

# A.V.O. CEDAR FENCES

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## "CHECKING" OF WOOD



"My fence posts are all cracking!!"

"This fence is no good - it's all splitting!!"

This is not an uncommon "complaint" by the owner of a new wood fence.

It can be a troublesome one - but not if you know the answer and reasons.

Actually the fence post neither "cracked" nor "split", but rather underwent a process known as "checking", which results from the natural seasoning (drying out) of any piece of lumber. This is particularly noticeable in any full round piece of timber.

The U.S. Department of Agriculture Forest Products Laboratory at Madison, Wisconsin, has done considerable research on this subject. The following is quoted from the U.S.D.A. Bulletin No. 1187:-

"Round items are considerably more difficult to season than sawed items. The difficulty arises because the round item contains the heartwood or center of the tree, frequently of larger proportions to the whole, and the outer sapwood layer. The enclosure of the heartwood within the piece prevents the satisfaction of the inherent differences between tangential and radial shrinkage by distortion of cross section. As a consequence, stresses set up in different directions during drying, thus the full round item has a natural tendency to develop a V-shaped check towards the center."

In plain language - when a full round timber dries, the exterior surface (sapwood) shrinks faster than the inner (heartwood) heart of the piece, and something has to give. The result is the familiar "check."

Checking is much less visually evident, but still a possibility, in boards and planks (the form in which we see common lumber) because these timbers are normally cut from larger trees. Having been sawn on four sides, exposure to the air and natural drying is more even and uniform.

Both laboratory and field tests tend to prove that the natural checking of materials does not materially affect the strength of the timber.

Users of full round timbers (posts, rails, etc.) or dimensional members (posts, boards, slats, etc.) can be assured that the natural checking, which is certain to occur, will have no appreciable effect on the strength of that member.