United States Patent [19]

Cotie et al.

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[54] **ADDRESSING SYSTEM FOR SIMULTANEOUSLY POLLING PLURAL REMOTE STATIONS**

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[51] Int. Cl.⁴ H04Q 9/00; G05B 23/02
[52] **U.S. Cl.** **340/825.08;** 340/825.54
[58] **Field of Search** .... 340/825.54, 825.08, 340/310 R, 310 A, 870.02, 825.6, 825.16; 370/96; 455/14, 3

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[57] **ABSTRACT**

In a contention polling arrangement wherein polling messages are transmitted by a central controller for simultaneously polling a group of remote stations, the polling message contains an address which defines the entire range of remote stations to be polled and the remote stations will respond if their addresses fall between the address contained in the polling message and an address resulting from converting any trailing 0's of the address in the polling message to 1's.
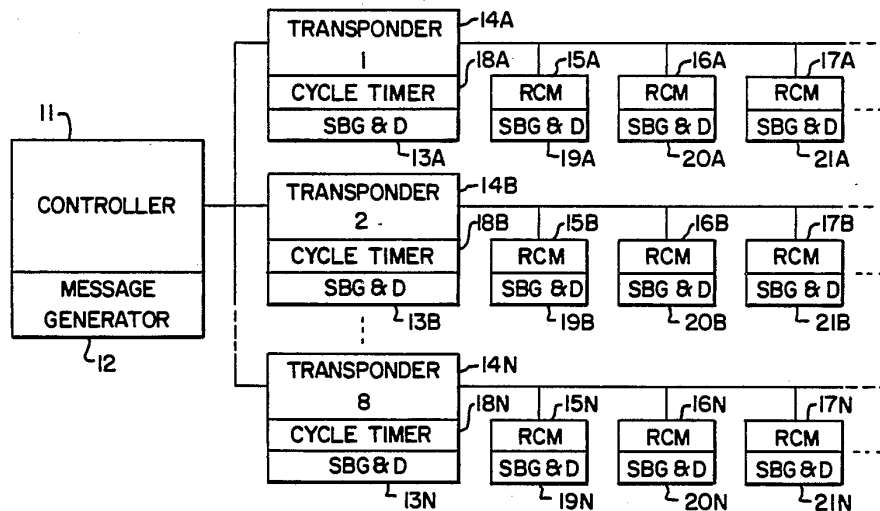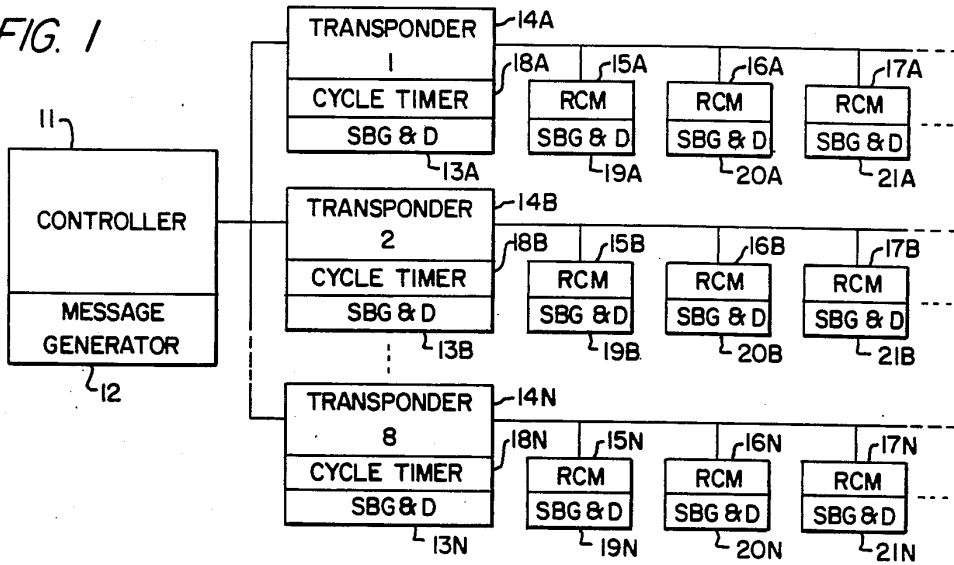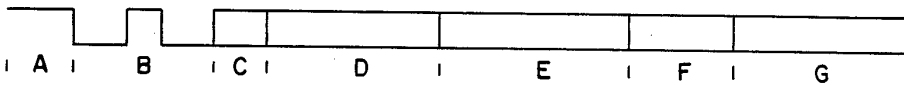
21 Claims, 11 Drawing Figures

FIG. 1

CONTROLLER

MESSAGE GENERATOR

TRANSPONDER 1 — 14A
CYCLE TIMER — 18A
SBG & D — 13A

RCM — 15A
SBG & D — 19A

RCM — 16A
SBG & D — 20A

RCM — 17A
SBG & D — 21A

TRANSPONDER 2 — 14B
CYCLE TIMER — 18B
SBG & D — 13B

RCM — 15B
SBG & D — 19B

RCM — 16B
SBG & D — 20B

RCM — 17B
SBG & D — 21B

TRANSPONDER 8 — 14N
CYCLE TIMER — 18N
SBG & D — 13N

RCM — 15N
SBG & D — 19N

RCM — 16N
SBG & D — 20N

RCM — 17N
SBG & D — 21N

11

12

FIG. 2

| A | B | C | D | E | F | G |

FIG. 3

1 1/3   1   1 1/3

SAMPLES →

FIG. 4

8048

TO 39
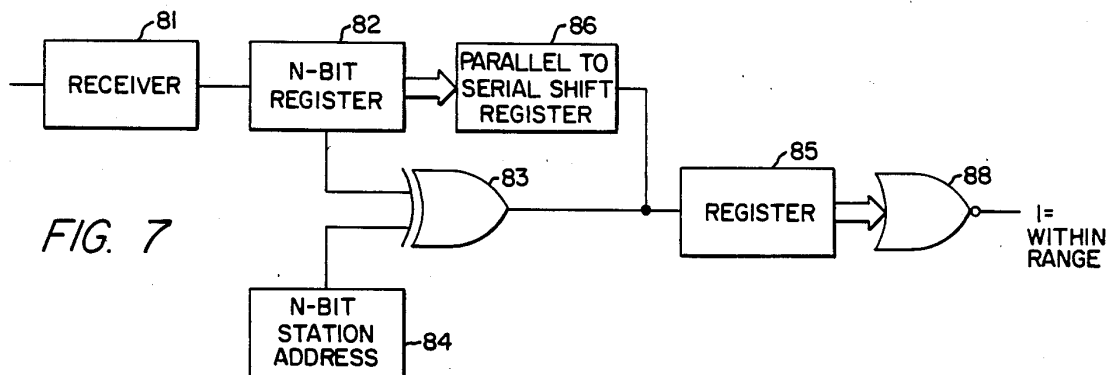INT
DATA

÷

RESET

31

32

33

34

35

36

37

38

FIG. 5

FIG. 6

TO NOR
GATE 58
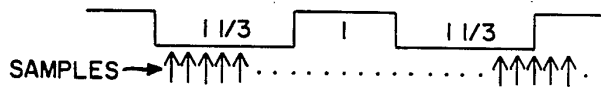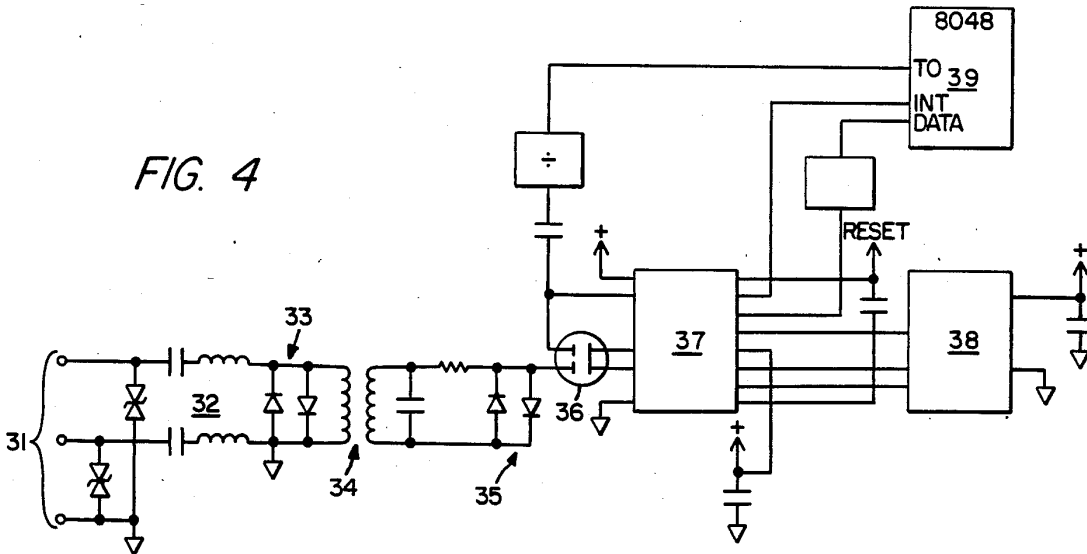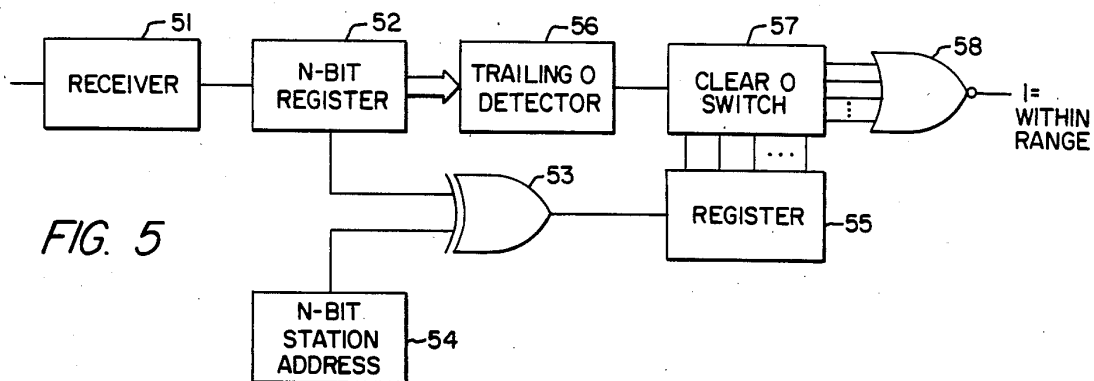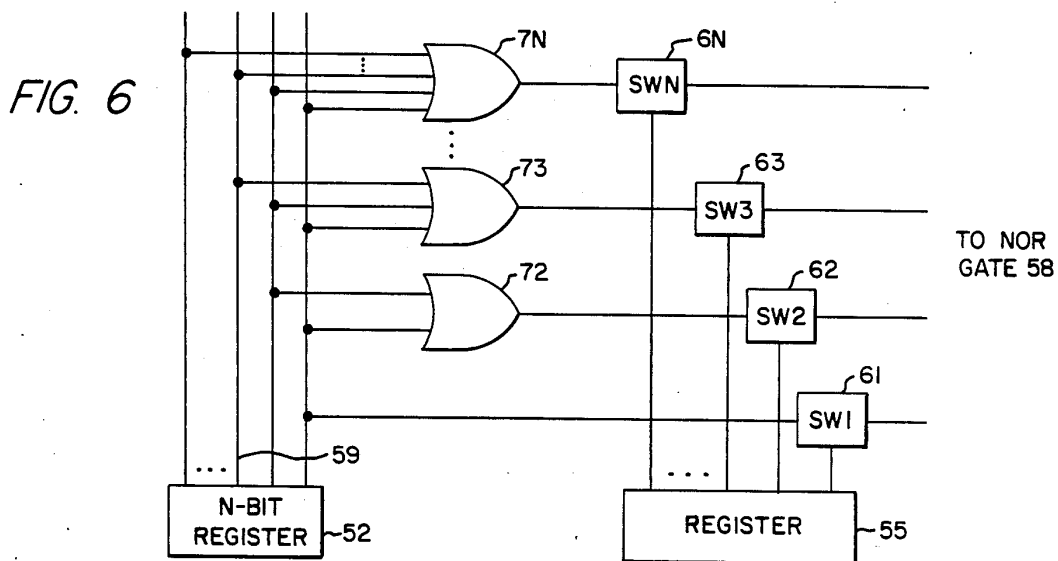
FIG. 7
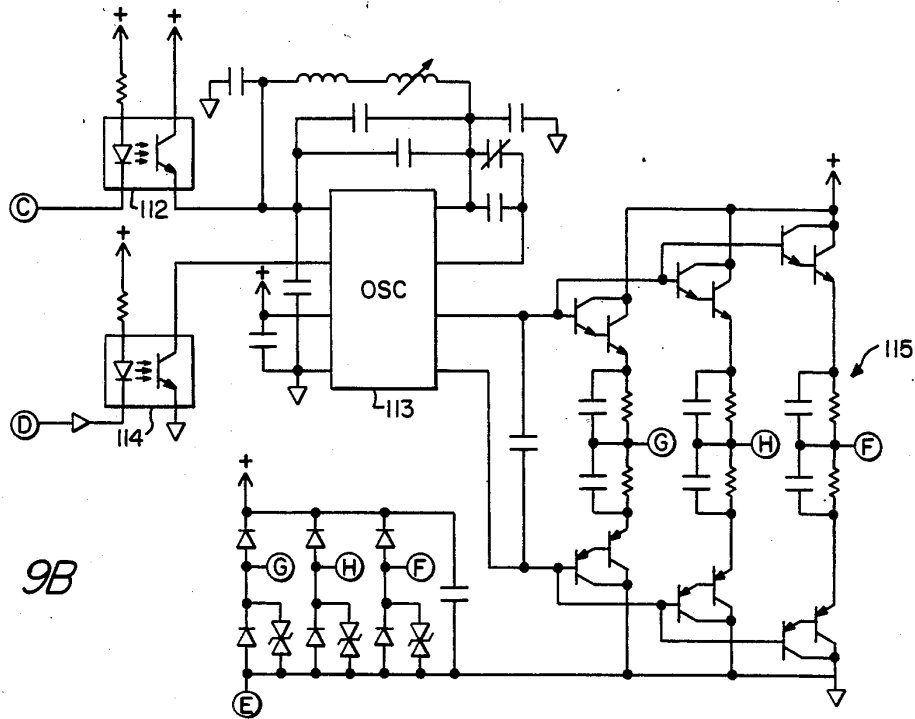
FIG. 9B

FIG. 9C

FIG. 8

TRANSPONDERS

#1
#2
#3
#4
#5
#6
#7
#8

CYCLE I   CYCLE II   CYCLE III
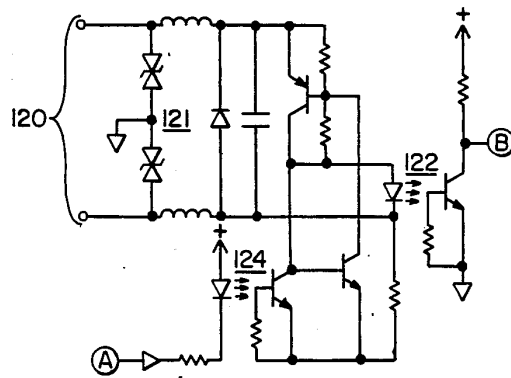
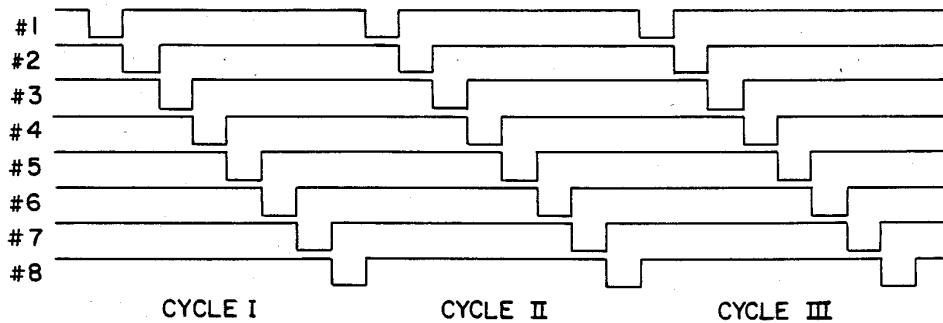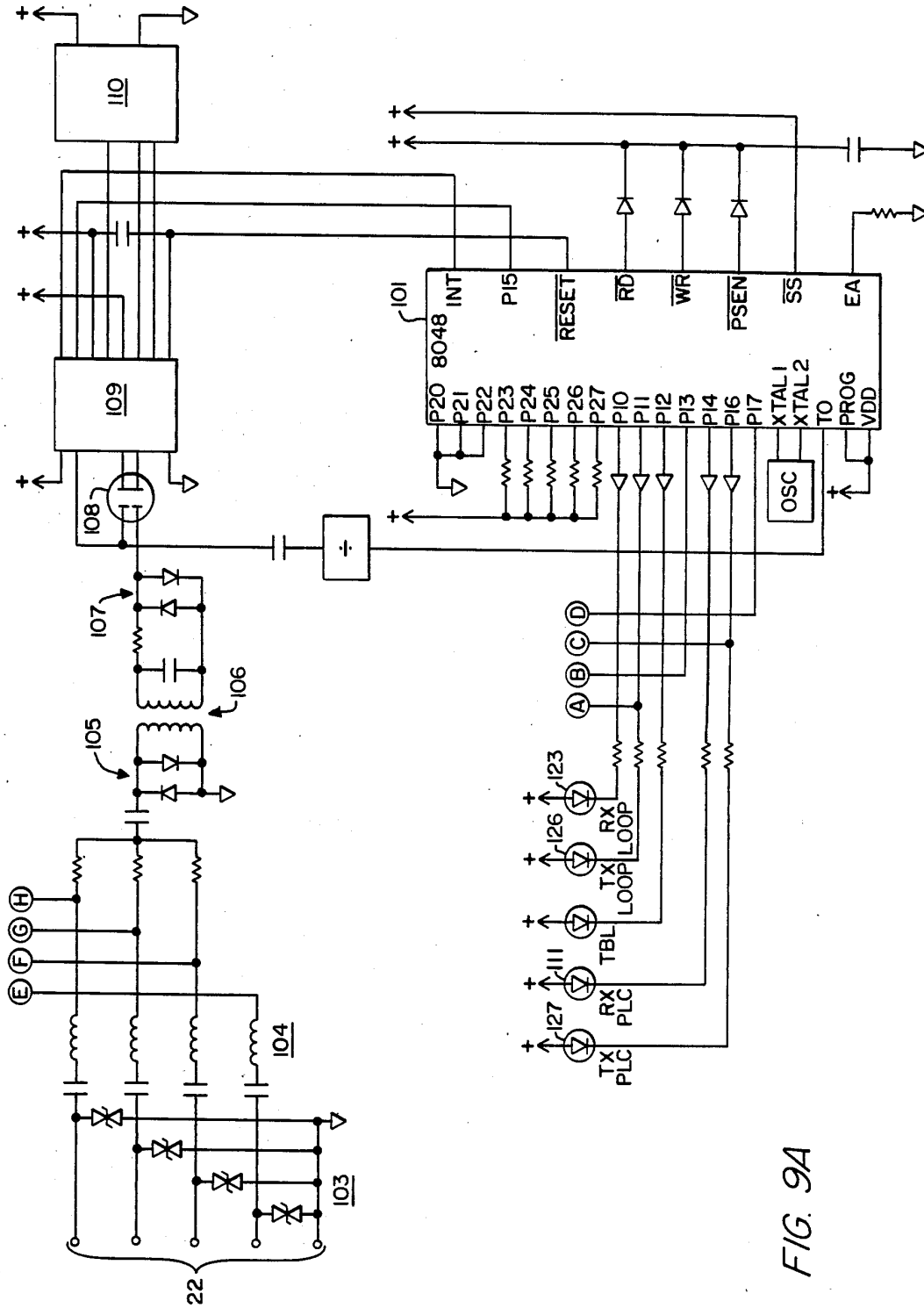FIG. 9A

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