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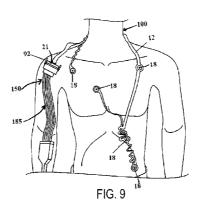
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Declarations under Rule 4.17:

- as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(U))
- as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(Hi))

[Continued on next page]

(54) Title: RADIOLUCENT ELECTRODE OR SENSOR ASSEMBLY



(57) **Abstract:** A lightweight, disposable and substantially radiolucent electrode or sensor assembly for that universally connects to separate, non-integrated electrodes or sensors for the monitoring of the physiological parameters of a live subject wherein the electrode assembly is comprised of one or more radiolucent electrical connectors for connecting the electrode assembly to the sensors. The present invention also discloses a method of positioning the electrode assembly on a patient whose physiological signs are being monitored such that access to the patient's chest is substantially unimpeded so as not to obstruct the electromagnetic imaging of the patient's chest, the application of defibrillation paddles or surgical procedures that require access to the chest area.



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Ϋ́			2-4 24-27
Y	US 5 645 063 A (Straka) 8 July 1997 (08 07 1997) col 7 in 49-54		2 27
Υ	US 5 983 429 A (Stacy et al) 16 November 1999 (16 11 1999) col 7 in 40-42		3 4 25-27
Y	US 5 061 875 A (Tomasetti et al) 29 October 1991 (29 10 1991) Col 2 In 61-65		4 24 27
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