the document YYY.pdf) in the region 89.

**[0242]** Optionally, the electronic device 100 may determine, according to an inverted sequence of the sequence of selecting application programs by the user and the display region numbers shown in FIG. 18, that a user interface of which application program is to be displayed in which display region. In this case, in the scenarios shown in FIG. 15A-FIG. 15I and FIG. 16A-FIG. 16D, the electronic device 100 may display the user interface 206 (browsing interface of the document YYY.pdf) in the region 86 obtained after screen splitting, display the user interface 205 (browsing interface of the document XXX.pdf) in the region 87, display the user interface 207 (chat interface) in the region 88, and display the user interface 201 (browsing interface of the note 1) in the region 89.

**[0243]** In some other embodiments, the electronic device 100 may number display regions in different split-screen layouts in a clockwise sequence. FIG. 19 is a schematic diagram of numbering display regions in different split-screen layouts in a clockwise sequence according to an embodiment of this application.

**[0244]** A sequence of selecting application programs shown in FIG. 15A-FIG. 15I and FIG. 16A-FIG. 16D: the note application, the chat application, the reader application, and the reader application, and the target split-screen layout are used as an example. With reference to the clockwise numbering sequence shown in FIG. 19, the electronic device 100 may display the user interface 201 (browsing interface of the note 1) in the region 86 obtained after screen splitting, display the user interface 207 (chat interface) in the region 88, display the user interface 205 (browsing interface of the document XXX.pdf) in the region 89, and display the user interface 206 (browsing interface of the document YYY.pdf) in the region 87.

**[0245]** Similarly, optionally, the electronic device 100 may determine, according to an inverted sequence of the sequence of selecting application programs by the

user and the display region numbers shown in FIG. 19, that a user interface of which application program is to be displayed in which display region. Details are not described herein.

**[0246]** In some other embodiments, the electronic device 100 may further record a common display mode of each application program: landscape/portrait. The electronic device 100 may match, according to a common display mode of each application program, an application program selected by the user with a display region obtained after screen splitting, and then allocate remaining display regions in the left-to-right and top-to-bottom sequence shown in FIG. 18 or in the clockwise sequence shown in FIG. 19.

**[0247]** For example, a short video application, a reader, an instant messaging application (for example, a chat application), and the like are often used for portrait display. A sequence of selecting application programs shown in FIG. 15A-FIG. 15I and FIG. 16A-FIG. 16D: the note application, the chat application, the reader application, and the reader application, and the target split-screen layout are used as an example. With reference to the left-to-right and top-to-bottom numbering sequence shown in FIG. 18 and the common display mode, the electronic device 100 may display the user interface 207 (chat interface) in the region 88 obtained after screen splitting, display the user interface 205 (browsing interface of the document XXX.pdf) in the region 89, display the user interface 201 (browsing interface of the note 1) in the region 86, and display the user interface 206 (browsing interface of the document YYY.pdf) in the region 87.

**[0248]** In this way, the user can obtain better screen splitting experience.

**[0249]** FIG. 20 is a schematic diagram of a structure of an electronic device 100 according to an embodiment of this application.

**[0250]** The electronic device 100 may include a processor 110, an external memory interface 120, an internal memory 121, a universal serial bus (universal serial bus, USB) interface 130, a charging management module 140, a power management module 141, a battery 142, an antenna 1, an antenna 2, a mobile communication module 150, a wireless communication module 160, an audio module 170, a speaker 170A, a receiver 170B, a microphone 170C, a headset jack 170D, a sensor module 180, a key 190, a motor 191, an indicator 192, a camera 193, a display screen 194, a subscriber identification module (subscriber identification module, SIM) card interface 195, and the like. The sensor module 180 may include a pressure sensor 180A, a gyroscope sensor 180B, a barometric pressure sensor 180C, a magnetic sensor 180D, an acceleration sensor 180E, a distance sensor 180F, an optical proximity sensor 180G, a fingerprint sensor 180H, a temperature sensor 180J, a touch sensor 180K, an ambient light sensor 180L, a bone conduction sensor 180M, and the like.

**[0251]** It may be understood that the structure illustrated in this embodiment of the present invention does not constitute a specific limitation on the electronic device 100. In some other embodiments of this application, the electronic device 100 may include more or fewer components than those shown in the figure, combine some components, split some components, or have different component arrangements. The parts shown in the figure may be implemented by hardware, software, or a combination of software and hardware.

**[0252]** The processor 110 may include one or more processing units. For example, the processor 110 may include an application processor (application processor, AP), a modem processor, a graphics processing unit (graphics processing unit, GPU), an image signal processor (image signal processor, ISP), a controller, a video codec, a digital signal processor (digital signal processor, DSP), a baseband processor, and/or a neural-network processing unit (neural-network processing unit, NPU). Different processing units may be independent devices, or may be integrated into one or more processors.

**[0253]** The controller may generate an operation control signal based on instruction operation code and a timing signal, to complete control of instruction fetching and instruction execution.

**[0254]** A memory may be further disposed in the processor 110 to store instructions and data. In some embodiments, the memory in the processor 110 is a cache. The memory may store instructions or data recently used or cyclically used by the processor 110. If the processor 110 needs to use the instructions or the data again, the processor 110 may directly invoke the instructions or the data from the memory. This avoids repeated access and reduces a waiting time of the processor 110, thereby improving system efficiency.

**[0255]** In some embodiments, the processor 110 may include one or more interfaces. The interface may include an inter-integrated circuit (inter-integrated circuit, I2C) interface, an inter-integrated circuit sound (inter-integrated circuit sound, I2S) interface, a pulse code modulation (pulse code modulation, PCM) interface, a universal asynchronous receiver/transmitter (universal asynchronous receiver/transmitter, UART) interface, a mobile industry processor interface (mobile industry processor interface, MIPI), a general-purpose input/output (general-purpose input/output, GPIO) interface, a subscriber identity module (subscriber identity module, SIM) interface, a universal serial bus (universal serial bus, USB) interface, and/or the like.

**[0256]** The USB interface 130 is an interface that complies with USB standard specifications, and may be specifically a Mini USB interface, a Micro USB interface, a USB Type C interface, or the like. The USB interface 130 may be configured to connect to a charger to charge the electronic device 100, or may be used for data transmission between the electronic device 100 and a peripheral device, or may be configured to

connect to a headset to play audio by using the headset.

**[0257]** The charging management module 140 is configured to receive a charging input from a charger. When charging the battery 142, the charging management module 140 may further supply power to the electronic device through the power management module 141.

**[0258]** The power management module 141 is configured to connect the battery 142 and the charging management module 140 to the processor 110. The power management module 141 receives an input from the battery 142 and/or the charging management module 140, and supplies power to the processor 110, the internal memory 121, the display screen 194, the camera 193, the wireless communication module 160, and the like.

**[0259]** A wireless communication function of the electronic device 100 may be implemented by using the antenna 1, the antenna 2, the mobile communication module 150, the wireless communication module 160, the modem processor, the baseband processor, and the like.

**[0260]** The mobile communication module 150 may provide a solution applied to the electronic device 100 for wireless communication including 2G/3G/4G/5G and the like. The wireless communication module 160 may provide a solution for wireless communication that is applied to the electronic device 100 and that includes a wireless local area network (wireless local area networks, WLAN) (for example, a wireless fidelity (wireless fidelity, Wi-Fi) network), Bluetooth (bluetooth, BT), a global navigation satellite system (global navigation satellite system, GNSS), frequency modulation (frequency modulation, FM), a near field communication (near field communication, NFC) technology, an infrared (infrared, IR) technology, and the like.

**[0261]** In some embodiments, in the electronic device 100, the antenna 1 is coupled to the mobile communication module 150, and the antenna 2 is coupled to the wireless communication module 160, so that the electronic device 100 can communicate with a network and another device by using a wireless communication technology. The wireless communication technology may include a global system for mobile communications (global system for mobile communications, GSM), a general packet radio service (general packet radio service, GPRS), code division multiple access (code division multiple access, CDMA), wideband code division multiple access (wideband code division multiple access, WCDMA), time-division code division multiple access (time-division code division multiple access, TD-SCDMA), long term evolution (long term evolution, LTE), BT, a GNSS, a WLAN, NFC, FM, an IR technology, and/or the like. The GNSS may include a global positioning system (global positioning system, GPS), a global navigation satellite system (global navigation satellite system, GLONASS), a BeiDou navigation satel-

lite system (beidou navigation satellite system, BDS), a quasi-zenith satellite system (quasi-zenith satellite system, QZSS), and/or a satellite based augmentation system (satellite based augmentation systems, SBAS).

**[0262]** The electronic device 100 implements a display function by using the GPU, the display screen 194, the application processor, and the like. The GPU is a microprocessor for image processing, and is connected to the display screen 194 and the application processor. The GPU is configured to perform mathematical and geometric computing for graphics rendering. The processor 110 may include one or more GPUs that execute program instructions to generate or change display information.

**[0263]** The display screen 194 is configured to display an image, a video, and the like. The display screen 194 includes a display panel. The display panel may be a liquid crystal display (liquid crystal display, LCD). The display panel may be further made from an organic light-emitting diode (organic light-emitting diode, OLED), an active-matrix organic light emitting diode (active-matrix organic light emitting diode, AMOLED), a flexible light-emitting diode (flex light-emitting diode, FLED), a miniled, a microled, a micro-oled, a quantum dot light emitting diode (quantum dot light emitting diodes, QLED), or the like. In some embodiments, the electronic device may include one or N display screens 194, where N is a positive integer greater than 1.

**[0264]** In this embodiment of this application, the electronic device 100 implements, by using display functions provided by the GPU, the display screen 194, the application processor, and the like, the user interfaces shown in FIG. 4A-FIG. 4M, FIG. 5A-FIG. 5C, FIG. 6A-FIG. 6Q, FIG. 7A-FIG. 7B, FIG. 8A-FIG. 8B, FIG. 9A-FIG. 9J, FIG. 12A-FIG. 12J, FIG. 13A-FIG. 13D, FIG. 14A-FIG. 14C, FIG. 15A-FIG. 15K, FIG. 16A-FIG. 16D, and FIG. 17.

**[0265]** The electronic device 100 may implement a shooting function by using the ISP, the camera 193, the video codec, the GPU, the display screen 194, the application processor, and the like. In some embodiments, the electronic device 100 may include one or N cameras 193, where N is a positive integer greater than 1.

**[0266]** The internal memory 121 may include one or more random access memories (random access memory, RAM) and one or more non-volatile memories (non-volatile memory, NVM).

**[0267]** The random access memory may include a static random-access memory (static random-access memory, SRAM), a dynamic random access memory (dynamic random access memory, DRAM), a synchronous dynamic random access memory (synchronous dynamic random access memory, SDRAM), a double data rate synchronous dynamic random access memory (double data rate synchronous dynamic random access memory, DDR SDRAM, for example, a fifth generation DDR SDRAM is usually referred to as DDR5

SDRAM), and the like. The non-volatile memory may include a magnetic disk storage device and a flash memory (flash memory).

**[0268]** The processor 110 may directly read from or write into the random access memory. The random access memory may be configured to store an executable program (for example, a machine instruction) of an operating system or another running program, and may be further configured to store data of a user and data of an application, and the like. The non-volatile memory may also store the executable program, the data of the user, the data of the application, and the like, which may be loaded into the random access memory in advance for direct reading and writing by the processor 110.

**[0269]** In this embodiment of this application, application program code for implementing the split-screen display method described in this embodiment of this application may be stored in a non-volatile memory. The application program code may be loaded into a random access memory and executed by the processor 110, so as to implement the split-screen display functions shown in FIG. 4A-FIG. 4M, FIG. 5A-FIG. 5C, FIG. 6A-FIG. 6Q, FIG. 7A-FIG. 7B, FIG. 8A-FIG. 8B, FIG. 9A-FIG. 9J, FIG. 12A-FIG. 12J, FIG. 13A-FIG. 13D, FIG. 14A-FIG. 14C, FIG. 15A-FIG. 15K, FIG. 16A-FIG. 16D, and FIG. 17.

**[0270]** The external memory interface 120 may be configured to connect to an external non-volatile memory, to extend a storage capability of the electronic device 100. The external non-volatile memory communicates with the processor 110 by using the external memory interface 120, to implement a data storage function.

**[0271]** The electronic device 100 may implement an audio function, for example, music playing or sound recording, through the audio module 170, the speaker 170A, the receiver 170B, the microphone 170C, the headset jack 170D, the application processor, and the like.

**[0272]** The pressure sensor 180A is configured to sense a pressure signal, and may convert the pressure signal into an electrical signal. In some embodiments, the pressure sensor 180A may be disposed in the display screen 194. When a touch operation is performed on the display screen 194, the electronic device 100 detects intensity of the touch operation based on the pressure sensor 180A. The electronic device 100 may also calculate a touch location based on a detected signal of the pressure sensor 180A. Referring to FIG. 4A-FIG. 4M, FIG. 5A-FIG. 5C, FIG. 6A-FIG. 6Q, FIG. 7A-FIG. 7B, FIG. 8A-FIG. 8B, FIG. 9A-FIG. 9J, touch operations acting at a same touch position and with different touch operation intensities may correspond to different operation instructions.

**[0273]** The gyroscope sensor 180B may be configured to determine an angular velocity of the electronic device 100 around three axes (that is, x, y, and z axes),

and is further configured to determine a motion posture of the electronic device 100. The acceleration sensor 180E may detect magnitudes of acceleration in various directions (usually on three axes) of the electronic device 100, and is usually used together with the gyroscope sensor 180B to determine the motion gesture of the electronic device 100. The barometric pressure sensor 180C may be configured to measure atmospheric pressure. The magnetic sensor 180D includes a Hall sensor. The electronic device 100 may detect opening/closing of a flip leather case by using the magnetic sensor 180D. The distance sensor 180F may be configured to measure a distance. The optical proximity sensor 180G may include, for example, a light-emitting diode (LED) and an optical detector. The electronic device 100 may use the optical proximity sensor 180G to detect that there is no object near the electronic device 100. The ambient light sensor 180L may be configured to sense ambient light luminance. The electronic device 100 may adaptively adjust brightness of the display screen 194 based on the sensed ambient light brightness. The fingerprint sensor 180H may be configured to collect a fingerprint. The temperature sensor 180J may be configured to detect a temperature. The bone conduction sensor 180M may obtain a vibration signal.

**[0274]** The touch sensor 180K is also referred to as a "touch device". The touch sensor 180K may be disposed on the display screen 194. The touch sensor 180K and the display screen 194 constitute a touchscreen, which is also referred to as a "touch control screen". The touch sensor 180K is configured to detect a touch operation performed on or near the touch sensor. The touch sensor may transfer the detected touch operation to the application processor to determine a type of a touch event. A visual output related to the touch operation may be provided by using the display screen 194. In some other embodiments, the touch sensor 180K may alternatively be disposed on a surface of the electronic device 100, at a location different from that of the display screen 194.

**[0275]** In this embodiment of this application, the electronic device 100 may detect, by using the touch sensor 180K, whether there is a user operation acting on the screen, for example, an operation such as tap, long press, and slide (including slide upward, slide downward, slide rightward, and slide leftward). Referring to FIG. 4A-FIG. 4M, FIG. 5A-FIG. 5C, FIG. 6A-FIG. 6Q, FIG. 7A-FIG. 7B, FIG. 8A-FIG. 8B, FIG. 9A-FIG. 9J, FIG. 12A-FIG. 12J, FIG. 13A-FIG. 13D, FIG. 14A-FIG. 14C, FIG. 15A-FIG. 15K, FIG. 16A-FIG. 16D, and FIG. 17, based on a user operation that is detected by the touch sensor 180K and that acts on the screen, the electronic device 100 can determine an action to be performed subsequently, for example, run an application program, and display an interface of an application program.

**[0276]** The key 190 includes a power on/off key, a volume key, or the like. The key 190 may be a mechan-

ical key, or may be a touch key. The motor 191 may generate a vibration prompt. The motor 191 may be configured to provide a vibration prompt for an incoming call, and may also be configured to provide vibration feedback for a touch. The indicator 192 may be an indicator light, may be configured to indicate a charging status or a power change, or may be configured to indicate a message, a missed call, a notification, and the like. The SIM card interface 195 is configured to be connected to a SIM card. The electronic device 100 may support one or N SIM card interfaces, where N is a positive integer greater than 1.

**[0277]** A term "user interface (user interface, UI)" in the specification, claims, and accompanying drawings of this application is a medium interface for interaction and information exchange between a user and an application program or an operating system, and implements conversion between an internal form of information and a form acceptable to the user. A user interface of an application program is source code written in a specific computer language such as java or an extensible markup language (extensible markup language, XML). The source code of the interface is parsed and rendered on a terminal device, and is finally presented as user-recognizable content, for example, a control such as a picture, a text, or a button. The control (control) is also referred to as a widget (widget), and is a basic element of the user interface. Typical controls include a toolbar (toolbar), a menu bar (menu bar), a text box (text box), a button (button), a scrollbar (scrollbar), a picture, and a text. An attribute and content of the control on the interface are defined by using a label or a node. For example, the control included on the interface is defined in the XML by using a node such as <TextView>, <ImageView>, or <VideoView>. One node corresponds to one control or attribute on the interface. After being parsed and rendered, the node is presented as user-visible content. In addition, interfaces of many application programs, such as a hybrid application (hybrid application), usually further include a web page. The web page, also referred to as a page, may be understood as a special control embedded in an interface of an application. The web page is source code written in a specific computer language, for example, a hyper text markup language (hyper text markup language, HTML), a cascading style sheet (cascading style sheets, CSS), or a javascript (JavaScript, JS). The source code of the web page may be loaded and displayed as user-recognizable content by a browser or a web page display component with a function similar to that of the browser. Specific content included in the web page is also defined by using a label or a node in the source code of the web page. For example, the HTML defines elements and attributes of the web page by using <p>, <img>, <video>, and <canvas>.

**[0278]** The user interface is usually in a representation form of a graphical user interface (graphic user interface, GUI), and the graphical user interface is a

user interface that is related to a computer operation and that is displayed in a graphical manner. The graphical user interface may be an interface element such as an icon, a window, or a control that is displayed on a display screen of an electronic device. The control may include visible interface elements such as an icon, a button, a menu, a tab, a text box, a dialog box, a status bar, a navigation bar, and a Widget.

**[0279]** The singular expression forms "one", "a", "the", "the foregoing", and "this" used in the specification and the appended claims of this application are also intended to include plural expression forms, unless otherwise specified in the context clearly. It should be further understood that the term "and/or" used in this application indicates and includes any or all possible combinations of one or more listed items. As used in the foregoing embodiments, according to the context, the term "when" may be interpreted as "if", "after", "in response to determining", or "in response to detecting". Similarly, based on the context, the phrase "when determining ..." or "if detecting (a stated condition or event)" may be interpreted as a meaning of "if determining ...", "in response to determining ...", "when detecting (a stated condition or event)", or "in response to detecting ... (a stated condition or event)".

**[0280]** All or some of the foregoing embodiments may be implemented by using software, hardware, firmware, or any combination thereof. When the software is used for implementation, all or some of the embodiments may be implemented in a form of a computer program product. The computer program product includes one or more computer instructions. When the computer program instructions are loaded and executed on a computer, all or some of the procedures or functions according to the embodiments of this application are generated. The computer may be a general-purpose computer, a dedicated computer, a computer network, or another programmable apparatus. The computer instructions may be stored in a computer-readable storage medium or transmitted from one computer-readable storage medium to another computer-readable storage medium. For example, the computer instructions may be transmitted from one website, computer, server, or data center to another website, computer, server, or data center in a wired manner (for example, a coaxial cable, an optical fiber, or a digital subscriber line) or a wireless manner (for example, infrared, wireless, or microwave). The computer-readable storage medium may be any usable medium accessible by the computer, or a data storage device, such as a server or a data center, integrating one or more usable media. The usable medium may be a magnetic medium (for example, a floppy disk, a hard disk, or a magnetic tape), an optical medium (for example, a DVD), a semiconductor medium (for example, a solid-state drive), or the like.

**[0281]** Persons of ordinary skill in the art may understand that all or some of the procedures of the methods

in the foregoing embodiments are implemented. The procedures may be completed by a computer program instructing related hardware. The program may be stored in a computer-readable storage medium. When the program is executed, the procedures in the foregoing method embodiments may be included. The foregoing storage medium includes any medium that can store program code, for example, a ROM, a random access memory RAM, a magnetic disk, or an optical disc.

## Claims

1. A split-screen display method, applied to an electronic device, wherein the method comprises:

displaying N user interfaces in a split-screen manner;

detecting a first user operation and displaying a background interface, wherein the background interface comprises a first application card and a first split-screen card, the first application card corresponds to a first user interface, and the first split-screen card corresponds to the N user interfaces; and the first user interface is a user interface provided by a first application; and

detecting user operations on the first application card and the first split-screen card, and displaying the N user interfaces and the first user interface in a split-screen manner.

2. The method according to claim 1, wherein after the displaying a background interface, the method further comprises:

displaying a plurality of split-screen style controls, wherein one split-screen style control corresponds to one split-screen style, and a split-screen style comprises a quantity of user interfaces for screen splitting and an arrangement layout of the user interfaces; and

detecting a user operation on a first split-screen style control in the plurality of split-screen style controls, wherein a quantity of user interfaces for screen splitting in a split-screen style corresponding to the first split-screen style control is N+1; and

the detecting user operations on the first application card and the first split-screen card, and displaying the N user interfaces and the first user interface in a split-screen manner specifically comprises:

detecting user operations on the first application card and the first split-screen card, and that a total quantity of user interfaces corresponding to the first application card and the

first split-screen card reaches N+1, and displaying the N user interfaces and the first user interface in a split-screen manner.

3. The method according to claim 2, wherein before the displaying a plurality of split-screen style controls, the method further comprises: detecting a second user operation, wherein the second user operation is used to trigger displaying of a split-screen style control.

4. The method according to claim 3, wherein the second user operation is specifically a slide-downward operation, and a start point of the slide-downward operation is below a screen upper edge of the electronic device.

5. The method according to claim 3, wherein the background interface comprises at least one application card, the at least one application card comprises the first application card, and the second user operation is specifically: a long press operation acting on any one of the at least one application card or the first split-screen card.

6. The method according to any one of claims 2-5, wherein after the detecting a user operation on a first split-screen style control in the plurality of split-screen style controls, the method further comprises:

displaying the first preview control, wherein the first preview control comprises the N+1 windows;

the detecting user operations on the first application card and the first split-screen card comprises: detecting a third user operation on the first split-screen card, and detecting a fourth user operation on the first application card;

after the detecting a third user operation on the first split-screen card, the method further comprises: respectively displaying, in N windows of the first preview control, the N user interfaces corresponding to the first split-screen card; and

after the detecting a fourth user operation on the first application card, the method further comprises: displaying, in a first window of the first preview control, the first user interface corresponding to the first application card, wherein the first window is a window other than the N windows in the N+1 windows.

7. The method according to claim 6, wherein the background interface further comprises a second application card, and after the detecting a third user operation on the first split-screen card, and before the detecting a fourth user operation on the

first application card, the method further comprises:

detecting a fifth user operation on the second application card, and displaying, in the first window of the first preview control, the second user interface corresponding to the second application card, wherein the second user interface is different from the first user interface; and  
detecting a sixth user operation on a first edit control, and stopping displaying the second user interface in the first window.

8. The method according to claim 6 or 7, wherein the displaying the N user interfaces and the first user interface in a split-screen manner specifically comprises: displaying the N user interfaces and the first user interface in a split-screen manner after a user operation on the first preview control is detected.
9. The method according to claim 6, wherein the N+1 windows comprise at least one vertical window, the N user interfaces corresponding to the first split-screen card and a first-type interface in the first user interface preferentially occupy the vertical window for display, and the first-type interface is a user interface commonly used for portrait display.
10. The method according to claim 9, wherein the first-type interface comprises one or more of a short video playback interface, a document browsing interface, and an information transceiving interface.
11. The method according to claim 6, wherein after the detecting a third user operation on the first split-screen card, the method further comprises: marking the first split-screen card to indicate that the N user interfaces corresponding to the first split-screen card are selected; and  
after the detecting a fourth user operation on the first application card, the method further comprises: marking the first application card to indicate that the first user interface corresponding to the first application card is selected.
12. The method according to claim 11, wherein the marking specifically comprises: covering with a shadow.
13. The method according to claim 1, wherein the N user interfaces comprise a third user interface provided by the first application, and the third user interface is different from the first user interface.
14. The method according to claim 1, wherein the N user interfaces correspond to N applications, the N applications are different from each other, and the

N applications do not comprise the first application.

15. A split-screen display method, applied to an electronic device, wherein the method comprises:

displaying N user interfaces in a split-screen manner;  
detecting a first user operation and displaying a background interface, wherein the background interface comprises a third application card and a fourth application card, the third application card corresponds to a third user interface, the fourth application card corresponds to a fourth user interface, and the third user interface is a user interface in the N user interfaces; and  
detecting user operations on the third application card and the fourth application card, and displaying the third user interface and the fourth user interface in a split-screen manner.

16. The method according to claim 15, wherein the background interface further comprises a first split-screen card, the first split-screen card corresponds to the N user interfaces, and after the displaying the third user interface and the fourth user interface in a split-screen manner, the method further comprises:

detecting the first user operation, and displaying the background interface again, wherein the background interface comprises the first split-screen card and a second split-screen card, and the second split-screen card corresponds to the third user interface and the fourth user interface; and  
after a user operation on the first split-screen card is detected, displaying the N user interfaces in a split-screen manner.

17. The method according to claim 16, wherein the method further comprises:  
after a user operation on the second split-screen card is detected, continuing to display the third user interface and the fourth user interface in a split-screen manner.

18. The method according to claim 15, wherein the N user interfaces do not comprise the fourth user interface.

19. The method according to claim 15, wherein the fourth user interface is a user interface in the N user interfaces, and the third user interface is different from the fourth user interface.

20. The method according to claim 15, wherein the third user interface and the fourth user interface

are provided by one application.

21. The method according to claim 15, wherein the third user interface and the fourth user interface are provided by two different applications.

22. The method according to any one of claims 15-17, wherein after the displaying a background interface, the method further comprises:

displaying a plurality of split-screen style controls, wherein one split-screen style control corresponds to one split-screen style, and a split-screen style comprises a quantity of user interfaces for screen splitting and an arrangement layout of the user interfaces; and detecting a user operation on a second split-screen style control in the plurality of split-screen style controls, wherein a quantity of user interfaces for screen splitting in a split-screen style corresponding to the second split-screen style control is 2; and the detecting user operations on the third application card and the fourth application card, and displaying the third user interface and the fourth user interface in a split-screen manner specifically comprises:

detecting user operations on the third application card and the fourth application card, and that a total quantity of user interfaces corresponding to the third application card and the fourth application card reaches 2, and displaying the third user interface and the fourth user interface in a split-screen manner.

23. The method according to claim 22, wherein before the displaying a plurality of split-screen style controls, the method further comprises: detecting a second user operation, wherein the second user operation is used to trigger displaying of a split-screen style control.

24. The method according to claim 23, wherein the second user operation is specifically a slide-downward operation, and a start point of the slide-downward operation is below a screen upper edge of the electronic device.

25. The method according to claim 23, wherein the background interface comprises at least one application card, the at least one application card comprises the third application card and the fourth application card, and the second user operation is specifically: a long press operation acting on any one of the at least one application card.

26. The method according to any one of claims 22-25, wherein after the detecting a user operation on a

second split-screen style control in the plurality of split-screen style controls, the method further comprises:

displaying the second preview control, wherein the second preview control comprises two windows; the detecting user operations on the third application card and the fourth application card comprises: detecting a seventh user operation on the third application card, and detecting an eighth user operation on the fourth application card; after the detecting a seventh user operation on the third application card, the method further comprises: displaying, in one of the two windows, the third user interface corresponding to the third application card; and after the detecting an eighth user operation on the fourth application card, the method further comprises: displaying, in the other one of the two windows, the fourth user interface corresponding to the fourth application card.

27. The method according to claim 26, wherein the displaying the third user interface and the fourth user interface in a split-screen manner specifically comprises: displaying the third user interface and the fourth user interface in a split-screen manner after a user operation on the second preview control is detected.

28. The method according to claim 26, wherein the two windows comprise at least one vertical window, a first-type interface in the third user interface and the fourth user interface preferentially occupies the vertical window for display, and the first-type interface is a user interface commonly used for portrait display.

29. The method according to claim 28, wherein the first-type interface comprises one or more of a short video playback interface, a document browsing interface, and an information transceiving interface.

30. The method according to claim 26, wherein after the detecting a seventh user operation on the third application card, the method further comprises: marking the third application card to indicate that the third user interface corresponding to the third application card is selected; and after the detecting an eighth user operation on the fourth application card, the method further comprises: marking the fourth application card to indicate that the fourth user interface corresponding to the fourth application card is selected.

31. The method according to claim 30, wherein the marking specifically comprises: covering with a shadow.

32. A split-screen display method, applied to an electronic device, wherein the method comprises:

when a first interface of a fifth application is displayed, detecting a first operation on a first control;  
displaying a second interface and a first card in response to the first operation, wherein a plurality of icons are displayed on the second interface, one icon corresponds to one application, and the first card comprises a first icon corresponding to the fifth application;  
detecting a second operation on N icons in the plurality of icons, and updating the first card, wherein the updated first card comprises the first icon and the N icons, and  $N \geq 1$ ; and  
detecting a third operation on the updated first card, and displaying M user interfaces in a split-screen manner, wherein the M user interfaces are provided by applications corresponding to the N icons and the fifth application, and  $M \geq N+1$ .

33. The method according to claim 32, wherein the detecting a second operation on N icons in the plurality of icons, and updating the first card, wherein the updated first card comprises the first icon and the N icons specifically comprises:

detecting an operation on a second icon in the plurality of icons, and updating the first card, wherein the updated first card comprises the first icon and the second icon; and  
detecting an operation on a third icon in the plurality of icons, and continuing to update the first card, wherein the updated first card comprises the first icon, the second icon, and the third icon.

34. The method according to claim 33, wherein the method further comprises:

detecting an operation on the third icon again, and continuing to update the first card; and  
the updated first card comprises two third icons, or the updated first card further comprises first indication information, and the first indication information is used to indicate that a user has selected the third icon twice.

35. The method according to claim 34, wherein the M user interfaces comprise two user interfaces provided by applications corresponding to the third icon.

36. The method according to claim 35, wherein the applications corresponding to the third icon comprise: a browser, a reader, and an instant messaging application.

37. The method according to claim 33 or 34, wherein

the detecting an operation on a second icon in the plurality of icons specifically comprises: detecting an operation of dragging the first card to the second icon by the user; and  
the detecting an operation on a third icon in the plurality of icons specifically comprises: detecting an operation of continuing to drag the updated first card to the third icon by the user.

38. The method according to claim 37, wherein the detecting a third operation on the updated first card specifically comprises: detecting an operation of lifting a finger to release the updated first card.

39. The method according to claim 38, wherein when a user touch point is within the second icon, the electronic device determines that the user drags the first card to the second icon.

40. The method according to claim 39, wherein when the user drags the first card, a display position of the first card in a screen varies with the user touch point, and the user touch point is in a corner region of the first card.

41. The method according to claim 33 or 34, wherein

the detecting an operation on a second icon in the plurality of icons specifically comprises: detecting a first touch operation acting on the second icon; and  
the detecting an operation on a third icon in the plurality of icons specifically comprises: detecting a first touch operation acting on the third icon.

42. The method according to claim 41, wherein the detecting a third operation on the updated first card specifically comprises: detecting a second touch operation on the updated first card.

43. The method according to claim 42, wherein the first touch operation is one of the following operations: a tap operation, a long press operation, and a slide operation; and the second touch operation is one of the following operations: a tap operation, a long press operation, and a slide operation.

44. The method according to claim 38 or 42, wherein before the displaying M user interfaces in a split-screen manner, the method further comprises:

displaying at least one M-split-screen style control; and  
 detecting a fourth operation on a fifth split-screen style control in the at least one M-split-screen style control; and  
 the displaying M user interfaces in a split-screen manner specifically comprises: displaying the M user interfaces in a split-screen manner according to a layout corresponding to the fifth split-screen style.

45. The method according to claim 44, wherein the method further comprises: displaying M delete controls in a third interface, wherein the third interface comprises the at least one M-split-screen style control, the M delete controls are in a one-to-one correspondence with the M user interfaces, and one delete control is used to delete one corresponding user interface.
46. The method according to claim 32, wherein applications corresponding to the N icons and the fifth application comprise a second target application, the second target application is commonly used for portrait display, the M user interfaces comprise a user interface provided by the second target application, and the M user interfaces displayed in a split-screen manner comprise a user interface provided by the second target application and displayed in a vertical rectangular region.
47. The method according to claim 46, wherein the second target application comprises: a short video application, a reader, or an instant messaging application.
48. The method according to claim 32, wherein the first control is displayed on an upper edge of a screen, and the first operation on the first control specifically comprises: dragging the first control to slide downward.
49. An electronic device, comprising one or more processors and one or more memories, wherein the one or more memories are coupled to the one or more processors, the one or more memories are configured to store a computer program, and when the one or more processors execute the computer program, the method according to any one of claims 1-14, 15-31, or 32-48 is performed.
50. A computer-readable storage medium, comprising a computer program, wherein when the computer program is run on an electronic device, the electronic device performs the method according to any one of claims 1-14, 15-31, or 32-48.

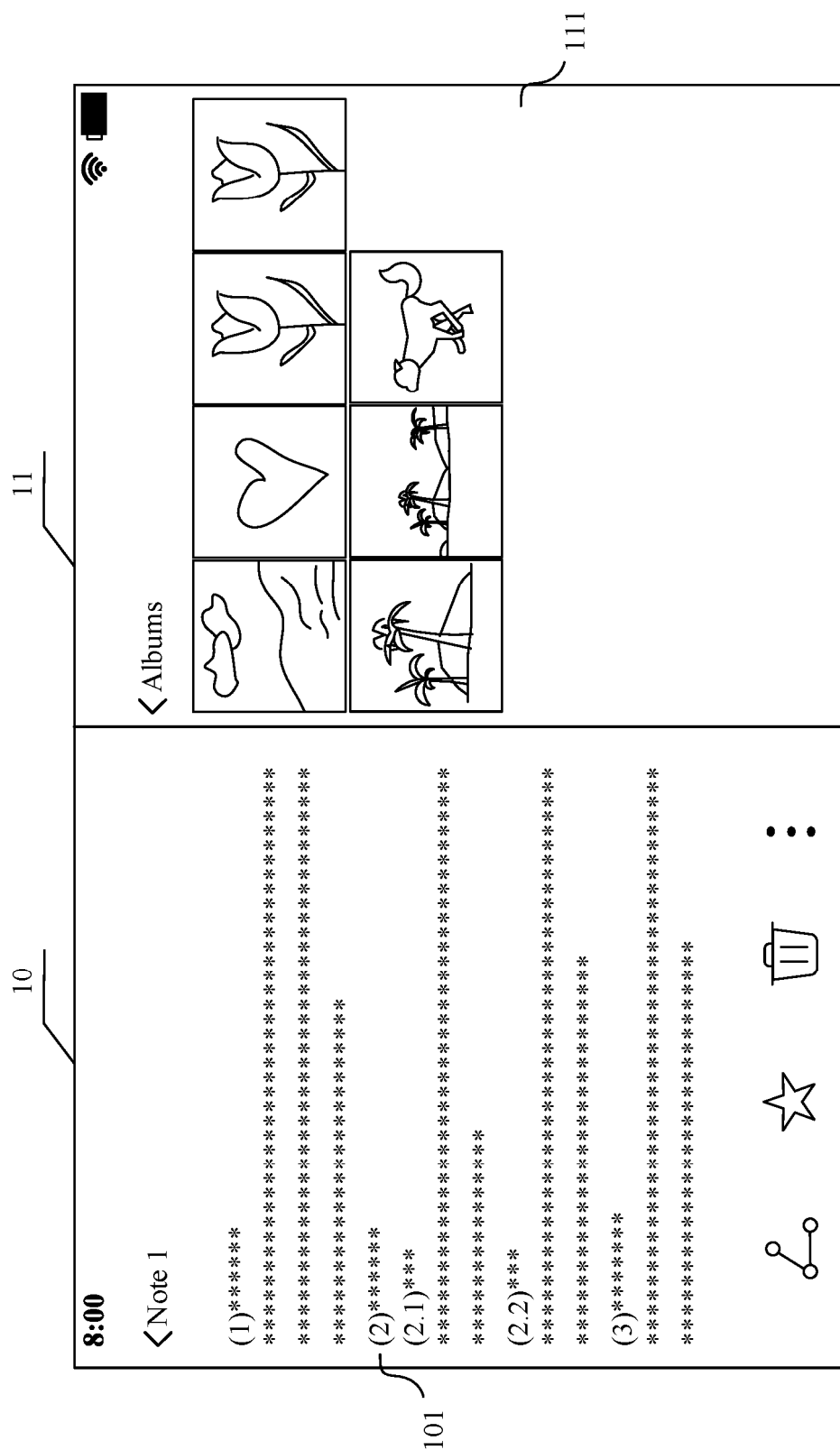


FIG. 1A

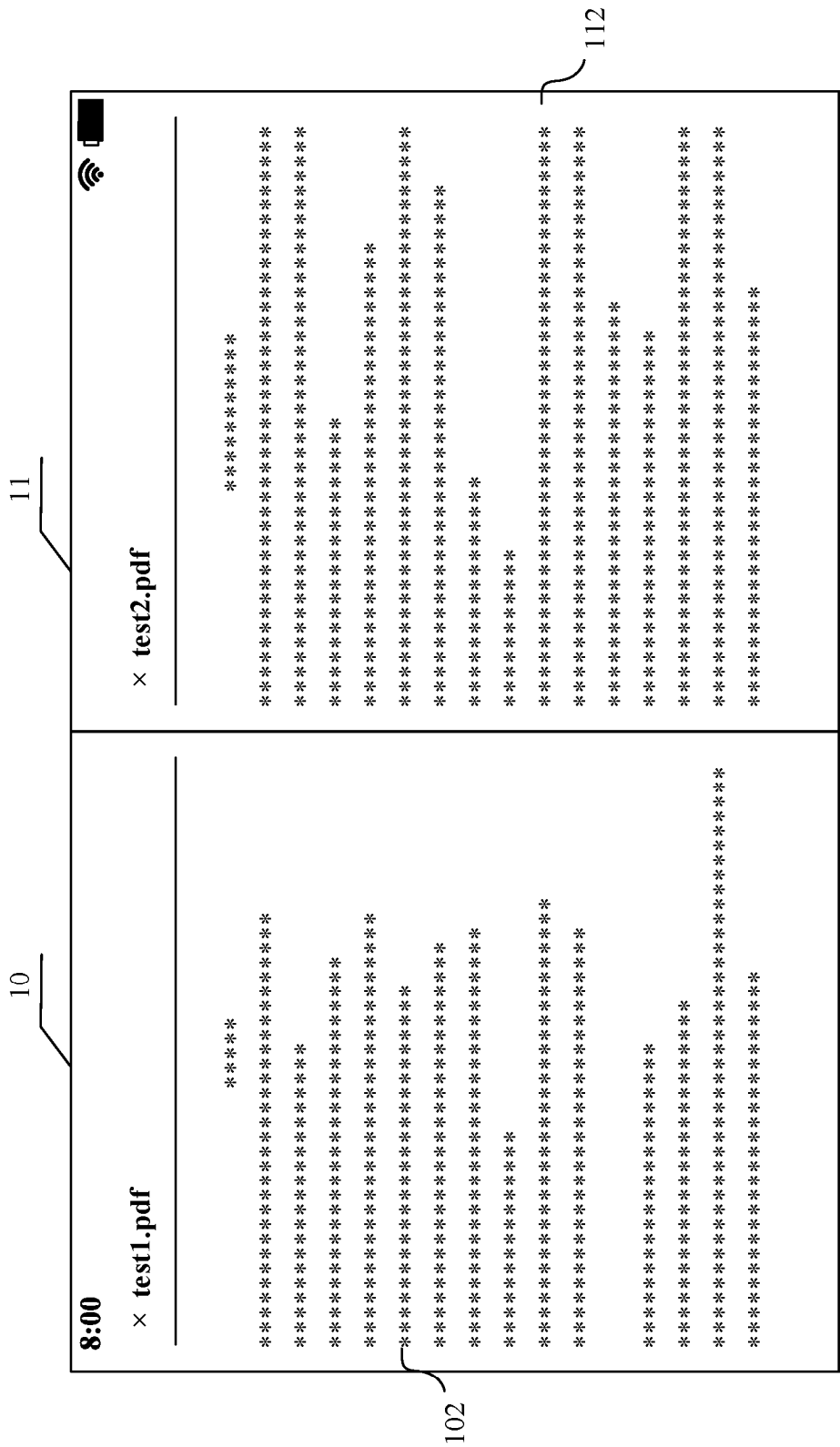


FIG. 1B

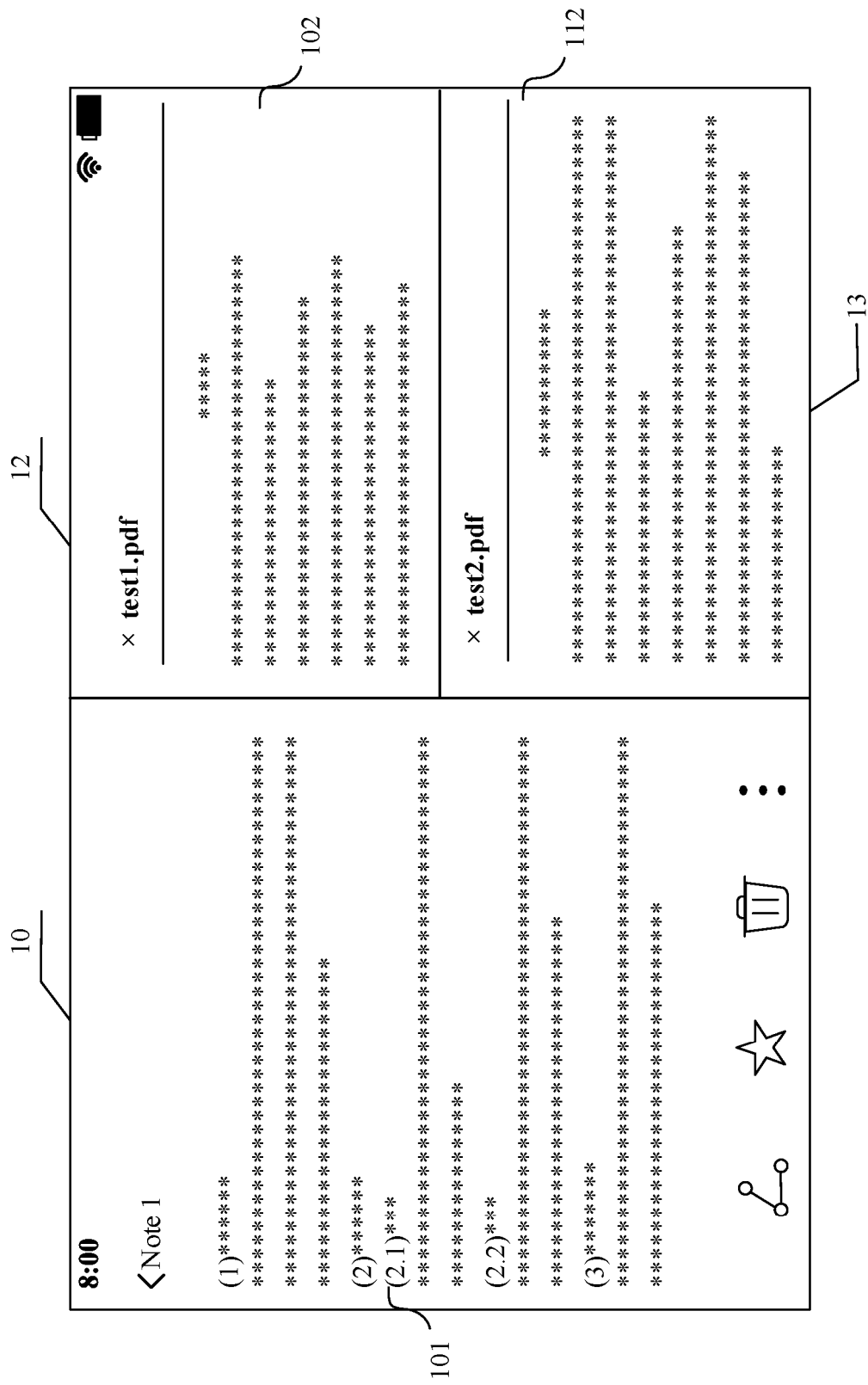


FIG. 1C

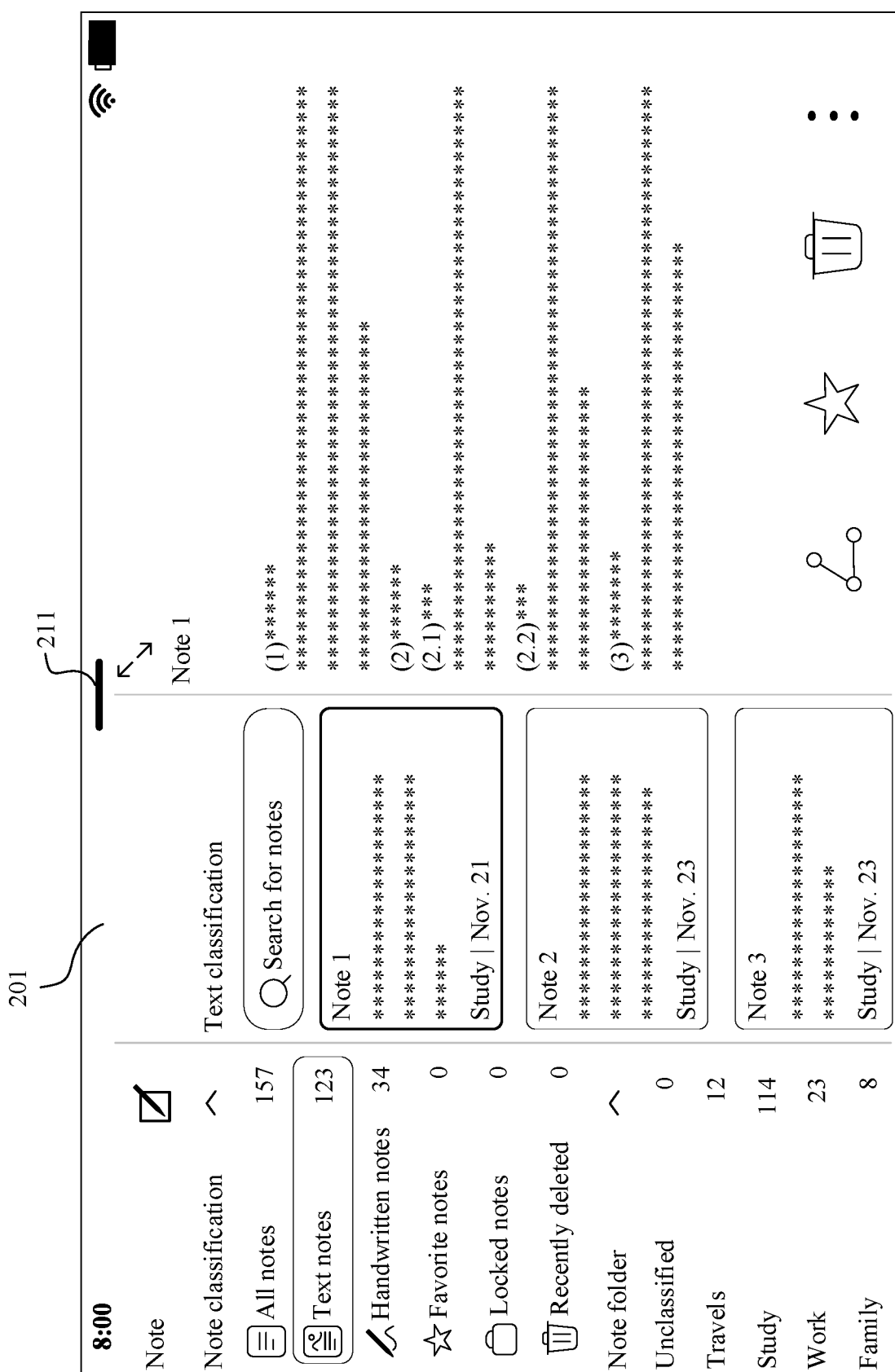


FIG. 2A

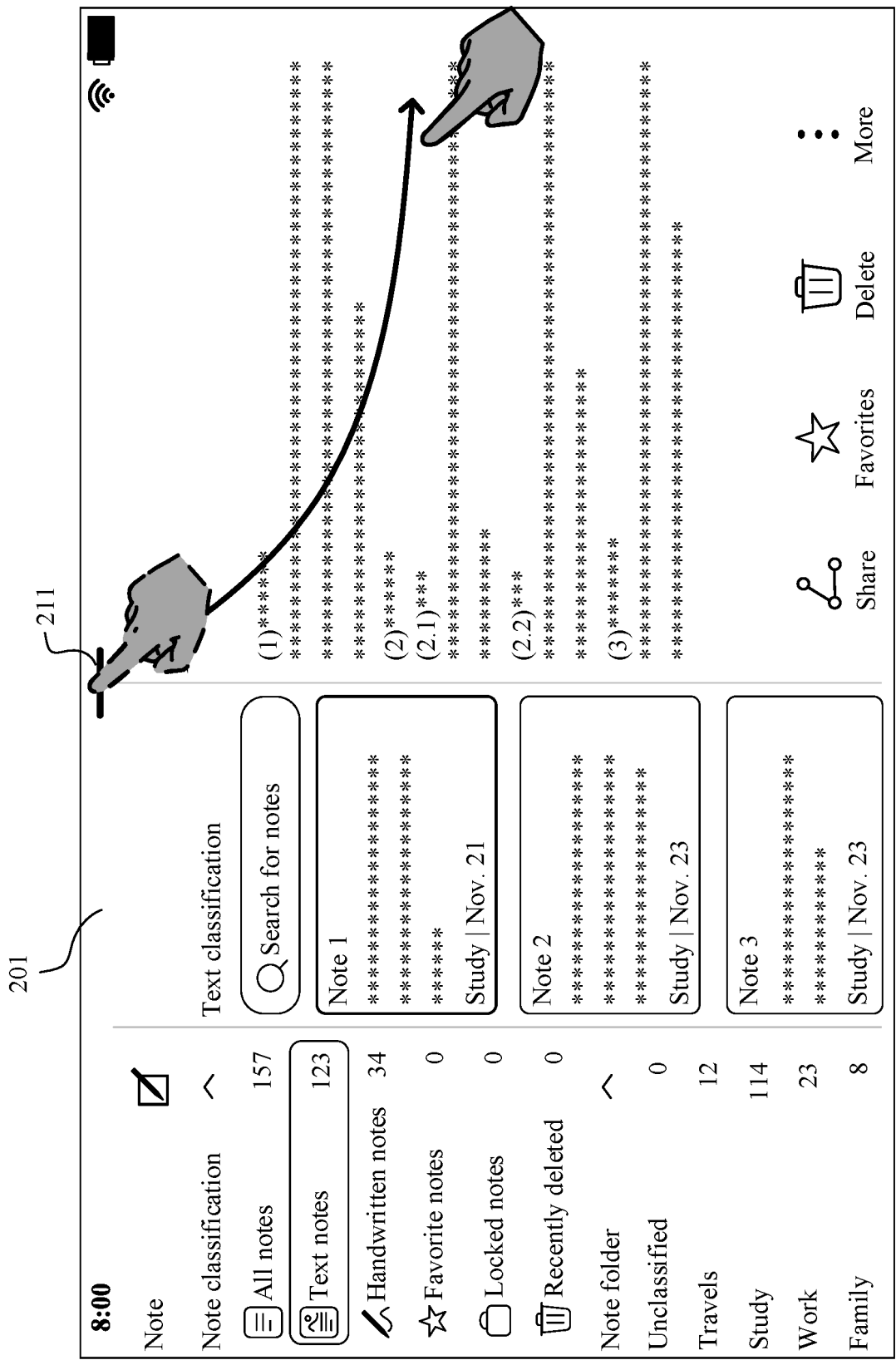


FIG. 2B

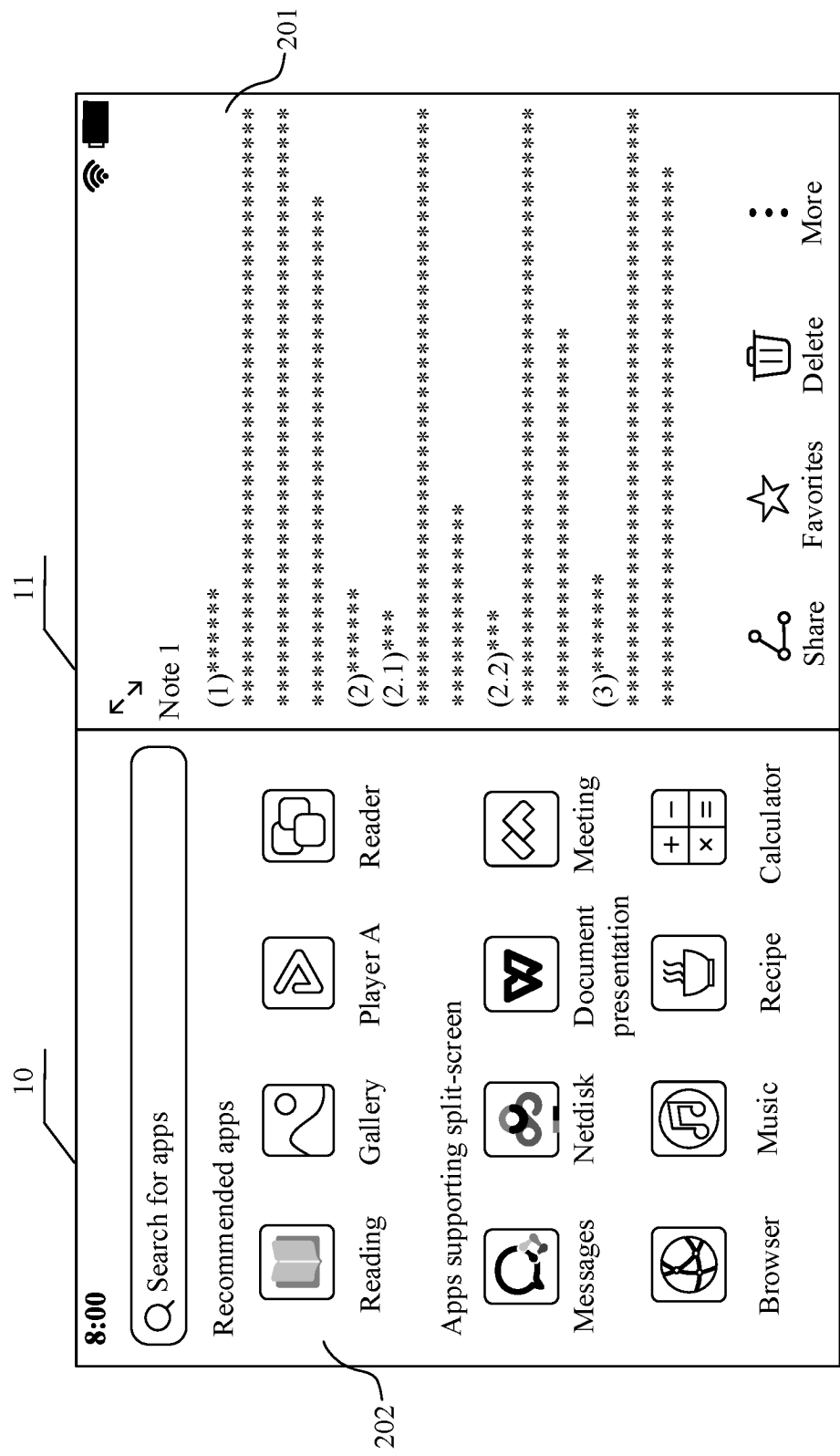


FIG. 2C

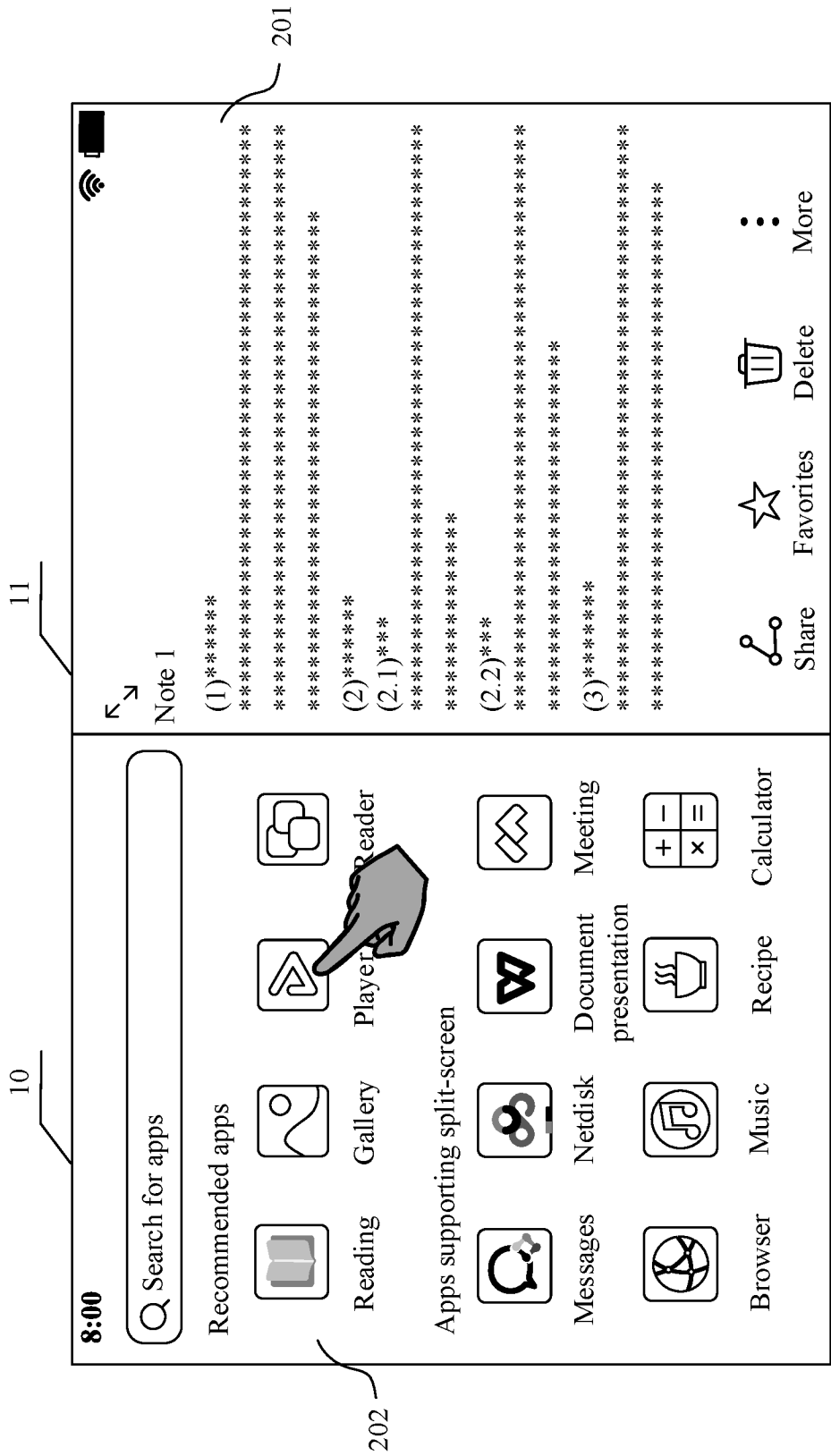


FIG. 2D

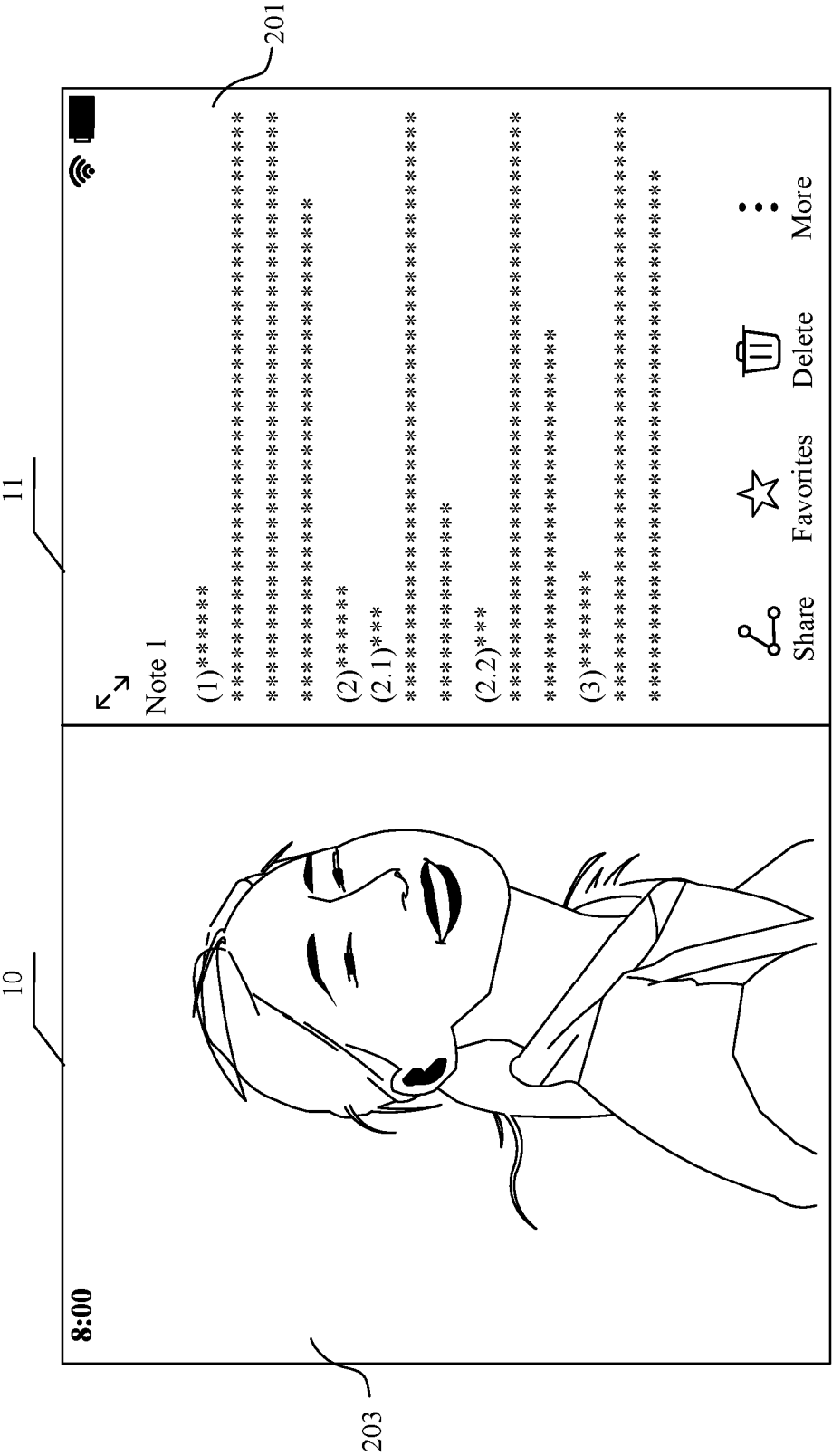


FIG. 2E

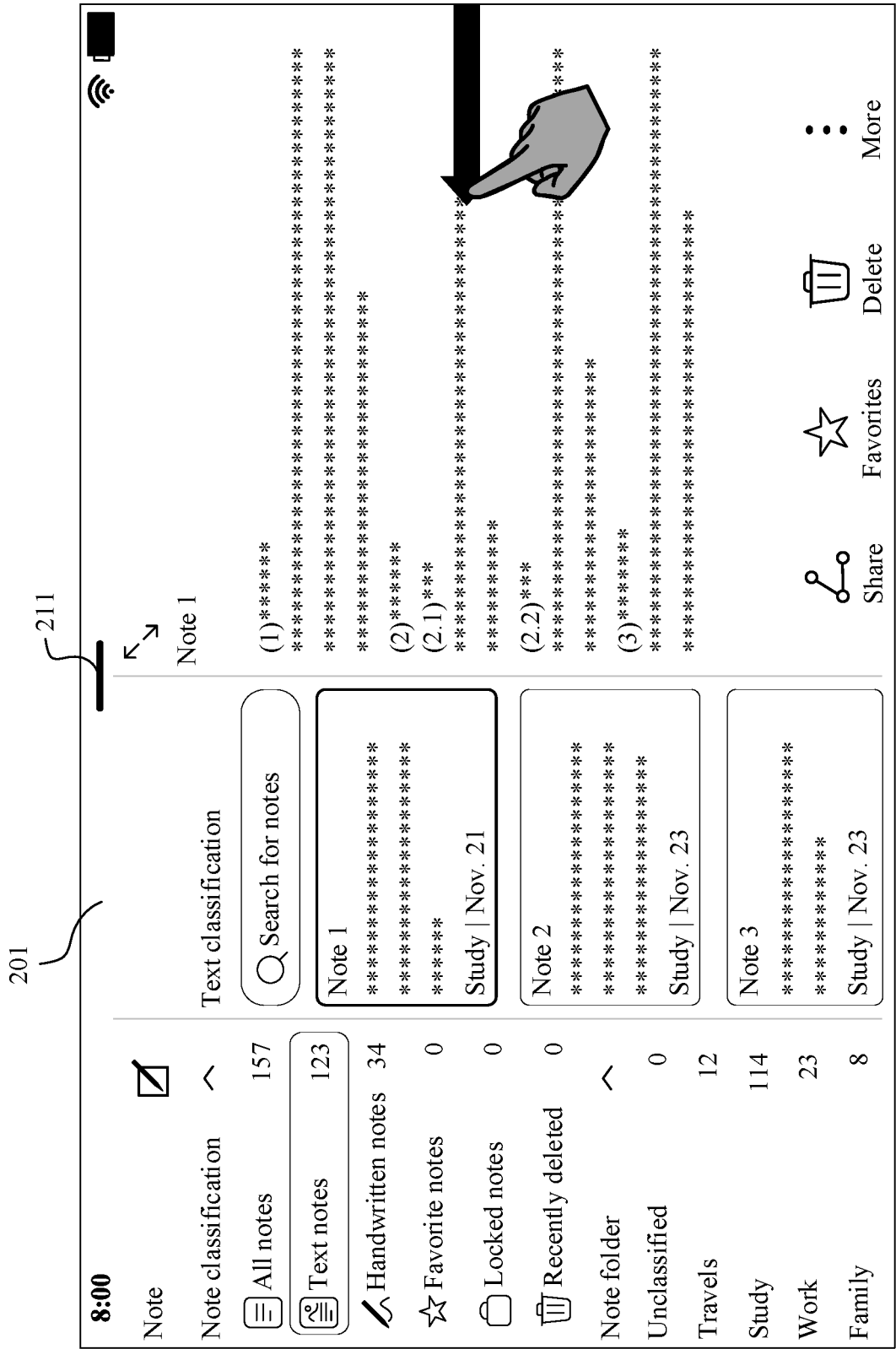


FIG. 3A

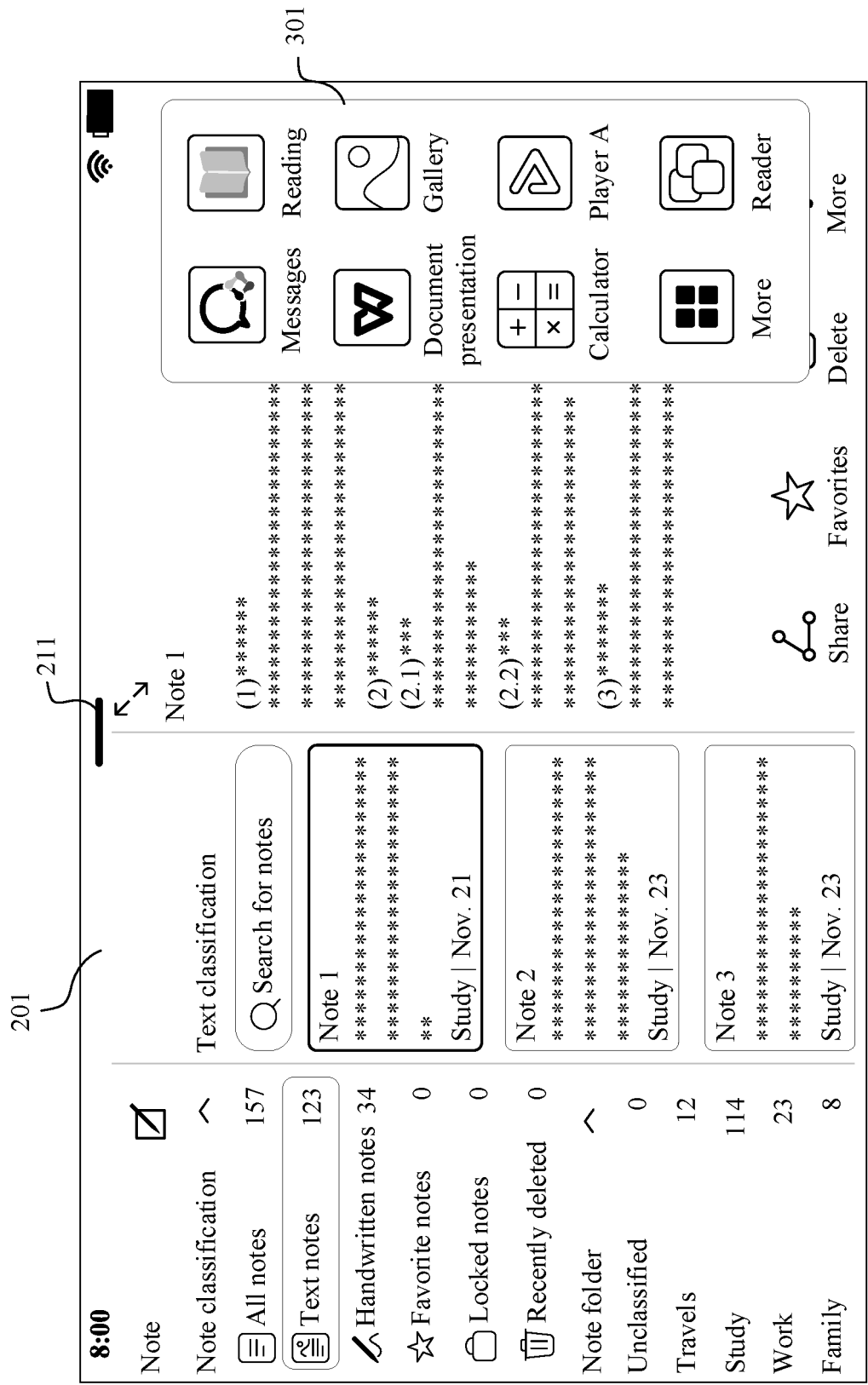


FIG. 3B

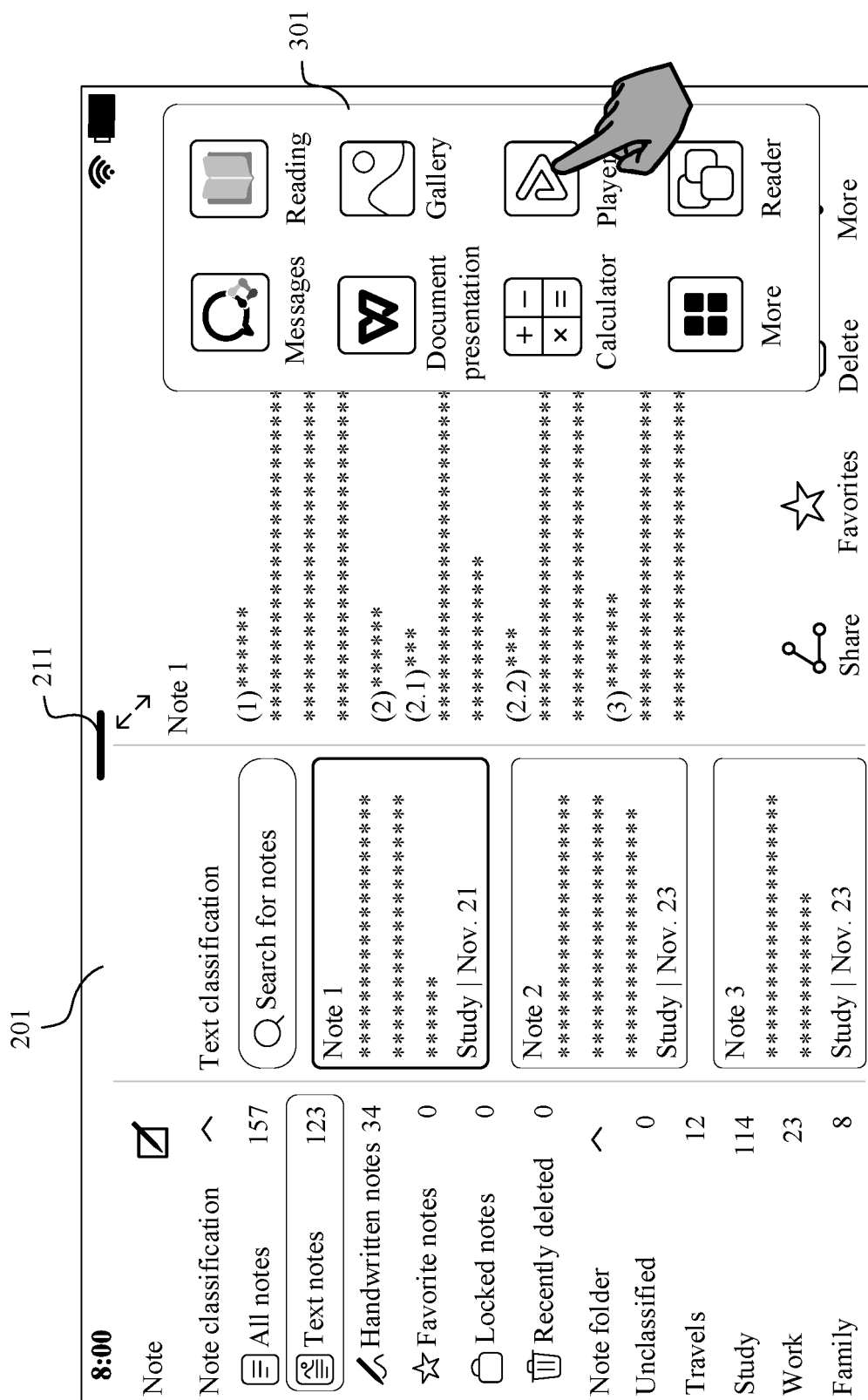


FIG. 3C

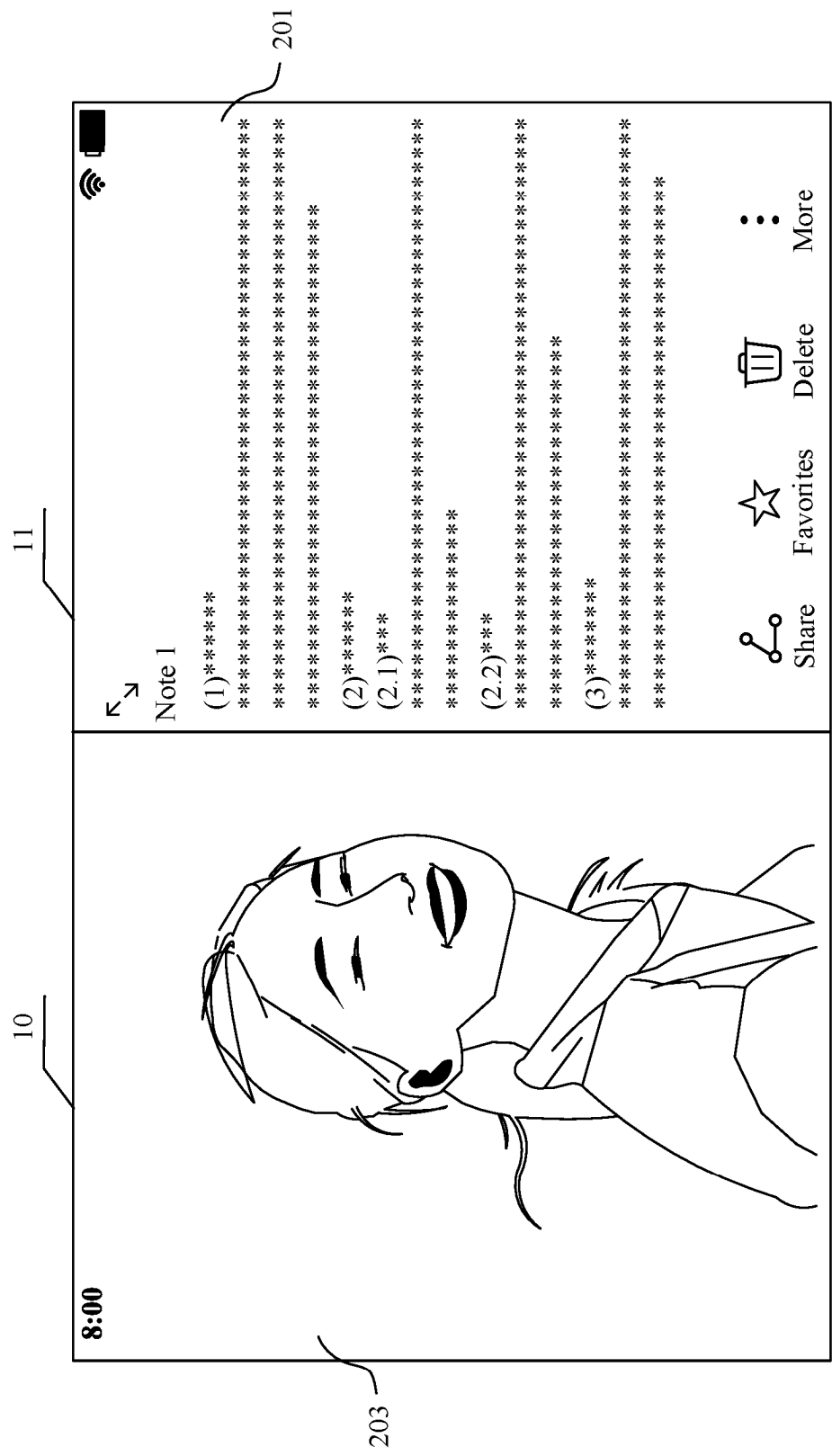


FIG. 3D

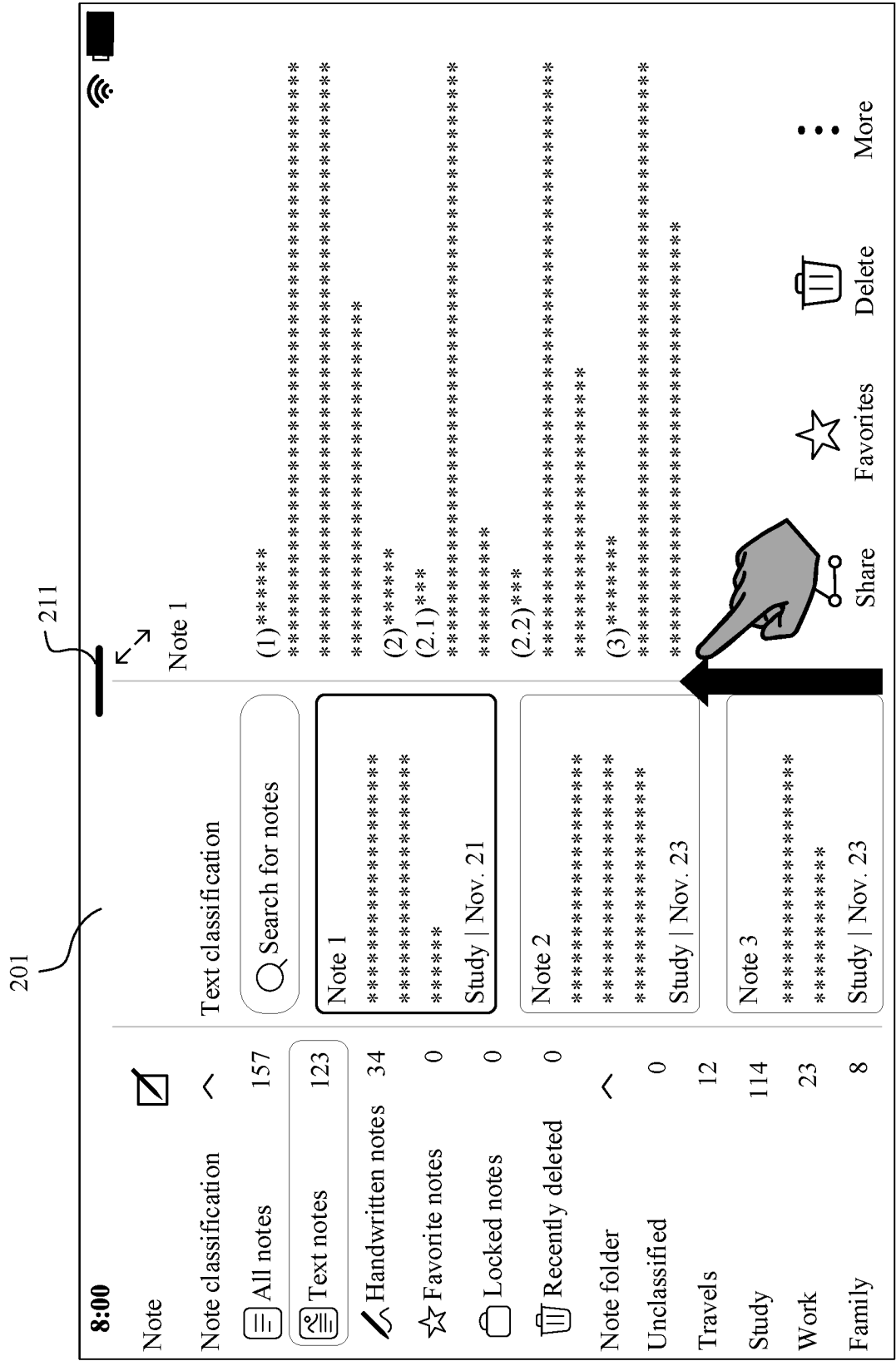


FIG. 4A

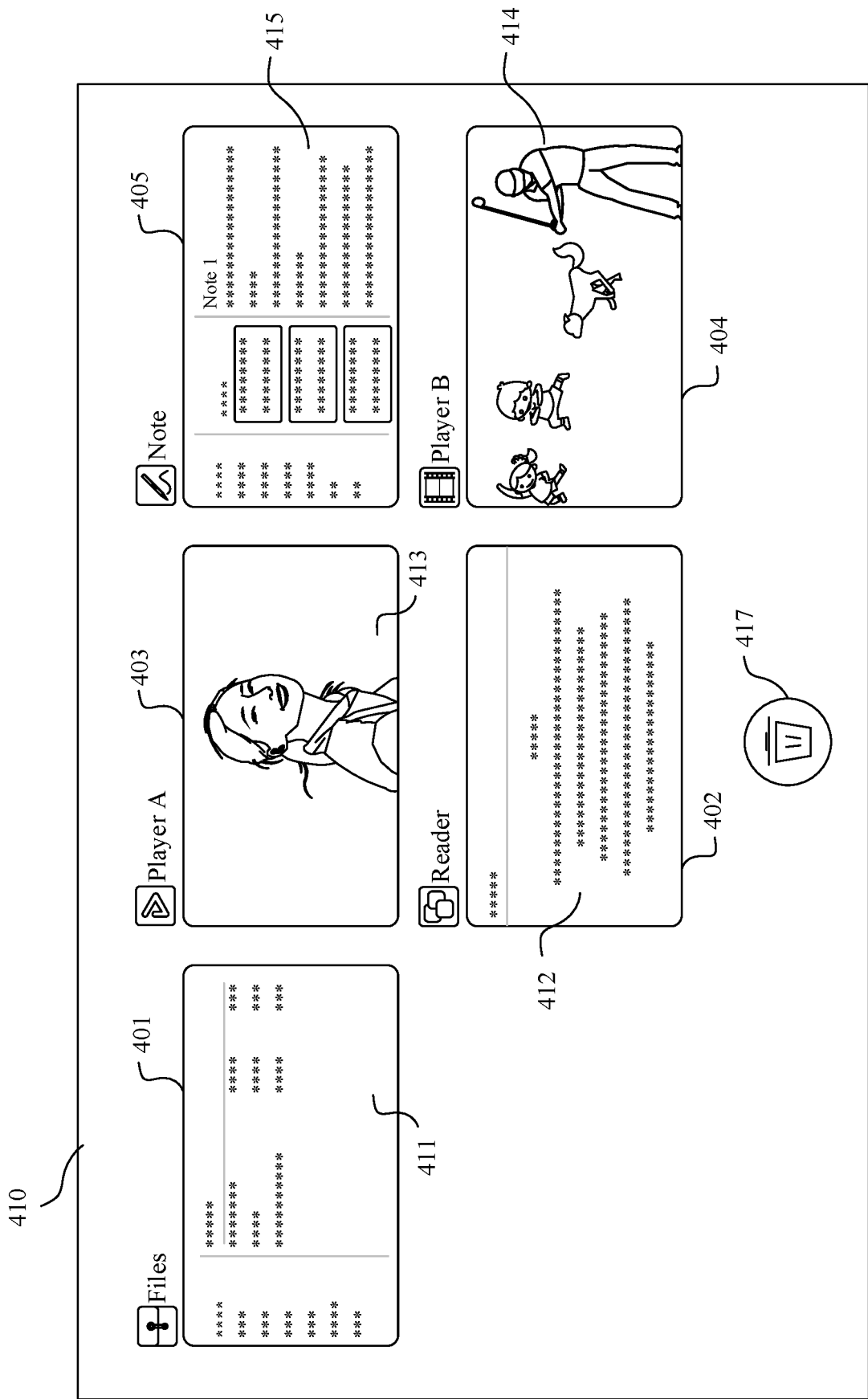


FIG. 4B

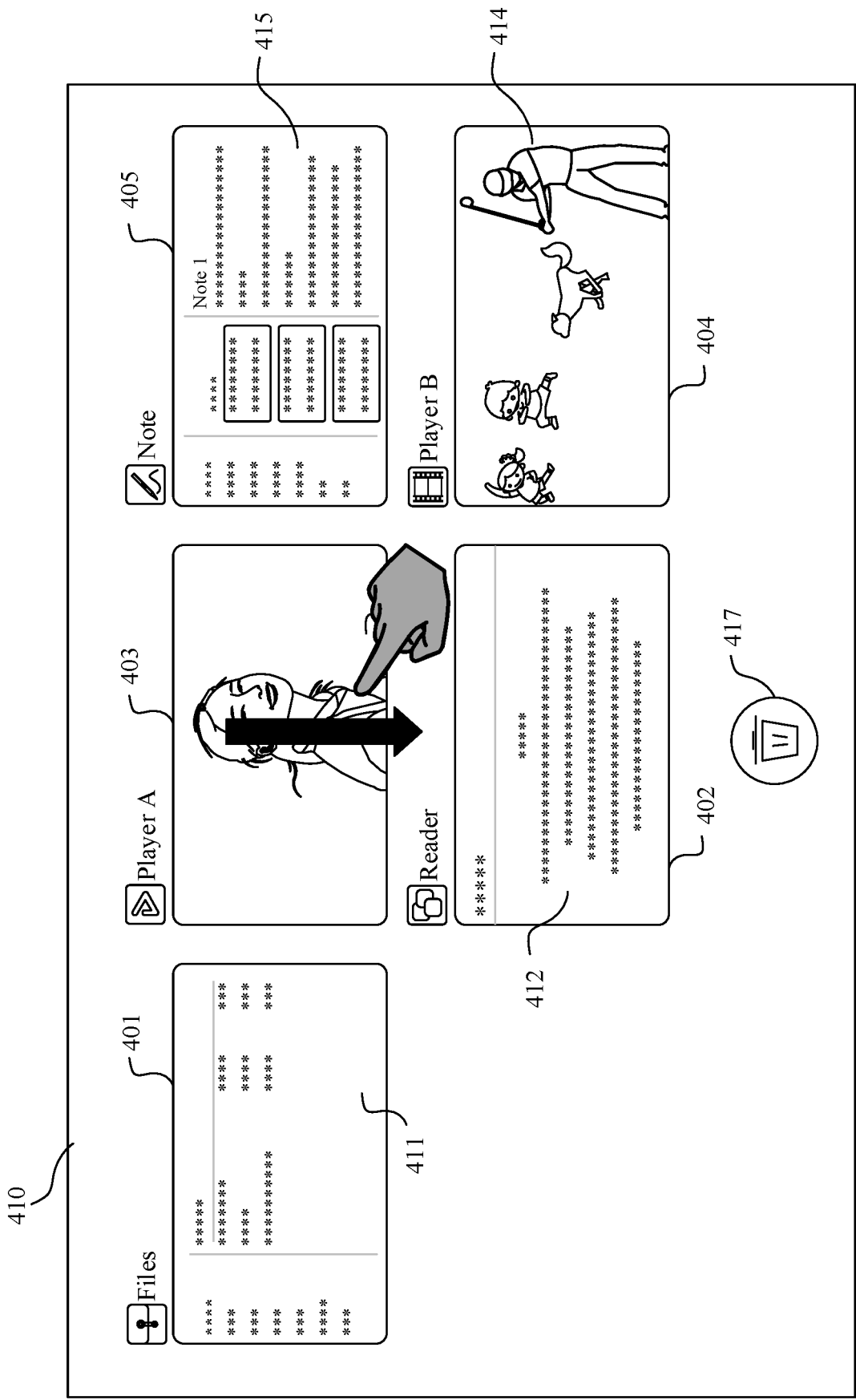


FIG. 4C

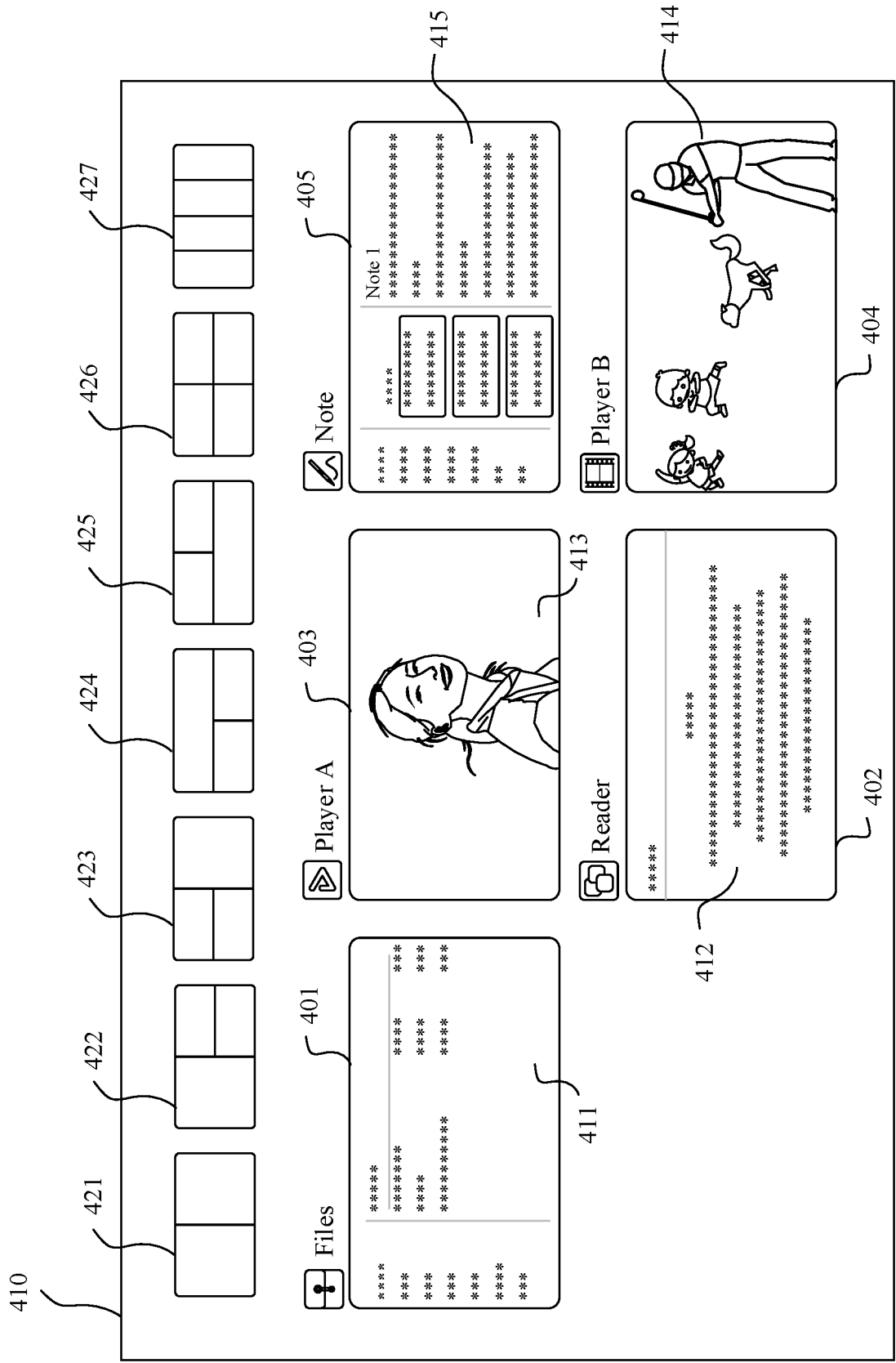


FIG. 4D

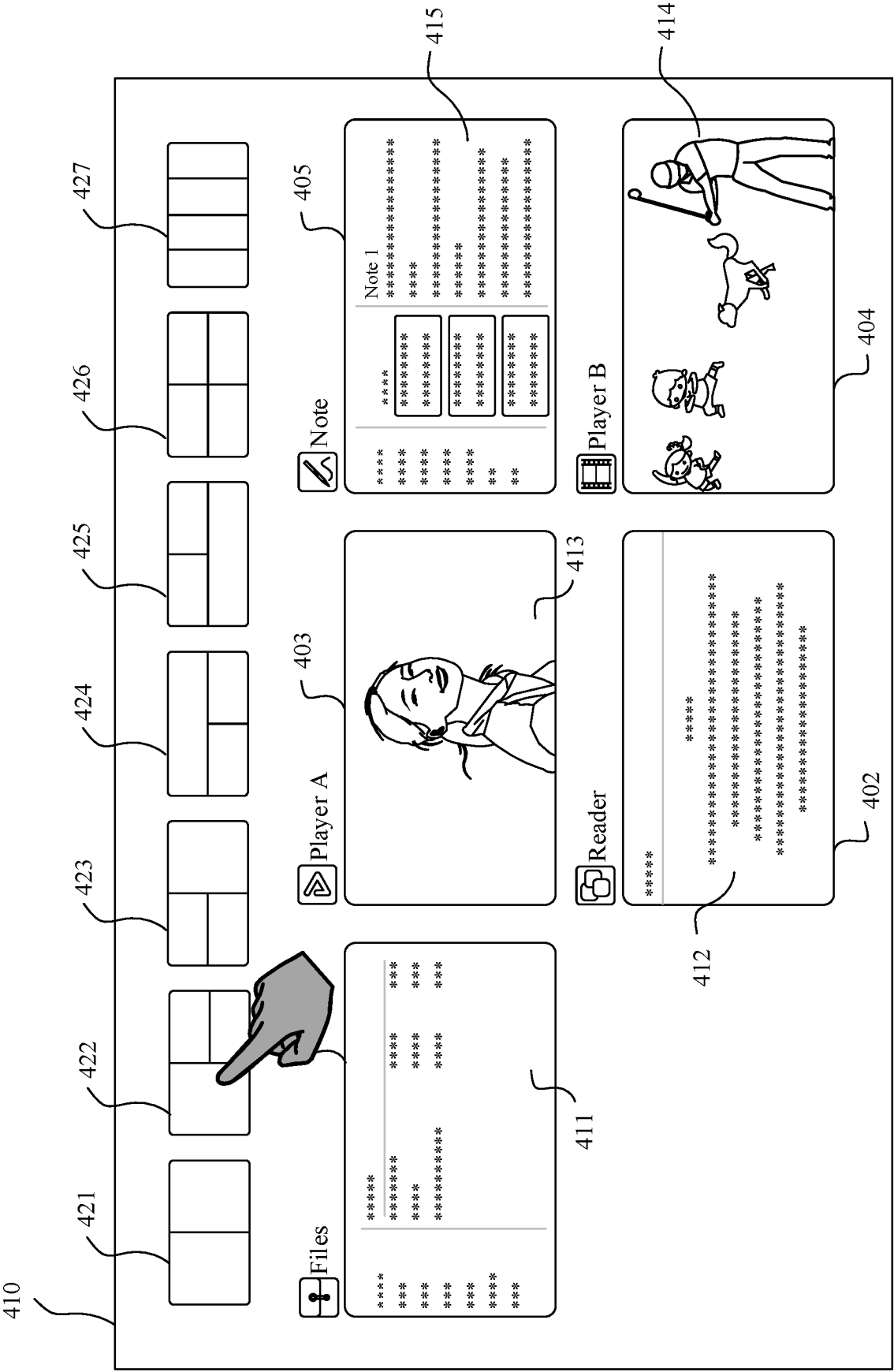


FIG. 4E

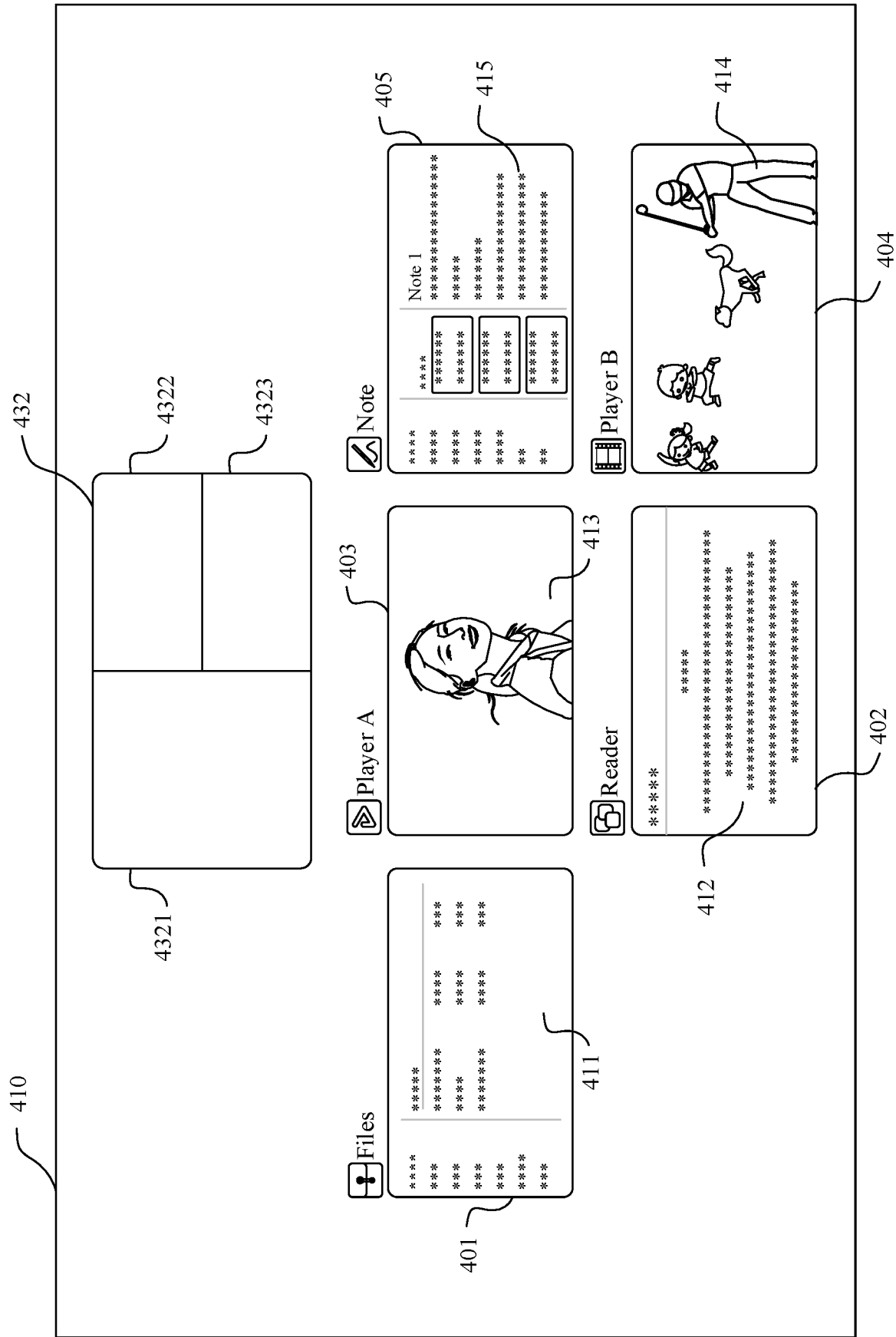


FIG. 4F

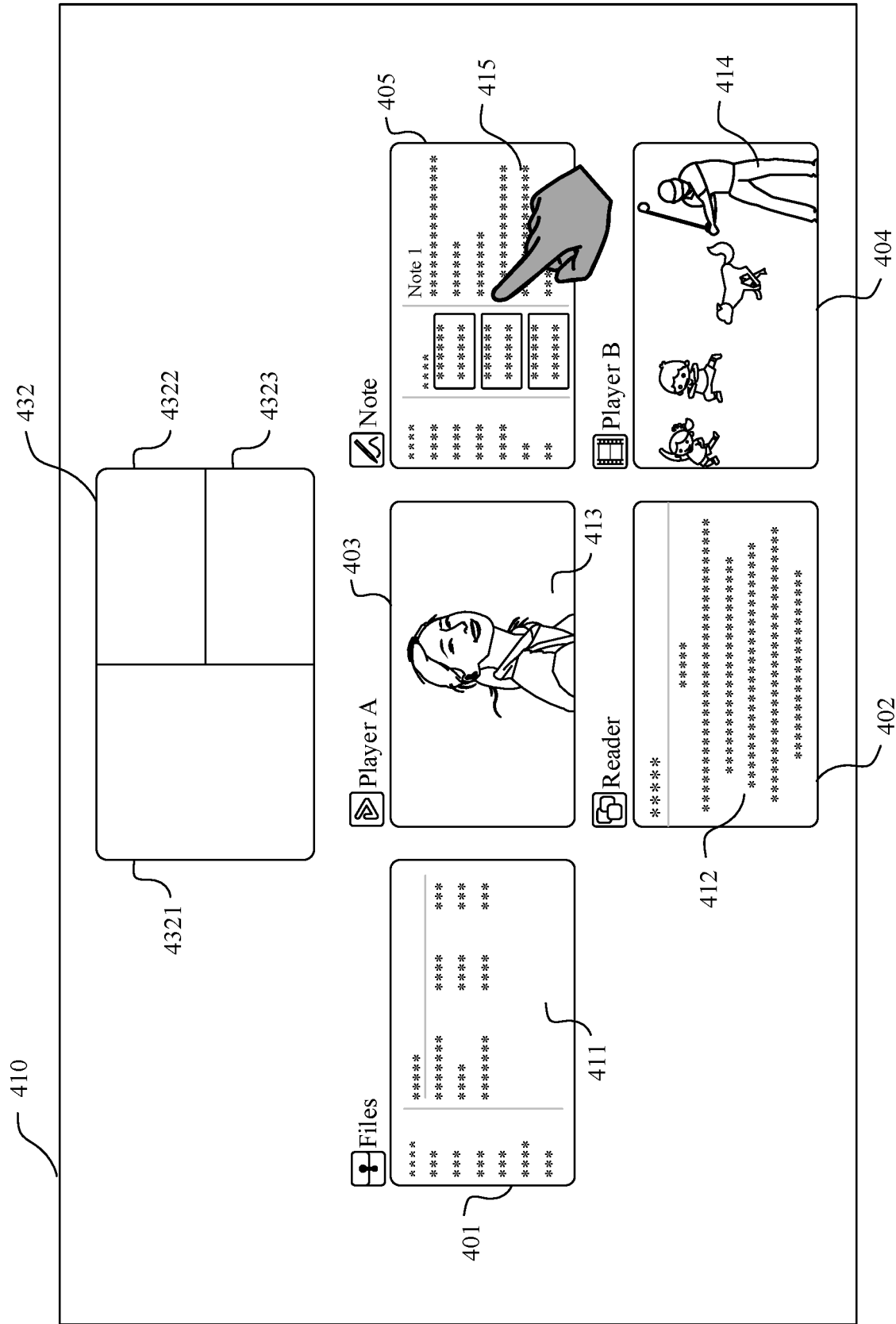


FIG. 4G

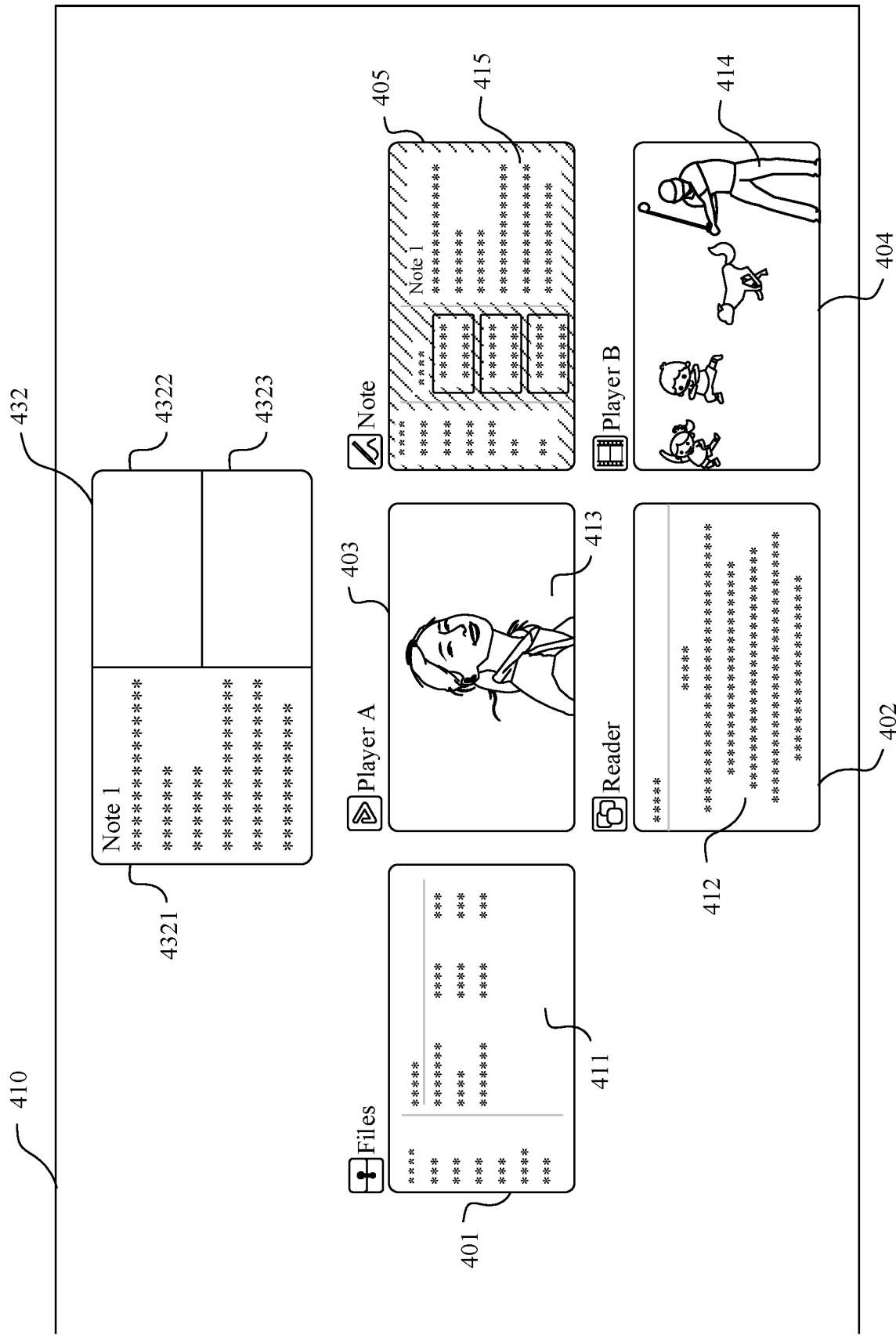


FIG. 4H

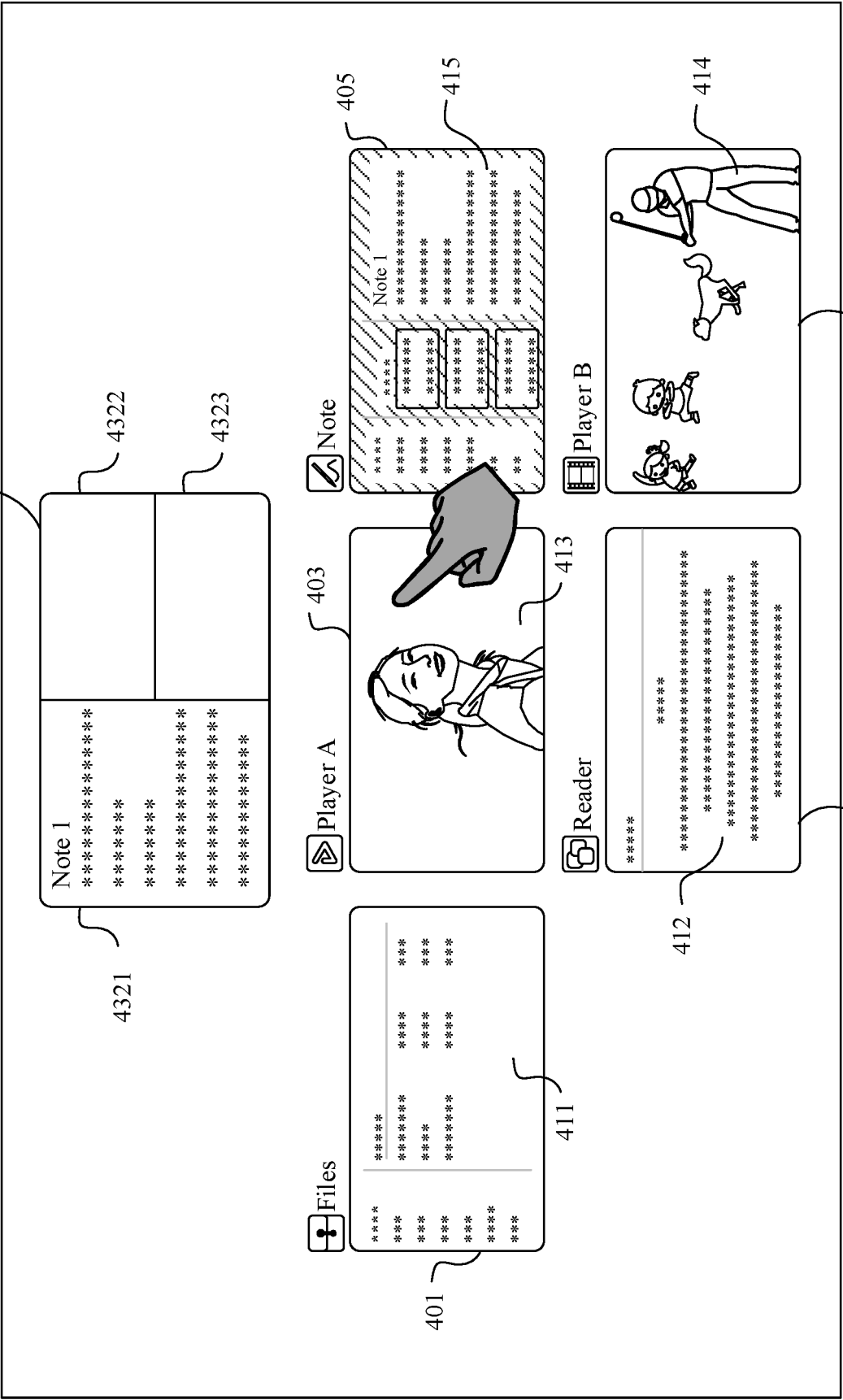


FIG. 4I

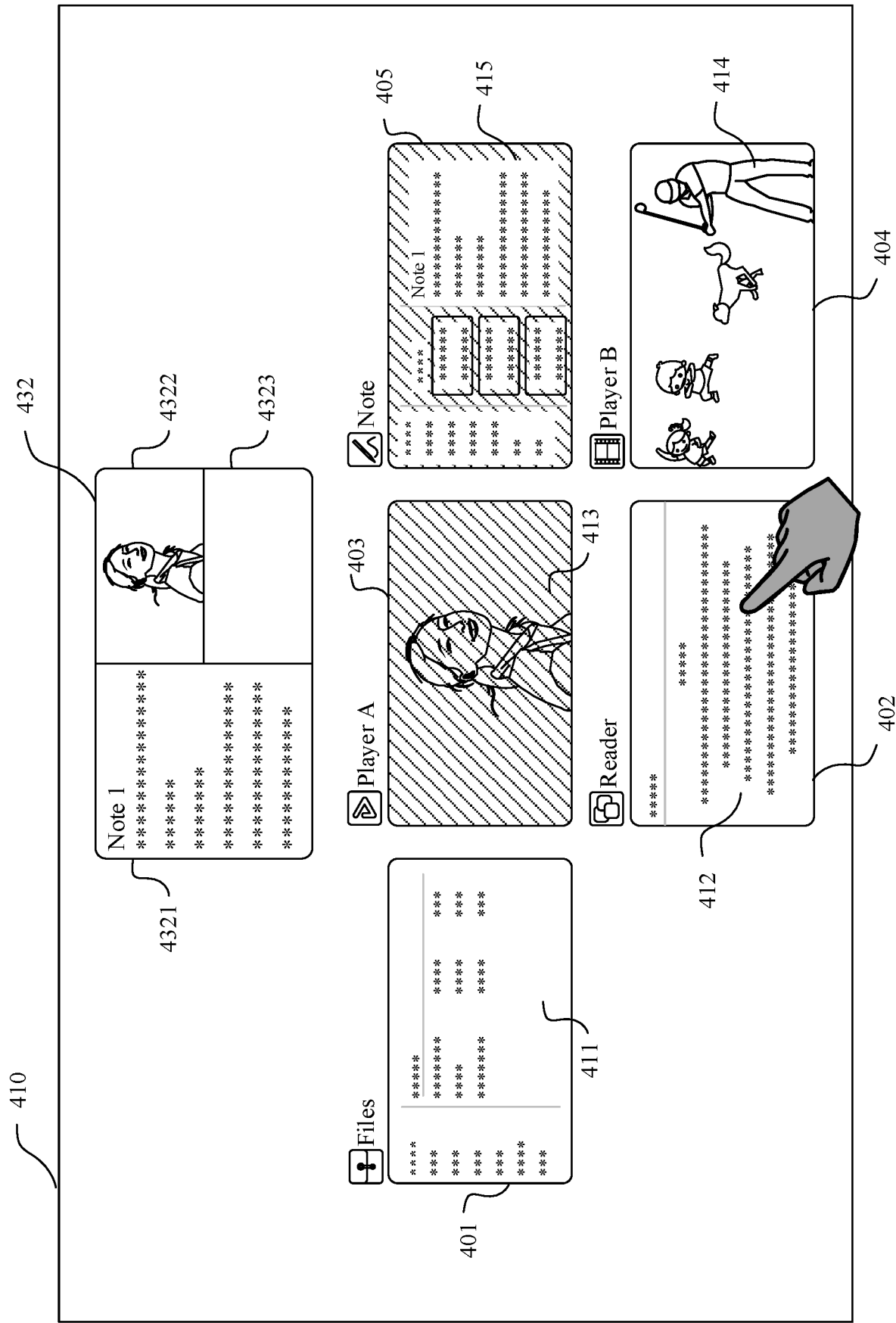


FIG. 4J

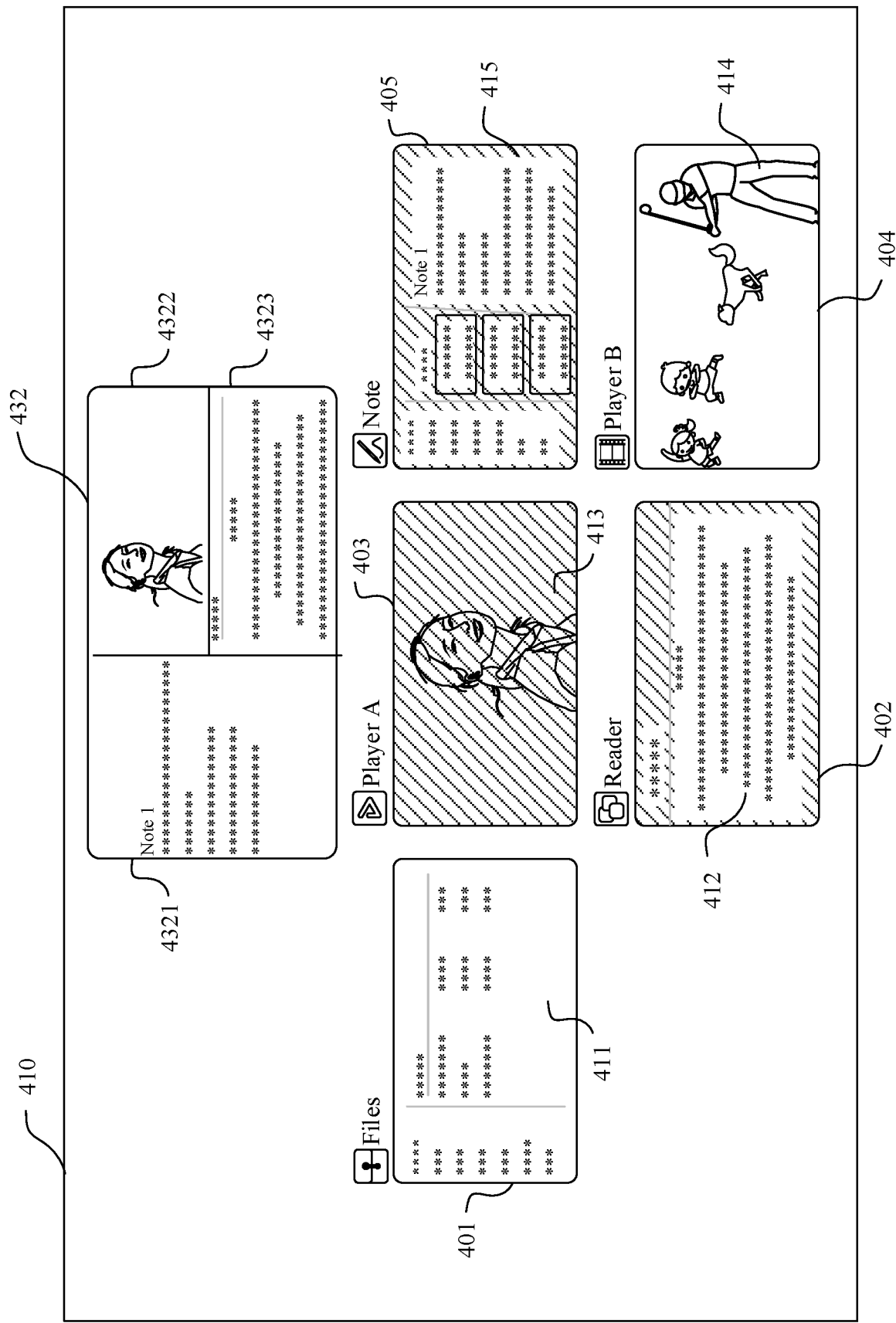


FIG. 4K

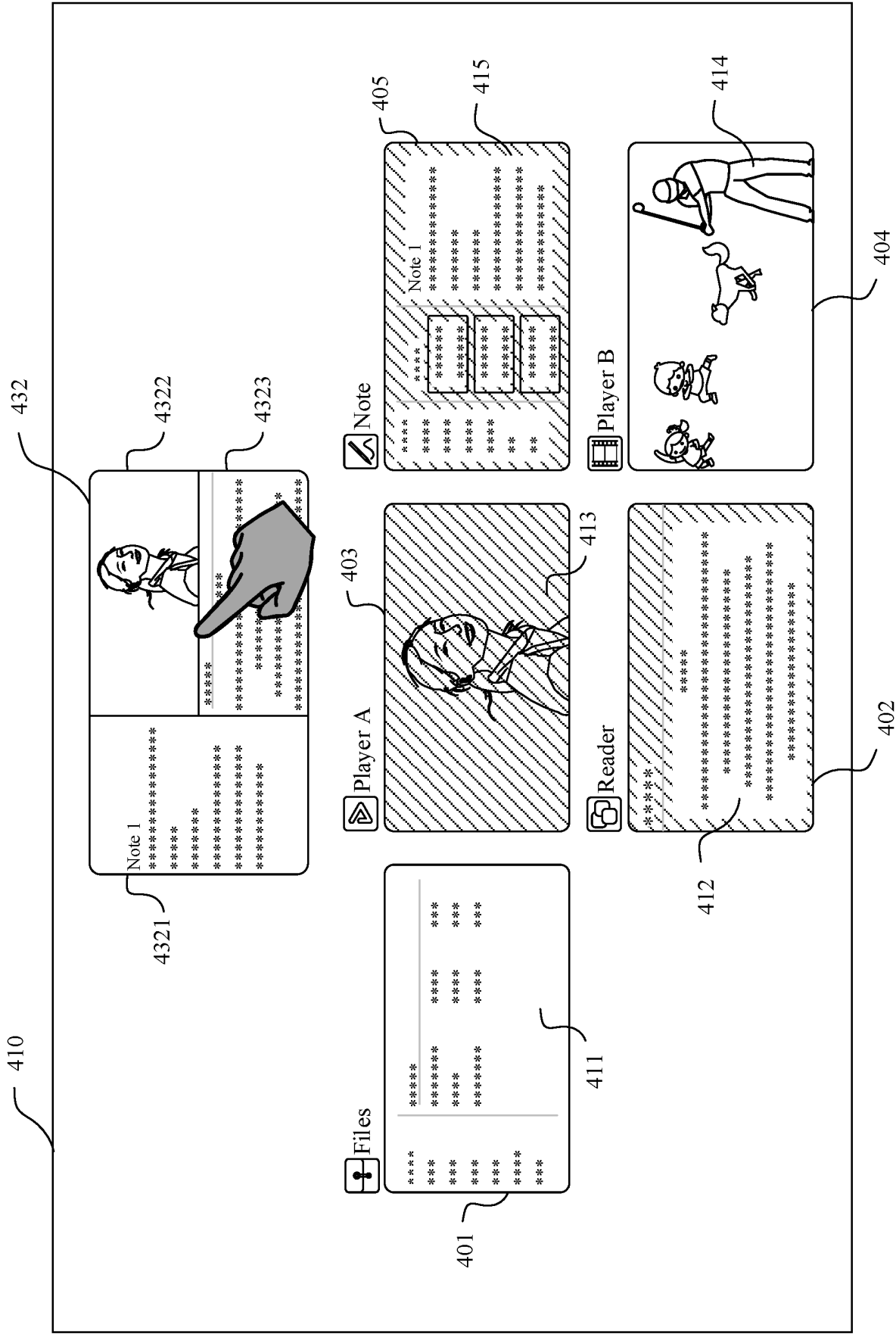


FIG. 4L

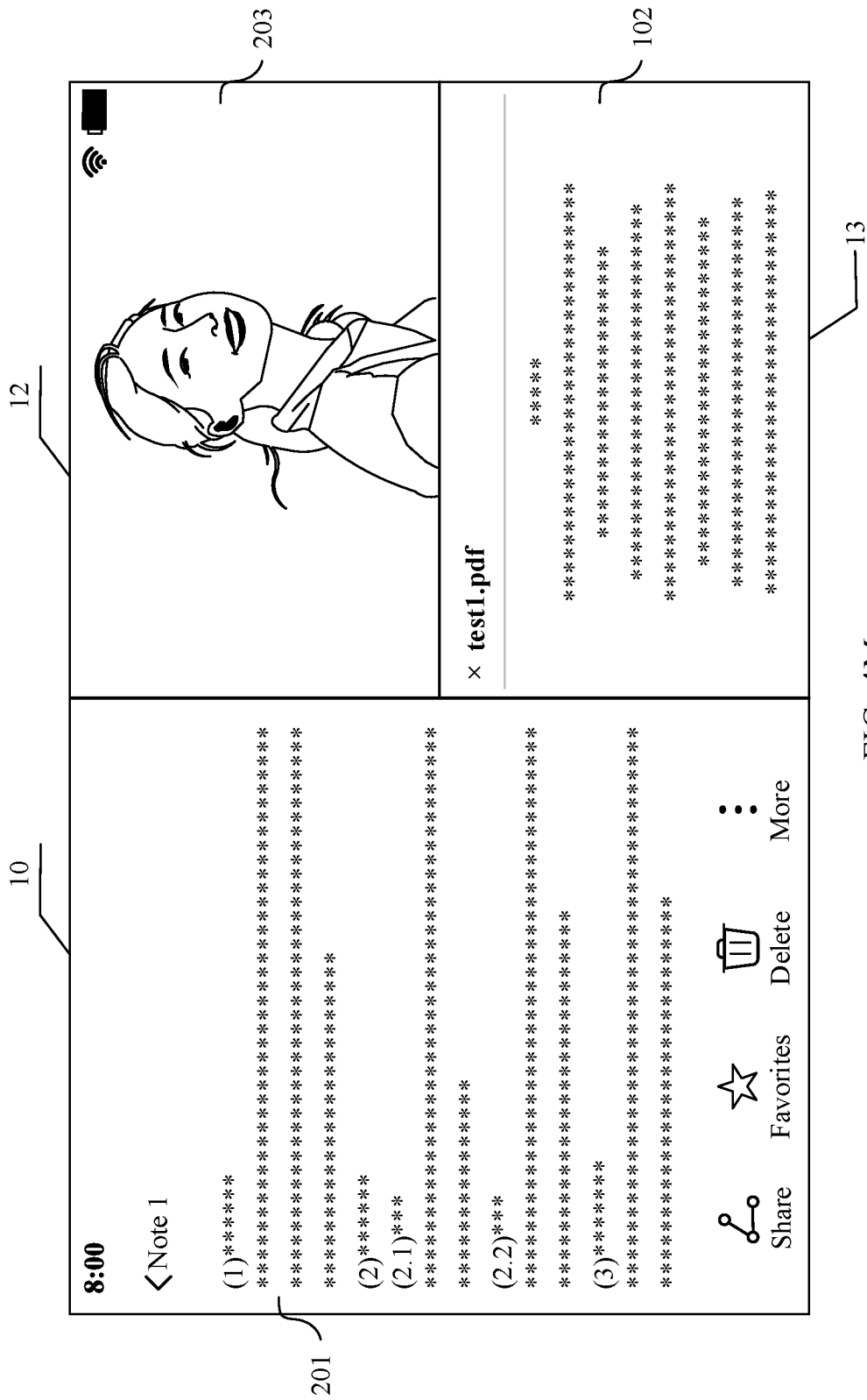


FIG. 4M

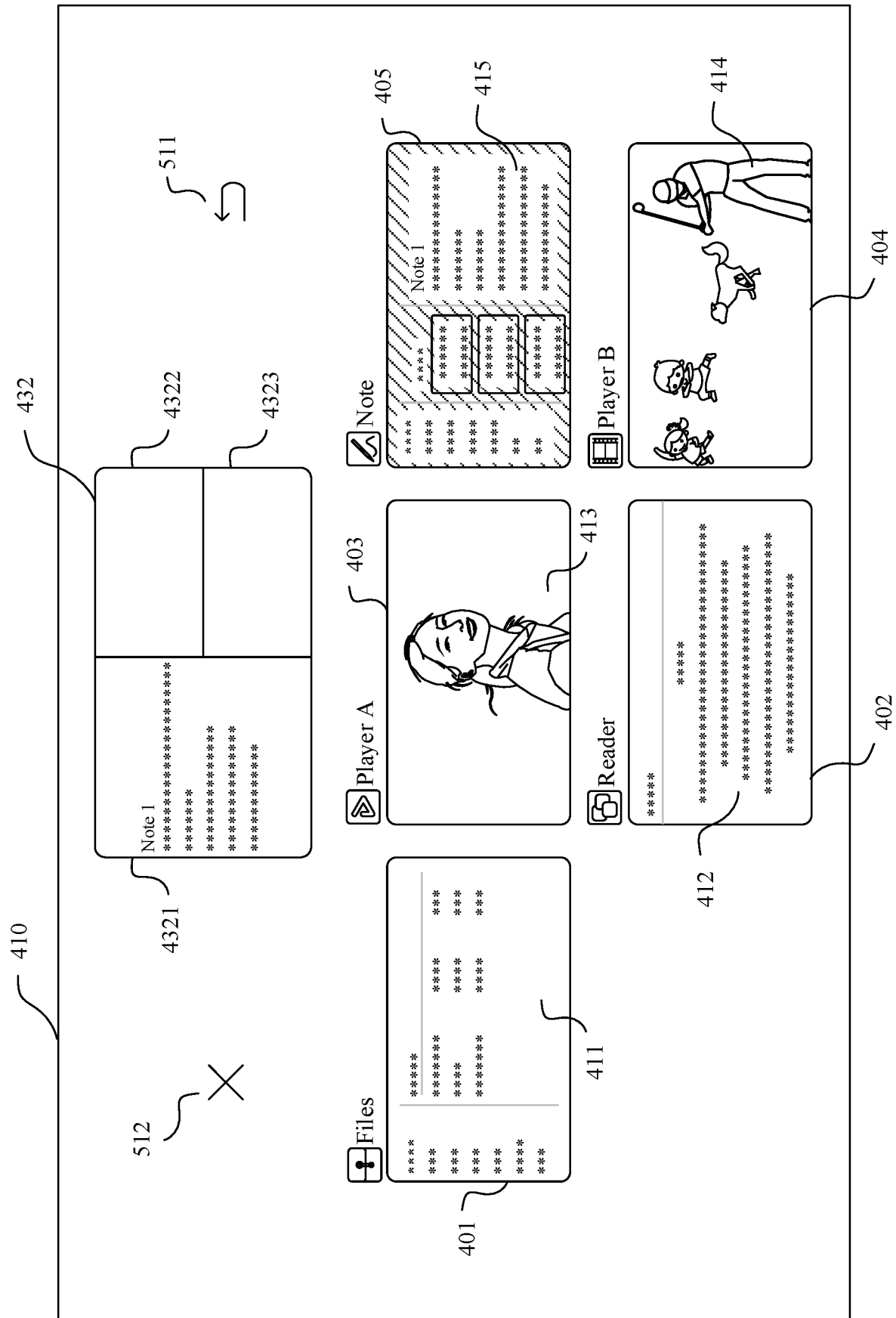


FIG. 5A

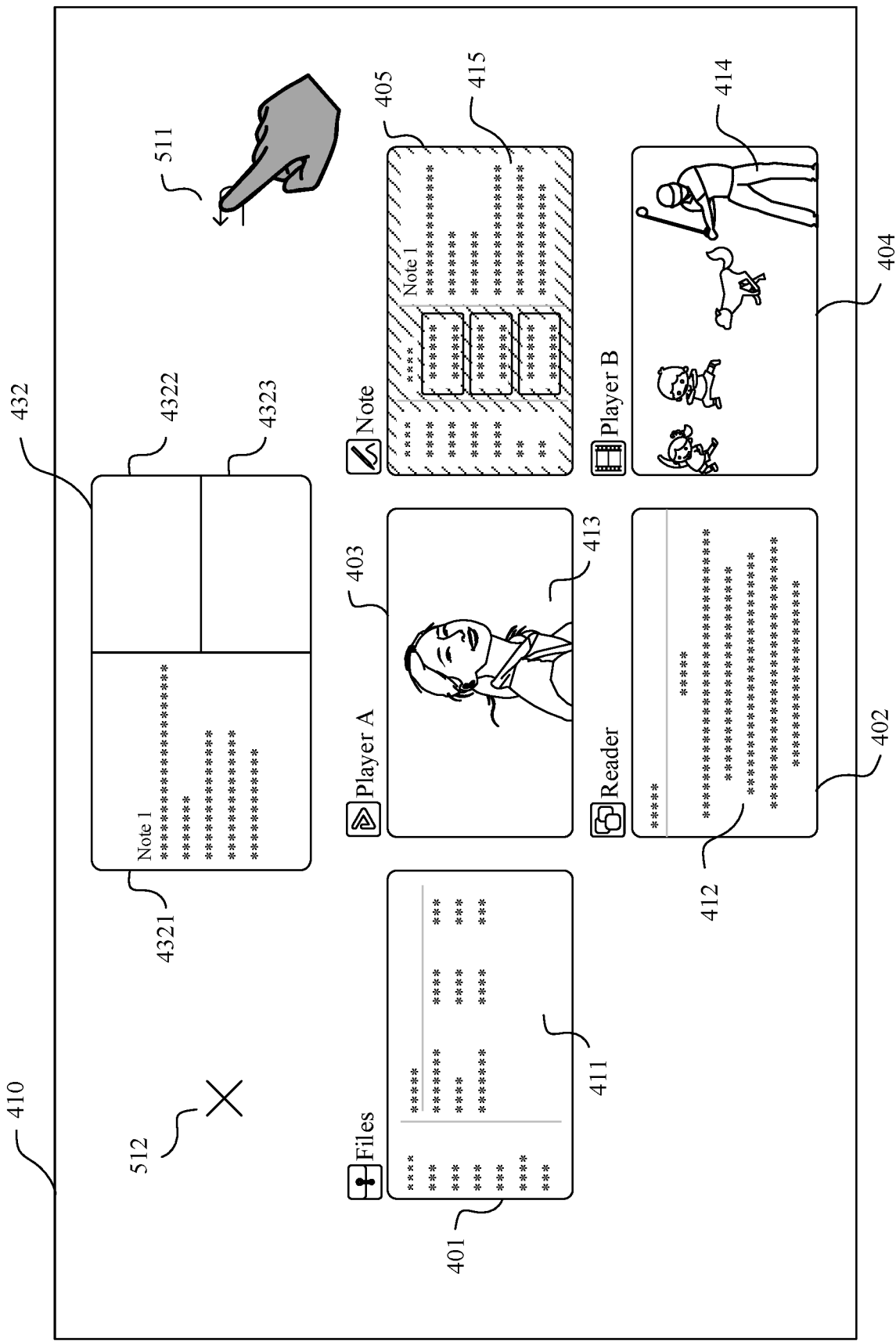
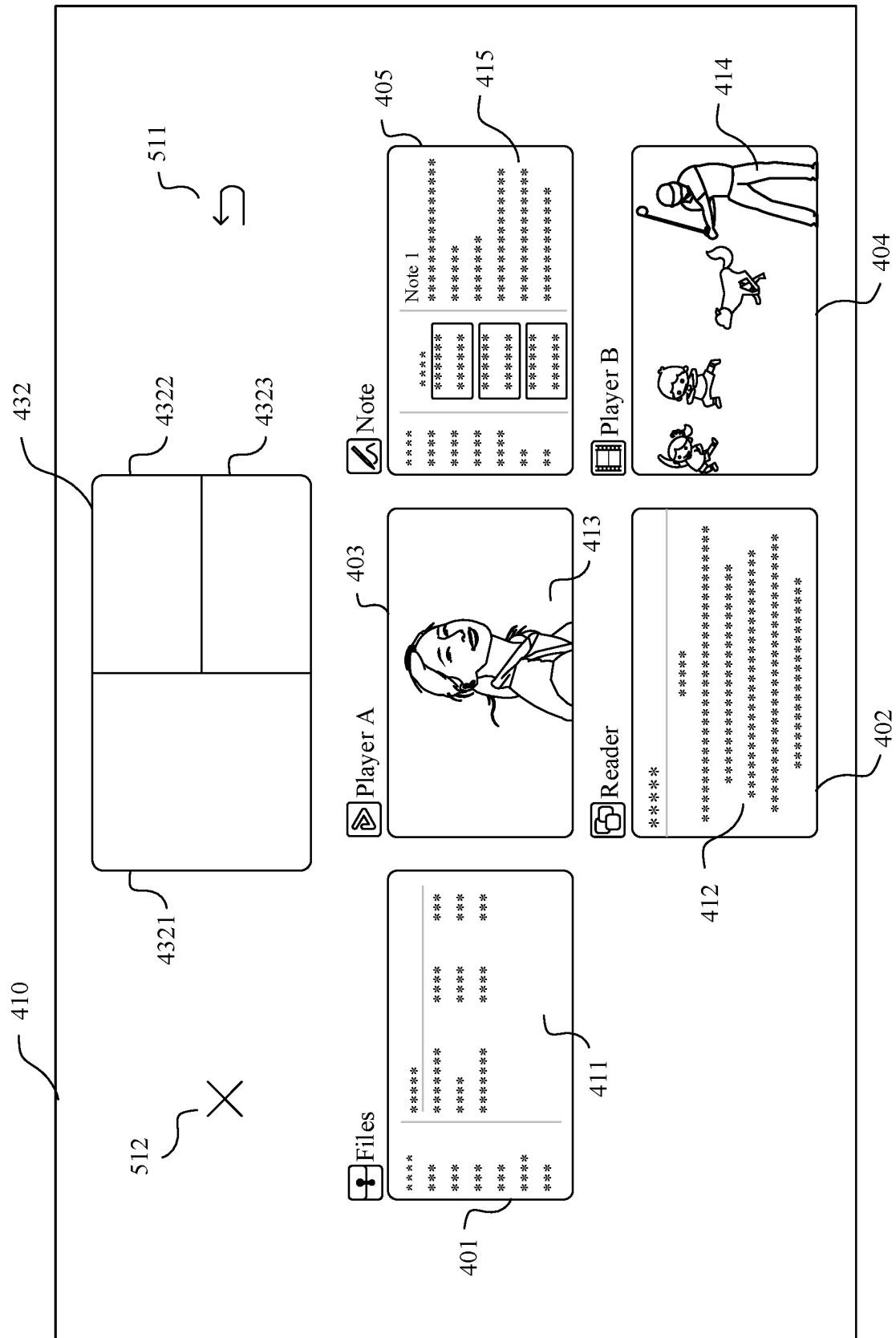


FIG. 5B



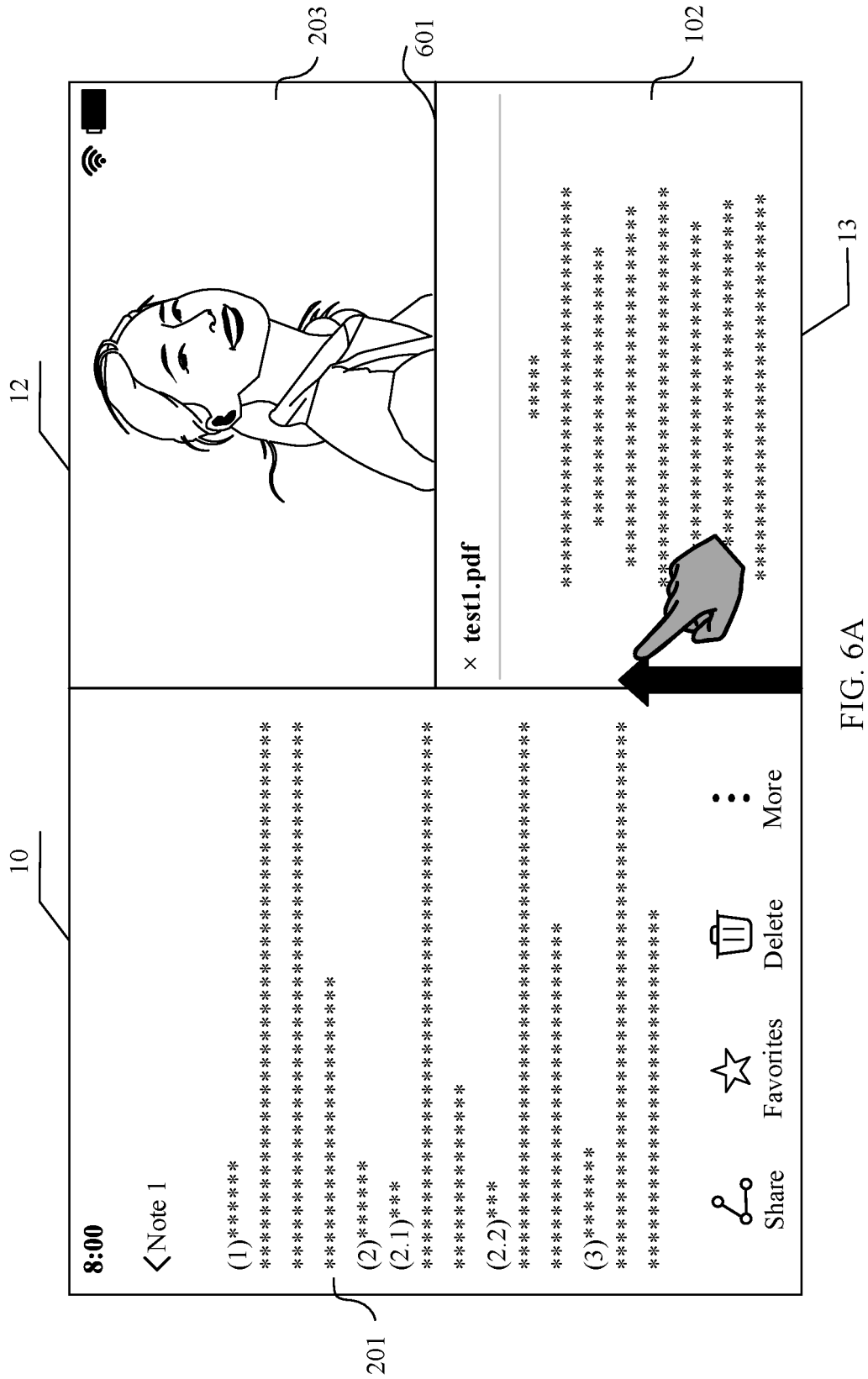


FIG. 6A

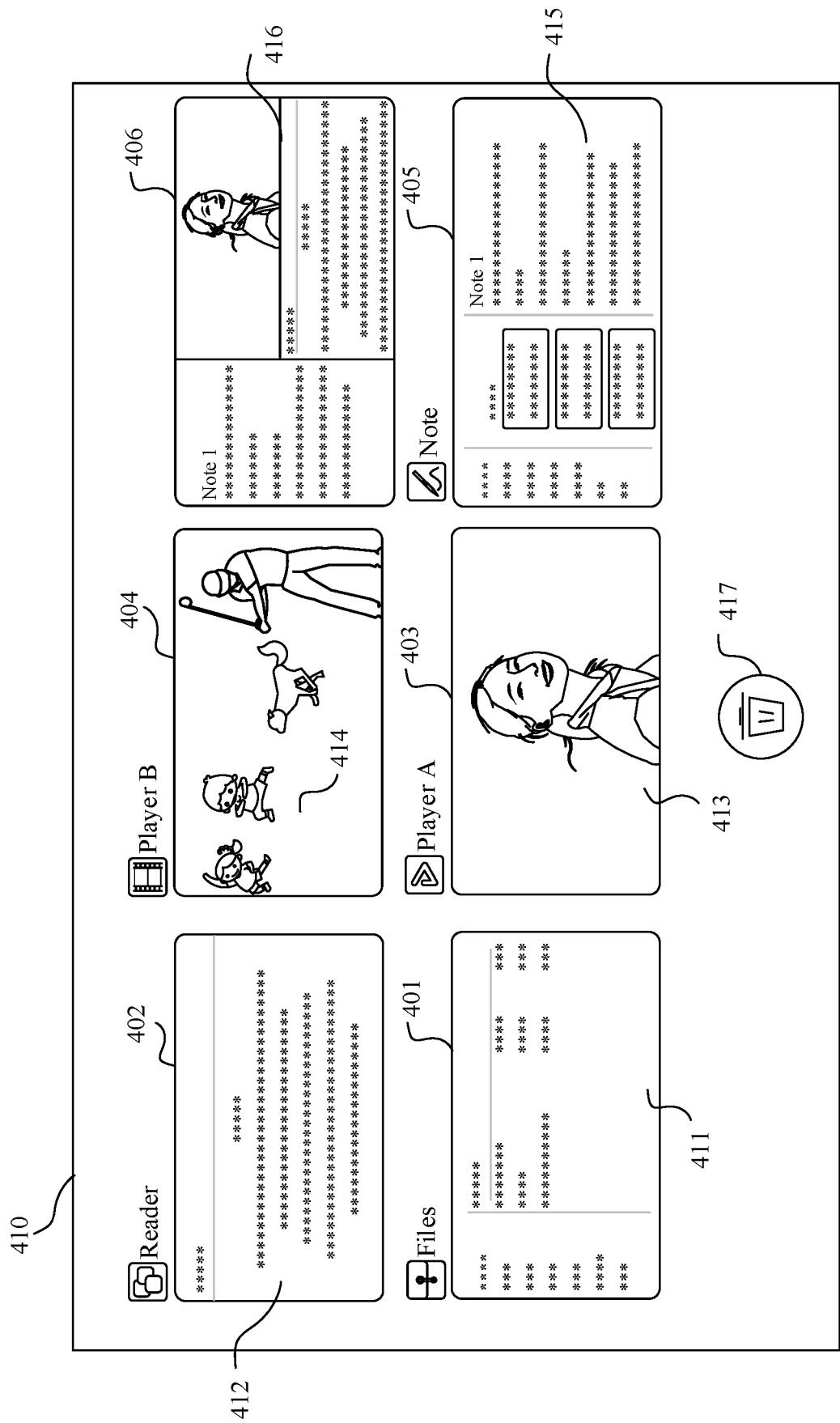


FIG. 6B

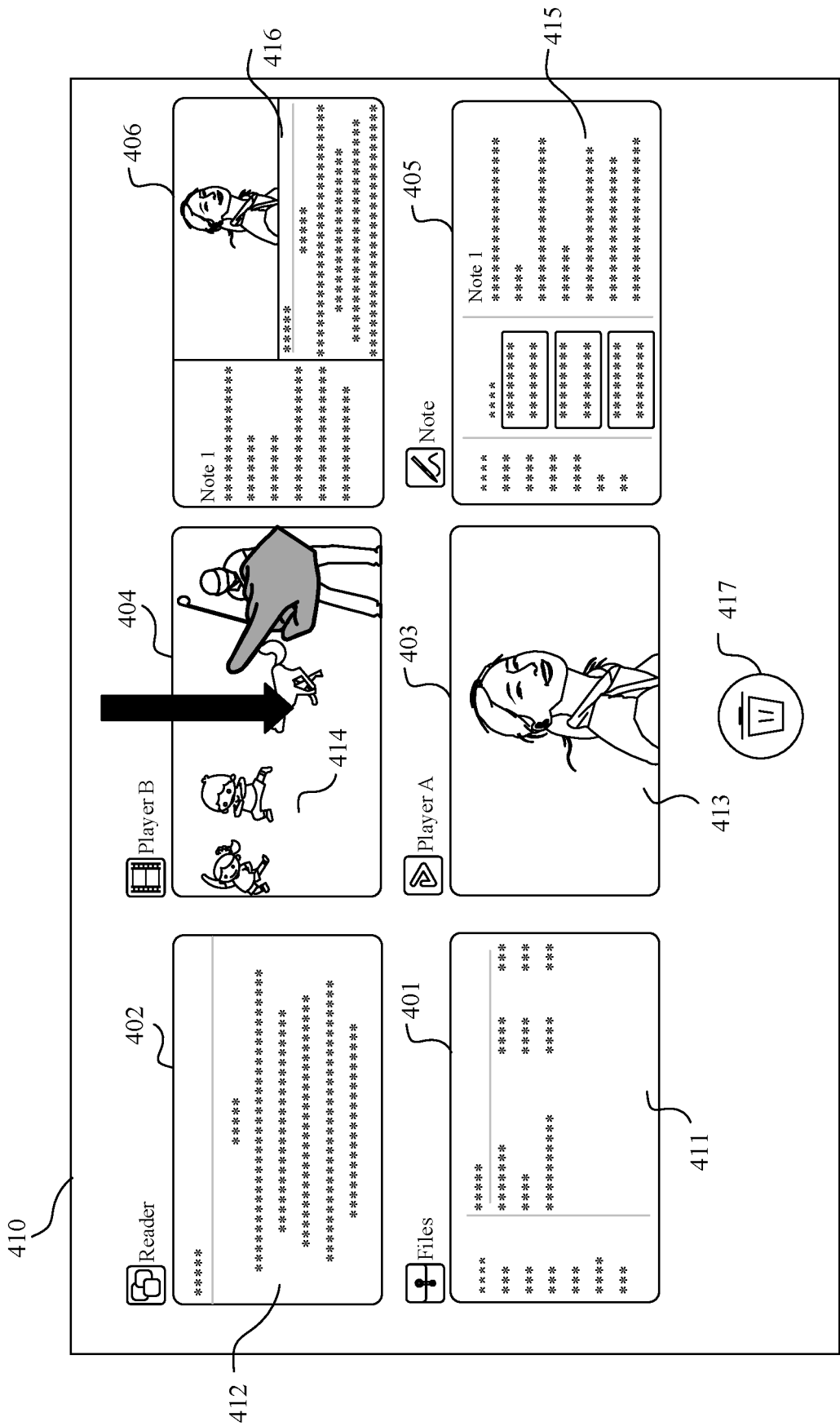


FIG. 6C

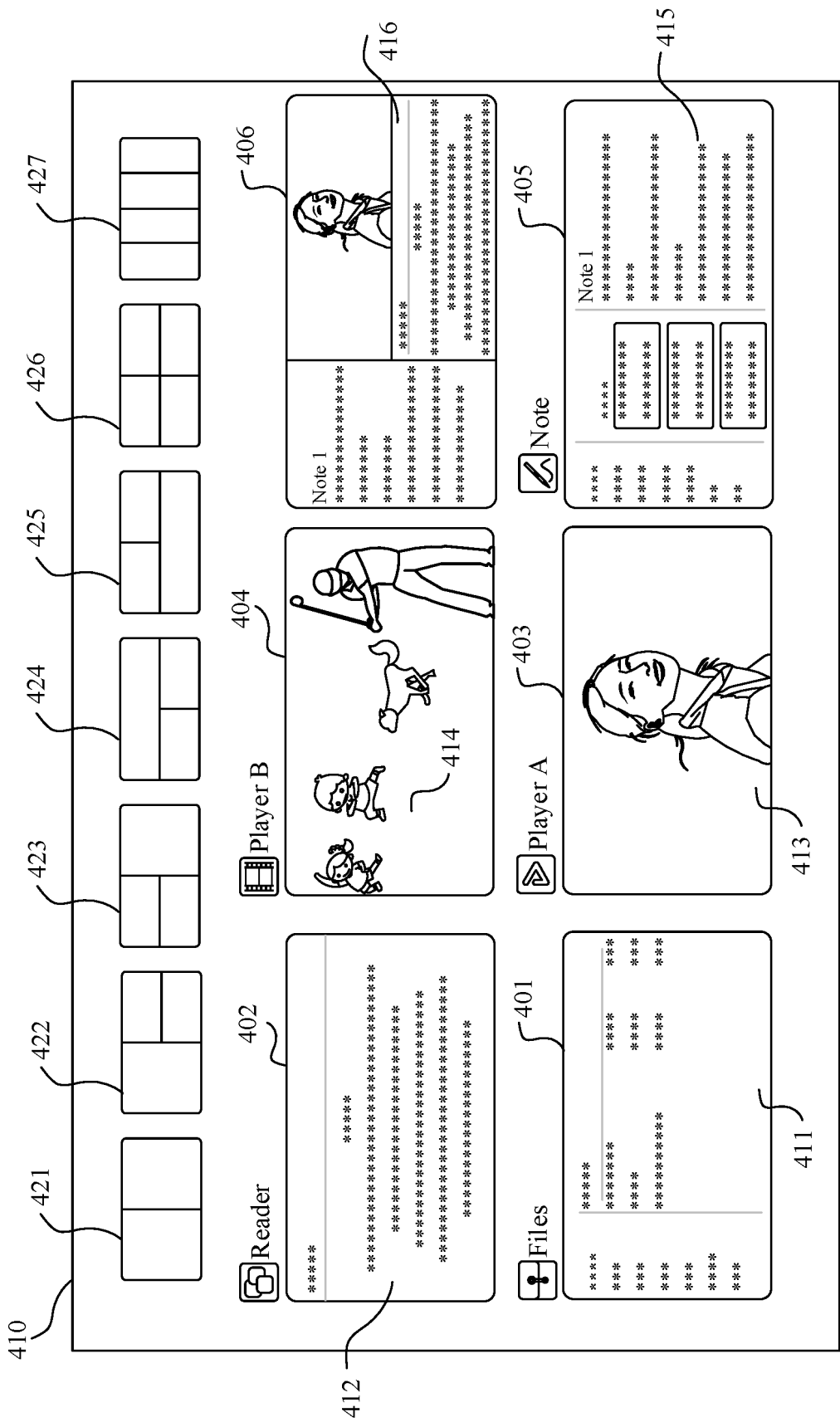


FIG. 6D

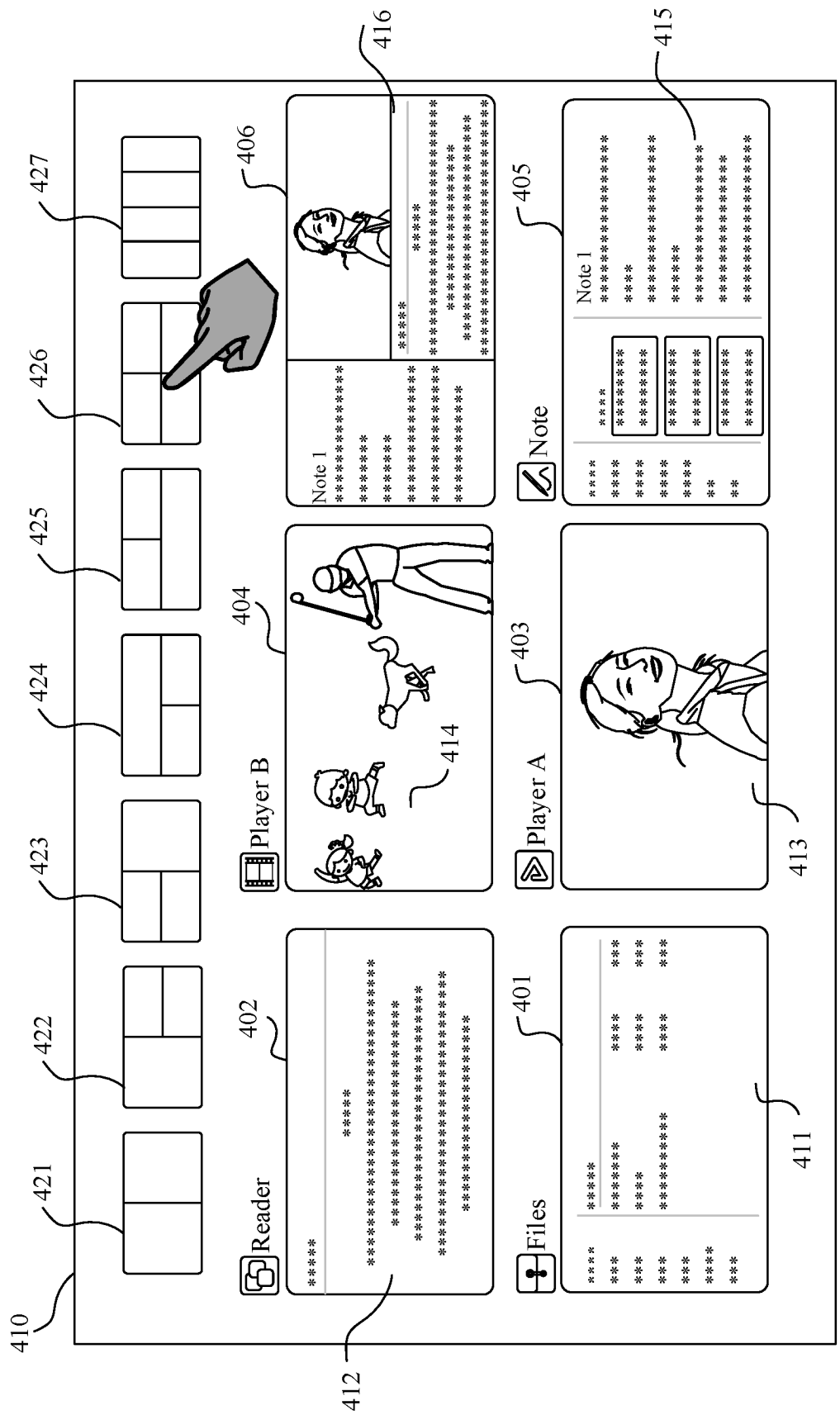


FIG. 6E

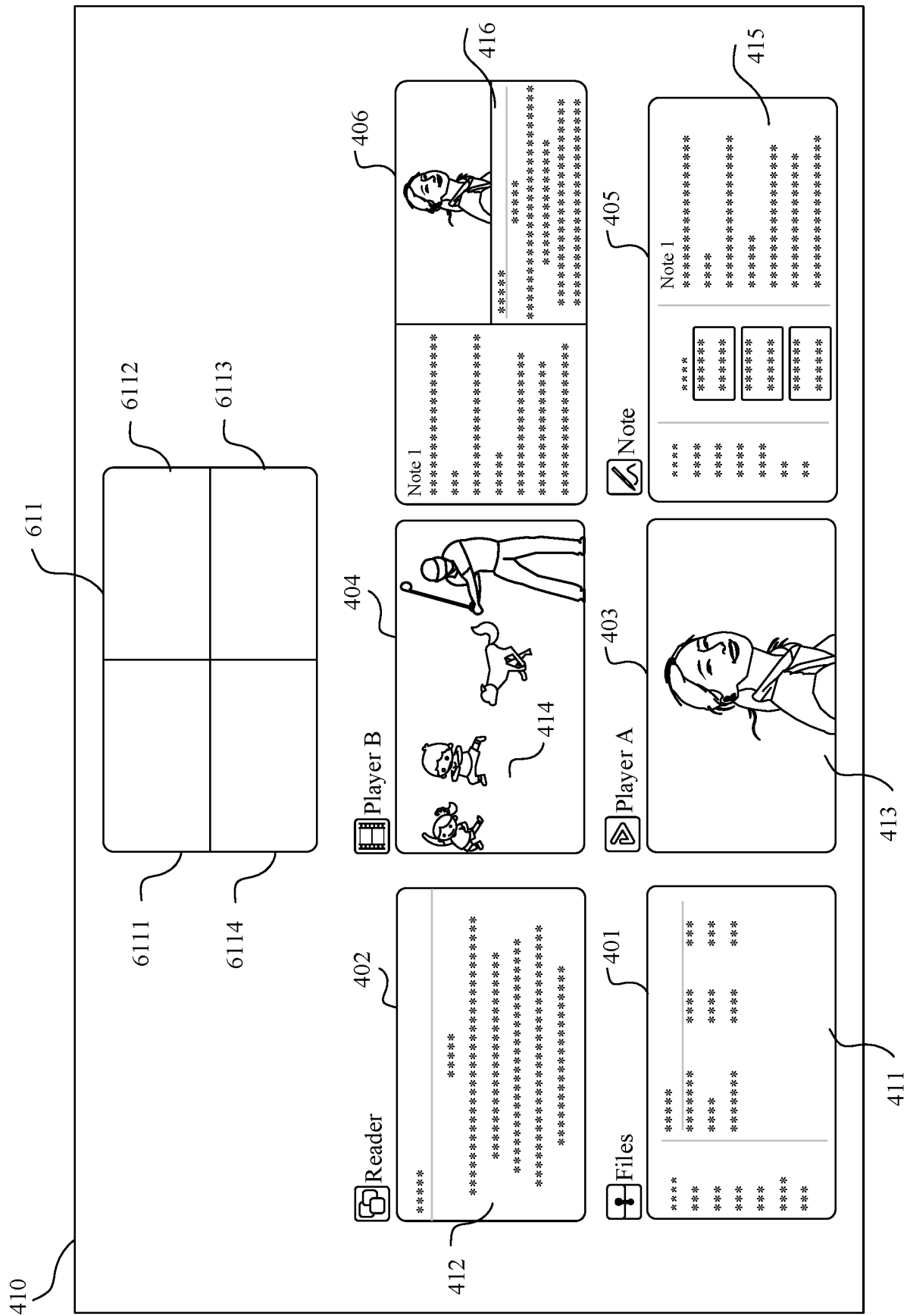


FIG. 6F

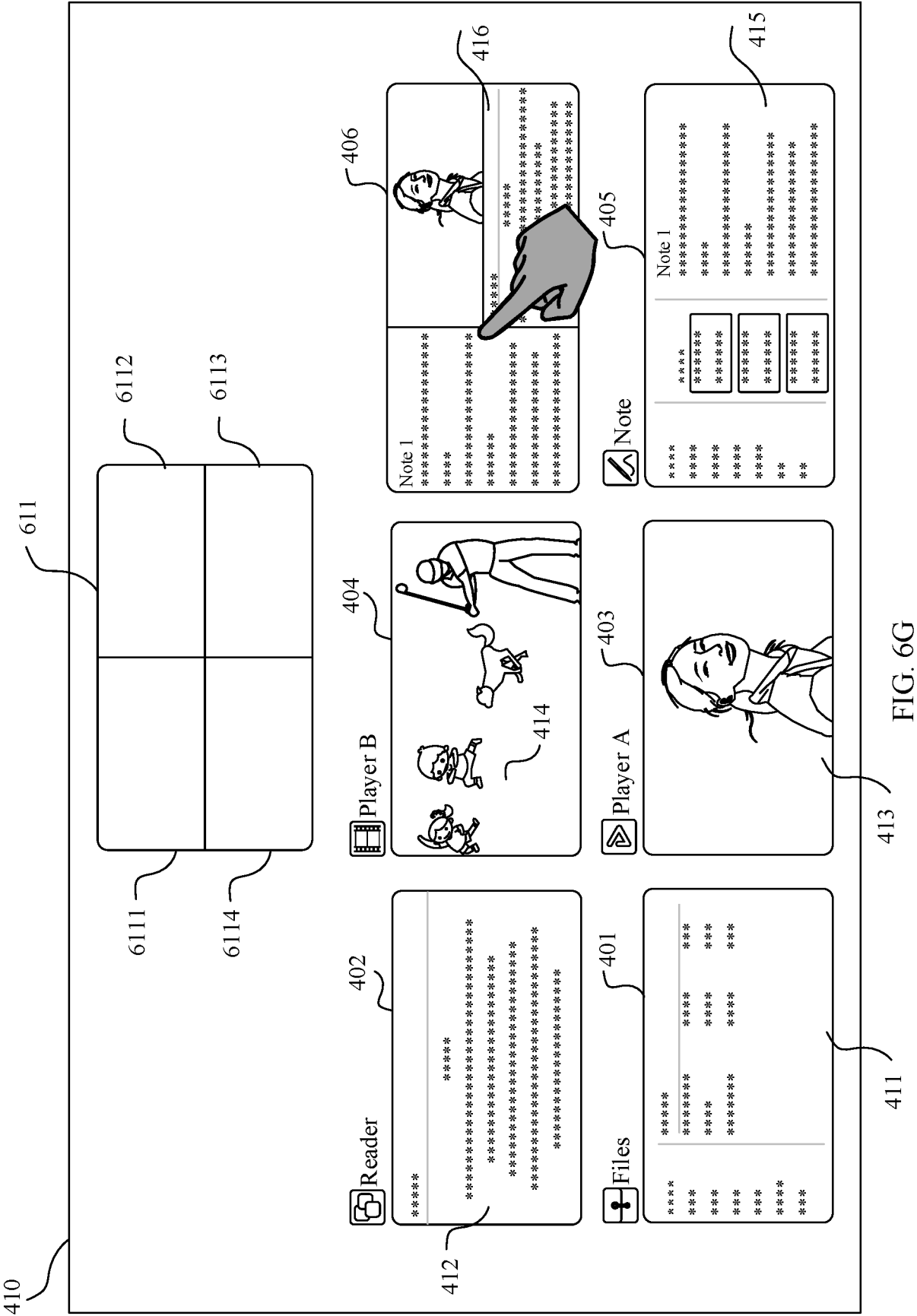


FIG. 6G

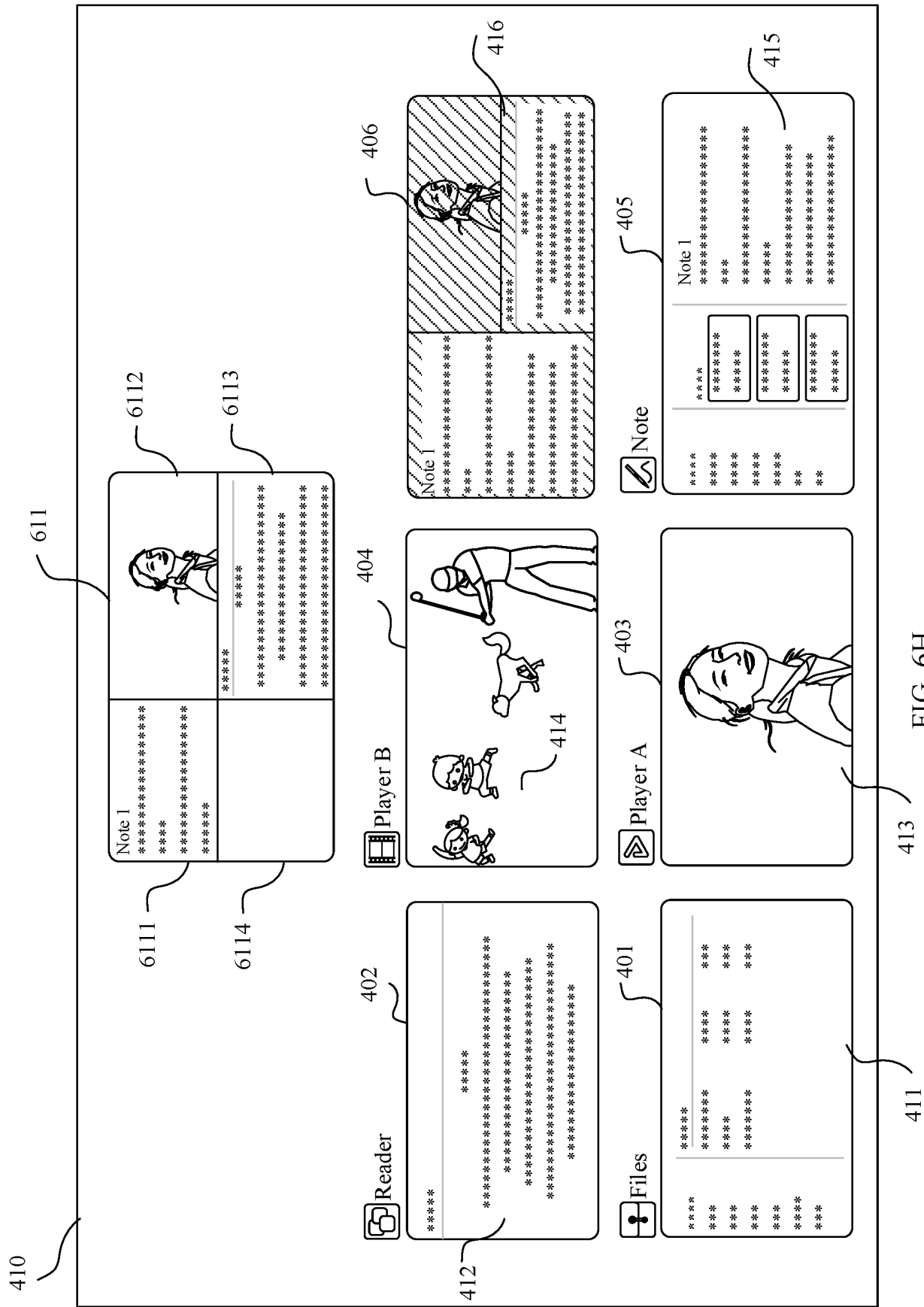
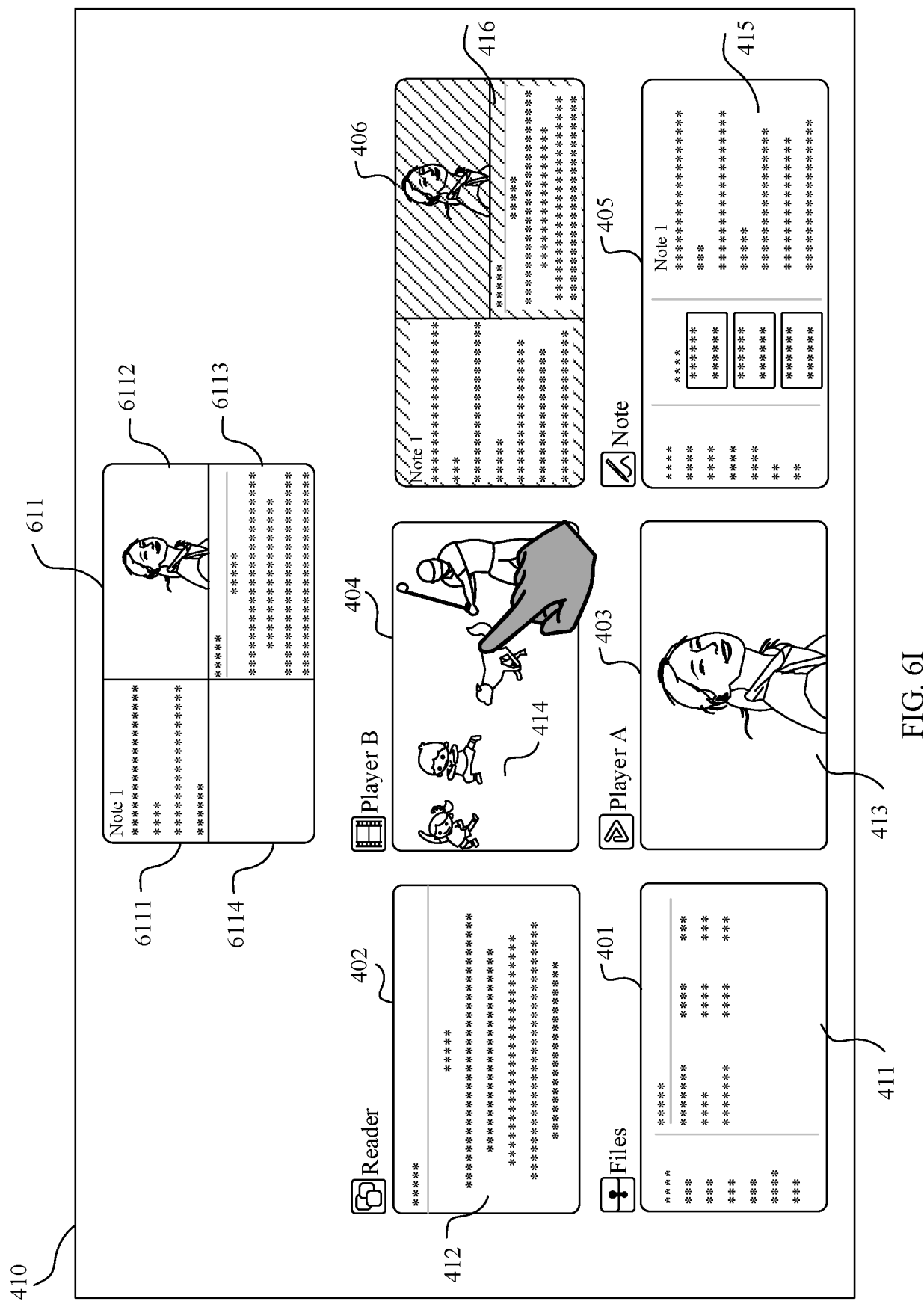


FIG. 6H



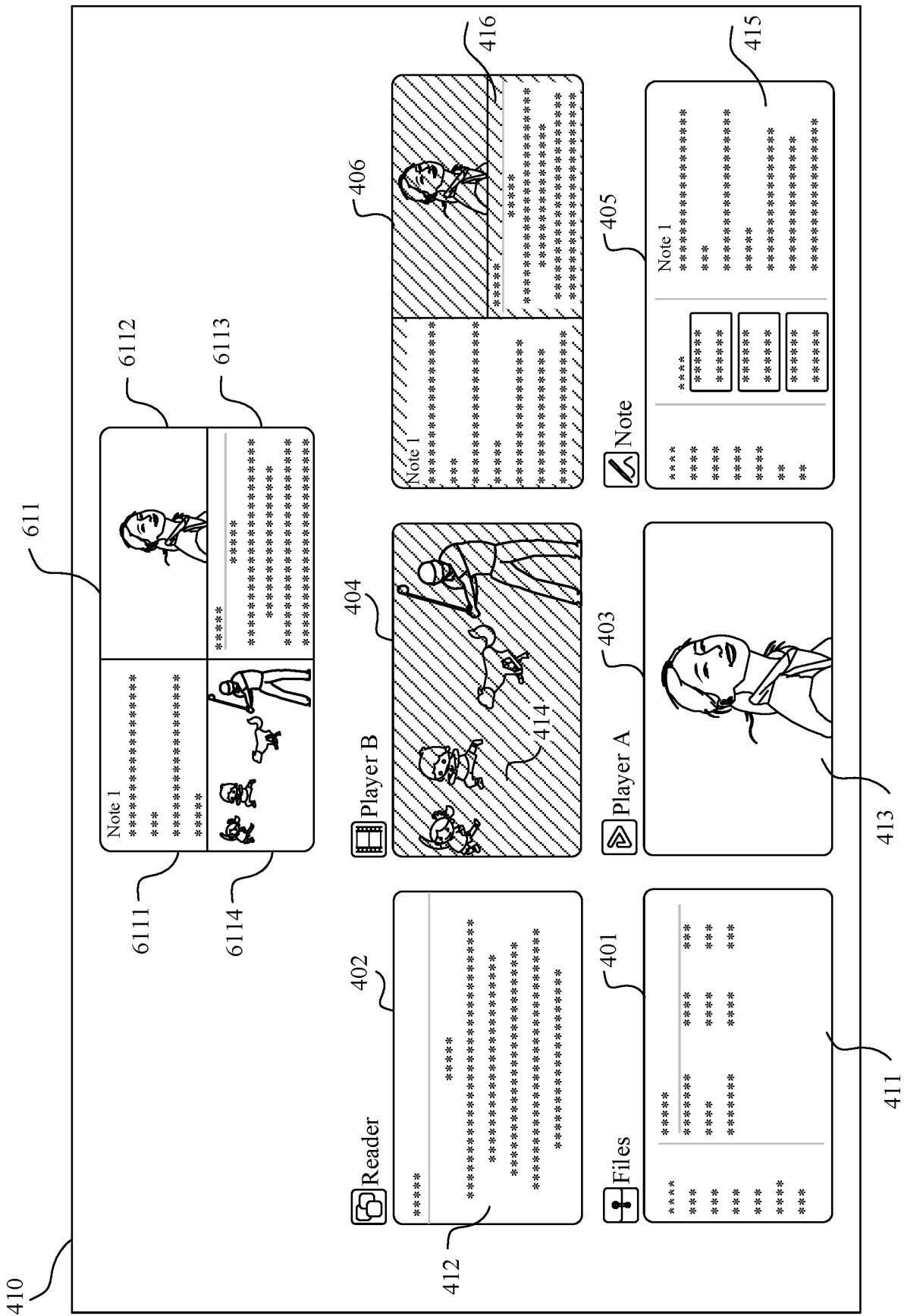


FIG. 6J

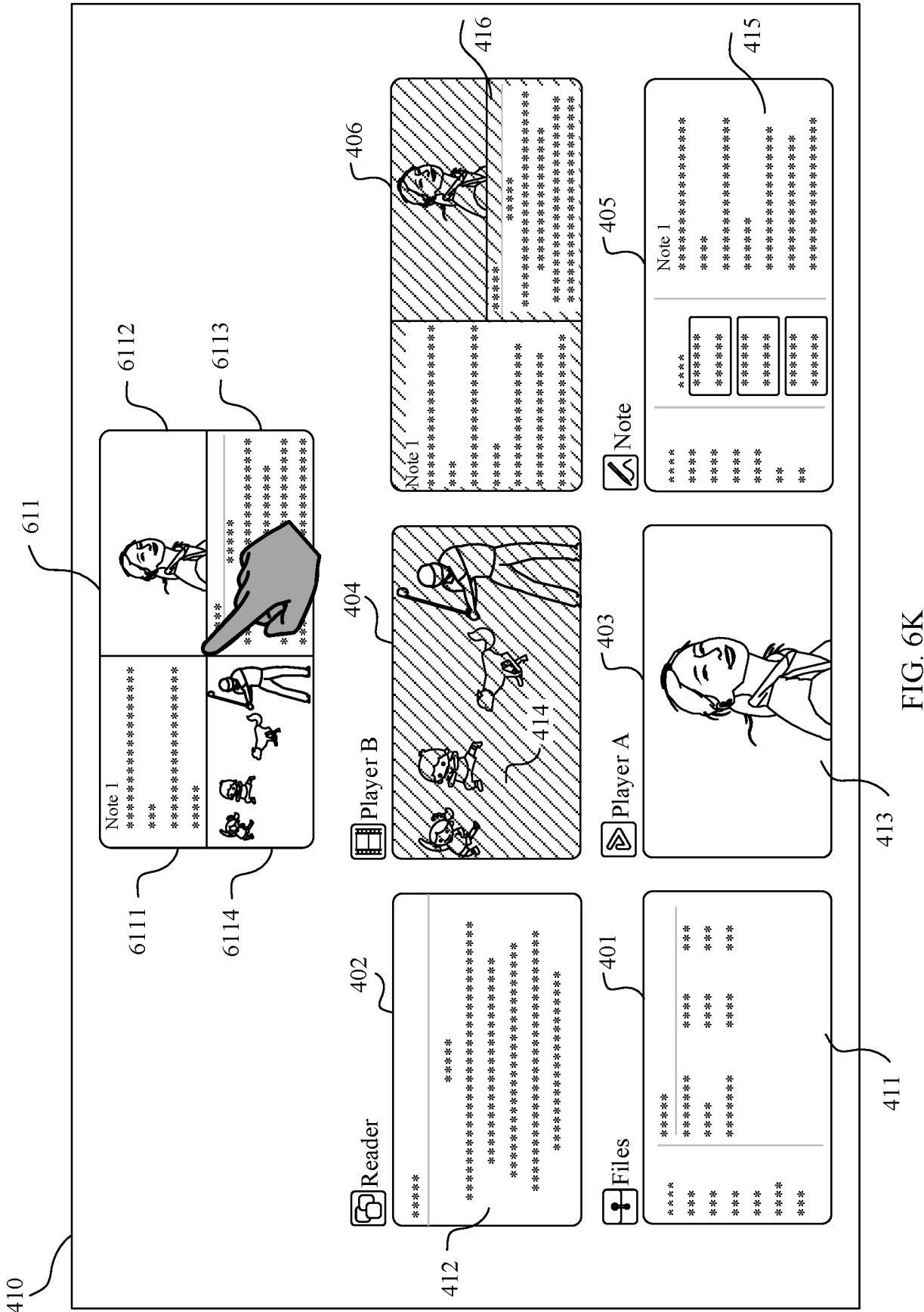


FIG. 6K

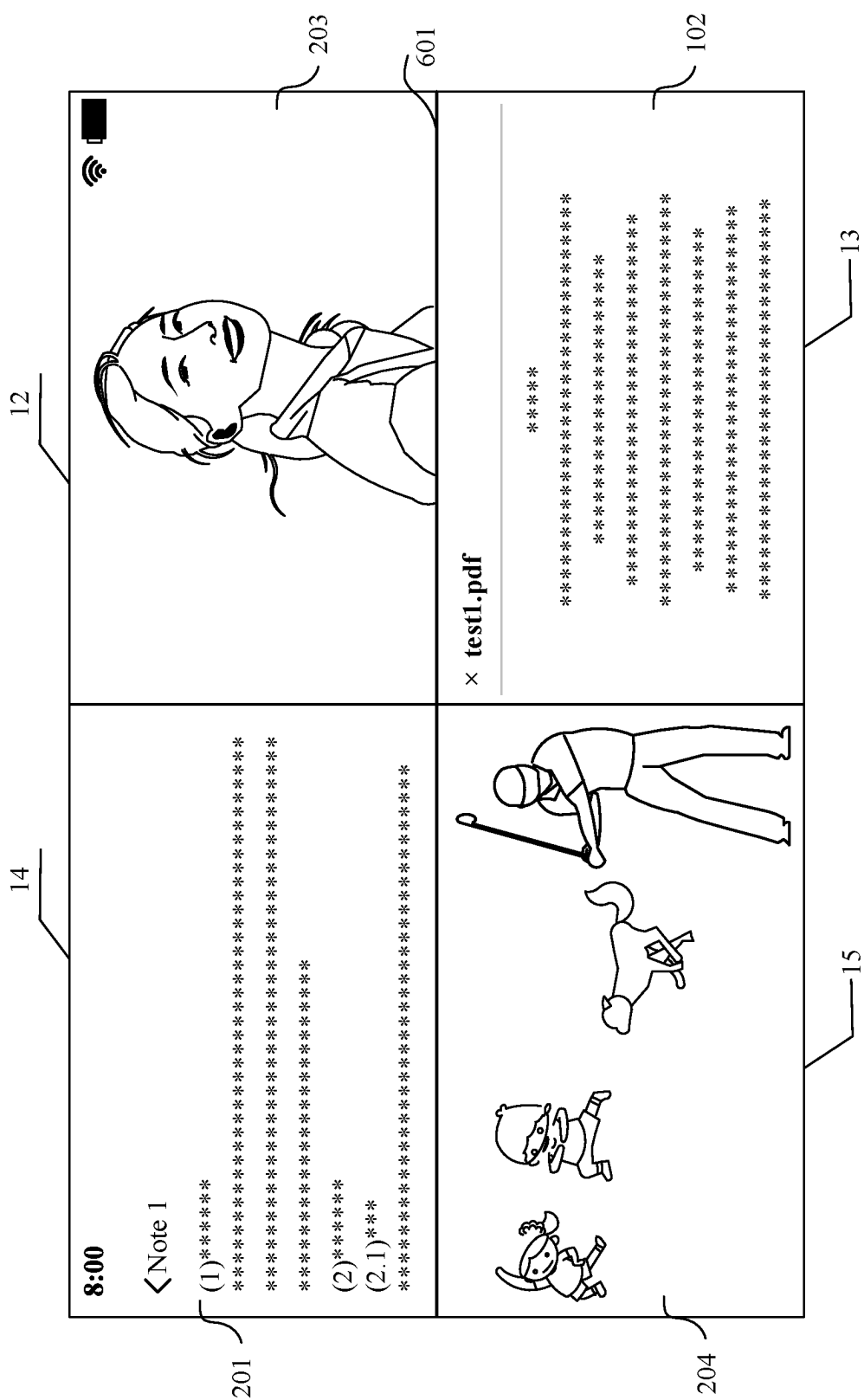


FIG. 6L

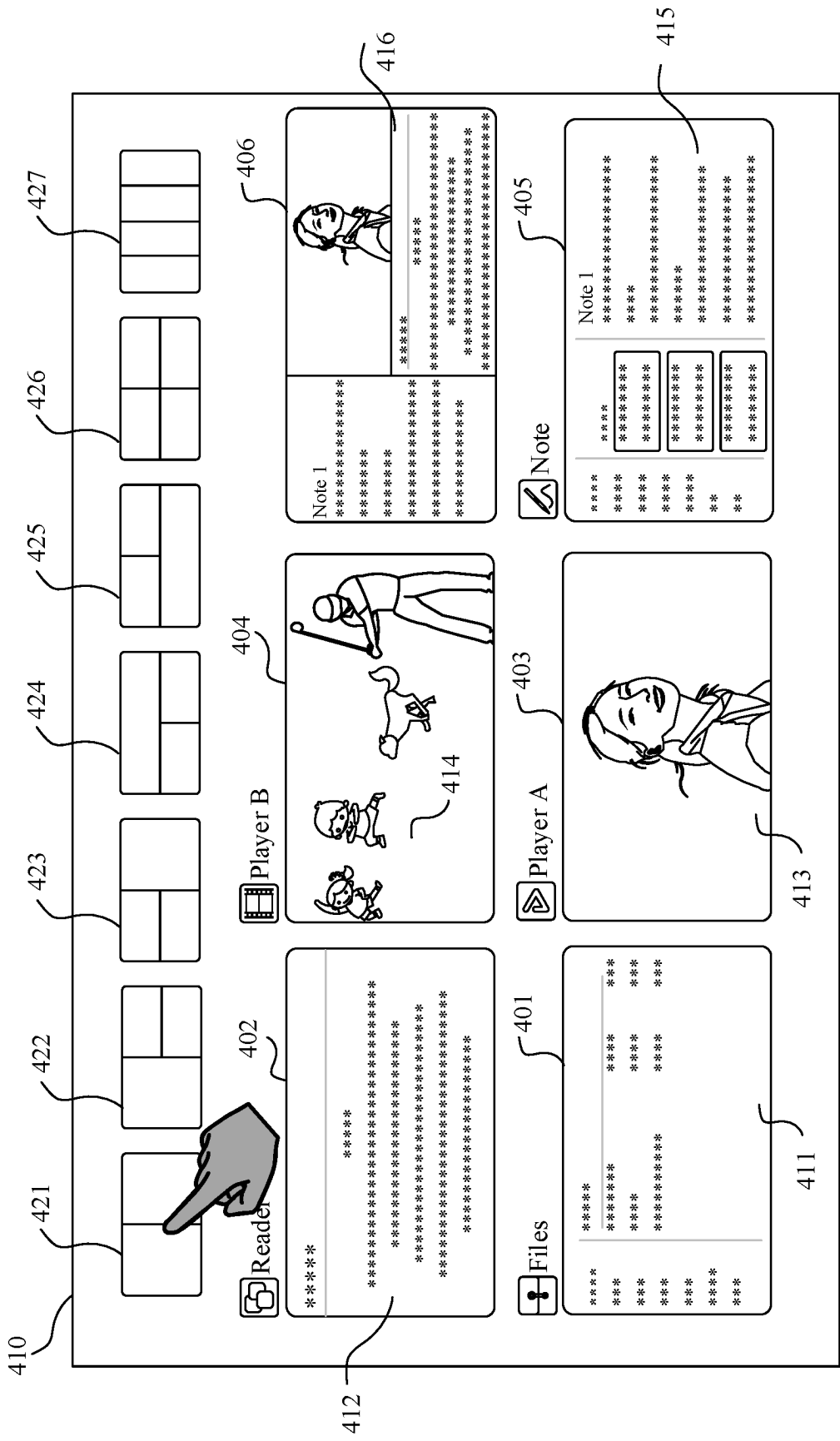
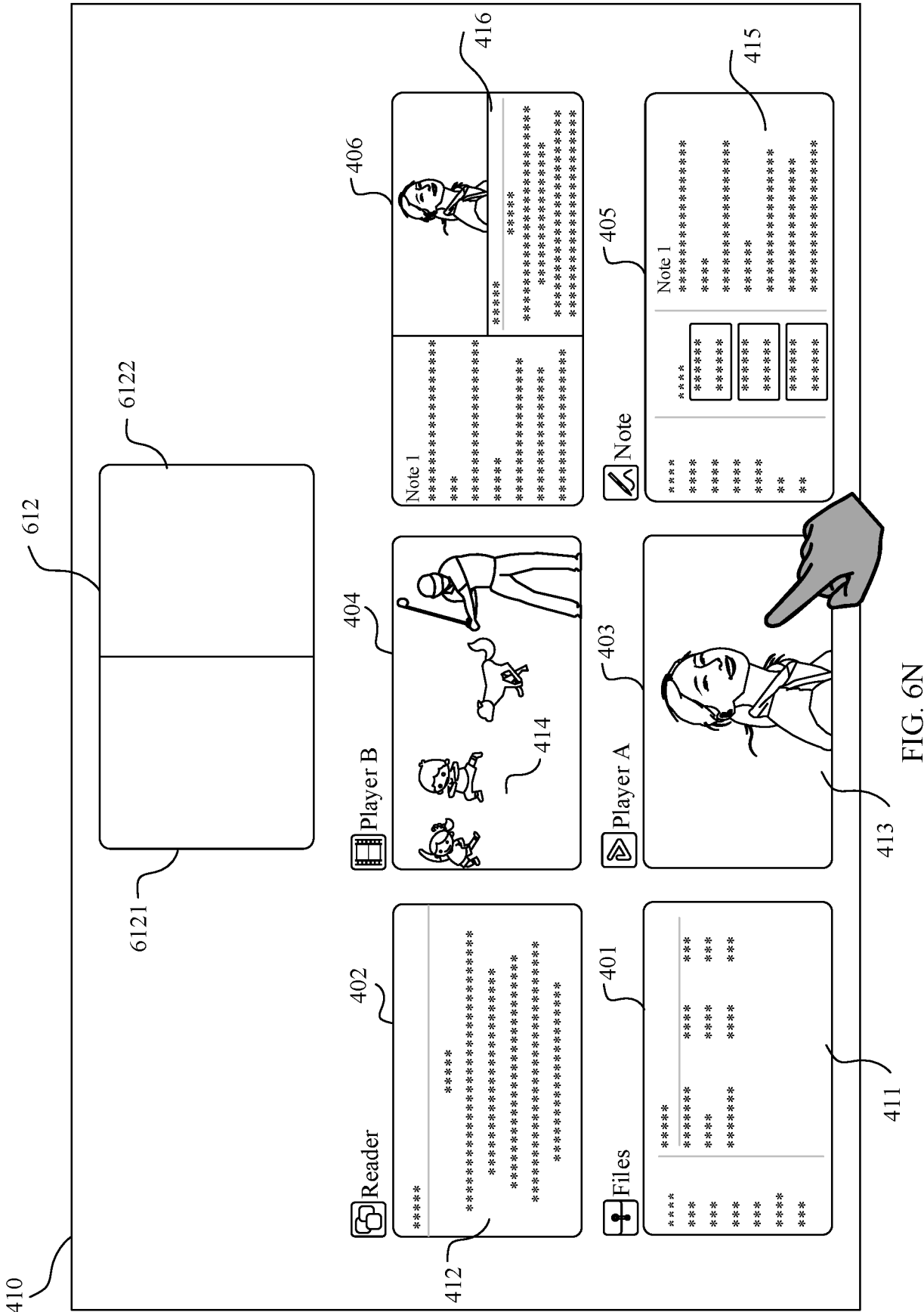


FIG. 6M



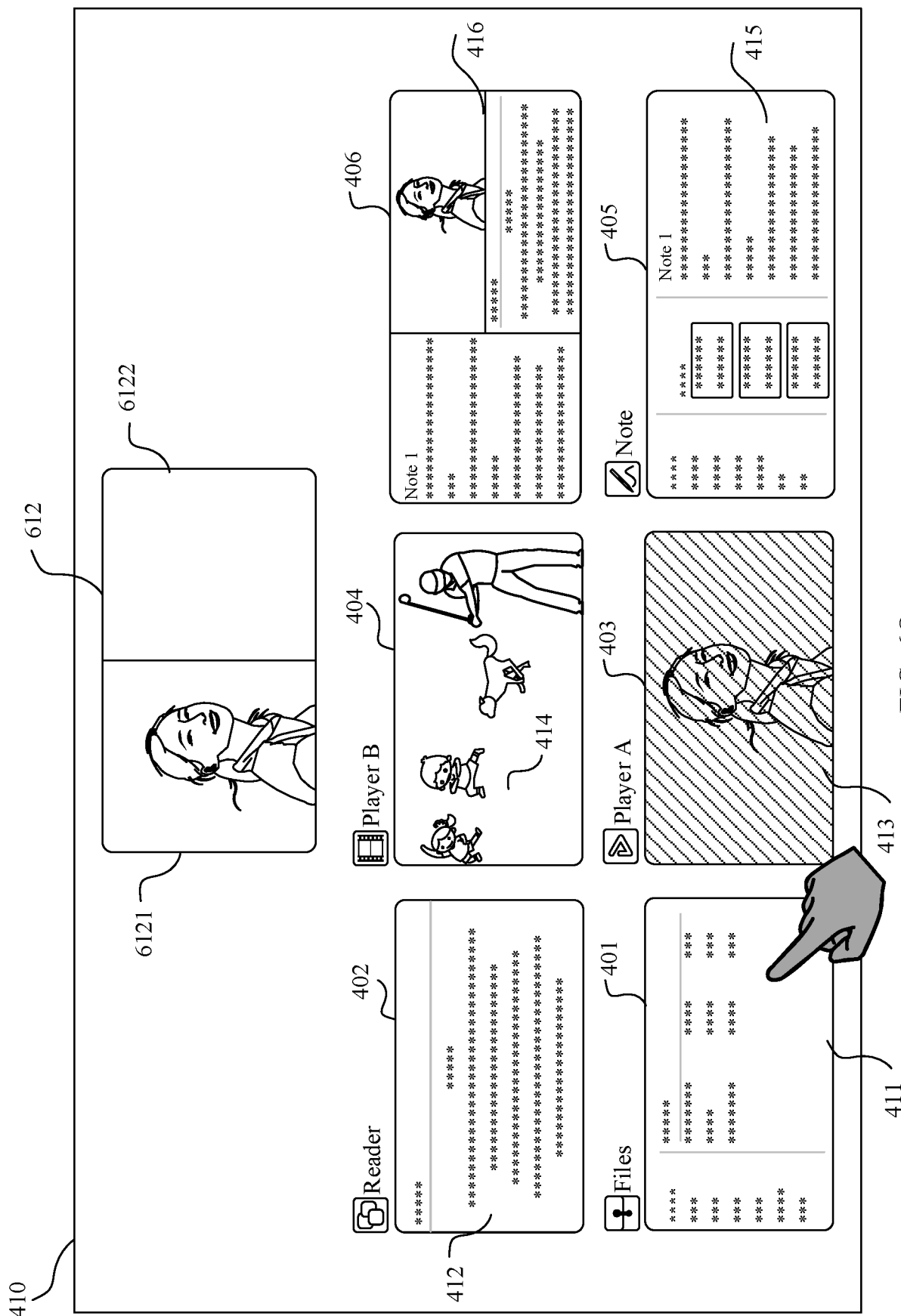


FIG. 60

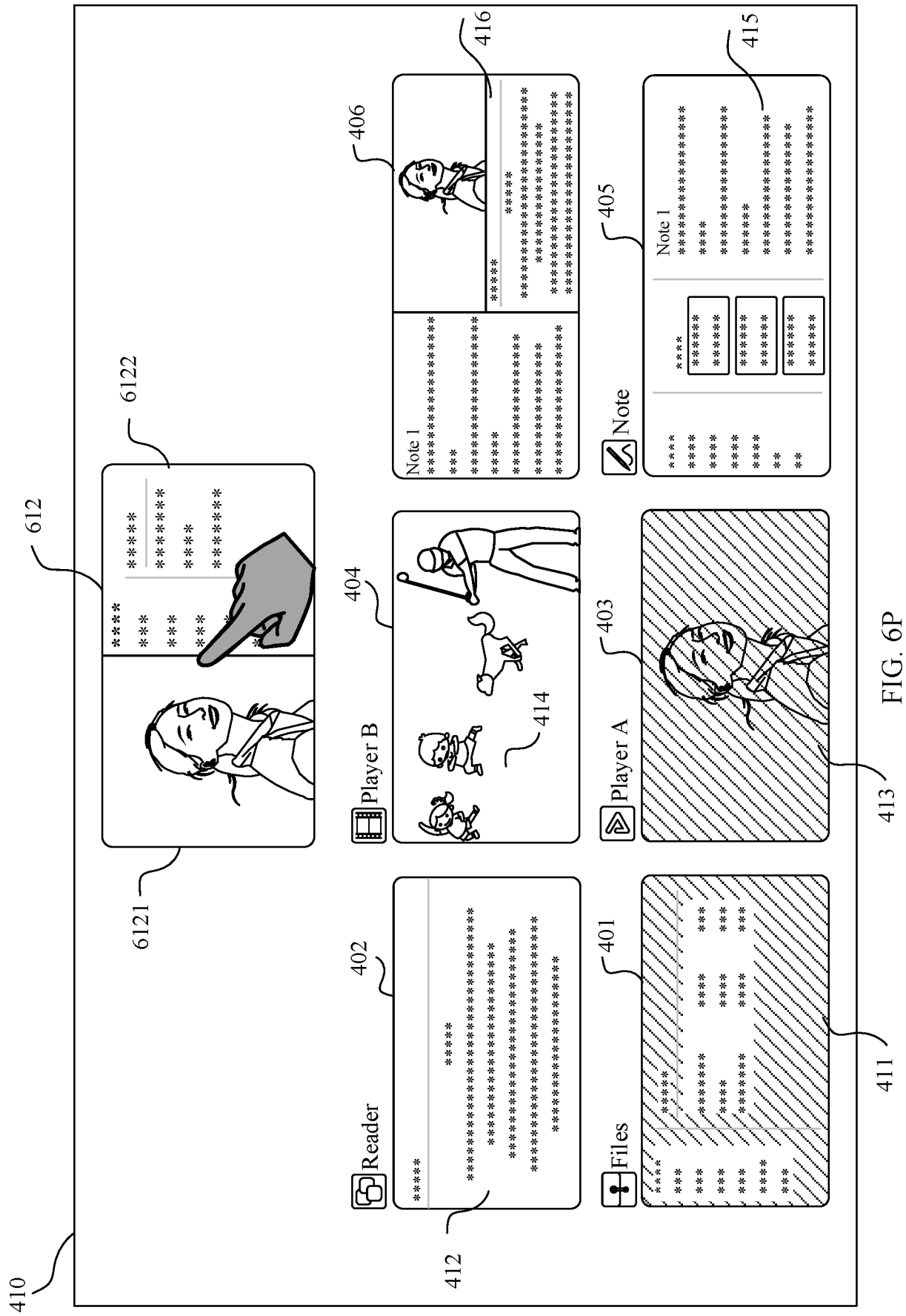


FIG. 6P

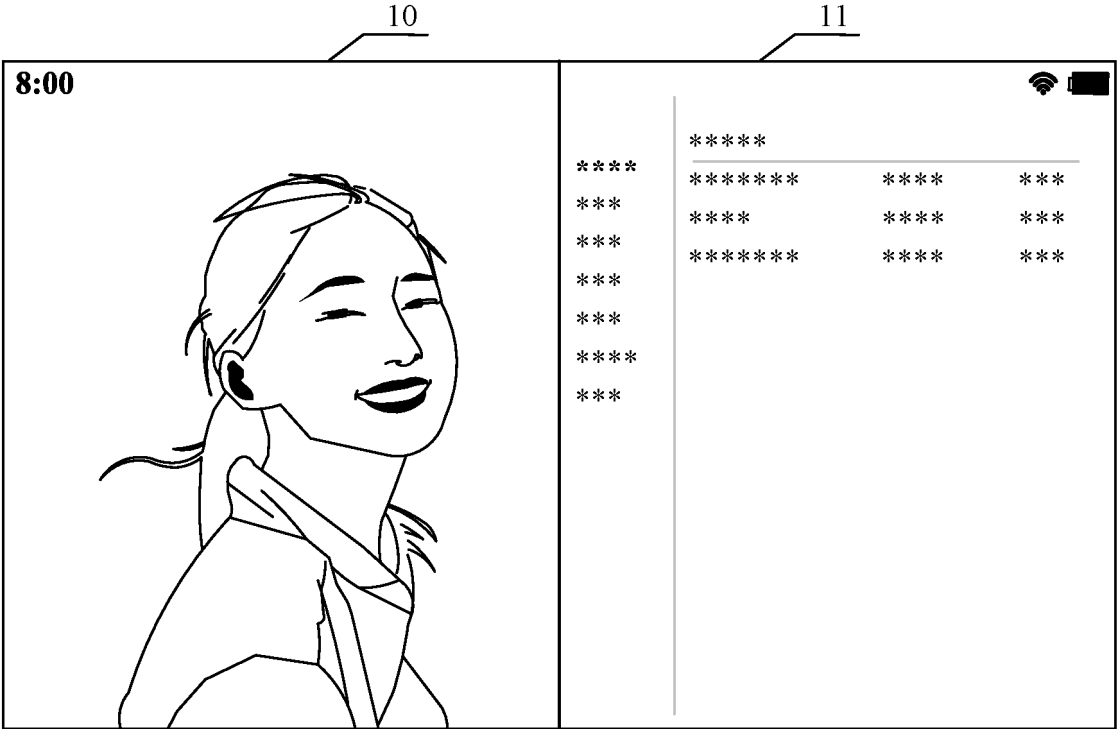


FIG. 6Q

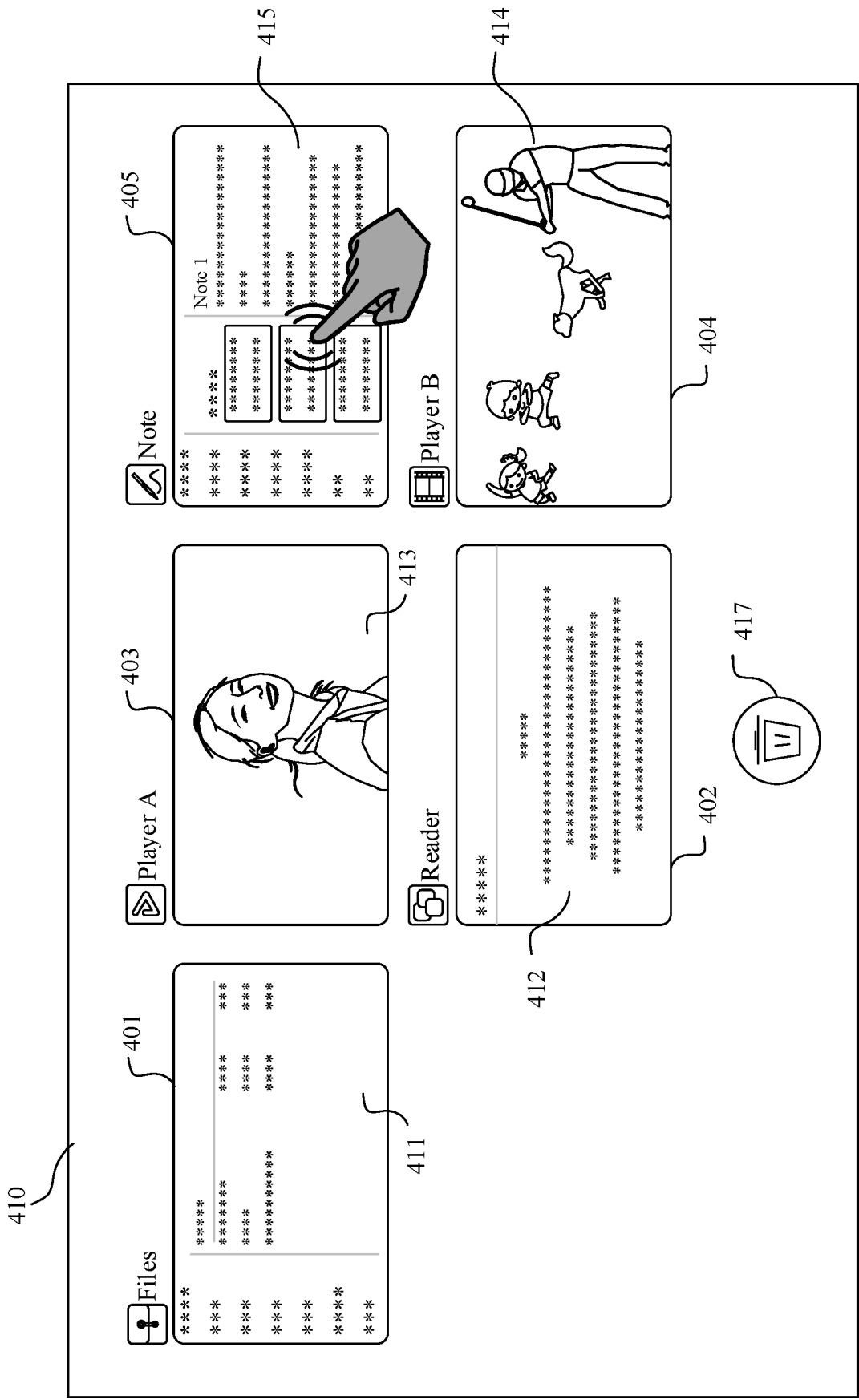


FIG. 7A

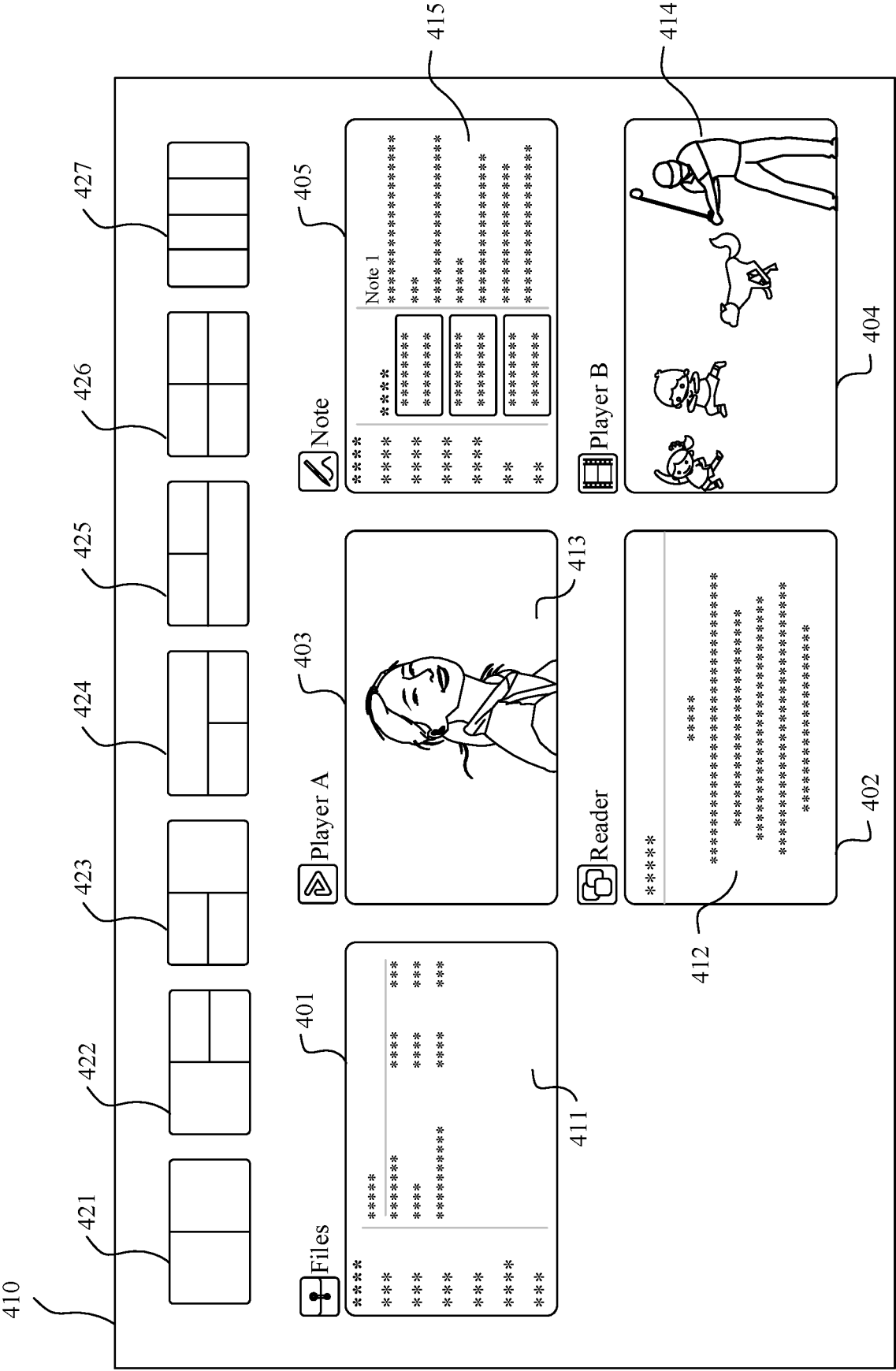


FIG. 7B

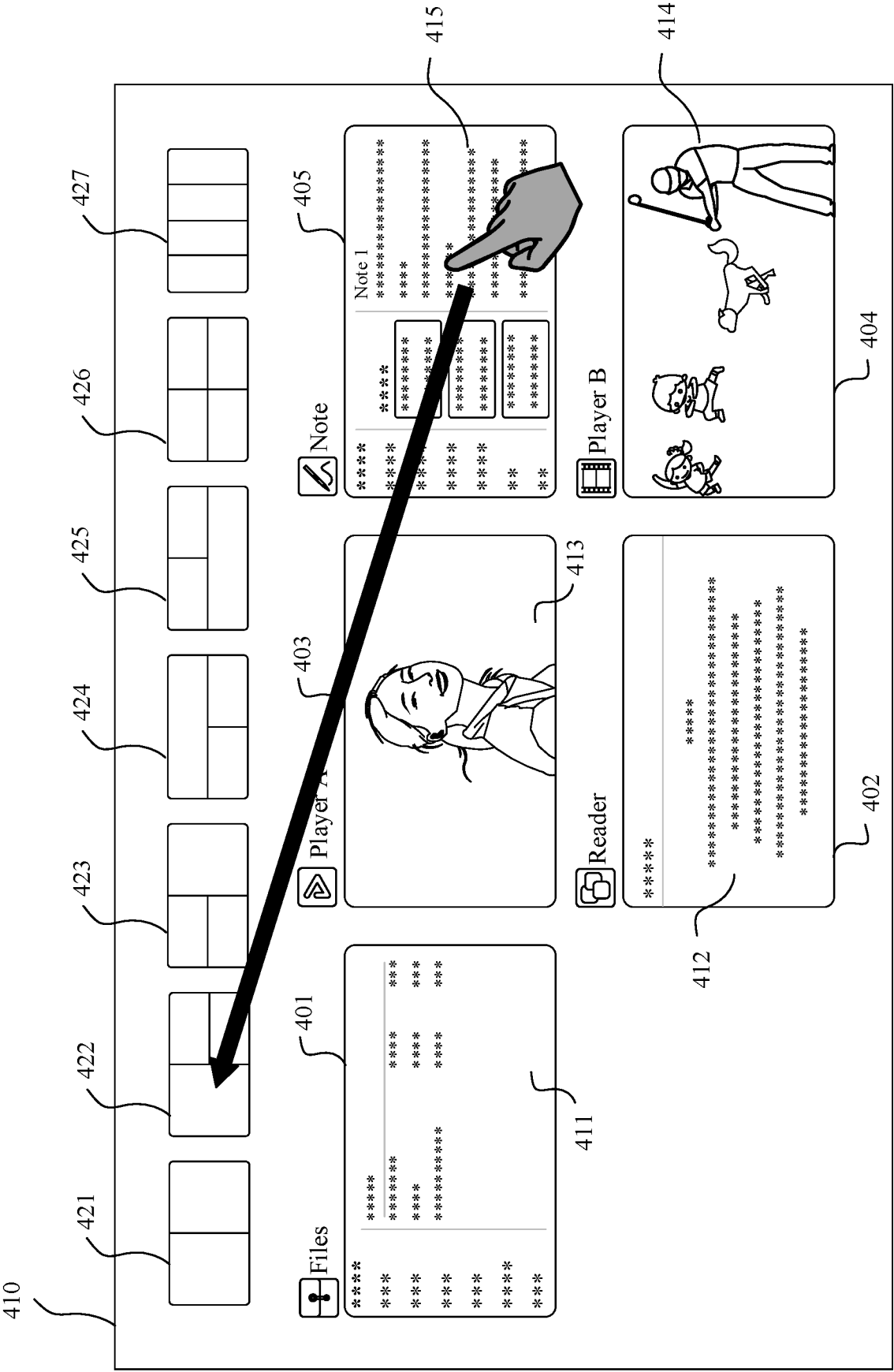
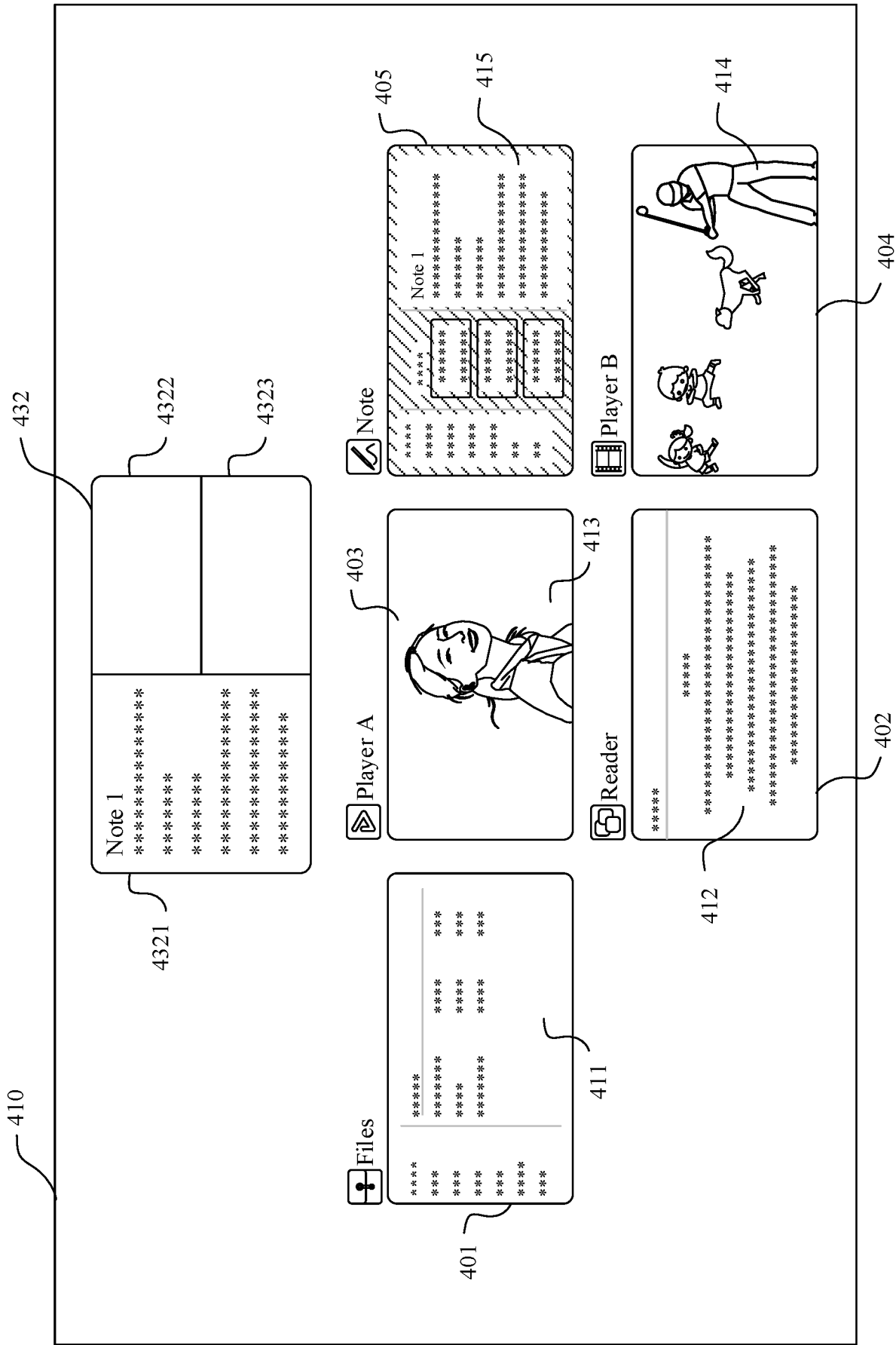


FIG. 8A



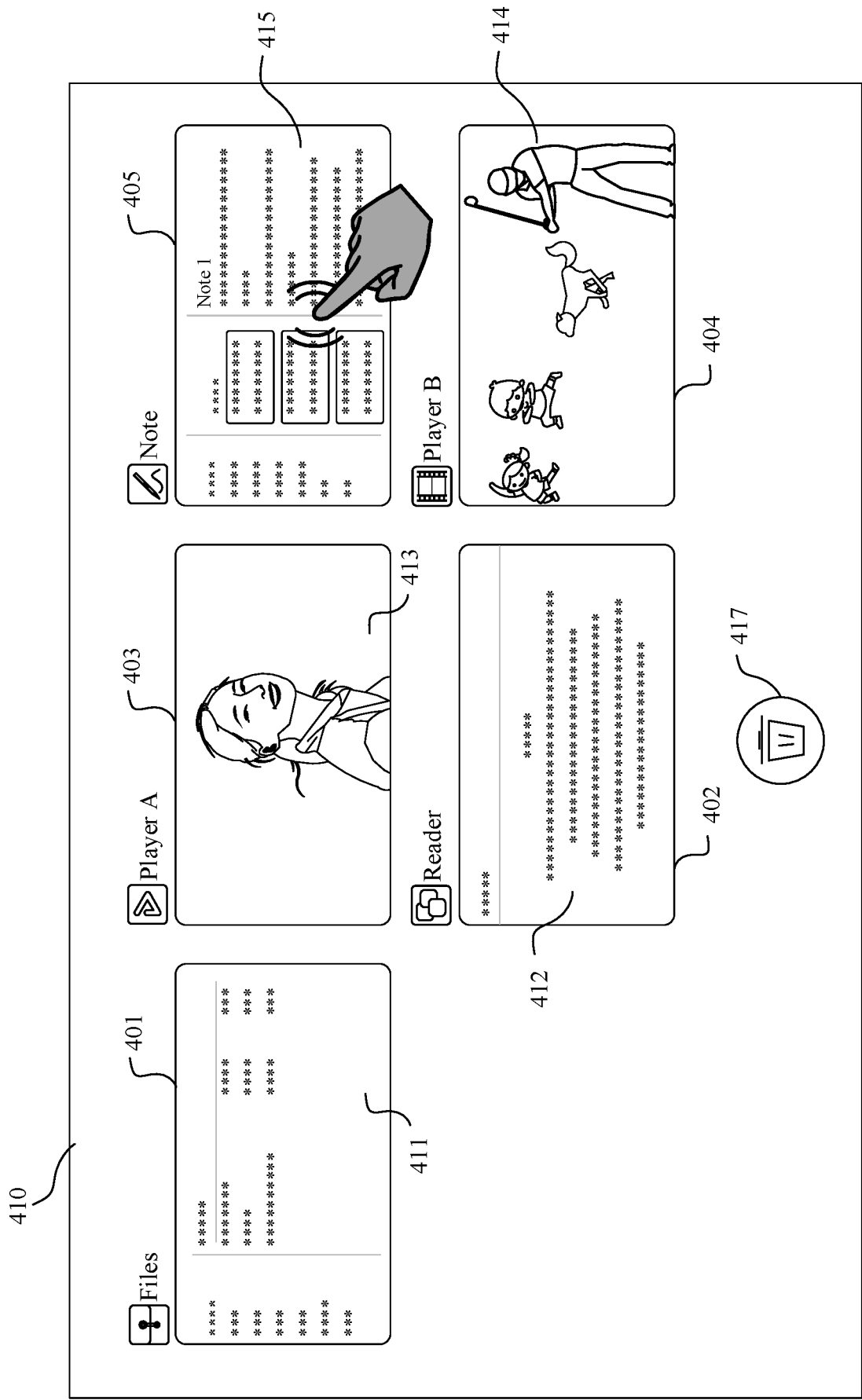


FIG. 9A

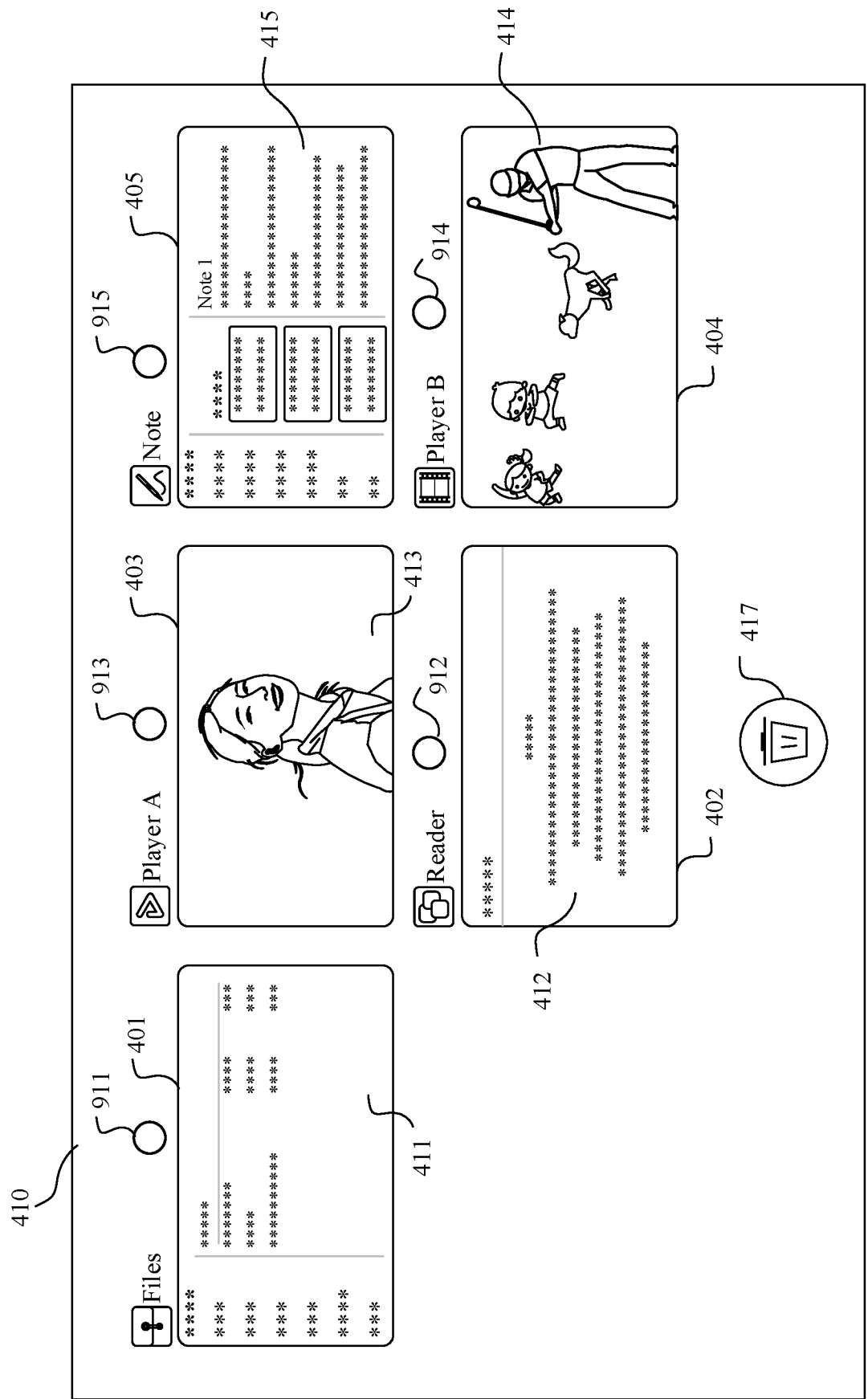


FIG. 9B

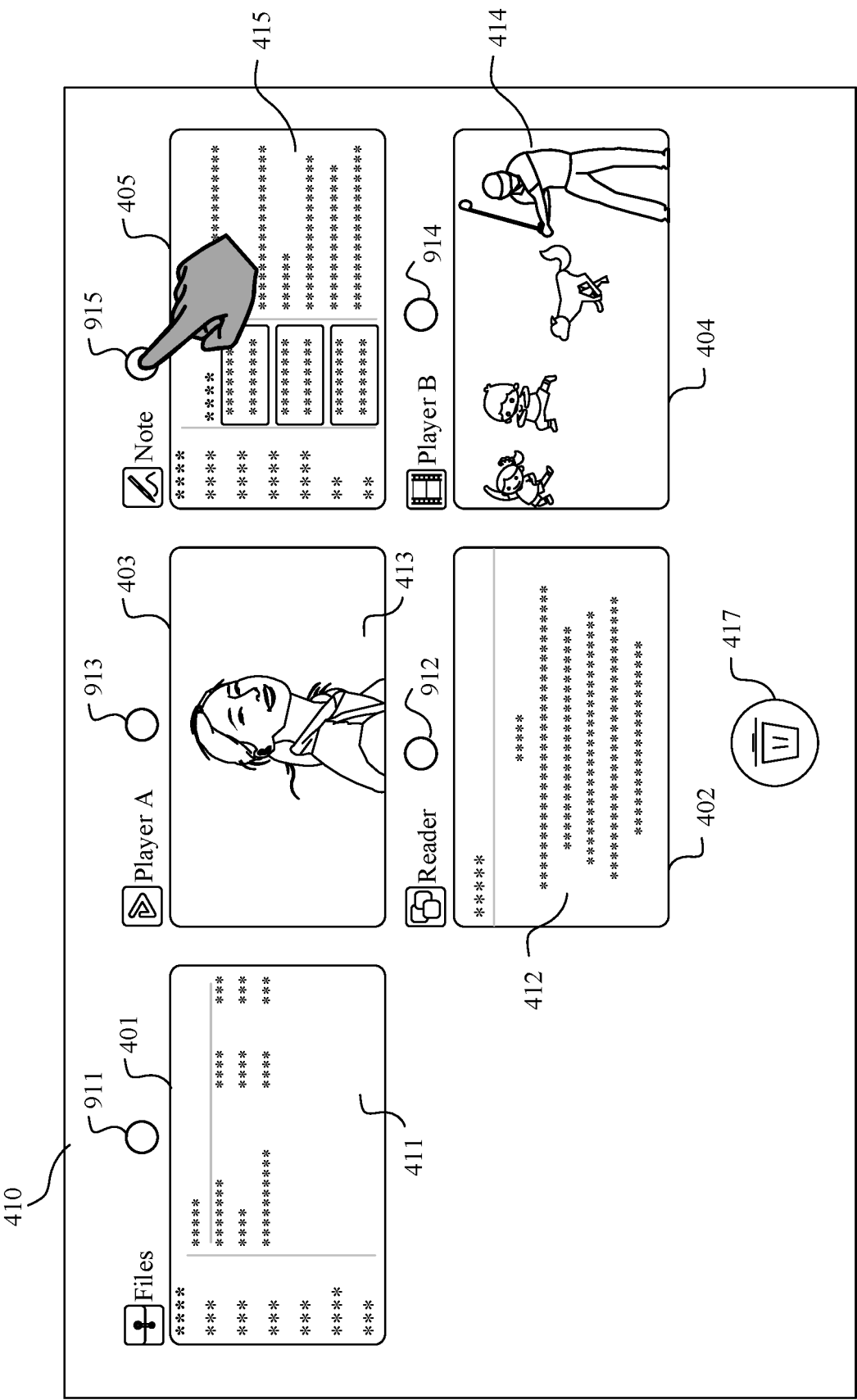


FIG. 9C

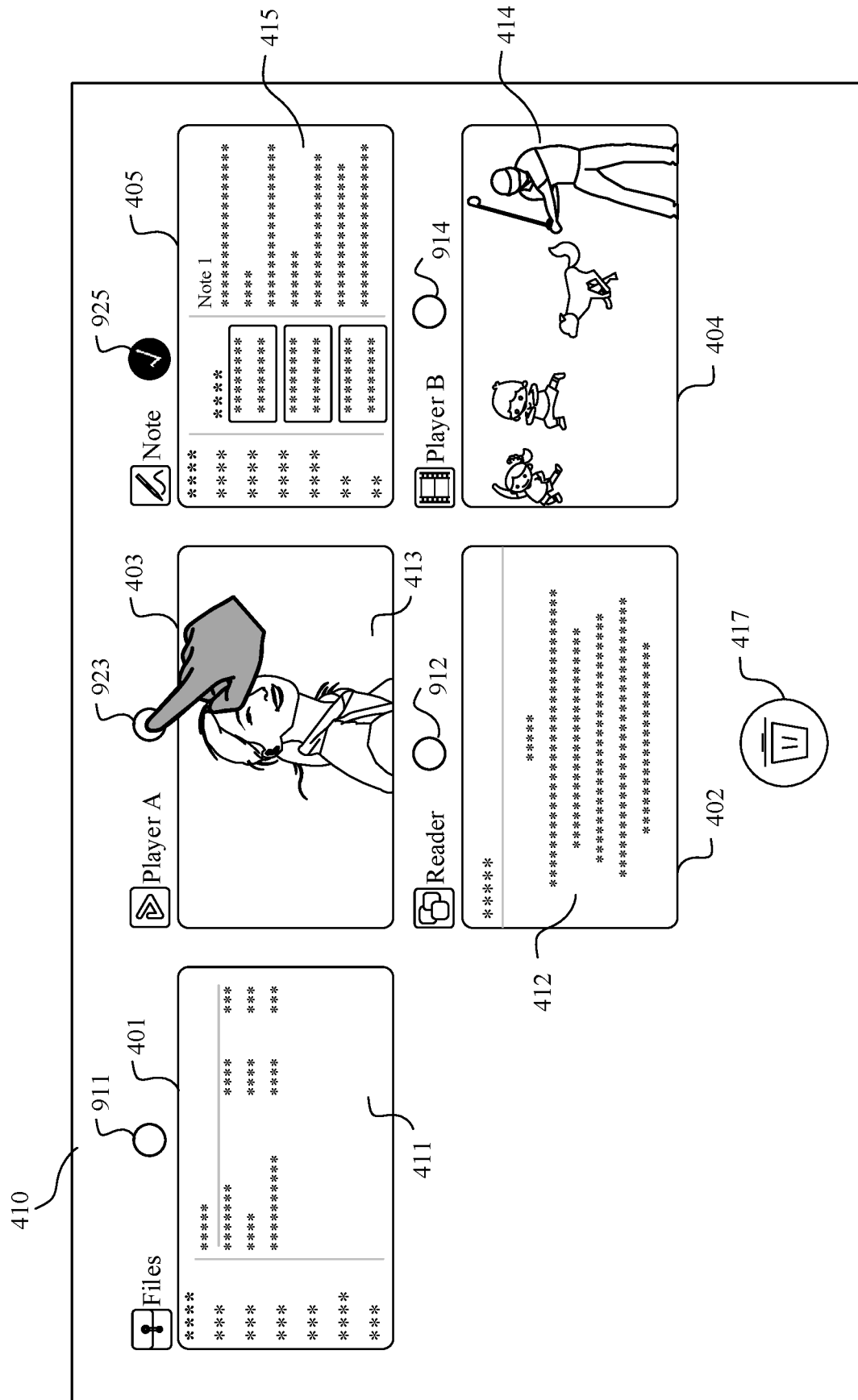


FIG. 9D

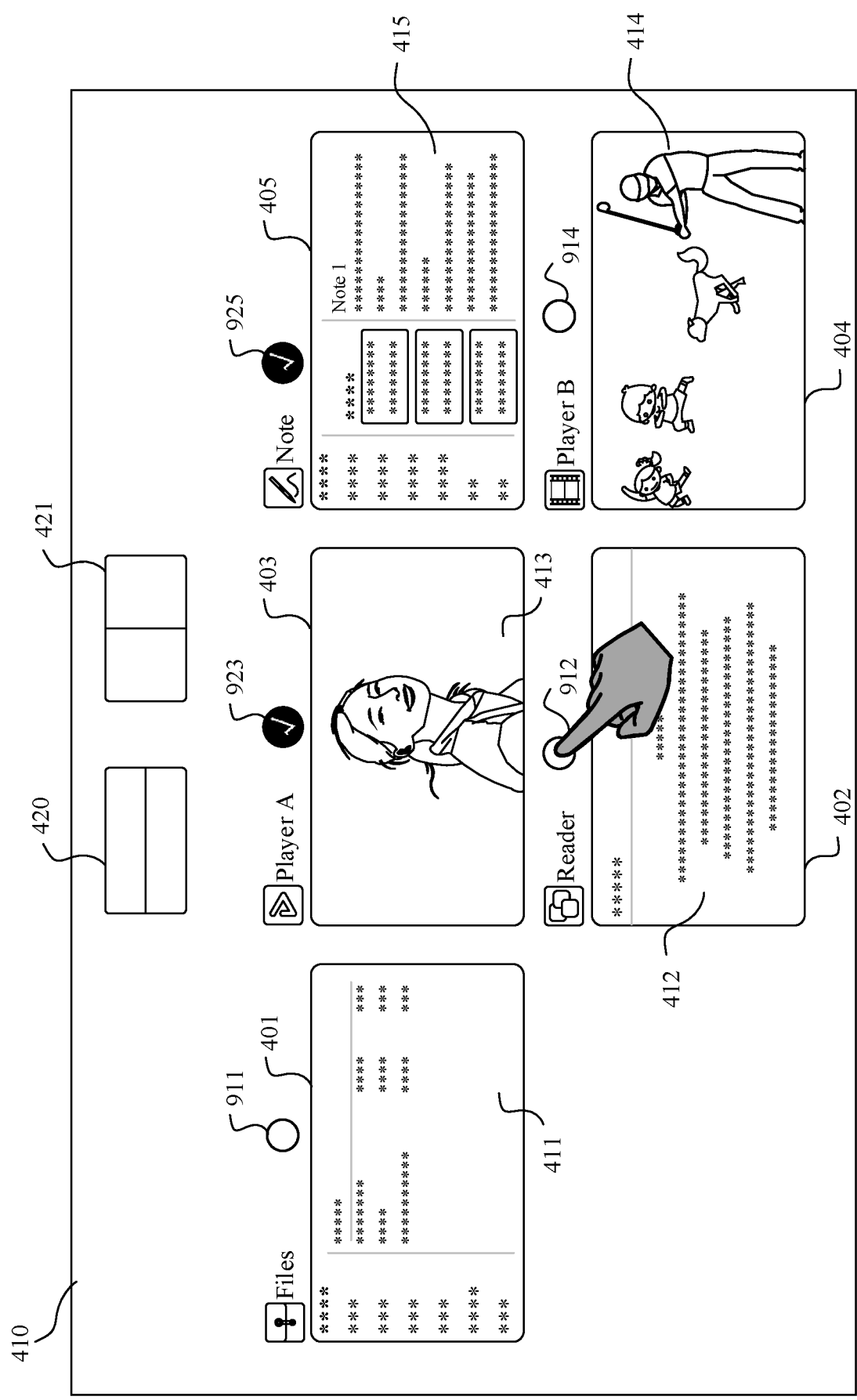


FIG. 9E

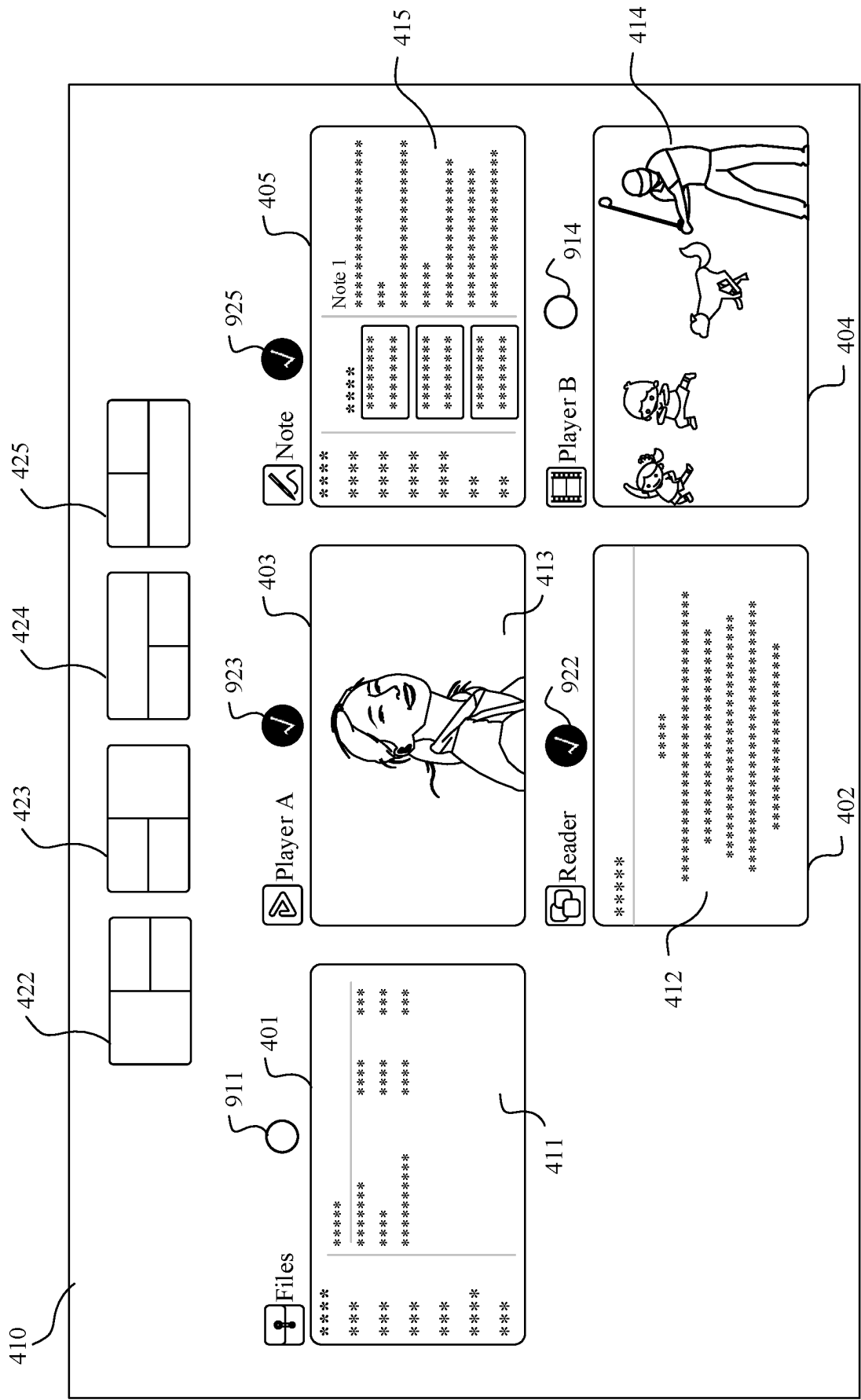


FIG. 9F

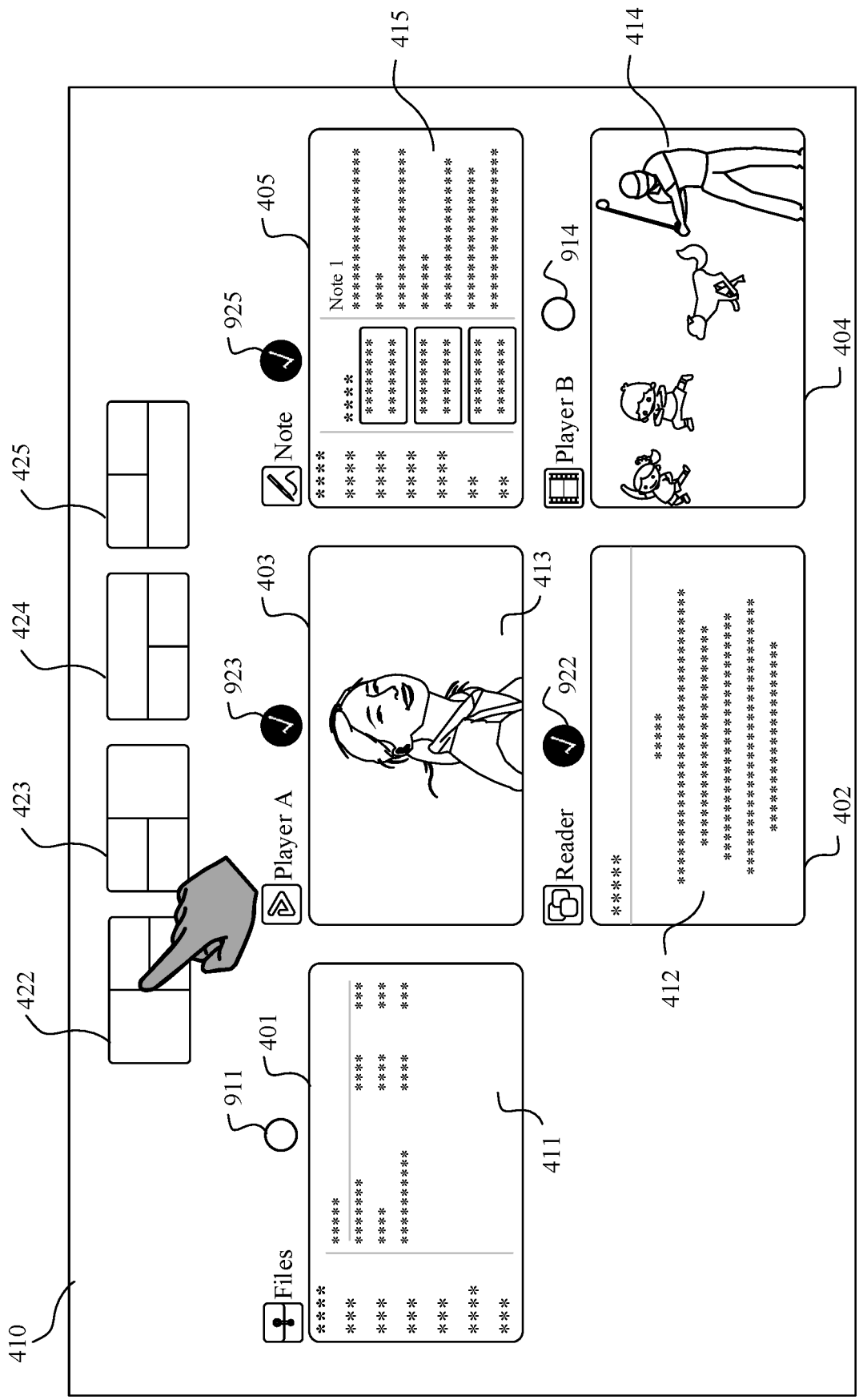


FIG. 9G

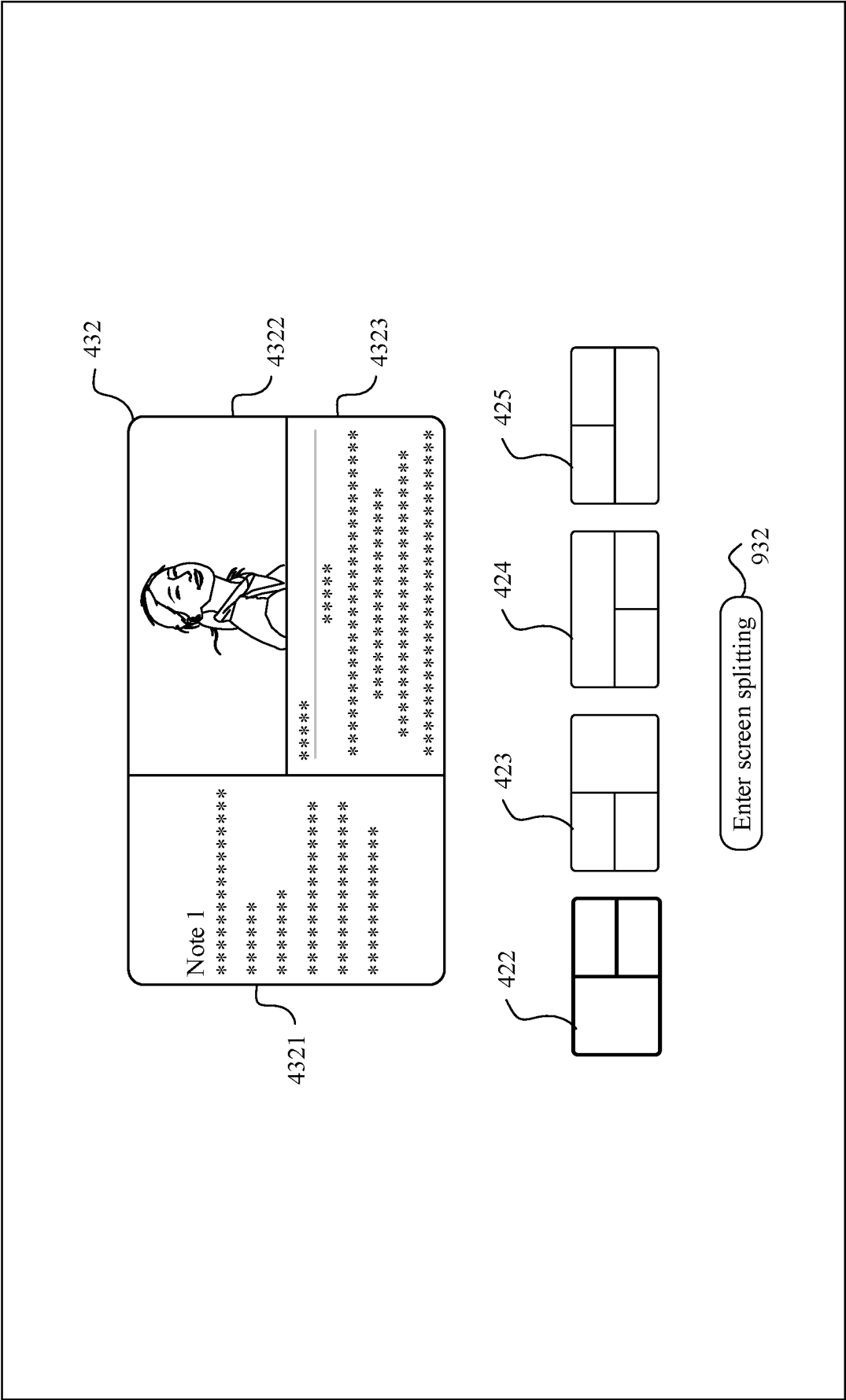


FIG. 9H

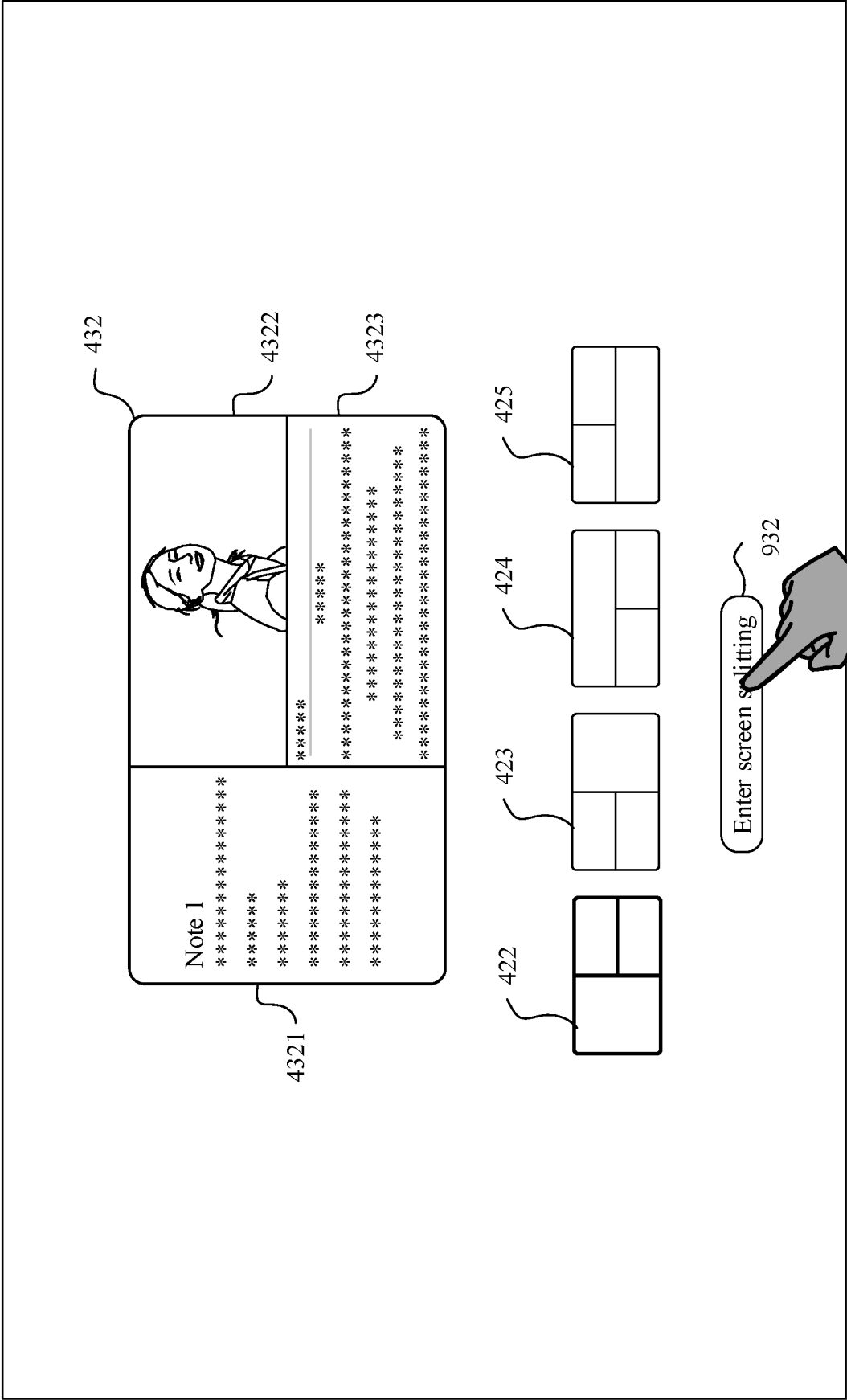


FIG. 9I

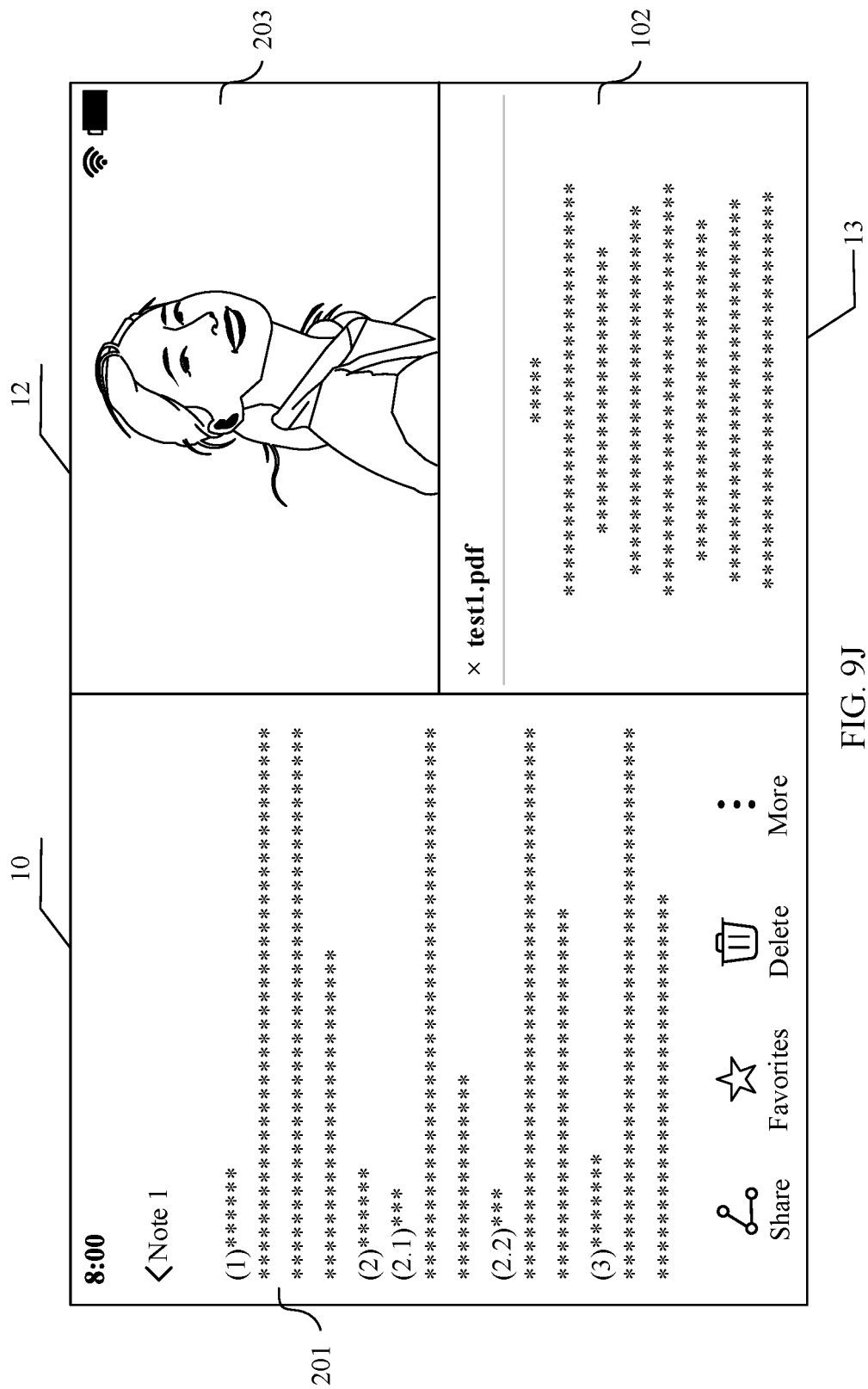


FIG. 9J

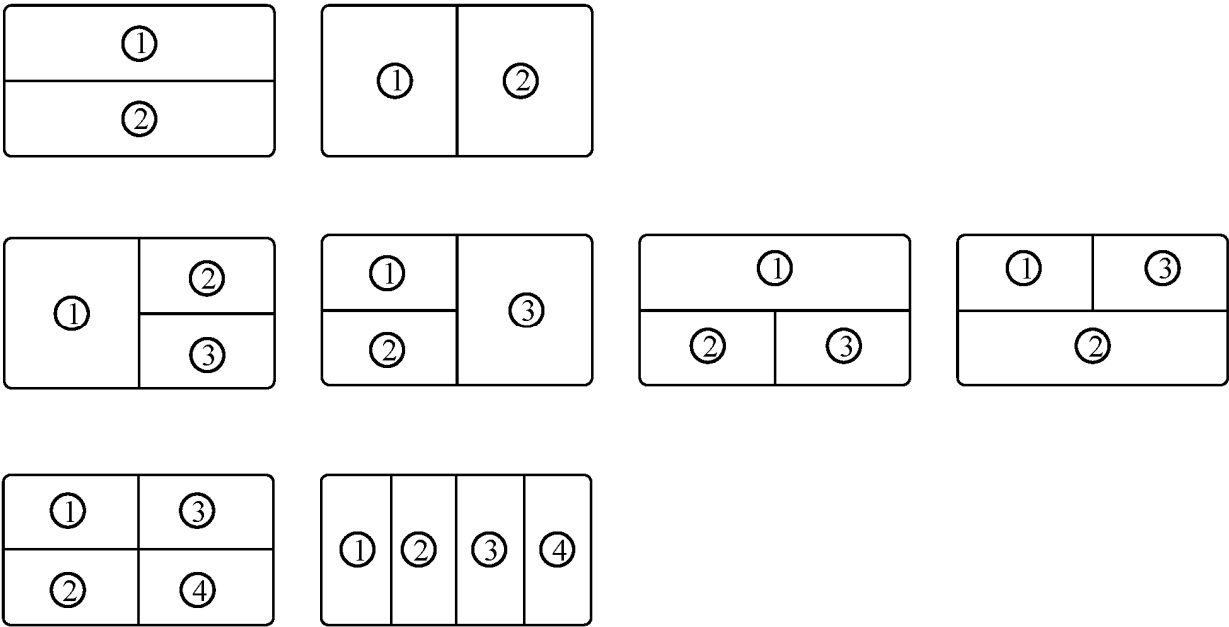


FIG. 10

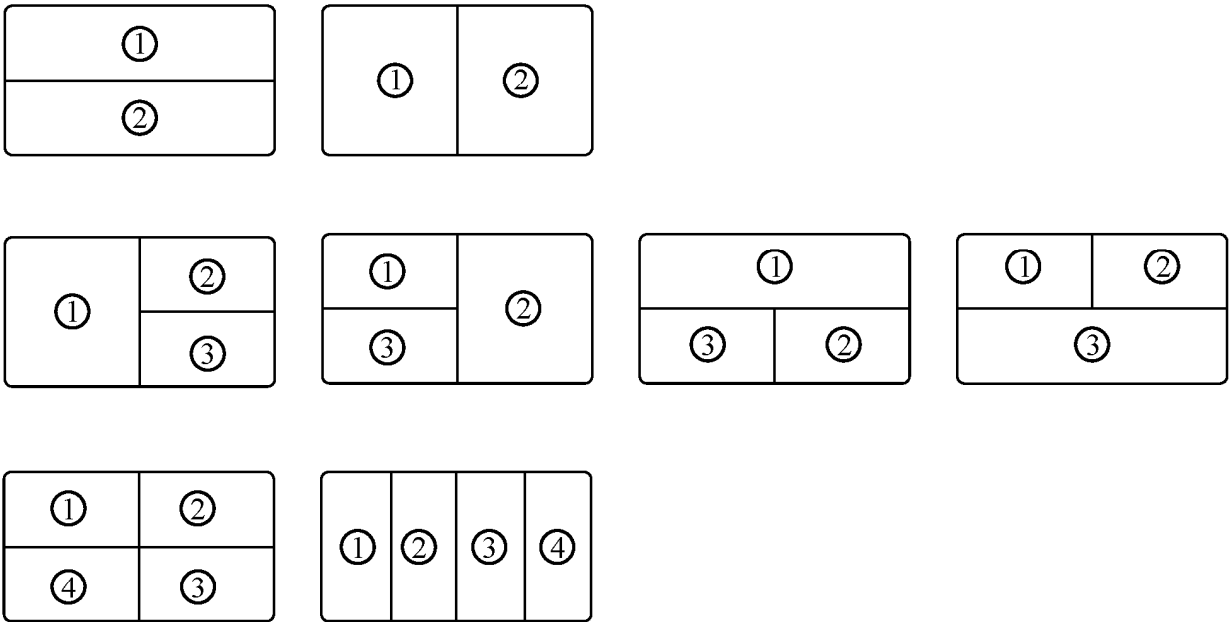


FIG. 11

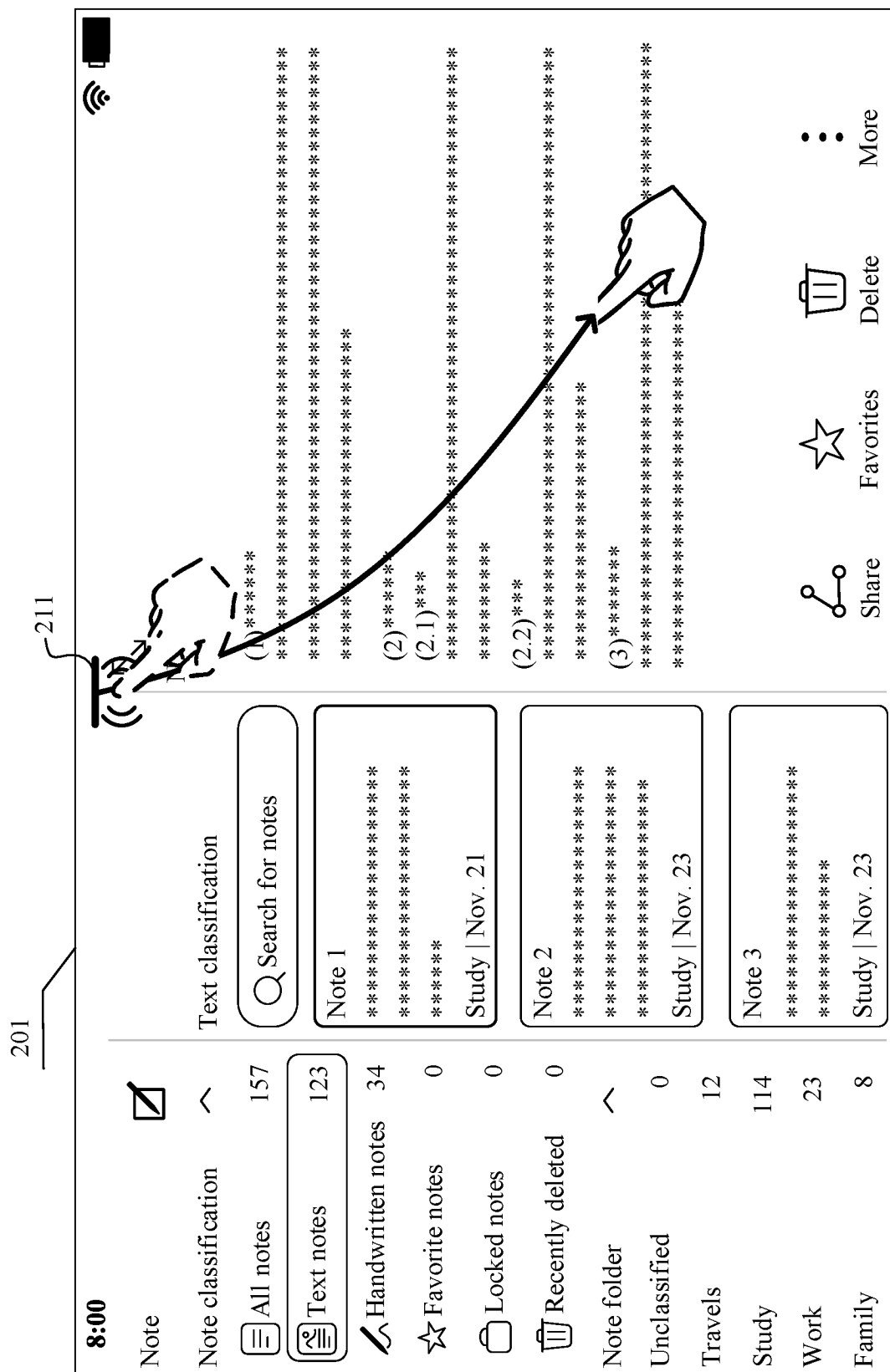


FIG. 12A

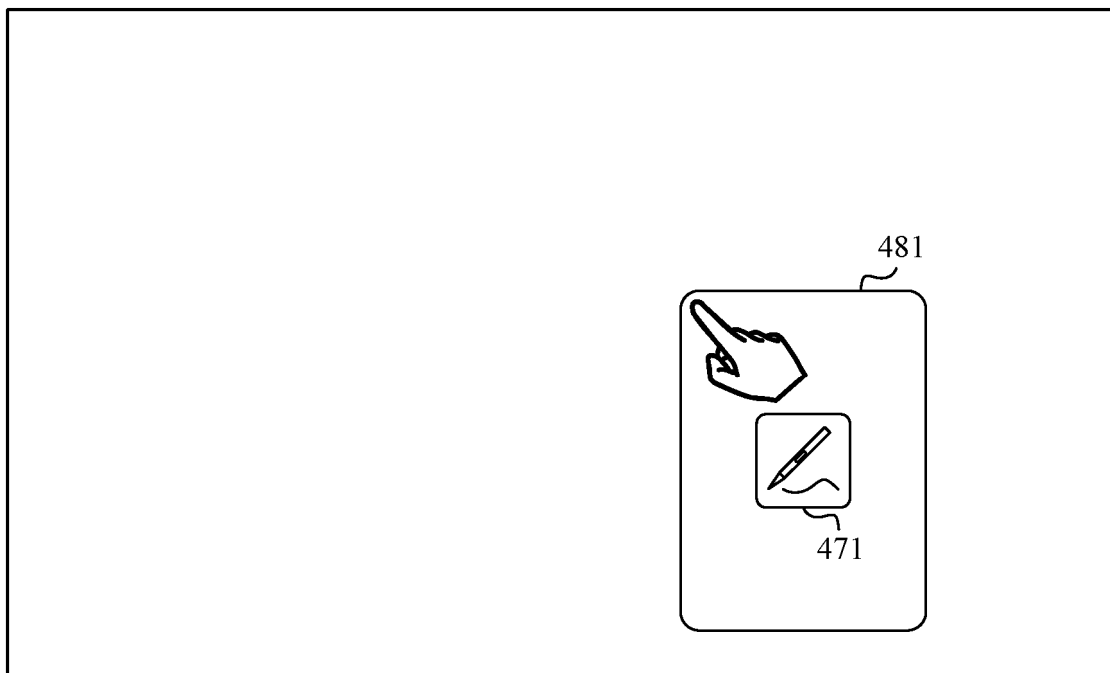


FIG. 12B

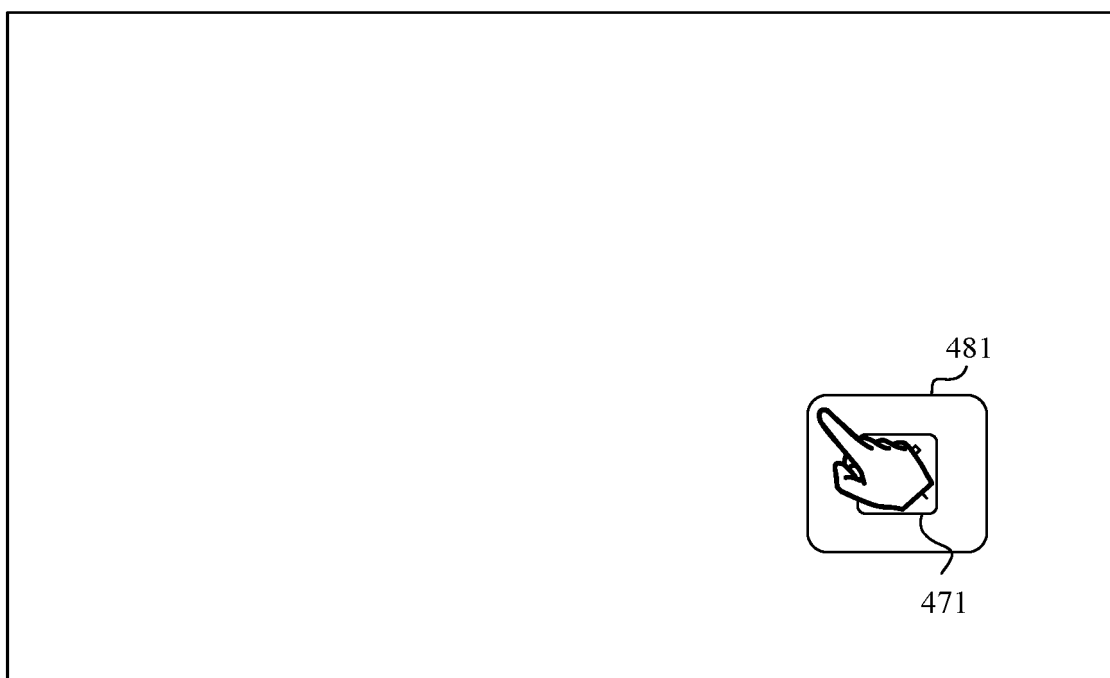


FIG. 12C

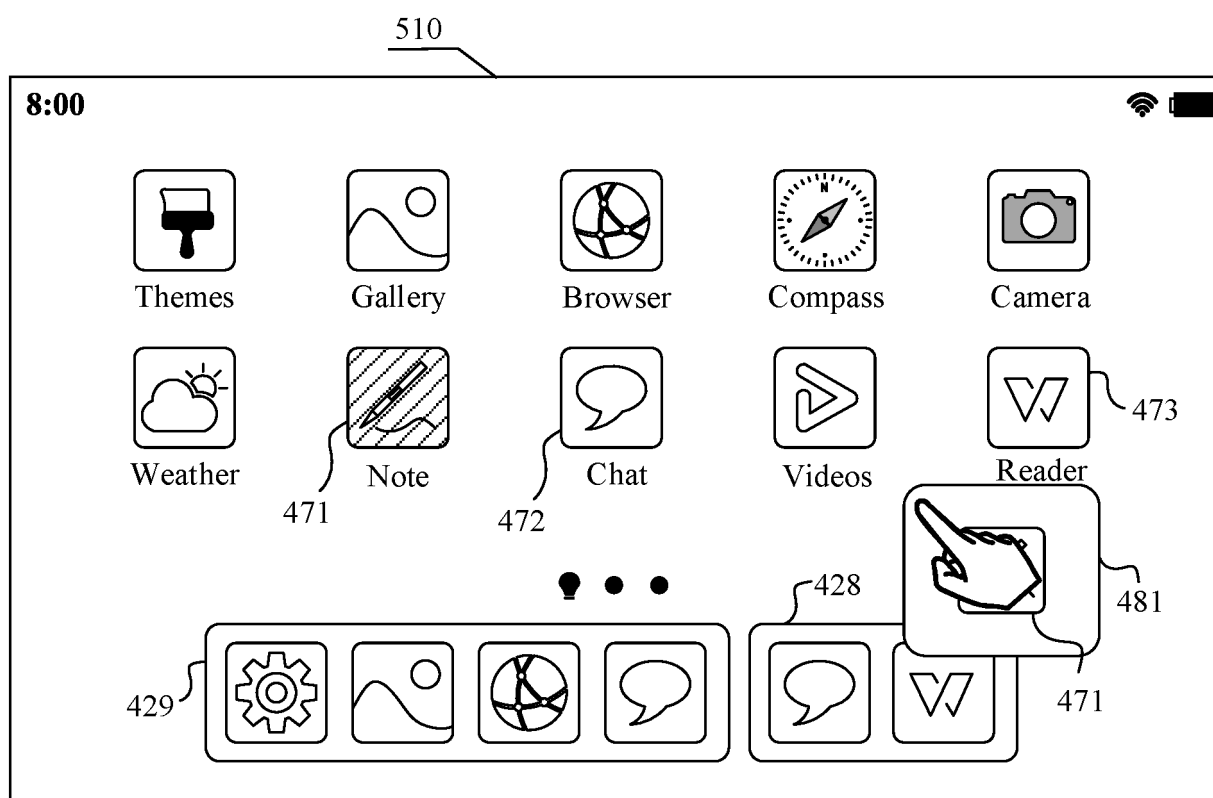


FIG. 12D

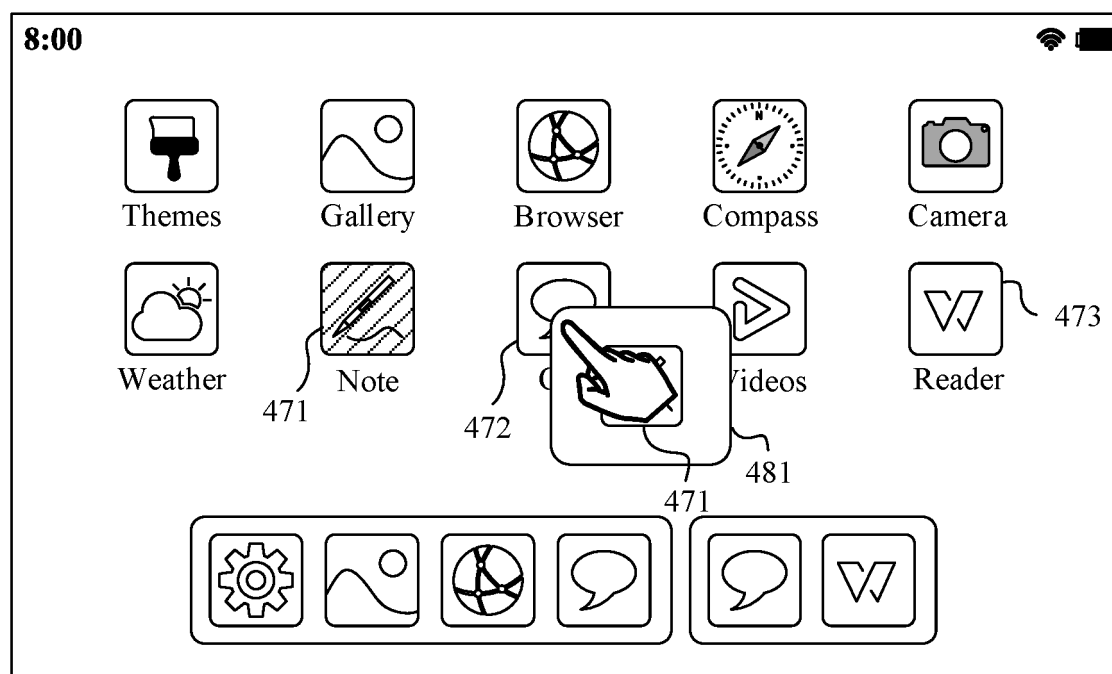


FIG. 12E

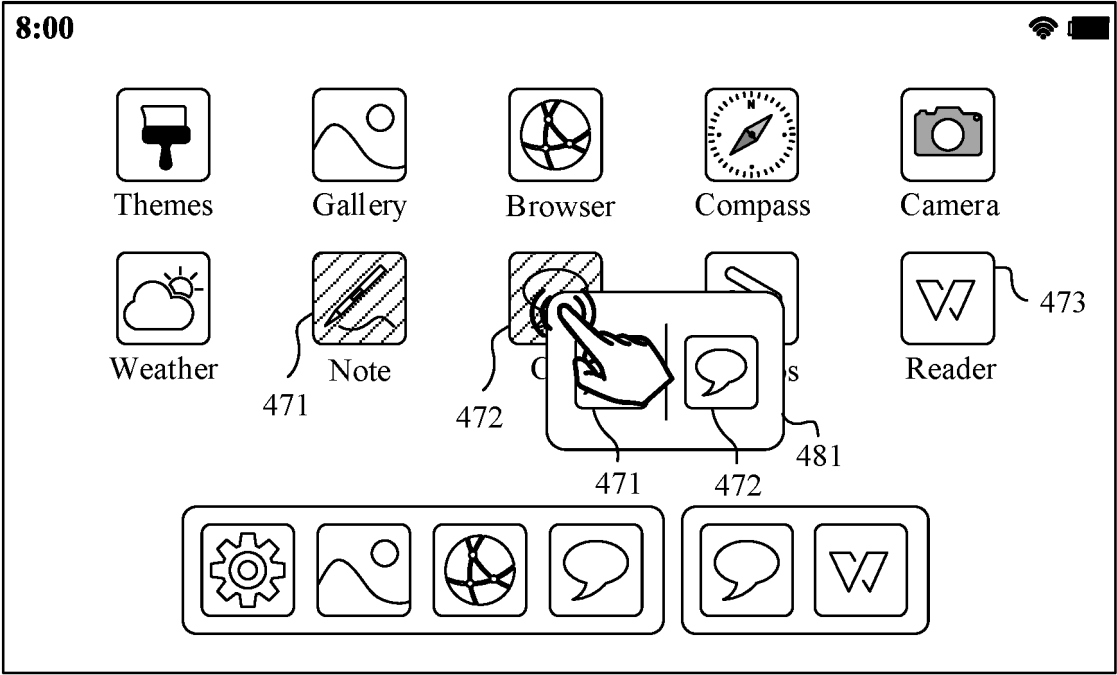


FIG. 12F

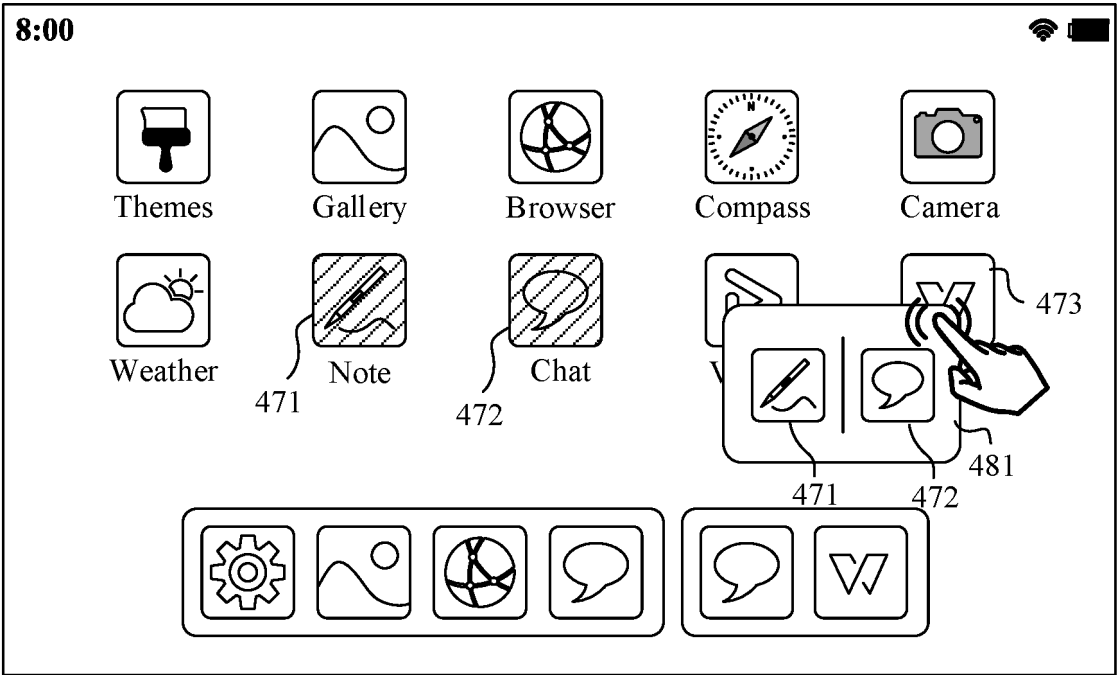


FIG. 12G

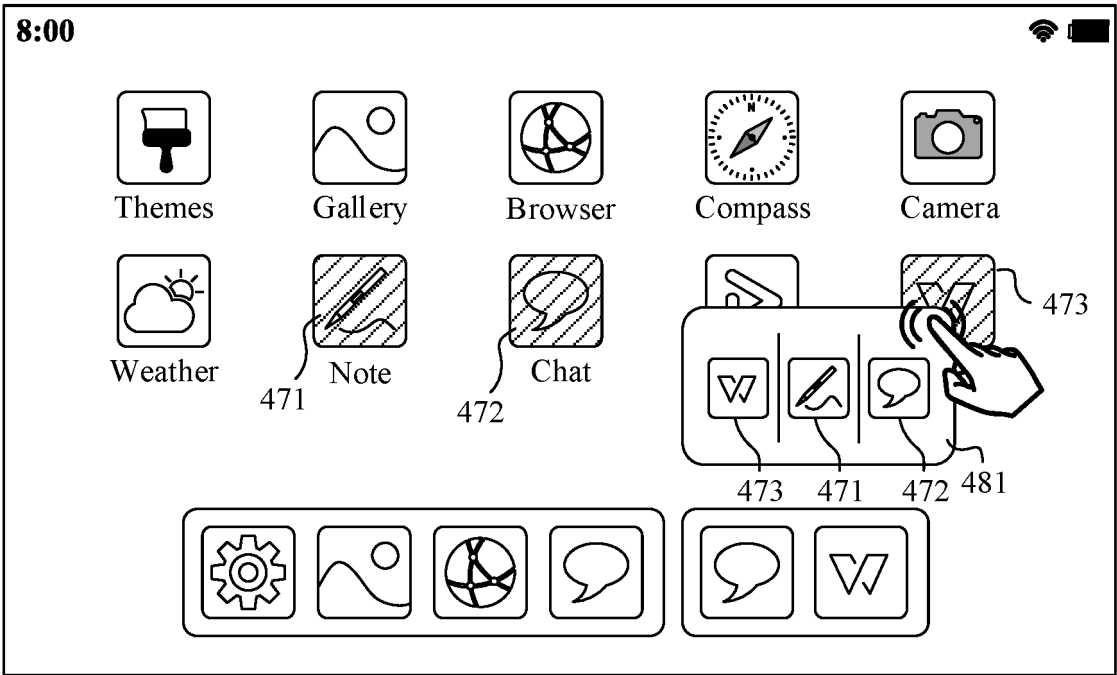


FIG. 12H

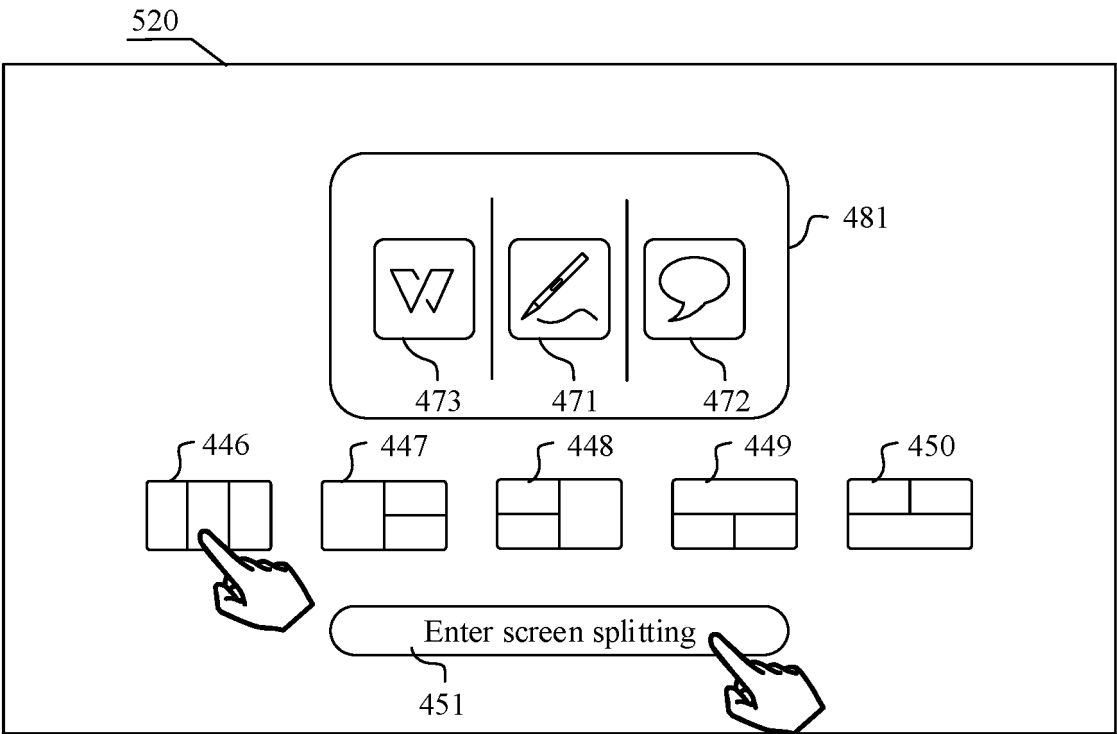
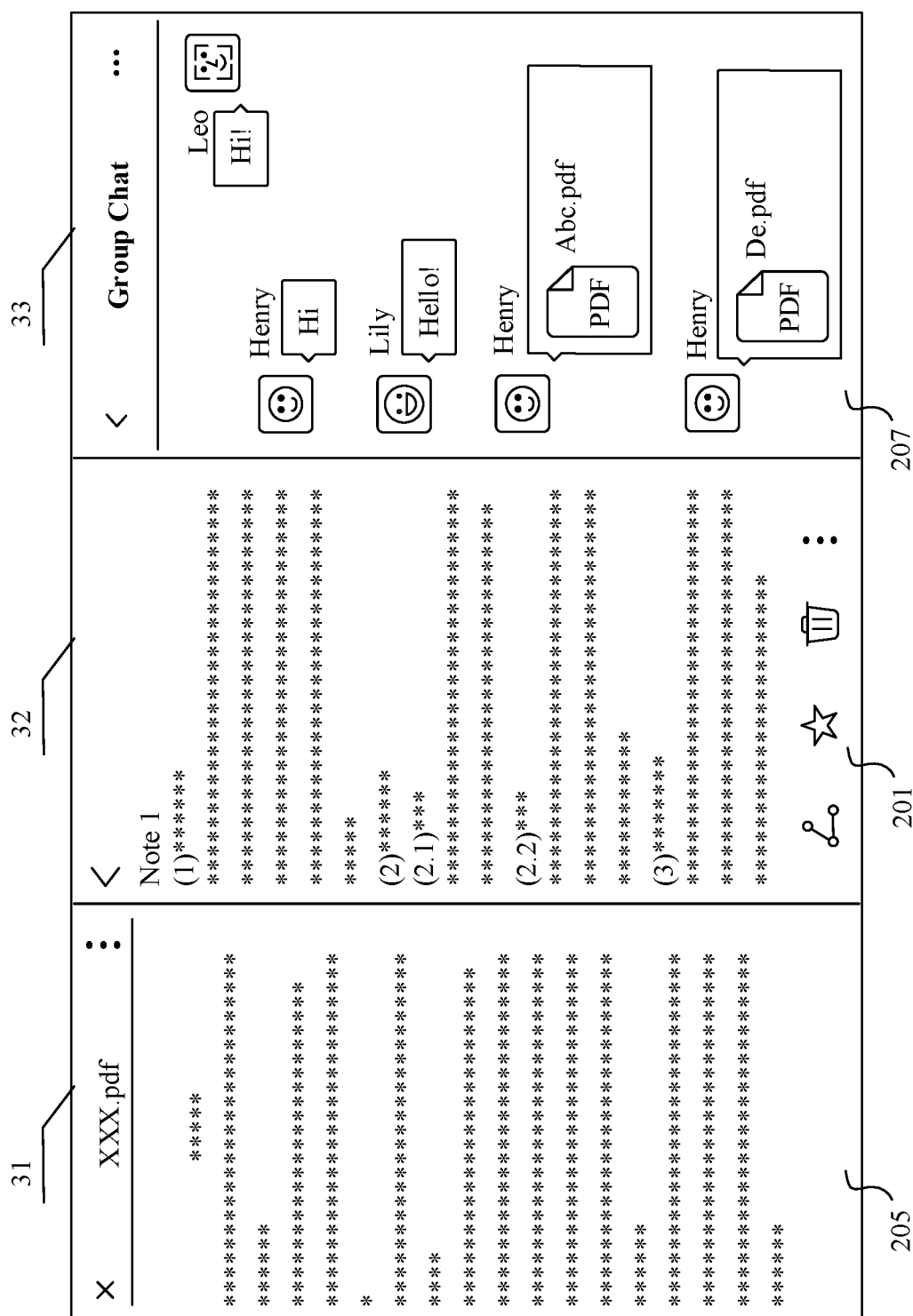


FIG. 12I



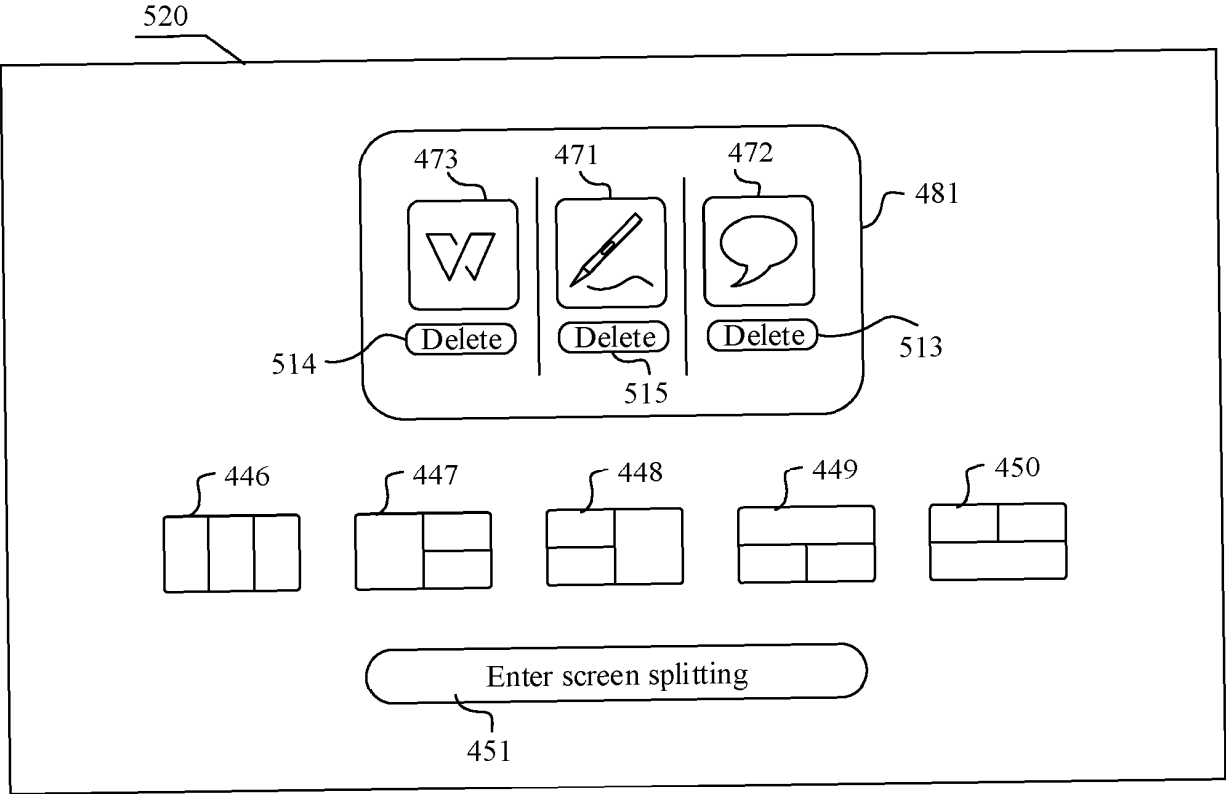


FIG. 13A

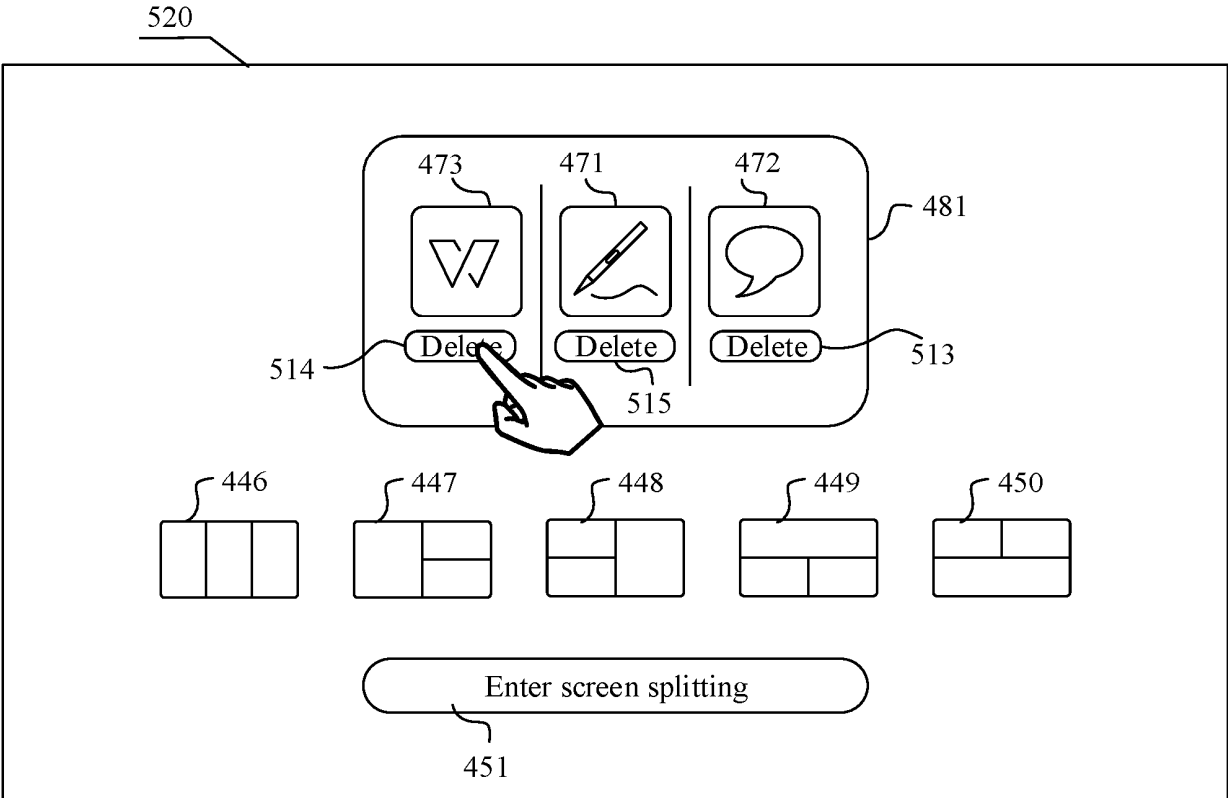


FIG. 13B

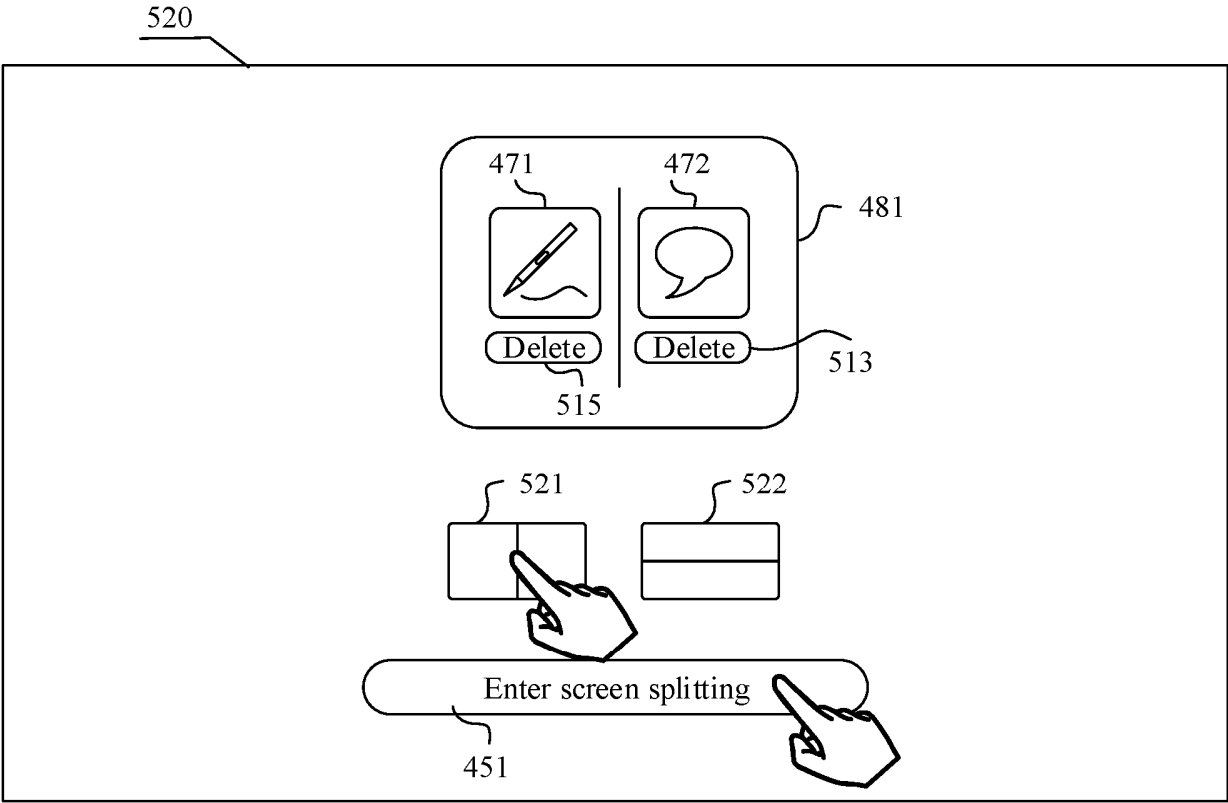


FIG. 13C

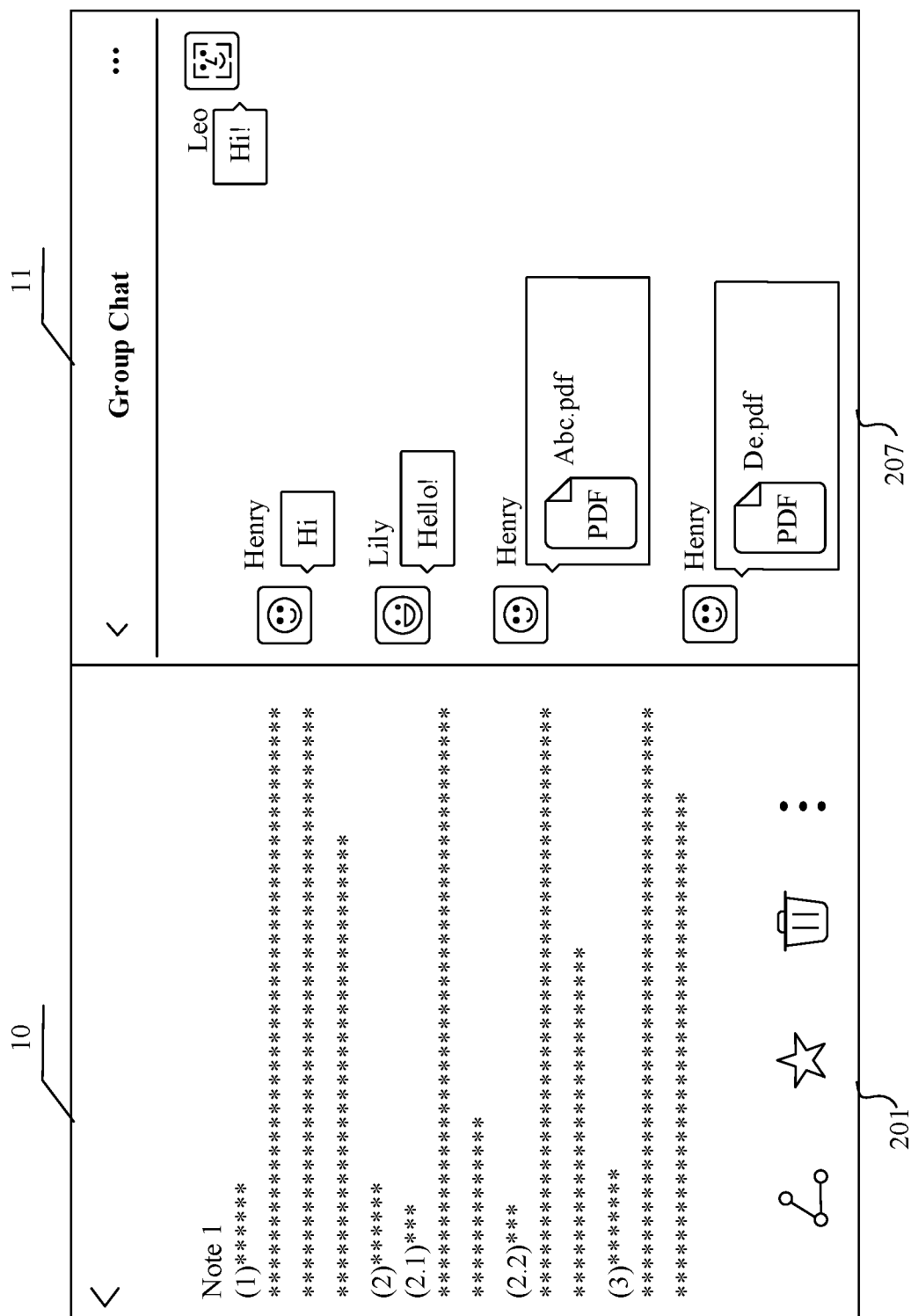


FIG. 13D

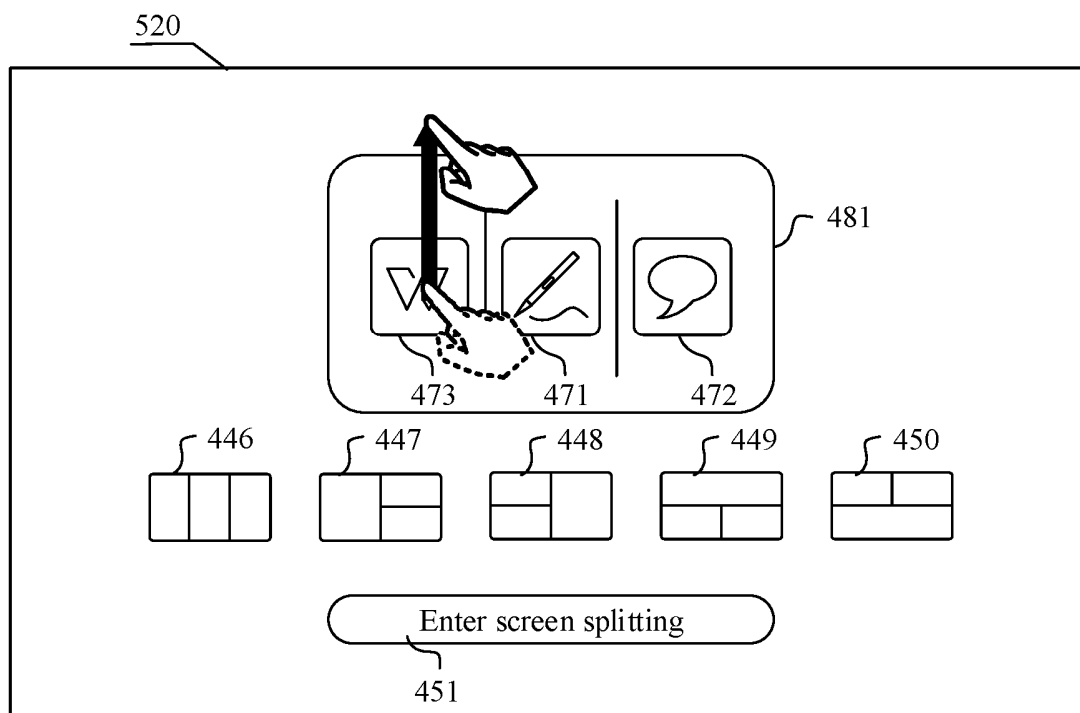


FIG. 14A

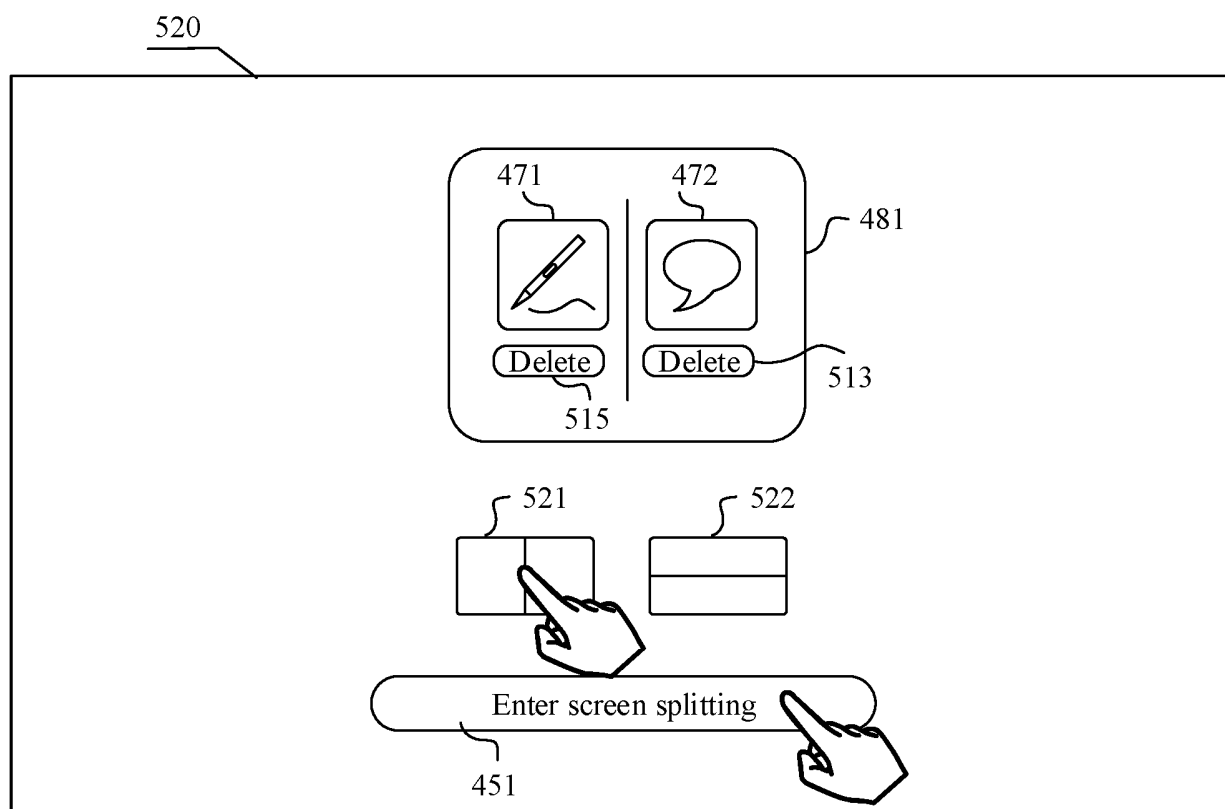


FIG. 14B

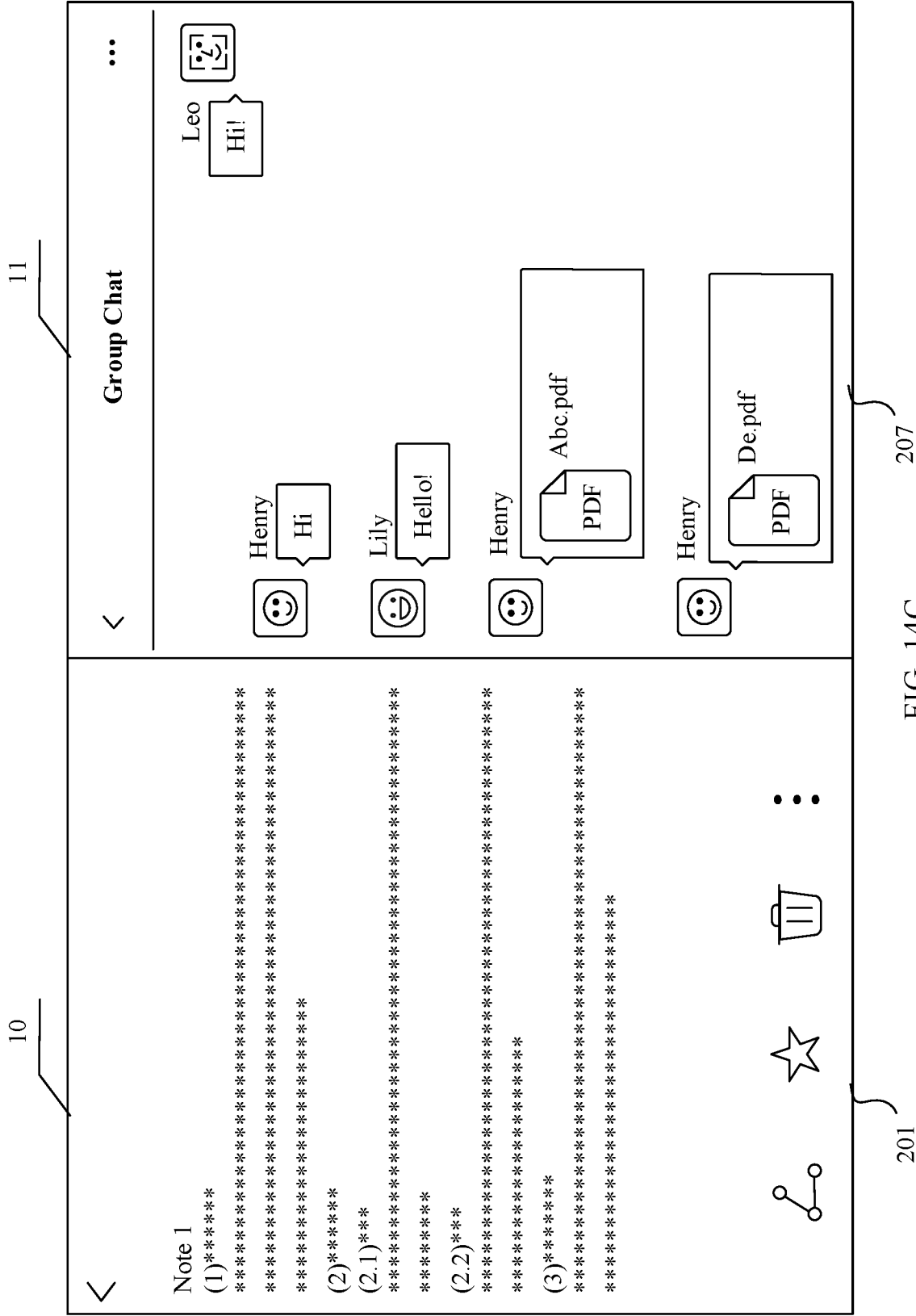


FIG. 14C

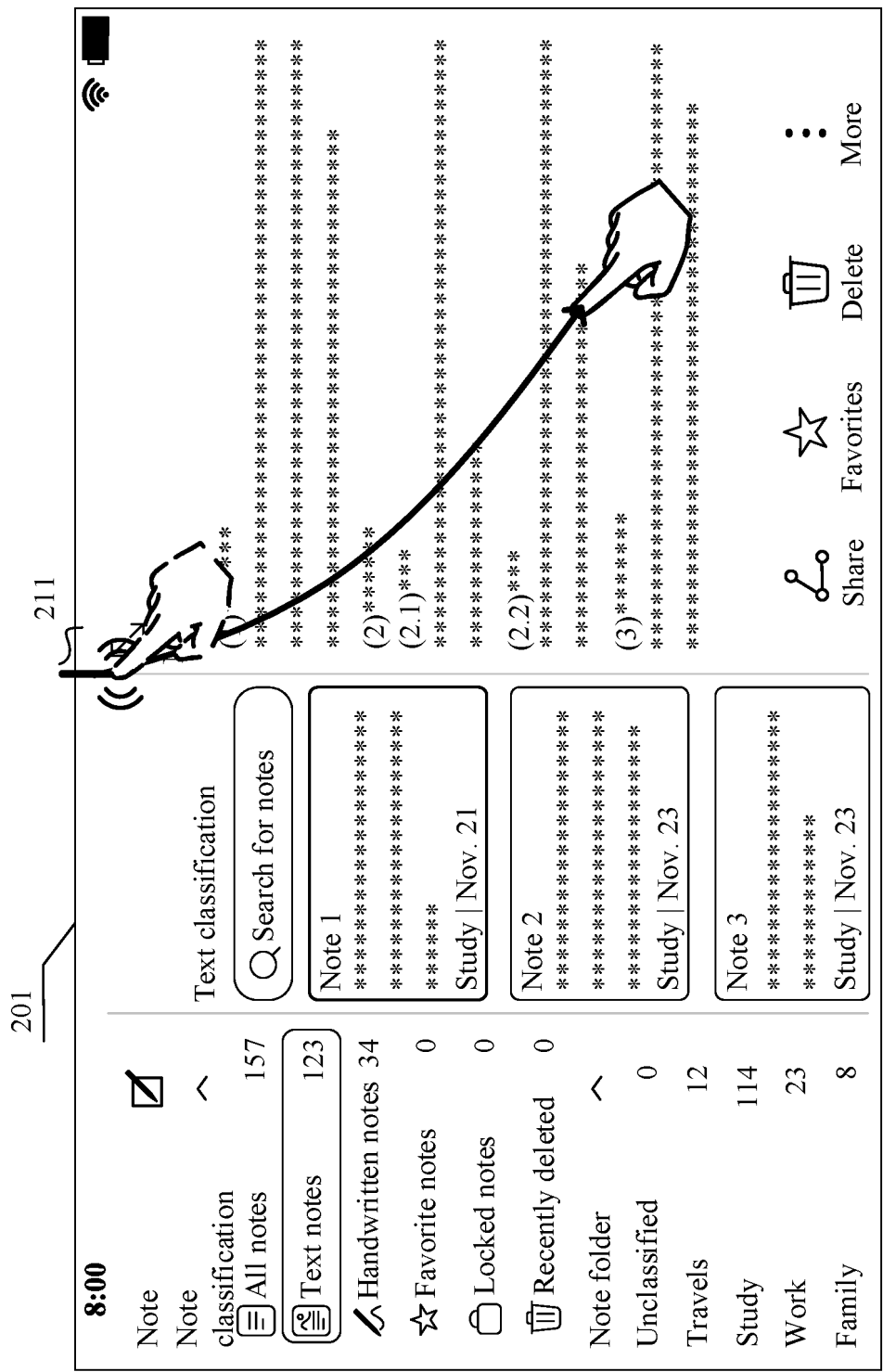


FIG. 15A

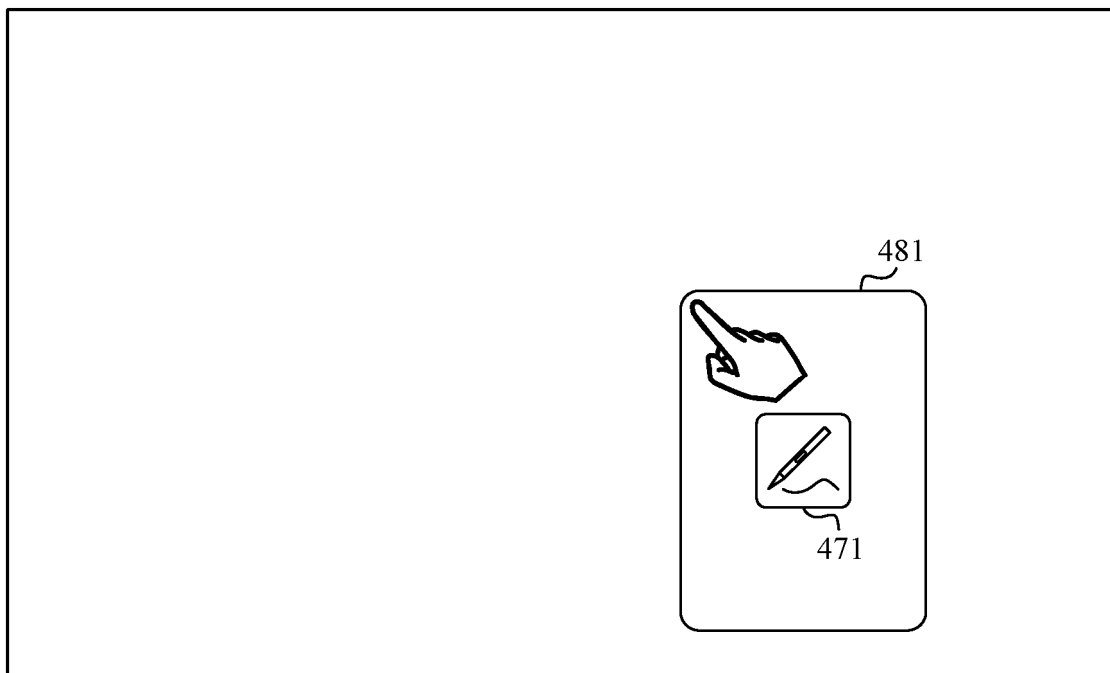


FIG. 15B

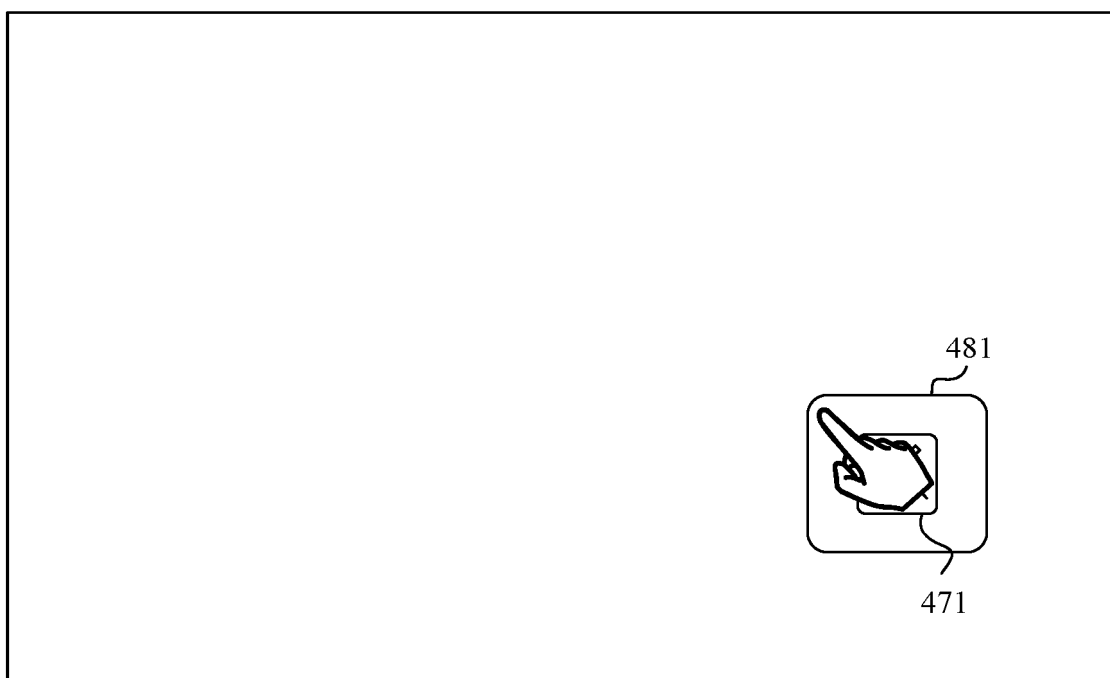


FIG. 15C

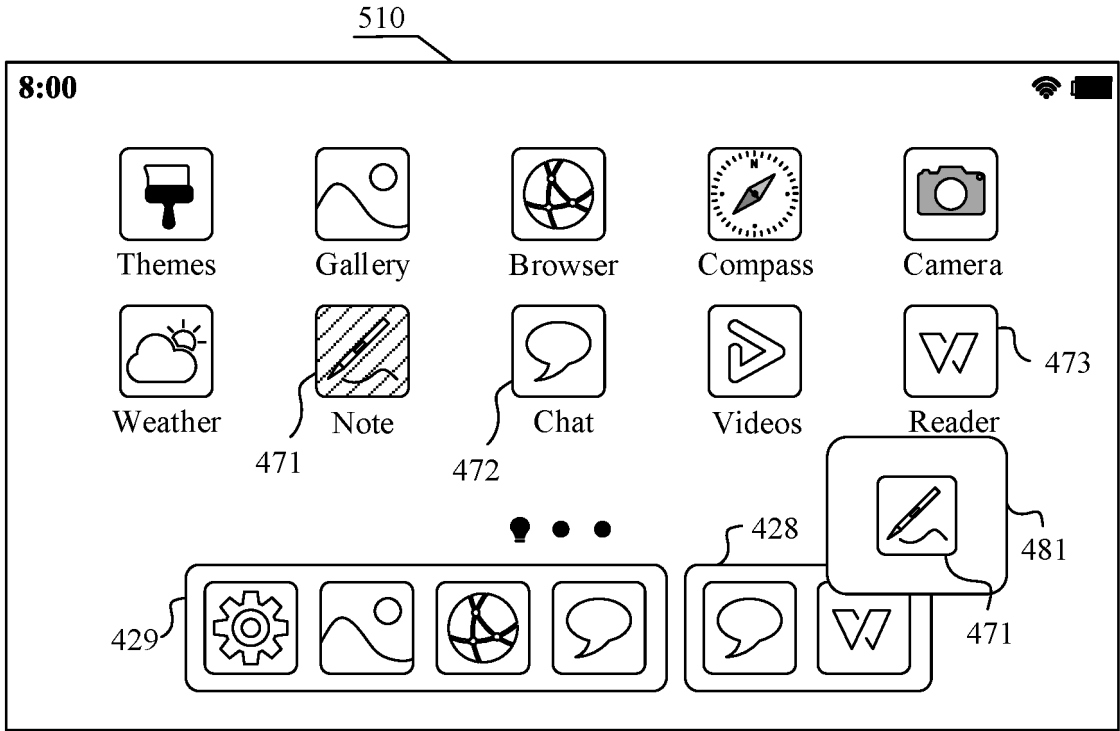


FIG. 15D

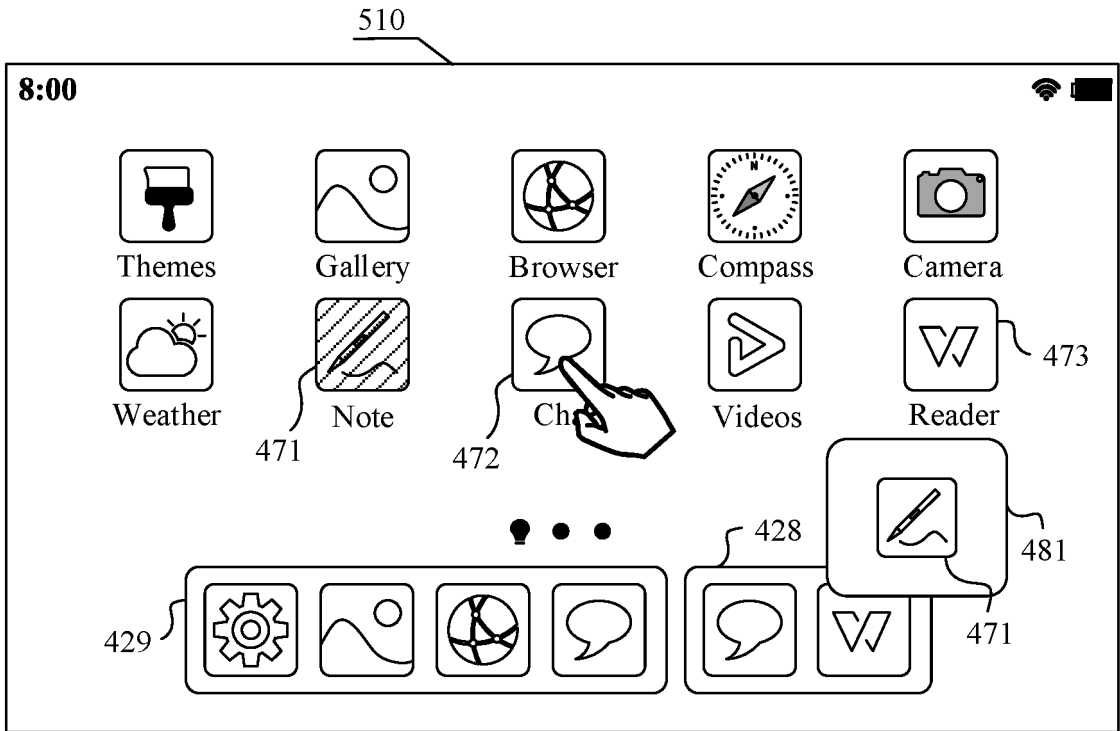


FIG. 15E

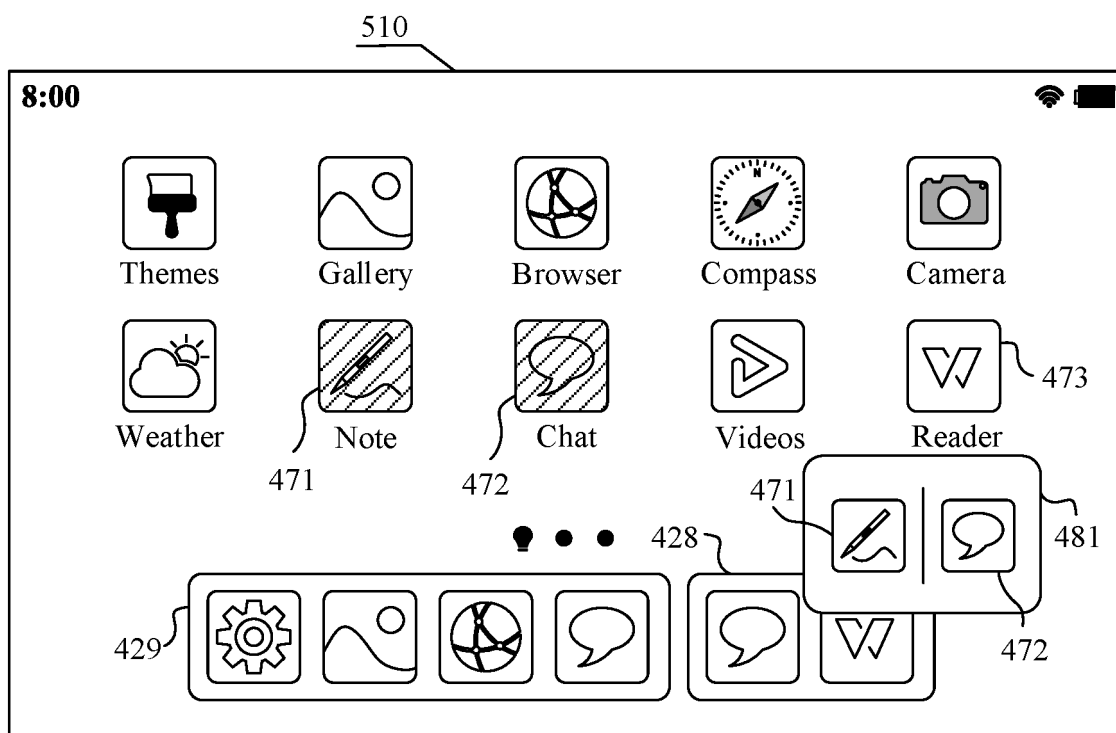


FIG. 15F

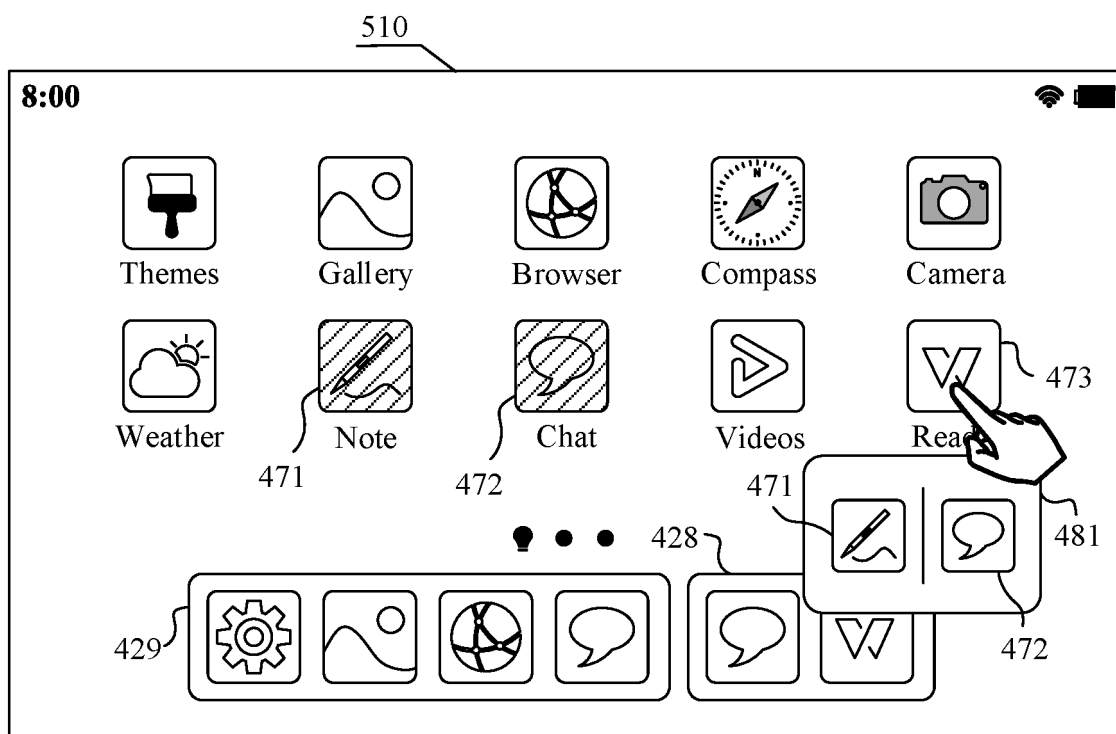


FIG. 15G

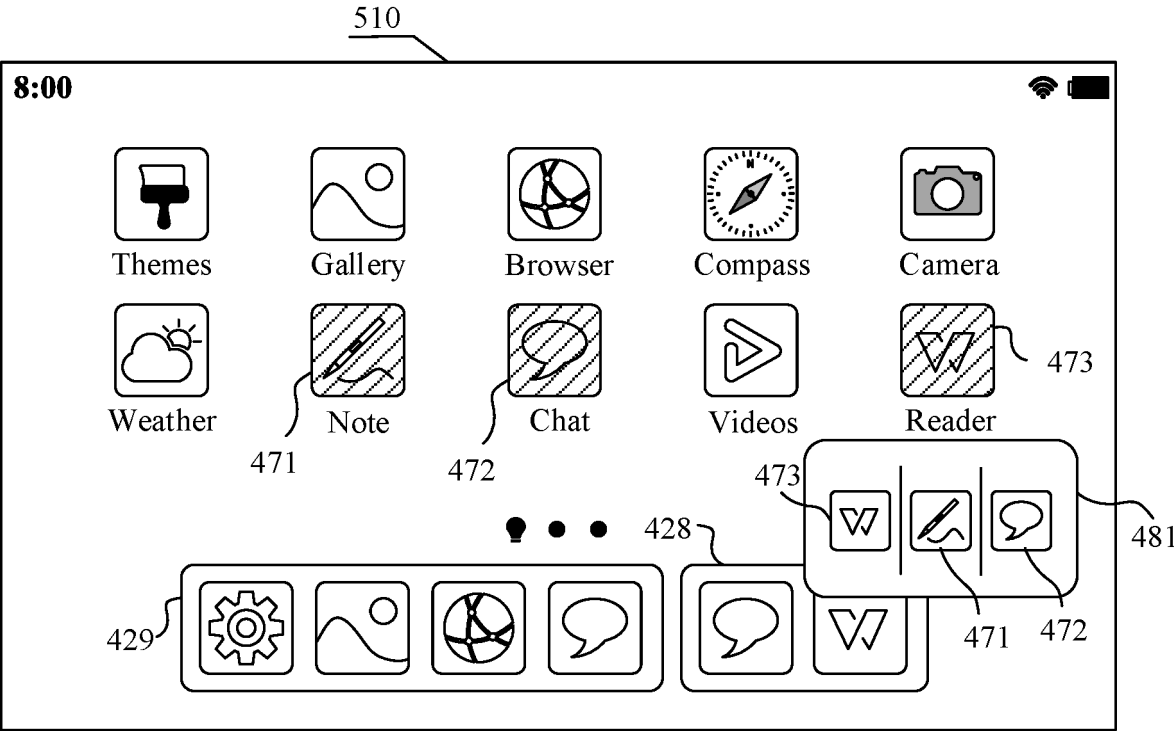


FIG. 15H

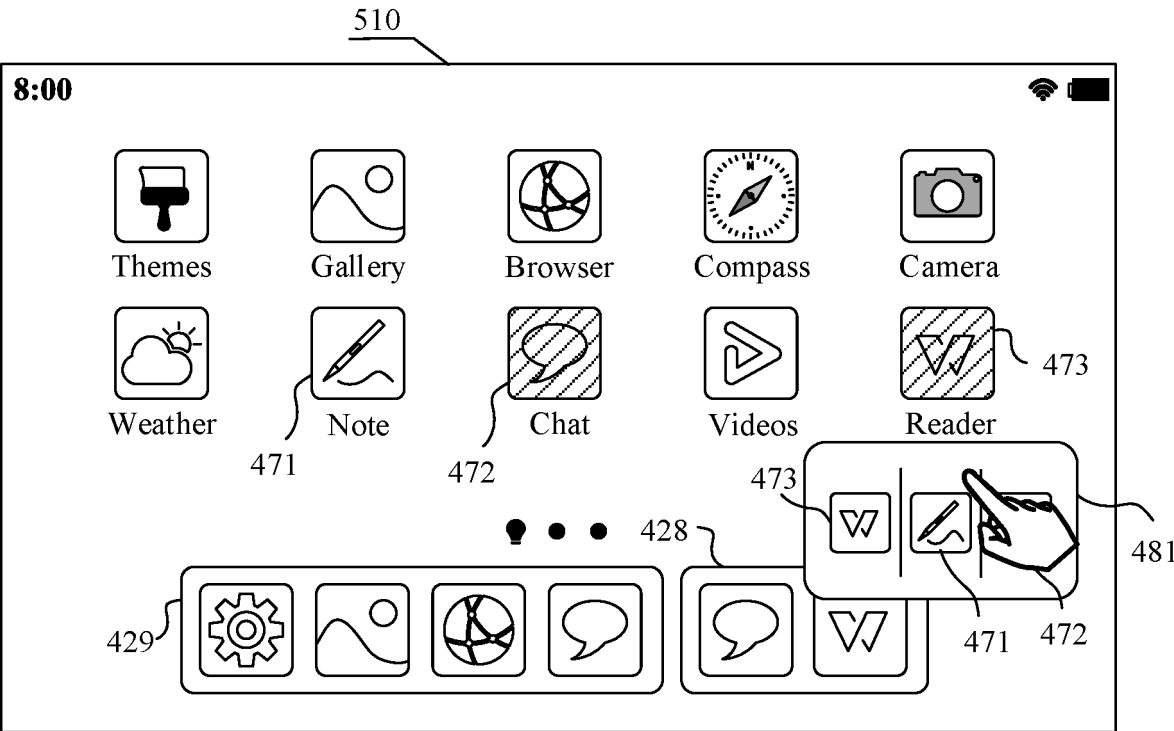


FIG. 15I

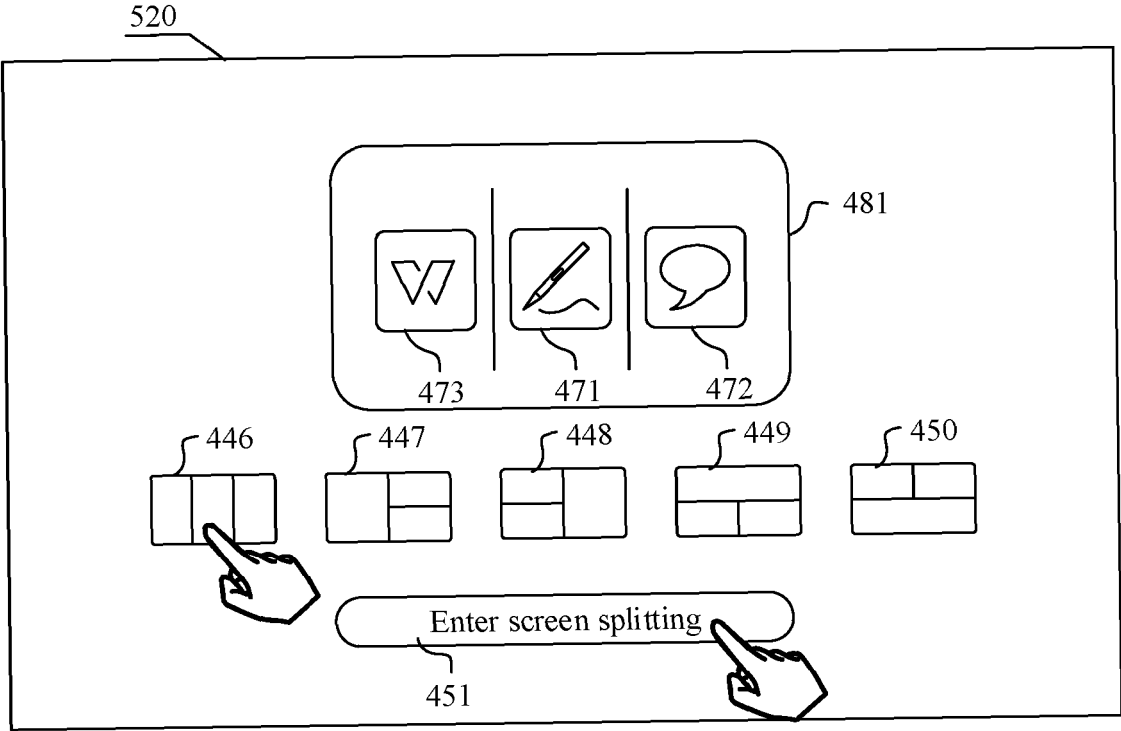
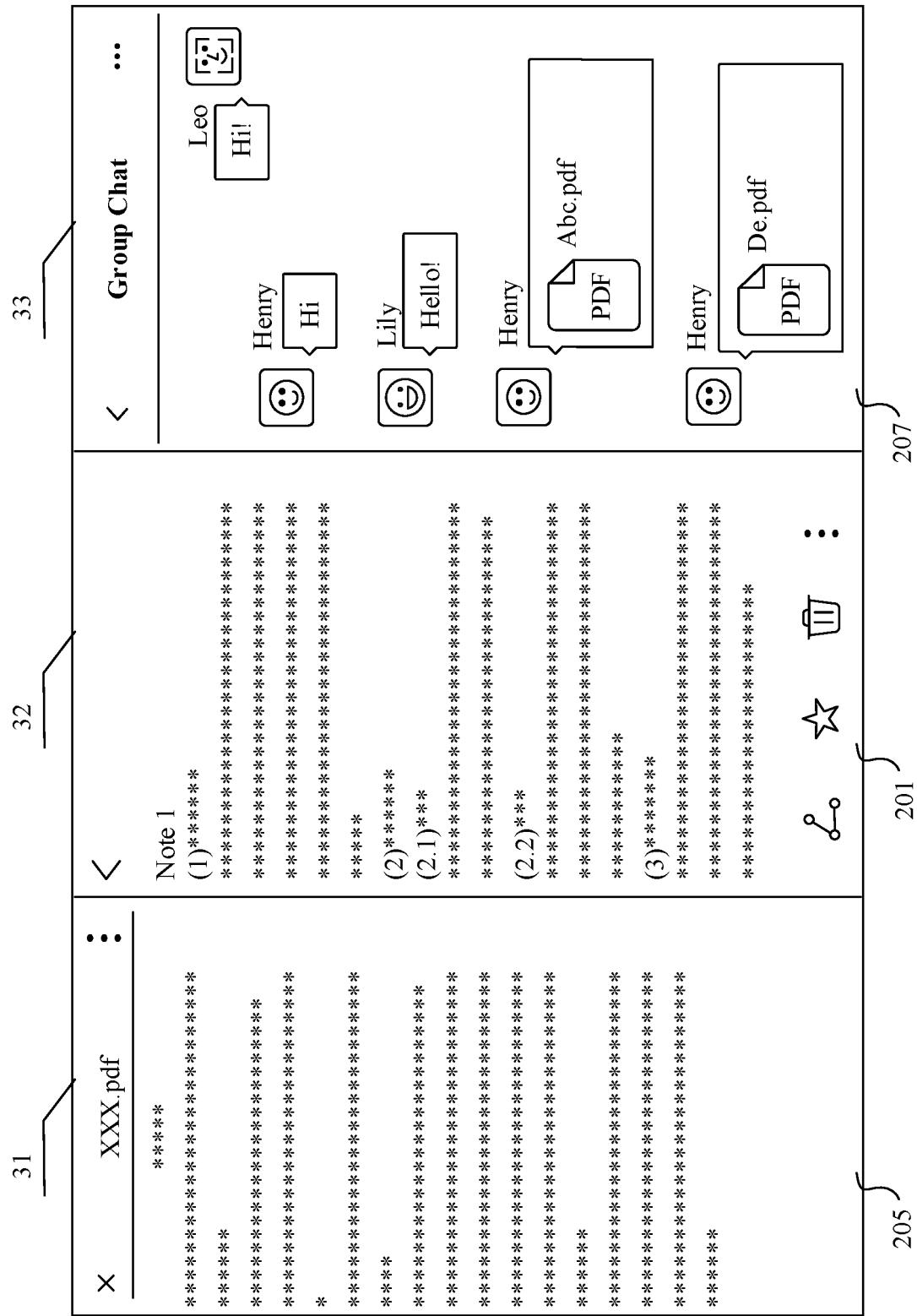


FIG. 15J



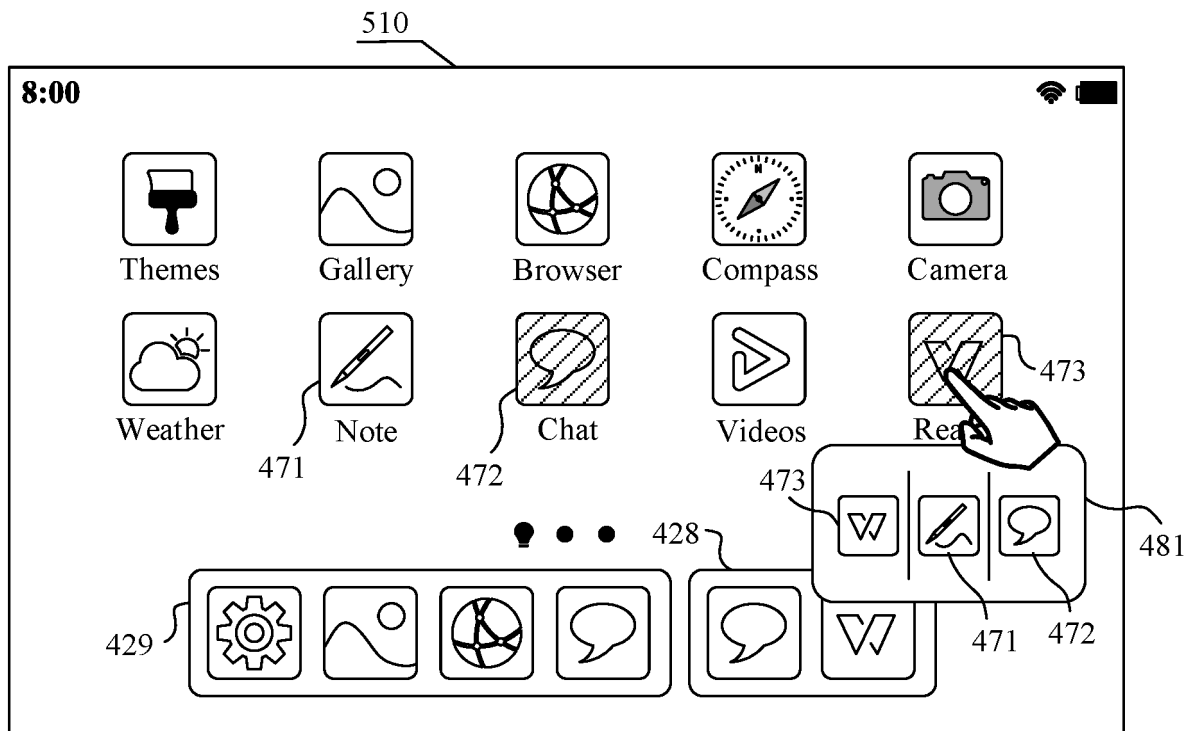


FIG. 16A

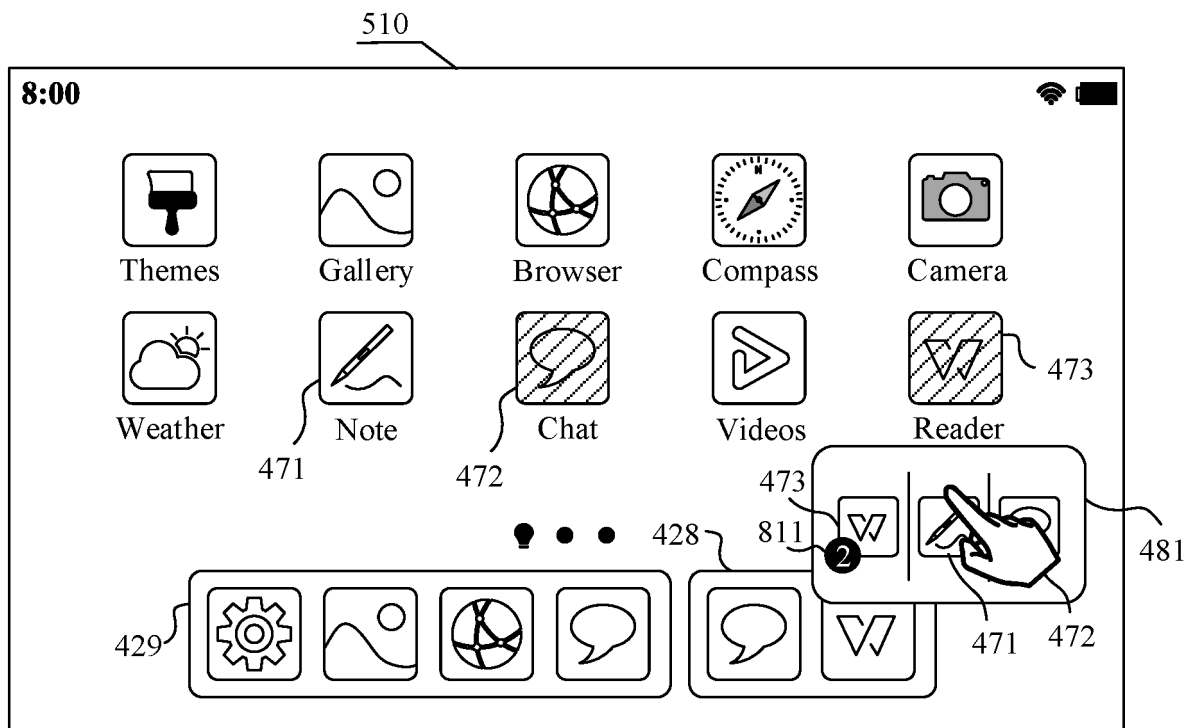


FIG. 16B

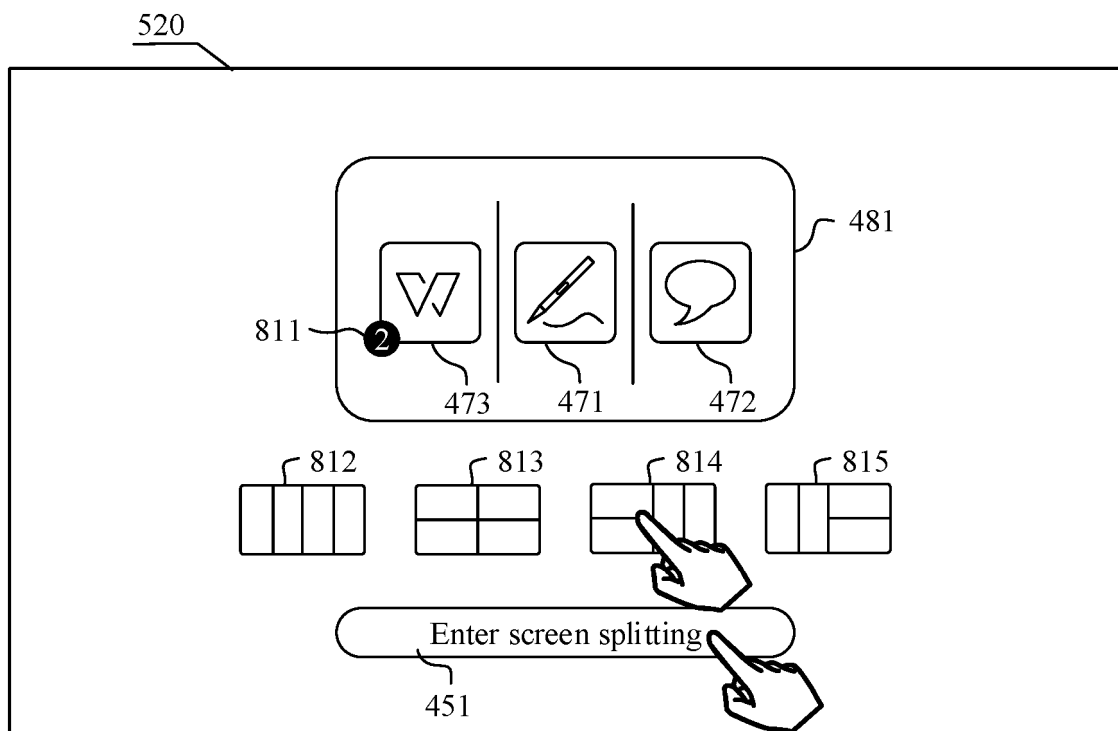


FIG. 16C

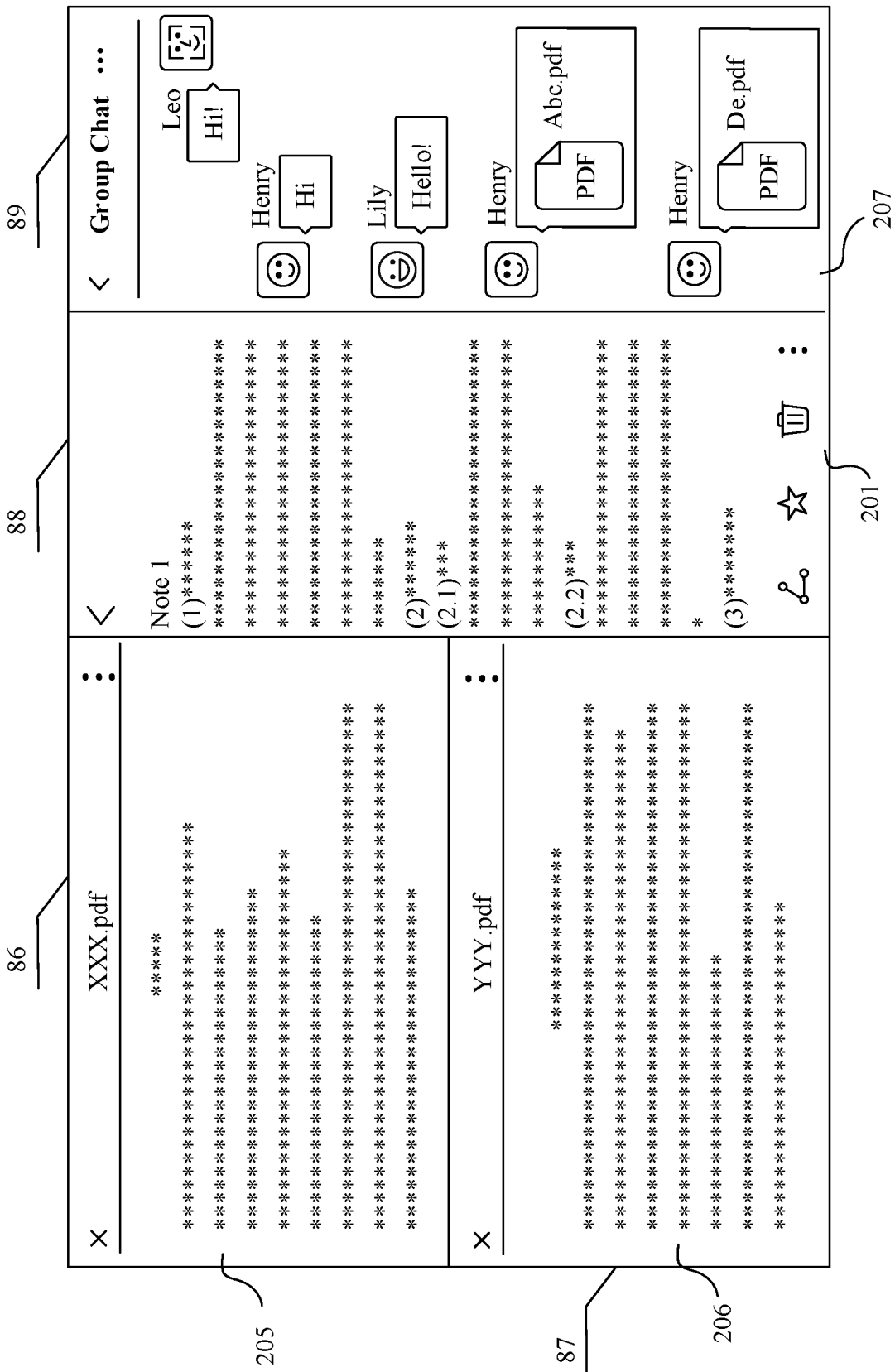


FIG. 16D

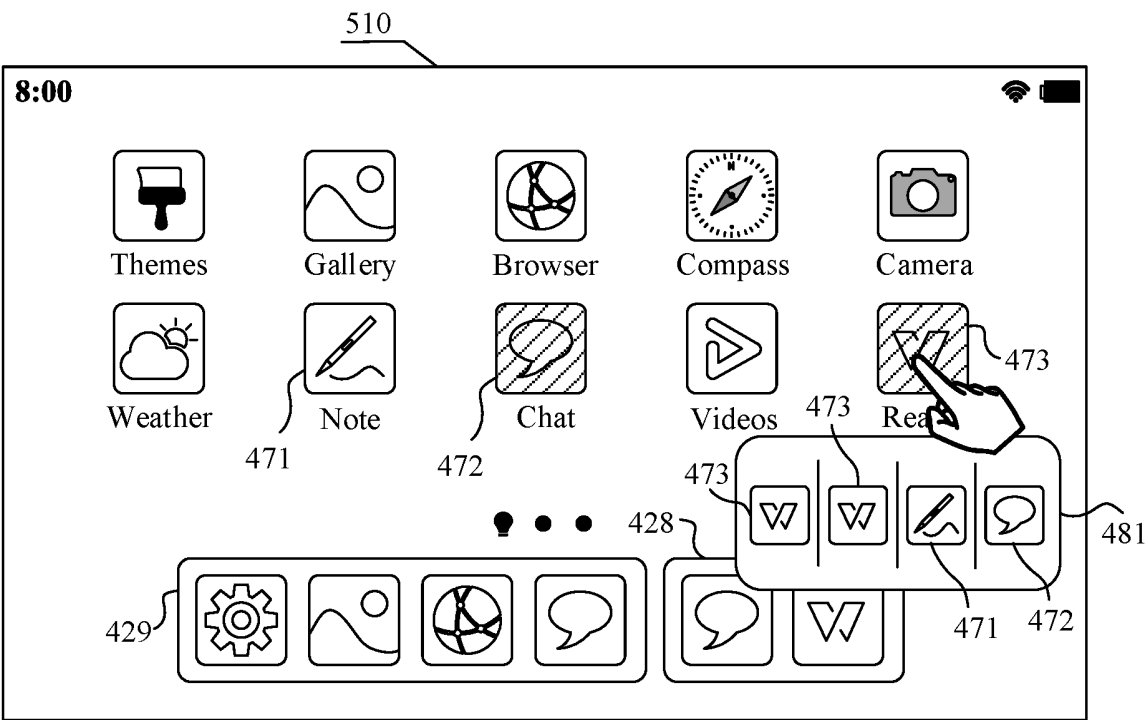


FIG. 17

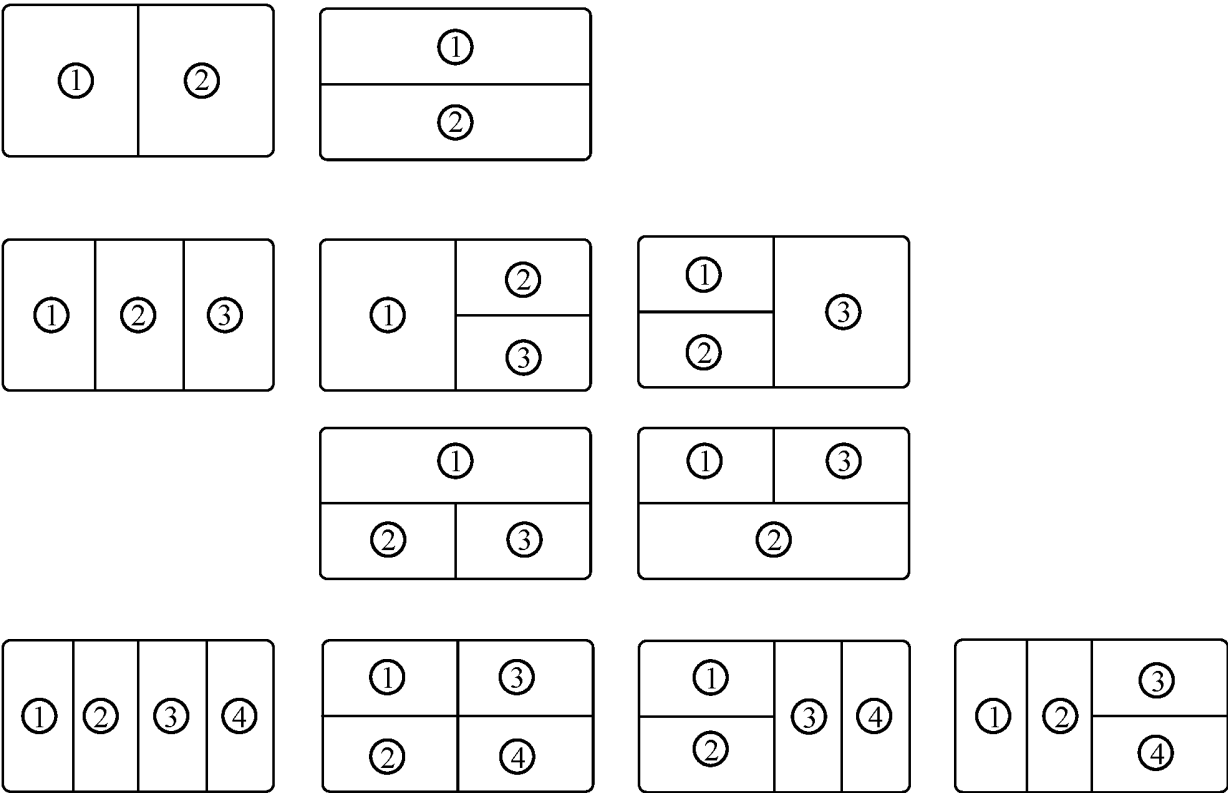


FIG. 18

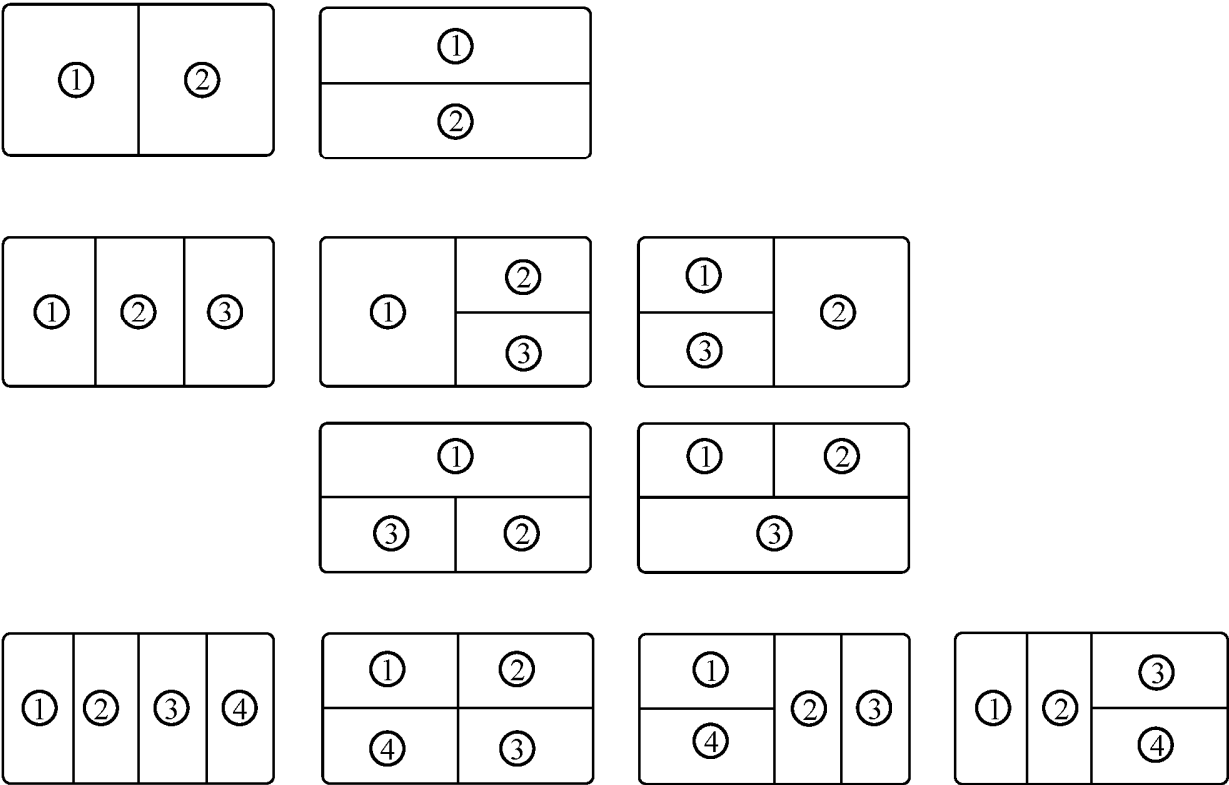


FIG. 19

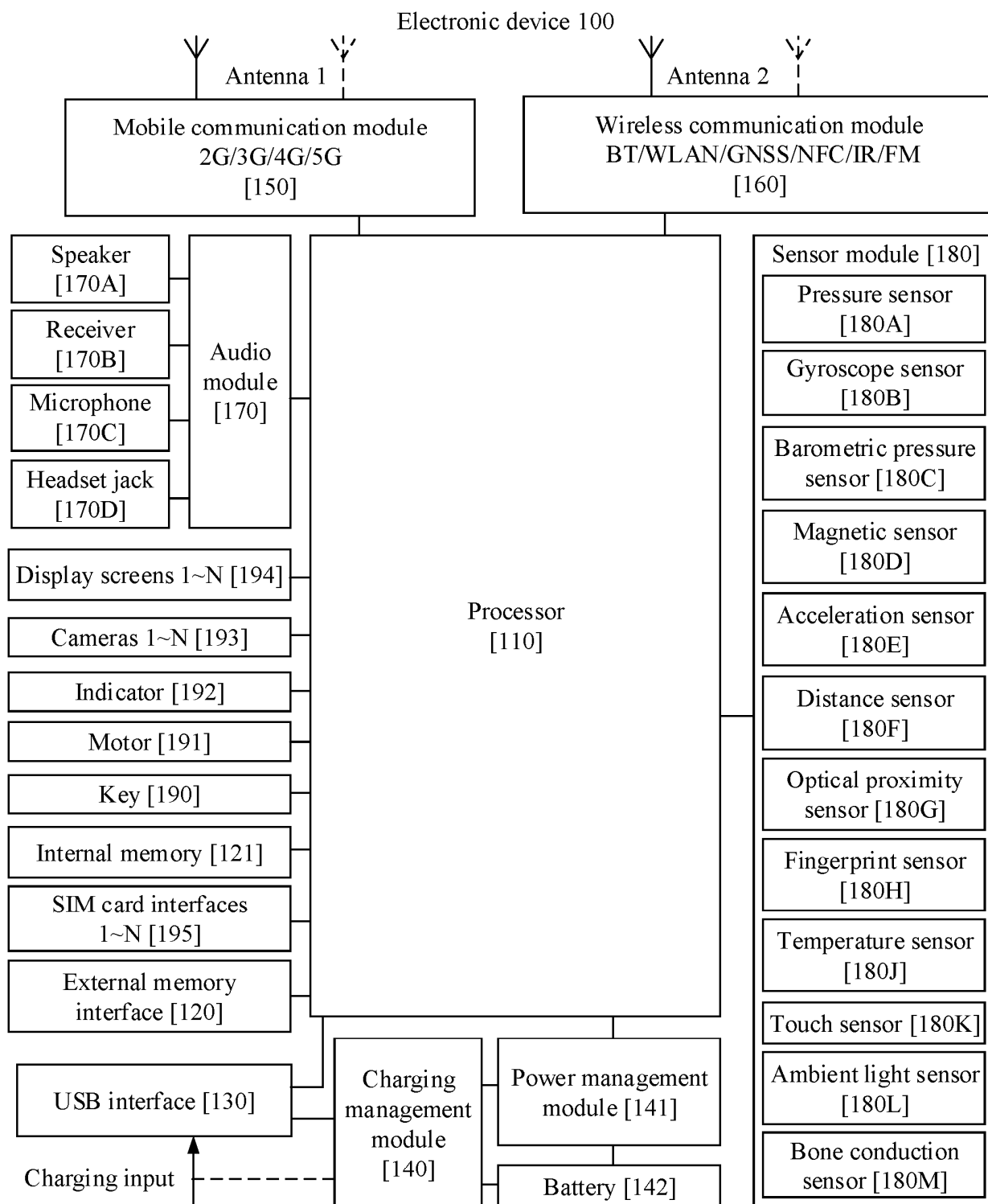


FIG. 20

## INTERNATIONAL SEARCH REPORT

International application No.

PCT/CN2025/076944

**A. CLASSIFICATION OF SUBJECT MATTER**

G06F3/14(2006.01)i

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)

IPC: G06F 3

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)

CNTXT, ENTXT, ENTXTC, DWPI, CNKI: 分屏, 显示, 卡片, 界面, 应用, 图标, 预览, 更新, 调整, 两, 二, 三, N, split-screen, screen splitting, display, card, interface, application, APP, icon, preview, update, adjust, two, second, third

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

| Category* | Citation of document, with indication, where appropriate, of the relevant passages                                                                | Relevant to claim No. |
|-----------|---------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|
| X         | CN 117311869 A (HUAWEI TECHNOLOGIES CO., LTD.) 29 December 2023 (2023-12-29) description, paragraphs [0003]-[0215], claims 1-25, and figures 3-26 | 1-50                  |
| A         | CN 117555627 A (HUAWEI TECHNOLOGIES CO., LTD.) 13 February 2024 (2024-02-13) entire document                                                      | 1-50                  |
| A         | CN 114995693 A (HONOR DEVICE CO., LTD.) 02 September 2022 (2022-09-02) entire document                                                            | 1-50                  |
| A         | CN 110727382 A (HUAWEI TECHNOLOGIES CO., LTD.) 24 January 2020 (2020-01-24) entire document                                                       | 1-50                  |
| A         | US 2014157163 A1 (HEWLETT-PACKARD DEVELOPMENT COMPANY, L.P.) 05 June 2014 (2014-06-05) entire document                                            | 1-50                  |

☐ Further documents are listed in the continuation of Box C.☒ See patent family annex.

|                                                                                                                                                                         |                                                                                                                                                                                                                                                  |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| * Special categories of cited documents:                                                                                                                                | "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                                              |
| "A" document defining the general state of the art which is not considered to be of particular relevance                                                                | "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                                                                     |
| "D" document cited by the applicant in the international application                                                                                                    | "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 |
| "E" earlier application or patent but published on or after the international filing date                                                                               | "&" document member of the same patent family                                                                                                                                                                                                    |
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|                                                                                                                                                                                            |                                                                          |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------|
| Date of the actual completion of the international search<br><b>09 May 2025</b>                                                                                                            | Date of mailing of the international search report<br><b>13 May 2025</b> |
| Name and mailing address of the ISA/CN<br><b>China National Intellectual Property Administration (ISA/CN)<br/>China No. 6, Xitucheng Road, Jimenqiao, Haidian District, Beijing 100088</b> | Authorized officer<br><br><br>Telephone No.                              |

Form PCT/ISA/210 (second sheet) (July 2022)

## INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No.

**PCT/CN2025/076944**

| Patent document cited in search report |            |    | Publication date (day/month/year) | Patent family member(s) |            |    | Publication date (day/month/year) |
|----------------------------------------|------------|----|-----------------------------------|-------------------------|------------|----|-----------------------------------|
| CN                                     | 117311869  | A  | 29 December 2023                  | None                    |            |    |                                   |
| CN                                     | 117555627  | A  | 13 February 2024                  | None                    |            |    |                                   |
| CN                                     | 114995693  | A  | 02 September 2022                 | None                    |            |    |                                   |
| CN                                     | 110727382  | A  | 24 January 2020                   | WO                      | 2021043223 | A1 | 11 March 2021                     |
| US                                     | 2014157163 | A1 | 05 June 2014                      | US                      | 9588674    | B2 | 07 March 2017                     |

**REFERENCES CITED IN THE DESCRIPTION**

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**Patent documents cited in the description**

- CN 202410245257 [0001]
- CN 202410309569X [0001]