


here, and the plank laid with the sap corners down, thus: , the dark portion representing the sap-wood. Wane or bark edges are very apt to occur in otherwise first-class sound timber, but should not insure condemnation if only on *one* corner, if the plank can be laid with that corner down. If on two under corners, the plank would be next to the slab (or outside cut), and therefore almost all sap-wood, and should not be permitted to pass by the inspector. For stringer timbers, inspection ought to be somewhat more rigid than for floor-plank, but guided by the same common-sense principles, and the farther consideration, how much surplus strength the stringers possess. The kinds of lumber used are mostly oak and pine, both white and yellow; to these may be added, for plank purposes, beech, birch, and maple, and occasionally spruce, when two courses of plank are used, the upper one being of hard wood. All things being considered, the writer prefers close-grained yellow pine for floor-planks, it being much less expensive than a proper quality of oak, and besides less slippery for horses in frosty weather. As to artificial means for preserving timber, a number of processes have been tried with success. The various methods of creosoting and burnetizing are the more common in use. The city of Boston required the latter process to be applied to spruce plank in some bridges recently built, as one eminently effective and cheap. Any process used, unless thoroughly well done—that is, unless all the pores and cells are *filled* with the preservative material—is