plate will then be measured with respect to ground. As shown in FIG. **18**, capacitor plate **80** can be removed and replaced with ground reference **81**, which may be a discrete member disposed on face **40** of frame **30**. In another embodiment, capacitor plate **80** can be removed and face **40** itself can be a single grounded plane forming the ground reference, as shown in FIG. **19**. The invisible buttons of FIGS. **18** and **19** are referred to as **20'** and **20"**, respectively. These invisible button will function as previously described, but they only need a single capacitor plate (instead of the two necessary for mutual capacitance), but they also require a ground reference. As discussed, the face of the frame itself can be the ground reference, or a separate ground reference can be disposed on the frame.

[0093] In another embodiment, invisible slider **110** discussed with reference to FIGS. **6-11** can use capacitance-to-ground instead of mutual capacitance. In this embodiment, either of the capacitor plates from each pair (**170**/**175** or **180**/**185**) can be removed and replaced by a ground reference. The capacitance from the remaining capacitor plate will then be measured with respect to ground. As shown in FIG. **20**, capacitor plates **170** and **180** can be removed and replaced with ground references **176** and **186**, which may be discrete members disposed on face **130** of frame **120**. In another embodiment, face **130** itself can be a single grounded plane forming the ground reference, as shown in FIG. **21**. The invisible sliders of FIGS. **20** and **21** are referred to as **110'** and **110"**, respectively. These invisible sliders will function as previously described, but they only need two capacitor plates (instead of the four necessary for mutual capacitance), but also require a ground reference(s). As discussed, the face of the frame itself can be the ground reference, or a separate ground reference(s) can be disposed on the frame.

[0094] In another embodiment, invisible trackpad **310** discussed with reference to FIGS. **13-17** can use capacitance-to-ground instead of mutual capacitance. In this embodiment, either of the capacitor plates from each pair (e.g., pairs **340**, **350**, and **360**) can be removed and replaced by a ground reference. The capacitance from the remaining capacitor plate from each pair will then be measured with respect to ground. As shown in FIG. **22**, the capacitor plates attached to face **380** from each of pairs **340**, **350**, and **360** can be removed and replaced with ground references **341**, **351**, and **361**, which may be discrete members disposed on face **380** of frame **320**. In another embodiment, face **380** itself can be a single grounded plane forming the ground reference, as shown in FIG. **23**. The invisible track pads of FIGS. **22** and **23** are referred to as **310'** and **310"**, respectively. These invisible trackpads will function as previously described, but need only nine capacitor plates (instead of the eighteen necessary for mutual capacitance using a three by three array), but they also require a ground reference(s). As discussed, the face of the frame itself can be the ground reference, or a separate ground reference(s) can be disposed on the frame.

[0095] In other embodiments (not shown), the present invention can include mutual capacitance (i.e., opposing capacitor plates) and capacitance-to-ground (i.e., a capacitor plate and an opposing ground reference) in the same device.

[0096] The invisible input devices described above (button **20**, slider **110**, and track pad **310**) can be used in many different implementations. Several implementations are described below. These implementations are given by way of example only, and not by way of limitation. The person of skill in the art recognizes that the present invention has wide applicability.

[0097] The present invention can be used, in one embodiment, as a closed-lid external button for a laptop computer. Referring now to FIG. **24**, laptop computer **4800** is shown with its lid **4802** closed. Lid **4802** may be, for example, aluminum. Lid **4802** has an array of invisible status indicators **4804**. Status indicators **4804** could, for example, indicate the presence of and level (signal strength) of a wi-fi signal, or they could indicate battery strength. Lid **4802** has an invisible button **4806** (shown in phantom) that functions even when lid **4802** is closed. Button **4806** is based on capacitive sensing. When a user presses lid **4802** at the location of button **4806** lid **4802** deforms in that area and causes a change in capacitance, which in turn causes invisible status indicators **4804** to light up according to the level of wi-fi signal (or battery strength, etc.). Either of invisible button **4806** or invisible status indicators **4804** can employ invisible holes and backlighting to make them selectively visible or invisible to the user.

[0098] Referring now to FIG. **25**, in another embodiment, laptop computer **4900** has an invisible button **4902** which may function as a closed-lid mode state change button. In one implementation, pressing button **4902** can signal a component of laptop **4900** or an associated external component to "wakeup" from a closed-lid "sleep" mode to a closed-lid "active" mode. For example, pressing button **4902** when laptop computer **4900** is in the closed-lid sleep mode, can wake up an external monitor (not shown), sync an iPod or iPhone (not shown) with laptop computer **4900**, or install software to laptop computer **4900** while lid **4904** is closed. In another implementation, invisible button **4902** can shutdown laptop computer **4900** from the closed-lid sleep or closed-lid active modes.

[0099] In another embodiment, the present invention can be used to replace traditional track pads and/or traditional track pad buttons with invisible buttons or invisible track pads. Referring now to FIG. **26**, laptop computer **5000** is shown with lid **5002** open. Track pad **5004** has a track surface **5006** for scrolling and a button **5008** for clicking. In conventional track pads, track surface **5006** and button **5008** are normally separate components. Button **5008** can be replaced with an invisible button, which gives laptop **5000** a more seamless and attractive look. The track surface **5006** itself can even be replaced with an invisible track pad, such as invisible track pad **310** discussed with reference to FIGS. **13-17**.

[0100] In another embodiment, invisible controls can be added to laptop computer **5000** using the present invention. In one implementation, invisible control **5009** is shown in FIG. **26**. Invisible control **5009** may be used, for example, to control music or video stored and played from computer **5000**. Invisible control may have, for example, rewind **5010**, play **5012**, and fast forward **5014** invisible buttons and it may have increase **5016** and decrease **5018** invisible volume controls. Invisible holes may form patterns indicative of the functions of these buttons (e.g., rewind arrow, play arrow, fast forward arrow, volume increase plus, volume decrease minus, etc.). The holes may be backlit.

[0101] Invisible control **5009** may be a contextual control, meaning that the function of control **5009** is dependent upon an operating state of the device (in this case laptop computer **5000**). The backlight may also be activated as a function of the operating state of the device. For example, control **5009** becomes visible automatically when a DVD is inserted into