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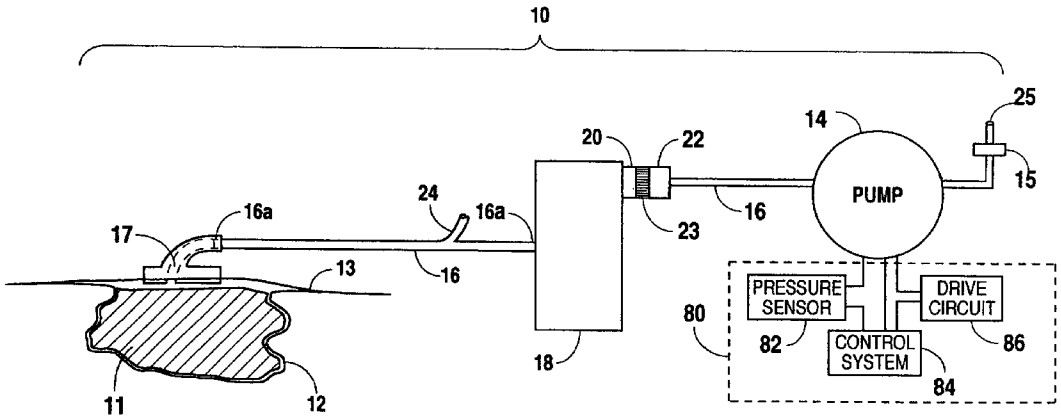
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(54) Title: VACUUM ASSISTED TISSUE TREATMENT SYSTEM



(57) Abstract: A system (10) for stimulating the healing of tissue comprises a porous pad (11) positioned within a wound cavity (12), and an airtight dressing (13) secured over the pad, so as to provide an airtight seal to the wound cavity (12). A proximal end (16a) of a conduit (16) is connectable to the dressing (13). A distal end (16b) of the conduit (16) is connectable to a negative pressure source (14), which may be an electric pump housed within a portable housing (32), or wall suction. A canister (18) is positioned along the conduit (16) to retain exudates suctioned from the wound site (12) during the application of negative pressure. A first hydrophobic filter (20) is positioned at an opening of the canister (18) to detect a canister full condition. A second hydrophobic filter (22) is positioned between the first filter (20) and the negative pressure source (14) to prevent contamination of the non-disposable portion of the system by exudates being drawn from the wound. An odor filter (23) is positioned between the first and second hydrophobic filters (20, 22) to aid in the reduction of malodorous vapors. A securing means (34) is supplied to allow the portable housing (32) to be secured to a stationary object, such as a bed rail or intravenous fluid support pole. A means for automated oscillation of pressure over time is provided to further enhance and stimulate the healing of an open wound. A means for varying pump drive frequency and a means for managing a portable power supply are provided to increase battery life and improve patient mobility.

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