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**Gottesman et al.**

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(54) **REW PARAMETRIC VECTOR  
 QUANTIZATION AND DUAL-PREDICTIVE  
 SEW VECTOR QUANTIZATION FOR  
 WAVEFORM INTERPOLATIVE CODING**

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(51) **Int. Cl.**  
**G10L 19/14 (2006.01)**

(52) **U.S. Cl.** ..... **704/222**

(58) **Field of Classification Search** ..... 704/230,  
 704/211, 219-223, 225, 229, 270, 500  
 See application file for complete search history.

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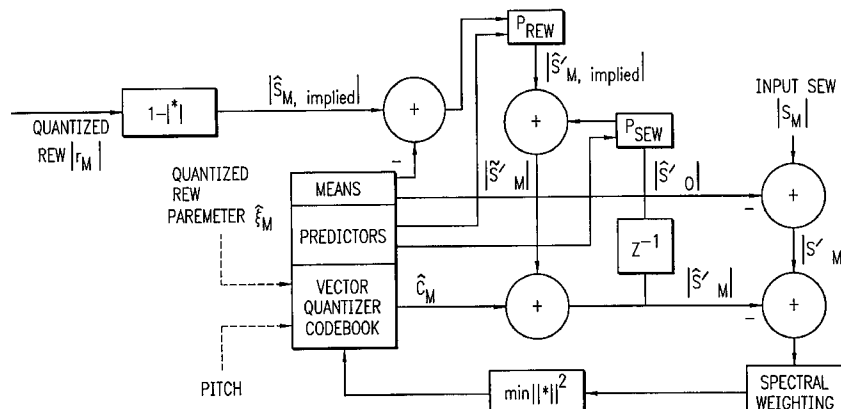
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(57) **ABSTRACT**

An enhanced analysis-by-synthesis waveform interpolative  
 speech coder able to operate at 2.8 kbps. Novel features  
 include dual-predictive analysis-by-synthesis quantization  
 of the slowly-evolving waveform, efficient parametrization  
 of the rapidly-evolving waveform magnitude, and analysis-  
 by-synthesis vector quantization of the rapidly evolving  
 waveform parameter. Subjective quality tests indicate that it  
 exceeds G.723.1 at 5.3 kbps, and of G.723.1 at 6.3 kbps.

**8 Claims, 6 Drawing Sheets**



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FIG. 1

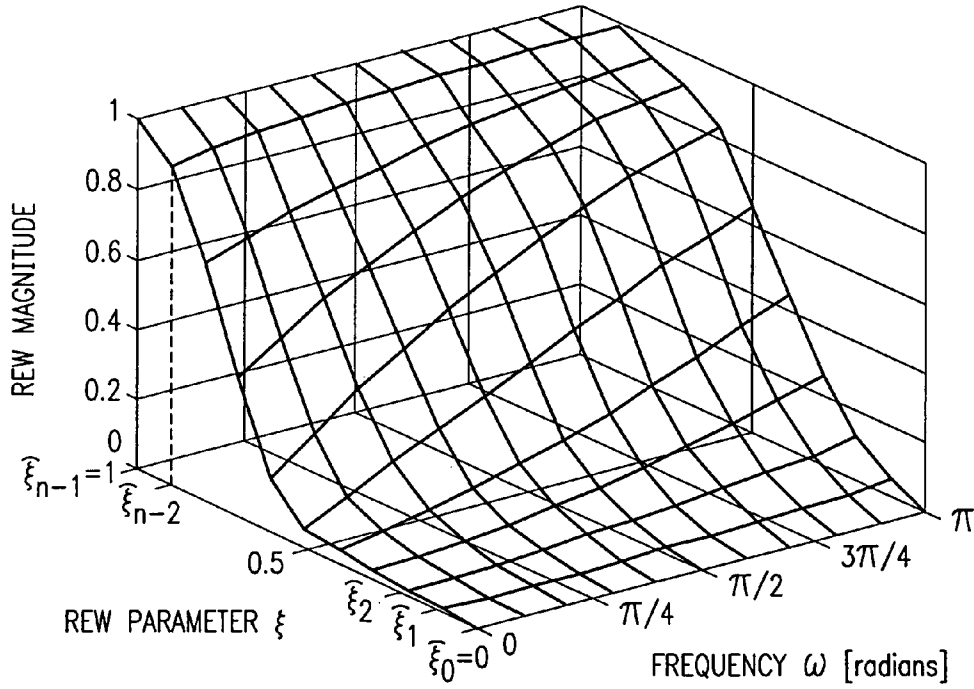


FIG. 2

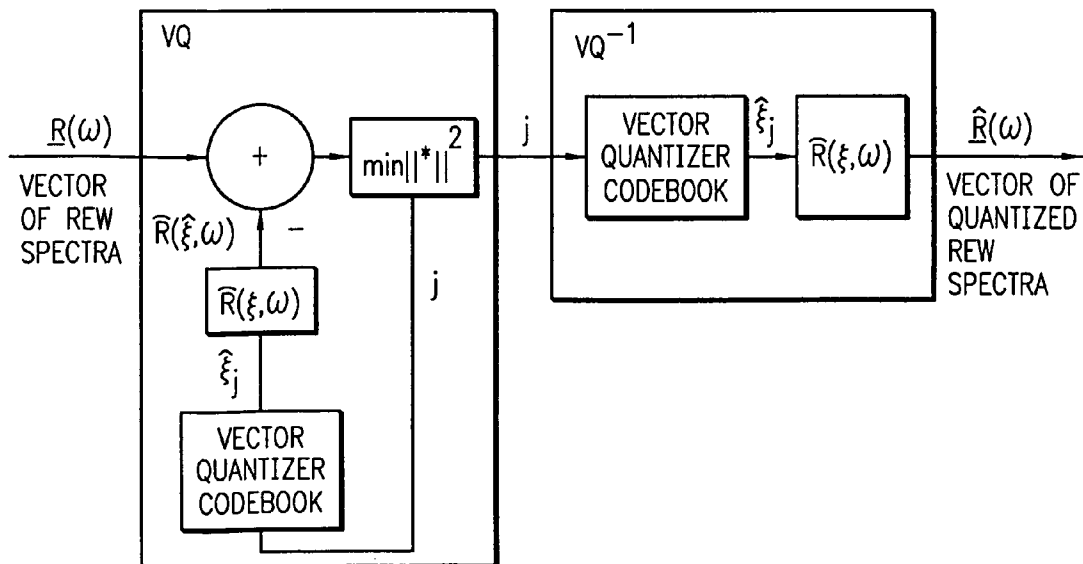
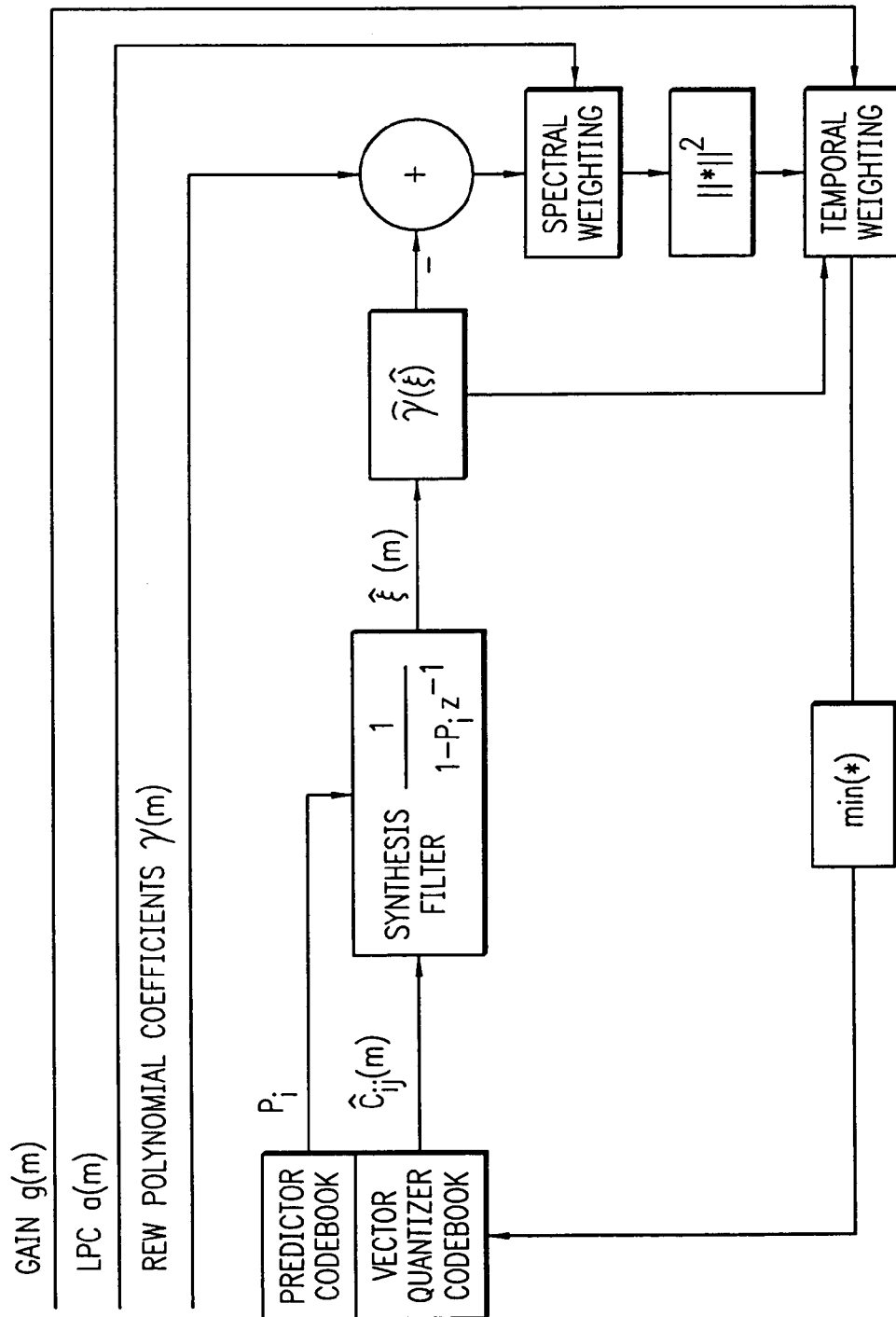
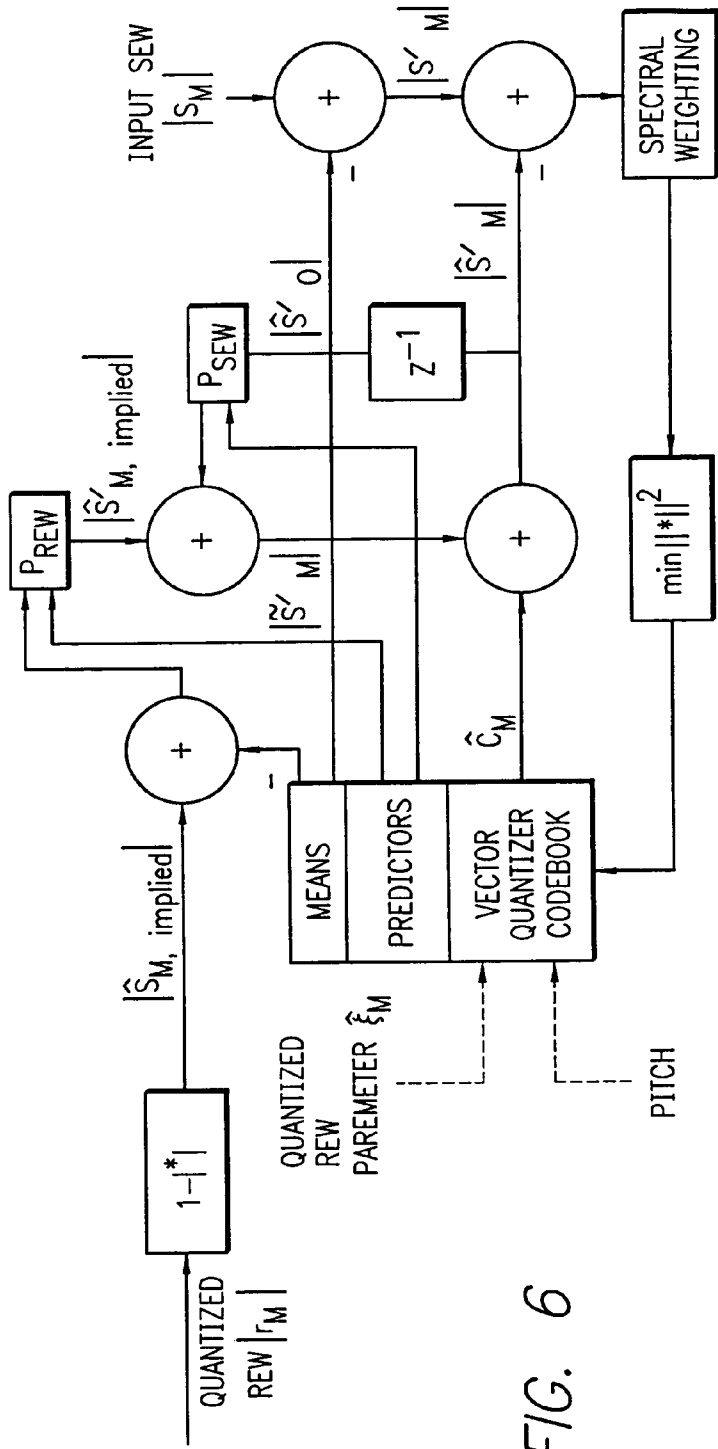
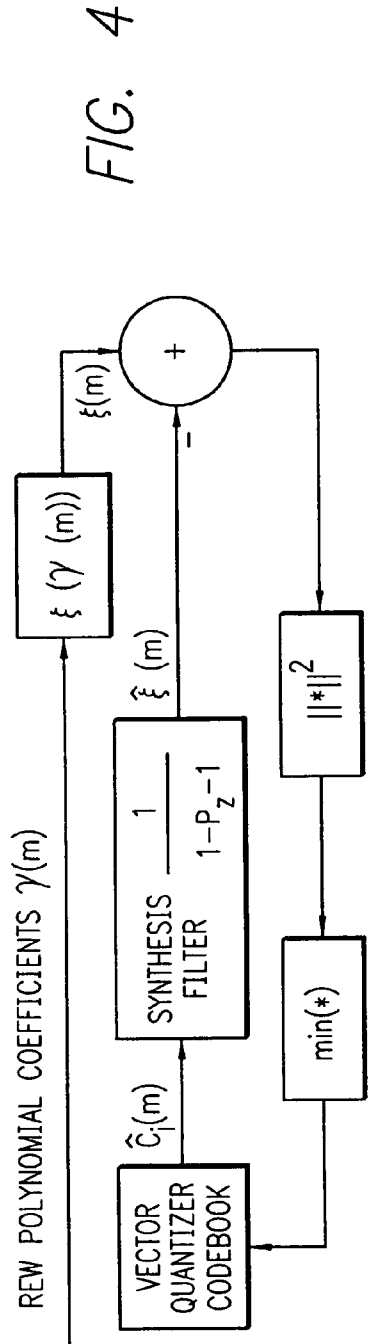


FIG. 3





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