

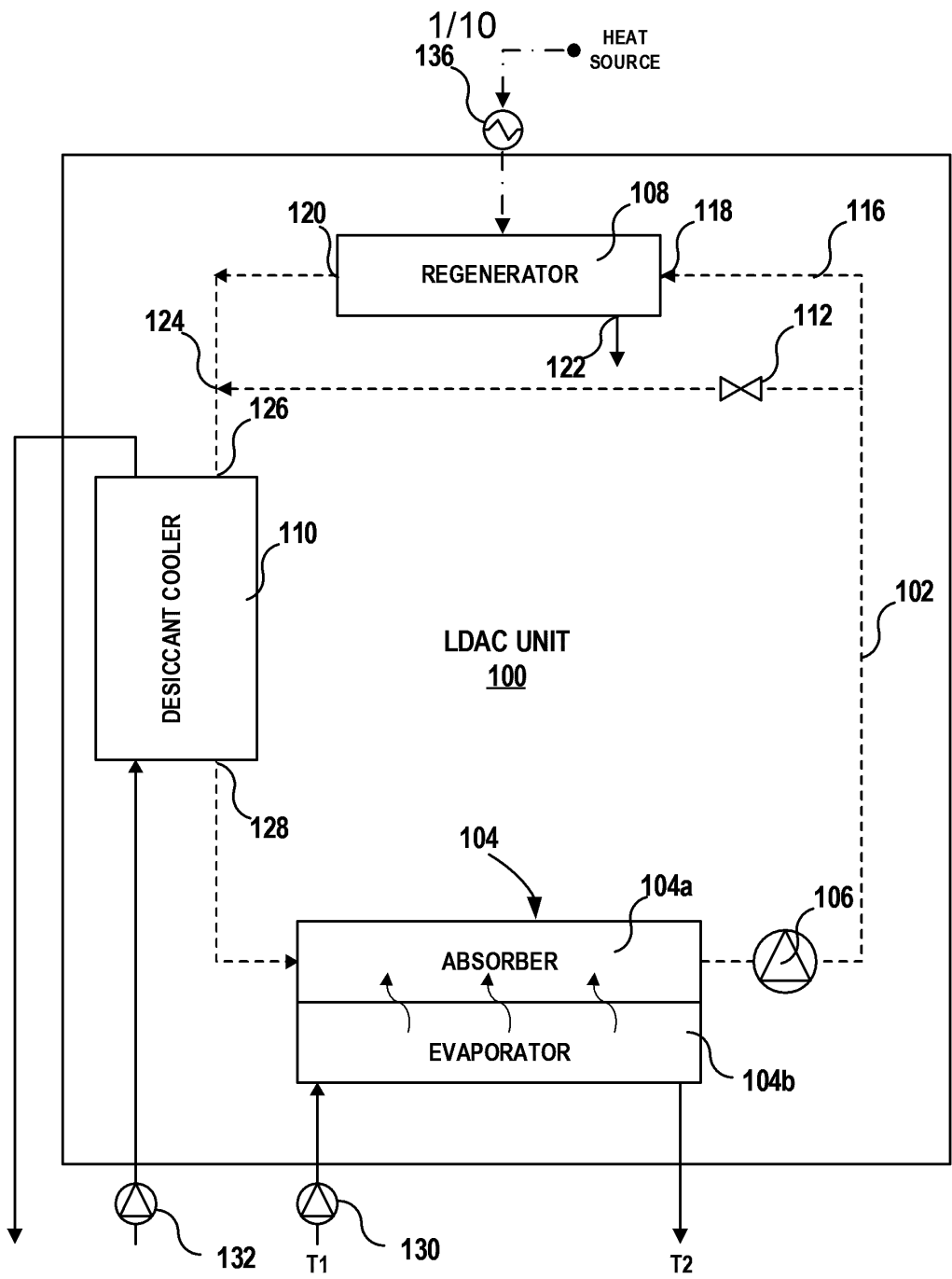


FIG. 1

INCORPORATED BY REFERENCE (RULE 20.6)

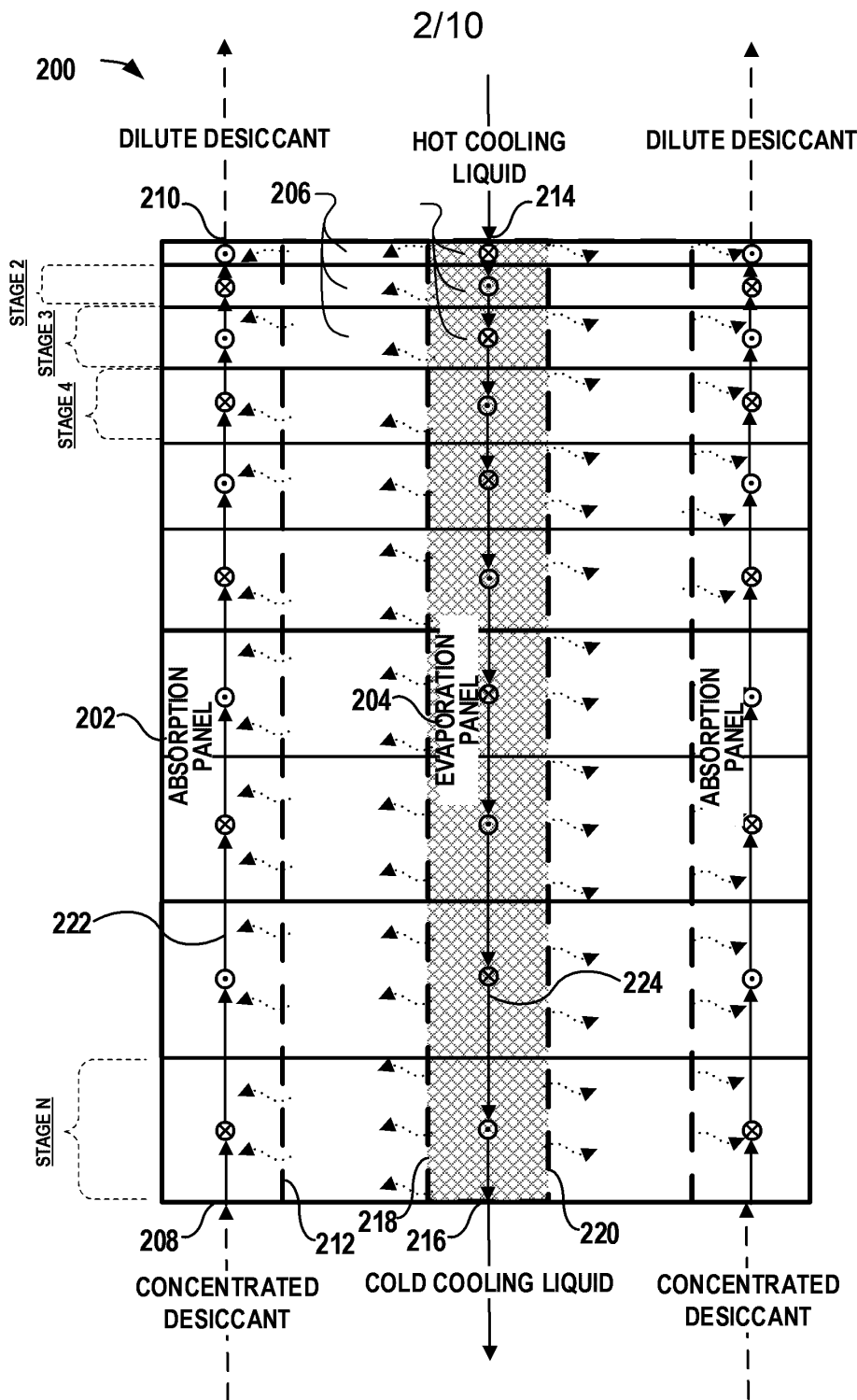


FIG. 2

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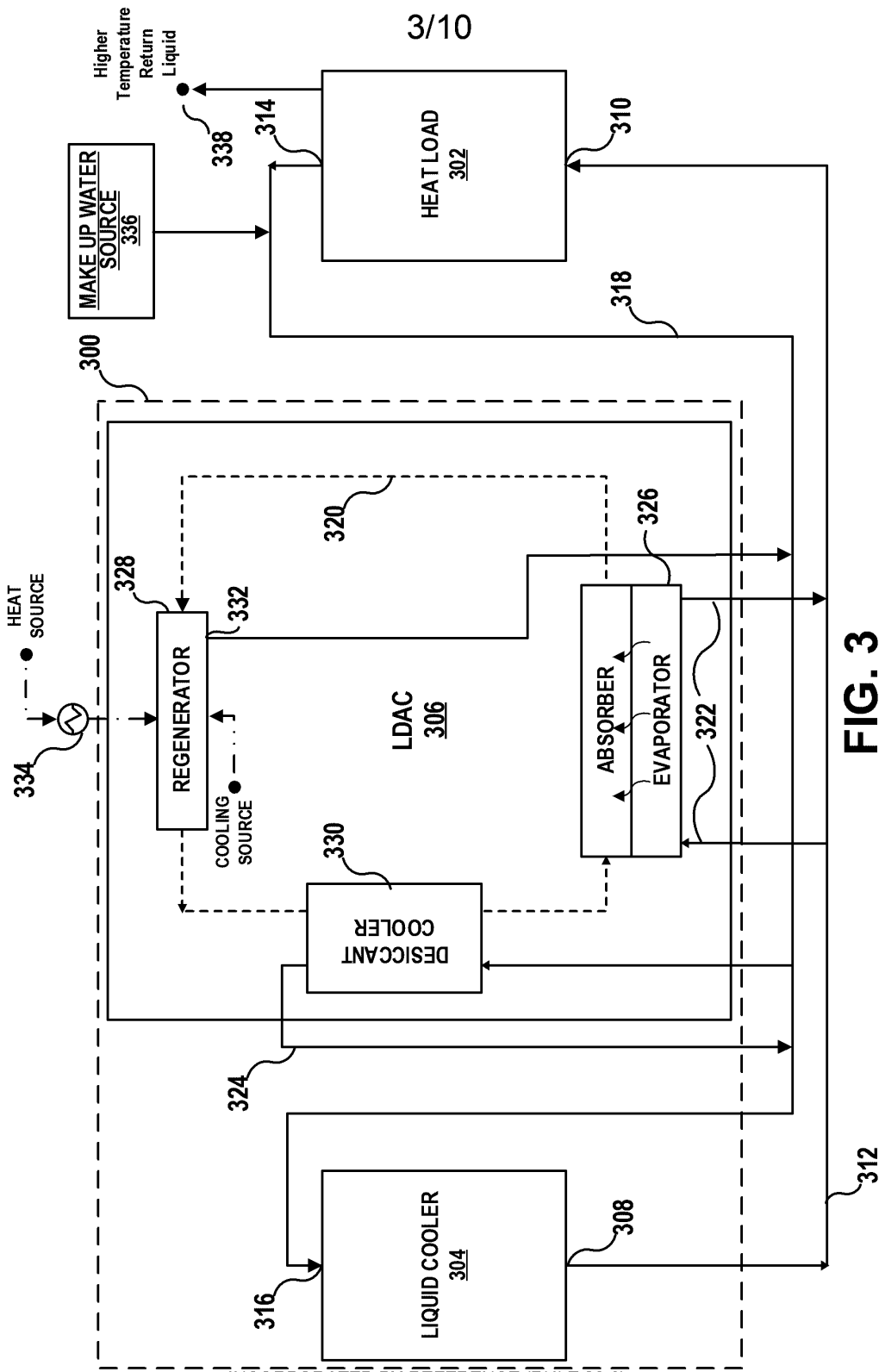


FIG. 3

INCORPORATED BY REFERENCE (RULE 20.6)

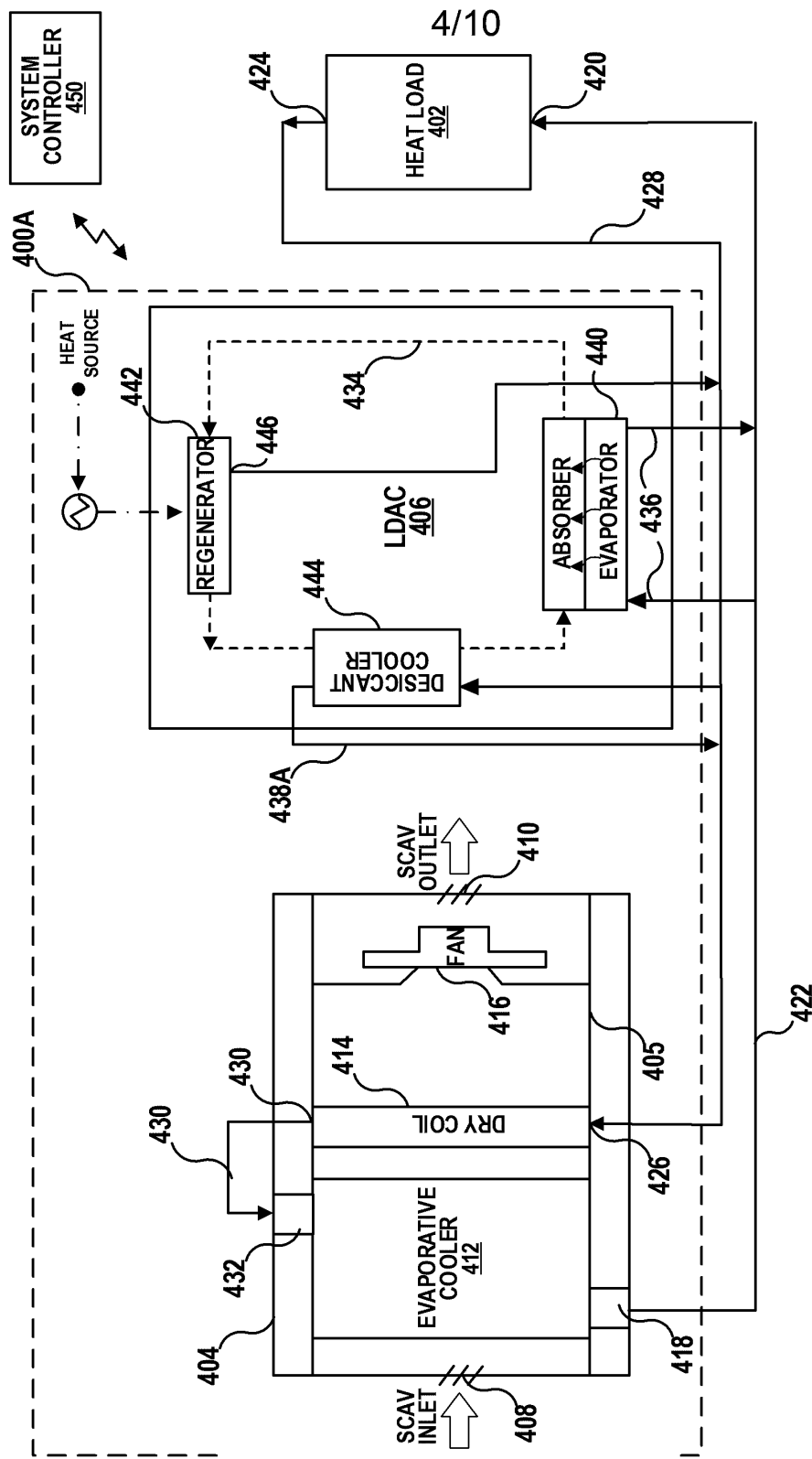


FIG. 4A

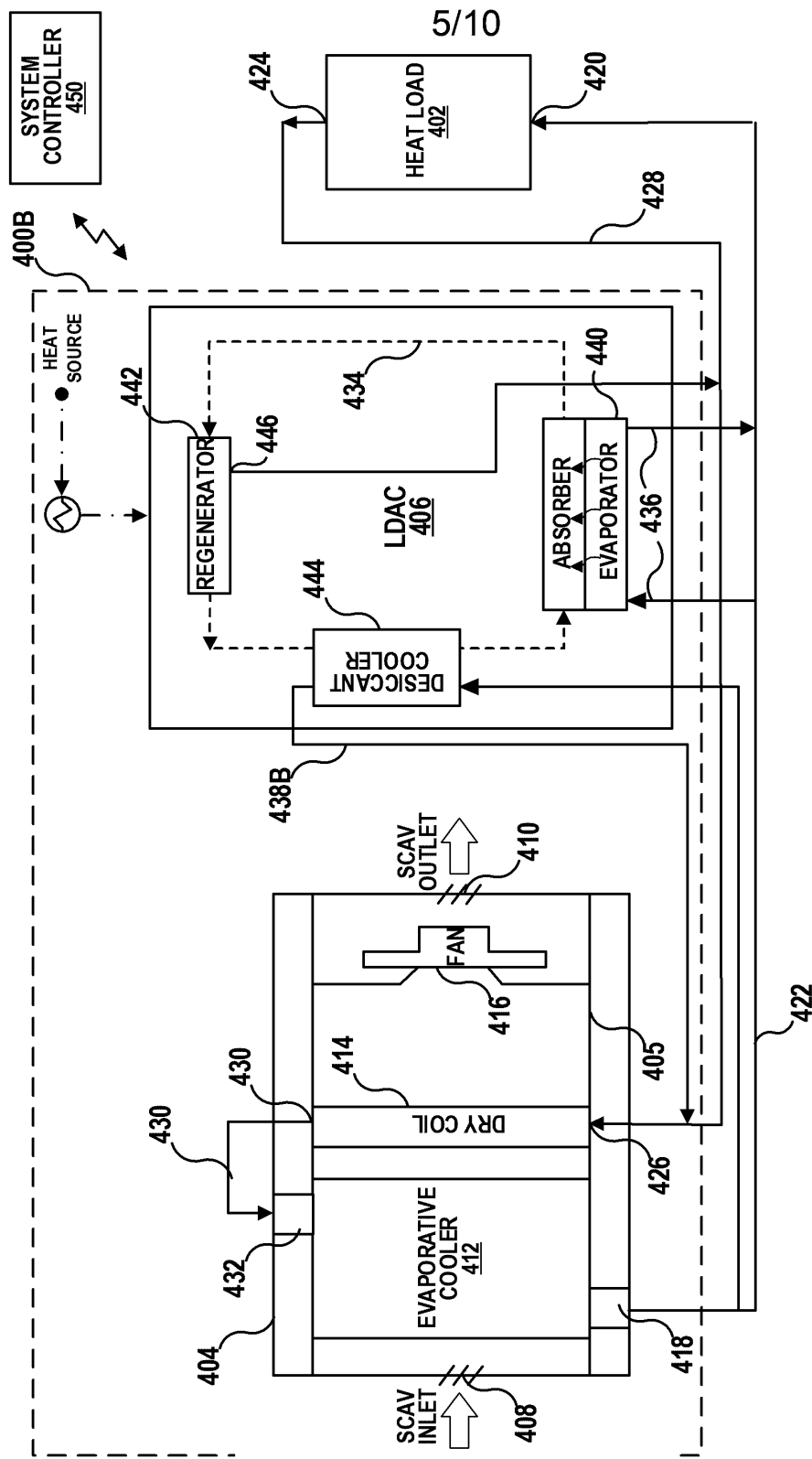


FIG. 4B

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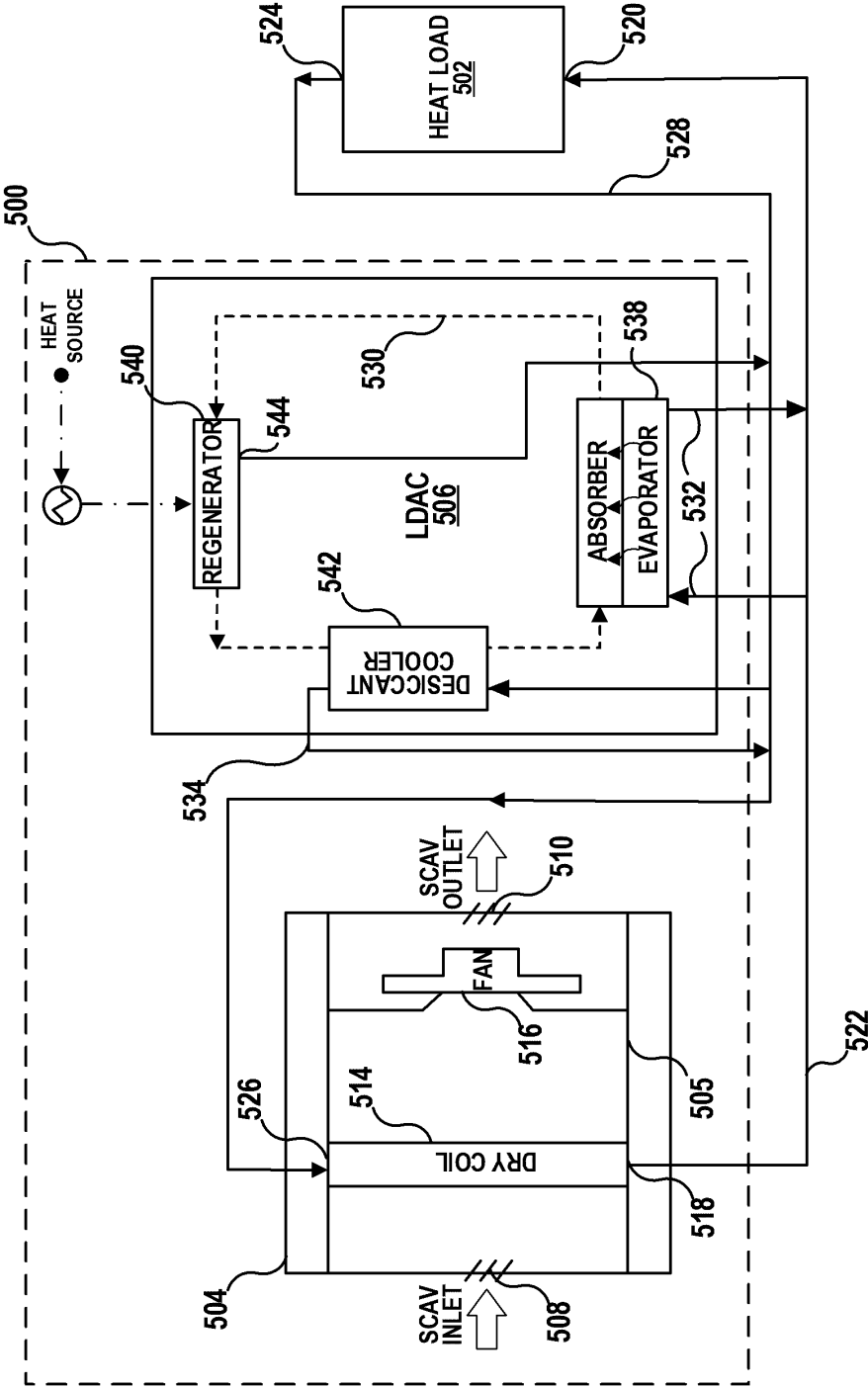


FIG. 5

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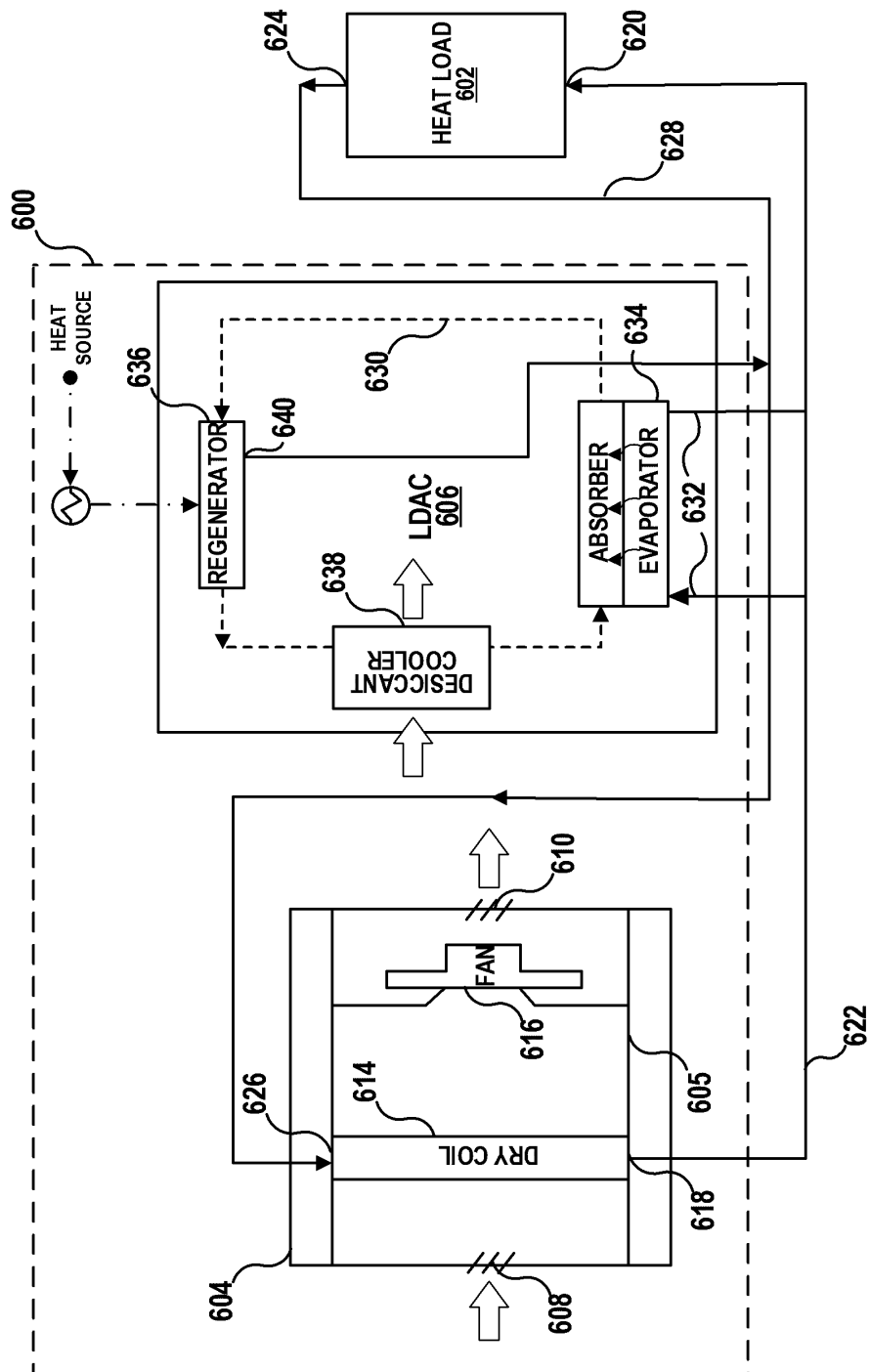


FIG. 6

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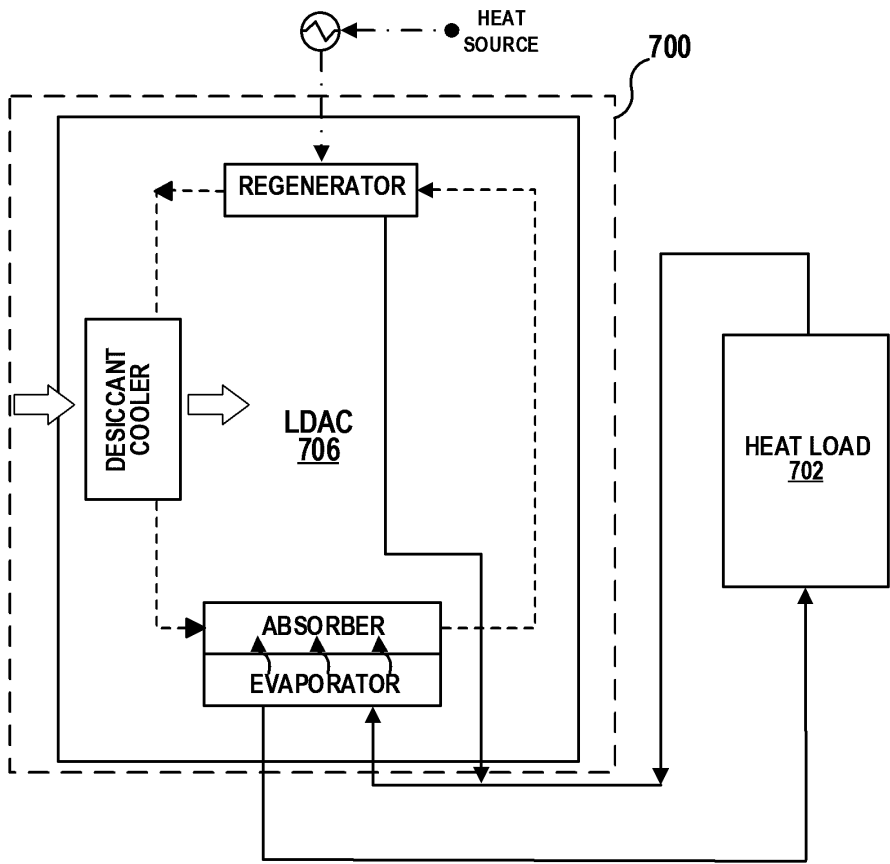
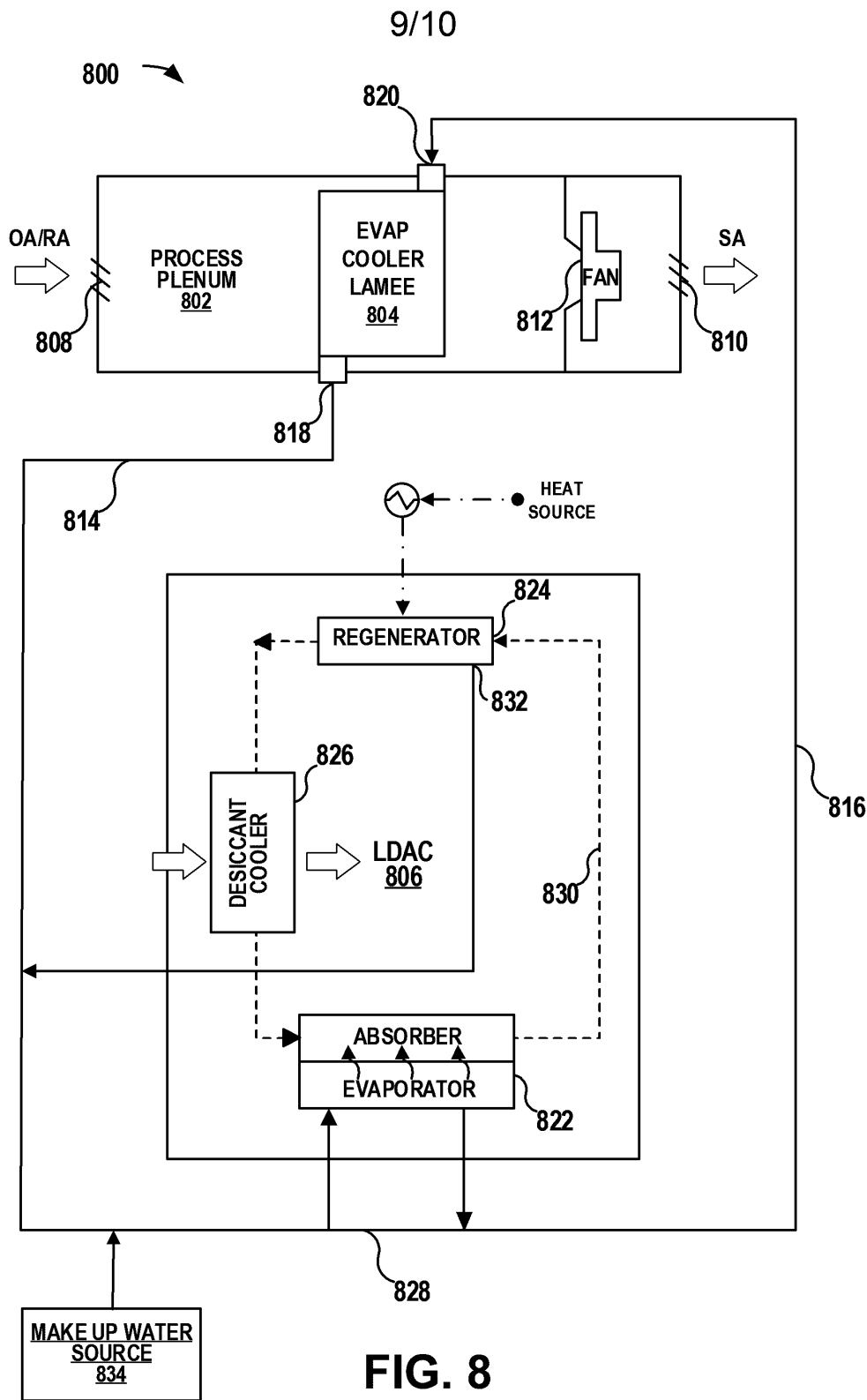


FIG. 7

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INCORPORATED BY REFERENCE (RULE 20.6)

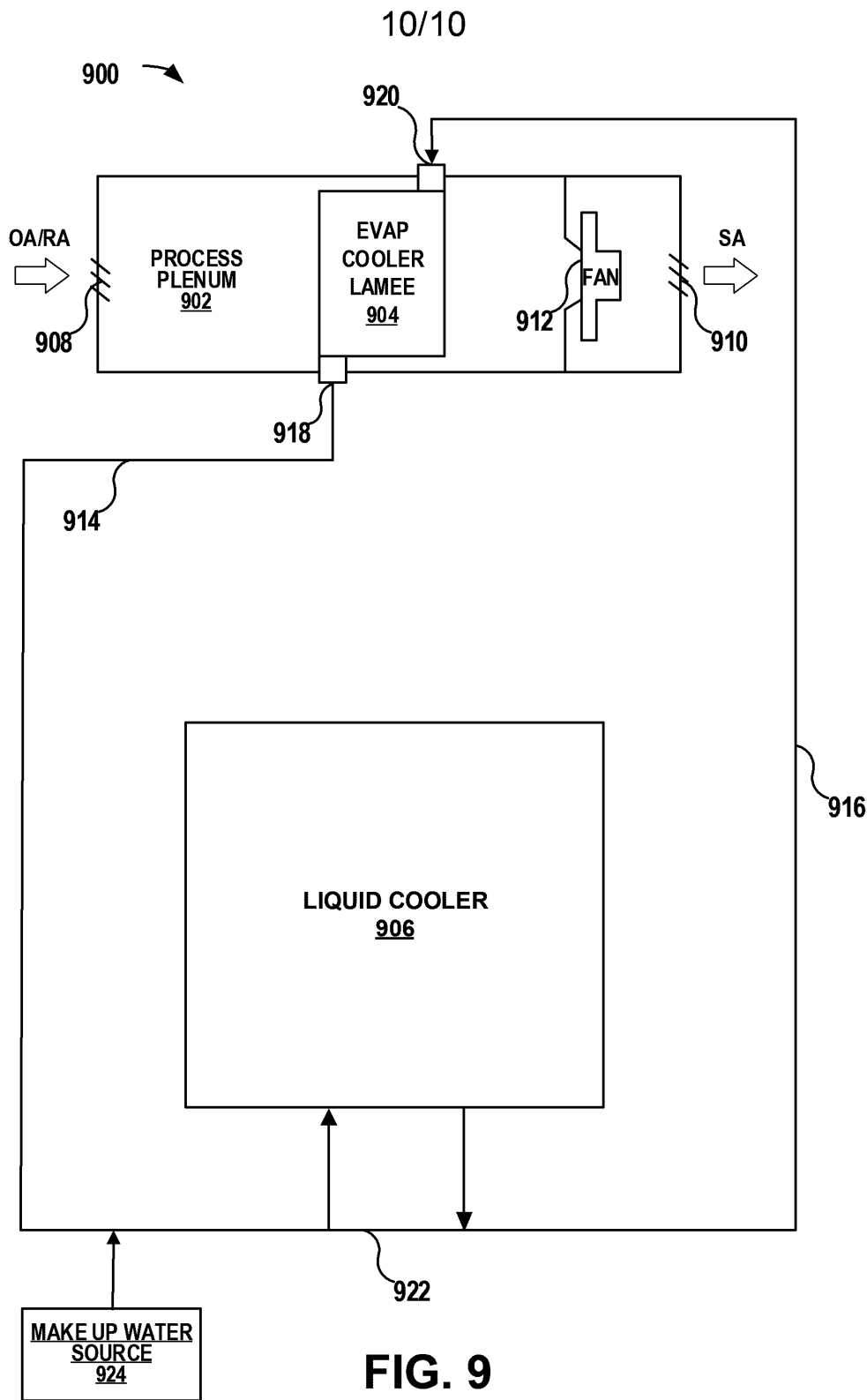


FIG. 9

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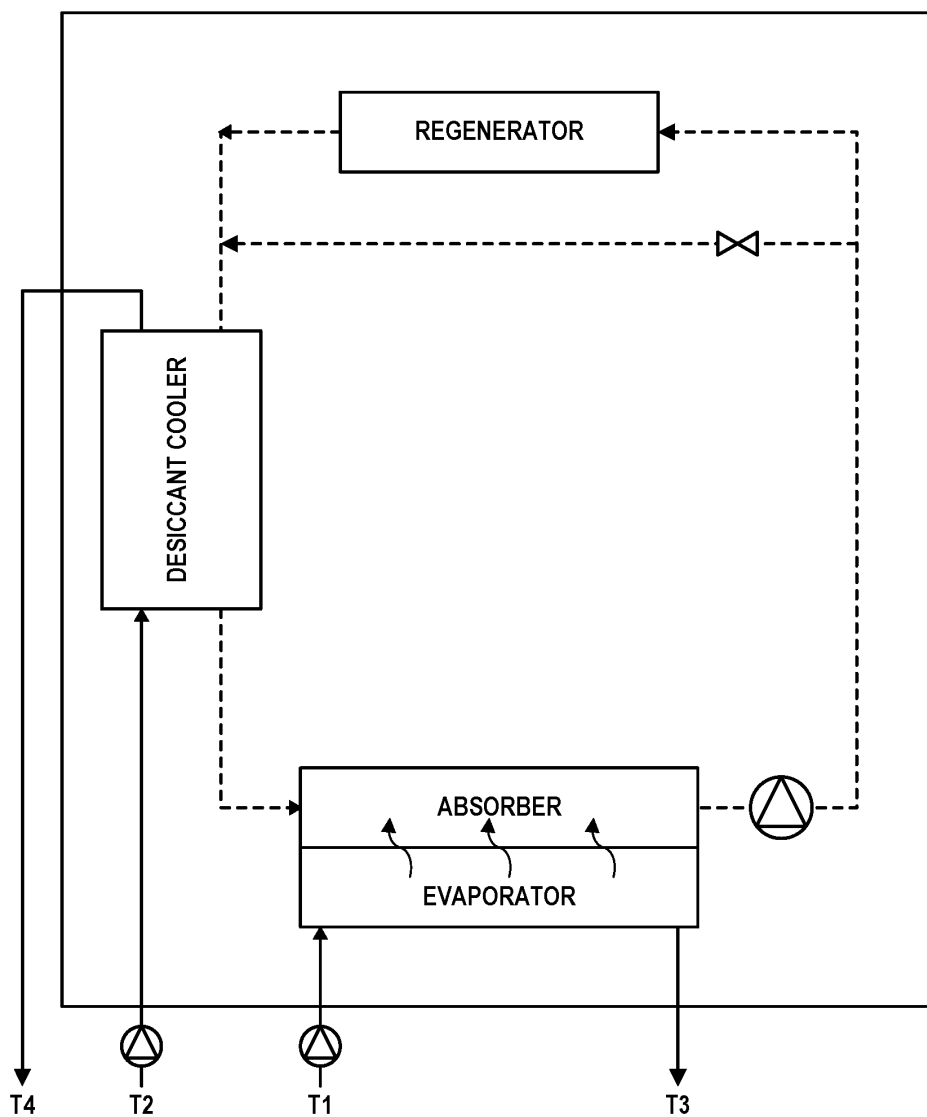
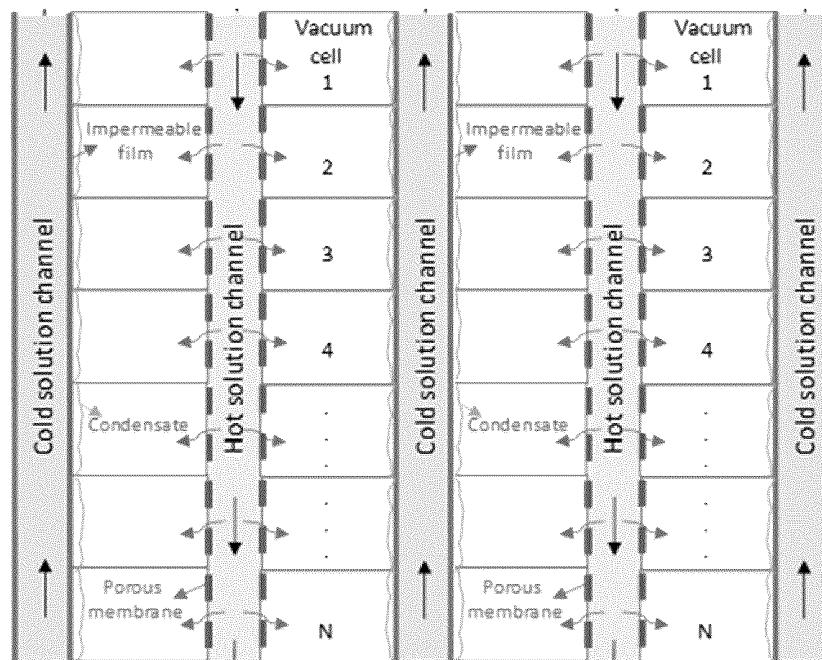


FIG. 1

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We are going to adapt this figure as a somewhat detailed disclosure about the absorber/evaporator. This will be the novelty in the liquid desiccant absorption refrigeration system → regardless of its use in larger system like the Nortek SPLC system. The idea is that there are a series of desiccant liquid panels bounded by membrane and a series of cooling liquid panels also bounded by membrane (not solid/non permeable barrier as in regenerator). The series of desiccant and cooling liquid panels are separated by air gap or vacuum air gaps. The absorber/evaporator uses concentrated desiccant to evaporatively cool the cooling liquid by transferring water vapor from the cooling liquid to the desiccant. This is not about temperatures as in regenerator although they temp is a factor this is about mass transfer and so the two liquid streams are concentrated desiccant in and dilute desiccant out (picks up water from cooling liquid) and cooling liquid at temp entry in and cooling liquid at temp exit out where temp exit is lower than temp entry.

FIG. 2

ERRONEOUSLY FILED (RULE 20.5bis)

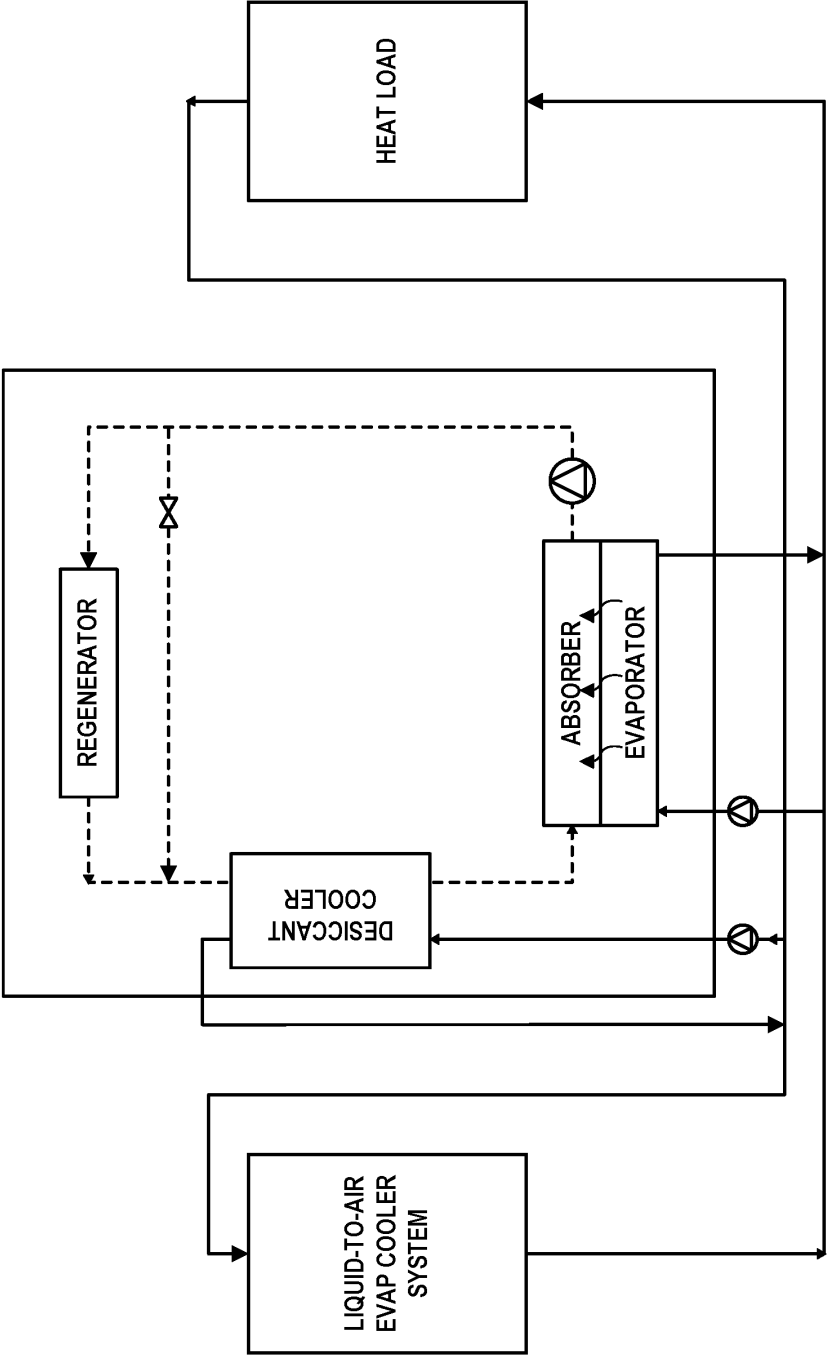


FIG. 3

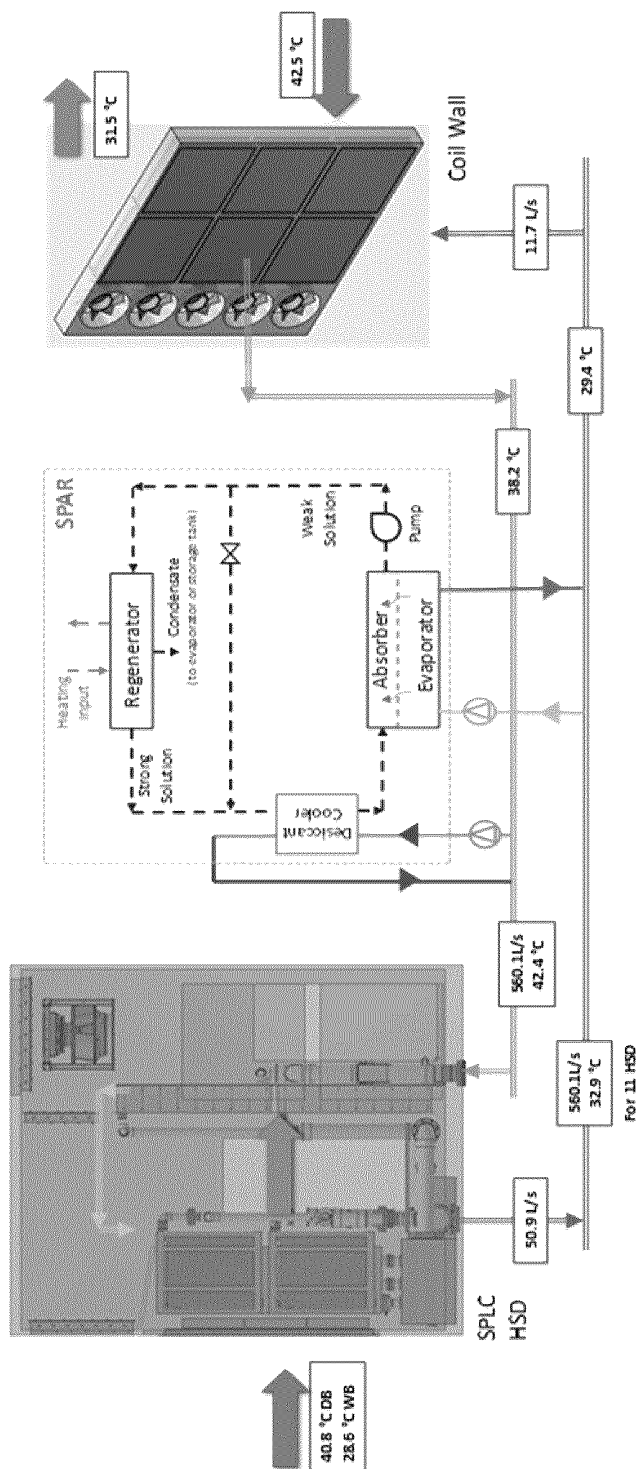


FIG. 4

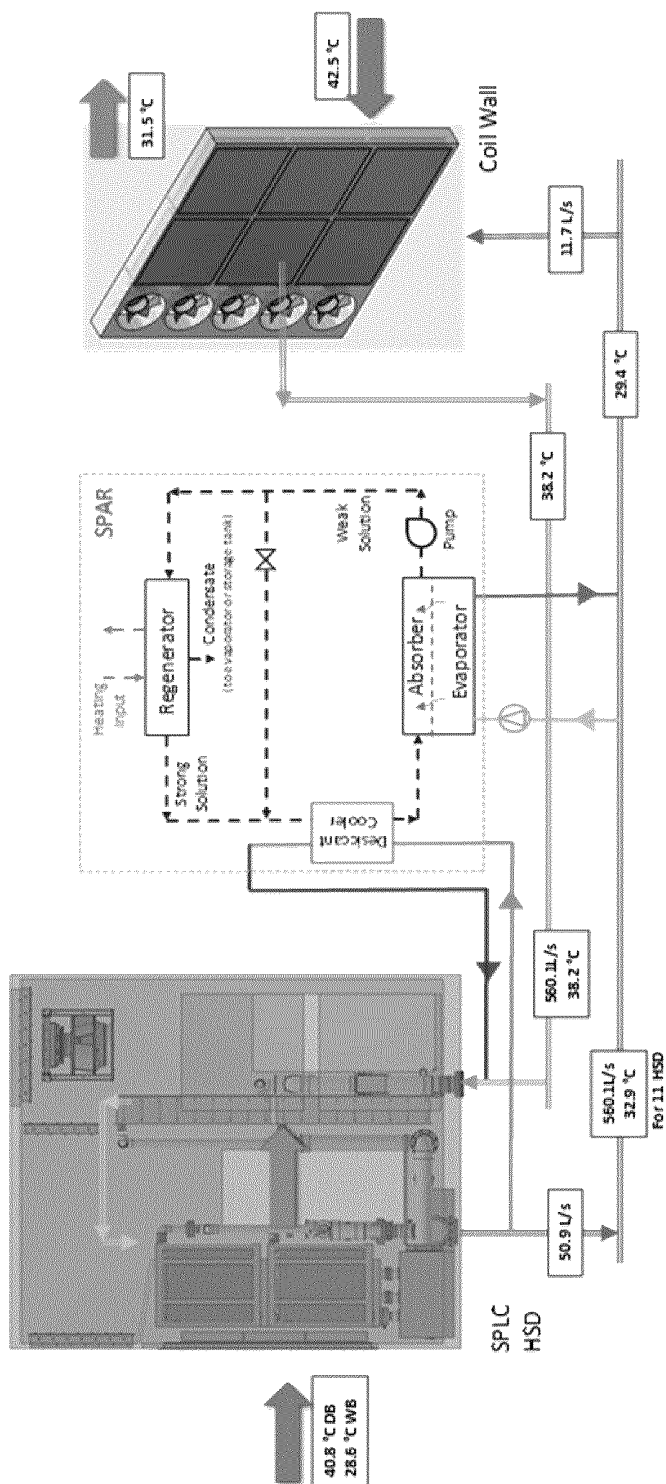


FIG. 5

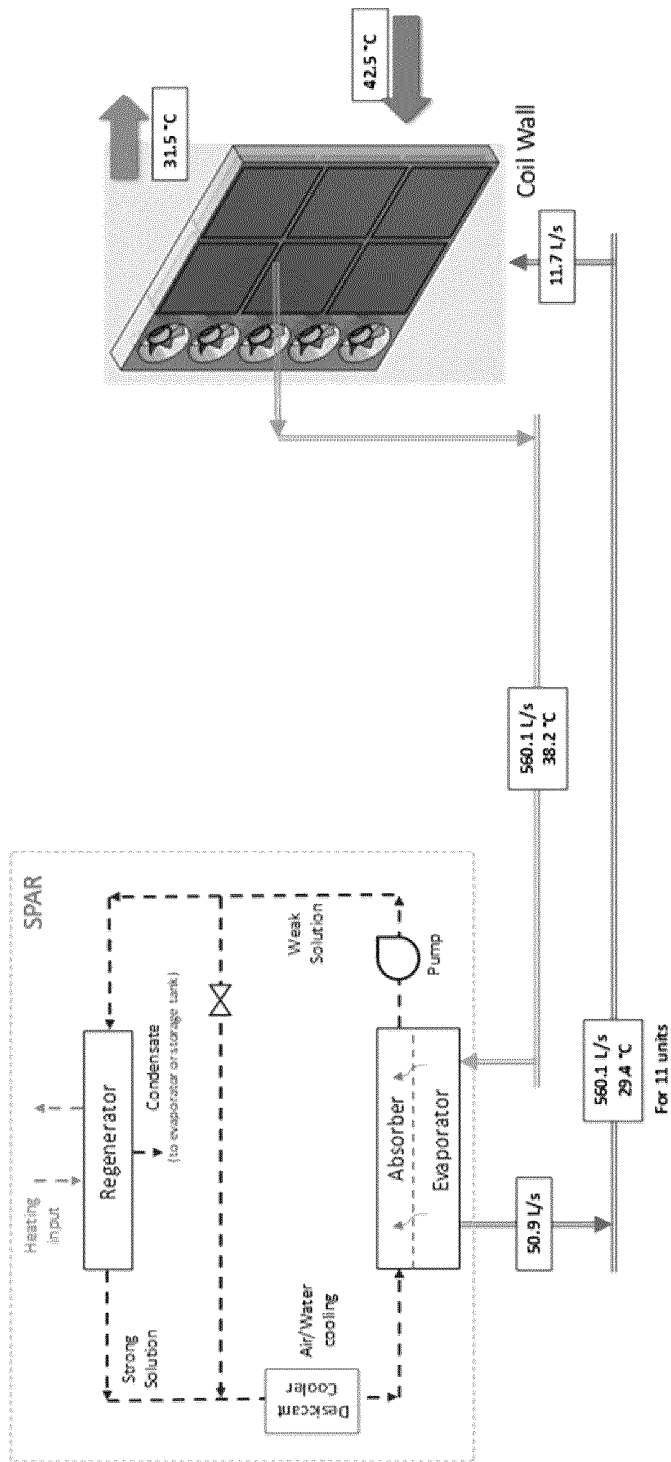


FIG. 6

This fig will have to be redone, which you can draw using similar style as the drawings I have created for FIGS. 1 and 3. In this system (or mode of operation), the SPAR unit/system is adding cooling to the liquid initially cooled by a dry coil which is a liquid-to-air heat (not moisture/latent energy) exchanger that, in this case, cools the liquid from the heat load (data center cooling unit like coil wall or liquid cooling system in data center) using air. The liquid flow lines will need to be updated to show cooled liquid out of dry coil feeding into absorber/evaporator of SPAR, further cooled liquid flowing out of absorber/evaporator of SPAR to heat load, which in this case is a coil wall (note "coil wall" is just a Nortek term and this is just another liquid to air heat exchanger in a special package with array of fans). The hot liquid comes out of coil wall back to dry coil (we will have to clarify with inventors if the hot liquid out of coil wall can be used to cool desiccant in SPAR Desiccant Cooler like in example of FIG. 4 or if the Desiccant cooler in this examples has to use air like in example of FIG. 6).

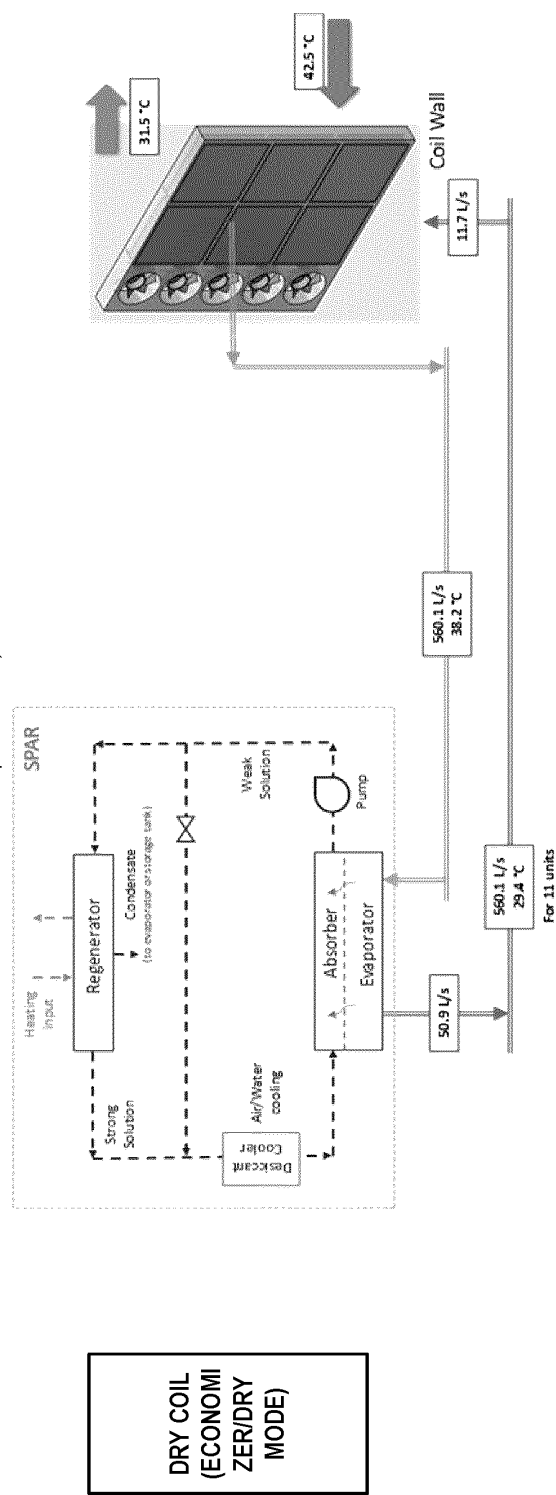


FIG. 7

This should be redrawn in Visio and the SPAR unit detail should be show in similar fashion as other examples. In this case, the Desiccant Cooler of the SPAR will use air to cool desiccant.

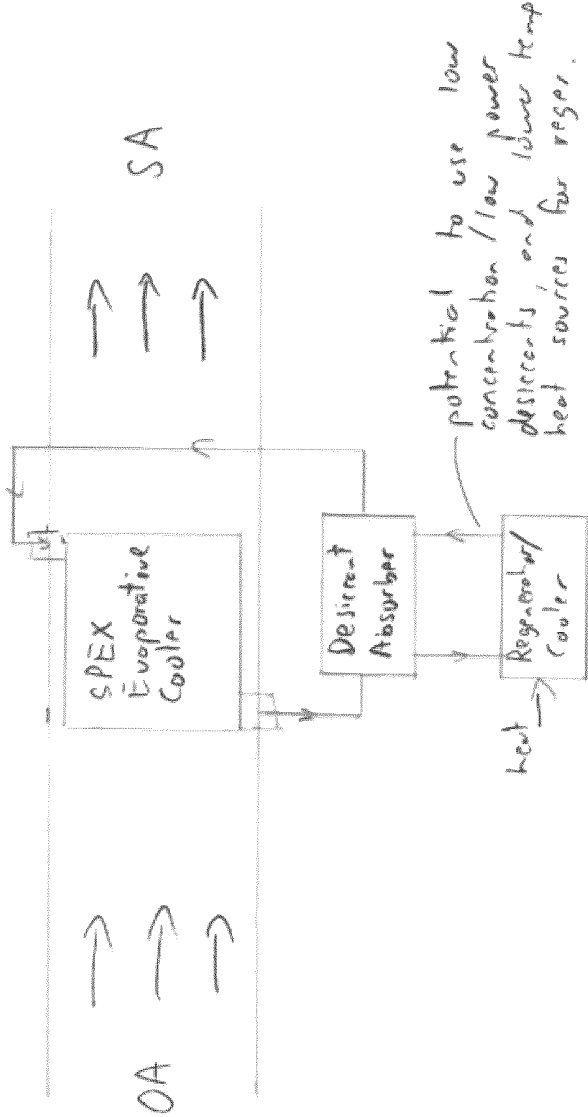


FIG. 8

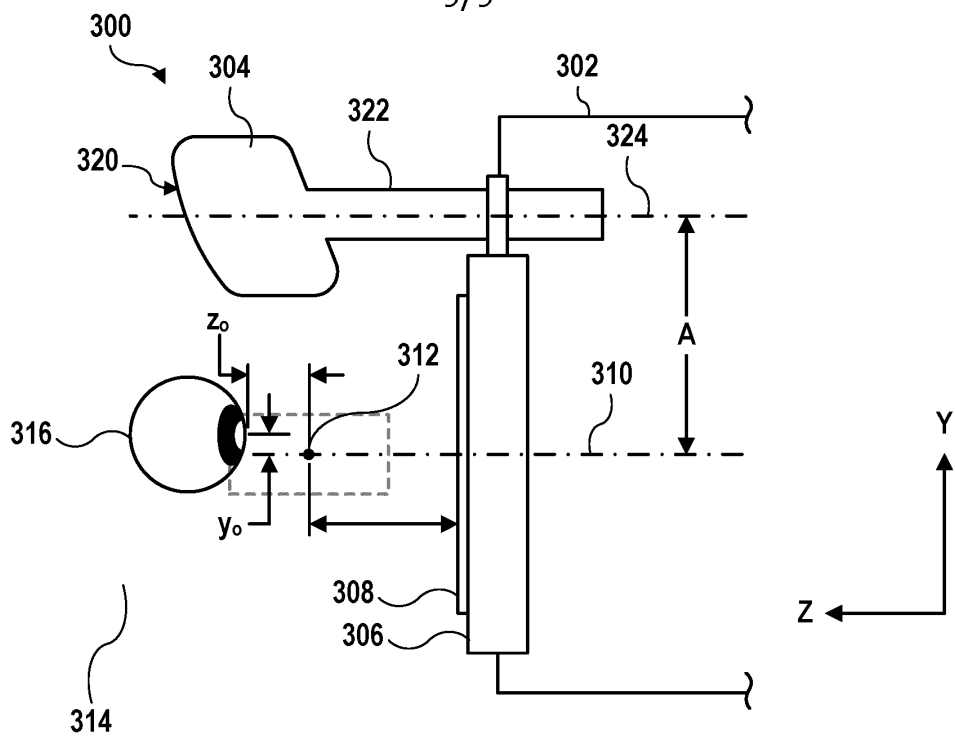


FIG. 3A

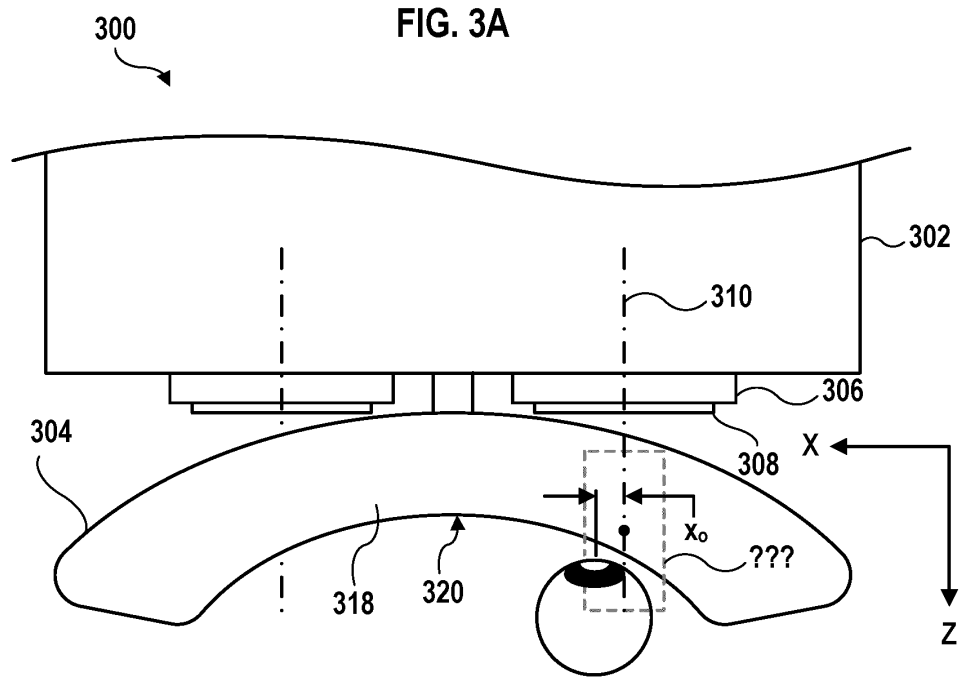


FIG. 3B