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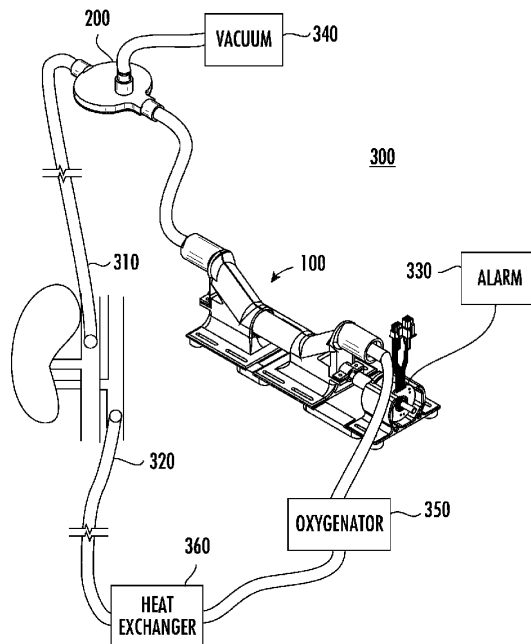
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(54) Title: BI-DIRECTIONAL BLOOD PUMPS AND ONE-WAY FILTER TRAPS AND SYSTEMS INCLUDING THE SAME

FIG. 8



(57) Abstract: A blood pump system switchable between a first flow direction and a second flow direction includes a filter trap and a blood pump. The blood pump has an impeller configured to rotate at a predetermined speed in a first rotary direction to generate fluid flow in the first flow direction at a first pressure and a first flowrate. The impeller is configured to rotate in a second rotary direction at the predetermined pump speed to generate fluid flow in the second flow direction at a second pressure and a second flowrate. The first flowrate and the first pressure are different from the second flowrate and the second pressure with the impeller operating at the predetermined pump speed. The filter trap includes a one-way valve configured to remain closed with fluid flow the first direction and to open with fluid flow in the second direction.

[Continued on next page]

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