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- (72) **Inventors; and**
- (75) **Inventors/Applicants (for US only):** **CEDERBERG, Jorgen** [DK/DK]; Vitus Beringsvej 6, DK-3520 Farum (DK). **ANDERSEN, Henning Haugaard** [DK/DK]; Storkevangenget 1, DK-3460 Birkerød (DK). **MEINCKE, Mette Dahl** [DK/DK]; Enebærhaven 4, DK-3500 Varlose (DK). **NIELSEN, Andreas Brinch** [DK/DK]; Slangerupgade 23, st. th, DK-2200 København N (DK).
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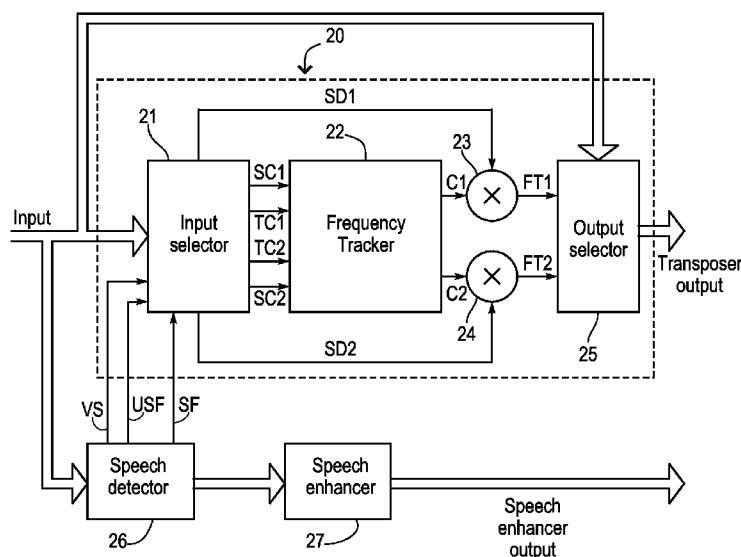
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- (54) **Title:** HEARING AID AND A METHOD OF IMPROVED AUDIO REPRODUCTION

**Fig. 4**

(57) **Abstract:** A hearing aid comprising a frequency shifter (20) has means (22) for detecting a first frequency and a second frequency in an input signal. The frequency shifter (20) transposes a first frequency range of the input signal to a second frequency range of the input signal based on the presence of a fixed relationship between the first and the second detected frequency. The means (34, 35, 36) for detecting the fixed relationship between the first and the second frequency is used for controlling the frequency transposer (20). A speech detector (26) configured for detecting the presence of voiced and unvoiced speech is provided for suppressing the transposition of voiced-speech signals in order to preserve the speech formants. The purpose of transposing frequency bands in this way in a hearing aid is to render inaudible frequencies audible to a user of the hearing aid while maintaining the original envelope, harmonic coherence and speech intelligibility of the signal. The invention further provides a method for shifting a frequency range of an input signal in a hearing aid.