

⑫ **EUROPEAN PATENT APPLICATION**

⑲ Application number: **80304625.9**

⑤ Int. Cl.<sup>3</sup>: **G 10 H 1/043**

⑳ Date of filing: **19.12.80**

③ Priority: **26.12.79 US 107203**  
**26.12.79 US 107220**

⑦ Applicant: **CBS INC, 51, West 52nd Street, New York**  
**New York 10019 (US)**

④ Date of publication of application: **08.07.81**  
**Bulletin 81/27**

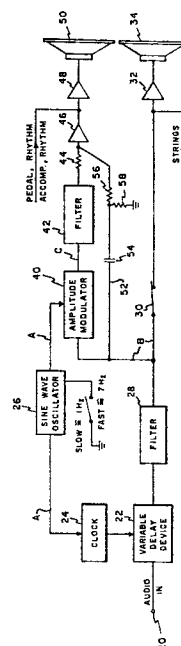
⑦ Inventor: **Schmoll, George F. III, 28 West Woodlawn**  
**Drive, Mundelein Illinois 60060 (US)**  
Inventor: **Finch, Robert A., R. 50 Martin Drive, Mundelein**  
**Illinois 60060 (US)**

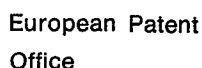
⑧ Designated Contracting States: **GB IT NL**

⑦ Representative: **Abbott, Leonard Charles et al, GILL**  
**JENNINGS & EVERY 53/64 Chancery Lane, London**  
**WC2A 1HN (GB)**

⑤ **An electronic circuit for simulating sound from a rotary loudspeaker.**

⑥ A device for electronically simulating vibrato and tremulant effects and the radiation effects produced by a rotary loudspeaker with the aid of two loudspeakers, (50, 34), in which a musical tone signal (20) is applied to a variable delay device (22) associated with one of the loudspeakers (34). The frequency modulated signal (B) produced by the variable delay device is also subjected to amplitude modulation in a modulator (40) controlled in synchronism with the variable delay device, and the resulting composite signal applied to the other loudspeaker (50). Additionally, the high frequency components of the frequency modulated signal from the variable delay device may be summed in an amplifier (46), in an out of phase relationship, with the composite amplitude modulated signal (C) to simulate the effect of a rotating high frequency horn radiator. The sub-audio modulating signal, which may be for example at 1 Hz for a "chrous" effect, or 7 Hz for a "tremulant" effect, is produced by an oscillator (26), and the degree of amplitude- and/or frequency-modulation may be dependant on this sub-audio frequency.





0031692  
Application number  
EP 80 30 4625

EP 80 30 4625