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(54) Title: ULTRA-THIN MICROBATTERY PACKAGING AND HANDLING

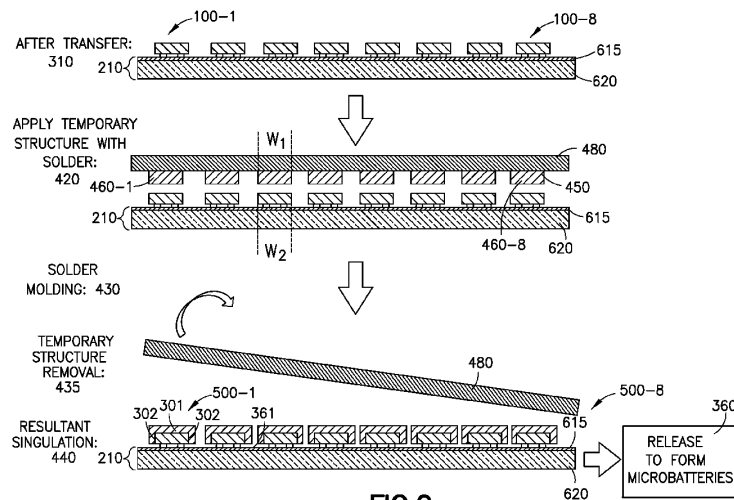


FIG.9

(57) Abstract: Microbatteries and methods for forming microbatteries are provided. The microbatteries and methods address at least one or both of edge sealing issues for edges of a stack forming part of a microbatteries and overall sealing for individual cells for microbatteries in a batch process. A transferable solder molding apparatus and sealing structure are proposed in an example to provide a metal casing for a solid-state thin-film microbattery. An exemplary proposed process involves deposition or pre-forming low-temperature solder casing separately from the microbatteries. Then a thermal compression may be used to transfer the solder casing to each battery cell, with a handler apparatus in a batch process in an example. These exemplary embodiments can address the temperature tolerance constrain for solid state thin film battery during handling, metal sealing, and packaging.

[Continued on next page]

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