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(71) Applicant: **BECTON, DICKINSON AND COMPANY**
[US/US]; 1 Becton Drive, Franklin Lakes, New Jersey
07417 (US).

(72) Inventors: **OFEK, Gidon**; 2548 E. Heritage Way, Mill-
creek, Utah 84109 (US). **QUACH, Christopher**; 1857
W. Sir Charles Dr., Salt Lake City, Utah 84116 (US).
FREASIER, James; 2196 East Vimont Avenue, Salt Lake
City, Utah 84109 (US).

(74) Agent: **METCALF, Craig**; Kirton McConkie, 36 S. State
Street, Suite 1900, Salt Lake City, Utah 84111 (US).

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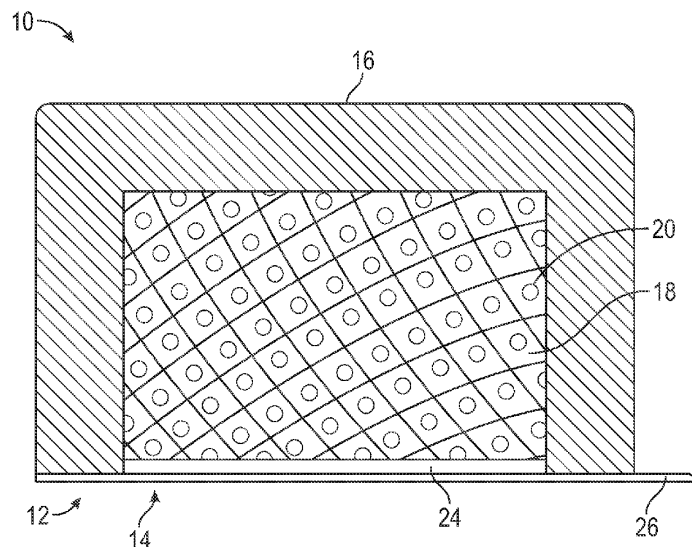


FIG. 1A

(57) Abstract: A system (56) for infusing a gas into a vascular access device including a catheter interface (60), which includes a distal end (62), a proximal end (64), and a lumen (66) extending between the distal end and the proximal end. The system also includes a connector (68) disposed on an outer surface (70) of the catheter interface. The connector is configured to be coupled to a reservoir (10). The reservoir includes a housing (12), which includes an opening (14) and a gas impermeable wall (16). The opening is configured to be coupled to the connector of the catheter interface. The reservoir also includes a molecular precursor (18) to a gaseous agent (20) that is suspended in a hydrogel (22) and disposed within the housing. The gaseous agent may be antimicrobial, antithrombogenic, or both antimicrobial and antithrombogenic.

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