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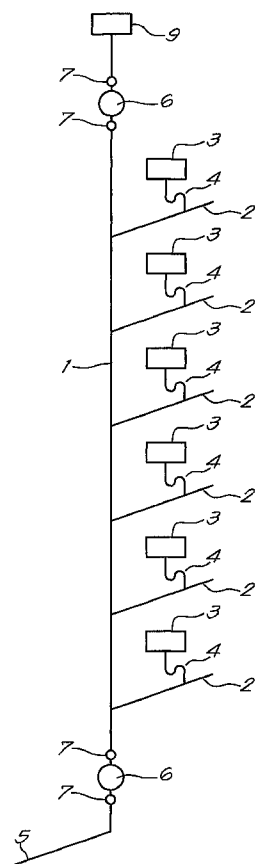
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(54) Title: METHOD AND EQUIPMENT FOR DETECTING SEALING DEFICIENCIES IN DRAINAGE AND VENT SYSTEMS FOR BUILDINGS.



(57) Abstract: The method comprises the following steps - introducing a low amplitude air pressure transient into the drainage and vent system of a building in order to propagate a pressure wave from a fitting (6) into a stack (1) and the network of the drainage system; - recording the passage of said transient by means of an air pressure transducer (7) located near the fitting (6) or introduction area of the transient; - recording the successive pressure reflections of the transient from each drain pipe (2) of the network of the drainage system; - establishing a pressure versus time signature recorded by the pressure transducer (7) and sending those signals to a central data acquisition system; - the pressure transient is propagated throughout the network at an acoustic velocity and is reflected by each and every pipe termination of the network so as to establish a characteristic reflection coefficient for each pipe termination; - said characteristic reflection coefficient is compared with testing results performed initially in a perfect network with no dry trap defects or leakage's and in case a different signature of the pressure trace is recorded, the point of diversion will be determined at the time at which the reflection from the altered pipe end termination arrives at the air pressure transducer so that the comparison of this defect trace with the stored defect free signature yields that time and, as the wave speed is known, the determination of the distance from the pressure transducer to the defective trap or seal.



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