DEFENSIVE PUBLICATION

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PUBLISHED NOVEMBER 27, 1973

916 O.G. 1211

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DATA TREE STRUCTURE AND MAINTENANCE METHOD

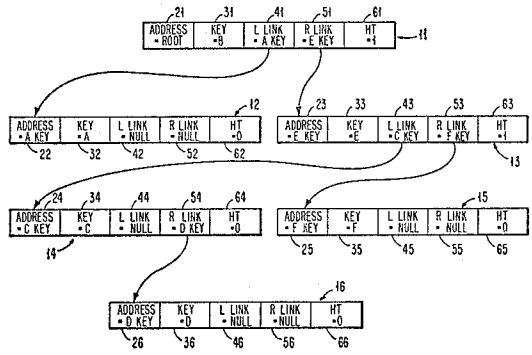
Watson M. Conner II, Los Gatos, Calif., assignor to International Business Machines Corporation, Armonk, N.Y.

Continuation of application Ser. No. 212,349, Dec. 27, 1971. This application Jan. 16, 1973, Ser. No. 324,036

Int. Cl. G06f *9/00*

U.S. Cl. 444—1

4 Sheets Drawing. 15 Pages Specification



A 2 log binary tree data set structure where the null height of the nodes in any path is non-increasing, and where in any path there are not more than two nodes at the same null height. Also, the method for adding to and deleting nodes from a 2 log binary tree so that the resulting structure is also a 2 log tree.

DATA TREE STRUCTURE AND MAINTENANCE METHOD

Original Filed Dec. 27, 1971

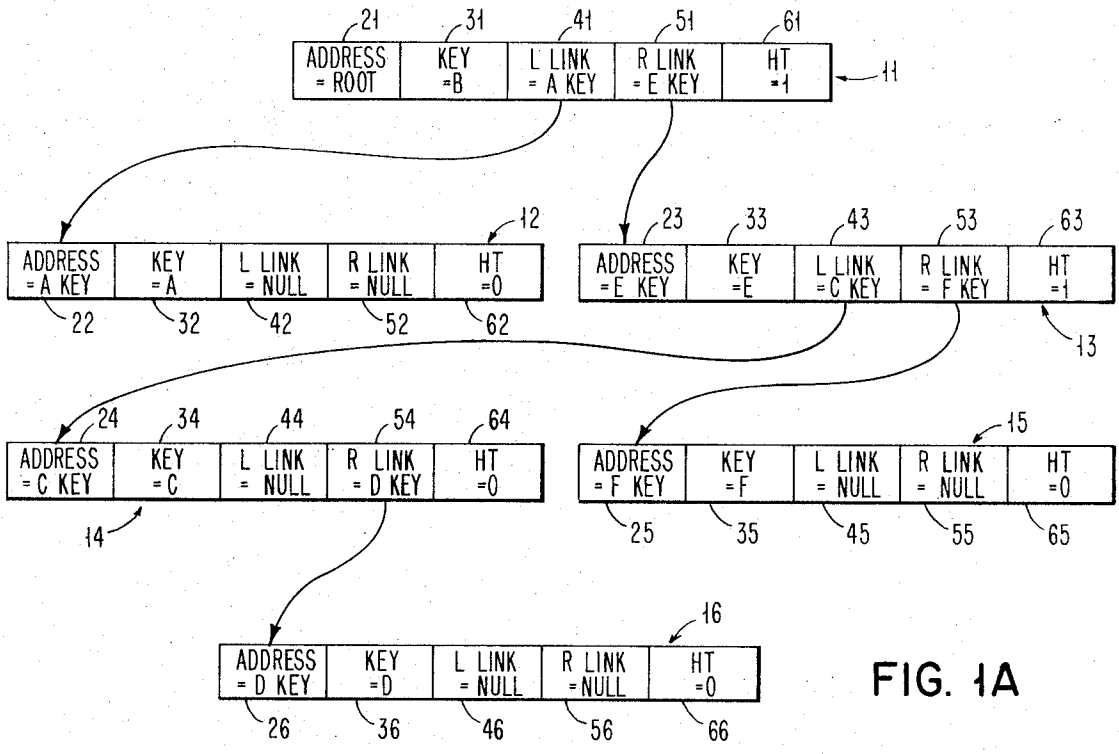


FIG. 1A

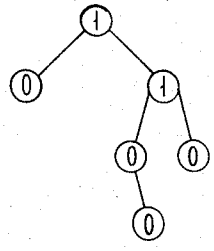


FIG. 1B

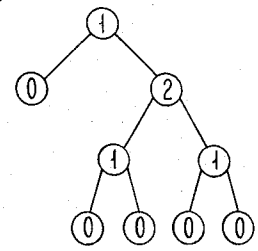


FIG. 2A

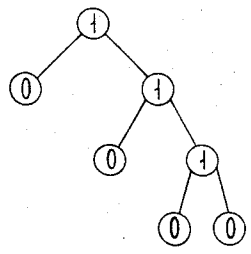


FIG. 2B

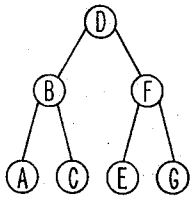


FIG. 3A

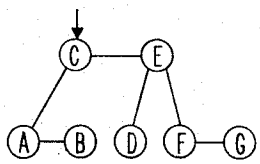


FIG. 3B

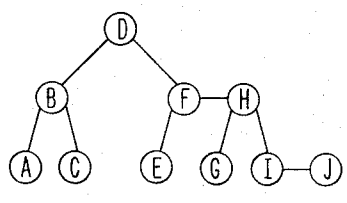


FIG. 3C

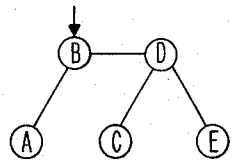


FIG. 4

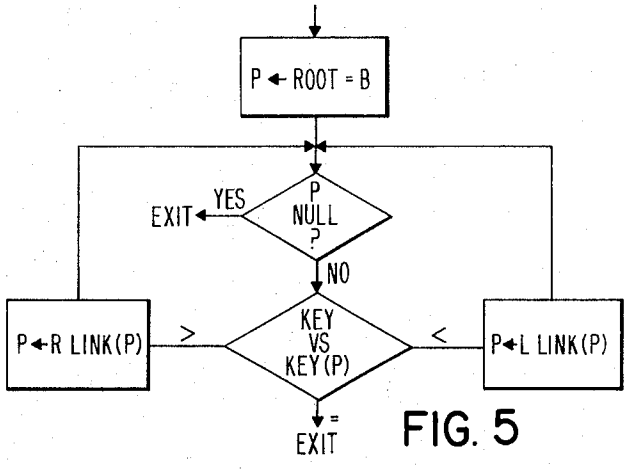


FIG. 5

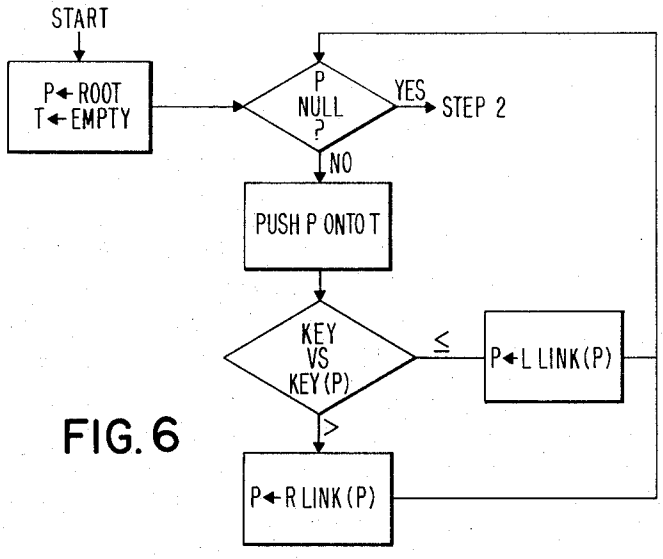


FIG. 6

DATA TREE STRUCTURE AND MAINTENANCE METHOD

Original Filed Dec. 27, 1971 4 Sheets-Sheet 3

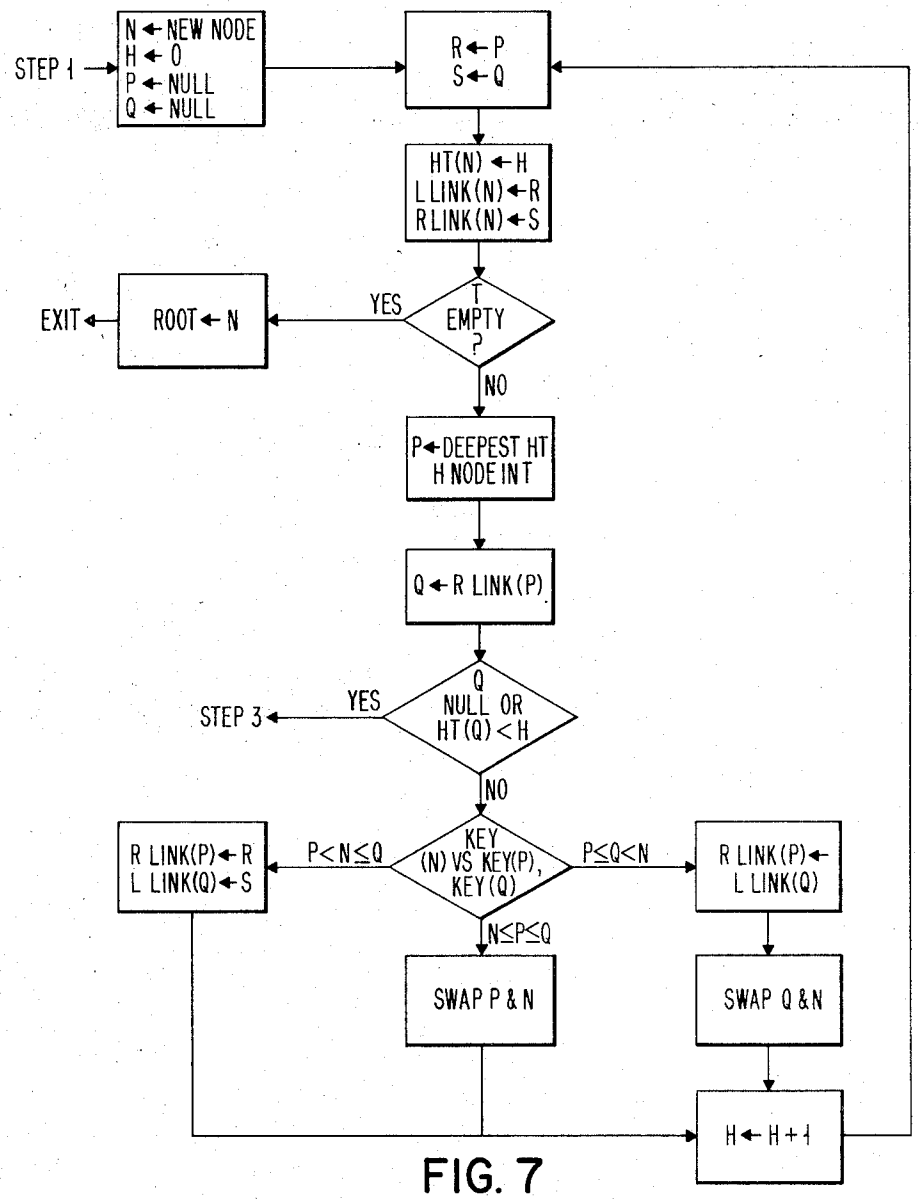


FIG. 7

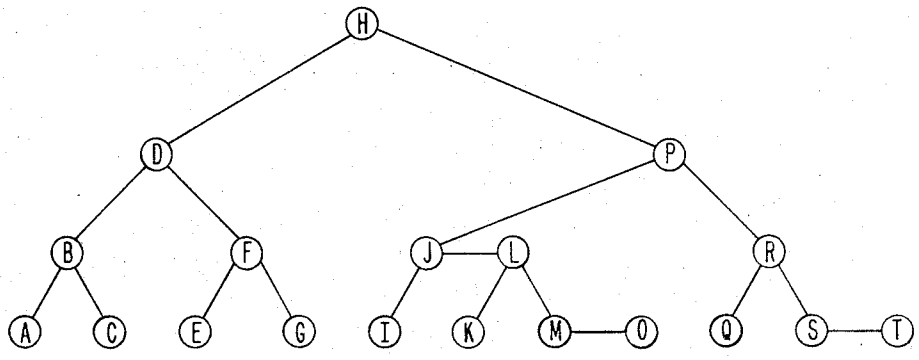


FIG. 9

DATA TREE STRUCTURE AND MAINTENANCE METHOD

Original Filed Dec. 27, 1971 4 Sheets-Sheet 4

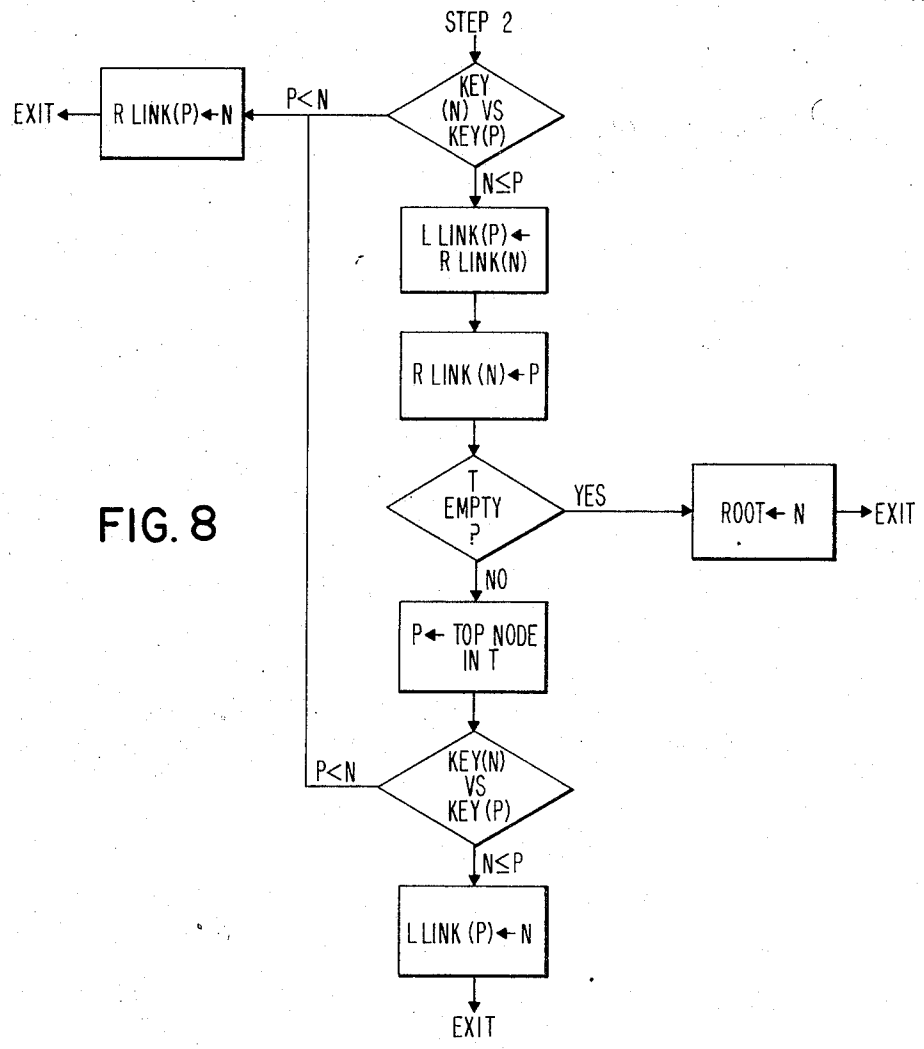


FIG. 8

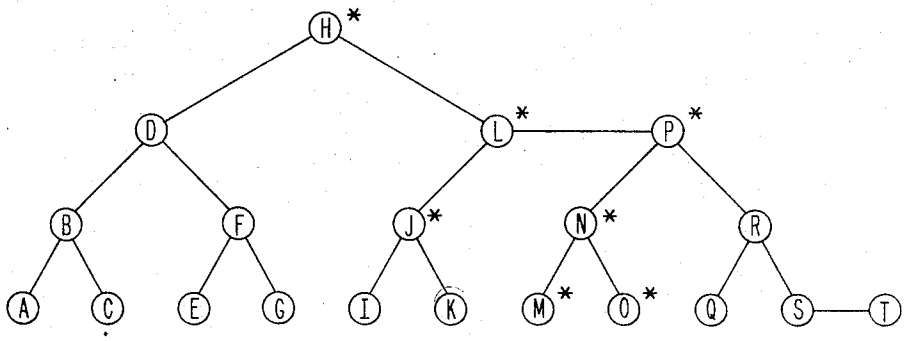


FIG. 10

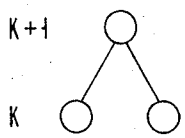


FIG. 11A

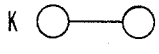


FIG. 11B