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61/113,325 11 November 2008 (11.11.2008) US(71) Applicant (for all designated States except US): **PRAX-AIR TECHNOLOGY, INC.** [US/US]; 39 Old Ridgebury Road, Danbury, CT 06810 (US).

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## Declarations under Rule 4.17:

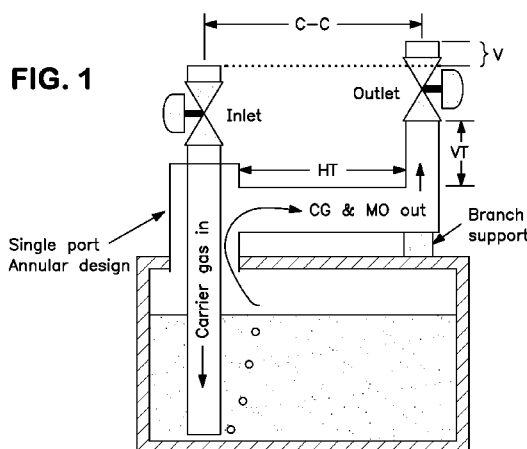
— as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))

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

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— with international search report (Art. 21(3))

(54) Title: REAGENT DISPENSING APPARATUSES AND DELIVERY METHODS



(57) Abstract: This invention relates to a vapor or liquid phase reagent dispensing apparatus that may be used for dispensing vapor or liquid phase reagents such as precursors for deposition of materials in the manufacture of semiconductor materials and devices. The vapor phase reagent dispensing apparatus has a single port capable of receiving a carrier gas and dispensing a vapor phase reagent. The liquid phase reagent dispensing apparatus has a single port capable of receiving an inert gas and dispensing a liquid phase reagent.