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### Alexander et al.

### (54) APPARATUS FOR DETECTING THE FUNDAMENTAL FREQUENCIES PRESENT IN POLYPHONIC MUSIC

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- 09/797,893 (21) Appl. No.:
- (22) Filed: Mar. 2, 2001

### **Related U.S. Application Data**

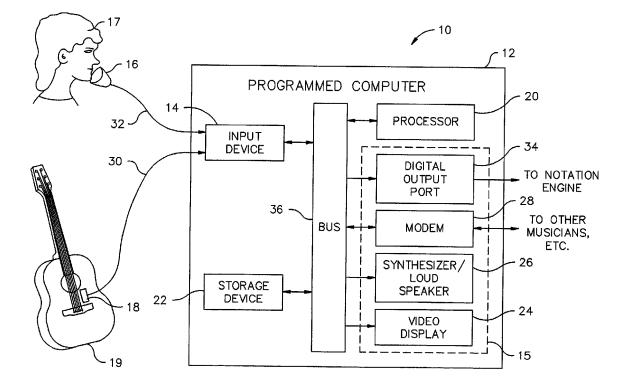
(63) Non-provisional of provisional application No. 60/188,057, filed on Mar. 9, 2000.

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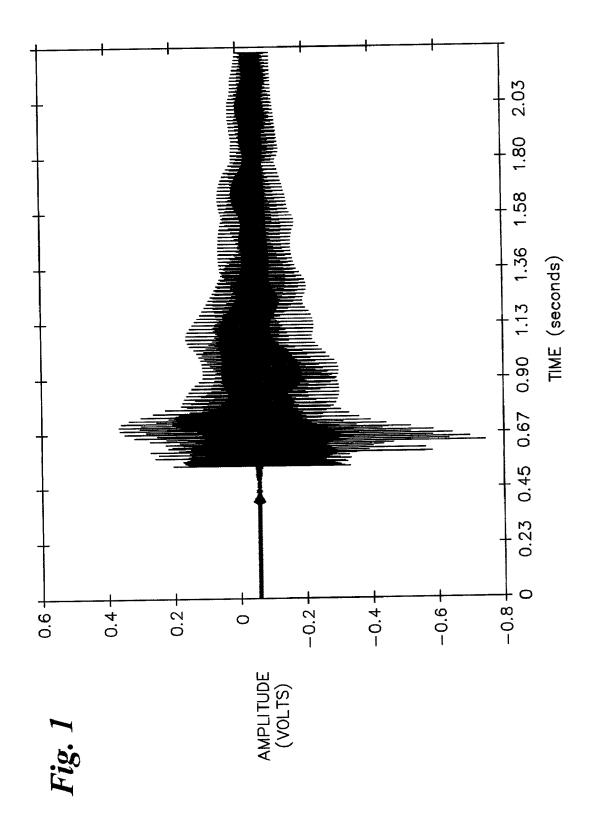
### (51) Int. Cl.<sup>7</sup> ...... G10H 7/00

#### (57)ABSTRACT

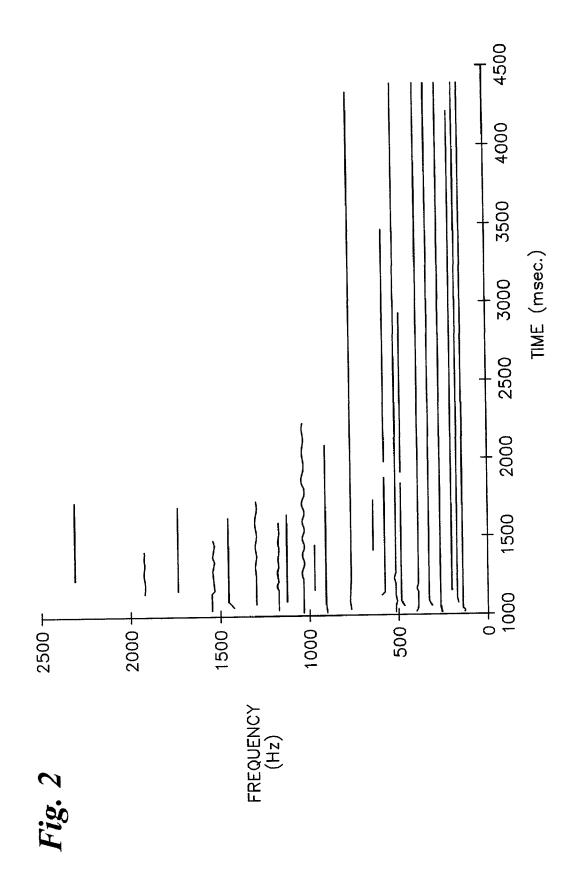
A method for determining a fundamental frequency of a note in a musical signal comprising the steps of receiving the musical signal; determining a frequency of each of a plurality of tracks of the musical signal; generating a plurality of subharmonics for each track; and computing the fundamental frequency based on a frequency of at least one subharmonic selected from the plurality of subharmonics, the frequency of the at least one selected subharmonic being within a neighborhood of the frequency of the track having a lowest frequency.



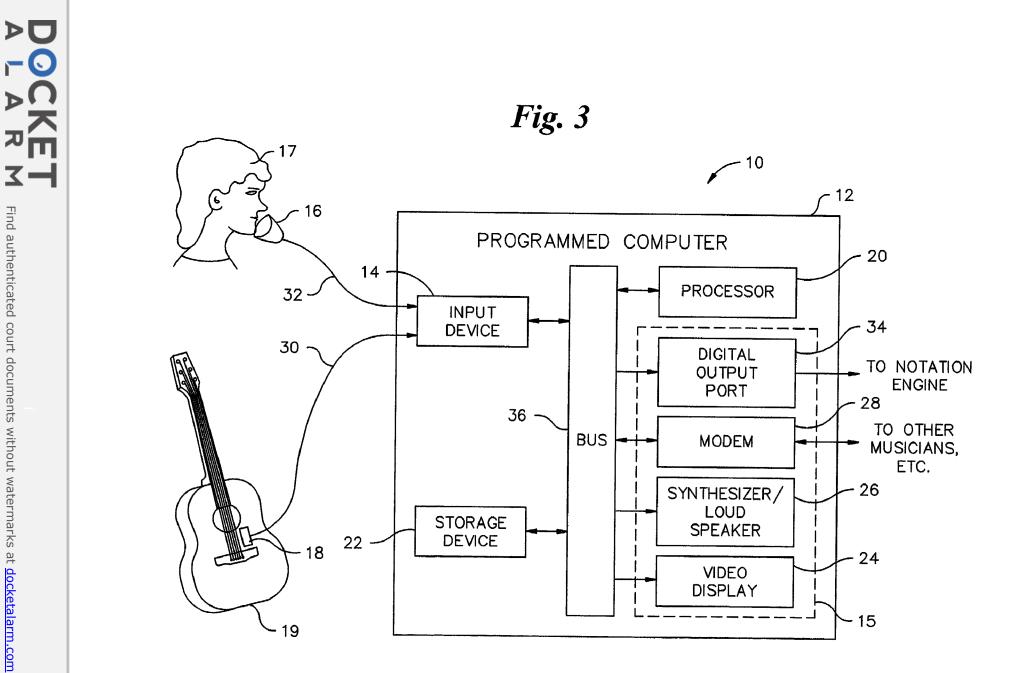
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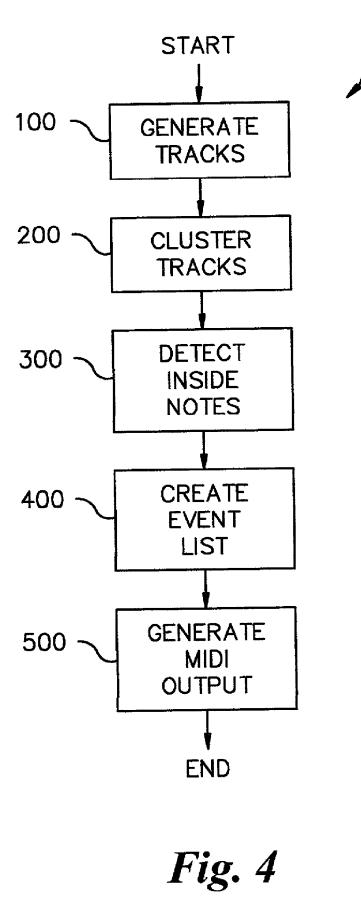


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