

- [54] ELECTRONIC MUSICAL INSTRUMENT 3,307,050 2/1967 Castle 84/1.11 X
- [75] Inventors: Roger R. Noble; William A. Bernardi, both of Norwell, Mass. 3,429,976 2/1969 Tomcik 84/1.12
3,439,106 4/1969 Goodale 84/1.27
3,493,669 2/1970 Elbrecht et al. 84/1.11 X
- [73] Assignee: Computone, Inc., Hanover, Mass.
- [22] Filed: Oct. 5, 1971
- [21] Appl. No.: 186,645
- [52] U.S. Cl. 84/1.01, 84/1.11, 84/1.19, 84/1.22, 84/1.24
- [51] Int. Cl. G10h 1/04, G10h 3/00
- [58] Field of Search 84/1.01, 1.04-1.12, 84/1.19-1.24, 1.27

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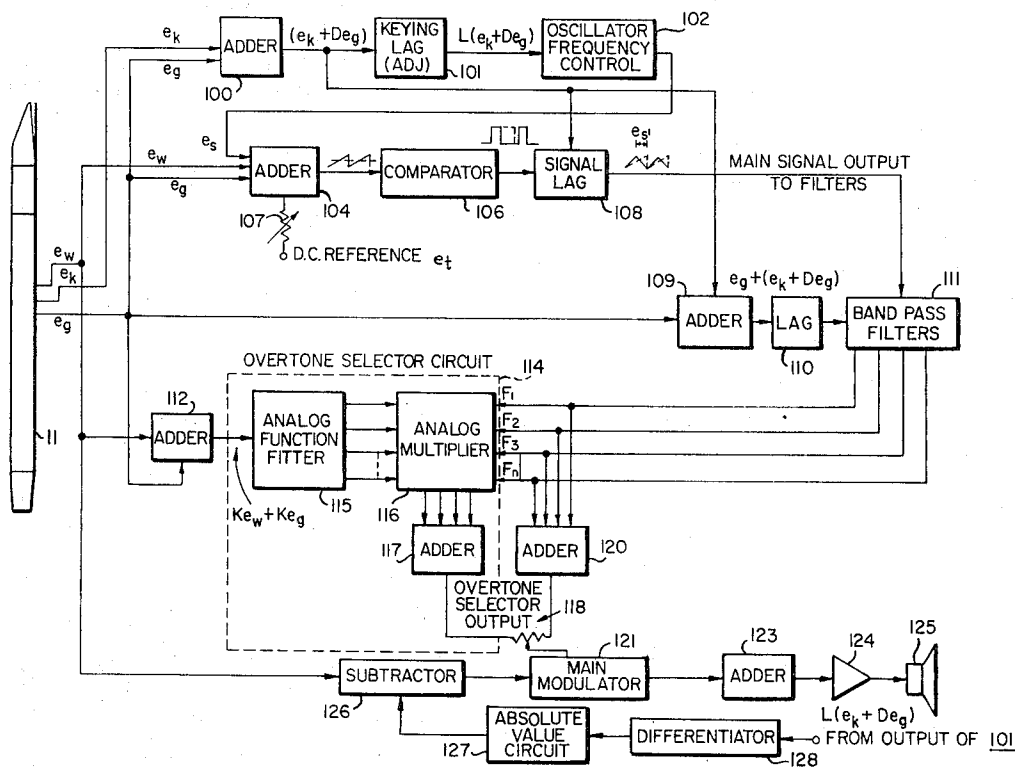
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[57] ABSTRACT

A wind-actuated electronic musical instrument for play by a musician. The musician uses substantially the same technique as is associated with acoustic wind instruments to vary the range of musical sound and expression produced by the electronic musical instrument. Transducers convert the musician-produced air flow, lip pressure and fingering of the instrument to appropriate electrical signals, which signals control the frequency, harmonic content and harmonic phase of the sound produced by a tone generator.

24 Claims, 14 Drawing Figures



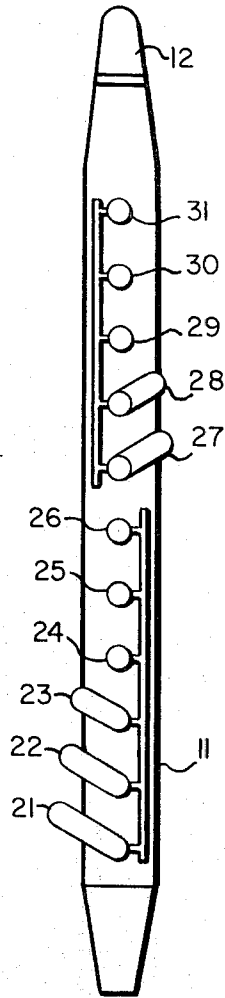


FIG. 1

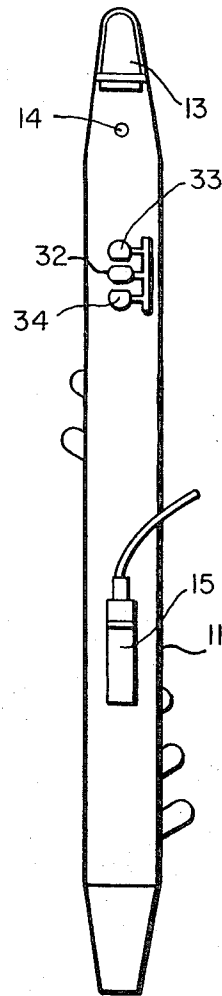


FIG. 2

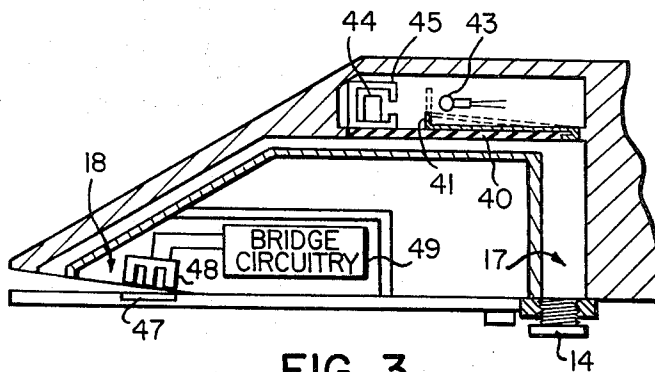


FIG. 3

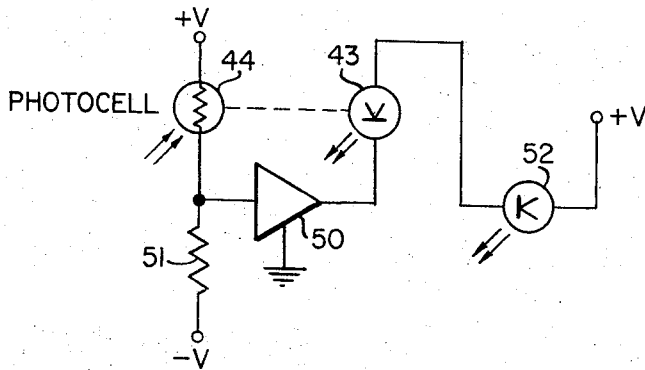


FIG. 4

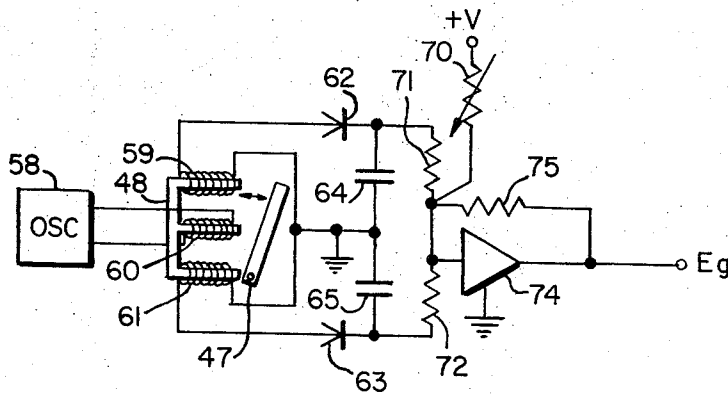


FIG. 5

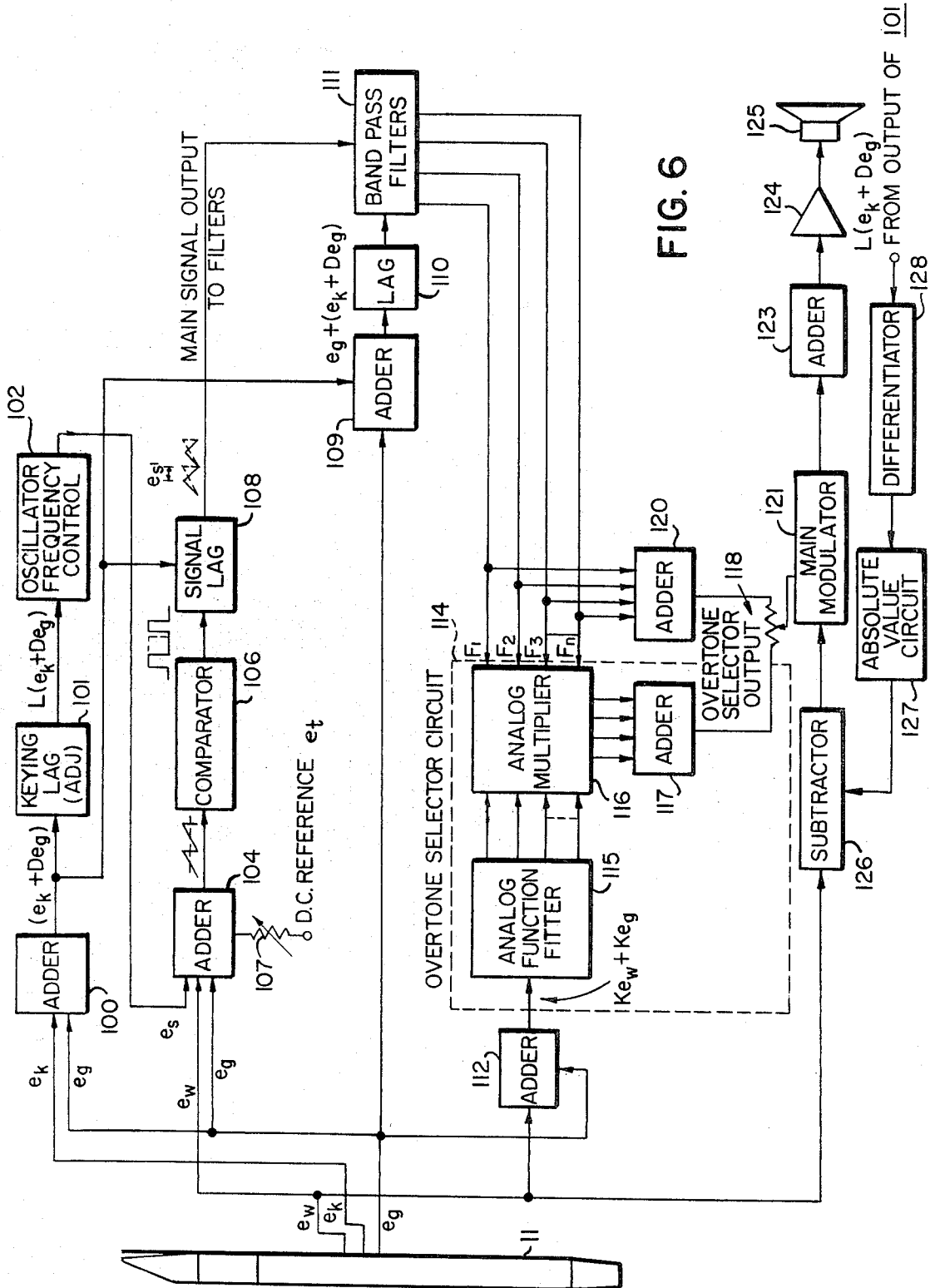


FIG. 6

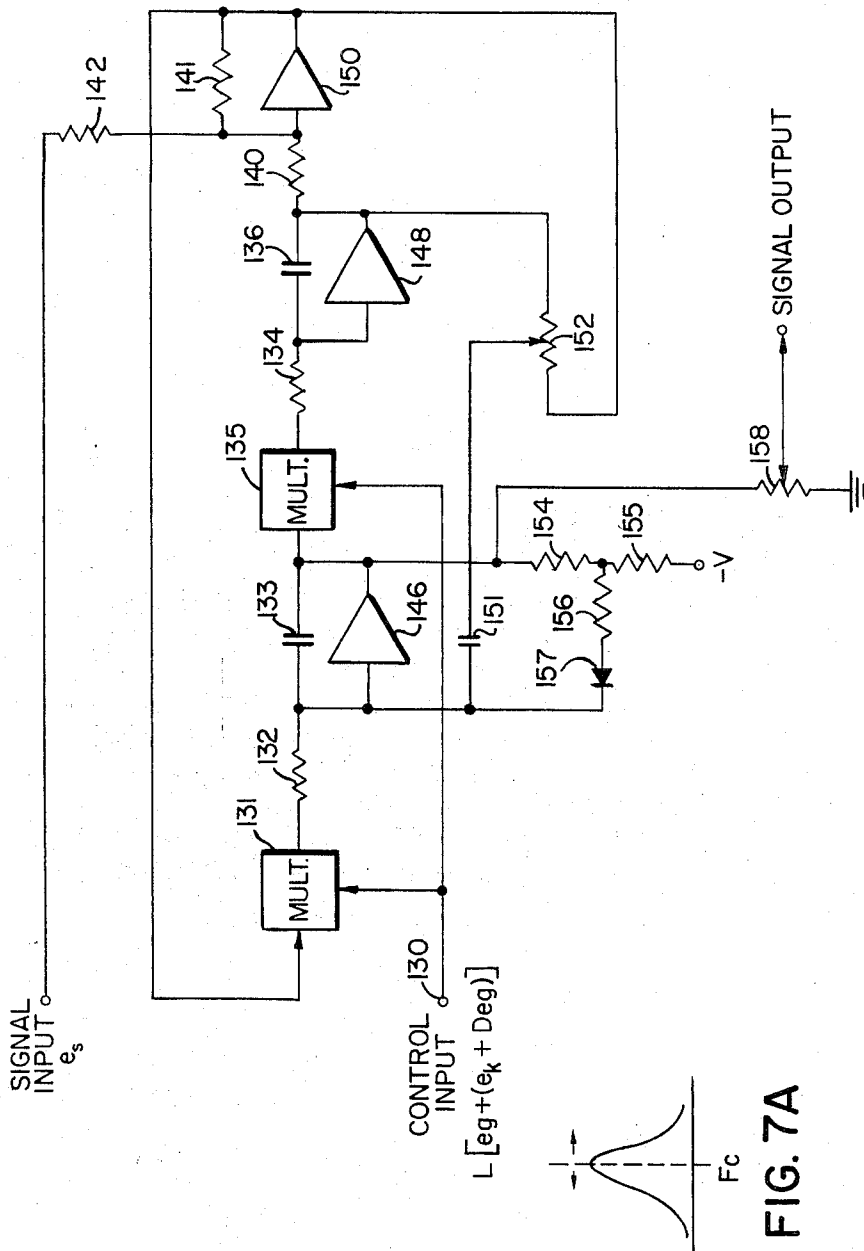


FIG. 7

FIG. 7A

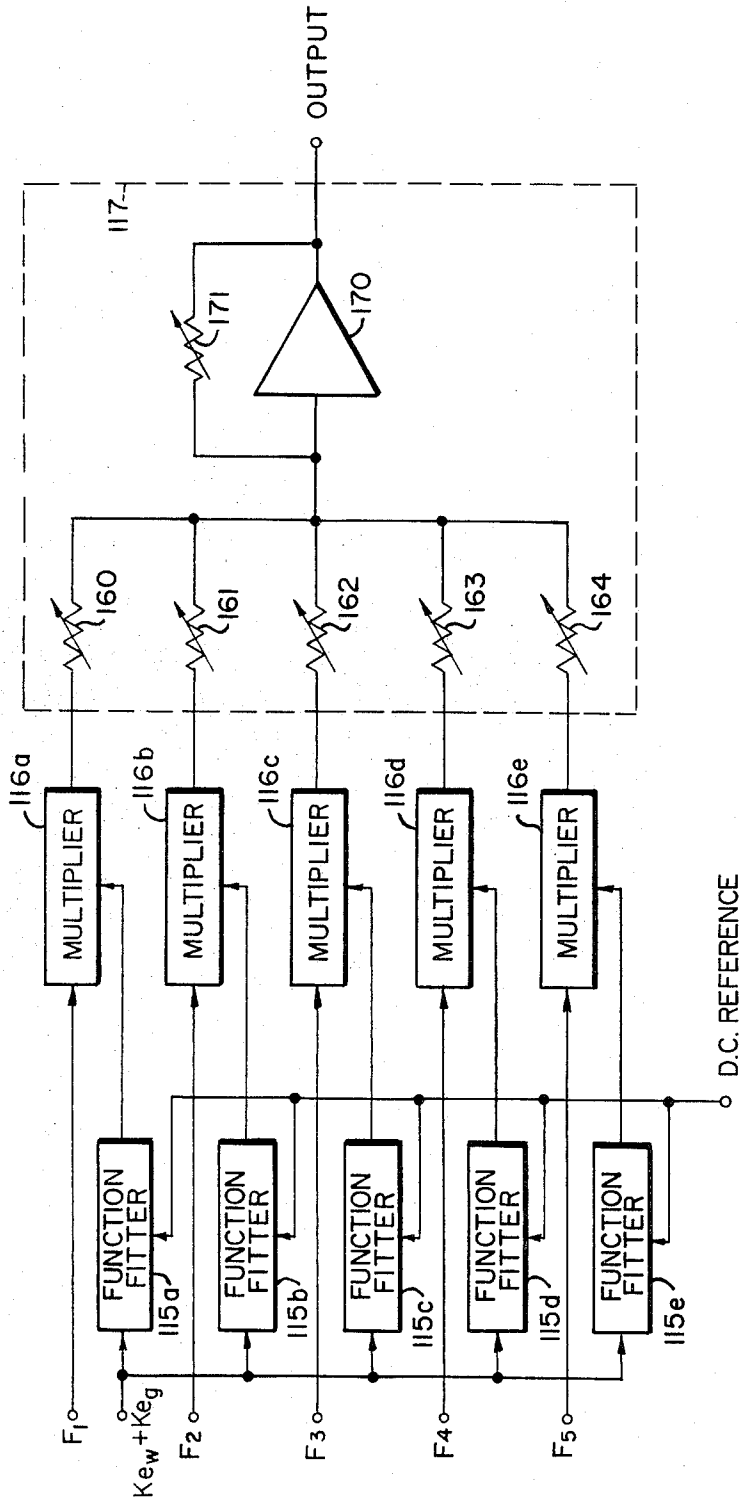


FIG. 8

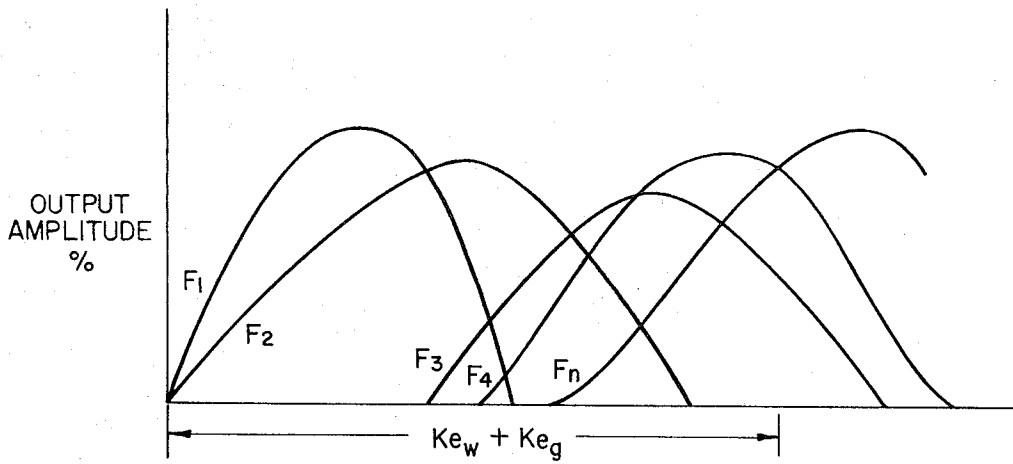


FIG. 9

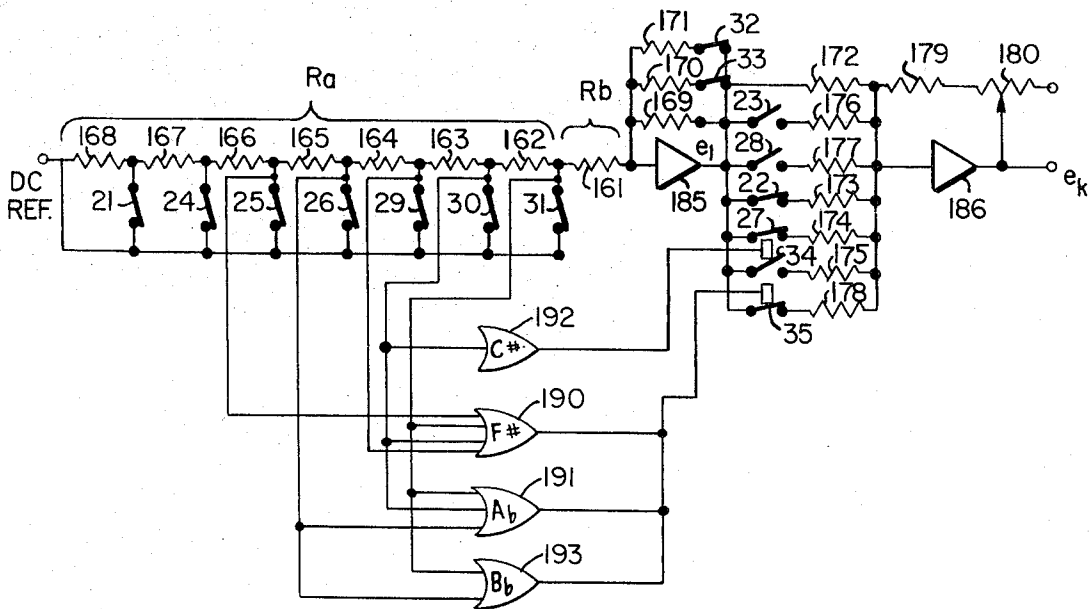


FIG. 10

MIDDLE REGISTER (MODIFIED BOEHM SYSTEM)

*THUMB ON ①

Note	Fingering Diagram	Alternate
D ₄	①	
D# ₄	①	
E ₄	①	
E# ₄	①	
F ₄	①	
F# ₄	①	
G ₄	①	
G# ₄	①	ALTERNATE ①
A ₄	①	ALTERNATE ②
A# ₄	①	
B ₄	①	
B ₄ C _b	①	
B# ₄	①	
C ₅	①	
C# ₅	①	

FIG. 12

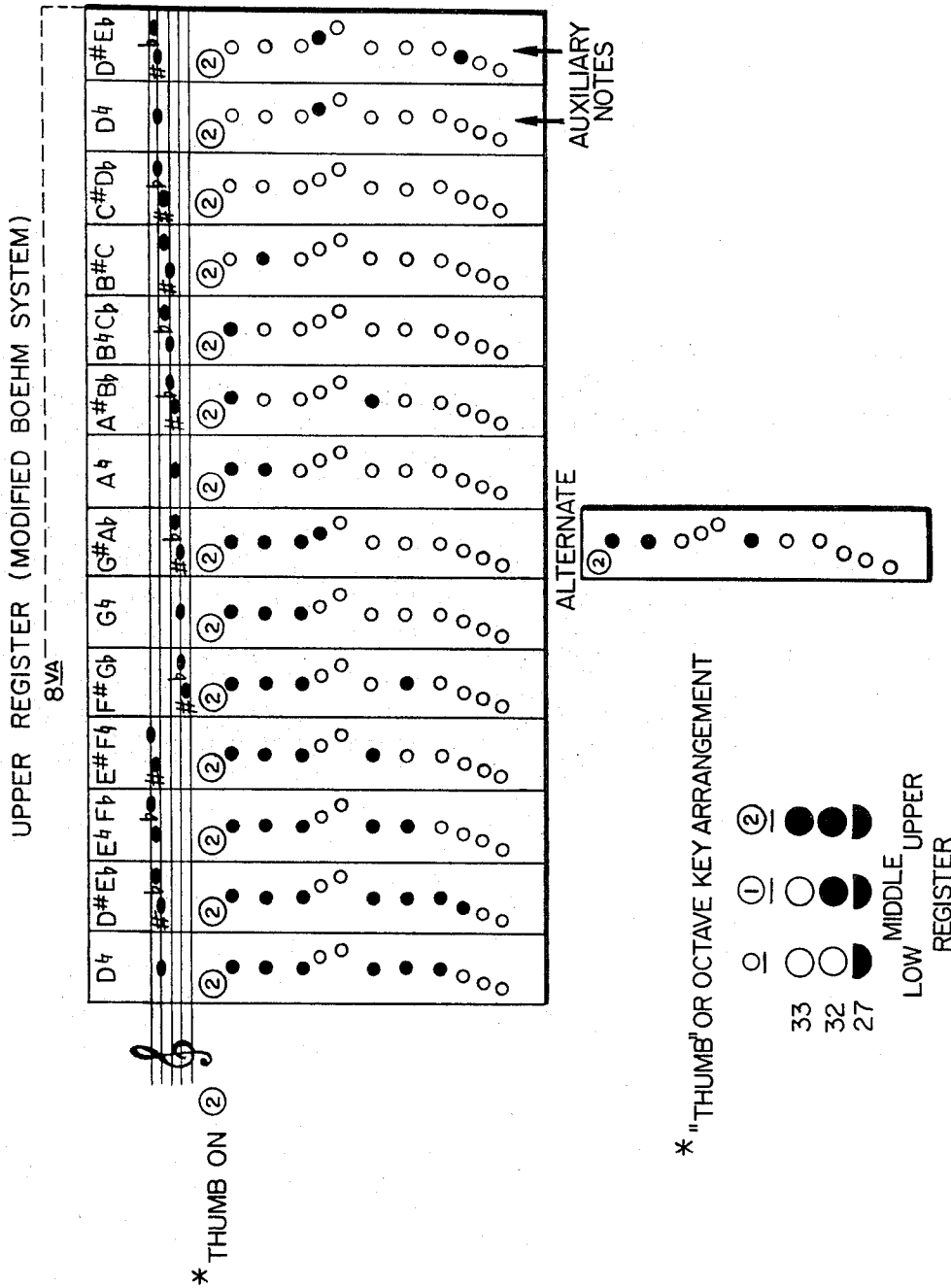


FIG. 13