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(54) **NETWORKING IN UNCOORDINATED FREQUENCY HOPPING PICONETS**

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(52) **U.S. Cl.** **375/132**

(58) **Field of Search** 375/130, 131, 375/132, 133, 220, 222, 219; 370/94, 330, 344; 455/444, 463; 342/385

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(57) **ABSTRACT**

Networking in uncoordinated frequency hopping piconets includes forming an anchor piconet from a plurality of wireless units that are in range of one another. An anchor unit is selected from the plurality of wireless units. A beacon signal is generated from the anchor unit and the remaining wireless units are locked onto the beacon signal. An additional embodiment the invention in peer-to-peer ad-hoc networking includes establishing at least one anchor piconet and establishing at least one traffic piconet between at least two wireless units in the anchor piconet. The traffic piconet is established using information relayed from the anchor unit to each wireless unit that participates in the traffic piconet. Since the anchor unit knows routing and identification information of all the wireless units, the traffic piconets can be established with minimal delay.

52 Claims, 9 Drawing Sheets
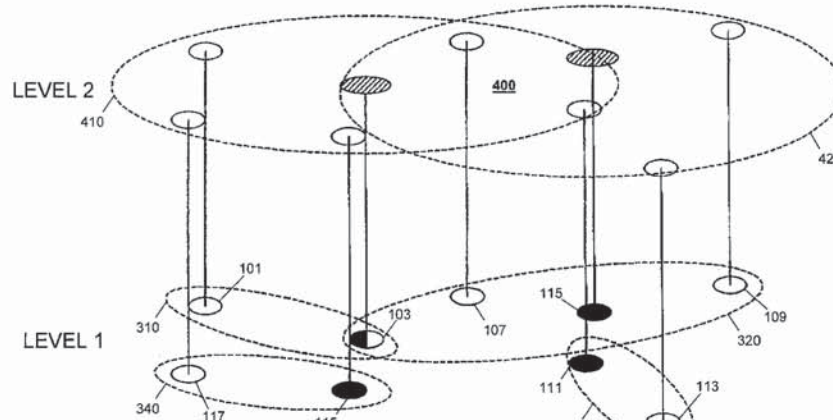
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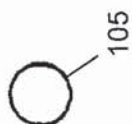
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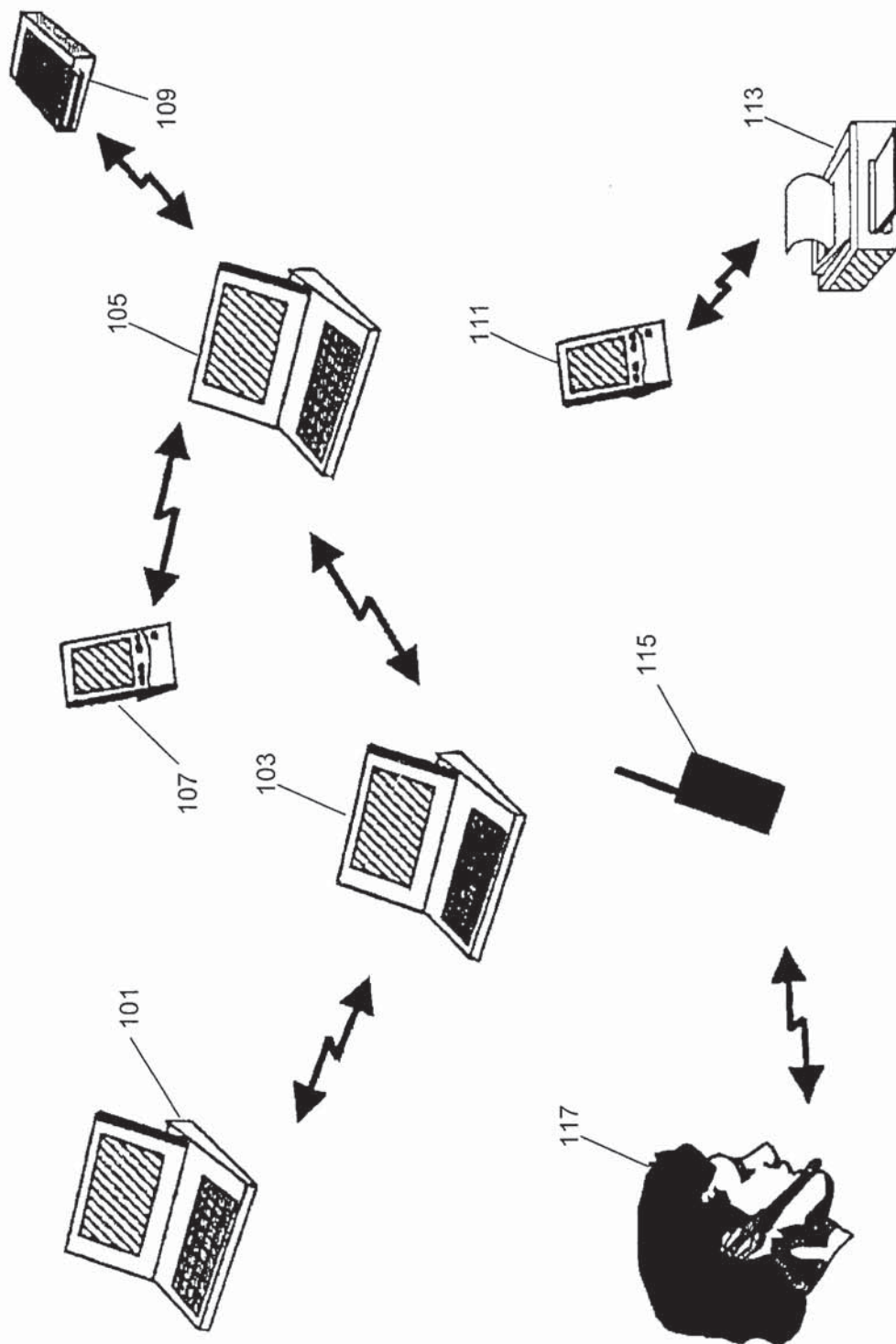
FIG. 1
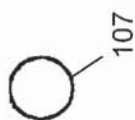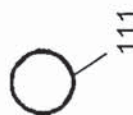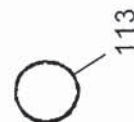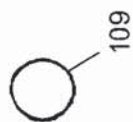
FIG. 2
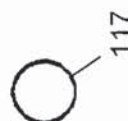
FIG. 3

DOCKET ALARM
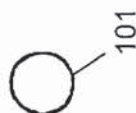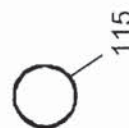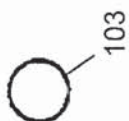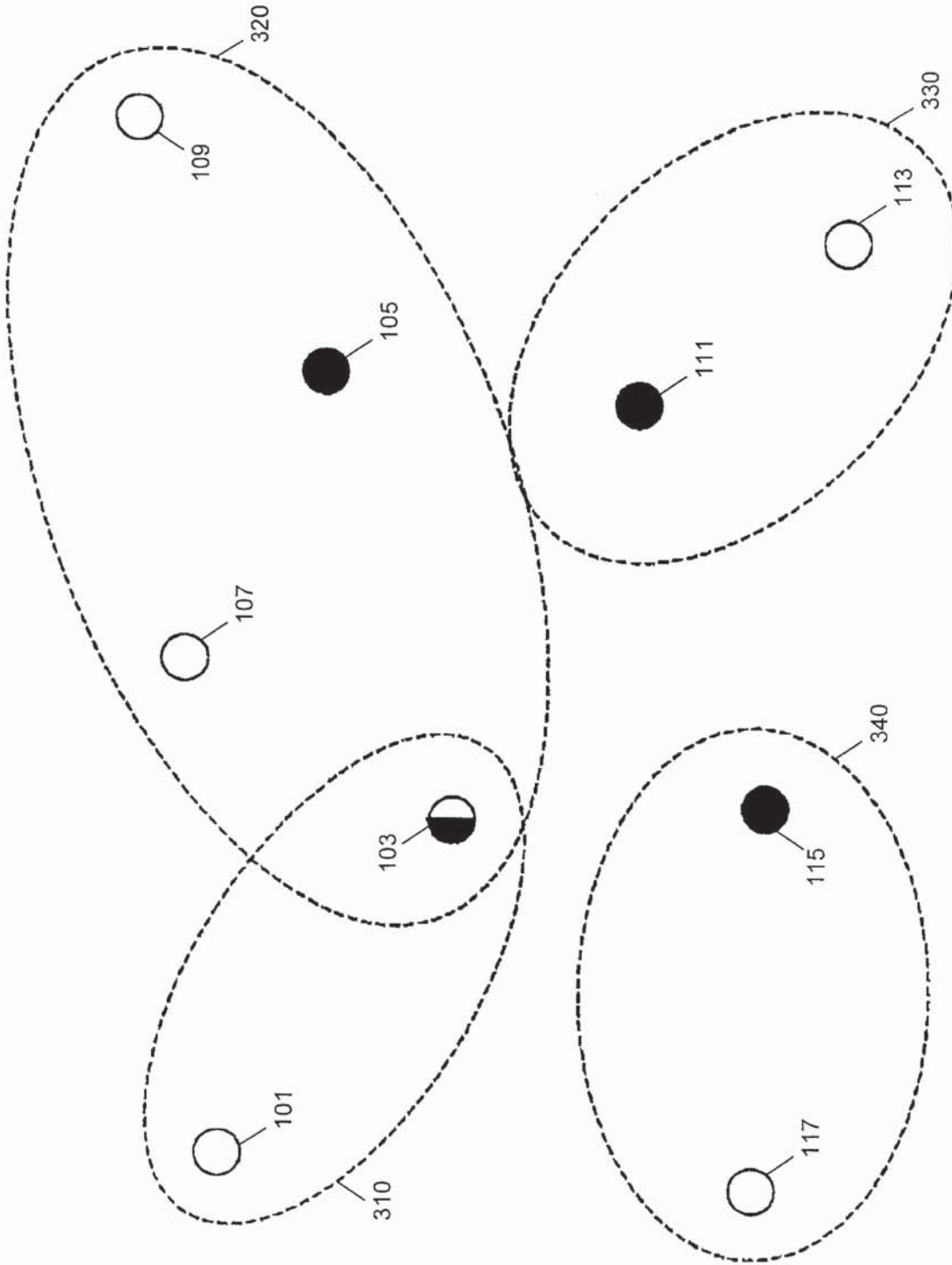
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