United States Patent [19]

Leach [45] Date of Patent: Dec. 24, 1985

[11]

[54]	LOW POWER OSCILLATOR CIRCUIT			
[75]	Inventor:	Jerald G. Leach, Houston, Tex.		
[73]	Assignee:	Texas Instruments Incorporated, Dallas, Tex.		
[21]	Appl. No.:	334,487		
[22]	Filed:	Dec. 24, 1981		
[51] [52]	Int. Cl. ⁴ U.S. Cl	H03B 5/12 331/108 B; 331/57; 331/DIG. 3; 307/448; 307/481		
[58]	Field of Search			
[56]	•	References Cited		
	U.S. F	ATENT DOCUMENTS		

3,702,945	11/1972	Faith et al	307/481 X
3,854,103	12/1974	Takarada	331/55
4,083,020	4/1978	Goldberg	. 331/DIG. 3 X
4,236,121	11/1980	Senturia	331/57

FOREIGN PATENT DOCUMENTS

30368 3/1977 Japan 331/DIG. 3

OTHER PUBLICATIONS

Patent Number:

4,560,954

Shepherd, I. E. "Oscillator Starts in a Defined State", Electronic Engineering, Jun. 79, p. 31. Gordon, R. E. "Stable Wideband Relaxation Oscillator Using Three Inverting Amplifiers", National Bureau of

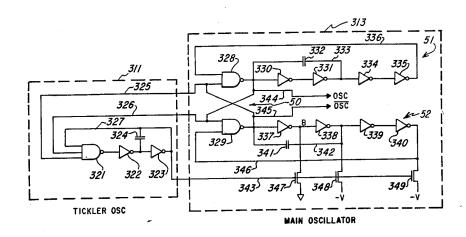
Standards, Technical Note #437, Nov. 67, pp. 21-22. Primary Examiner—Eugene R. LaRoche Assistant Examiner—Robert J. Pascal Attorney, Agent, or Firm—Thomas E. Tyson; Leo N.

[57] ABSTRACT

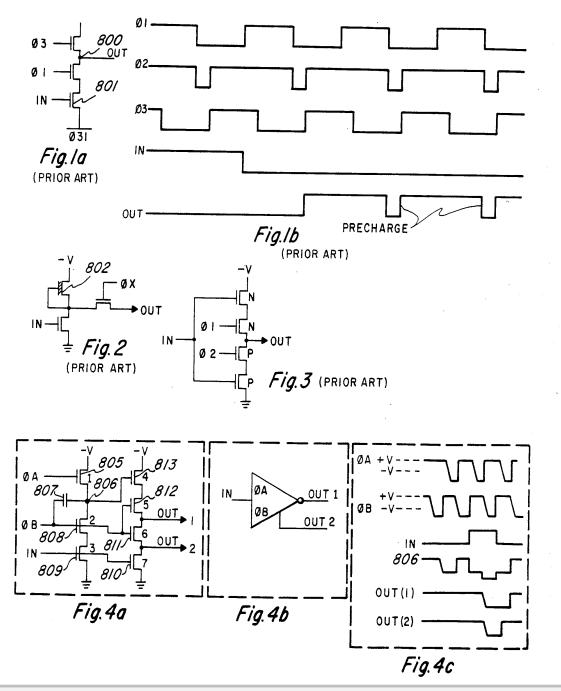
Heiting; Melvin Sharp

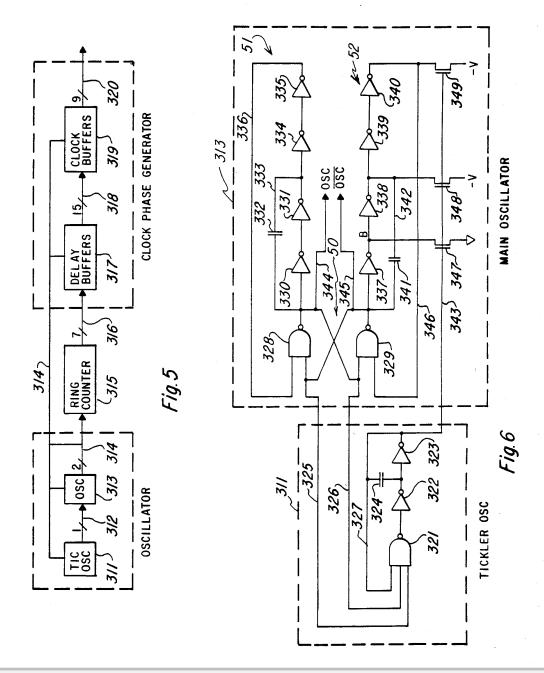
A low power oscillator circuit including a latch connected to two loops. Each loop includes dynamic inverters and static inverters connected in cascade. The loops are connected to the latch such that the output of the final stage is an input to the latch. An initialization circuit is included on one loop to initiate oscillation. Storage capacitors are included in the loops to provide an oscillator output voltage that is greater than the oscillator power supply voltage.

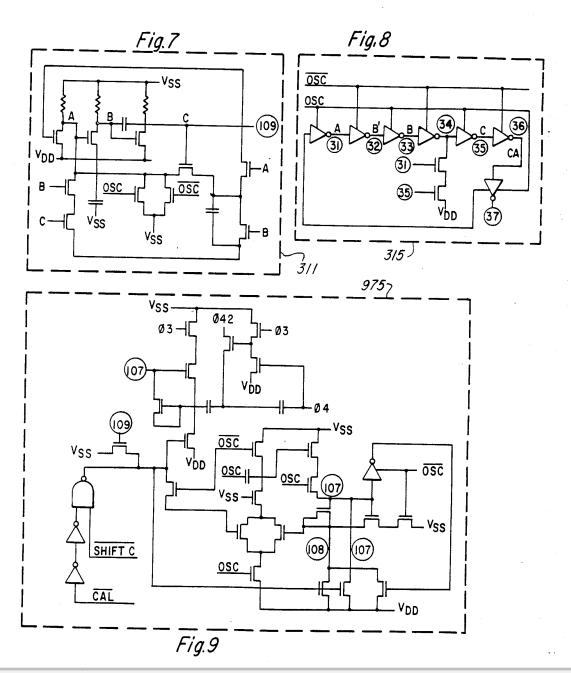
2 Claims, 14 Drawing Figures

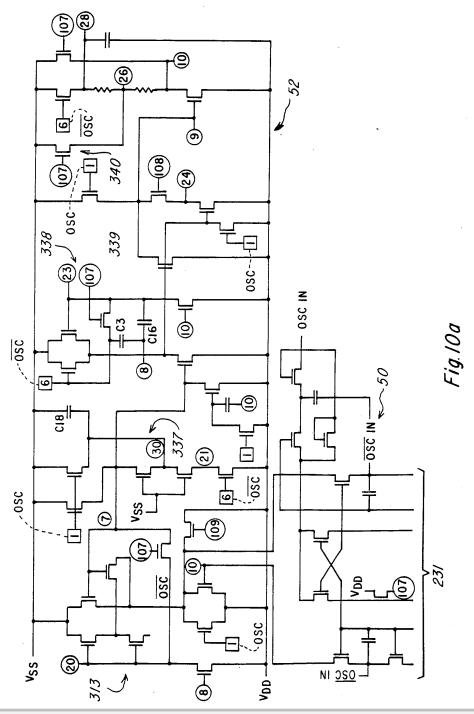














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