

(a)

Initially

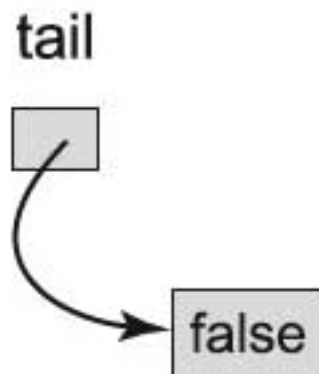


FIGURE 7.10A CLHLock class: lock acquisition and release. Initially the tail field refers to a QNode whose locked field is *false*. Thread *A* then applies `getAndSet()` to the tail field to insert its QNode at the tail of the queue, simultaneously acquiring a reference to its predecessor's QNode. Next, *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.