

[54] **MICROCODE PROGRAM SEQUENCER**
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 [73] Assignee: Control Data Corporation, Minneapolis, Minn.
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 [51] Int. Cl.² G06F 9/16
 [58] Field of Search 340/172.5

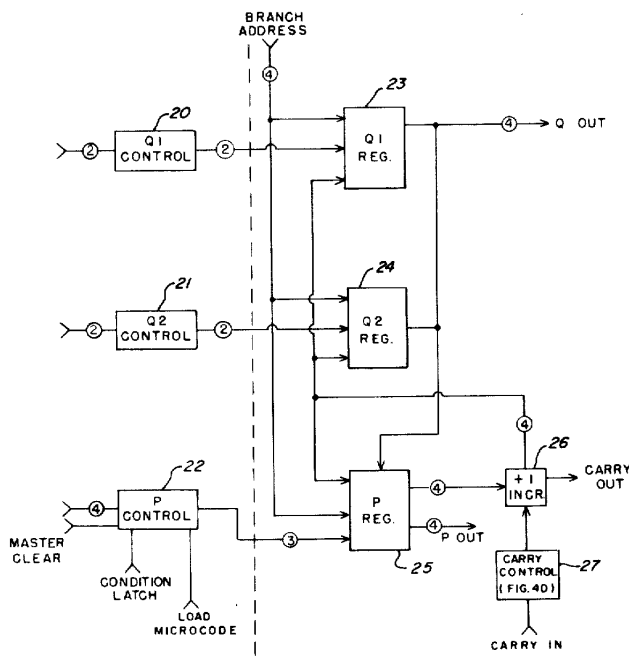
Assistant Examiner—C. T. Bartz
 Attorney, Agent, or Firm—Robert M. Angus

[57] **ABSTRACT**
 A microcode program sequencer includes first and second registers (herein designated the Q and P registers), each connected to a computer memory to receive addresses therefrom. Control means is provided for each register such that the P register will provide output addresses to a microcode memory, whereas the Q register(s) provide output addresses to the P register. By properly operating the control means, incrementing of addresses from the P register can be accomplished, as well as address jumps and returns, using the Q register. Further, the contents of the Q register may also be incremented in synchronism with the P register, as desired. One feature of the invention resides in a conditional latch circuit which may be selectively operated as a latch or as an OR gate.

[56] **References Cited**
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Primary Examiner—Gareth D. Shaw

13 Claims, 9 Drawing Figures



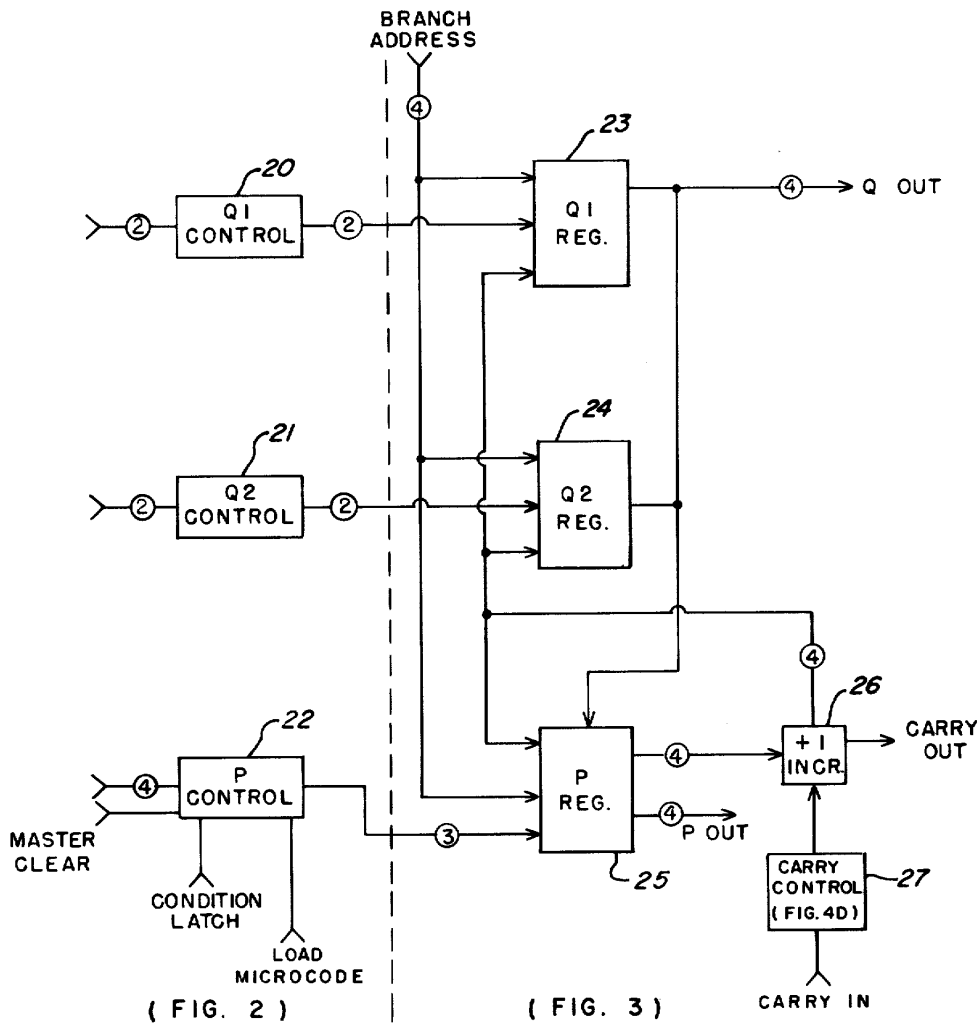


FIG. 1

FIG. 2

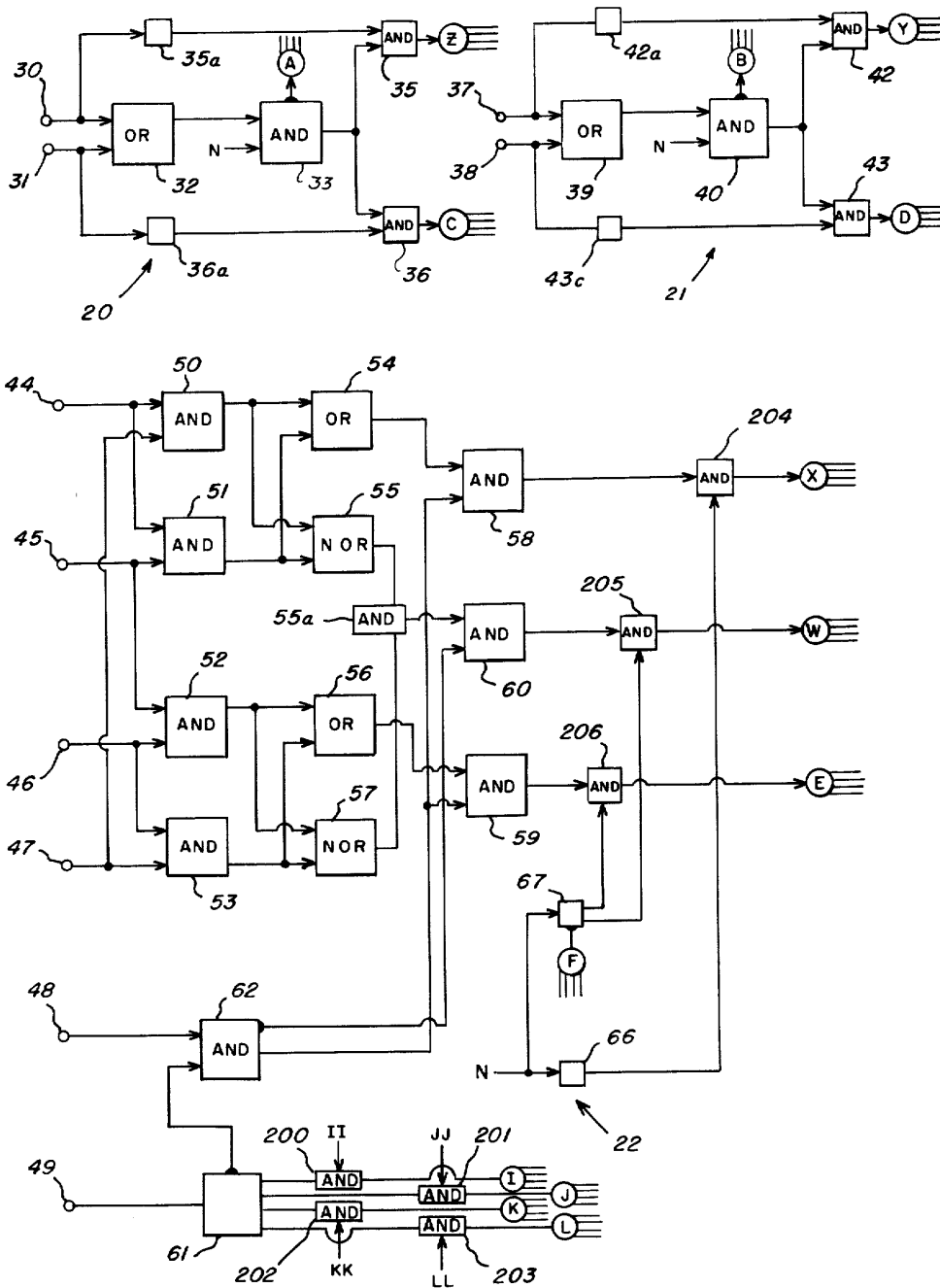
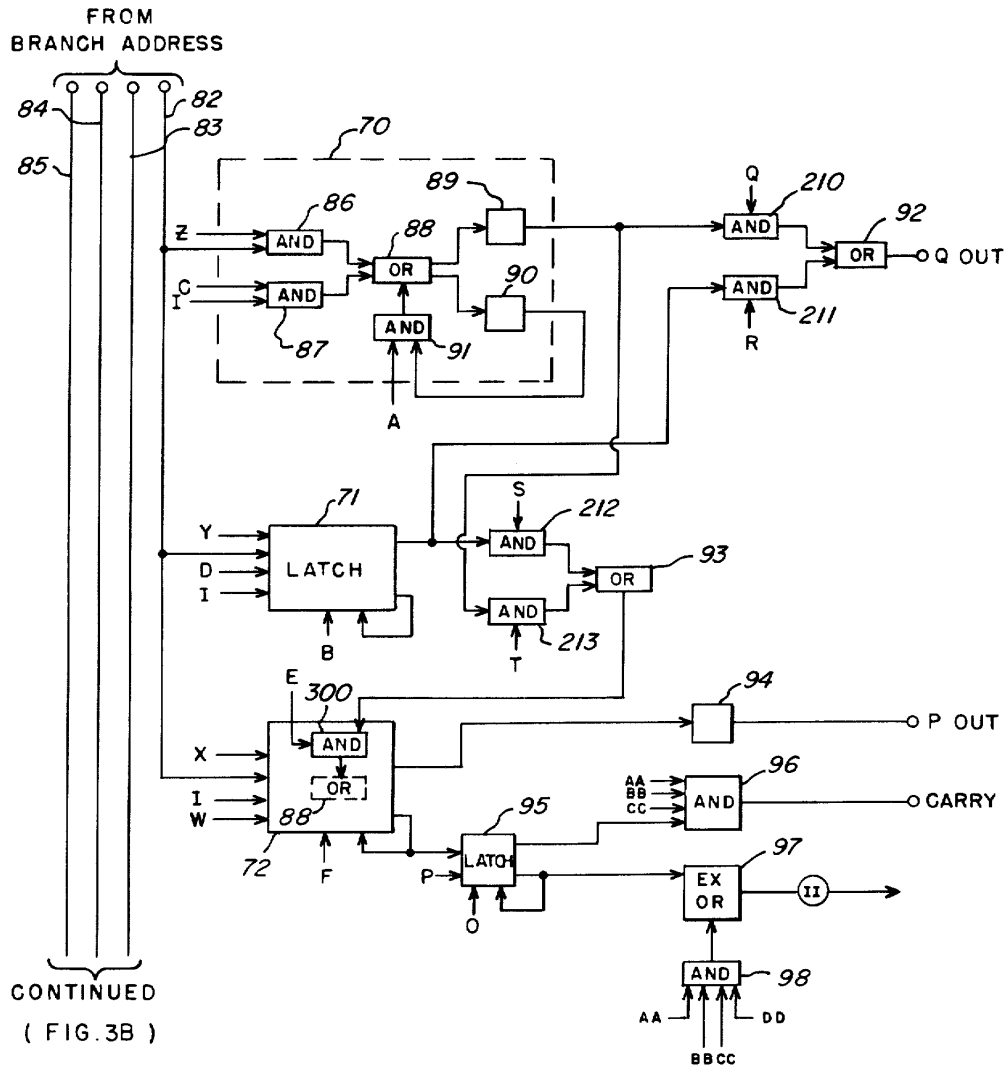
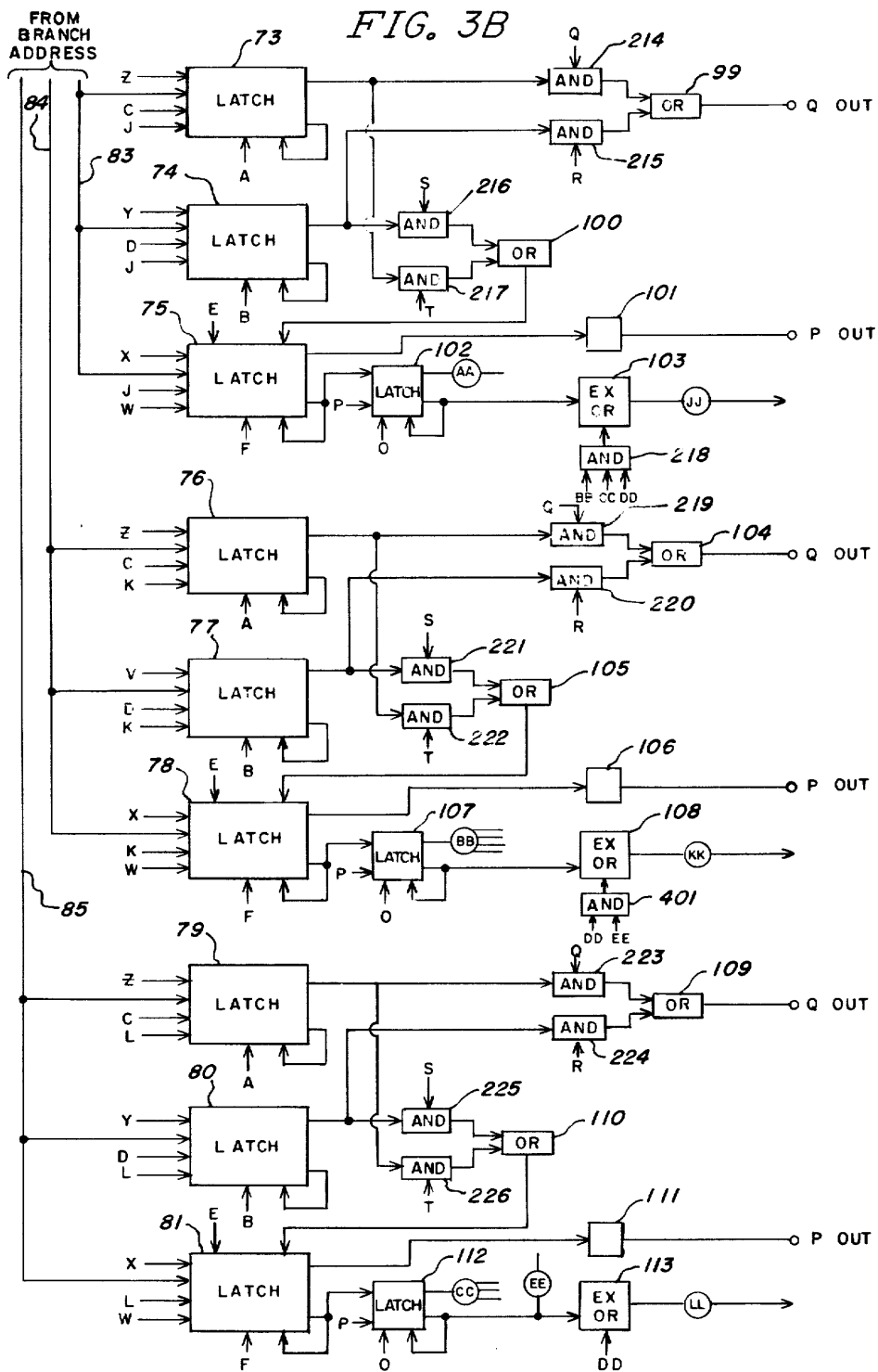


FIG. 3A





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