```
1  class OneBit implements Lock {
2    private boolean[] flag;
3    public OneBit (int n) {
4      flag = new boolean[n]; // all initially false
5    }
6    public void lock() {
7      int i = ThreadID.get();
8      do {
9        flag[i] = true;
10       for (int j = 0; j < i; j++) {
11         if (flag[j] == true) {
12           flag[i] = false;
13           while (flag[j] == true) {} // wait until flag[j] == false
14           break;
15         }
16       }
17     } while (flag[i] == false);
18     for (int j = i+1; j < n; j++) {
19       while (flag[j] == true) {} // wait until flag[j] == false
20     }
21   }
22   public void unlock() {
23     flag[ThreadID.get()] = false;
24   }
25 }
```

FIGURE 2.21 Pseudocode for the OneBit algorithm.