

```

23 private class ReadLock implements Lock {
24     public void lock() {
25         lock.lock();
26         try {
27             while (writer)
28                 condition.await();
29             readAcquires++;
30         } finally {
31             lock.unlock();
32         }
33     }
34     public void unlock() {
35         lock.lock();
36         try {
37             readReleases++;
38             if (readAcquires == readReleases)
39                 condition.signalAll();
40         } finally {
41             lock.unlock();
42         }
43     }
44 }
45 private class WriteLock implements Lock {
46     public void lock() {
47         lock.lock();
48         try {
49             while (writer)
50                 condition.await();
51             writer = true;
52             while (readAcquires != readReleases)
53                 condition.await();
54         } finally {
55             lock.unlock();
56         }
57     }
58     public void unlock() {
59         lock.lock();
60         try {
61             writer = false;
62             condition.signalAll();
63         } finally {
64             lock.unlock();
65         }
66     }
67 }

```

FIGURE 8.10 The FifoReadWriteLock class: inner read and write lock classes.