be formed to fit on the interior surface of a cell phone or the exterior surface of a cell phone or calculator. In other words, a diced sheet **1310** is used as a starting point for vacuum forming or for otherwise forming a battery that can be attached either to the interior or exterior surface of an electronic device. An electronic device to which it is attached can be anything including hearing aides, calculators, personal data assistants, smart cards or other credit card, watches, laser pens, power tools, surgical devices or even catheters. The list above is not exhaustive but is merely set forth as examples of the type of the devices that may include a battery shown and formed in **FIGS. 15A through 15E**.

[**0226**] In some instances, it may be advantageous to include a battery having multiple cells **1110**, **1110'** and **1110"**. In this particular instance, a dice is made **1320** that includes cells **1110**, **1110'** and **1110"**. The sheet can also be formed with fold lines **1321** and **1322**, as shown in **FIG. 15G**.

[**0227**] **FIG. 15H** shows that the batteries have been folded along the fold lines to form a stack of three batteries **1100**, **1110**, **1110'** and **1110"**. The folds shown in **FIG. 15H** are a fan fold. Once the fan fold is formed, as shown in **FIG. 15H**, the fan folded battery, including three cells **1330**, can be formed in any desired shape, such as those shown in **FIG. 15C, 15D** and **15E**. The three-celled or multi-celled unit **1330** can be adhered to the interior or exterior surface of any electronic device, as discussed above. It should be noted that the fan fold can include more than three batteries or less than three batteries. The inventive aspect is that it includes a plurality of batteries. The cells **1110**, **1110'** and **1110"** can be attached to one another so that the cells are in series after they are diced. Another possibility is that the electrical contacts for each of these could be put in contact with one another as a result of fan folding the multi-celled unit **1330**.

[**0228**] **FIGS. 15I, 15J** and **15K** show yet another embodiment of the invention. In this particular embodiment of the invention, the sheet of electrical cells **1300** includes a plurality of cells including **1110** and **1110'**. The entire sheet **1300** is then vacuum formed to form more or less an egg carton **1350** with individual battery cells **1110** and **1110'** being formed within well **1360** and **1362** in the sheet **1300**. Between the wells **1360** and **1362** is a living hinge **1370**. The batteries **1110** and **1110'** are at the bottom of each well **1160** and **1162**, as shown in **FIG. 15K**. The living hinge **1370** is positioned between the two wells **1360** and **1362**. The first cell **1360** can be folded on top of the second well **1362** to form an electronic device enclosure **1380**, as shown in **FIG. 15L**. It should be noted that the size of the battery portions **1110** and **1110'** can be limited or placed so that other traces and room for other electronic devices can be added so that a total circuit can be formed within a disc enclosure. This provides for an advantage that wherein the electronic component could be directly placed into the wells **1160** and **1162** at sites formed at the same time as the batteries were deposited onto the sheet **1300**. After placing all the various electronics, the electronic device can be formed merely by dicing two of the wells **1360** and **1362** so that they form a top and bottom of the device enclosure **1380**. All sorts of electronic devices could be included, including an LCD or other display device. The LCD may be readable directly through a sheet if it is transparent or the sheet, or one of the wells **1360** and **1362**, may be provided with an opening that would correspond to an opening or face of the display of an LCD or other display device. Thus, the sheet and the deposited battery thereon can ultimately become the exterior surface or the enclosure for the device formed on the sheet. This has a great advantage in that the process steps necessary to form a device are or can be quite easily and efficiently done in a continuous process. This would lead to very efficient manufacturing of electronic devices.

[**0229**] **FIG. 16A** is a plan view of a sheet including a plurality of cells **1110** according to this invention. **FIG. 16A, 16B** and **16C** show a way to form a laminated battery cell and possibly laminated battery cell and electronics for a smart card or other invention that includes a battery and electronics within a card. The sheet **1300** shown in **FIG. 16A** includes cells **1110**. The sheet also includes fold lines **1390** and **1392**. The sheet **1300** is diced into individual sections, which include fold lines **1390** and **1392**, as well as a battery cell site **1110**. The battery cell site might also include electronics that are also deposited with the battery or energy source onto the sheet **1300**. The diced portion **1400** includes one portion including the cell **1100** and two blank portions **1402** and **1403**. The diced portion **1400** is then fan folded, as shown in **FIG. 16C**. Once a fan fold has been formed, the cell portion **1110** is captured between the two unpopulated sheet portions **1402** and **1403** and will provide an extra protective layer. The excess portions of the sheet **1300** can be trimmed, as shown in **FIG. 16D** to produce a smart card or card including both a battery **1110** and electronic, as shown in **FIG. 16E**.

[**0230**] **FIG. 17** is an exploded perspective view of a diced portion of a sheet **1300** which includes one battery cell **1110** rolled around an electrical motor **1500**. In this case, the diced portion **1300**, which includes a cell **1110**, is an elongated strip **1510** from the original sheet **1300**. The elongated strip **1510** may include several batteries placed in series or one elongated battery that is laid down as a strip on the sheet **1300**. The electrical motor is electrically connected to the anode and cathode of the battery and then rolled on to the electrical motor **1500**. In this case, the strip **1510**, on which the battery has been deposited, becomes the case for the electrical motor or also can be viewed as being a part of the case of the electrical motor. The electrical motor can be provided with a sprocket **1520** that is used to drive another gear **1530** having a shaft **1532** attached thereto. As shown in **FIG. 17, a** chuck **1540** is placed upon the shaft **1532** to form a drill or other power tool. Advantageously, the power tool could be light and compact, as well as being capable of being recharged a multiplicity of times. The power tool could be a hand-held drill for homeowner use or a smaller device, such as a Dremel-brand rotary hand tool.

[**0231**] **FIGS. 18A, 18B, 18C** and **18D** show several other embodiments of an LED light device in which the diced portion of a sheet **1300** becomes the outside case for the penlight or light device.

[**0232**] **FIG. 18A** is a planned view of a diced battery cell **1600** which includes a battery or energy device **1110** and a switch **1602** and an LED **1604**. The switch **1602**, battery **1110** and the LED **1604** form a flashlight or LED lighting device. The sheet, including the diced battery cell and LED, is rolled across its shorter distance starting at the end including the LED **1604**. The LED is merely rolled into the battery and the battery is formed around the first roll to form a spiral, as shown in **FIG. 18B**.