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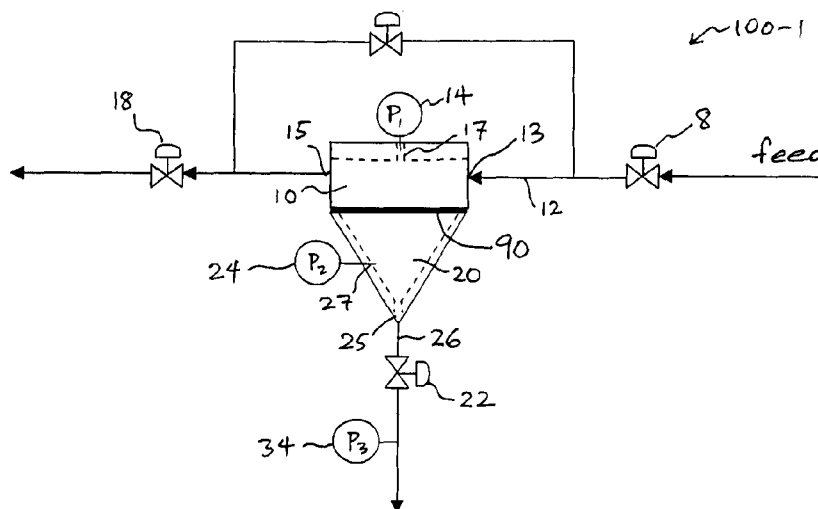
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[Continued on next page]

(54) Title: A MEMBRANE SENSOR AND METHOD OF DETECTING FOULING IN A FLUID

FIG. 1



(57) **Abstract:** A membrane sensor for detecting fouling, the membrane sensor comprising a first chamber having an inlet and an outlet; a second chamber having an outlet; only one membrane, the membrane being disposed between the first chamber and the second chamber for allowing fluid to permeate the membrane from the first chamber to the second chamber; a first pressure transducer configured for obtaining a first pressure upstream of the membrane; a second pressure transducer configured for obtaining a second pressure downstream of the membrane; and a resistance regulator configured for adjusting the second pressure.



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