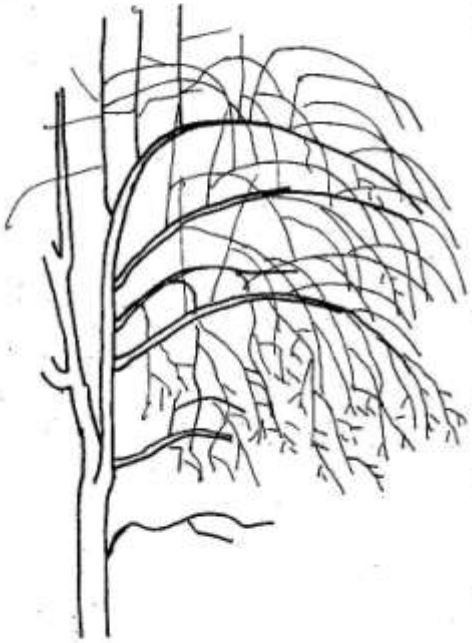
Pruning to Restore an Old, Neglected Apple Tree

This neglected apple tree is 24 feet tall and has a spread of 24 feet. Only half is shown. Since the trunk is fairly solid and the tree is basically healthy, it can be restored. Careful pruning over a period of 4 years will be required to 1) reduce its height, 2) increase the vigor of the fruiting wood, and 3) open the tree to light and make it accessible for spraying and picking. If all of the heavy cutting to reduce tree height were done at once, there would be excessive and unmanageable regrowth of remaining limbs.



← All new growth is in the tree top out-of-reach.

← Fruiting wood lacks vigor, is too dense for good fruit quality.

← Dead limbs due to shading by limbs above.

← No limbs left in first six feet.

First year of restoration pruning. You will need a 14-foot ladder for this job. It is definitely unsafe to attempt to restore an old tree on an inadequate ladder, or worse, by climbing the tree. It will not be possible to do this pruning with a pole saw.

a — Riser topped at 18 feet; reduces suckering.

b — Main scaffold limb topped at 16 feet.

← Upper layers of horizontal and hanging wood removed.

← Dead wood removed.

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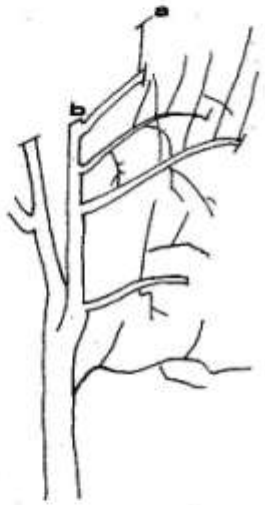
Before the second dormant pruning, check the results of the previous year's work and plan how to reduce tree height still further. The limbs left above those that will be permanent suppress growth on lower limbs.

← Long shoots grow from near the cuts and on the upper sides of horizontal limbs. Most are unwanted and must be removed.

← Some new growth begins on lower limbs due to increased exposure to light.



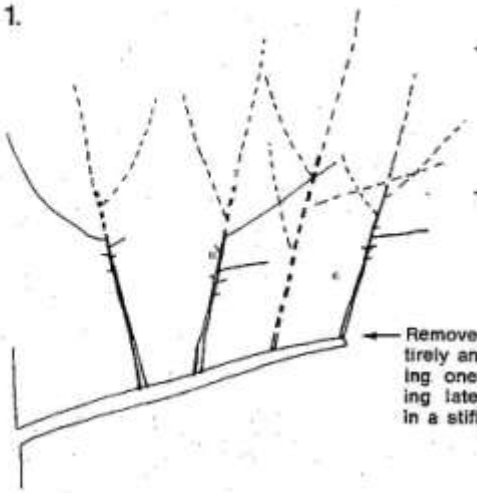
After the second dormant pruning. The final tree height has been established at 17 feet. Loss of lower limbs makes it hard to reduce the height more without excessively reducing yield.

a — The highest shoot is topped at 17 feet.

b — The main scaffold limb is topped at 14 feet; thin-out shoots on upper limb.

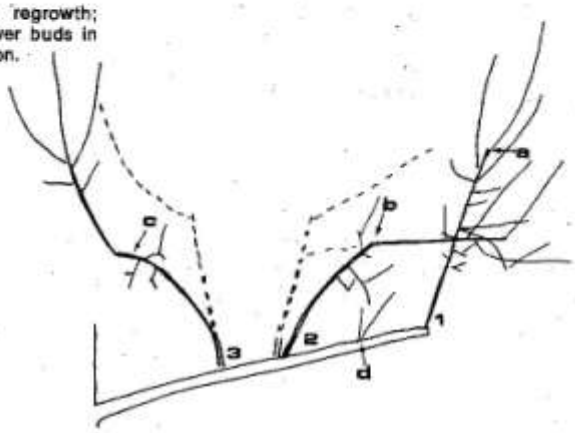
← Keep all live wood on lower limbs. Lower limbs must develop to replace fruiting wood lost from the top.

1.



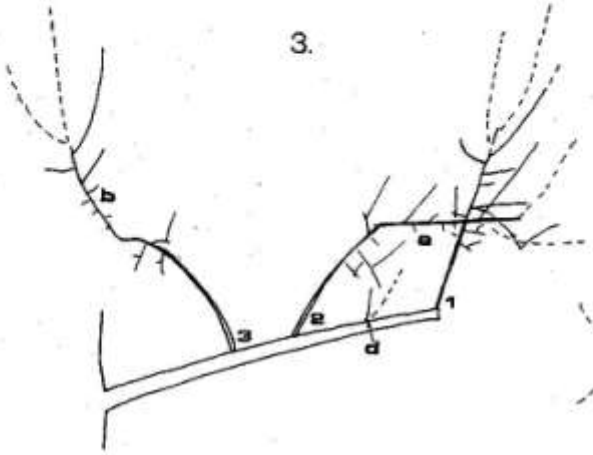
A stylized drawing of a secondary scaffold limb. Regrowth are 2 years old and branched. Some varieties of apple will not branch as readily. Dashed lines show the wood to be removed by pruning.

2.



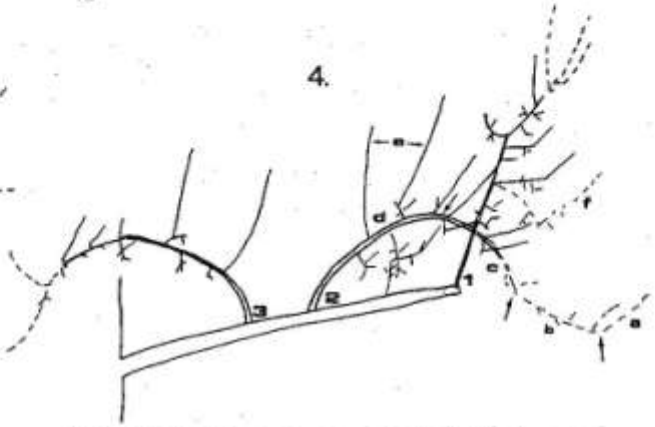
The same limb showing regrowth and change of limb position due to fruiting (former limb position in dashed lines). Branch 1 was headed at a, which stiffened it and held it in position. Branches 2 and 3 were pruned to outside laterals at points b and c. Regrowth from point d is short because branches 1 and 2 suppressed it.

3.



The same limb showing, with dashed lines, what will be pruned away. All three branches were cut-back to a single upright shoot which, on branch 1, was headed to stiffen it. This reduces growth of shoots below and helps to develop fruiting wood close to the secondary scaffold branch. Note development of flower-bearing spurs at a and b on limbs 2 and 3.

4.



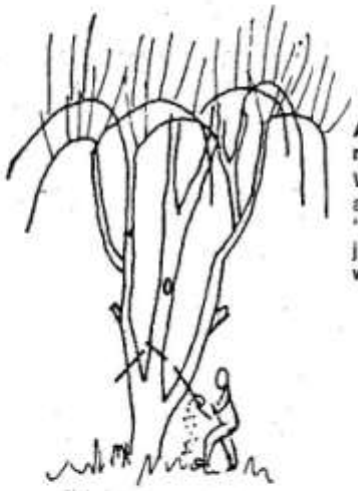
The same limb four seasons after the initiation of pruning to restore the old tree. The ages of portions of branch 2 are labeled as follows, between the arrows, a) last year's growth; b) 2-year-old portion (note new flower spurs); c) 3-year-old portion which fruited the previous summer; d) 4-year-old portion. Upright shoots at e and elsewhere are removed completely or left unheaded. Portions a, b, and part of c are removed because they are too far from the secondary scaffold branch. They will be replaced with shoots such as at e when they form flower spurs. On branch 1, which has been headed every year to hold it in position, fruiting wood renewal is carried out by removal of hangers as shown at Point f.

← Most re-growth is in the top. More than 50 percent will be removed in pruning.

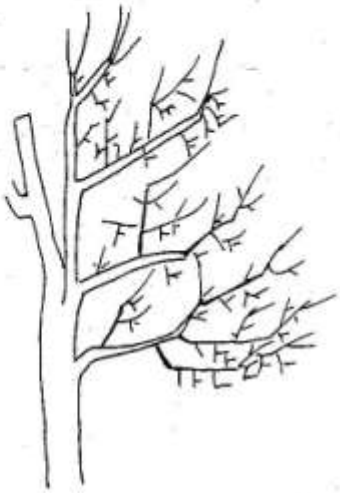
a — The details of pruning will be shown on an enlarged drawing of this limb.

← Lower limbs receive ample sunlight and begin to grow; very little wood need be removed from them.

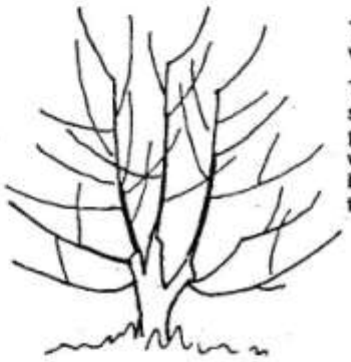
Regrowth following the second dormant pruning. Remove more than 50 percent of new growth in the top limbs and re-direct lower limbs upward as required.



Another method:
When all low limbs are already lost, "debark" the tree just above the crotch with sloping cuts.



After four years of intensive pruning the tree is 17 feet tall, has an 18-foot spread, a roundish-conic overall shape, well-developed lower limbs, and an abundance of young fruiting wood.



Treat the cuts with wound dressing.

Train regrowth by summer and dormant pruning to develop wide-spreading branches low on the tree.

Prepared by Robert L. Stebbins, Extension horticulture specialist, Oregon State University, Corvallis.