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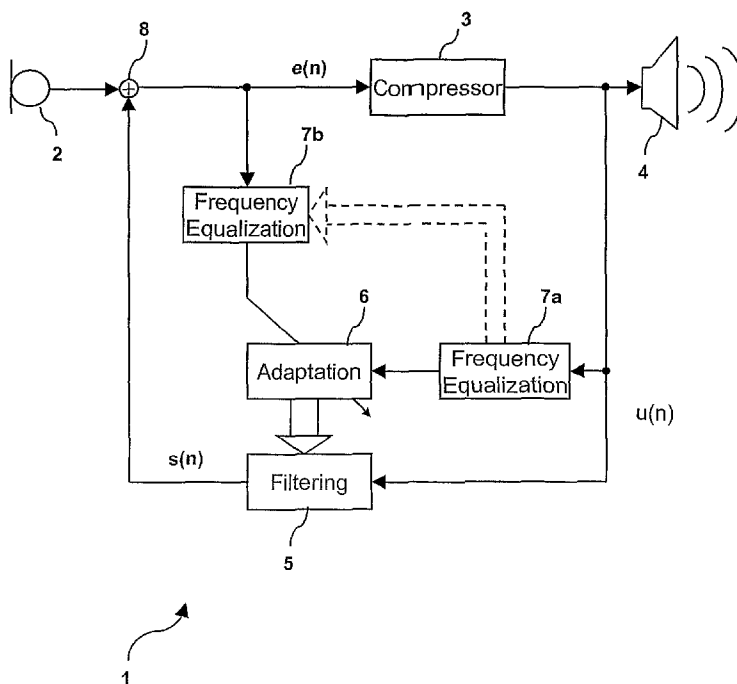
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(54) Title: HEARING AID COMPRISING ADAPTIVE FEEDBACK SUPPRESSION SYSTEM



(57) Abstract: A hearing aid comprises an input transducer (2) for transforming an acoustic input into an electrical input signal, a subtraction node for subtracting a feedback cancellation signal from the electrical input signal thereby generating a processor input signal, a signal processor (3) for deriving a processor output signal from the processor input signal, an output transducer (4) for deriving an acoustic output from the processor output signal, a pair of equalization filters (7a, 7b) comprising a frequency selection unit (10i, 10j, ..., 10n) for respectively selecting from the processor input and output signals a plurality of frequency band signals, a frequency equalization unit (14i, 14j, ..., 14n) for frequency equalization for the selected frequency band signals, and an adaptive feedback estimation filter (5, 6) for adaptively deriving the feedback cancellation signal from the equalized frequency band signals. The equalization of selected frequency bands of the input signals of the adaptive feedback cancellation filter provides for an improved and in particular a faster adaption of the

feedback cancellation while at the same time ignoring frequency ranges not relevant for the feedback cancellation process.



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