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# United States Patent [19]

[11] Patent Number: **6,049,192**

**Kfoury et al.**

[45] Date of Patent: **Apr. 11, 2000**

[54] **BATTERY CHARGER HAVING MOVING DOOR HOUSING FOR A BATTERY**

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[73] Assignee: **Motorola, Inc.**, Schaumburg, Ill.

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[21] Appl. No.: **09/271,831**

[22] Filed: **Mar. 18, 1999**

### [57] ABSTRACT

[51] **Int. Cl.**<sup>7</sup> ..... **H01M 10/46**  
[52] **U.S. Cl.** ..... **320/113; 320/115**  
[58] **Field of Search** ..... 320/107, 110,  
320/112, 113, 114, 115; D13/103, 107,  
108; 429/99, 100

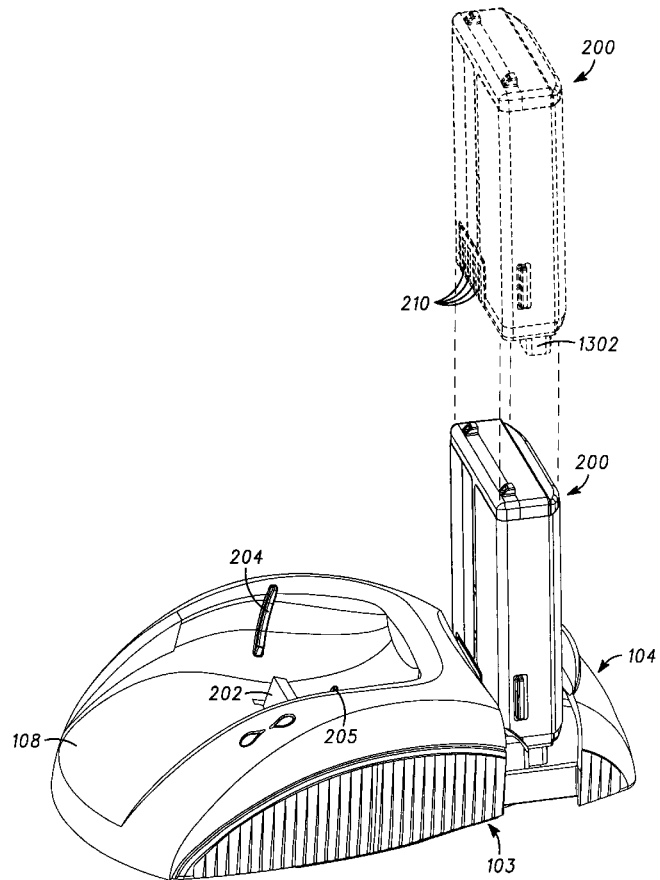
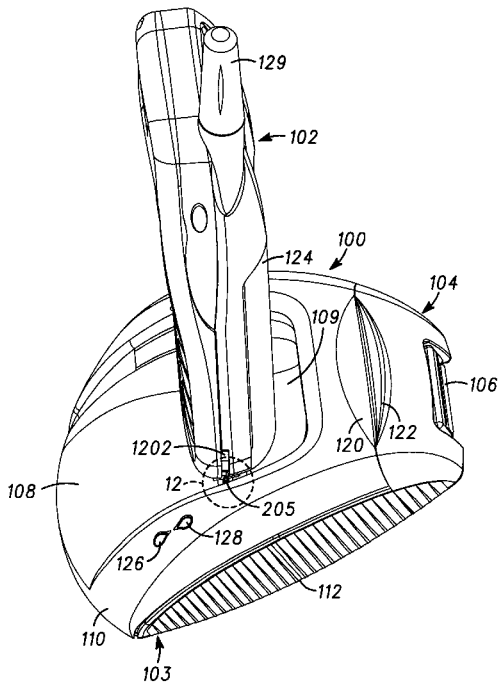
A battery charger includes a main housing (103). A well (108) in the main housing is for receipt of an electronic device (102) including a battery. A door housing (104) is movably carried on the main housing. At least one contact (422) is carried on the main housing for connection to a battery (200, 300) inserted between the door housing and the main housing, wherein the door housing is movable between an open position for receipt of a battery and a compact closed position. A circuit is positioned in the main housing for electrical connection to the electronic device and the contacts for charging a battery.

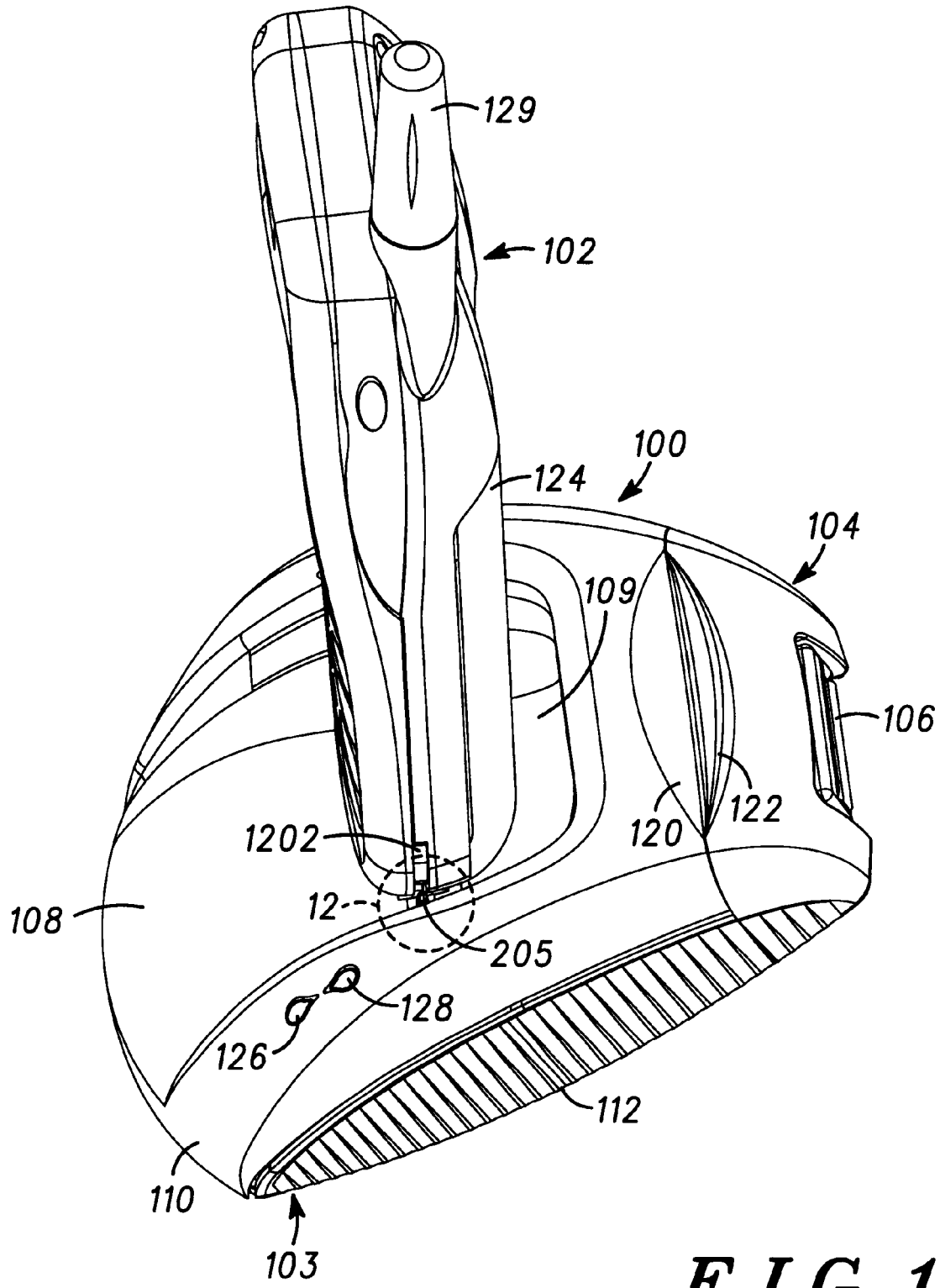
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**20 Claims, 11 Drawing Sheets**





**FIG. 1**

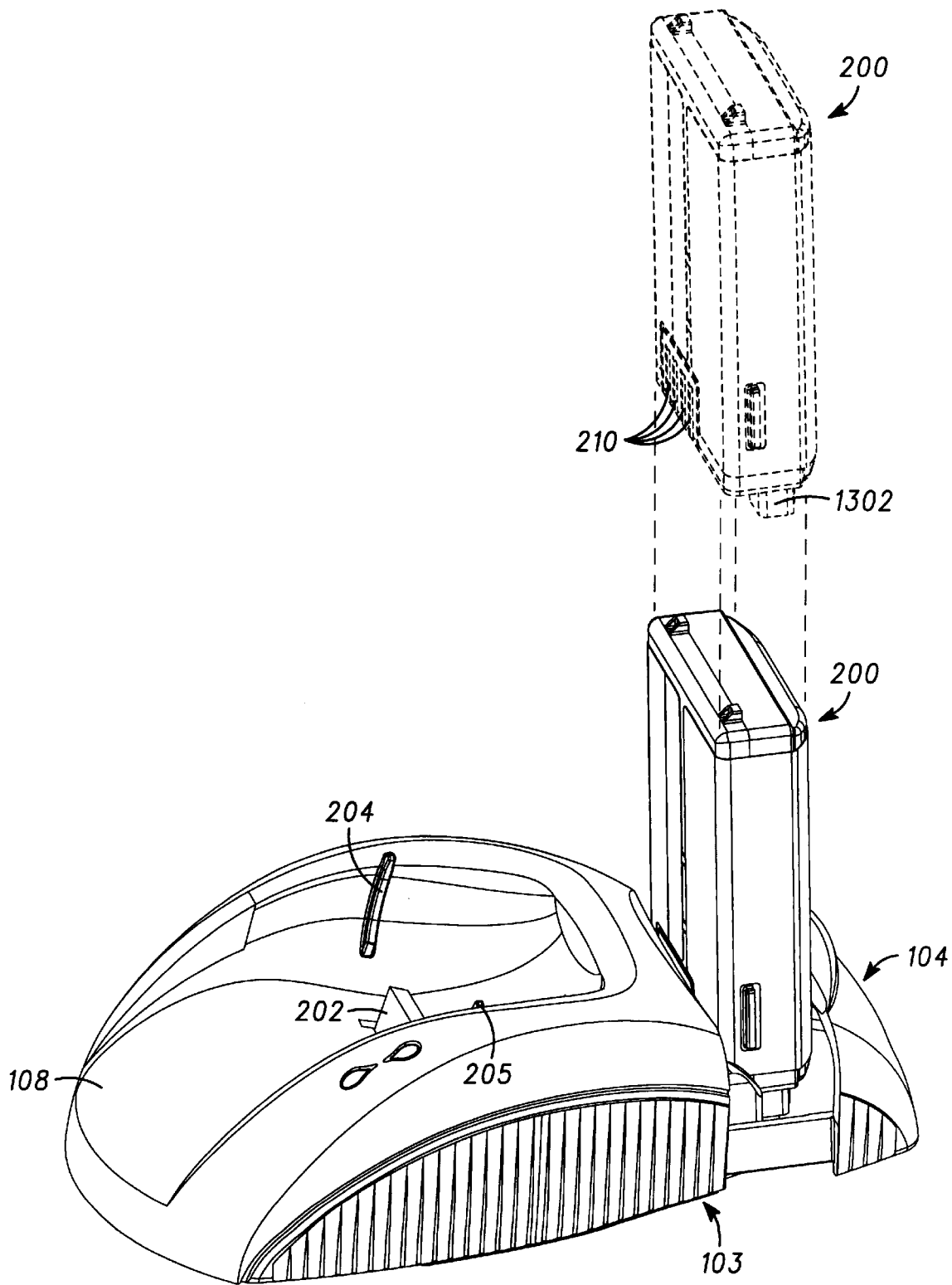
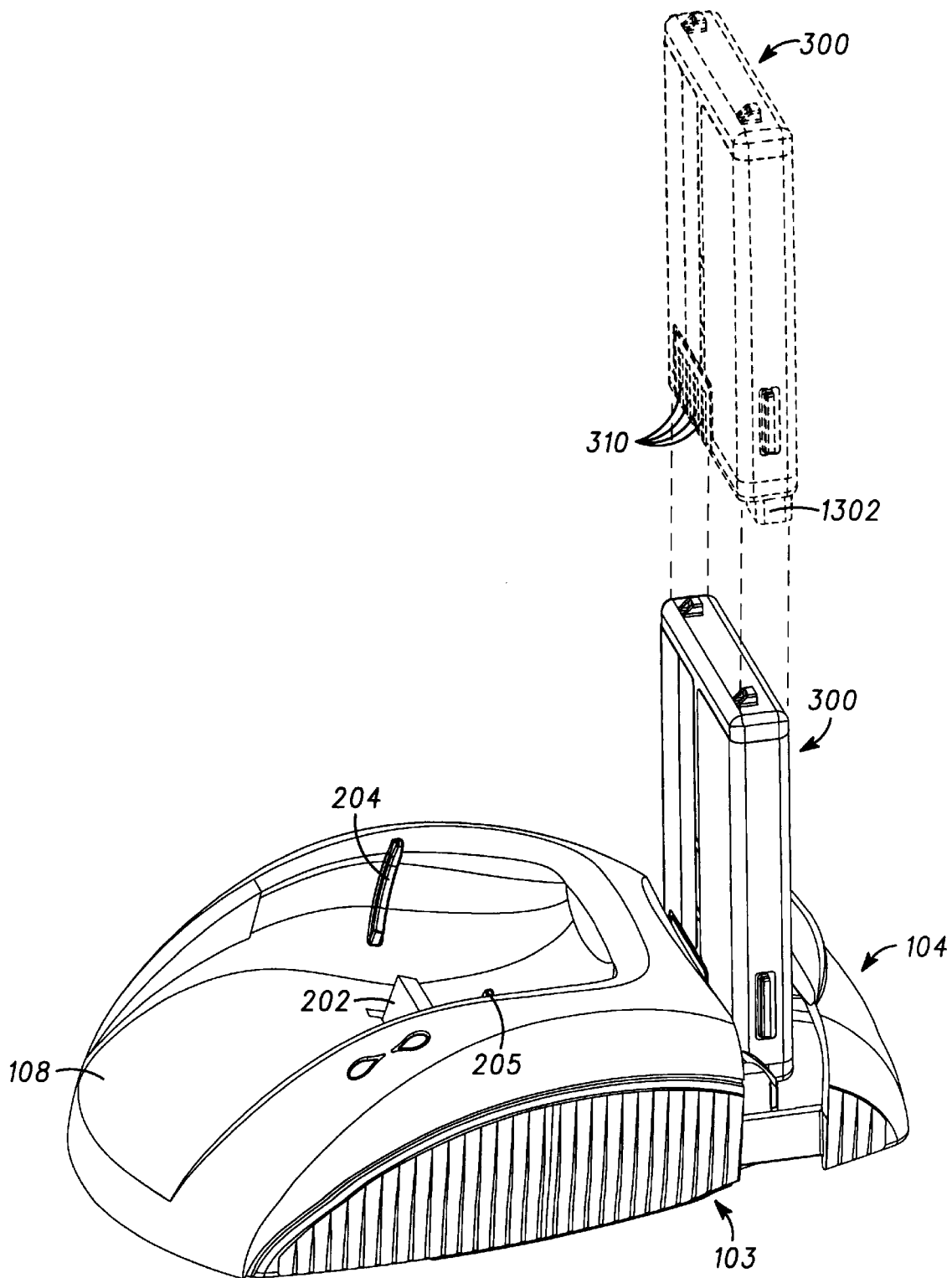
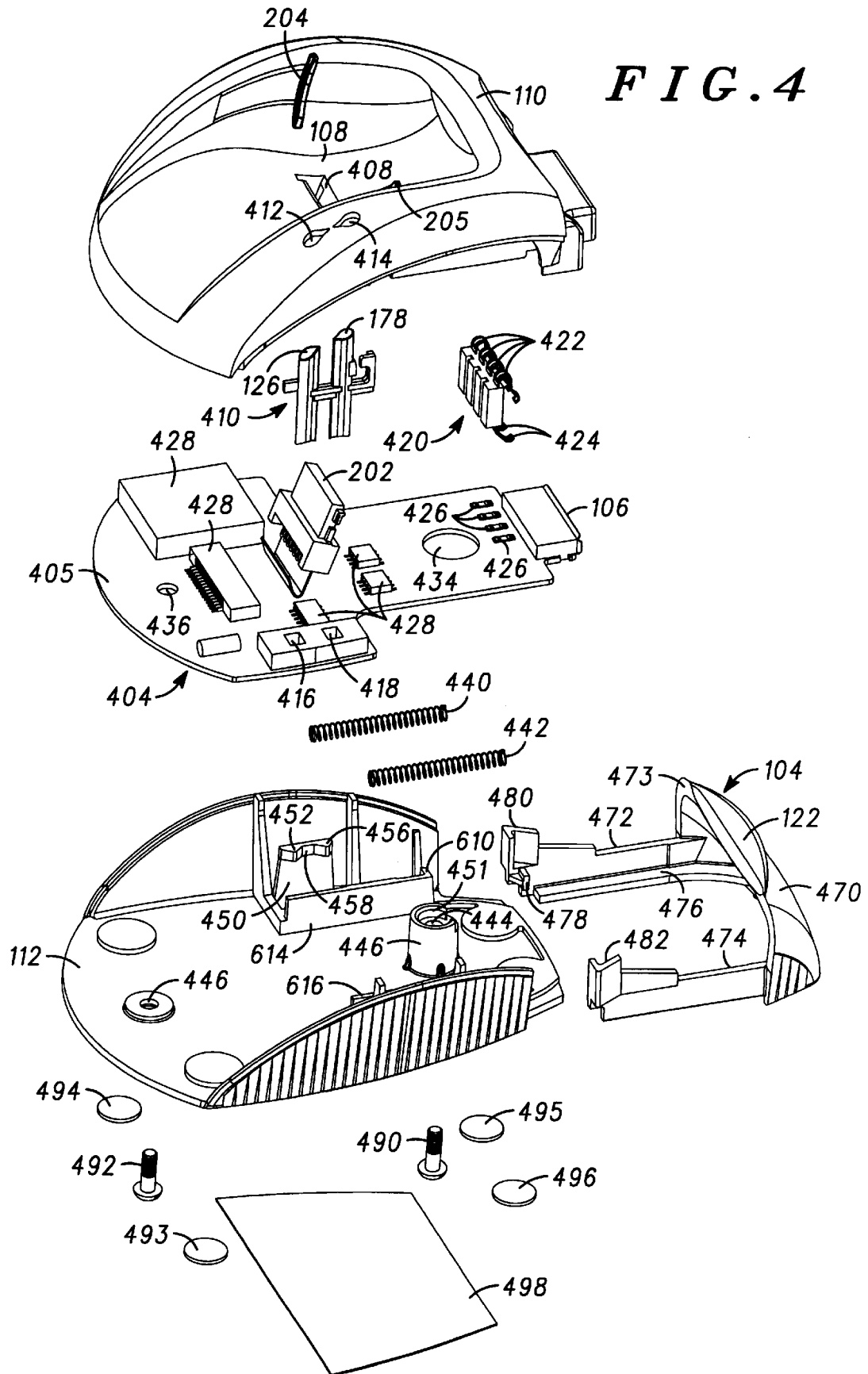


FIG. 2



**FIG. 3**



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