



**FIGURE 6.5** Execution of the lock-free universal construction. Thread 2 appends the second node in the log winning consensus on `decideNext` in the sentinel node. It then sets the node's sequence number from 0 to 2, and refers to it from its entry in the `head[]` array. Thread 7 loses the `decideNext` consensus at the sentinel node, sets the next reference and sequence number of the decided successor node to 2 (they were already set to the same values by thread 2), and refers to the node from its entry in the `head[]` array. Thread 5 appends the third node, updates its sequence number to 3, and updates its entry in the `head[]` array to this node. Finally, thread 2 appends the fourth node, sets its sequence number to 4, and refers to it from its entry in the `head[]` array. The maximal value in the `head` array keeps track of the head of the log.