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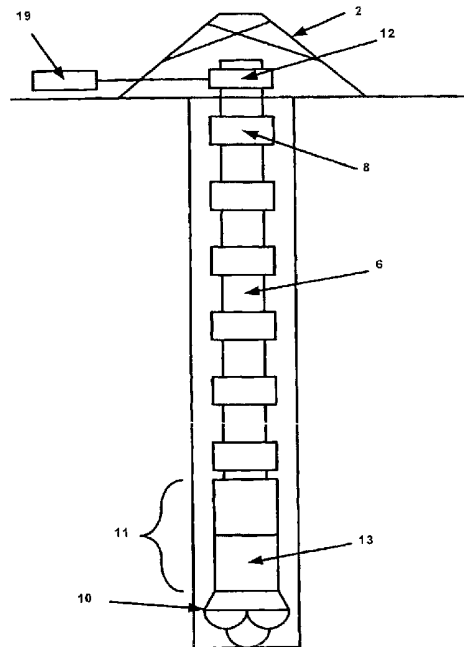
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(54) Abstract Title: **Method of detecting signals in acoustic drill string telemetry**

(57) A method of acoustic telemetry in a drill string in a wellbore, comprises transmitting an acoustic signal related to a parameter of interest from a transmitting location into the drill string. The signals propagated through the drill string are detected at a receiving location, where the detected signals include noise. A drill string transfer matrix is determined defining the propagation of signals through a transfer interval between the receiving location and the transmitting location. The detected signals and the drill string transfer matrix are used for obtaining an estimate of the acoustic signal.



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