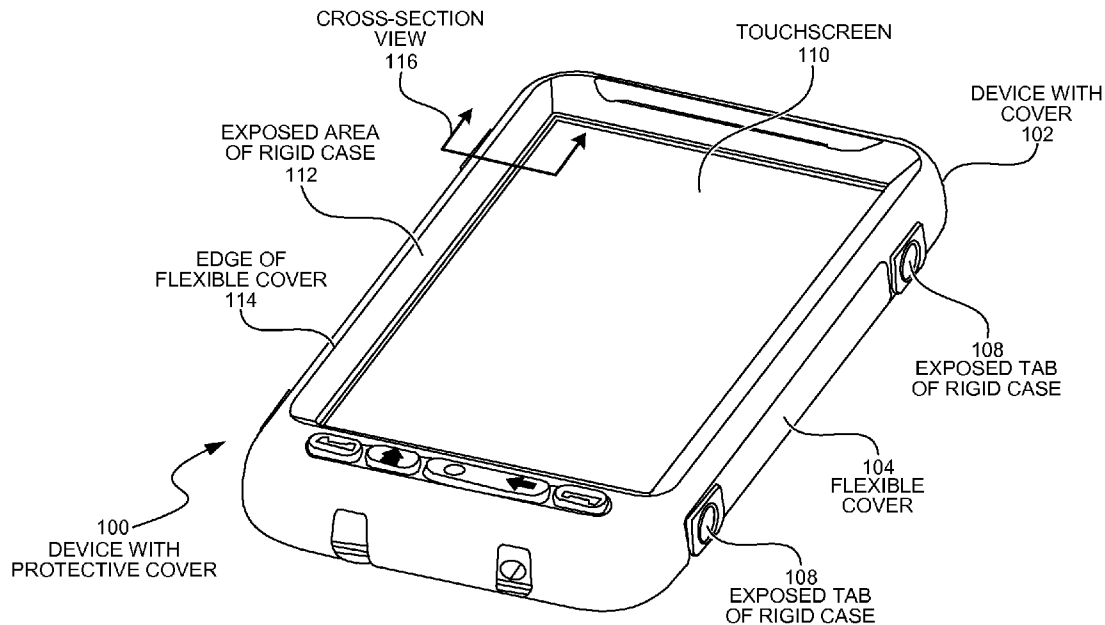




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(19) **United States**(12) **Patent Application Publication**
Johnson et al.(10) **Pub. No.: US 2012/0074005 A1**(43) **Pub. Date: Mar. 29, 2012**(54) **EDGE RETENTION FOR FLEXIBLE COVER**(52) **U.S. Cl. 206/320**(75) **Inventors:** **Jamie Johnson**, Fort Collins, CO (US); **Adam Wibby**, Fort Collins, CO (US); **Stephen Willes**, Fort Collins, CO (US)(73) **Assignee:** **OTTER PRODUCTS, LLC**, Fort Collins, CO (US)(21) **Appl. No.: 12/890,599**(22) **Filed: Sep. 24, 2010****Publication Classification**(51) **Int. Cl.**
B65D 85/00 (2006.01)(57) **ABSTRACT**

A two component case may have a removable flexible component and a rigid plastic component. The flexible component may be secured to the rigid component by an interlocking feature where a tab or blade from the flexible component fits into a corresponding recess in the rigid component. The feature may extend along an edge of the flexible component and may be installed by engaging one portion of the feature and sliding a finger along the feature to press the components together. In some embodiments, the flexible component may be sized to have a slight interference fit within the corresponding feature of the rigid component. Some embodiments may also have a protruding feature over which the flexible component may also engage.



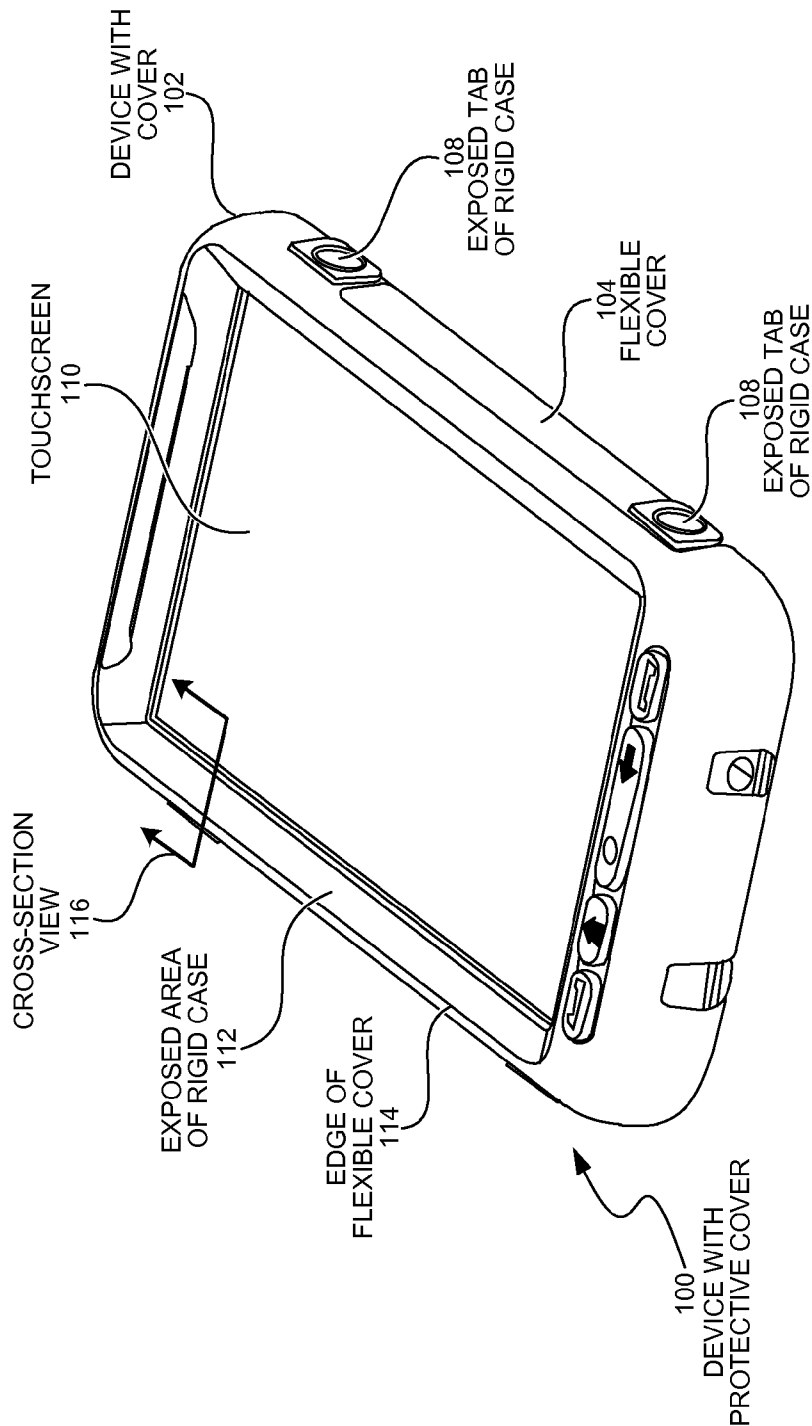


FIG. 1

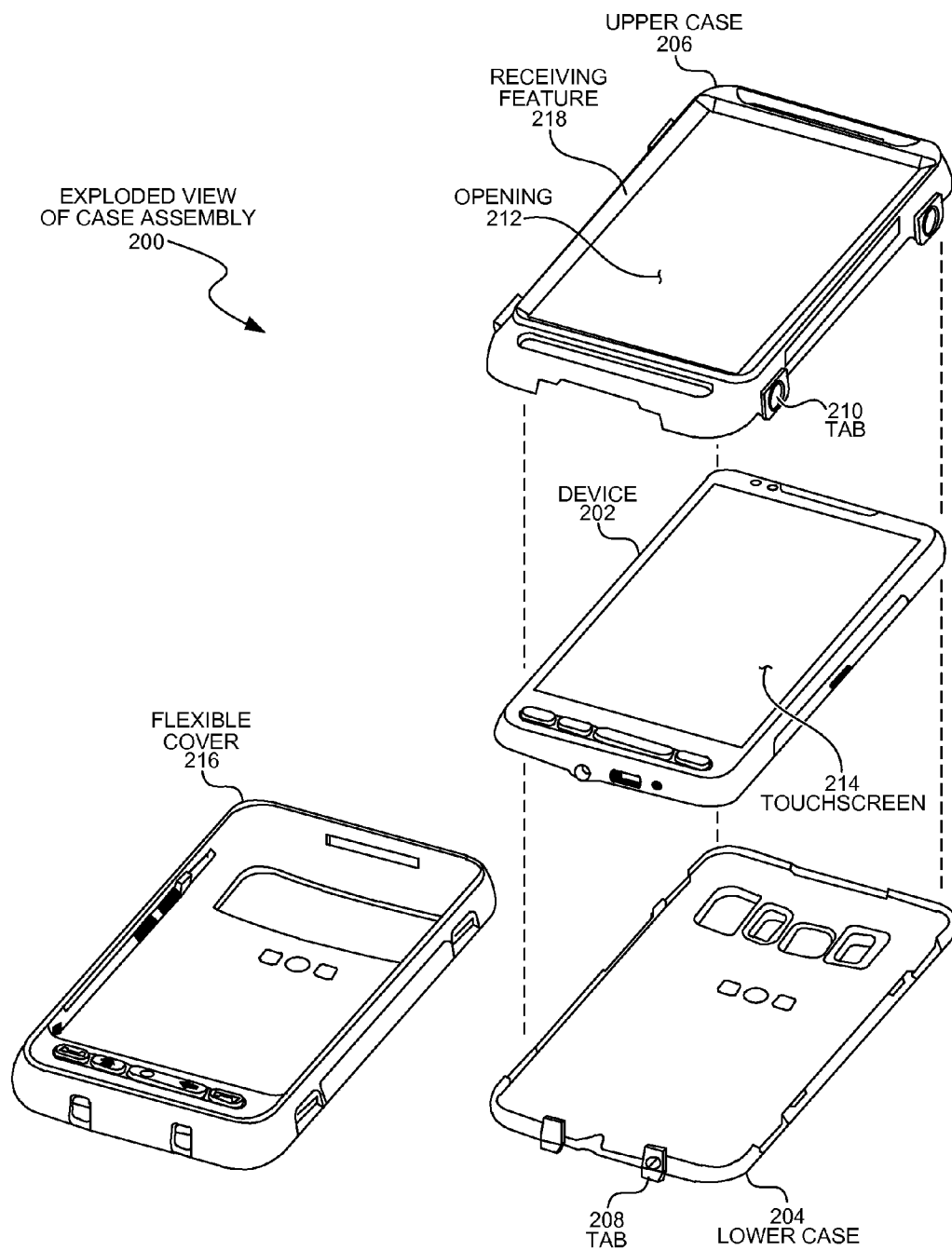


FIG. 2

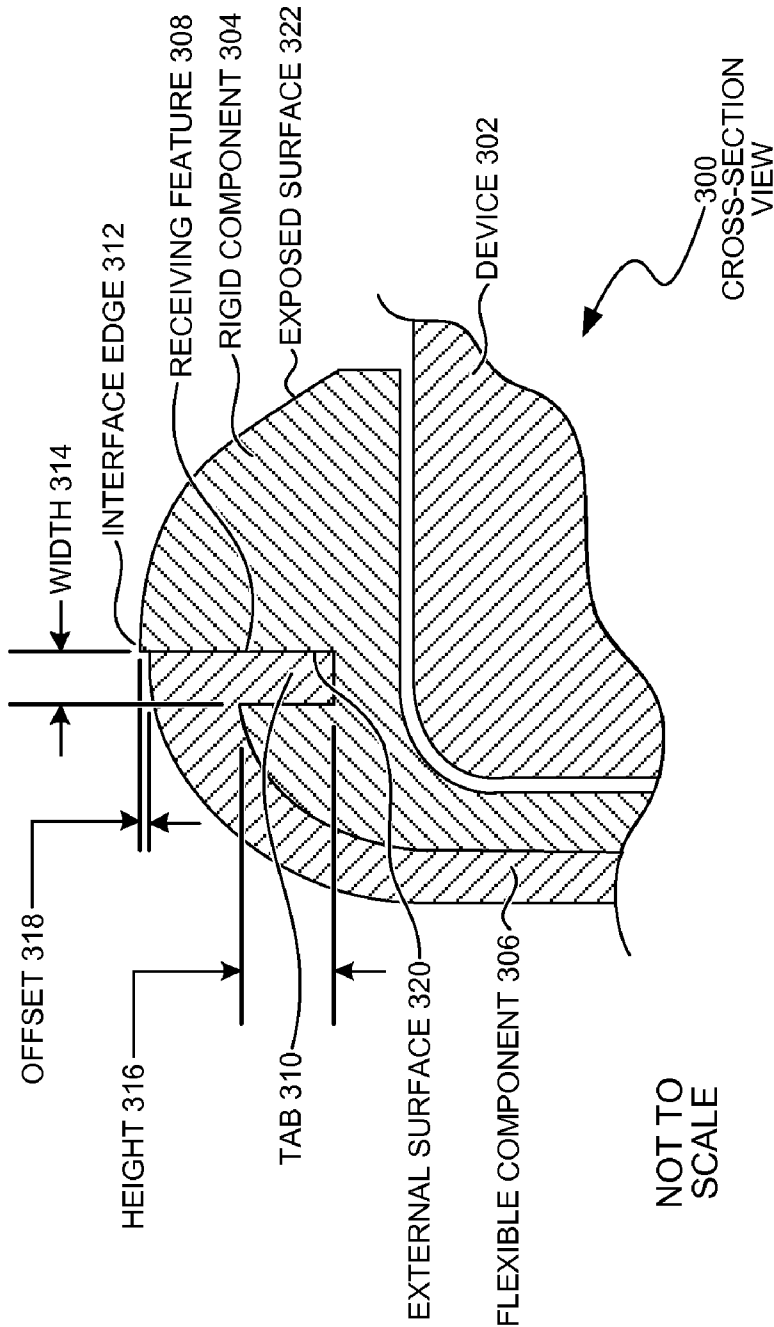


FIG. 3

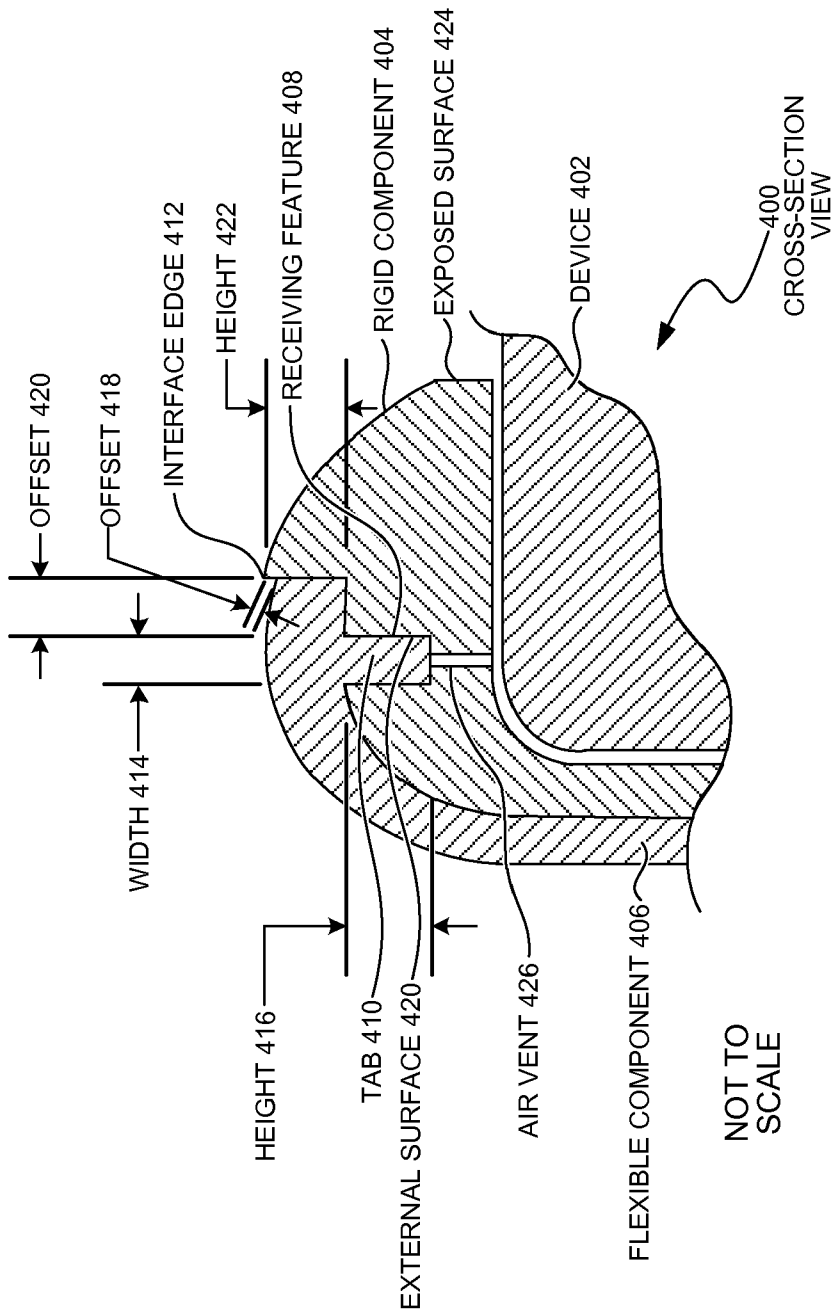


FIG. 4

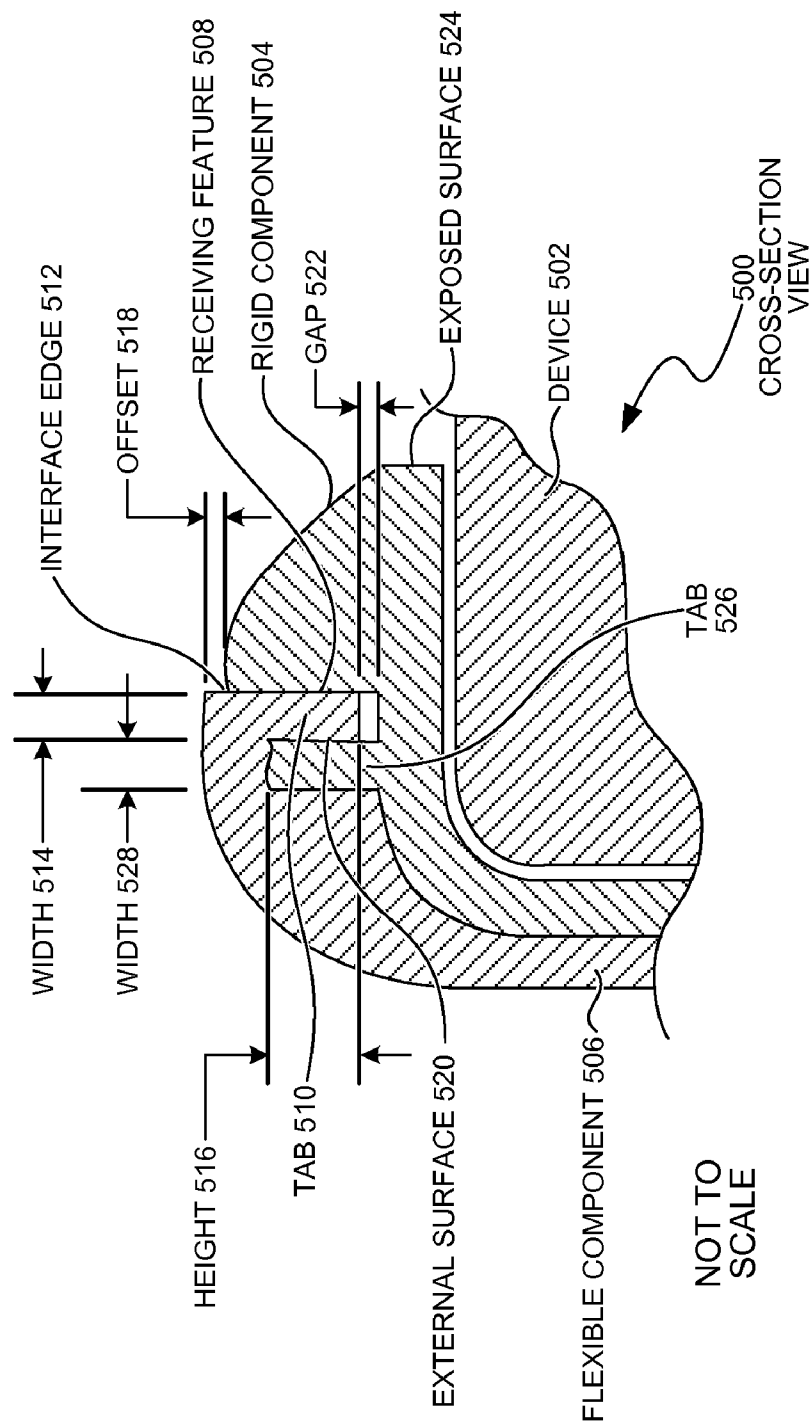


FIG. 5

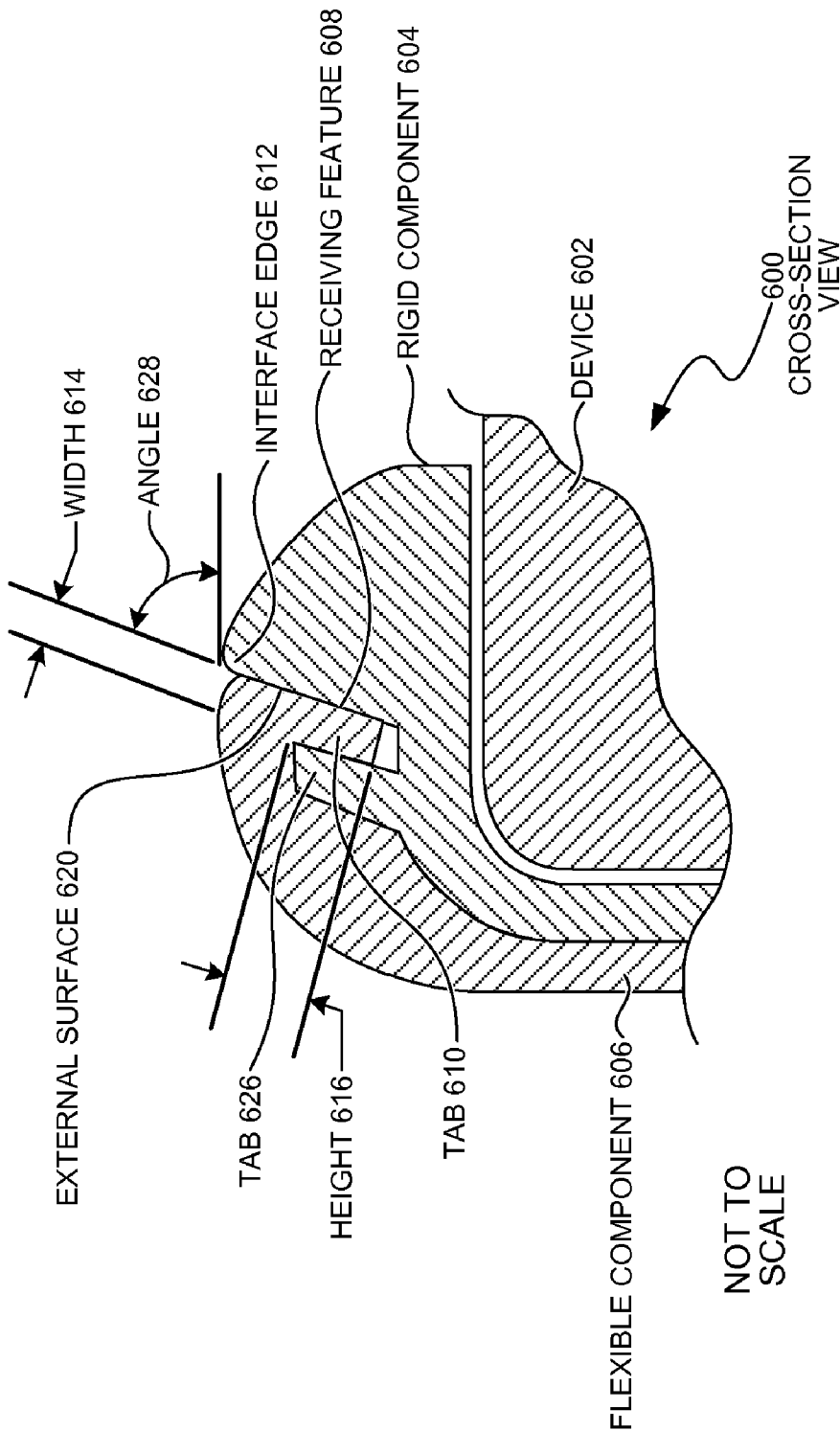


FIG. 6

EDGE RETENTION FOR FLEXIBLE COVER

BACKGROUND

[0001] Many cases and covers for various devices are made from two components: a rigid plastic component and a soft, rubberized component. The rigid component may provide mechanical stiffness and crush resistance, while the soft component may provide shock cushioning.

[0002] A two component case may give a designer a wide range of options for creating aesthetically pleasing designs. In some situations, the two component design may provide differing haptic sensations, where a rigid plastic component may be smooth or slippery and a soft component may have a rubbery or high grip feel. In some designs, the contrasting materials may serve an aesthetic or design function.

SUMMARY

[0003] A two component case may have a removable flexible component and a rigid plastic component. The flexible component may be secured to the rigid component by an interlocking feature where a tab or blade from the flexible component fits into a corresponding recess in the rigid component. The feature may extend along an edge of the flexible component and may be installed by engaging one portion of the feature and sliding a finger along the feature to press the components together. In some embodiments, the flexible component may be sized to have a slight interference fit or a slight slip fit within the corresponding feature of the rigid component. Some embodiments may also have a protruding feature over which the flexible component may engage.

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

BRIEF DESCRIPTION OF THE DRAWINGS

[0005] In the drawings,

[0006] FIG. 1 is a perspective illustration of an embodiment showing a device with a protective cover.

[0007] FIG. 2 is a perspective illustration of an embodiment showing an exploded view of a device and a protective cover.

[0008] FIG. 3 is a cross-sectional illustration of an embodiment showing a first embodiment of an interface feature.

[0009] FIG. 4 is a cross-sectional illustration of an embodiment showing a second embodiment of an interface feature.

[0010] FIG. 5 is a cross-sectional illustration of an embodiment showing a third embodiment of an interface feature.

[0011] FIG. 6 is a cross-sectional illustration of an embodiment showing a fourth embodiment of an interface feature.

DETAILED DESCRIPTION

[0012] A protective cover for an electronic or other device may have a rigid internal case covered by a flexible, stretchable cover. At the junction between the rigid case and the flexible cover, an interlocking groove may be used to hold the edge of the flexible cover by the rigid case.

[0013] The flexible cover may be a removable cover that provides aesthetic or protective features. In many embodiments, the flexible cover may be molded to conform to six sides of the rigid internal case and may be stretched to wrap around the rigid internal case during installation.

[0014] At an edge of the flexible cover, an interlocking groove construction may be used to secure the flexible cover into the rigid case. The groove may be oriented to resist any pulling or rolling motion that may dislodge the edge of the flexible cover, and may be sized to provide some interference or frictional engagement between the flexible cover and the rigid case.

[0015] Throughout this specification, like reference numbers signify the same elements throughout the description of the figures.

[0016] When elements are referred to as being “connected” or “coupled,” the elements can be directly connected or coupled together or one or more intervening elements may also be present. In contrast, when elements are referred to as being “directly connected” or “directly coupled,” there are no intervening elements present.

[0017] FIG. 1 is a perspective view of an embodiment 100, showing a device with a protective cover. Embodiment 100 is merely one example of a two-component protective case may use an interlocking groove design to engage a flexible cover to a rigid case.

[0018] Embodiment 100 is an example of a device 102 with a protective cover. The device 102 may be a cellular telephone, personal digital assistant, camera, portable instrument, barcode scanner, or any other device.

[0019] In many embodiments, the protective cover may be a supplemental cover for a commercial product. The supplemental cover may be an aftermarket cover that a user may install after purchasing an electronic device or other item that may be covered. In many embodiments, such aftermarket covers may be installed and removed by a user.

[0020] Many embodiments may operate as protective covers that may insulate a device from physical damage, including mechanical abrasion such as scratches, as well as damage from dropping or other physical trauma. Some embodiments may provide protection from water, including some embodiments that may be waterproof to some depth of water.

[0021] Some embodiments may operate as aesthetic or decorative enhancements to allow a user to personalize their device. In such embodiments, the various components of a protective case may be designed with aesthetic or decorative elements, or may be manufactured with different colors, designs, or textures.

[0022] Some embodiments may provide various additional components that may not be available with a stock device. For example, a protective case may have a belt loop holder which may be integrated into the protective case or may have features that engage a carrier or holder of some sort.

[0023] Throughout this specification, the term “protective case” is used to describe a case or cover that comprises a rigid component and a flexible component. The adjective “protective” is merely used as a descriptor for the case and is not meant to be limiting in any manner. For example, some embodiments may provide very little, if any, protection from physical trauma.

[0024] In embodiments where a user may install the protective case, the components of the protective case may be designed to be removable. Such embodiments may provide mechanisms for the protective case components to snap together or otherwise engage each other, as well as a removable flexible component.

[0025] In embodiments where a case may be installed in a permanent or semi-permanent fashion, the case components may be assembled using adhesives, ultrasonic welding, snap

fits, or other mechanisms. In some embodiments that are installed in a permanent manner, a flexible component may be formed by injection molding the flexible component directly to the rigid component. Some such embodiments may be manufactured using a two-shot molding process.

[0026] The cover for the device may have a rigid component and a flexible component. The rigid component may be a rigid component that may be designed in two or more pieces in some designs. The rigid component may be manufactured from various injection molded thermoplastics, thermoset plastics, composites, metals, or other materials. The flexible component may be manufactured from a flexible, stretchable material and may be designed to wrap around the rigid component on several sides. Some embodiments may use a molded silicone, for example, which may stretch to allow installation and may wrap around several sides of a device to stay in place.

[0027] The device 102 is illustrated as a touchscreen device, which may represent a cellular telephone, personal digital assistant, or other device. The case may have a rigid component over which a flexible component may be fitted. The case is illustrated as assembled to the device 102 in embodiment 100. Embodiment 200, presented later in this specification, illustrates the same case and device but in an exploded view.

[0028] The case has a flexible cover 104. The flexible cover may be a molded silicone or other material that may stretch to fit over the rigid components. The rigid components may be illustrated by the tabs 106 and 108 which may be exposed through holes in the flexible cover 104.

[0029] Around the touchscreen 110, an exposed area 112 of the rigid case may be visible. The flexible component may have an interface edge 114 that defines the junction between the exposed area of the rigid component and the flexible component that covers the covered portion of the rigid component.

[0030] Several figures later in this specification may display representative cross sections that may correspond with the cross section view 116.

[0031] When a flexible component is fitted over a rigid component, the edges of the flexible component may be subject to peeling or rolling. The peeling action may occur when a user's finger or other object slides across the rigid component and over the flexible component. Such an action may occur, for example, when a user touches the touchscreen 110 and drags their finger over the edge of the exposed area 112 of the rigid component and contacts the edge 112 of the flexible component.

[0032] In many embodiments, the flexible component may be textured differently or provide more grip than the rigid component. In some embodiments, the flexible component may be treated with a top coating or other treatment to enhance or lessen the tackiness or grip of the flexible component. When the flexible component undergoes a force that may cause the edge of the flexible component to pull away from the rigid case, the flexible component may roll or peel away from the rigid component. Such a situation may not be desirable from both a functional or aesthetic standpoint.

[0033] In order to minimize the separation of the flexible component from the rigid component at the interface edge, the rigid component may have a receiving feature that may receive a tab feature in the flexible component. A discussion of different variants of the receiving feature and tab feature follow in FIGS. 3-6 of this specification.

[0034] FIG. 2 is a perspective view of an embodiment 200 showing an exploded view of the assembled case of embodiment 200.

[0035] The example of embodiment 200 includes a two-piece rigid component with a single-piece flexible component. The two-piece rigid component may snap together over a device, then the flexible component may be stretched over the rigid component to assemble the protective case.

[0036] A device 202 may represent a cellular phone, personal digital assistant, or other device with a touchscreen 214. A lower case 204 and upper case 206 may make up the rigid components of a protective case. The lower case 204 may have various tabs 208 that may engage tabs 210 of the upper case 206 to align and, in some cases, snap the lower case 204 and upper case 206 together.

[0037] The flexible cover 216 may be stretched to fit over the rigid components and may fit snugly around the outer surface of the rigid components.

[0038] The upper case 206 may have a receiving feature 218 around the perimeter of the opening 212. The junction between the exposed area of the rigid component and the flexible component is defined as the "interface edge" as described in this specification and claims. In some embodiments, the receiving feature 218 may be used around an entire perimeter of an interface edge. In other embodiments, the receiving feature 218 may be used along straight portions or curved portions of an interface edge. In some embodiments, the receiving feature may be used along a portion of an interface edge.

[0039] When installing a flexible component along a receiving feature, a user may press the mating feature from the flexible component into the receiving feature, then slide a finger along the interface edge to join the components together. In some embodiments, the receiving feature may be discontinuous or only be placed along a portion of the interface edge.

[0040] FIG. 3 is a cross sectional view of an embodiment 300 showing a receiving feature for a flexible component. The view of embodiment 300 may represent one embodiment of the view 116 of embodiment 100. Embodiment 300 is a schematic view and may not be to scale.

[0041] Embodiment 300 illustrates one of several different designs that may hold a flexible component to a rigid component. A device 302 is illustrated with a removable rigid component 304 and a flexible component 306. The components are illustrated in their assembled position.

[0042] Embodiment 300 represents a typical interface between a rigid component 304 that has an exposed surface 322 and a flexible component 306 that covers a portion of the rigid component 304. The interface edge 312 represents the interface between the exposed surface 322 and the flexible component 306, and is the mating edge of the two components from a user's viewpoint.

[0043] Embodiment 300 represents a cross sectional view that may be normal or perpendicular to the interface edge 312. In some embodiments, the interface edge 312 may be a straight line, while in other embodiments, the interface edge 312 may be a curved line. For example, in the embodiment 100, the interface edge may follow a straight path along the sides of the touchscreen 110 while following a curved path in the corners of the touchscreen 110.

[0044] The rigid component 304 may have a receiving feature 308 that may consist of a slot into which a tab 310 from the flexible component engages. The tab 310 may have an

external surface 320. In the case of embodiment 300, the external surface 320 is coincident with the interface edge 312.

[0045] The receiving feature 308 may operate by engaging the tab 310. In many embodiments, the flexible component 306 may be slightly tacky or sticky and may resist sliding against the internal surfaces of the receiving feature 308.

[0046] The internal surfaces of the receiving feature 308 may have various finishes that may enhance or control the relative movement of the tab 310 from the receiving feature 308. For example, the internal surfaces of the receiving feature 308 may be a smooth or mirror finish which may resist sliding by some flexible components that may be constructed of molded silicone. Another embodiment may use a rough or orange peel finish inside the receiving feature 308 to grip the tab 310. Still other embodiments may use different surface finishes or surface treatments to increase or decrease the static friction between the tab 310 and receiving feature 308.

[0047] The tab 310 is illustrated as being nominally the same size as the receiving feature 308. Such embodiments may be considered a 'line-to-line' design, where the width of the tab 310 is the same nominal width of the receiving feature 308. Such designs may vary with manufacturing tolerances to be slight slip fits or slight interference fits.

[0048] In some embodiments, the tab 310 may be designed to be nominally slightly smaller than the receiving feature 308, creating a slip fit. For example, some designs may have a dimensional difference of 0.002 in, 0.005 in, 0.010 in, 0.025 in, or larger dimensional differences in width between the tab 310 and the receiving feature 308.

[0049] In other embodiments, the tab 310 may be designed to be nominally slightly larger than the receiving feature 308 to create an interference fit. For example, some designs may have a dimensional difference of 0.001 in, 0.002 in, 0.005 in, 0.010 in, or larger interference fit.

[0050] The degree of interference fit or slip fit between the tab 310 and the receiving feature 308 may increase or decrease the static friction between the two components in the tab area. A higher degree of interference fit may increase the static friction and may take more force to dislodge the tab 310 from the receiving feature 308. Conversely, a lower degree of interference fit or a higher degree of slip fit may reduce the static friction between the components.

[0051] In some embodiments, a higher degree of static friction may be desirable. For example, a removable case where a user may place the case in a pocket or purse may be subjected to a high degree of sliding action across the interface edge 312. As the static friction increases, the effort to assemble the parts may increase.

[0052] A higher degree of static friction may be desirable when the flexible component 306 is extremely flexible. In such cases, the receiving feature and tab may provide the holding mechanism to hold the flexible component in place.

[0053] In some embodiments, a lower degree of static friction may be desirable. For example, a flexible component that is relatively stiff or one that is undersized so that it wraps around the rigid component and conforms to the rigid component may be easier to assemble and still operate well with a lower degree of static friction.

[0054] The ratio of the height 316 to width 314 may vary in different embodiments. For example, some embodiments may have a ratio of 1:1, while others may have ratios of 1.5:1, 2:1, 3:1, 4:1, 5:1, or higher. As the ratio increases, the holding force of the flexible component 306 to the rigid component 304 may increase.

[0055] The overall size of the width 314 may depend on the materials selected and the molding or forming processes. In a typical case for a consumer electronics device, the width 314 may be 0.020 in, 0.030 in, 0.050 in, 0.075 in, 0.100 in, 0.150 in, 0.200 in, 0.250 in, or larger or, in some embodiments, smaller.

[0056] The features of embodiment 300 may extend along the boundary between a rigid component and a flexible component for a considerable distance. In some embodiments, such as embodiment 100, the features of embodiment 300 may extend around the entire periphery of an interface edge. In other embodiments, the features of embodiment 300 may have a length of 5, 10, 50, 100, or more times the width 314. The length may be parallel to the interface edge in some embodiments.

[0057] An offset 318 may illustrate the nominal difference between the overall height of the rigid component 304 and the flexible component 306. When the offset 318 is positive, as illustrated, the rigid component 304 may protect the flexible component 306 from sliding motion when a finger or other object is slid from right to left in the illustration. When the offset is negative, the flexible component 306 may be higher than the rigid component 304. Such an embodiment may be useful to avoid scratching the rigid component 304 when an object slides from left to right in the illustration.

[0058] The offset 318 may be any dimension from zero to 0.002 in, 0.005 in, 0.010 in, 0.025 in, 0.050 in, or other dimension in either the negative or positive directions.

[0059] The receiving feature 308 and tab 310 are illustrated as being parallel. In some embodiments, one or both of the receiving feature 308 and tab 310 may have a draft angle that may cause the feature or tab to be smaller at the lower end and larger at the upper end. The draft may be zero, 0.5 degrees, 1.0 degrees, 1.5 degrees, 2.0 degrees, or larger.

[0060] FIG. 4 is a cross sectional view of an embodiment 400 showing a receiving feature for a flexible component. The view of embodiment 400 may represent another embodiment of the view 116 of embodiment 100. Embodiment 400 is a schematic view and may not be to scale.

[0061] Embodiment 400 is similar to embodiment 300 in several ways, except there is a step or offset between the external surface of a tab on the flexible component and the interface edge.

[0062] Embodiment 400 illustrates one of several different designs that may hold a flexible component to a rigid component. A device 402 is illustrated with a removable rigid component 404 and a flexible component 406. The components are illustrated in their assembled position and meet at an interface edge 412 with an offset 418.

[0063] Embodiment 400 represents a second typical interface between a rigid component 404 that has an exposed surface 422 and a flexible component 406 that covers a portion of the rigid component 404. The interface edge 412 represents the interface between the exposed surface 422 and the flexible component 406, and is the mating edge of the two components from a user's viewpoint.

[0064] Embodiment 400 illustrates a receiving feature 408 in the rigid component 404 and a tab 410 in the flexible component 406. The receiving feature 408 and tab 410 operate in the same manner as the corresponding receiving feature 308 and tab 310 of embodiment 300, and the same design options for the receiving feature 408 and tab 410 are available as with embodiment 300.

[0065] The receiving feature 408 and tab 410 have width 414 and height 416, which correspond with the width 314 and height 316 of embodiment 300.

[0066] Embodiment 400 is different from embodiment 300 in that a step feature is added, moving the external surface 420 of the tab 410 to be offset from the interface edge 412 by an offset 420 and the tab 410 to be offset from the interface edge 412 by a height 422.

[0067] The step feature of embodiment 400 may be useful in some designs where the tooling concerns or design of the rigid component 404 may cause a designer to offset the tab 410 from the interface edge 412.

[0068] Embodiment 400 also includes an air vent 426. The air vent 426 may be a hole or series of holes located in the rigid component 404 that may allow air to escape when the tab 410 is inserted into the receiving feature 408. Such a feature may be useful in embodiments where the tab 410 may form a seal with the receiving feature 408 during installation. The air vent 426 may allow the air within the receiving feature 408 to escape.

[0069] FIG. 5 is a cross sectional view of an embodiment 500 showing a receiving feature for a flexible component. The view of embodiment 500 may represent another embodiment of the view 116 of embodiment 100. Embodiment 500 is a schematic view and may not be to scale.

[0070] Embodiment 500 is similar to embodiments 300 and 400 in several ways, except the rigid component includes a tab that may engage a corresponding feature in the flexible component.

[0071] Embodiment 500 illustrates one of several different designs that may hold a flexible component to a rigid component. A device 502 is illustrated with a removable rigid component 504 and a flexible component 506. The components are illustrated in their assembled position and meet at an interface edge 512 with an offset 518.

[0072] Embodiment 500 represents a third typical interface between a rigid component 504 that has an exposed surface 522 and a flexible component 506 that covers a portion of the rigid component 504. The interface edge 512 represents the interface between the exposed surface 522 and the flexible component 506, and is the mating edge of the two components from a user's viewpoint.

[0073] Embodiment 500 illustrates a receiving feature 508 in the rigid component 504 and a tab 510 in the flexible component 506. The receiving feature 508 and tab 510 operate in the same manner as the corresponding receiving feature 308 and tab 310 of embodiment 300, and the same design options for the receiving feature 508 and tab 510 are available as with embodiment 300.

[0074] The receiving feature 508 and tab 510 have width 514 and height 516, which correspond with the width 314 and height 316 of embodiment 300.

[0075] The rigid component 504 may have a tab 526 with width 528. The tab 526 may engage a corresponding feature in the flexible component 506. The tab 526 may serve the same function as the tab 510 of the flexible component 506, giving additional surface contact between the rigid component 504 and the flexible component 506. Such a feature may provide additional friction between the two components.

[0076] The tab 526 may have a width 528. The width 528 may be the same size or a different size as the width 514. In some embodiments, the width 528 may be less than the width 514, while in other embodiments the width 528 may be greater than the width 514.

[0077] Embodiment 500 is an example of an embodiment with an offset 518 where the flexible component 506 is exposed to be higher than the rigid component 504.

[0078] Embodiment 500 includes a gap 522 between the end of the tab 510 and the bottom of the receiving feature 508. The gap 522 may be useful in embodiments where the lower end of the tab 510 may have flash or other abnormalities, for example.

[0079] FIG. 6 is a cross sectional view of an embodiment 600 showing a receiving feature for a flexible component. The view of embodiment 600 may represent yet another embodiment of the view 116 of embodiment 100. Embodiment 600 is a schematic view and may not be to scale.

[0080] Embodiment 600 is similar to embodiment 600 in several ways, except that the tab and receiving feature are oriented at an angle with respect to embodiment 300.

[0081] Embodiment 600 illustrates one of several different designs that may hold a flexible component to a rigid component. A device 602 is illustrated with a removable rigid component 604 and a flexible component 606. The components are illustrated in their assembled position and meet at an interface edge 612 with an offset 618.

[0082] Embodiment 600 represents a second typical interface between a rigid component 604 that has an exposed surface 622 and a flexible component 606 that covers a portion of the rigid component 604. The interface edge 612 represents the interface between the exposed surface 622 and the flexible component 606, and is the mating edge of the two components from a user's viewpoint.

[0083] Embodiment 600 illustrates a receiving feature 608 in the rigid component 604 and a tab 610 in the flexible component 606. The receiving feature 608 and tab 610 operate in the same manner as the corresponding receiving feature 308 and tab 310 of embodiment 300, and the same design options for the receiving feature 608 and tab 610 are available as with embodiment 300.

[0084] The receiving feature 608 and tab 610 have width 614 and height 616, which correspond with the width 314 and height 316 of embodiment 300. The receiving feature 608 and tab 610 are oriented at an angle 628 from normal.

[0085] The angle 628 may be an acute angle that may add additional holding force than embodiments where the angle 628 is a right angle, such as embodiments 300, 400, and 500. In some embodiments, the angle 628 may be an obtuse angle which may reduce the holding force.

[0086] The foregoing description of the subject matter has been presented for purposes of illustration and description. It is not intended to be exhaustive or to limit the subject matter to the precise form disclosed, and other modifications and variations may be possible in light of the above teachings. The embodiment was chosen and described in order to best explain the principles of the invention and its practical application to thereby enable others skilled in the art to best utilize the invention in various embodiments and various modifications as are suited to the particular use contemplated. It is intended that the appended claims be construed to include other alternative embodiments except insofar as limited by the prior art.

What is claimed is:

1. A case for a device comprising:

a rigid component having an external surface comprising an exposed surface and a covered surface, and an interface edge defined between said exposed surface and said covered surface;

- a flexible component conforming to and configured to cover said covered surface, said flexible component being removable from said rigid component;
 said rigid component having a receiving feature parallel to said interface edge, said receiving feature having a receiving width and a receiving depth;
 said flexible component having a tab parallel to said interface edge and having a tab width and a tab depth, said tab having an external surface facing said interface edge;
 said tab having a length along said interface edge at least ten times said tab width.
2. The case of claim 1, said tab having said length being at least 50 times said tab width.
3. The case of claim 1, said external surface of said tab being coincident with said interface edge.
4. The case of claim 1, said tab height being at least two times said tab width.
5. The case of claim 4, said tab height being at least four times said tab width.
6. The case of claim 4, said receiving width being less than said tab width, comprising an interference fit.
7. The case of claim 6, said interference fit being no more than a 0.010 in nominal interference fit.
8. The case of claim 1, said receiving feature comprising a draft angle along said height.
9. The case of claim 1, said receiving depth being greater than said tab height.
10. The case of claim 1, said case being a removable case for said device.
11. The case of claim 10, said device comprising a touchscreen.
12. The case of claim 11, said external surface of said rigid component forming an edge next to said touchscreen of said device when said device is installed in said case.
13. The case of claim 12, said external surface not exceeding 0.150 in from said edge to said interface edge.

14. The case of claim 13, said external surface not exceeding 0.075 in from said edge to said interface edge.

15. A case for a device comprising:

a rigid inner component having an external surface comprising an exposed surface and a covered surface, and an interface edge defined between said exposed surface and said covered surface, said rigid inner component comprising an opening;

a flexible outer component being stretchable and adapted to conform over said rigid inner component over said covered surface but not over said exposed surface;

said rigid inner component comprising a recessed feature parallel to said interface edge, said recessed feature comprising an inner wall and outer wall, said inner wall being closer to said interface edge than said outer wall and substantially parallel to said outer wall, said recessed feature further comprising a width defined by a distance between said inner wall and said outer wall;

said recessed feature having a length parallel to said interface edge of at least twenty times said width; and
 said flexible outer component comprising a tab feature adapted to fit into said recessed feature, said tab feature comprising a width and a height.

16. The case of claim 15, said rigid inner component comprising at least two pieces of injection molded plastic.

17. The case of claim 16, said case being adapted to cover a portion of said device, said case being adapted to expose said device in an area defined by said opening.

18. The case of claim 17, said area defined by said opening being an access area for a touchscreen on said device.

19. The case of claim 18, said device having a top surface and a bottom surface, said flexible outer component covering at least a portion of said top surface and at least a portion of said bottom surface.

20. The case of claim 19, said width not exceeding 0.050 in.

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