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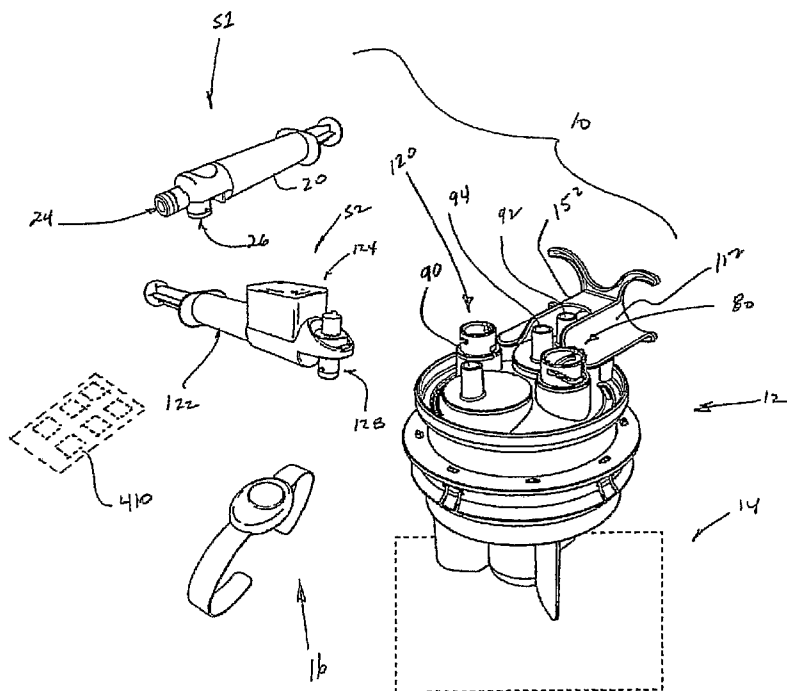
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(54) Title: MEDICAL MATERIAL HANDLING SYSTEMS



(57) Abstract: Disclosed herein is a system for the collection, treatment and delivery of an autologous blood sample, comprising a first syringe having a first body portion. A first sample transfer portion has a first syringe inlet for drawing an untreated blood sample from a patient and a first syringe outlet for dispensing the untreated blood sample. A blood sample treatment chamber having a chamber inlet, the first syringe outlet being operable to establish a dedicated first fluid coupling with the chamber inlet to dispense the untreated blood sample to the blood sample treatment chamber. The blood sample treatment chamber having a chamber outlet for dispensing a treated blood sample following treatment. The second syringe has a second body portion and a second sample transfer portion, the second sample transfer portion having a passage with a first access location which is operable to form a dedicated second fluid coupling with

the chamber outlet. The second body portion has a second syringe outlet, the passage having a second access location for fluid communication with the second syringe outlet, releasable lock means for forming a locked third fluid coupling between the second access location and the second syringe outlet. The lock means is operable in response to a release signal to release the third fluid coupling, the second syringe outlet being operable when released from the third fluid coupling to form a fourth fluid coupling with a blood sample delivery unit.

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