Making Wooden Flowers

Step one – Make the Wood Shavings

I have been using basswood as my preferred wood for flower-making. It's a relatively soft hardwood and has very little grain so it can be shaved into paper-like sheets with comparatively little splitting. It also absorbs water quickly and holds the moisture which helps it to stay pliable during flower construction. I've tried other wood (i.e. cherry, ash, etc.) but I find that, because they are denser and harder, they don't absorb and hold moisture as well.

I've been using a 60 year old Stanley No. 7 Jointer plane to make my shavings. You might notice in the small inset in Figure 1 that the sole plate of my plane was broken just behind the blade mouth at one time during its 60 year life (before I owned it). In spite of that, it still does the job. More critical is the need for a sharp blade.

I take the shavings from a block of basswood about 1 3/4" wide and 8" to 10" long . The width is sufficient for the sizes of flowers I'm currently making. The thickness of the shavings can vary. I've worked with shavings that are quite thin and wood which is closer to the thickness of light cover stock. If the shavings are a little on the thick side but still workable, it will probably help in avoiding accidental breakage. Experimentation and experience will teach you what works best for you.

The petals (and leaves) made from this material are quite fragile, especially after they dry. At the end of each project, I use many coats of clear spray to give the flowers strength. More on that later.

Figure 1 *– I use my 60 year old Stanley No.7 jointer plane. It's length and weight helps maintain a fairly consistent thickness to the shavings it creates. Notice the broken sole plate at the mouth of the plane! As long as the blade is sharp, I get the results I need.*

Notes on my Plane

I have no particular expertise when it comes to the tuning, adjusting and using a hand plane. You will find many experts elsewhere who have more to offer than I will ever know. My comments here are offered only insofar as they might be helpful in obtaining good shavings to use in this project or others like it. If you have more informed wisdom regarding the subject, please chime in.

In my experience, when I use a plane a in normal situations, I am concerned with the workpiece (i.e. the big piece of wood from which the shavings are being removed). While the shavings can help me diagnose a condition that needs attention, in most cases I'll probably be getting results that are "good enough" to get the job done. In that case, I'll leave things alone and continue with the project. However, when the shavings themselves are the workpiece, my plane needs to be working better than "good enough" or the results will be disappointing and the tasks that follow will be difficult and frustrating.

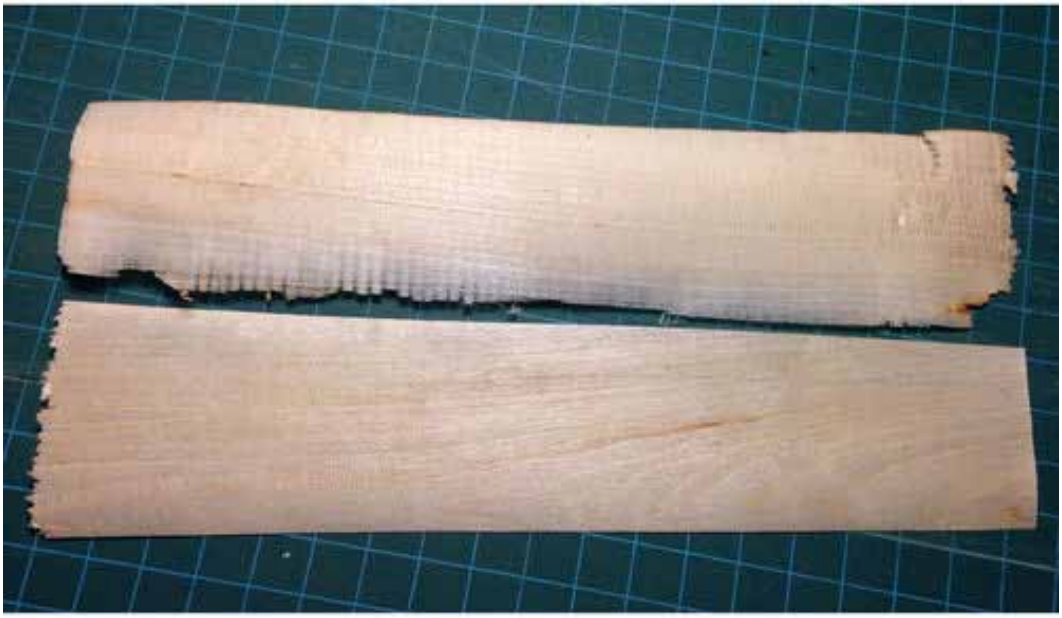
In my experience, two items regarding my plane are critical in order to obtain the best results for this project: 1. a sharp blade and 2. accurate blade alignment.

Blade Sharpness

It is critical to have a sharp blade in your plane. The best way I know of determining if the blade is sharp enough is to look at the shavings themselves. The photo below shows two shavings from my old Stanley No. 7. I've sharpened the detail to show the fibre breakage that occurs when the shaving is sliced from the blank and forced through the mouth and over the chip breaker. The top shaving is closest to what I'm looking for. Fibre breakage occurs in very small increments and the curl is tight and uniform. Pieces made from this shaving (petal, leaf, etc.) will be uniform in appearance and resistant to breakage. In the bottom shaving, (made before I sharpened the blade) the fibre breakage is in larger increments, indicating that the blade pushed through the wood instead of slicing it. Although this shaving could be used, the results would be less impressive and the item would be more prone to having pieces break off.

Blade Alignment

The photo below illustrates the influence of blade alignment. These two shavings have been flattened (procedure described in part 2 of this blog). The goal is to create shavings which are uniform in thickness like the one in the bottom of the photo. This requires that the cutting edge of the blade be parallel with the mouth of the plane. I also find it helpful to keep the cutting edge of the blade at right angles to the length of the wood blank rather than angling the plane as in some other operations.



Step Two – Flatten the Shavings

The shavings need to be flat so they are usable for flower making. This is easily done by soaking the shavings in a container of water for ten minutes or more. The shavings will still be curled but running a hot iron on the shaving as it is unrolled will evaporate the water and leave a flattened strip of paper-like wood. Please don't use the iron that you use for ironing clothes and other fabrics! The process described here is not kind to the iron as you can see in below.

If you don't have an iron that can be dedicated to shop tasks, read the alternate method of flattening below.

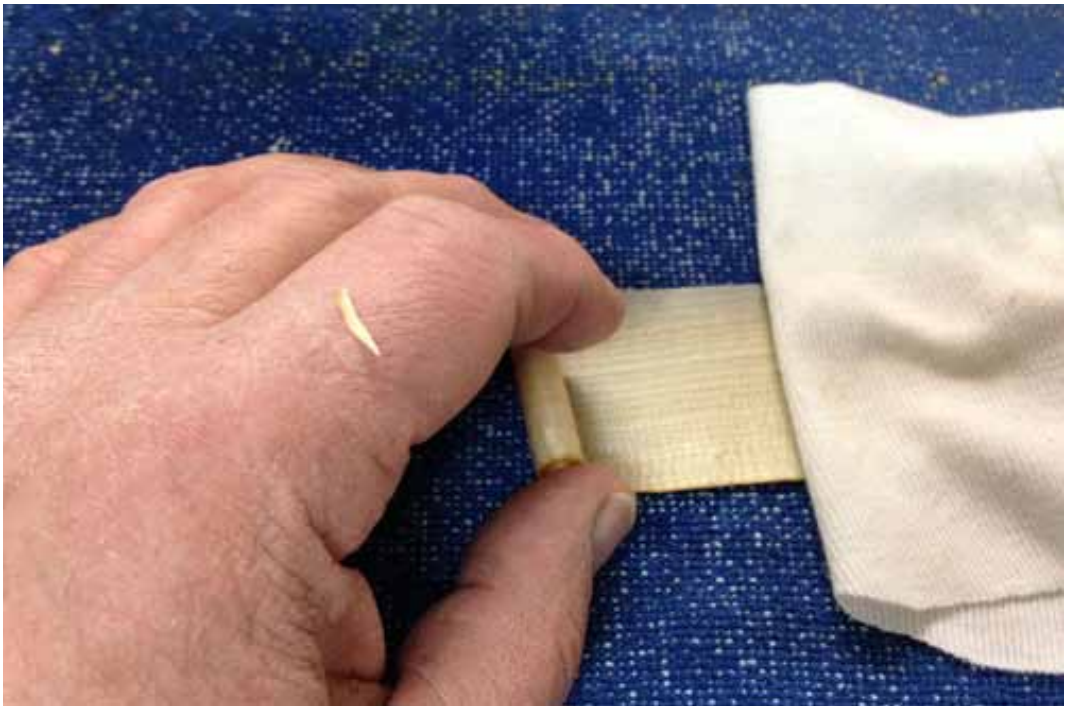
Figure 2 *– Basswood shavings are soaked in water for 10 minutes or longer and then ironed flat on an absorbent pad. Don't do this with the iron you use for fabrics! You can see what happens to the sole of the iron when it comes into contact with water that has leached resins from the wood. I use an old iron now relegated to various shop-related tasks. When necessary, the dark resin can be removed with fine sandpaper and steel wool.*

An Alternate Flattening Method

If you don't have the luxury of an iron that can be "sacrificed" for shop tasks, you might consider this alternate method of "pressing" your shavings. It helps to protect the sole of your iron from being coated with resin. This method requires a little more dexterity – or a second set of hands if you can enlist a helper.

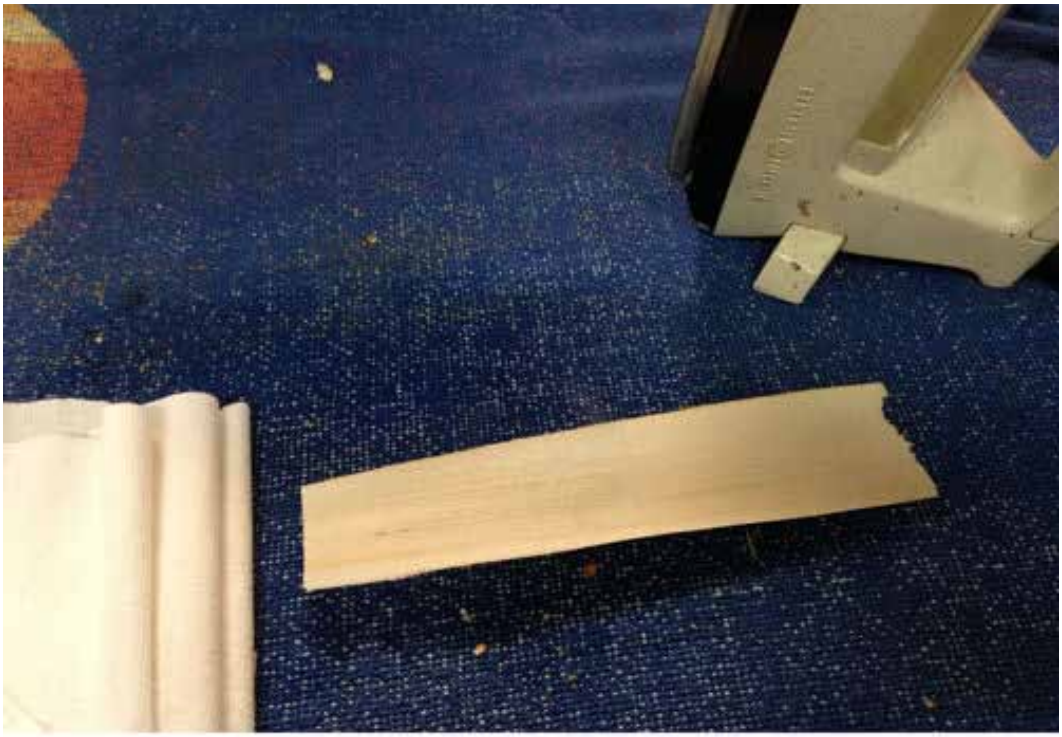
1 - Cut a piece of soft cloth about 6 inches larger than your shavings when they are uncurled.

2 - Start unrolling a shaving and cover the exposed section with the cloth. Continue until you have the entire shaving uncurled and covered by the cloth.



3 - With your iron on its hottest setting, run it over the cloth until the shaving remains flat.

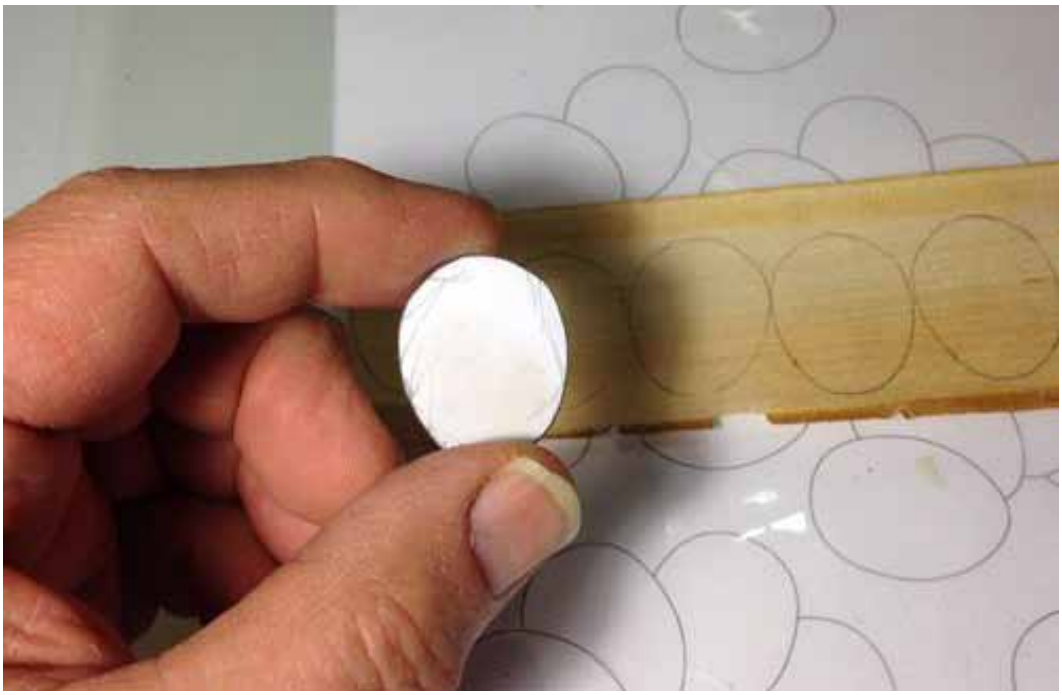
4 - Turn the shaving over; cover it with the cloth and iron again.



5 - Repeat a few times until the shaving remains flat.

Step Three – Cut out the Flower Petals

If you wish to make a rose like the one shown above, you will need 28 flower petals for each rose. You can eliminate one or two rows but the result is less impressive in my opinion. The petals are arranged in layers or tiers when the flower is assembled. It helps to cut out a template from stiff paper or card stock. Use a soft pencil to trace the shape onto the basswood shavings.



A sharp pair of scissors will do the job of cutting the petals. Volume production can be achieved more easily with a punch like the ones sold in craft stores. Using the punch eliminates the need for tracing the petals but it also confines your creations to one or two sizes.

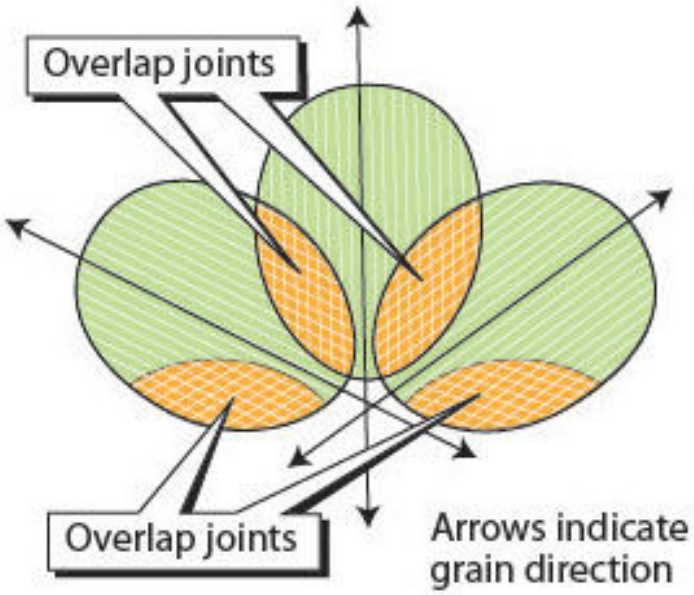
Grain Direction in Petals

The direction of the grain in petals has a significant influence on the final appearance of a flower. This is due to the "stiffening" nature of the joint between two adjacent petals. Since the joint area consists of two layers, it resists tight bending. In contrast, the remaining areas which are a single layer in thickness are more pliable.

When the grain runs lengthwise in each petal (Figure 1), the result is a flower with sharper curves in each petal creating an angular appearance.

Figure 1

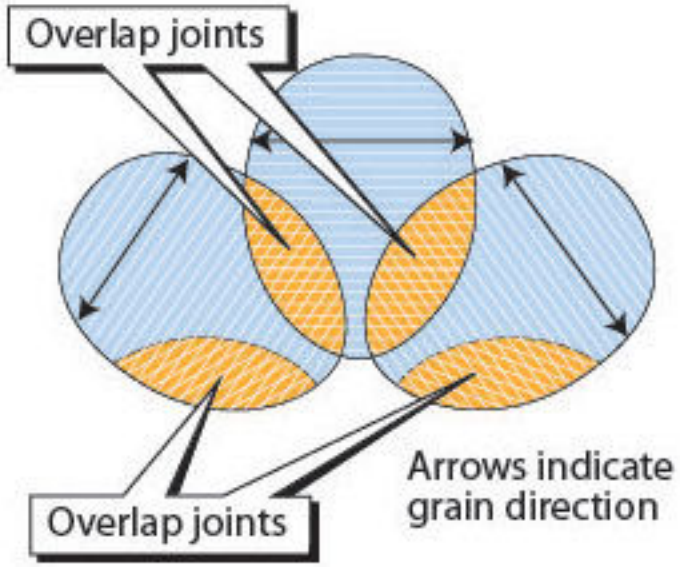
Lengthwise grain makes bending easier but causes weakness in the green areas resulting in angular shapes instead of a smooth curve in the row



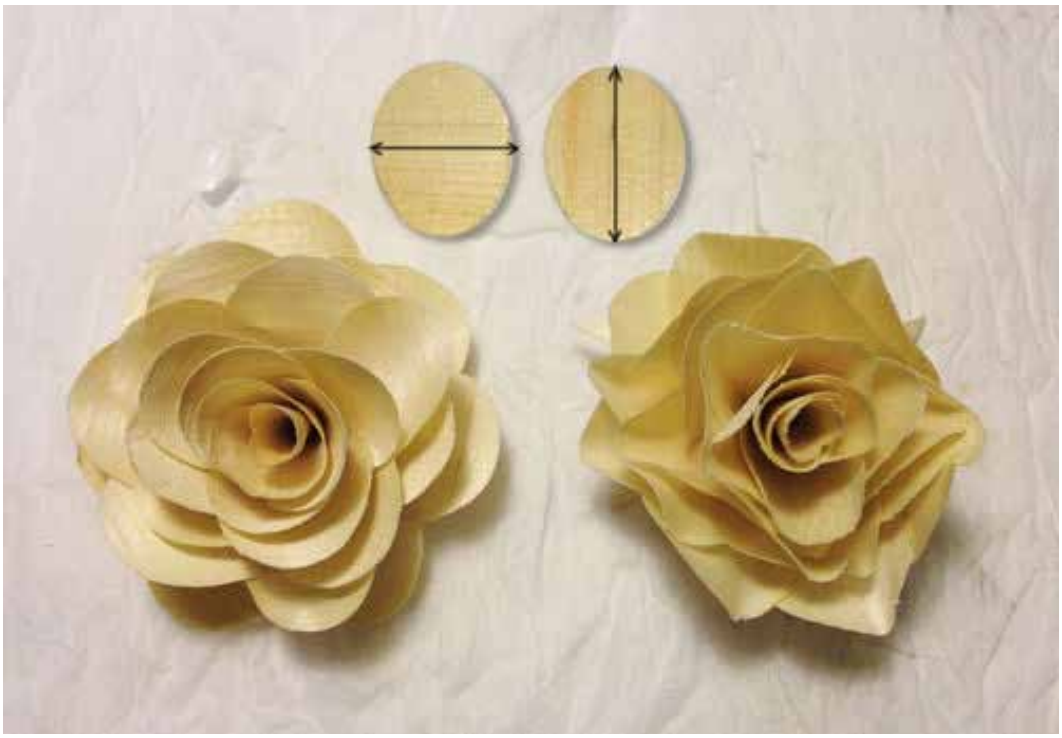
When the grain runs crosswise in each petal (Figure 2), the result is a flower with gentile curves in each petal creating a softer overall appearance

Figure 2

Crosswise grain adds strength to curved petals in blue ares. This creates a smoother curve in the row.



The photo below shows the difference between the two approaches. In the flower on the left, the petals on the outer four rows have crosswise grain. In the flower on the right, all petals have lengthwise grain.



Step Four – Assemble the Centre Petals

I prepare the petals by soaking them in water for a few minutes to make them pliable.

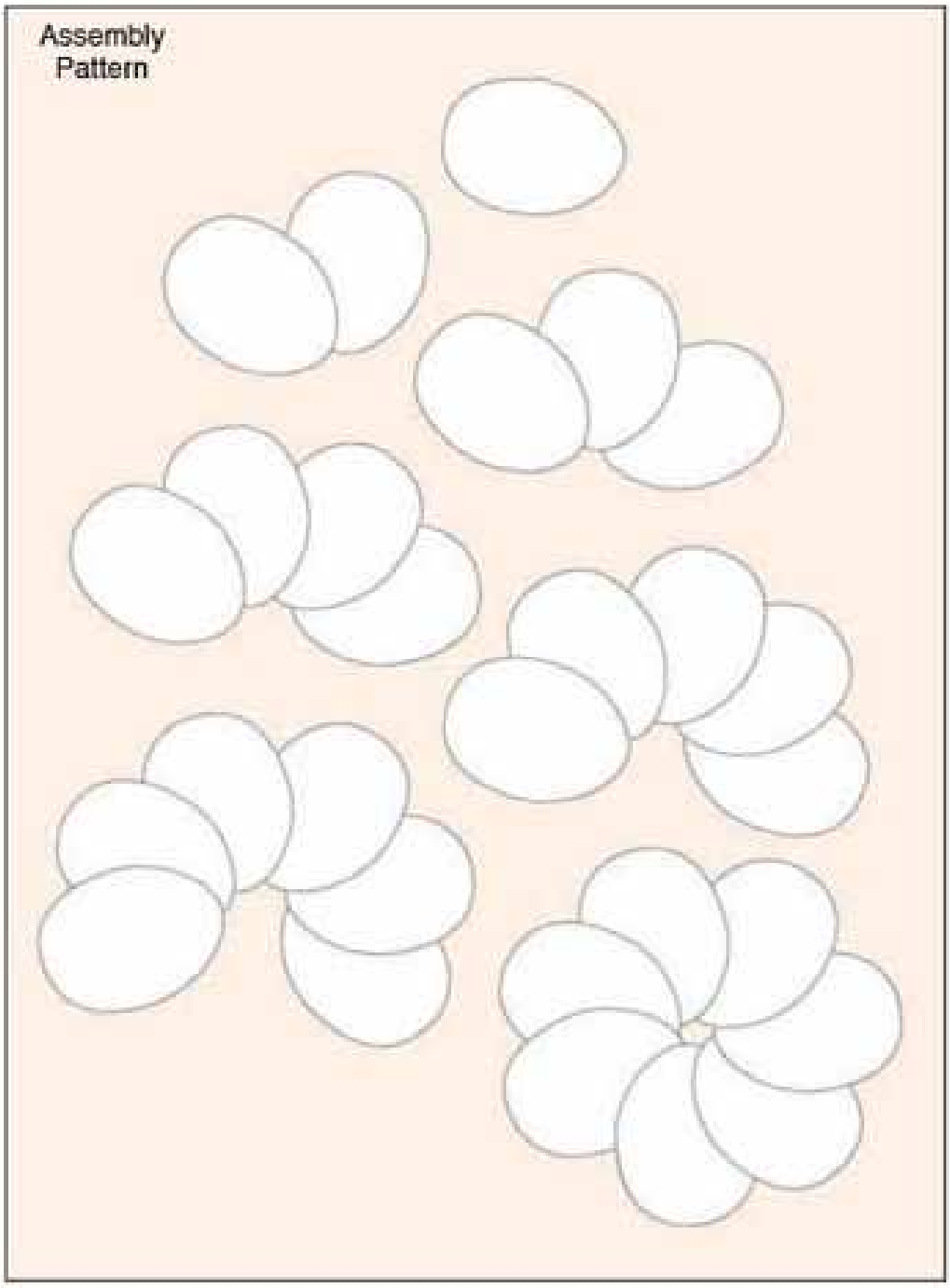
I set a few petals on tissue to absorb excess water before gluing.

I use cyanoacrylate adhesive because it is fast setting. Moisture helps to speed up the curing process. This makes it the ideal adhesive for this project. I also keep a can of acetone and several cotton swabs handy for those inevitable times when my fingers become part of a flower!

It helps to have a set of patterns to help position the petals when gluing them.

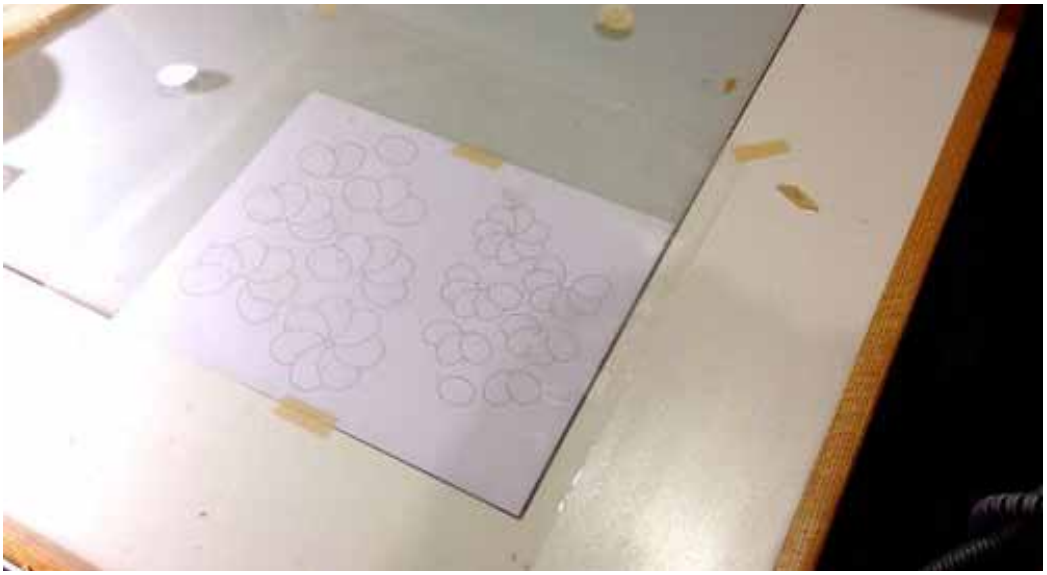
There are seven rows or tiers of petals in the roses I make.

They are arranged and glued to resemble the pattern below.



I cover my pattern with a sheet of acetate to protect it from glue and moisture.

The sheet you see on my drawing board has patterns for two sizes.



You can see the process of assembling the first three rows in the next series of photos.

The fist row (the centre of the flower) consists of one petal.

Each subsequent row gets one more petal added to it.

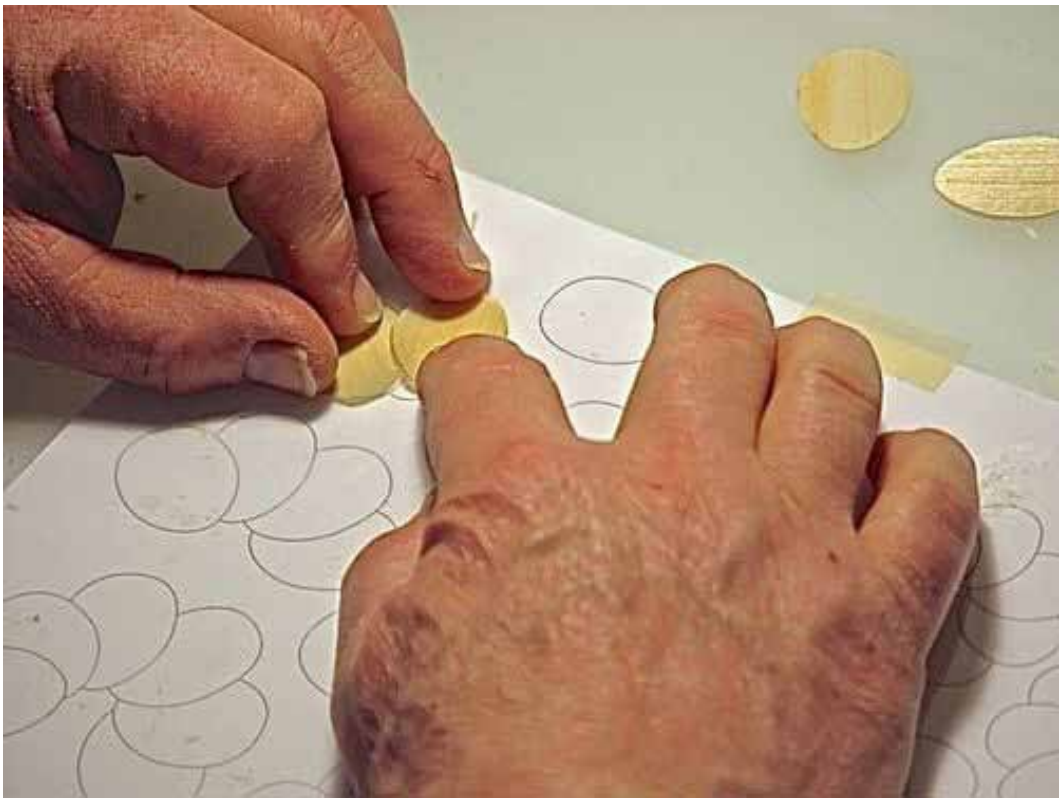
Each row is bent into a cone shape and glued.

I have a set of sharpened dowels of various diameters to help with this task. The points on the dowels are wrapped with packing tape to make them less likely to get stuck by the adhesive.

The photo below shows the fist petal being rolled around a thin dowel.

Here is the centre petal after gluing.

Below, –using the pattern to place petals for the second row.

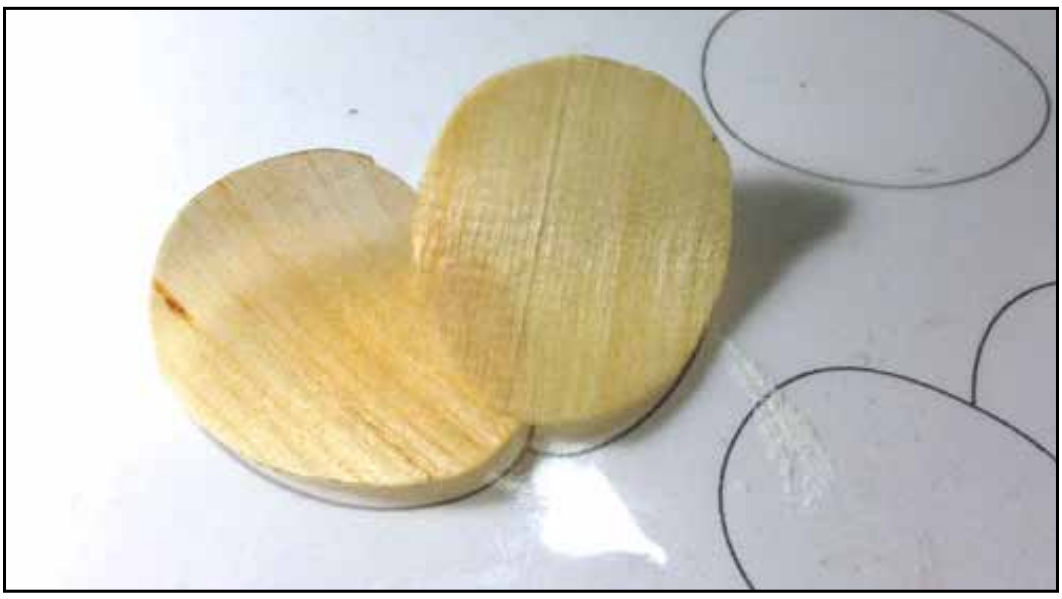


The second row is glued and ready for bending.

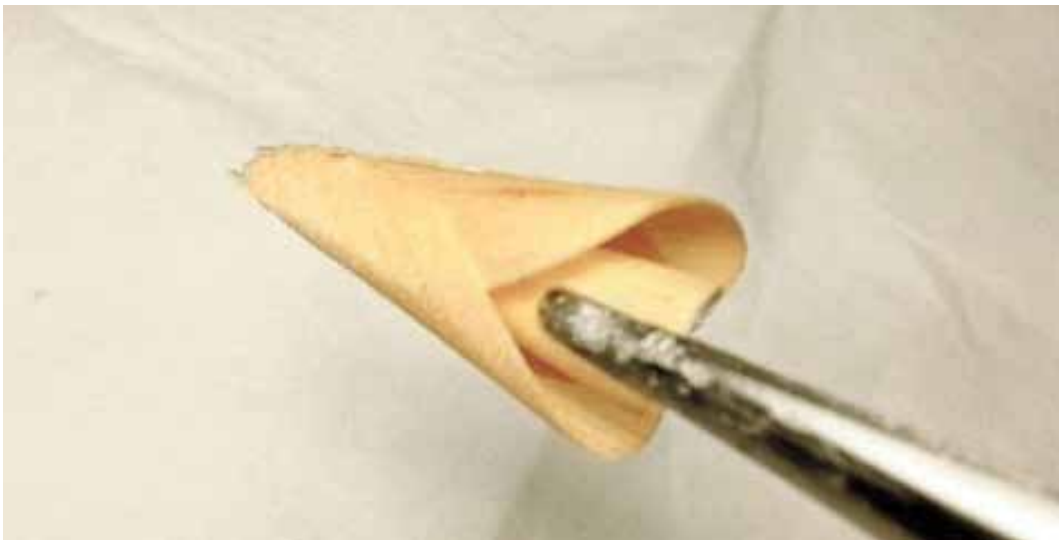
Notice that the petals in these three rows have the grain running lengthwise.

This helps in rolling the petals into tight cones.

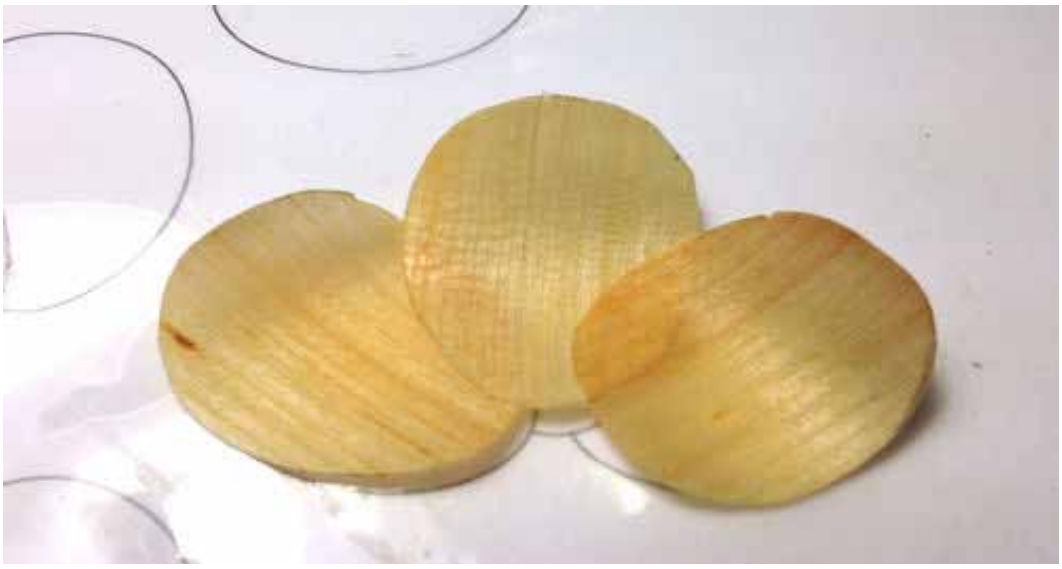
In this example, Rows 4-7 will have the grain running from side to side, creating a flower with gentle curves (Refer to notes on grain direction in the previous entry).



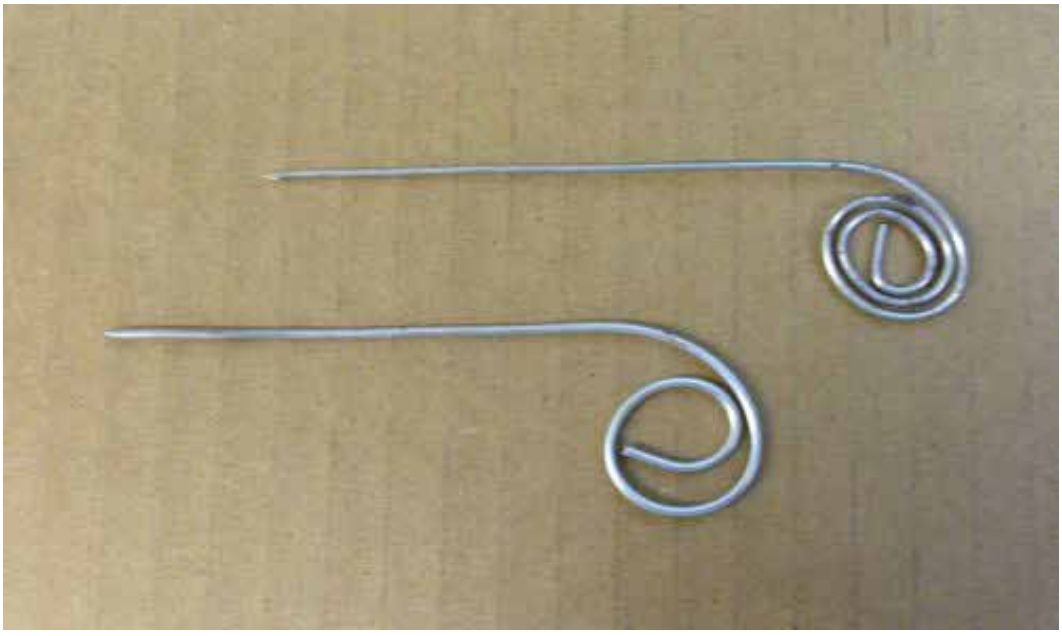
In the photo below, the second row has been rolled and glued into a cone and the single petal is being inserted.



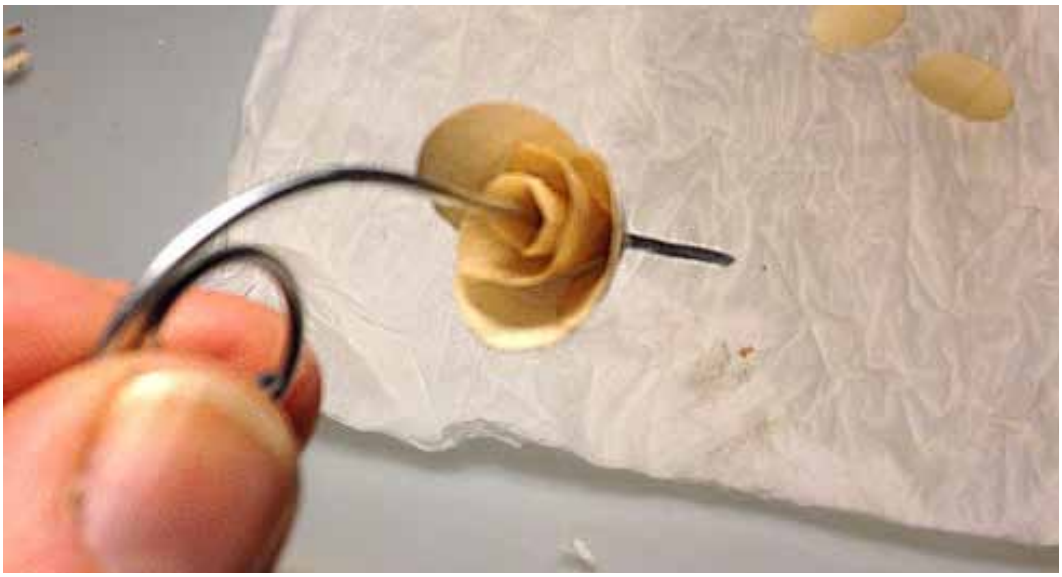
Here is the third row, glued and ready for bending into a cone.



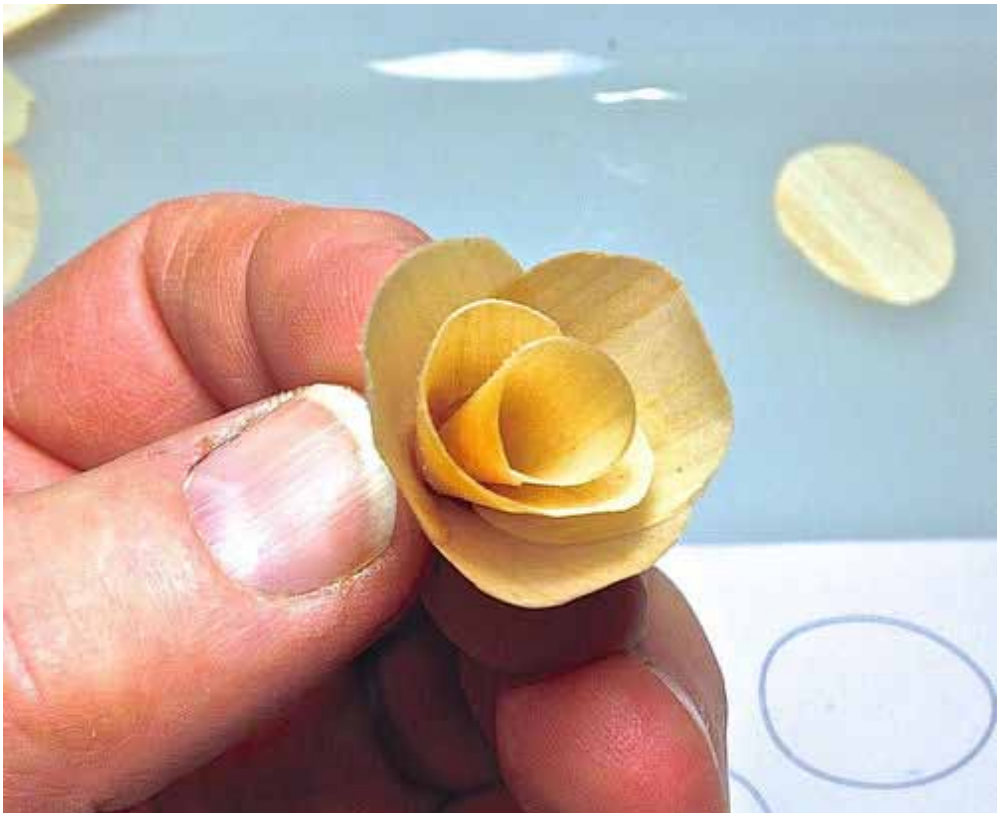
Here are two special “centre guide” tools made from lengths of wire with one end rolled up to make a handle.



I use the centre guide to help align the centre openings of the flower rows. Keeping these openings aligned makes it easier later in the project to insert the wire which will make the flower stem.



Three rows now completed to form the centre of the flower



Step 5 - Assembling Rows Four to Seven

Adding rows 4 to 7 follows the same procedure as described in the previous section:

The photo below shows the fourth row glued together and ready for bending.

Notice again that the grain on these petals runs crosswise in order to create a soft curve when the row is bent and glued into a cone.

Here is the result after the centre rows have been inserted.

Remember to use the “centre guide” (see previous entry) to keep things aligned.

Row Five assembled and ready for bending.

After the rows One to Four have been inserted into row 5.

Row Six ...

The final row!

This one is a very shallow cone – almost flat.

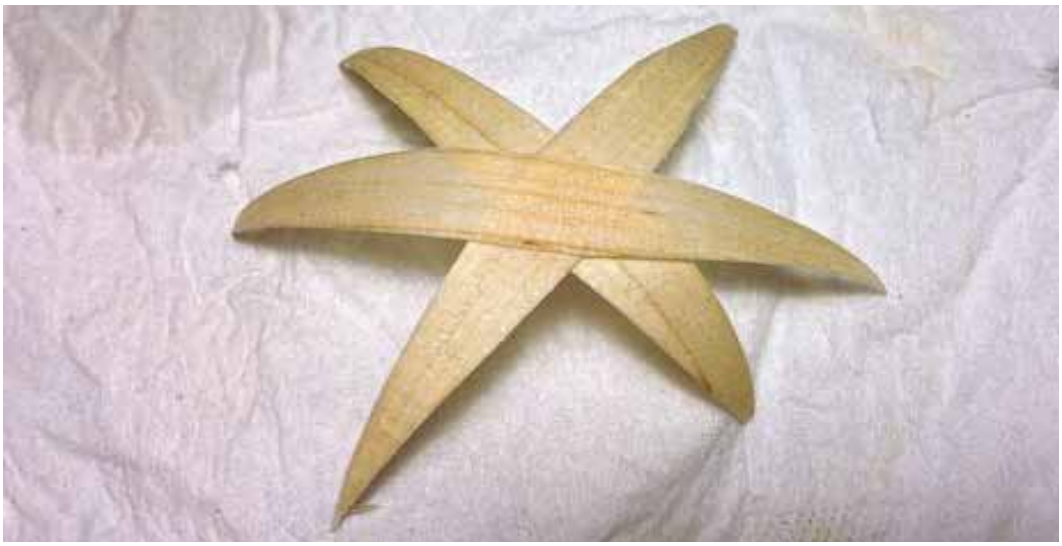
Here is the flower with all seven rows assembled.

Notice again how the crosswise petal grain helps to create gentle curves.

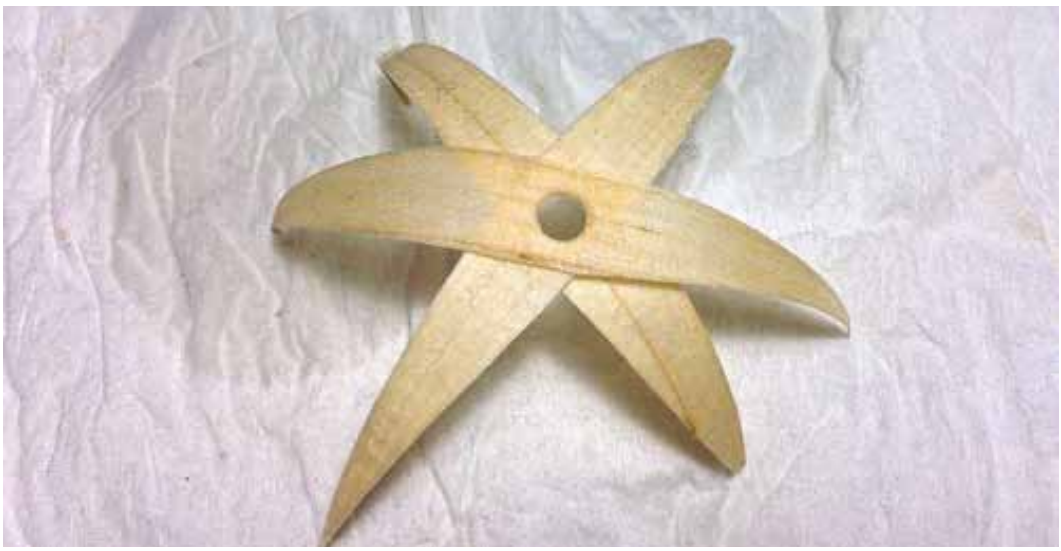
Step 6 - Adding Sepals (the Calyx)

This step is not absolutely necessary but I think it adds character to the finished flower.

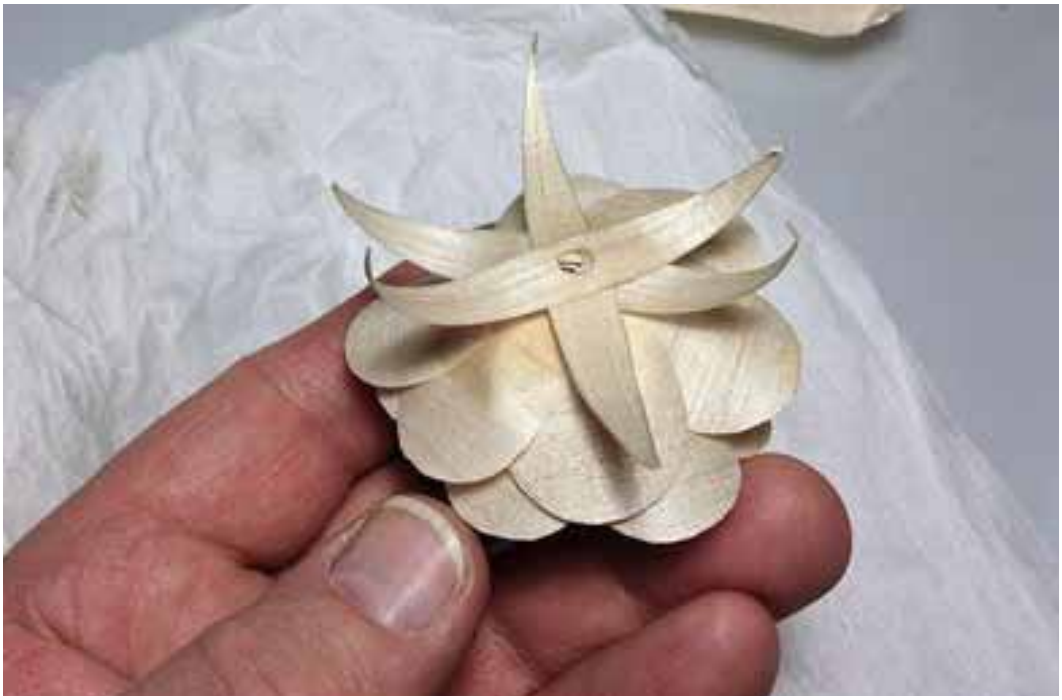
I create a star-shaped calyx by cutting three dart-shaped pieces from along the length of a shaving. These pieces are then soaked in water to encourage them to curl. With all three pieces placed with curls moving in the same direction, they can then be glued at the centre to form the calyx as shown below.



Once the glue is dry, a hole can be punched in the centre of the unit to enable the wire stem to pass through (I'll describe that in Step 7). I use a leather punch but a paper punch would probably do or even a large nail set if care is taken. Use whatever tool you have that will make a clean hole.



Before attaching the calyx to the petal assembly, I wet the completed calyx again so that it becomes pliable. CA glue works well to attach the calyx to the flower petals since water acts as a curing agent. I try to work the form of the calyx so that the central part assumes the form of the flower. The quick-setting CA glue is great for this procedure.



Step 7 - Making a Leaf Stem

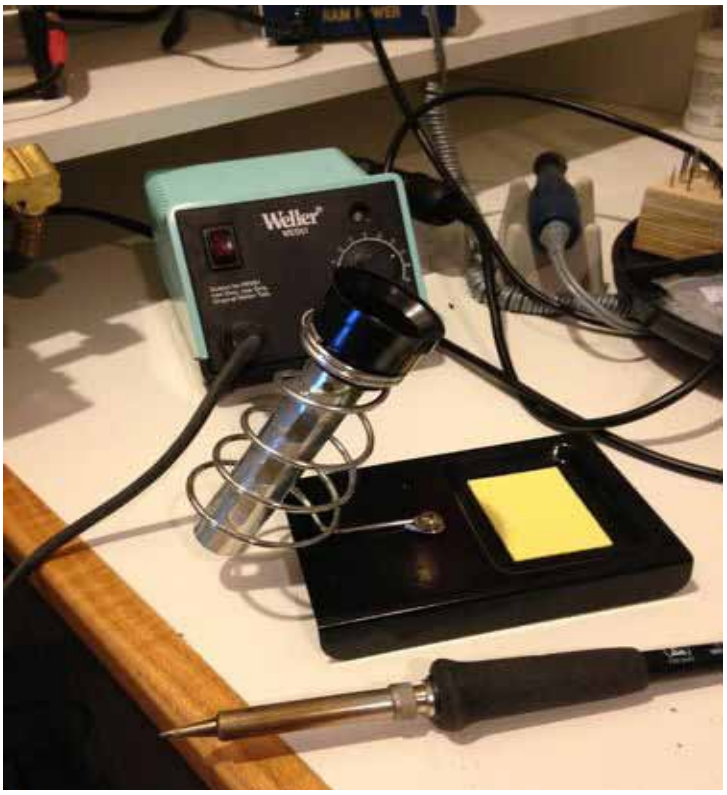
Wire Size

In making flower stems, I use several gauges of galvanized wire, ranging from 14 GA to 30 GA as well as single strands from picture wire. Although some people use thin brass tubing (available from hobby shops), I have found that wires of varying gauges are sufficient to create a pleasing result for this project. I use two gauges of wire for each flower. The thicknesses will depend on the size of your flower – bigger flower, thicker wire. The heaviest gauge will form the flower stem and the lighter gauge provides stems for the leaves.

Notes on Soldering

The wires which form the stems are joined together using solder. I use a pencil-type soldering iron with an adjustable temperature control. Any pencil-type soldering iron will work. These tools are normally used in soldering electronic components. I would not advise the use of an open flame (e.g. propane or butane torch) for this work. The chance of setting your flower on fire at some point is too great.

Any type of solder will do. The key is getting your target joint hot enough so that it – not the soldering iron – melts the solder. I like to use thin (20 gauge) rosin or acid core soldering wire. The rosin core is generally used in electronics and the acid core is primarily used in plumbing. Regardless of the type of solder you use, it is important to prep each joint by coating it with soldering past or “flux” (found in your local hardware plumbing department). When the wire is sufficiently heated, the flux will draw the melting solder onto the joint, giving it strength.



Stem Assembly

The stem assembly for the leaves consists of two wires soldered together in the shape shown below.

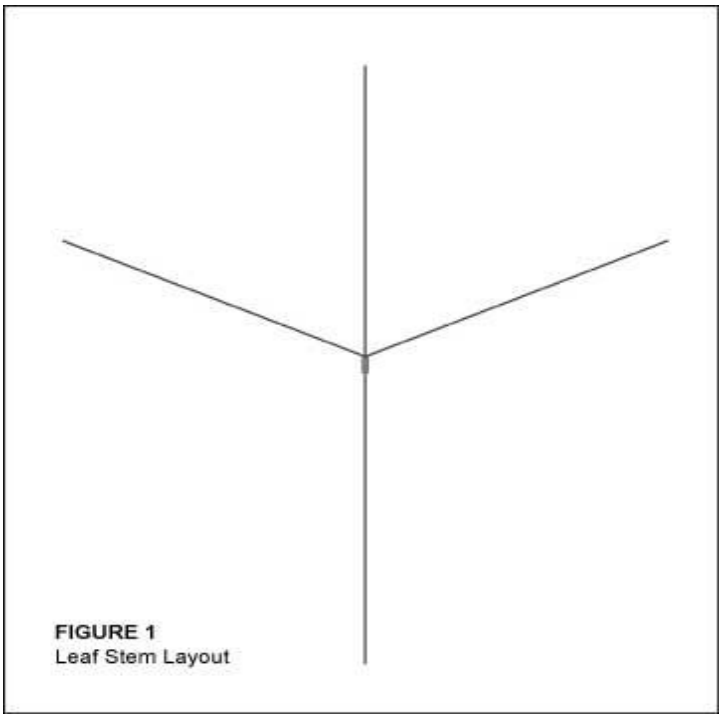
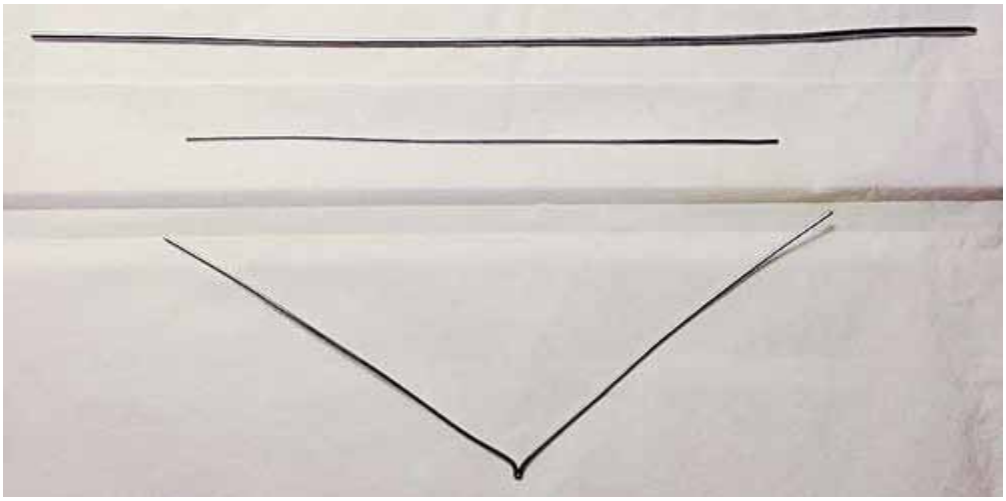


FIGURE 1
Leaf Stem Layout

This assembly will, in turn be soldered to the main stem. The three stem components are shown below. Note that the "V"-shaped component has a small notch bent into it at the base of the "V". This small detail is the key to joining the two wires of the leaf assembly.

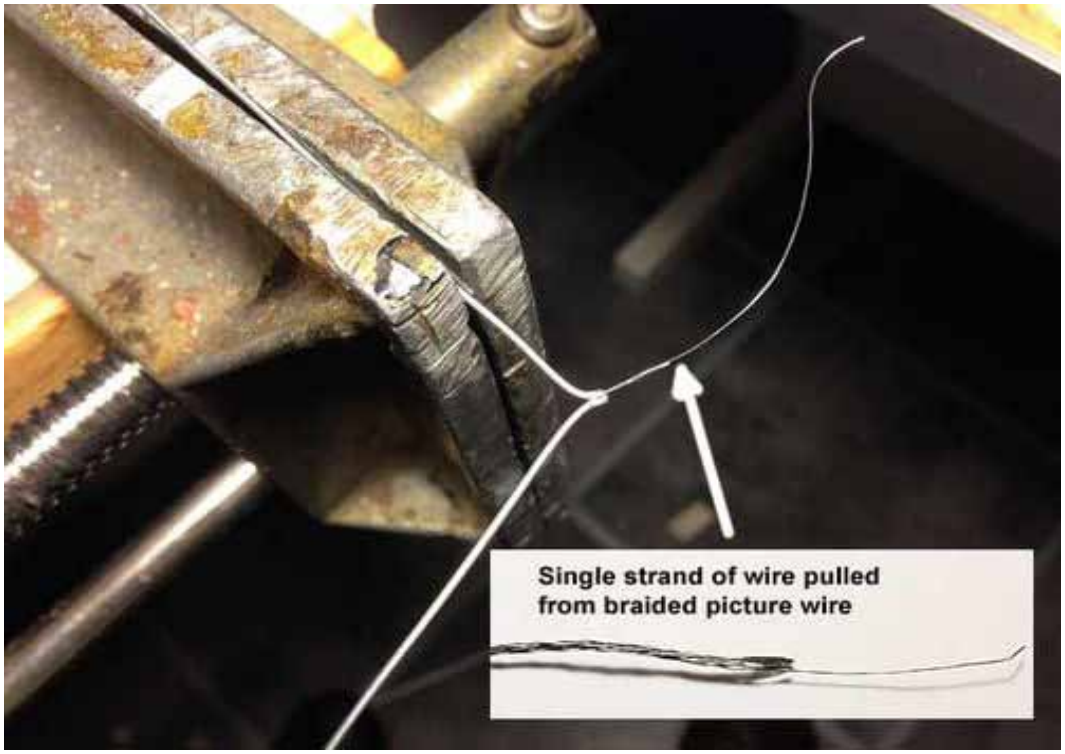


You will find that a small hobby vise very useful during the following procedure.

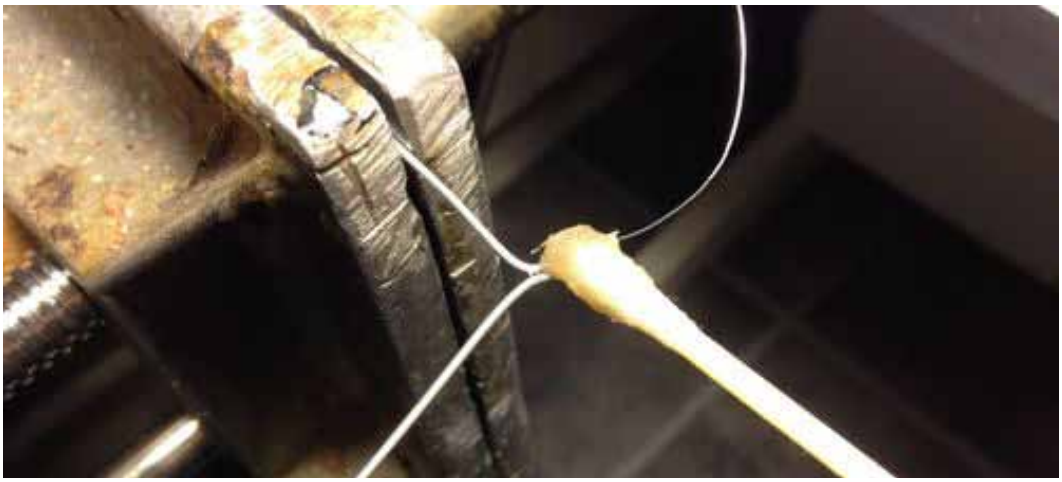
I join the two wires using the following technique:

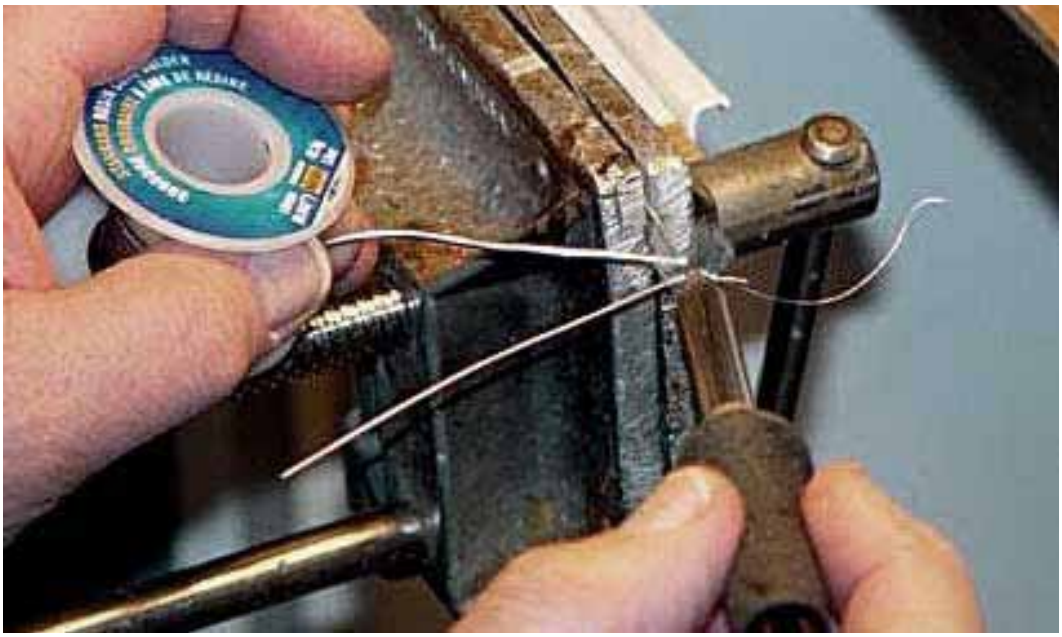
1. Take a single strand of light weight braided picture wire. Thinner is better since its use is to provide a means of creating a temporary joint for the stem wires.

2. Slide one end of the picture wire strand into the notch in the "V"-shaped wire. Bend the end back along the length of the wire.



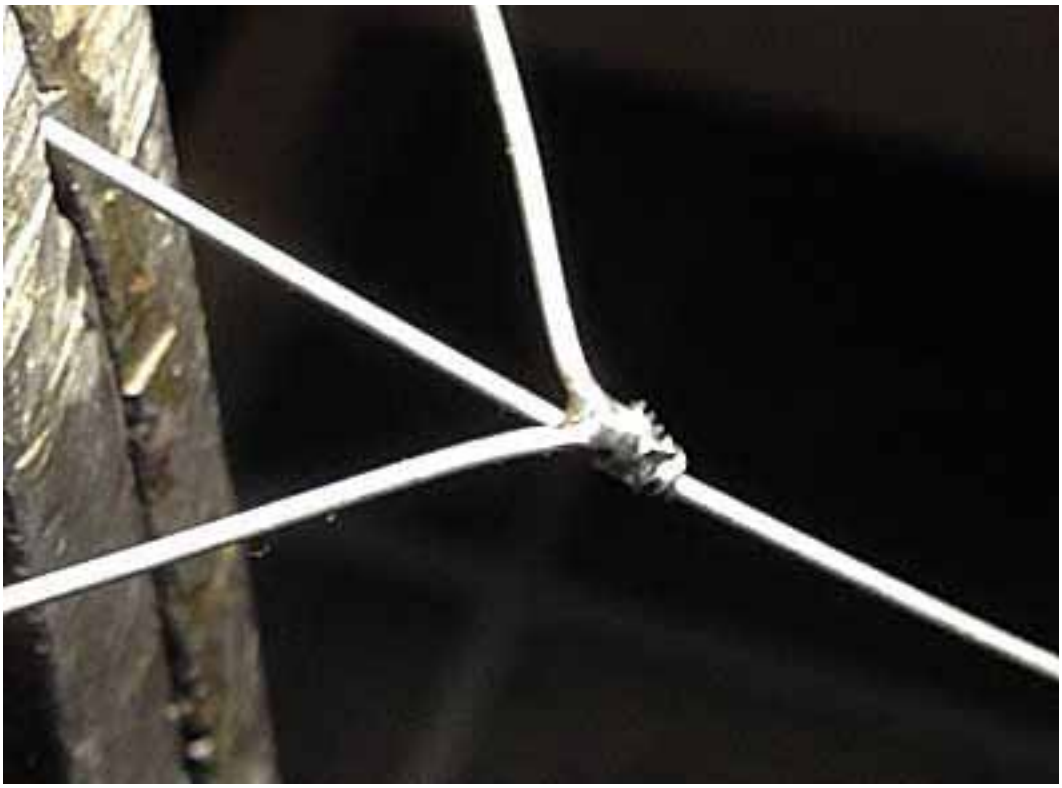
3. Coat the two wires with flux and then solder together



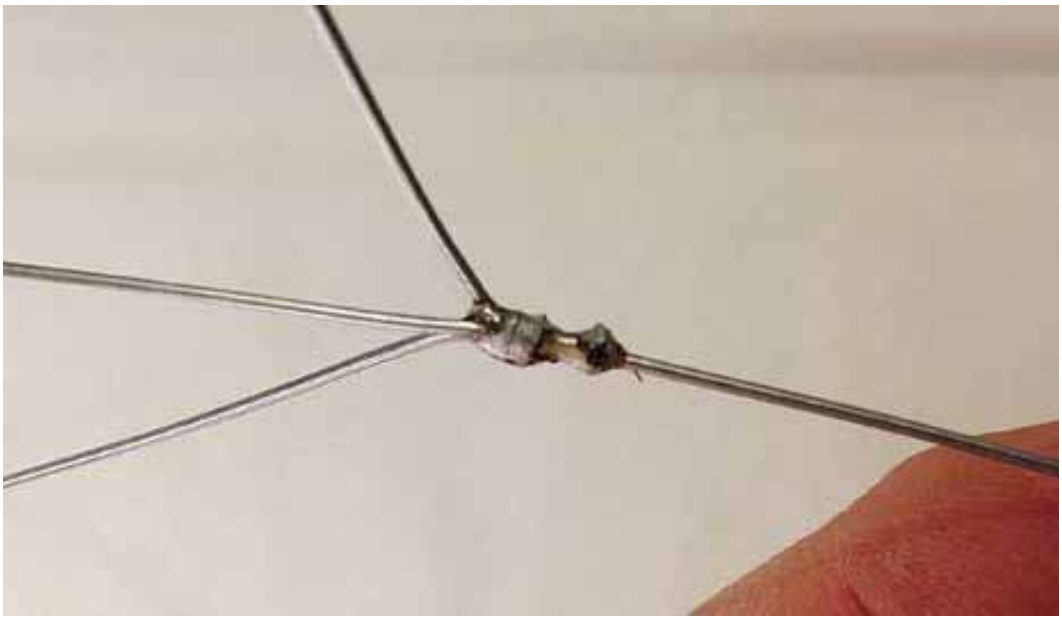


4. Take the second stem wire and place it along the vertical axis as shown ibelow.

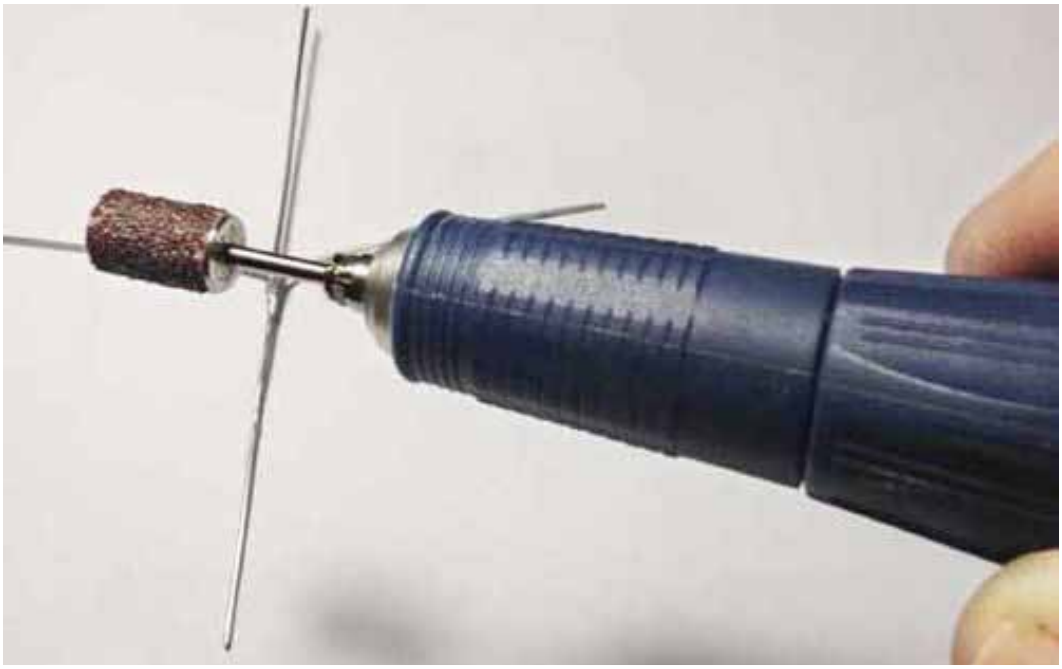
5. Wind the strand of picture wire around the joint as shown below. It's not necessary to wind the entire length of picture wire. You just need enough to hold the joint together.



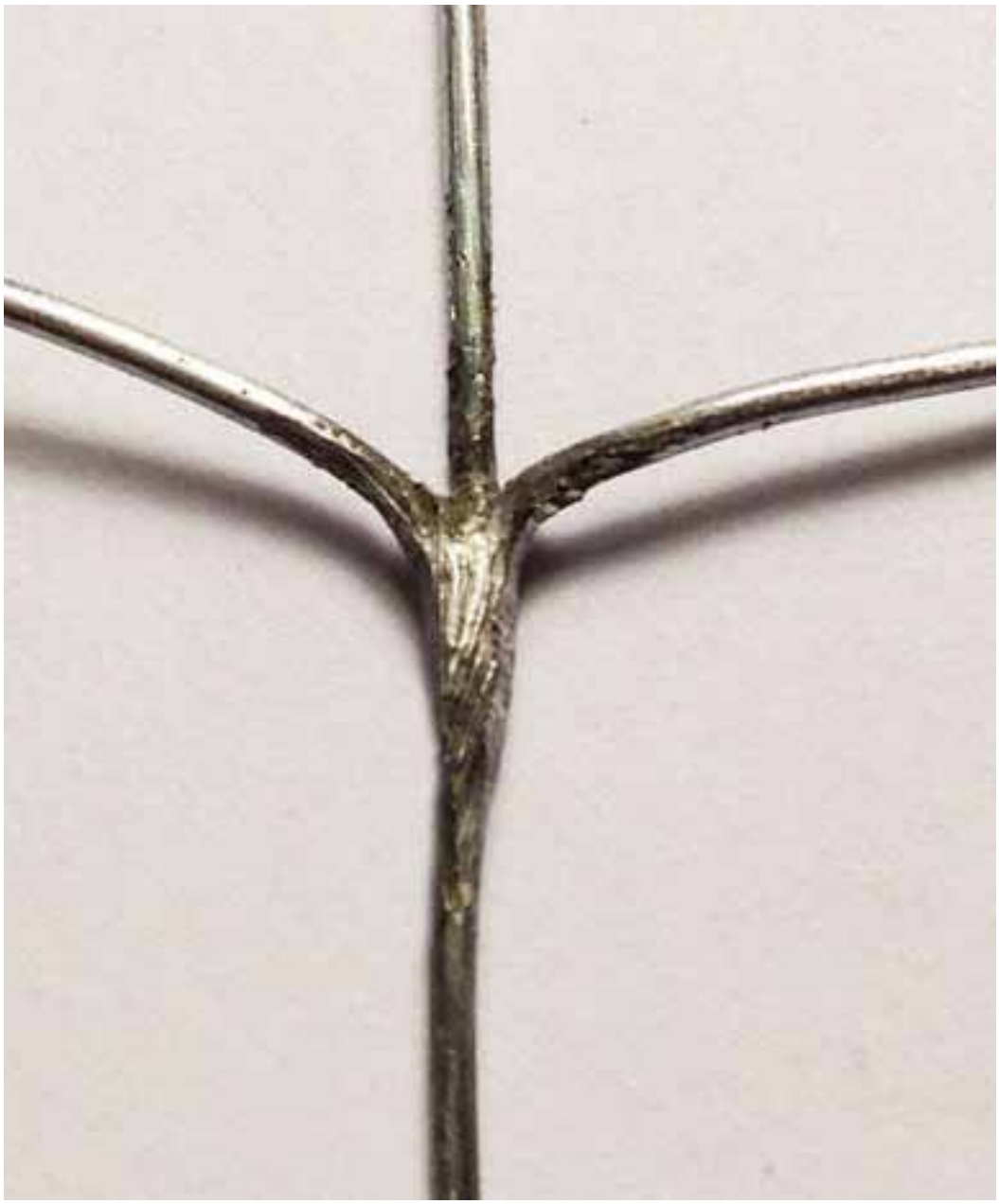
6. Apply flux and solder.



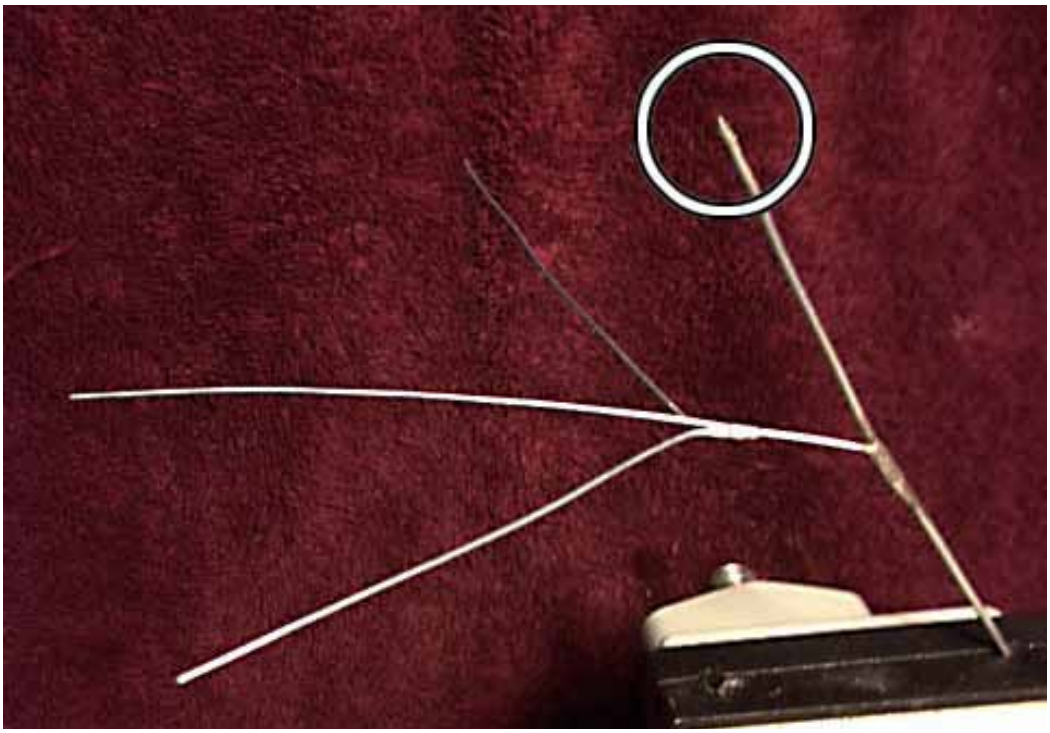
7. The joint will probably look pretty ugly at this stage (photo above) so it will require some grinding to define the shape and clean up the rough edges. I like to use a micro motor for this job. I start with a 1/4 in sanding sleeve and finish finer details with a diamond bur.



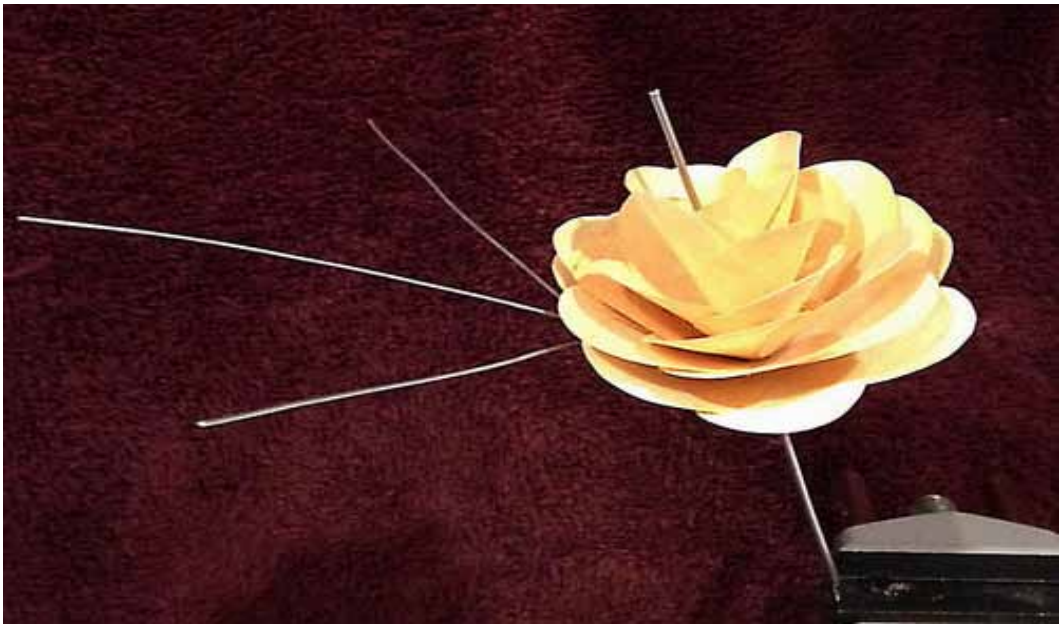
You can see the final result below.



I use a heavier gauge wire to make the main stem for each flower. I solder the three-pronged leaf stem to the flower stem. The result is shown below. The circled area is where the rose will be attached.



The rose head is threaded onto the main stem as shown below



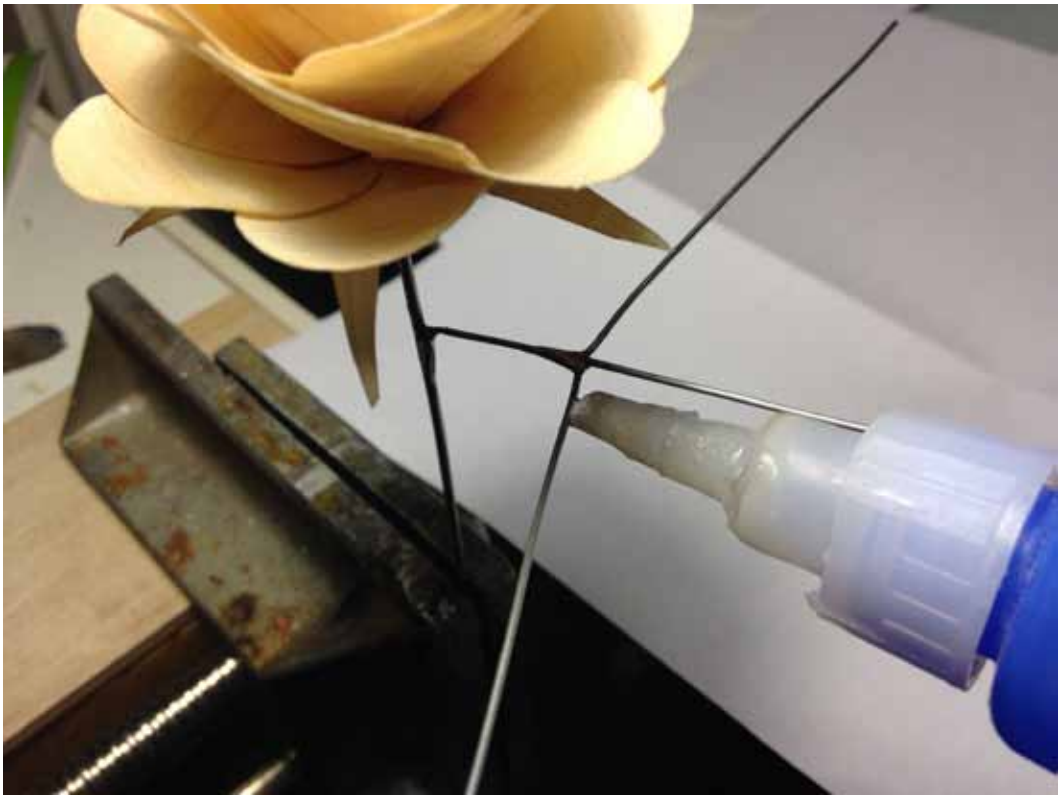
I create a circular “eye” on the end of the rose stem (shown in the circled part of the photo below). This serves to capture a drop of quick curing epoxy which is dropped into the centre of the rose after it is pulled upward onto the eye.

The photo below shows the rose in its final position on the stem.

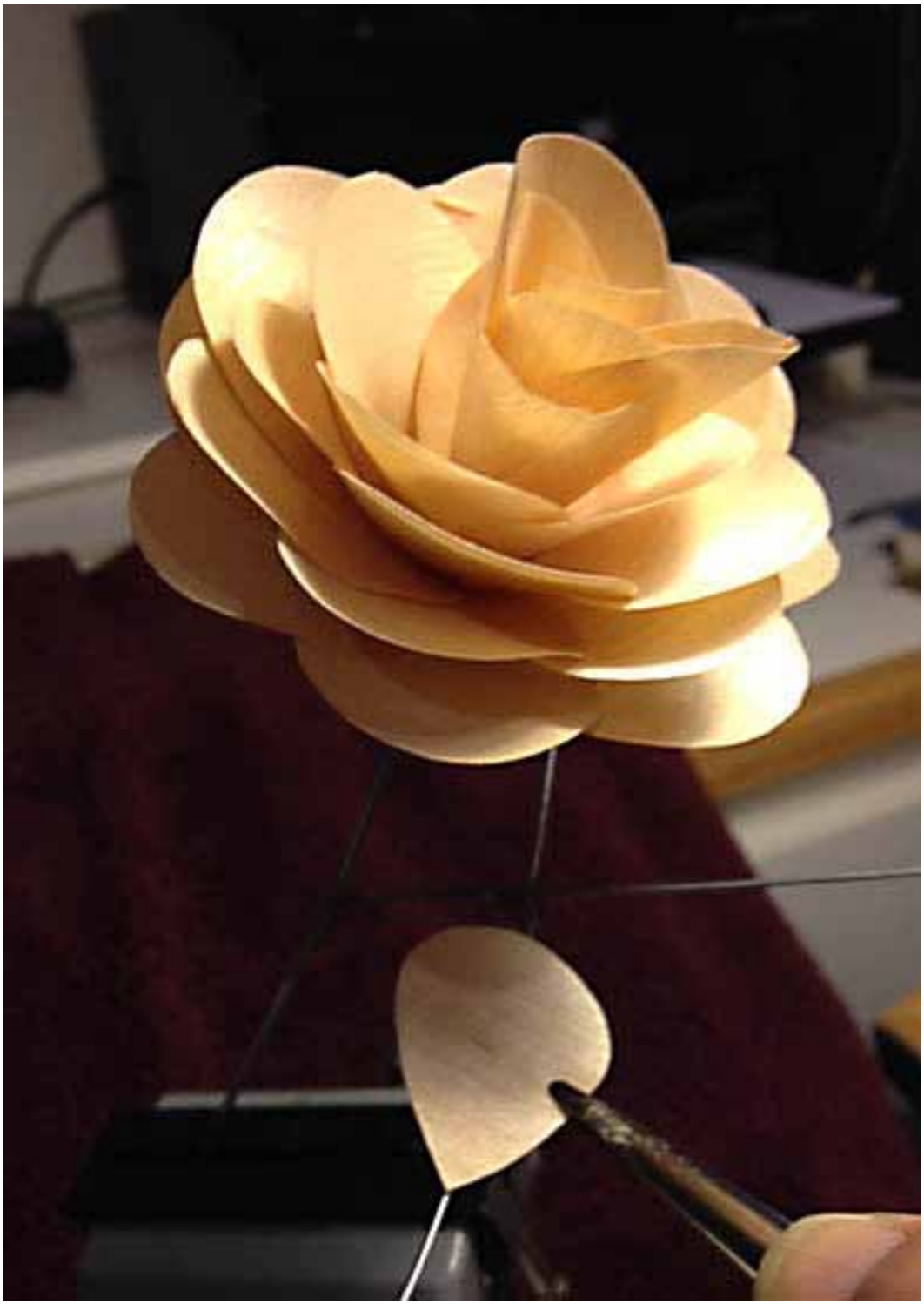
Leaves for the rose are made using the same technique that was used with rose petals. They are the same size and shape except that one end of the oval comes to a point, as shown in the photo below.

The stem/flower assembly is positioned on my vise, ready for leaves to be added.

As was the case with the rose petals, the leaves are soaked in water so they are pliable. CA glue is spread along each of the leaf stems – work on only one stem at a time. The viscosity of the CA glue allows it to follow along the stem until the entire stem has a light coating of glue. (See photo below).



The leaf is carefully centred on the stem. The leaf is lightly rubbed along the stem to bond it to the stem.



The process is repeated for each leaf.

The leaf stems are trimmed at the tip of each leaf.

When I have completed the varius parts of a project, I create a cylindrical wood "core" with a hole drilled down the center. The hole is deep enough and wide enough to accomodate the various elements of the design I'm working on. The diameter of the core is sized to fit into the object which will hold the design. Below, you can see one finished design and the vase which will hold it.