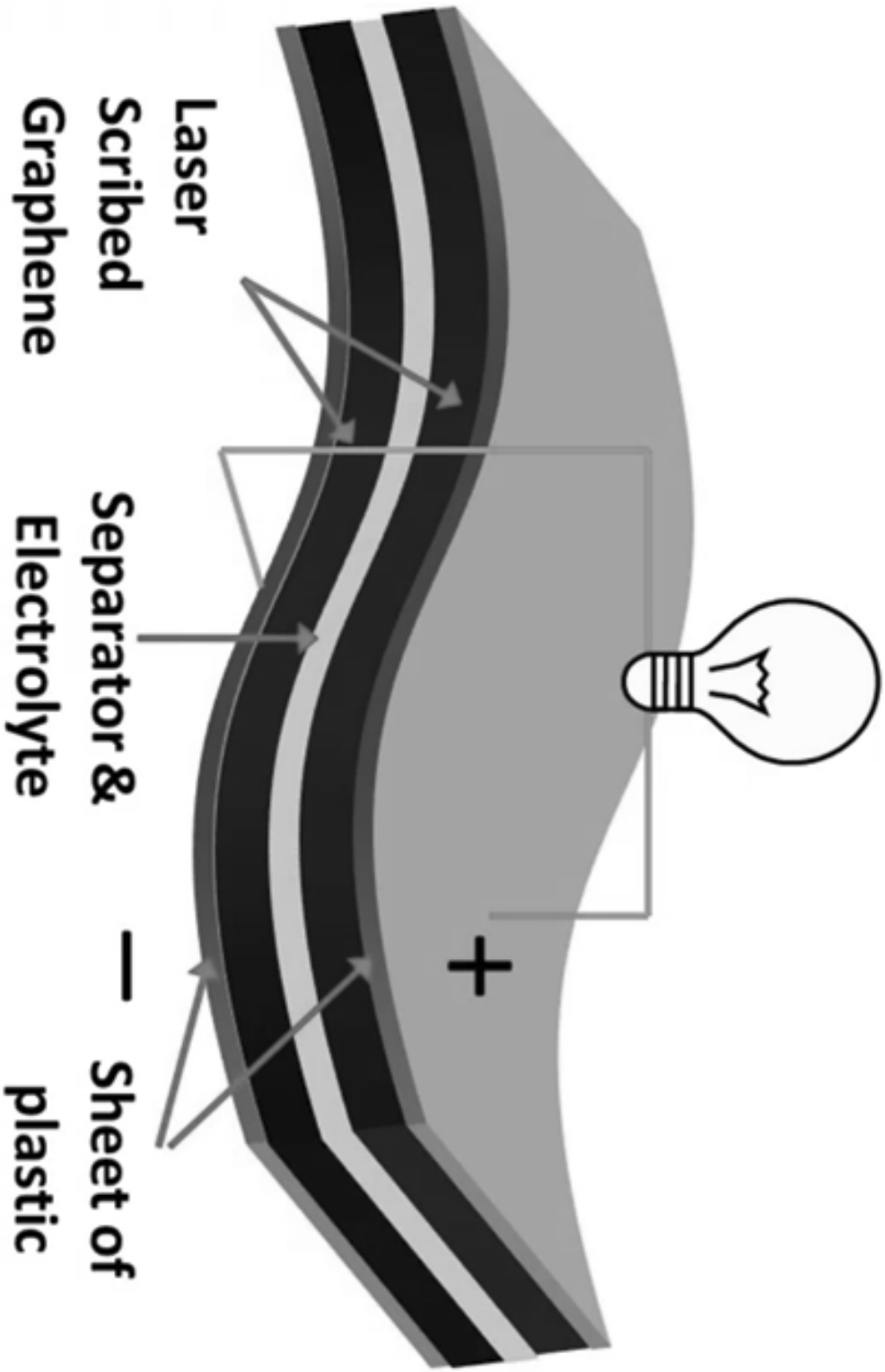

Laser
Scribed
Graphene
Separator &
Electrolyte
Sheet of
plastic
—
+

Figure 1

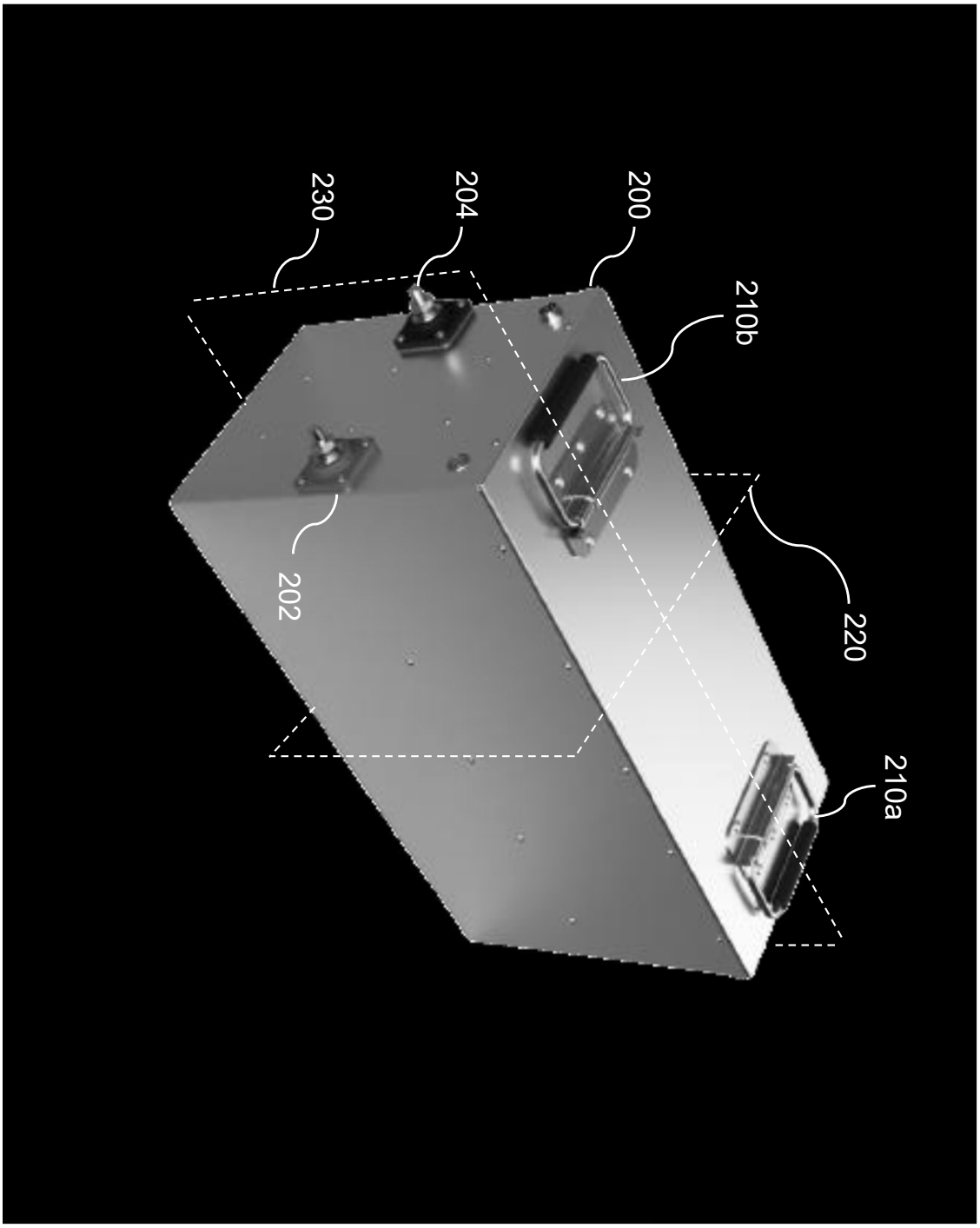
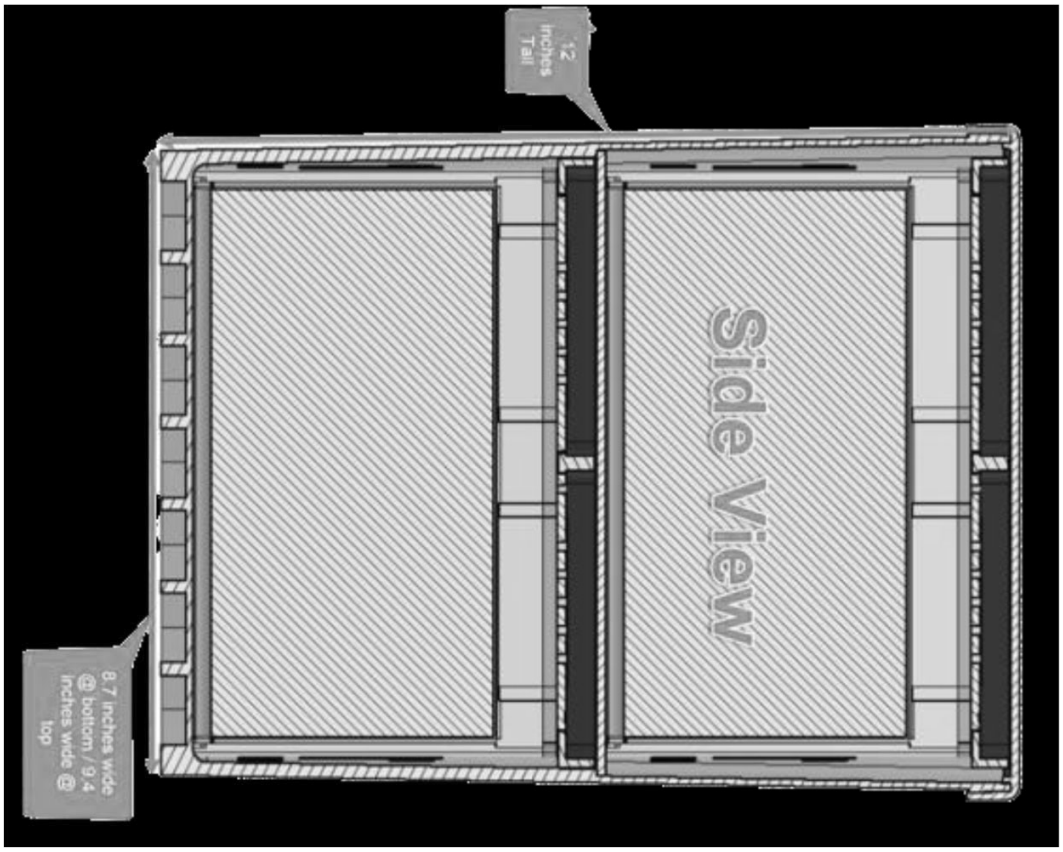


Figure 2


12 inches Tall
Side View
8.7 inches wide @ bottom / 9.4 inches wide @ top

300

Figure 3

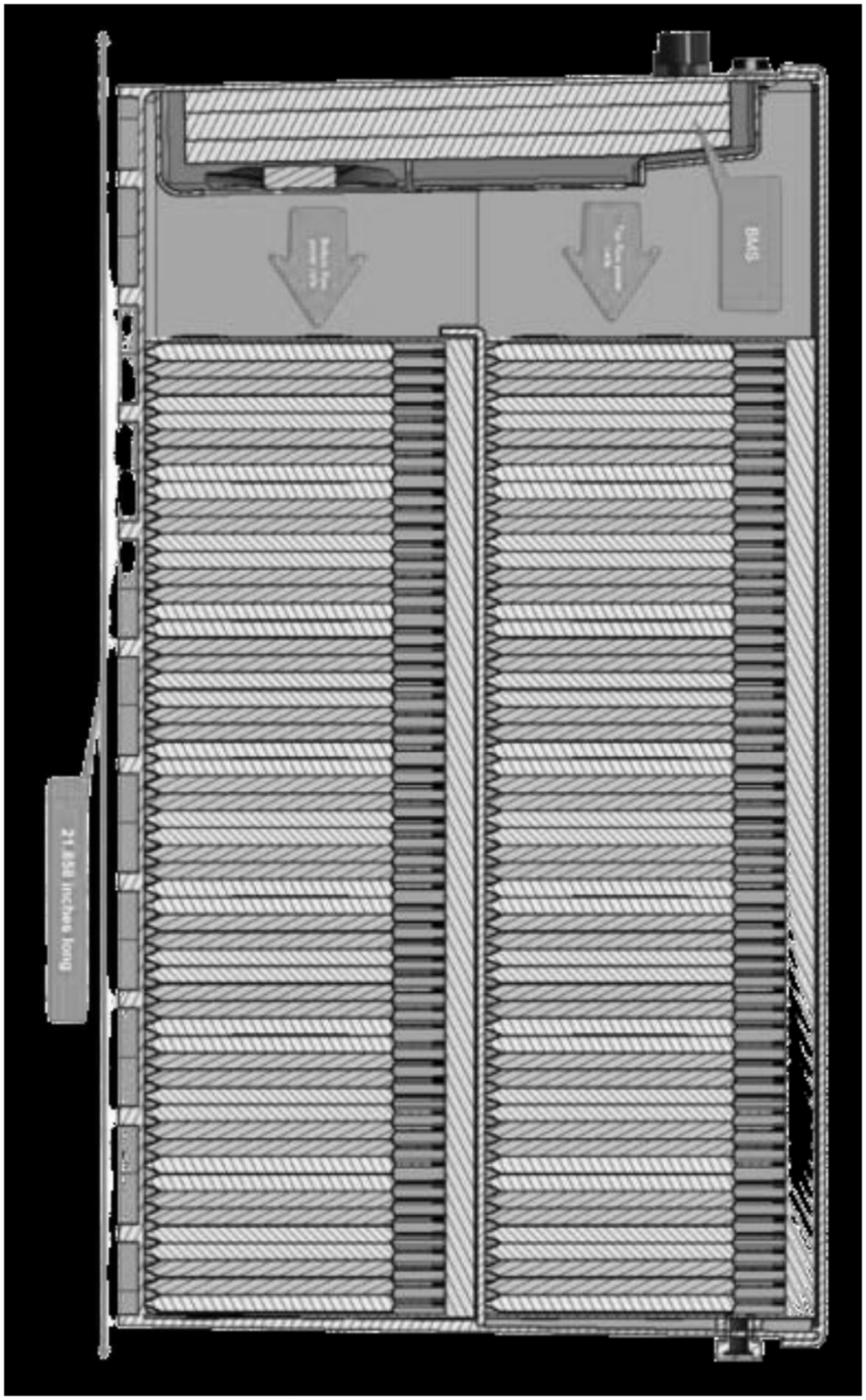


Figure 4

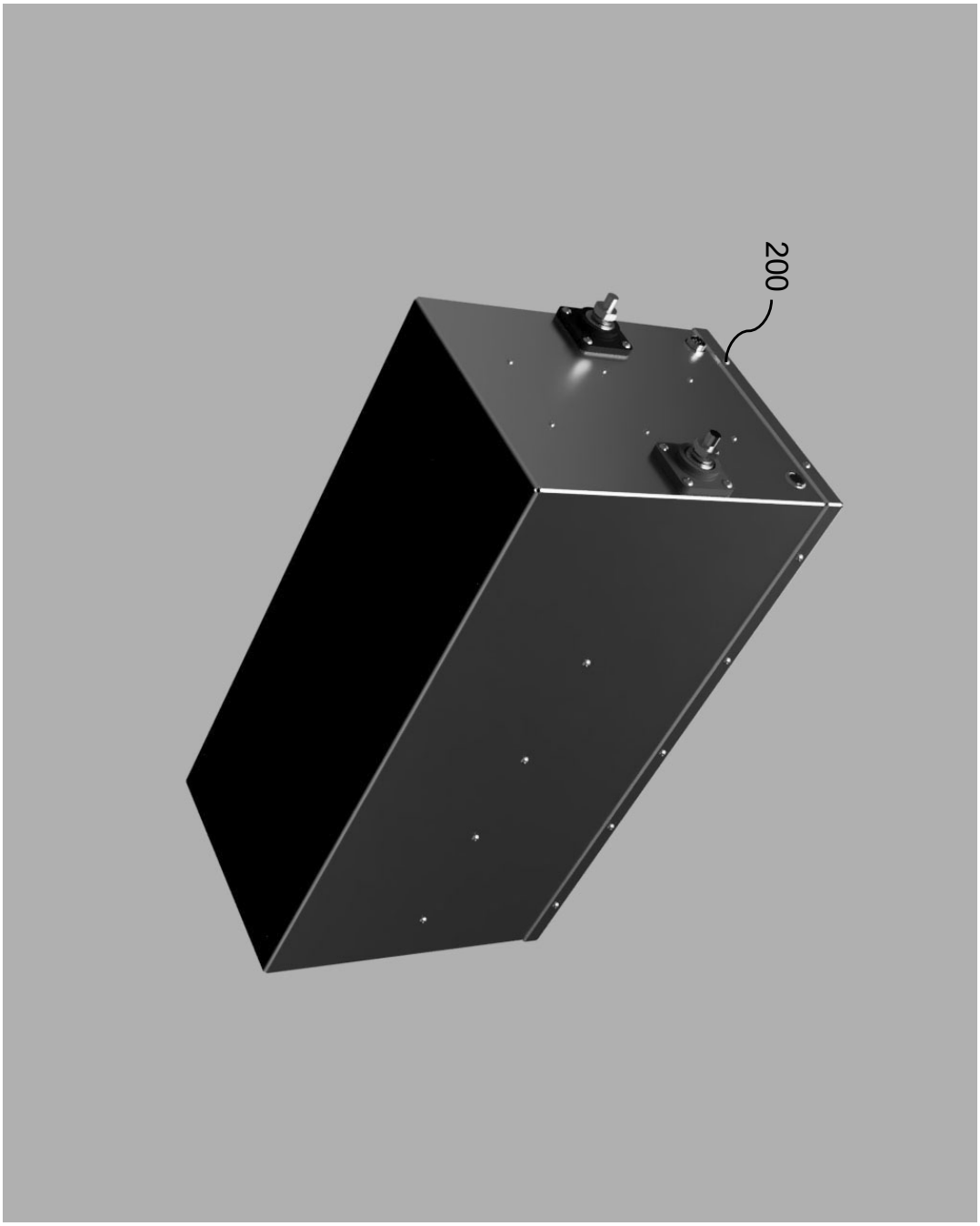


Figure 5A

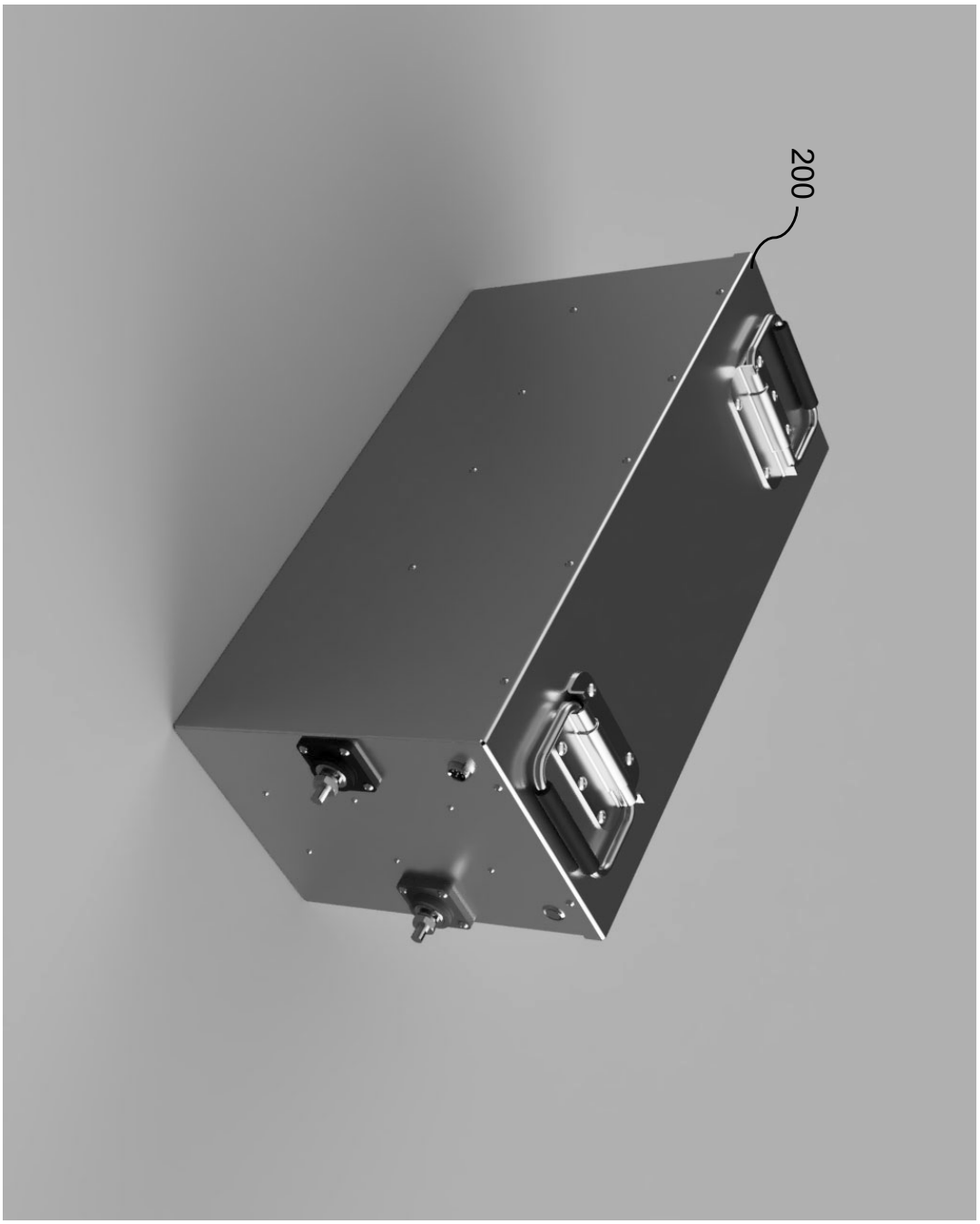


Figure 5B

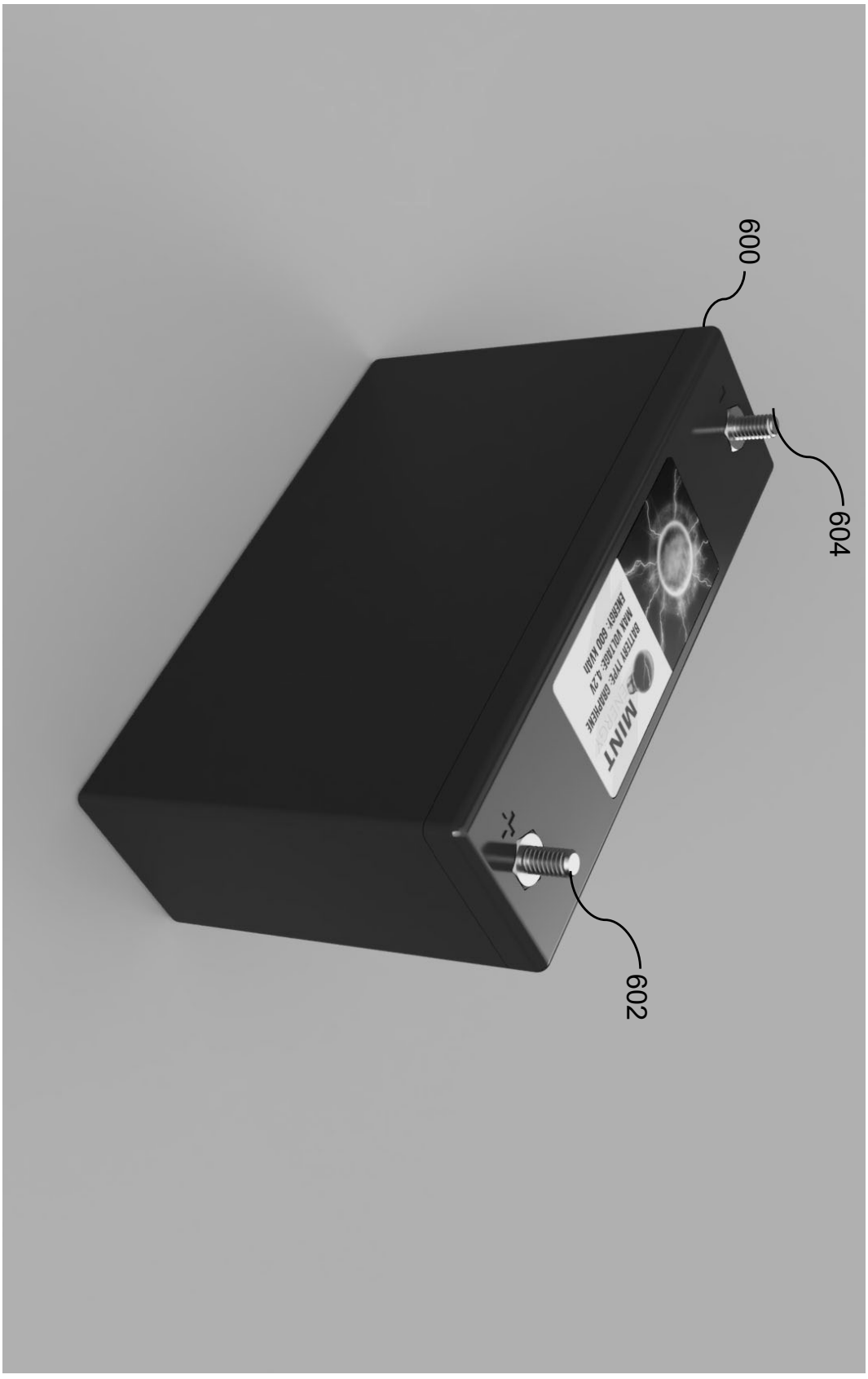

600
604
602
MINT
BATTERY TYPE: GRAPHENE
MAX VOLTAGE: 4.2V
ENERGY: 500 Wh/h

Figure 6A

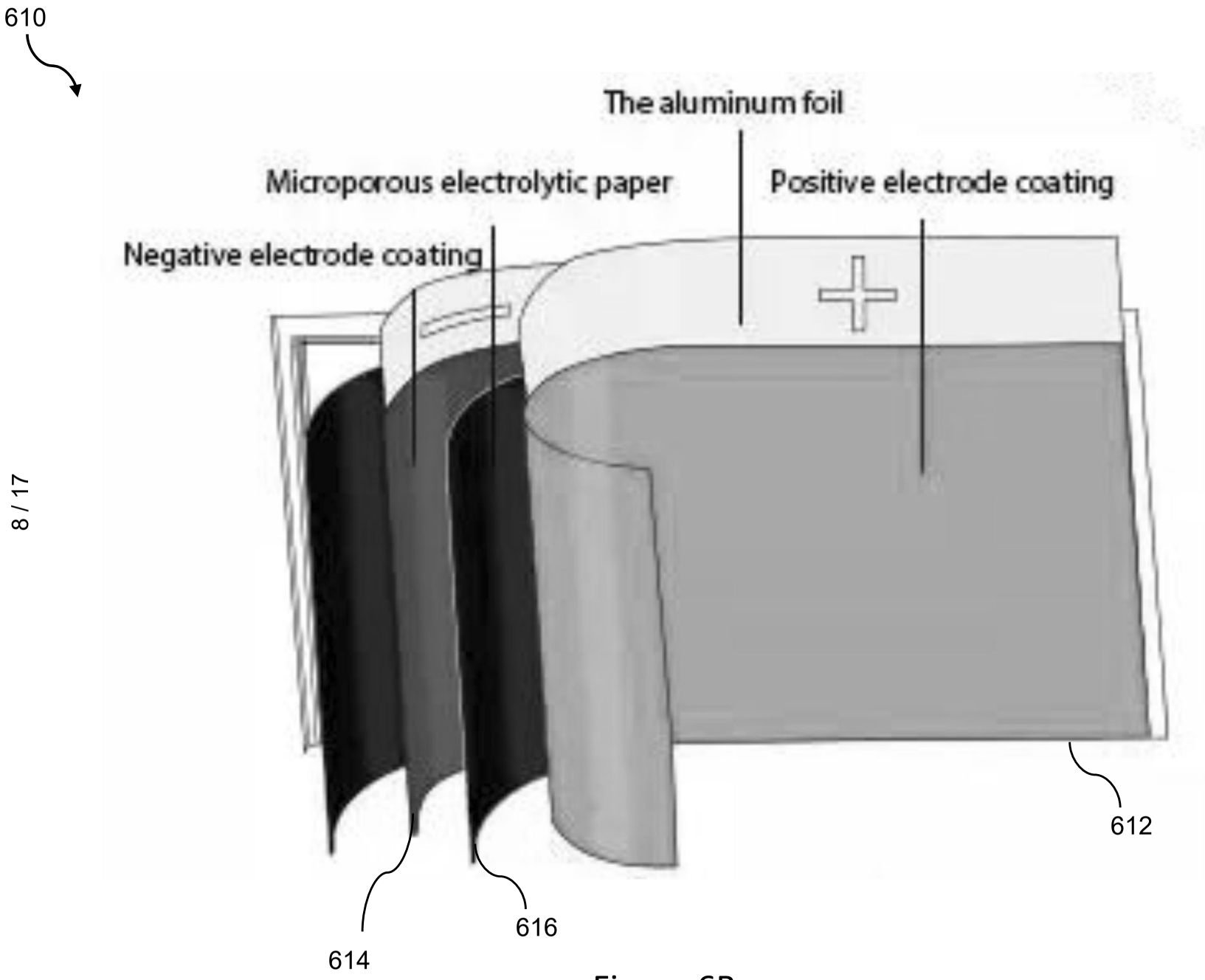

610
The aluminum foil
Microporous electrolytic paper
Positive electrode coating
Negative electrode coating
612
614
616

Figure 6B

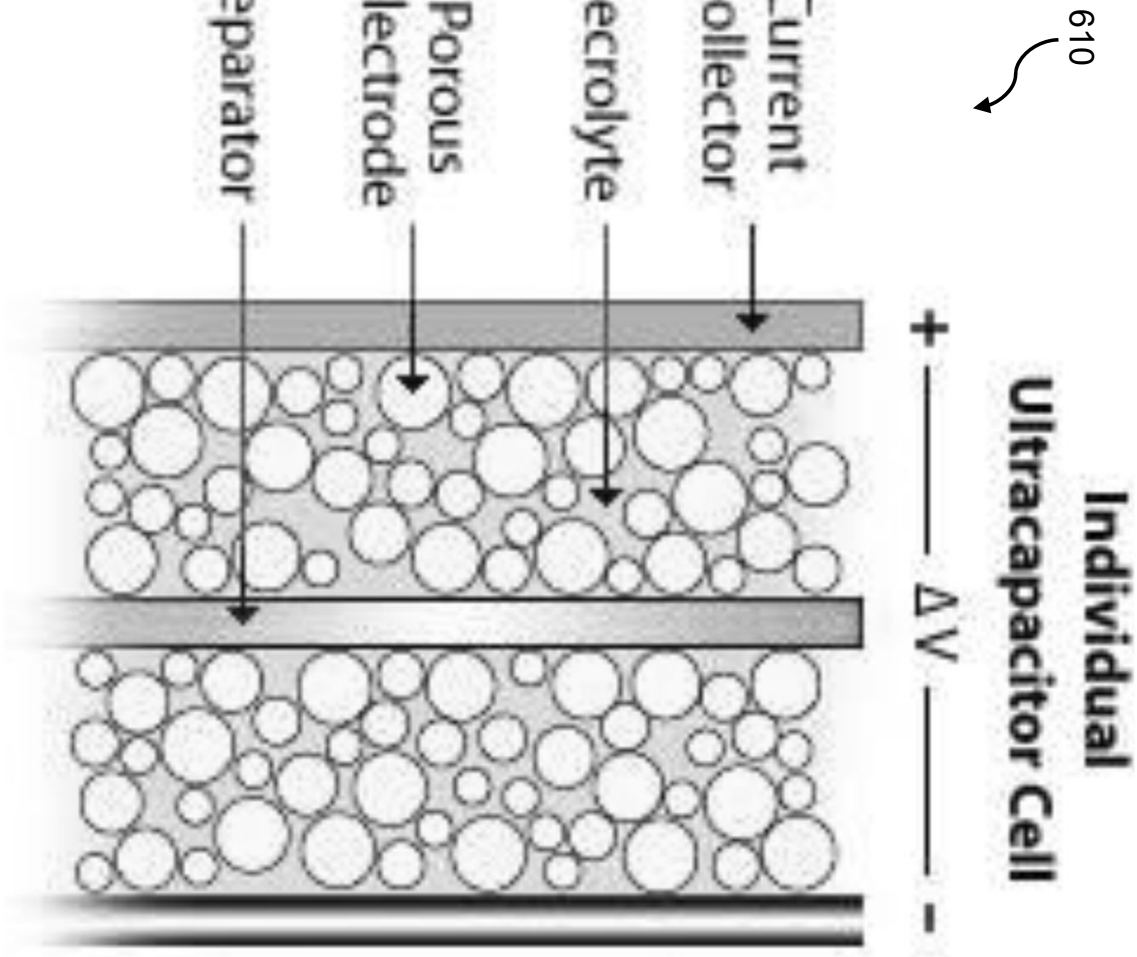

610
Individual
Ultracapacitor Cell
+
ΔV
-
Current Collector
Electrolyte
Porous Electrode
Separator

Figure 6C

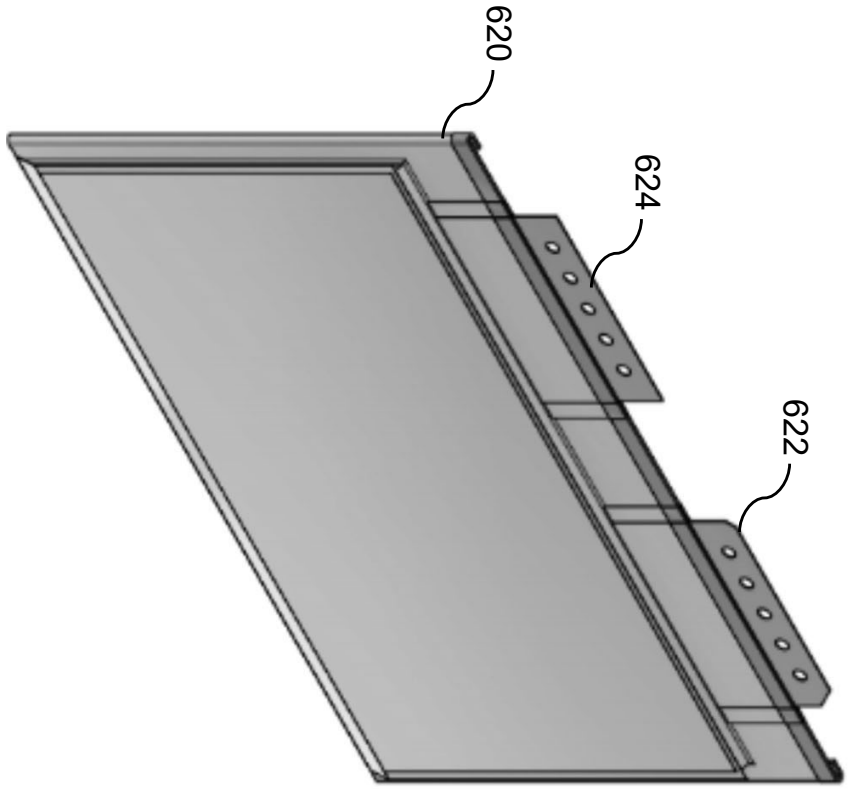


Figure 6D

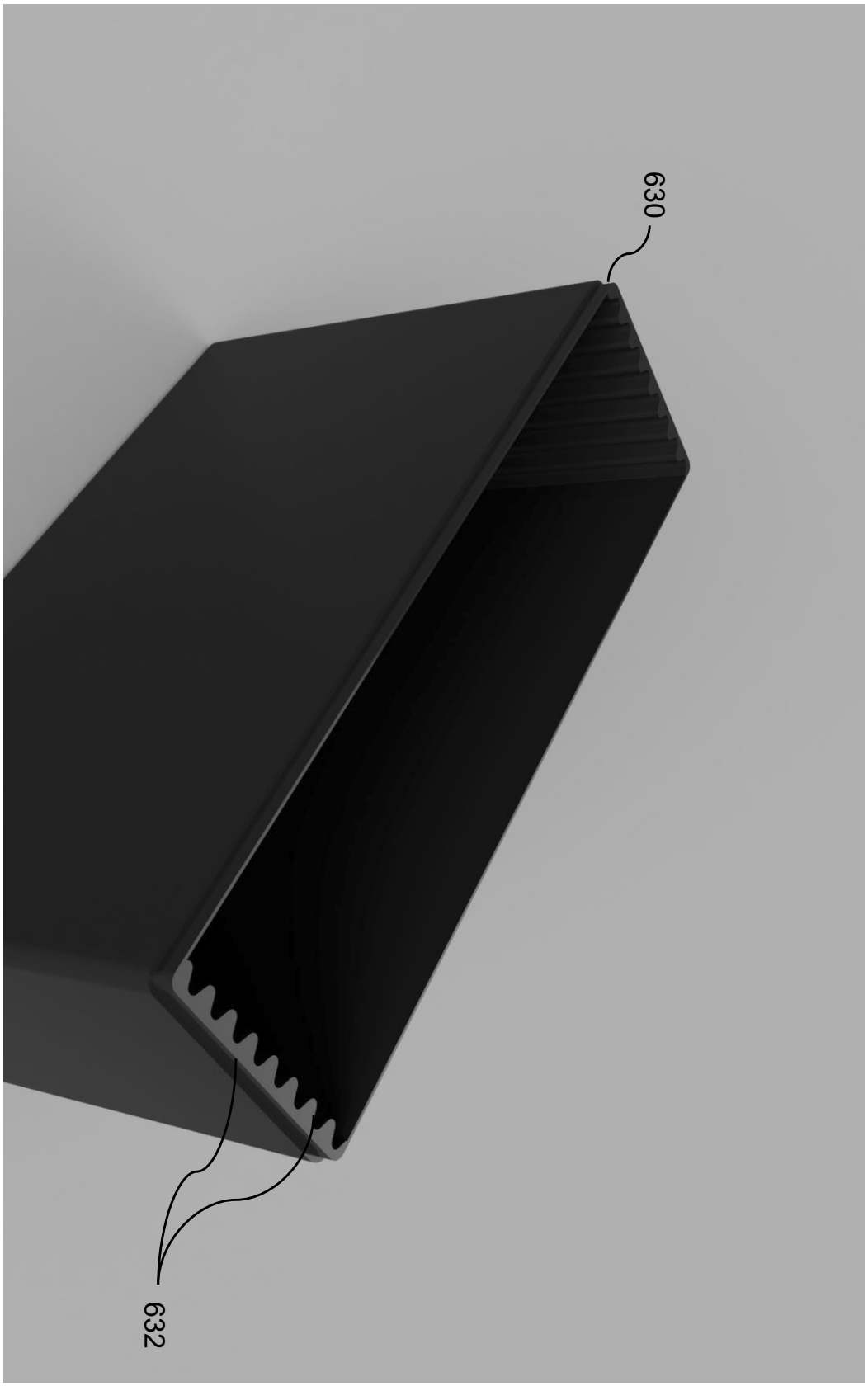


Figure 6E

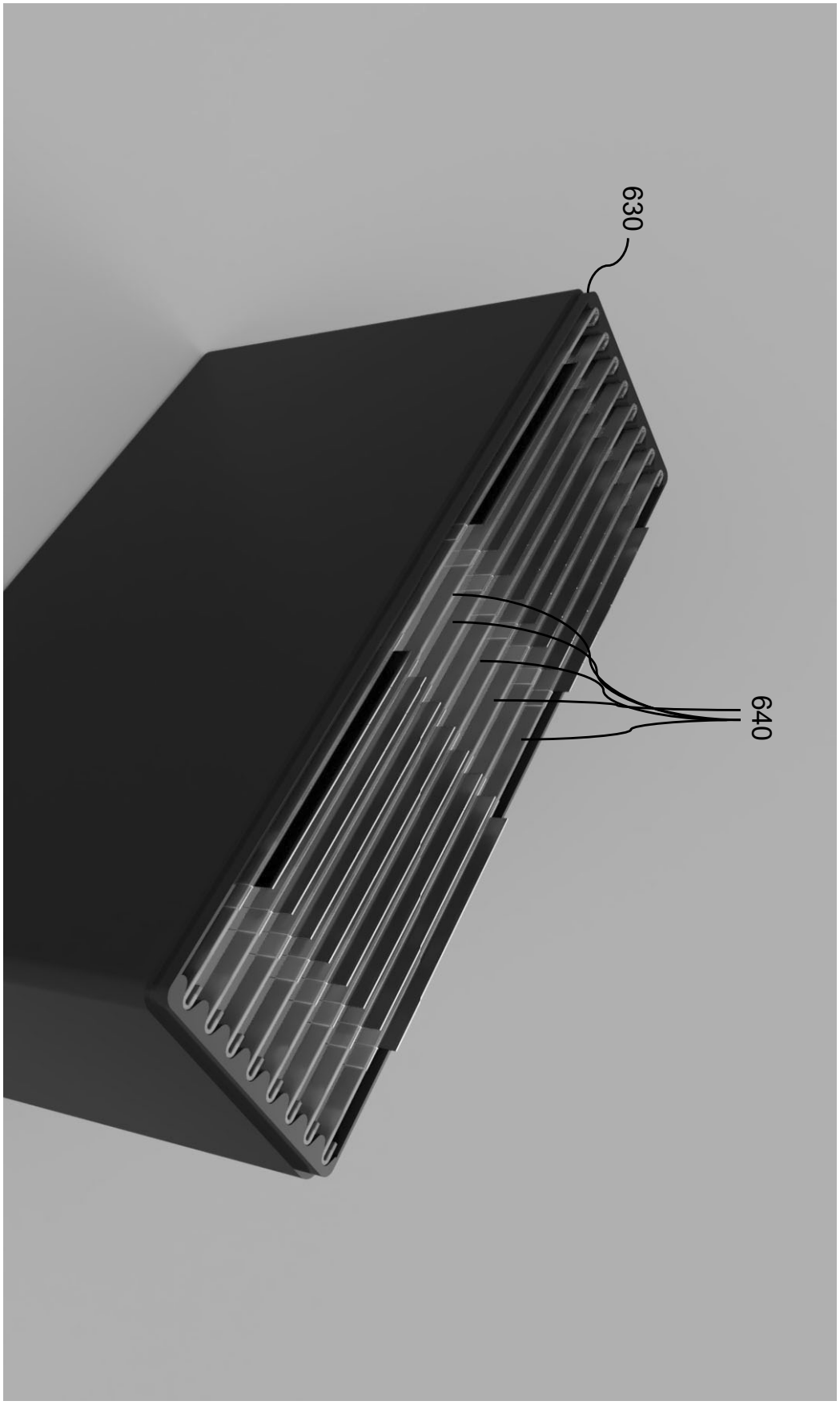


Figure 6F

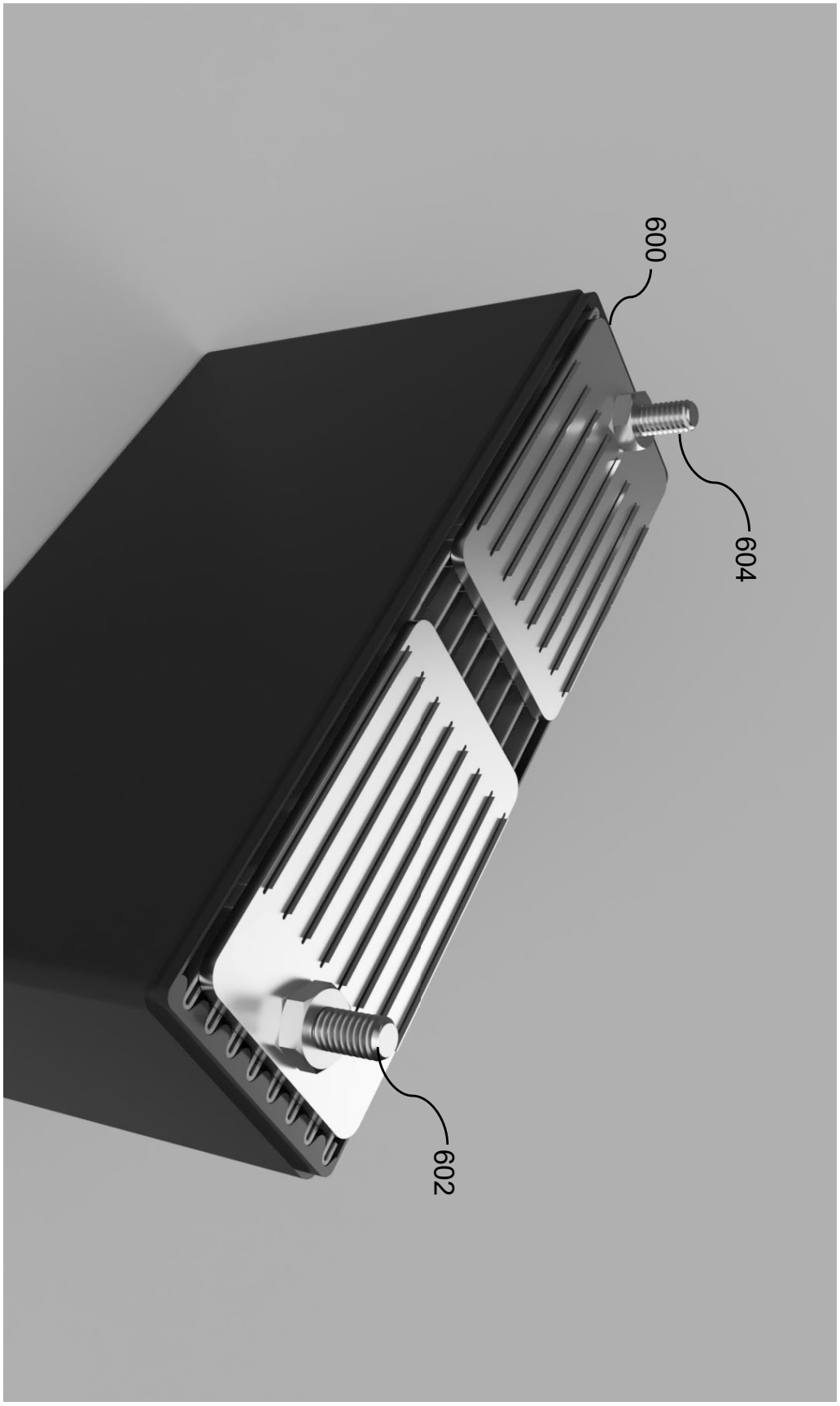


Figure 6G

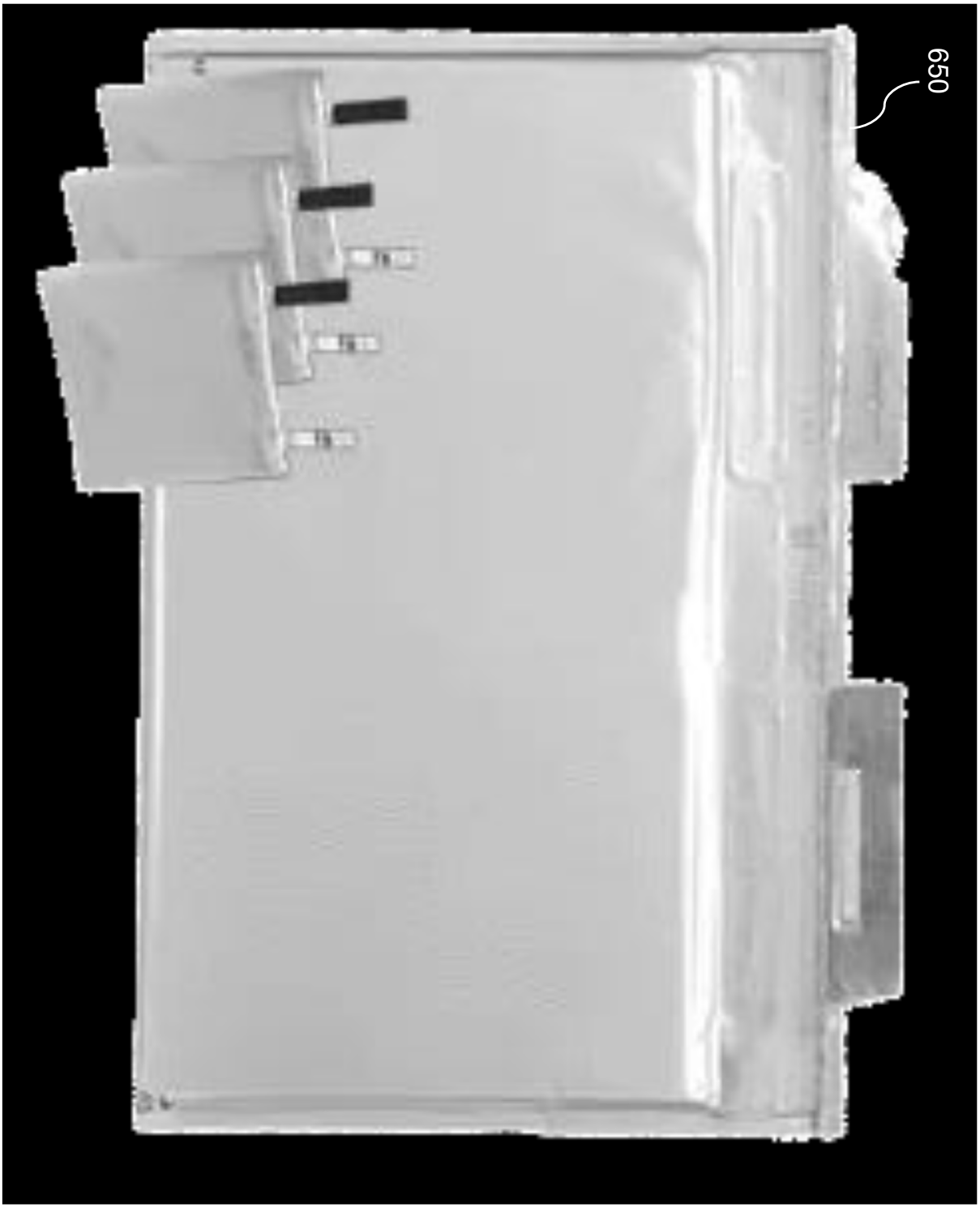
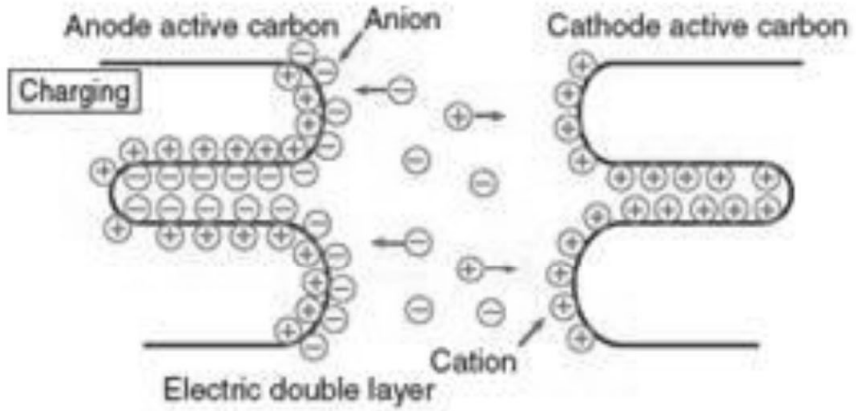
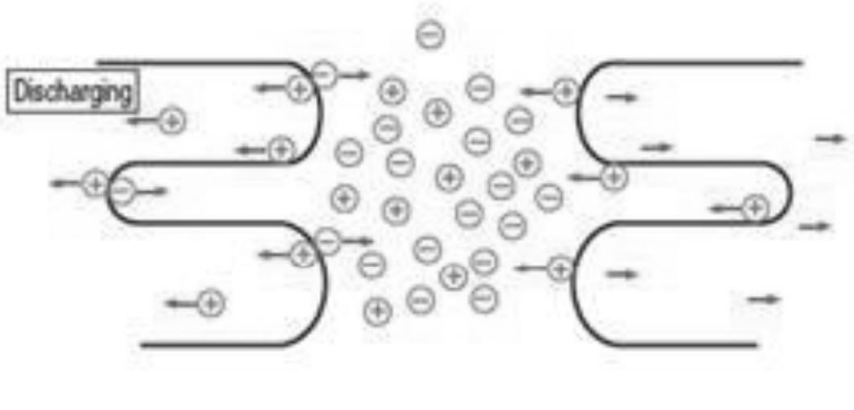


Figure 6H



a) Charging Model

Figure 6I



b) Discharging Model

Figure 6J

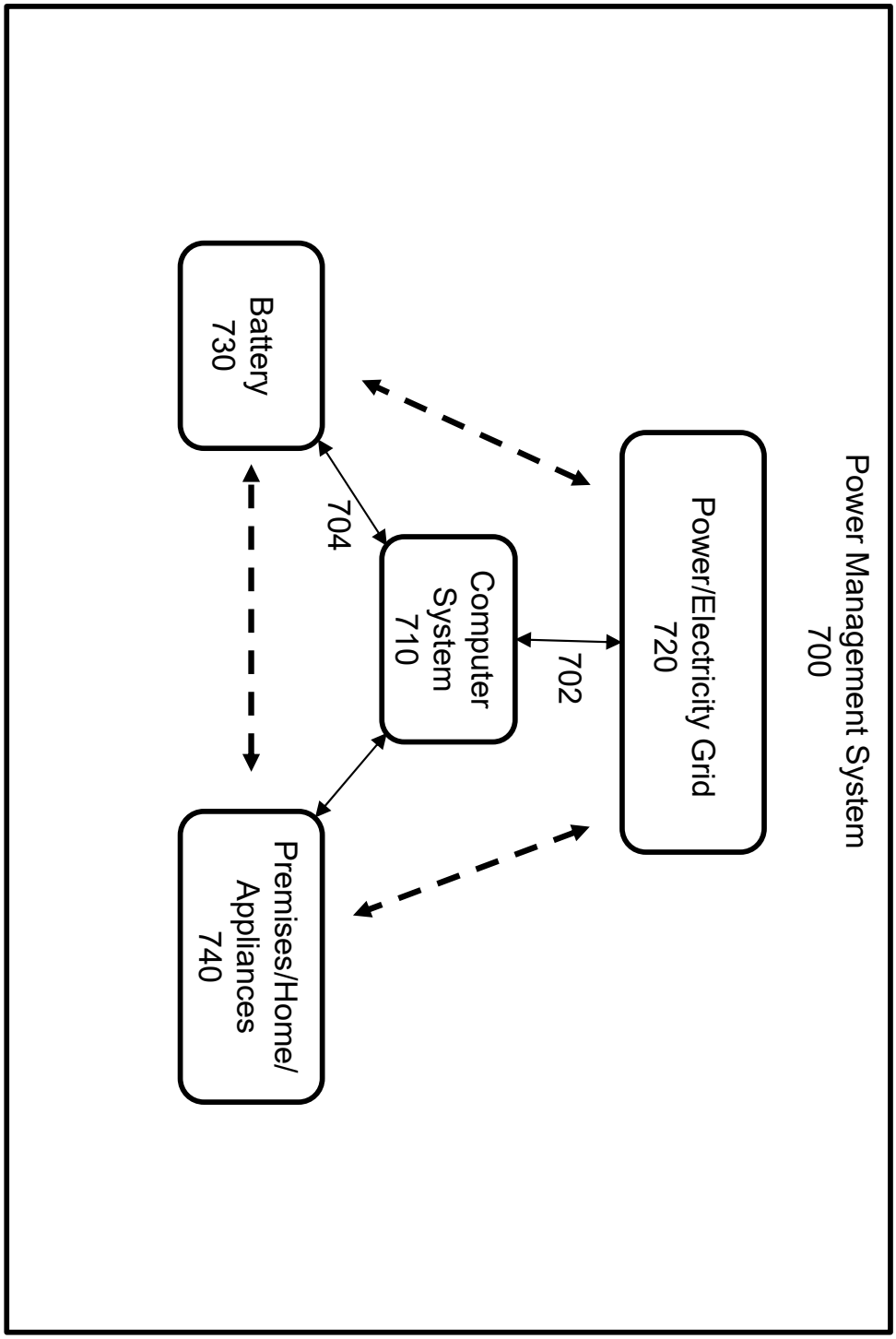

Power Management System
700
Power/Electricity Grid
720
Computer
System
710
Battery
730
Premises/Home/
Appliances
740
702
704

Figure 7

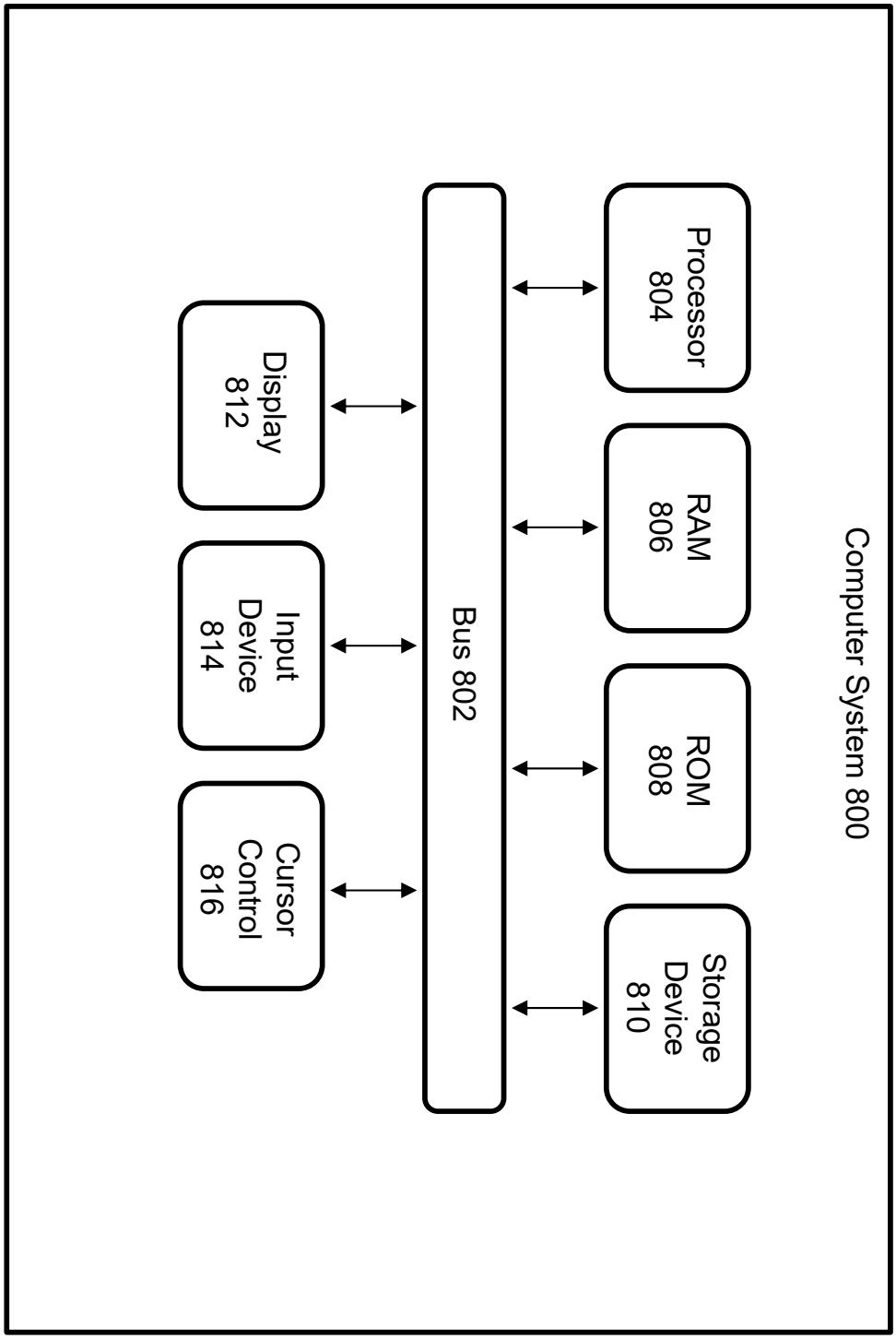

Computer System 800
Processor 804
RAM 806
ROM 808
Storage Device 810
Bus 802
Display 812
Input Device 814
Cursor Control 816

Figure 8