

(b)

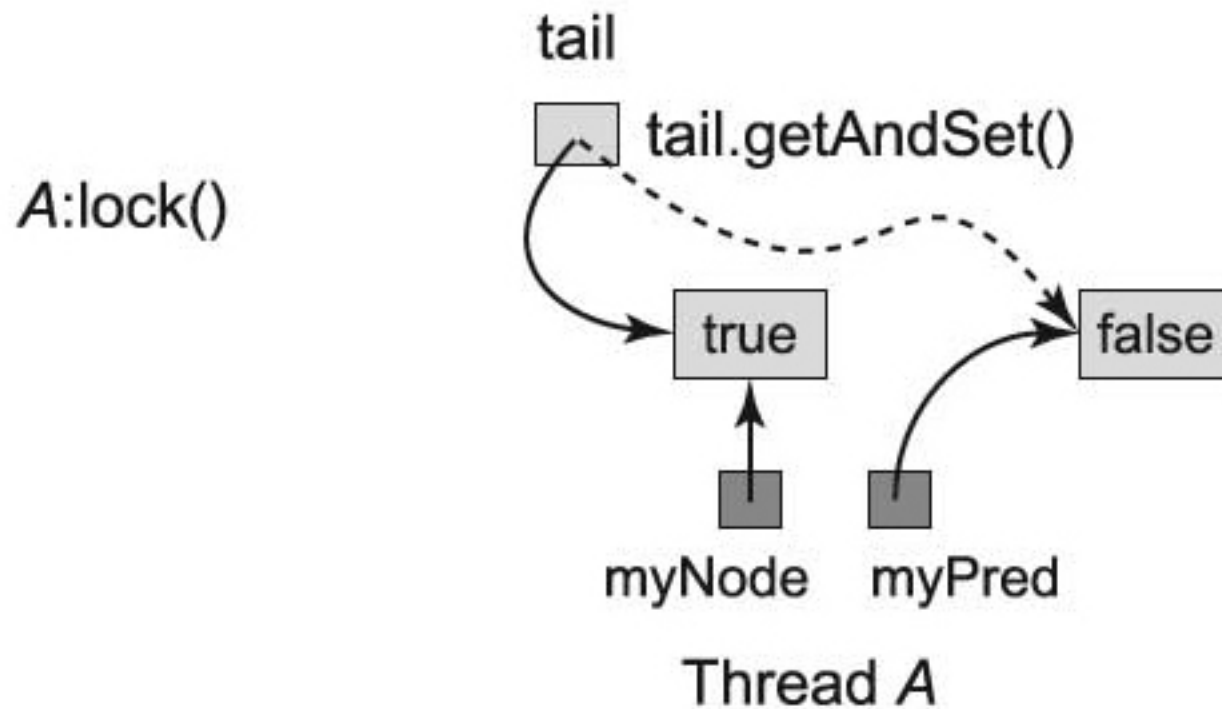


FIGURE 7.10B CLHLock class: lock acquisition and release. Initially the `tail` field refers to a `QNode` whose `locked` field is *false*. Thread *A* then applies `getAndSet()` to the `tail` field to insert its `QNode` at the tail of the queue, simultaneously acquiring a reference to its predecessor's `QNode`. Next, *B* does the same to insert its `QNode` at the tail of the queue. *A* then releases the lock by setting its node's `locked` field to *false*. It then recycles the `QNode` referenced by `pred` for future lock accesses.