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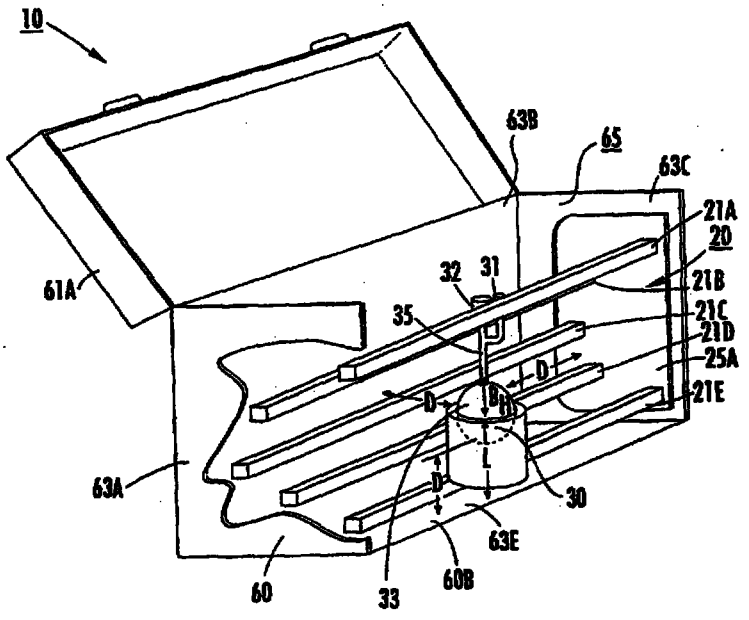
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(54) Title: HYPERPOLARIZED GAS TRANSPORT DEVICES AND ASSOCIATED TRANSPORT METHODS USING PERMANENT MAGNETS



(57) Abstract: A transport unit includes a plurality of permanent magnets arranged to provide a magnetic holding field for protecting hyperpolarized gas during storage and/or transport. The permanent magnets are configured in a relatively light weight manner to project a substantially cylindrical magnetic holding field or spherical holding field in space. The magnet arrangements can include primary magnets and field shaping secondary magnets which act to enlarge the region of homogeneity. The permanent magnet arrangement can also be provided with a cylindrical shaped flex sheet magnetically activated to provide the magnetic holding field. The permanent magnet arrangements do not require disassembly to insert or remove one or more containers of hyperpolarized gas in or out of the transport unit.

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