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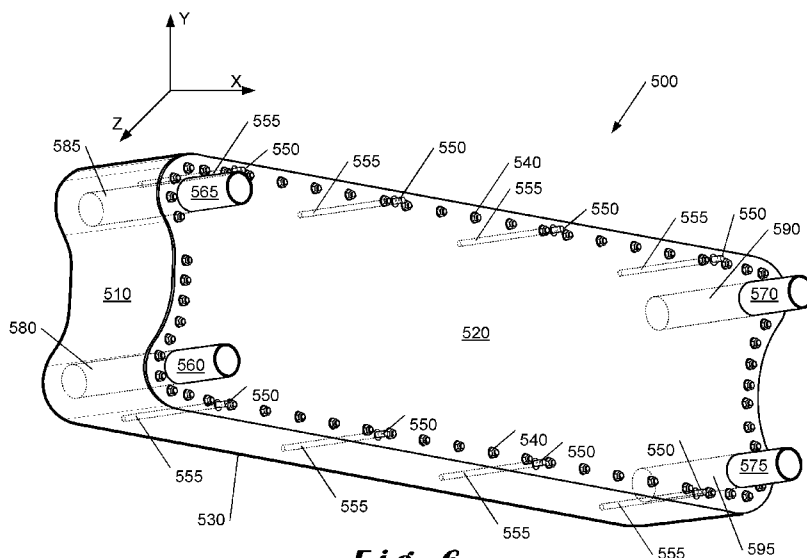
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(54) **Title:** MEMBRANE DISTILLATION APPARATUS**Fig. 6**

(57) **Abstract:** Described herein is air gap membrane distillation apparatus comprising a module (500) including a stack (510) of condenser frames, membrane frames and distillate frame assemblies sandwiched between a front plate (520) and a back plate (530). Inlet and outlet connectors (560, 565, 570, 575) are provided that are connected internally to fluid channels defined by openings in the frames forming the stack (510). Distillate drain outlets (550) are connected to distillate channels (555) for collecting distillate condensed on condenser surfaces within the stack (510). Modules can also be used for other types of membrane distillation, the required frames being selected for optimisation of the distillation process. By using modules, each part of the distillation process can be individually optimised without affecting the efficiency of other parts of the process.