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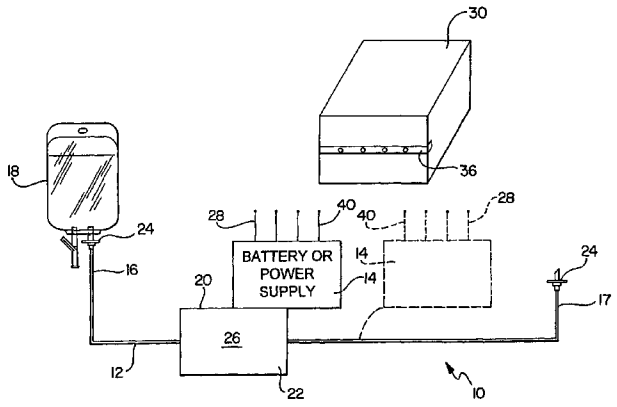
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(54) Title: MEDICAL INFUSION SYSTEM WITH INTEGRATED POWER SUPPLY AND PUMP THEREFOR



(57) Abstract: A medical infusion system including a lineset used for delivering fluid, such as a liquid medicinal substance, to a patient from a source such as an IV bag (18) through operation of an electric component (30) is disclosed. The preferred infusion system (10) includes disposable tubing (12) having first and second ends (16,17) attachable to at least a first and second medical component, and a power supply (14), such as a fuel cell, battery, battery pack, power paper, or a combination of the same, attached to the tubing (12) wherein the power supply (14) is configured to be activated to provide electric power to the electric component (30). Such configuration may include the use of an activating member, such as a fluid pump. The preferred power supply (14) is a fuel cell (32) having a reactant source and a barrier (54) separating the reactant source from a reaction chamber (46). The barrier (54) is preferably selected from the group consisting of a frangible membrane, a tear seal, and any combination of the two. Additionally, the fuel cell (or the power supply, generally) may be integral to the tubing (12) of the lineset or may be configured to fit within the fluid pump (30). This allows the activating member to be made integral to the fluid pump (30) such that the insertion of the fuel cell (32) into the pump (30) will defeat the barrier (54) and activate the fuel cell (32) to create power.

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