

# **BONSAI WIRING**

Basic concepts



# WIRING

- **Necessary bonsai skill**
- **Especially for styling conifers**
- **Requires understanding of design goals**
- **Practice**

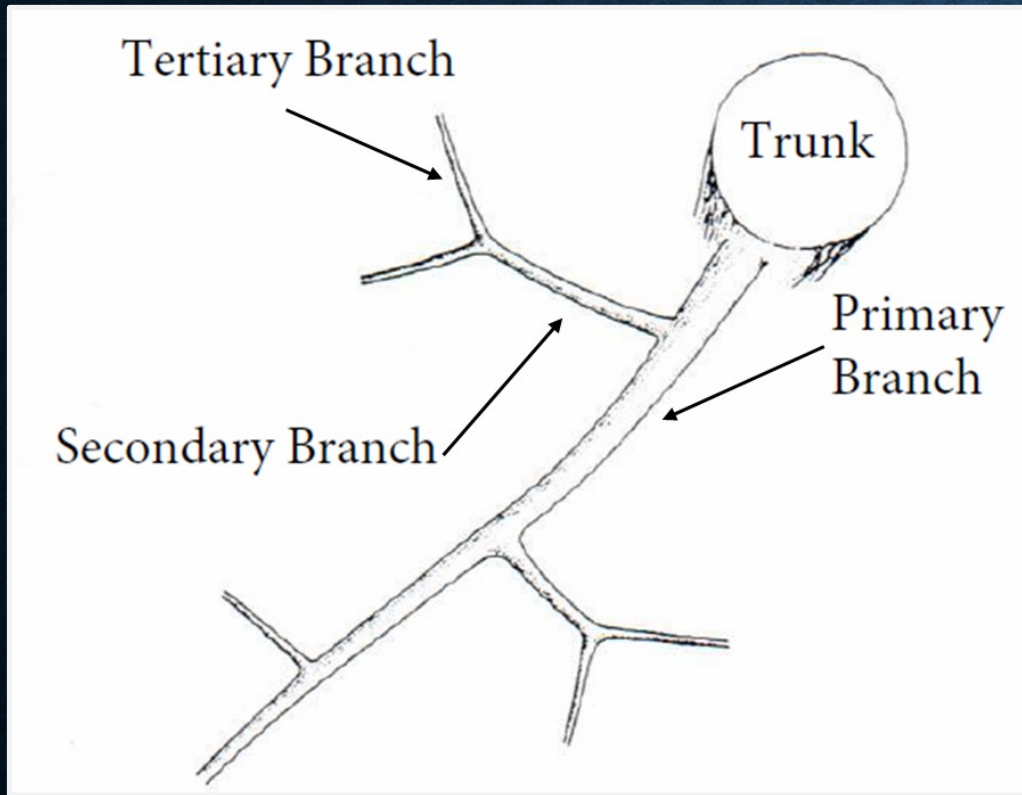


# WIRE TYPES

<b>Aluminum</b>	<b>Copper</b>
<b>Soft metal, easier to put on a bonsai</b>	<b>Soft then becomes hard as applied</b>
<b>Less holding power – requires larger size</b>	<b>Excellent holding power with smaller wire</b>
<b>Always very visible on the bonsai</b>	<b>Initially bright but ages to match bark</b>
<b>Sized in millimeters 1 mm to 7 mm diameter</b>	<b>Sized in gauges (20 to 4 gauge), 20 is small 4 is large</b>



# WIRING TERMINOLOGY



- **Structural wire:** applied to trunk and primary branches
- **Secondary wire:** applied to branches attached to primary branches
- **Tertiary wire:** applied to branches attached to secondary branches



## WIRING SHOULD BE:

- **Functional:** holds branch in the desired position
  - Common mistake: wire is too small for the branch
- **Aesthetic:** looks neat and clean
  - Aesthetic wire is most functional wire



# WIRING ORDER

- **Clean and prune tree**
- **Define a design – where will the branches go?**
- **Structural wiring – trunk and primary branches placed**
- **Secondary and tertiary wiring done next**
  - **Start at bottom branch and working up to the apex**



# WIRING GOALS

- **Same angle**
- **Same space**
- **No gaps between branch and wire**
  - **Gaps are caused by hand holding the wire to the branch**
  - **Wire has to be held to the branch**
- **No crossing wires**





# WIRING FAULTS



Wire too small



Coils too close



Coils too wide



Gaps between wire and branch



Just right





## **INITIAL STEP**

- **Two branches are wired together**
- **Wire is placed around the trunk**
- **Each end is individually wrapped around one of the branches**
- **Wires must turn in opposite directions**





# **STRUCTURAL WIRE**

- **Larger wire, harder to apply**
- **Applied facing side of branch**
- **Use length of wire for leverage**
- **Use stepwise wire application**
- **Hold wire to branch near application point**





## **SECONDARY WIRE**

- **Applied facing the end of the branch**
- **Must contact structural wire to be functional**
- **Wire should always turn before a fork in the branch**

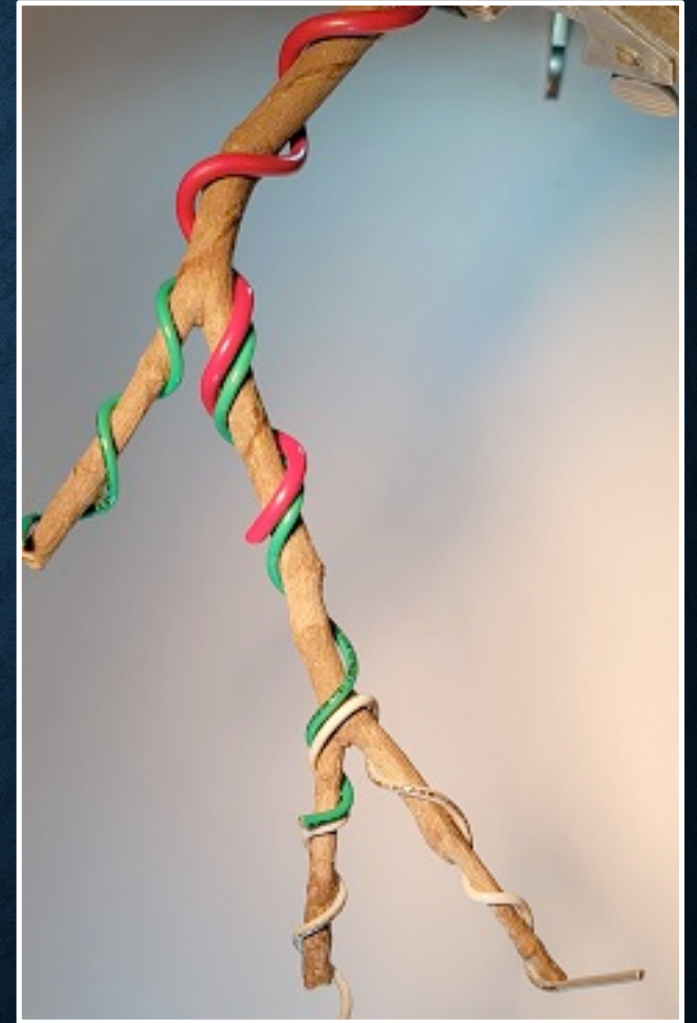


# BRANCH WIRED IN COLORED WIRE



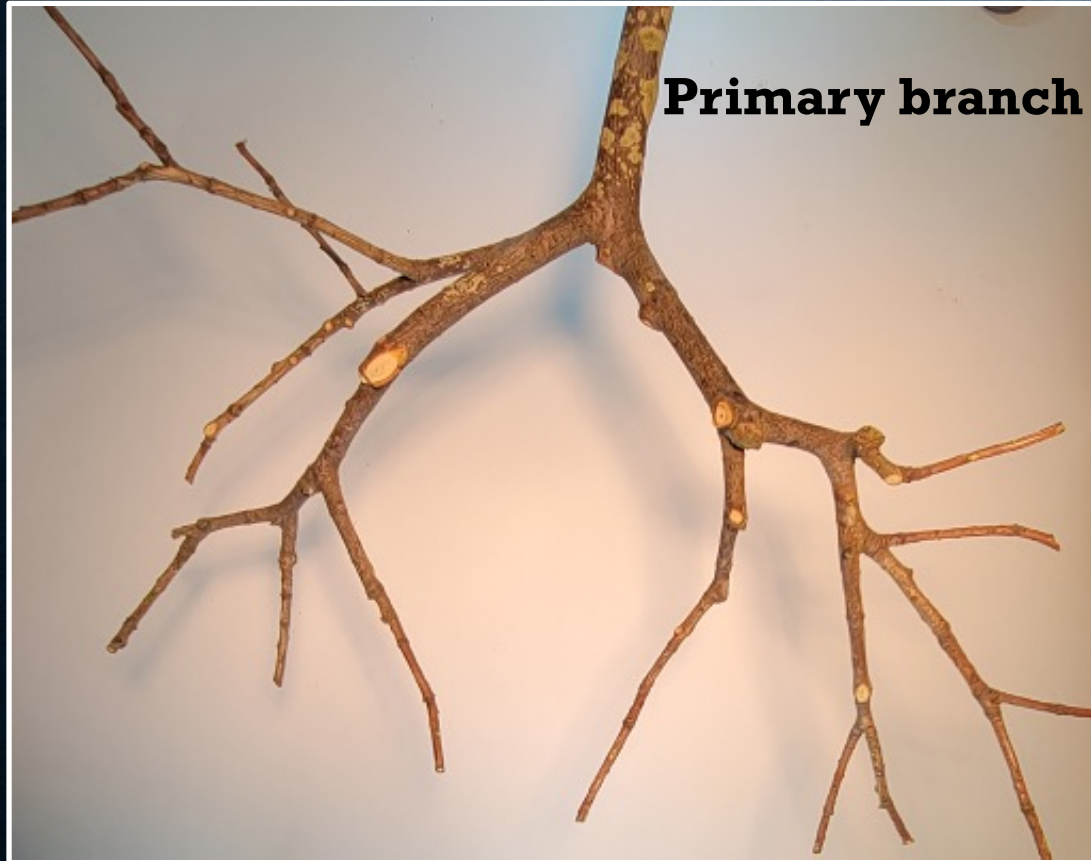


# WIRING ALTERNATIVE



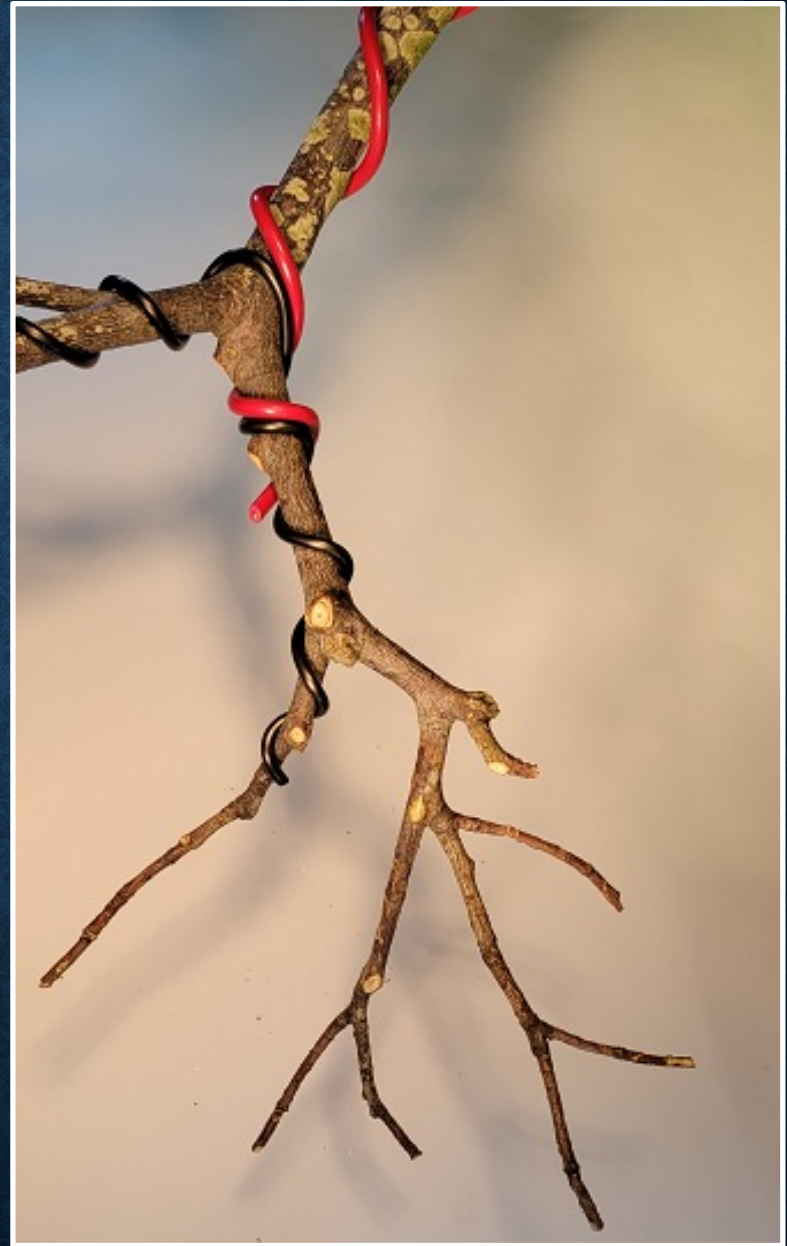


# SECONDARY/TERTIARY WIRING



- **One wire used to wire two branches**
- **Branches should be similar size**
- **Function derived from the wire turning opposite on each branch**
- **If one end of a wire starts turning clockwise it must continue turning clockwise until complete**

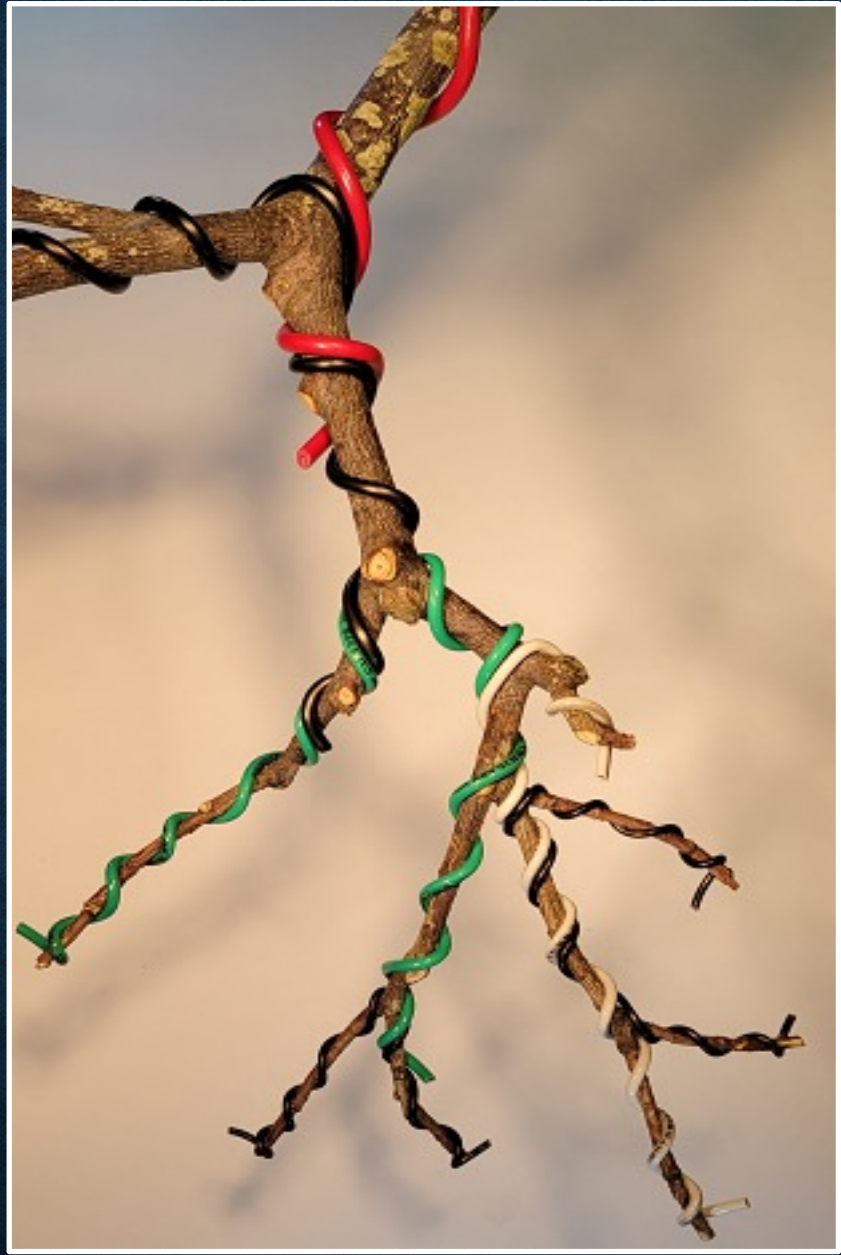
















## **BENDING A BRANCH**

- **Twist wire in the direction of the wire rotation**
- **Use tail of the excess wire as a bending lever**
- **Watch the outside of the bend for signs of stress**



# **CAREFUL OF THE FOLIAGE!**

- **Hold wire to branch from under branch if possible**
- **Always maintain 3-6" distance of wiring hand to branch**
- **Turn wire on branch to just meet foliage**
  - **Carefully with fingers or tweezers move foliage over wire**





# WIRE APPLICATION

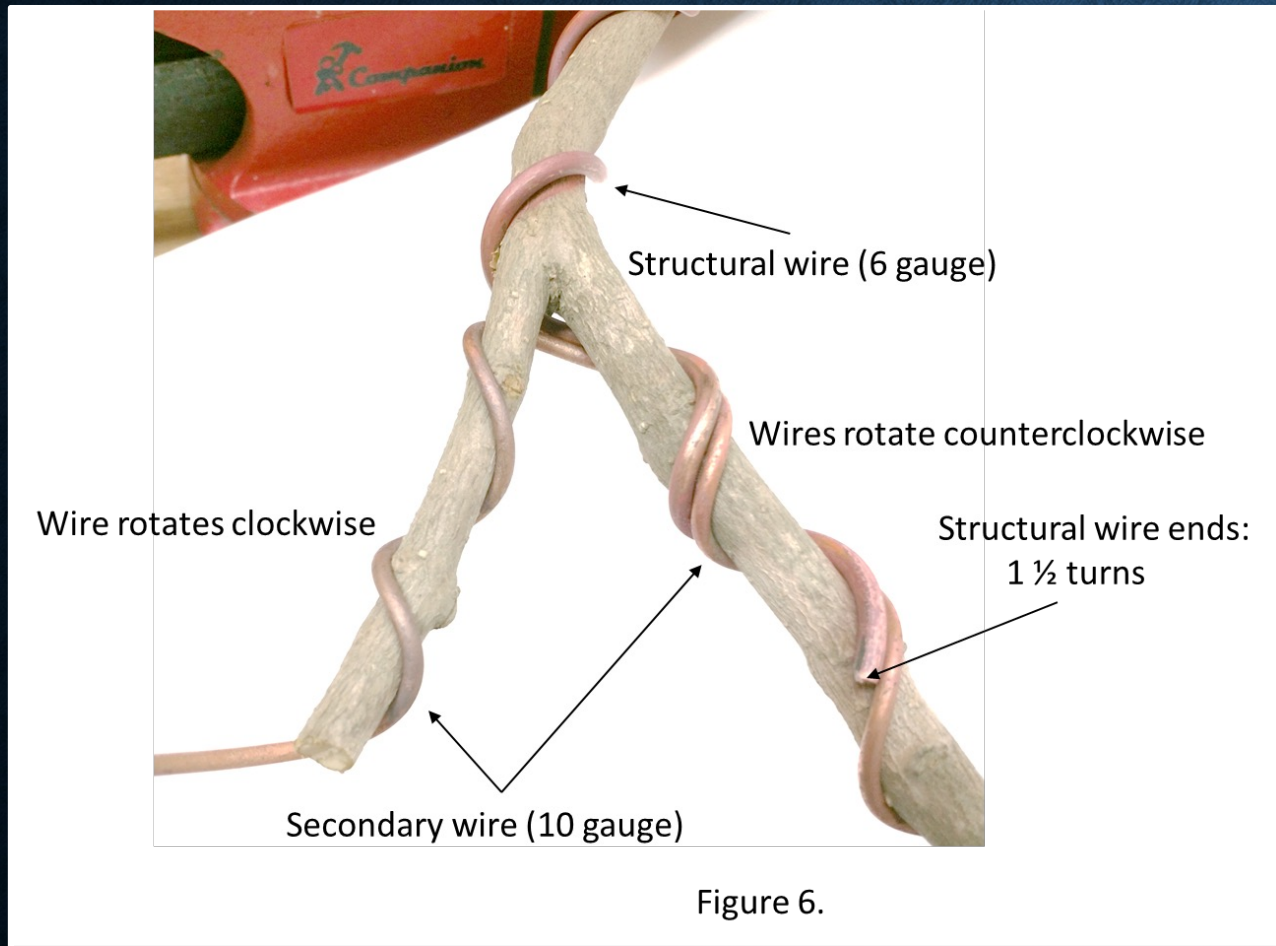


# **WIRING ARTICLES**

- **Bonsai Wire Volume 47 Issue 1**
  - **January 2021**
  
- **Bonsai Wire Volume 47 Issue 3**
  - **March 2021**



# BASIC WIRING PATTERN



- **Structural wire**
  - **Trunk and branches (primary) connected to trunk**
- **Secondary wire**
  - **Branches connected to primary branches**