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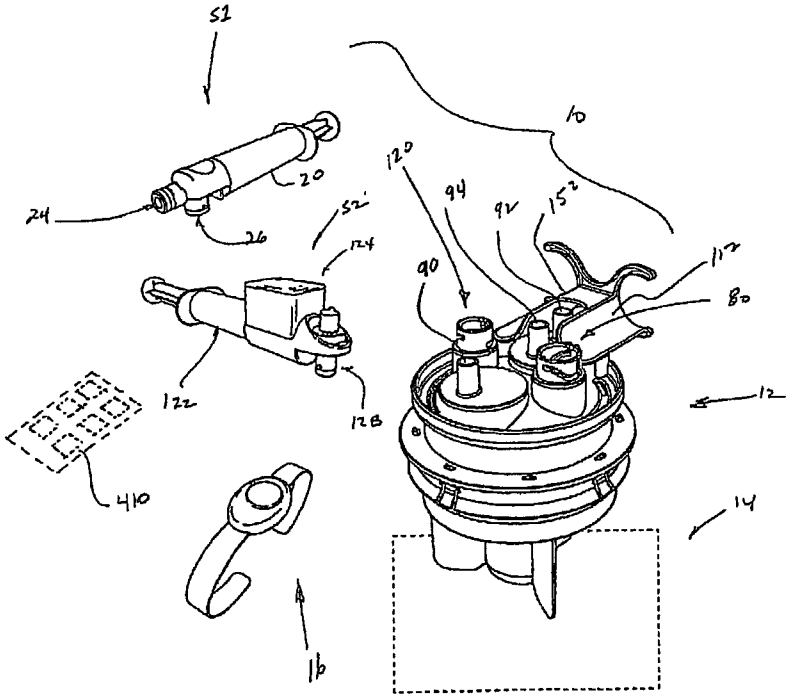
(54) Title: MEDICAL MATERIAL HANDLING SYSTEMS



(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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Declarations under Rule 4.17:

— *as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii)) for the following designations AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW, ARIPO patent (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG)*

— *as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii)) for all designations*

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