

Wiring

This is perhaps the most characteristic aspects of the art of bonsai, at least to the beginner. The necessity is born out of the need to modify the natural arrangement of branches to encourage them to grow to one of the classic styles. This technique of shaping bonsai has developed relatively recently (last 100 years), but is universally approved.



The wiring techniques is straight forward, but requires practice to master. Practice on branches of varying thickness from any shrub or tree before you start on a serious project.

Check the flexibility of branches before applying wire, as some species are more brittle than others. Young branches are usually more flexible than older ones.

The wiring should run neatly on the trunk or branch at an angle of about 45 degrees not too loose nor too tight, wiring should not cross.

When styling your bonsai, each and every twig and branch must be wired and positioned, it is this attention to detail in the initial stage of styling that will make the difference between a mediocre tree and a show specimen.

Equipment you will need:

- a. Wire – copper, brass or anodised aluminium wire, occasionally steel wire are utilised (although rust may present a problem) of different gauges. Thicker wire will be used for the trunk and thick branches and thinner wire for thinner branches and twigs.

- b. Small wire cutter.
- c. Large wire cutter.
- d. A pair of flat short bladed, long handled pliers.
- e. Scissors
- f. Branch cutters
- g. Though it is strictly not wiring equipment the following equipment are recommended.
 1. Trunk wrench, enable you to bend larger trunks or branches into shape.
 2. Rubber or PVC tubing, to fit around wire to protect branches when tie wires are utilised.
 3. Turn buckles, to be utilised with tie wires.

The Technique

It consists of wrapping a length of wire spirally at about 45 degrees around the trunk or branch. This restrictive wrapping will enable you to bend or shape the branch of truck into the desired shape. The wire should not be too tight as it cut off the sap flow and will eventually strangle the tree.

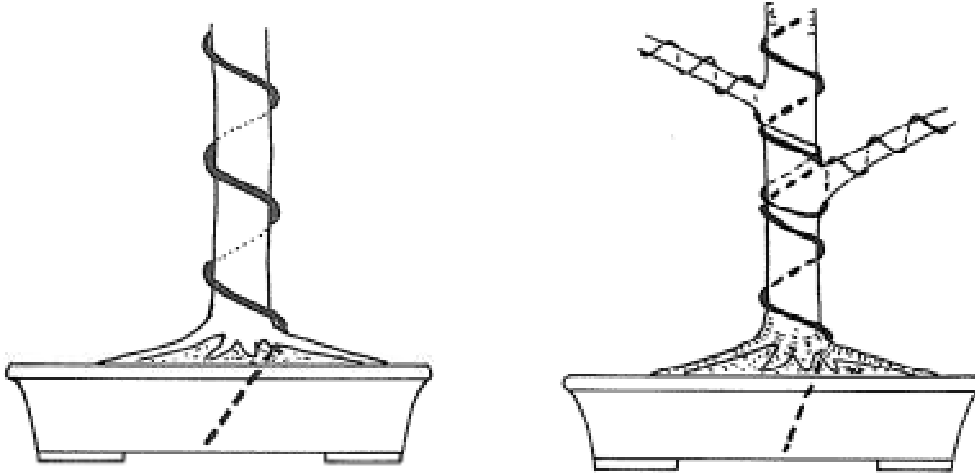
Though there are no hard and fast rules, wiring should be left on conifers for 5-6 months and on deciduous trees for 8-10 months.

Keep a watchful eye on your bonsai too ensure that the wire do not mark the bark or become embedded into the tree. For this reason the wire must be regularly be removed and rewound.

Though not strictly a wiring technique, wire can also be used to brace the branches. That is, it is use to keep tension onto the branch (generally in a downward position) so that they maintain their direction of growth. Copper wire which is used for bracing (tie wire) should be anchored to the ground, the pot or in some cases the tie wire my link the trunk and one branch.

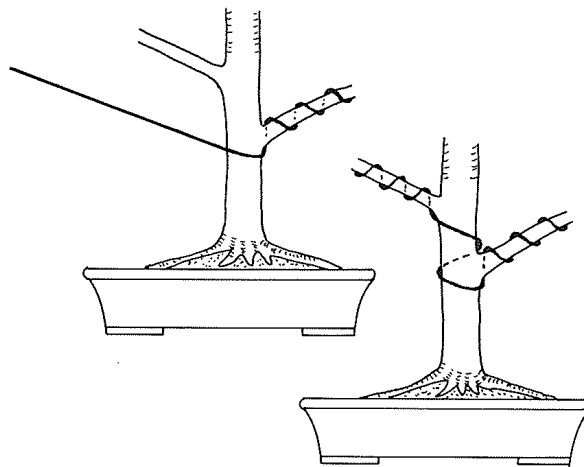
Wiring is one of the styling techniques of bonsai and not part of the aesthetics of bonsai as many bonsais seem to think. Trees should therefore not be kept wired permanently, as if the wire had some significance in the style of the tree.

Wiring Techniques.



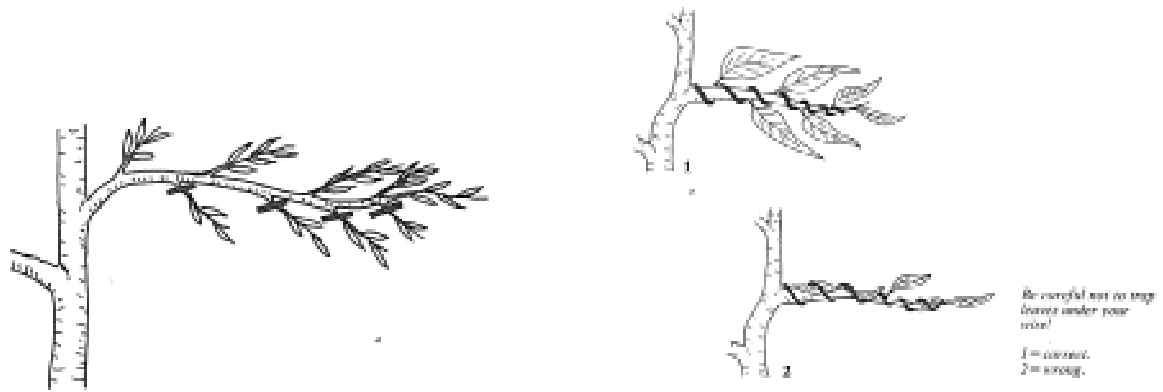
Take one end of the wire and push it at the back of the tree an angle of 45 degree into the soil and wind the wire at 45 degrees around the trunk.

Even if you intend wiring a single branch the opposite branch must also be wired to give the wire added support.



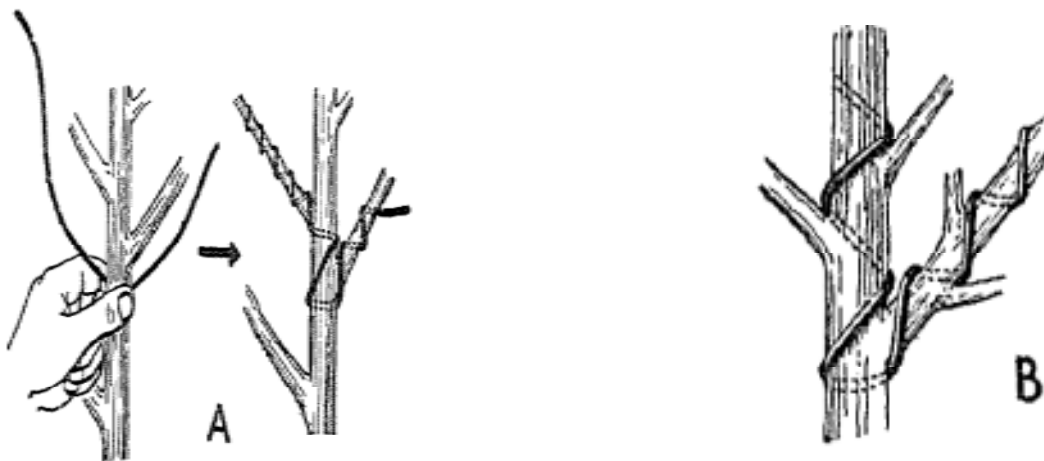
Start in the middle, i.e. at the branch or trunk that joins onto the one to be wired.

Whether it is a trunk, branch or twig to be wired, the wiring must always be wound in the direction of growth, i.e. spirally from bottom to top. The distance between each coil of wire should remain constant.



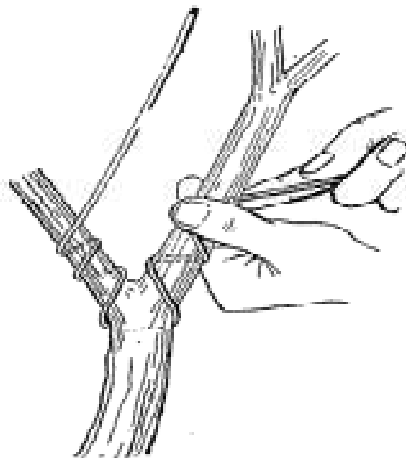
Before wiring remove any branches that grow downwards, and make sure not to trap any leaves under the wire.

Fork wiring

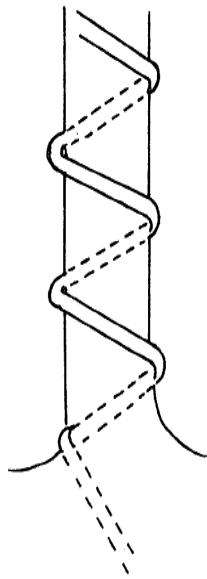


A - Two branches

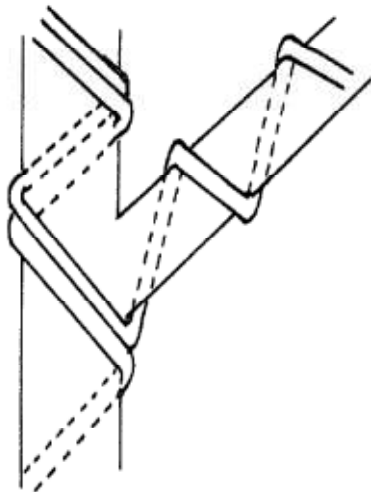
B - One Branch and trunk



Always support the branch to be wired with one hand whilst wire the branch with the other hand.



Coils evenly spaced at 45 degree angle



Joining of two differ gauges of wire



Lastly, once you have wired the branches, carefully bend them into shape.

Common errors in wiring

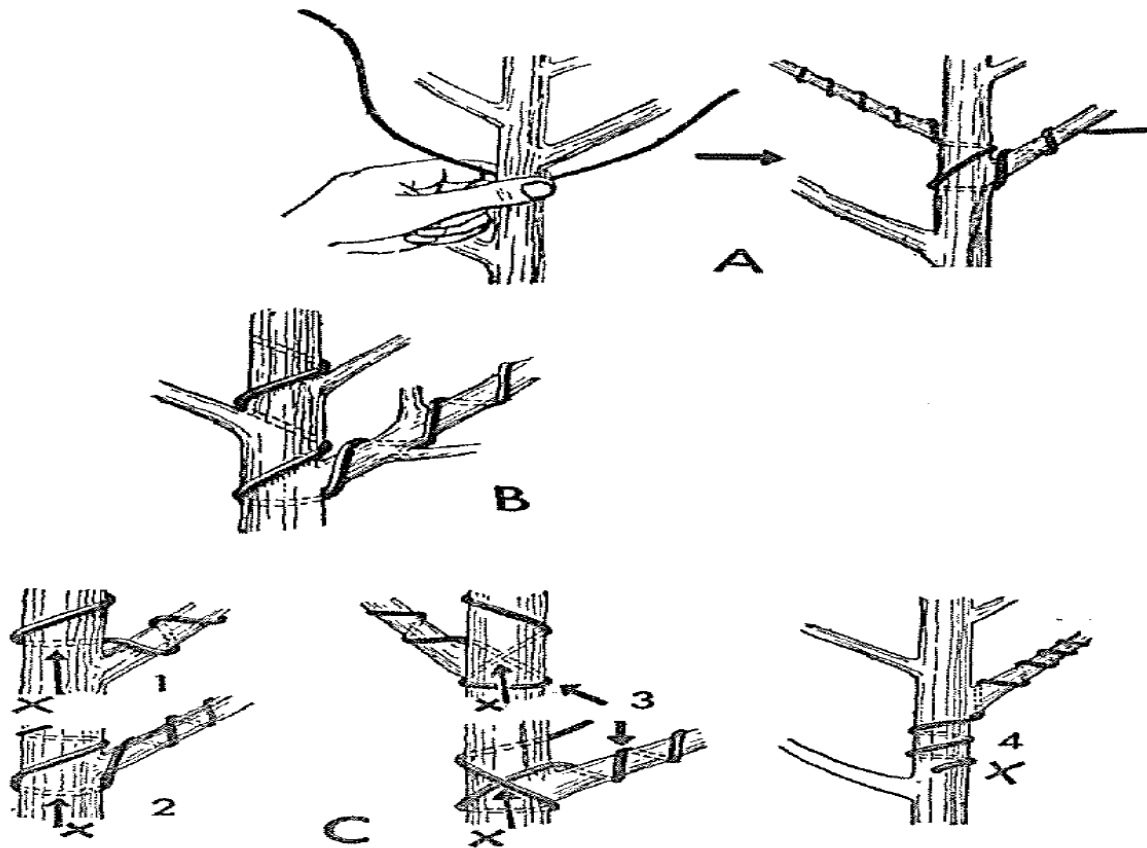


Fig A – Detail of fork wiring

Fig B – Correct way for trunk and one branch

Fig C

1. Wire to high
2. Wire to low
3. Crossed wires
4. Lower portion will not hold when branch are bend

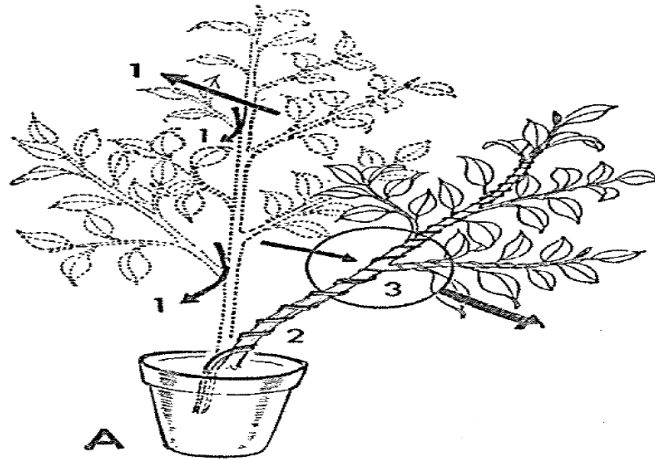


Fig A – 3 yr. old camellia, showing entire plant before and after wiring

1. Point at which tree was pruned before wiring
2. Trunk wiring
3. Fork Wiring
- 4.

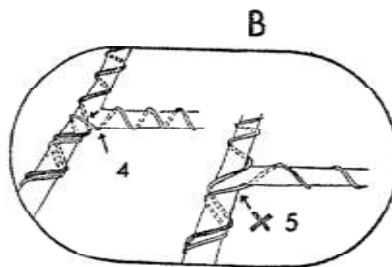
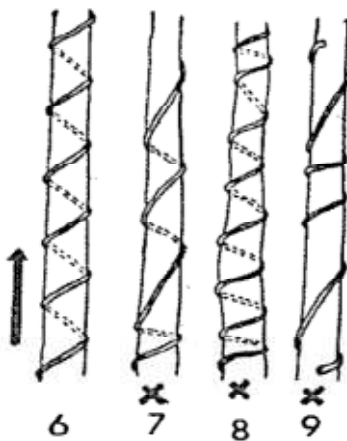
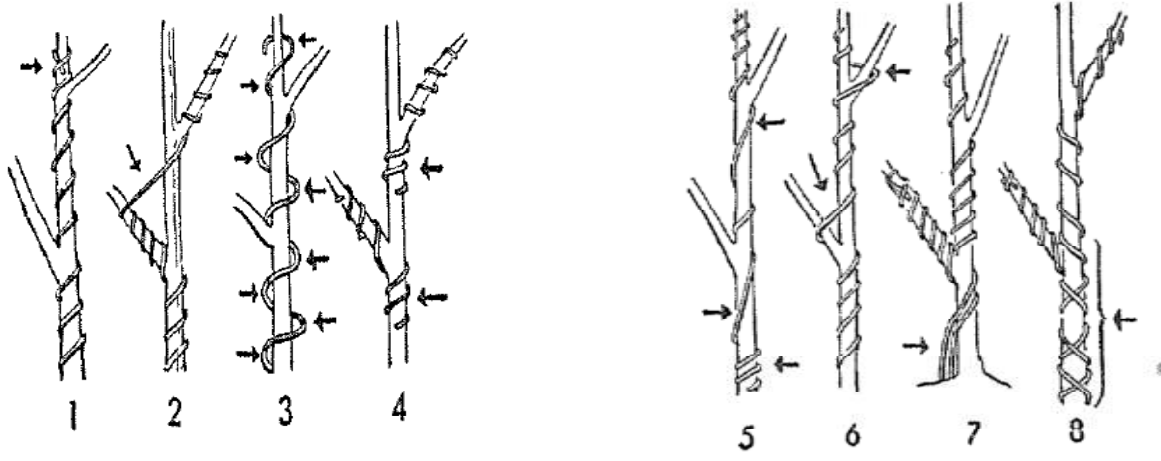


Fig B – Detail of fork wiring

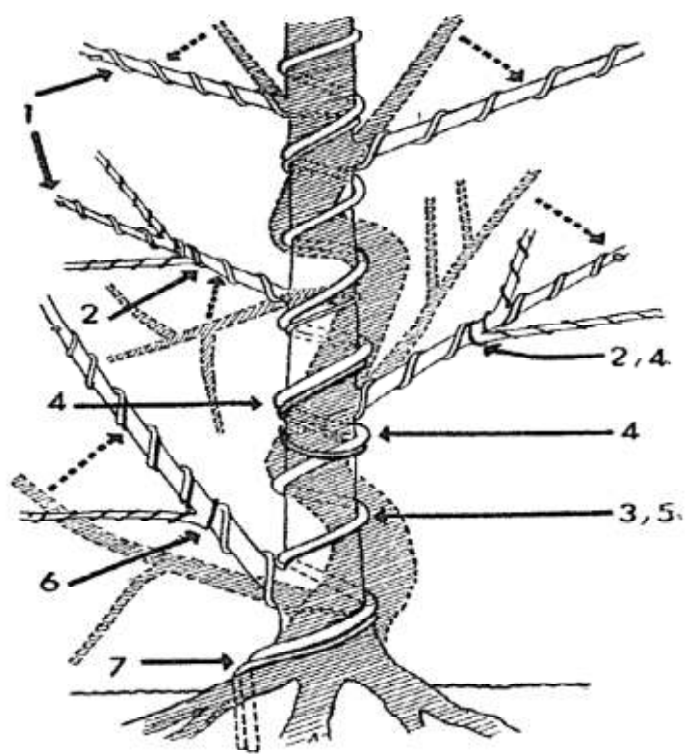
1. Correct way
2. Incorrect way



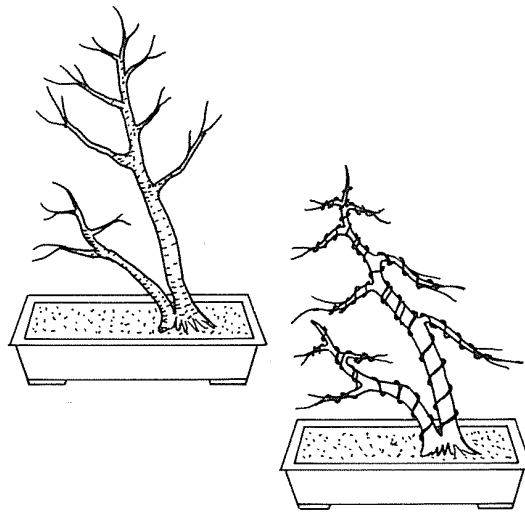
Spirals should be evenly spaced at about 45 degrees



1. End of wire should not bend down
2. Wire should not continue through open air
3. Wire to loose
4. Lower portion do not provide enough support for upper portion
5. Spirals to wide apart
6. Bad fork wiring
7. Wire at base should be at 45 degrees
8. Wires should not cross



Correcting errors in fig above



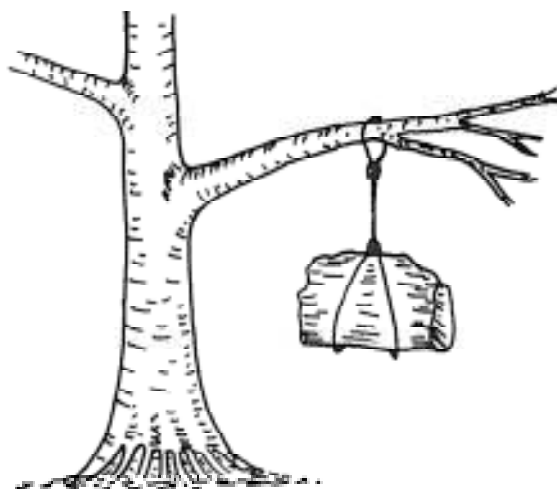
Tree before to wiring

Tree after wiring

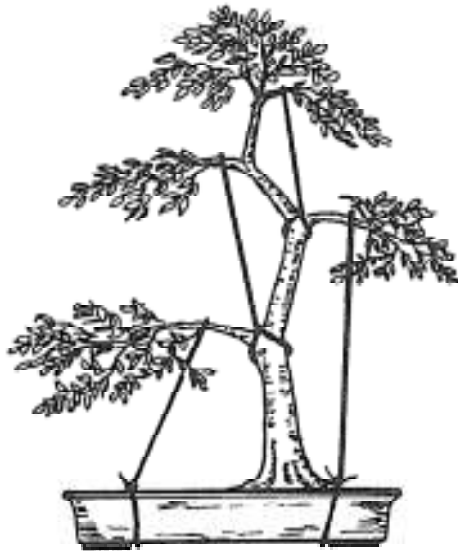
There are other methods besides wiring for bending of a branch in a downwards position or upwards or bending two branches closer together.

This method, leaves more to chance, takes longer but is easier on the eye.

In the examples pieces of string, wire and various bits and pieces are used. With this methods you still must ensure that the tree are treated gently, spots where the string, wire and other objects are attached to the branch are cushioned with either rubber or PVC tubing.



Hang a stone weight on to the branch to pull it down



Tie the branch to the trunk or pot with a piece of string or wire



Use pieces of wood to bend branches apart
Bend branches towards one another and tie together