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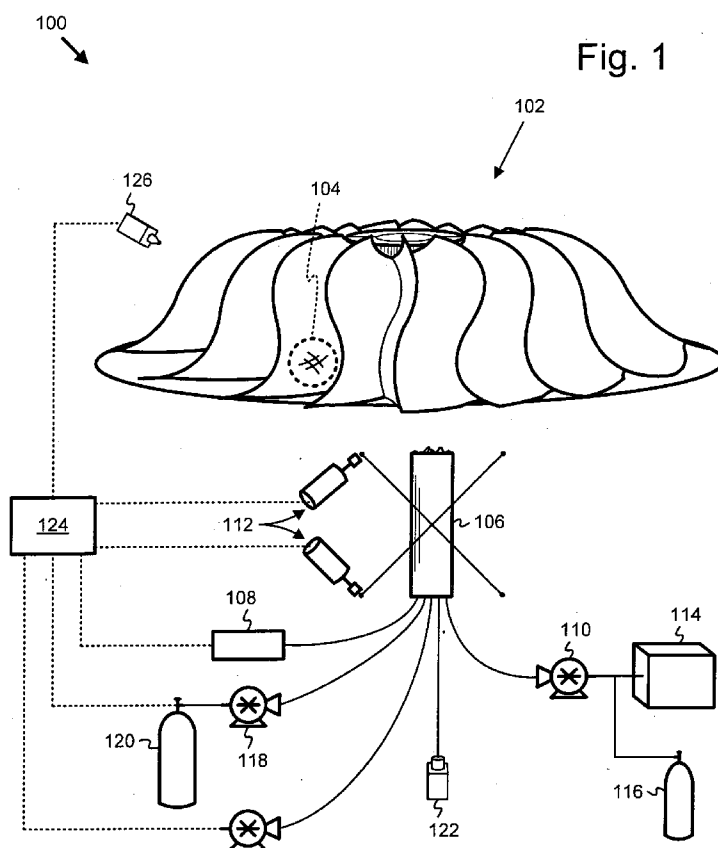
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(54) Title: SYSTEM, METHODS, AND APPARATUS FOR REPAIR OF COMPONENTS



(57) Abstract: A method is disclosed including operations for repairing a component. The method includes providing a component including one of titanium and a titanium alloy, providing a laser deposition device, and providing a shielding means that ensures an oxygen content remains below a first threshold and that a water vapor content remains below a second threshold in a target area of the component. The method further includes depositing a metal material on the component, where the depositing includes operating the deposition device along a tool path including a plurality of tool passes, wherein the tool path further comprises a deposition device velocity specification, a laser power specification, and a specified delay time between each of the plurality of tool passes.