



(12) **CORRECTED EUROPEAN PATENT APPLICATION**

Note: Bibliography reflects the latest situation

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Remarks:

This application was filed on 25 - 10 - 2002 as a
 divisional application to the application mentioned
 under INID code 62.

(54) **Apparatus for determining instantaneous elastic recoil pressure during ventilatory support**

(57) An apparatus for determining an instantaneous
 elastic recoil pressure during the provision of respiratory
 assistance, comprises:

an air supply means controllable to supply breath-
 able air to a subject's airway continually at a selecta-
 ble pressure elevated above atmospheric pressure
 as a function of an instantaneous elastic pressure;
 a flow sensor means to generate a flow signal rep-
 resentative of respiratory airflow; and
 a processor means to process a flow signal from
 said flow sensor and to control said air supply
 means, wherein said processor is programmed to:

receive as input an elastance value for
 a subject;
 calculate an index value representing
 an extent to which any leak is suddenly
 changing using sampled flow values
 from said flow signal;

calculating an inspired volume of air-
 flow as a function of said measure of
 respiratory airflow and said index val-
 ue; and
 calculating said instantaneous elastic
 recoil pressure as a function of said in-
 spired volume and said elastance val-
 ue.

