

# Old World Lyre Finished



**MUSICMAKERS**

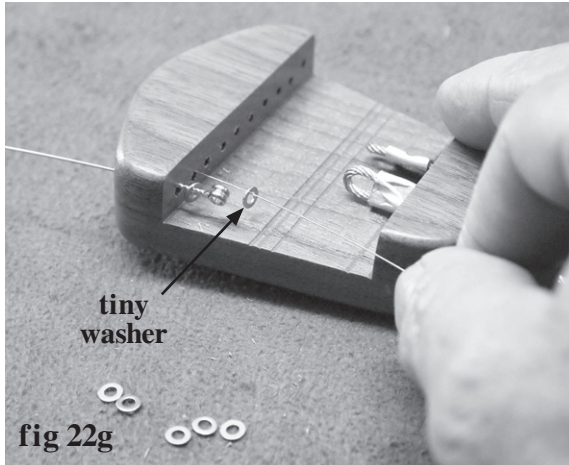
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## WIRE STRING INSTALLATION

It is easiest to insert all the strings into the tailpiece first. Begin with string #10 (Middle C), which is the thickest string. The steel strings are individual ball-end strings which need a tiny washer added onto the end before threading through the tail piece. Turn the tailpiece upside down, as shown in Fig 22g, and thread the thickest string through the first hole at left side of the tail piece. NOTE: the wound strings are on the left when the tailpiece is upside down, but will be reversed when you turn the tailpiece right-side-up. Basically, the thickest string goes in first, and the thinnest one last (see string chart below), so just continue with all of them in order (bottom to top of chart), with a tiny washer on each.

### Wire Strings



NOTE: The tiny washer prevents the ball end from digging into the wood and getting "buried" in the tailpiece.

### STRING CHART FOR WIRE STRINGS

String	Note	Gauge	Code
1	High E 5	.010	BALL010
2	D5	.010	BALL010
3	C5	.012	BALL012
4	B4	.012	BALL012
5	A4	.014	BALL014
6	G4	.014	BALL014
7	F4	.016	BALL016
8	E4	.016	BALL016
9	D4	.018	BALL018
10	Mid C4	.020	BALL020

## NYLON STRING INSTALLATION

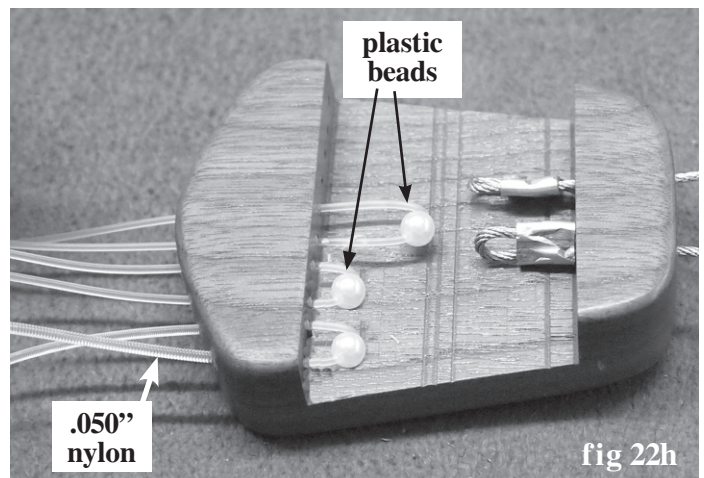
It is easiest to insert all the strings into the tailpiece first. The Nylon strings are long enough to loop through the bridge and up to two neighboring tuning pins, so each length of nylon will give you two strings on the instrument. Begin with strings #10 (Middle C4) and #9 (D4), which use the thickest string (.050"), on the left side of the tail piece when it is upside-down, as shown in fig 22h.

### NYLON STRING CHART

String	Note	Gauge	Code
1	High E5	.025	NYL025
2	D5	.025	NYL025
3	C5	.032	NYL032
4	B4	.032	NYL032
5	A4	.036	NYL036
6	G4	.036	NYL036
7	F4	.040	NYL040
8	E4	.040	NYL040
9	D4	.050	NYL050
10	Mid C4	.050	NYL050

Install one plastic bead between each pair of strings, as follows:

One length of nylon makes two strings, but don't cut it in half. Thread a bead to the center of the string and poke both ends of the string through the first two holes in the tailpiece. Pull evenly until the bead is tight against the tail piece and you have equal lengths of nylon for each string (fig 22h). Continue with remaining pairs until all the strings are in the tailpiece.



23. Now you can flip the tailpiece right-side-up and hook the steel tailgut around the end pin, as shown in fig 23a. Here's how to begin stringing:

A) Find the two middle strings -- #5 (D4) & #6 (E4) -- and stretch them out past the two middle tuning pins. Cut them about 3 inches beyond the pins, as shown (fig 23b).

B) Poke the end of one string into the proper tuning pin so just a little of it shows on the other side (fig 23c).

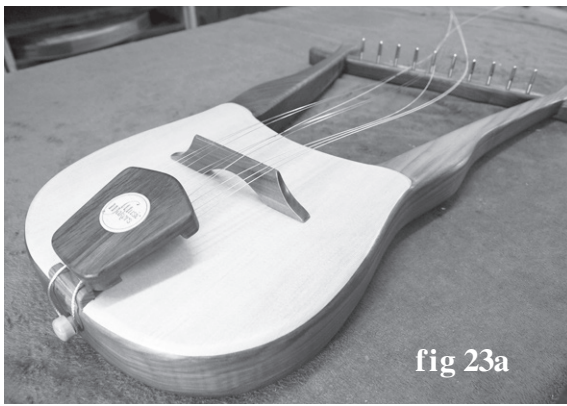


fig 23a

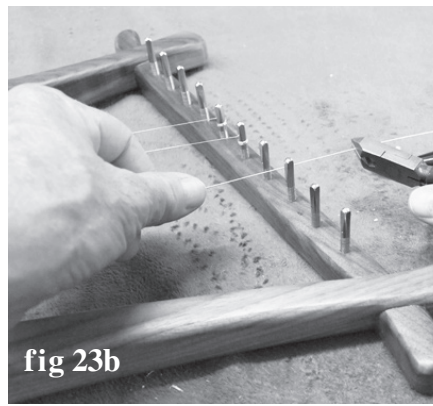


fig 23b

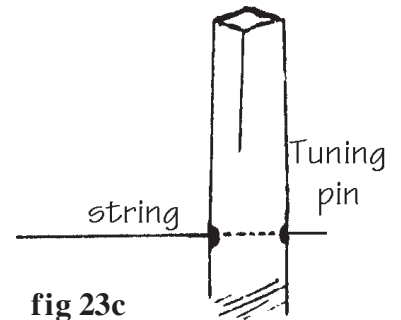


fig 23c

C) Use the tuning key to turn the pin clockwise half a turn, so you can pull it taut without the string coming out (fig 23d).

D) Then continue holding the string taut as you turn the pin clockwise to wind the string nicely on the pin until there is a little tension on it (Fig 23e).

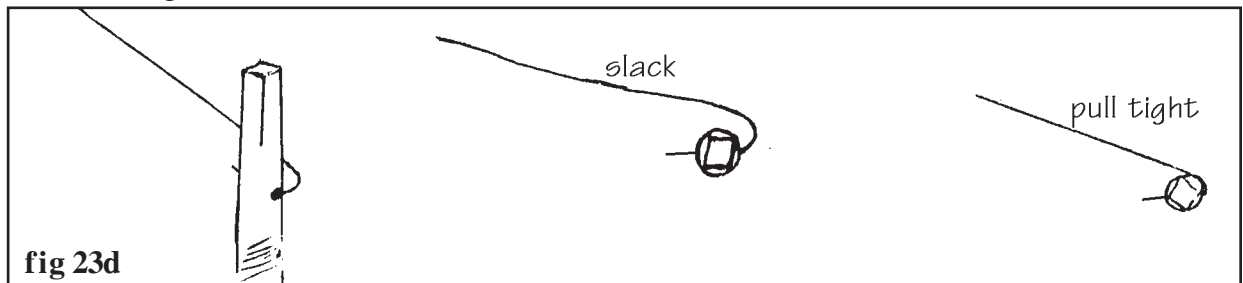


fig 23d

**WARNING: Don't tighten the pin so far that you break the string! Just draw the slack out of the string so it makes a clear tone when plucked.**

Guide the windings downward on the tuning pin as you turn the key clockwise. It is best to start each string with enough slack to achieve 3-5 wraps around the tuning pin.

It is best to have the string pull from a low position on the pin, as opposed to pulling near the top of the pin (see Fig 23f). This reduces the twisting force on the pins and the top cross piece of the frame.

**HINT: Nylon strings are quite slippery, so we like to secure the strings to the tuning pins by crossing the string over itself once while turning the pin. Look closely at fig 23f to see how that is done. It will help the strings stabilize more quickly on your Lyre.**

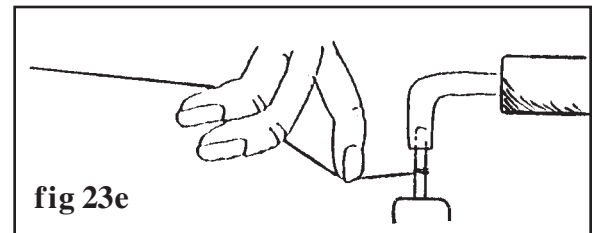


fig 23e

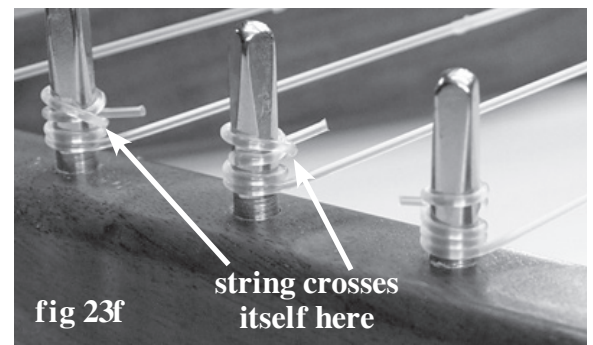


fig 23f

\_\_\_\_ 24. Before you get all the strings in place, you'll want to slide the bridge to its optimum location. When we tune the Lyre to the notes shown in the tuning chart, we place the bridge at an angle so the highest string will have a vibrating length of about 13" and the lowest string about 17" (see figs 24a and 24b). Just measure the space between the tuning pin and the top of the bridge at each end.

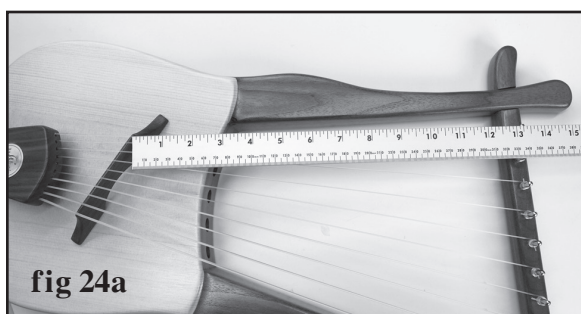


fig 24a

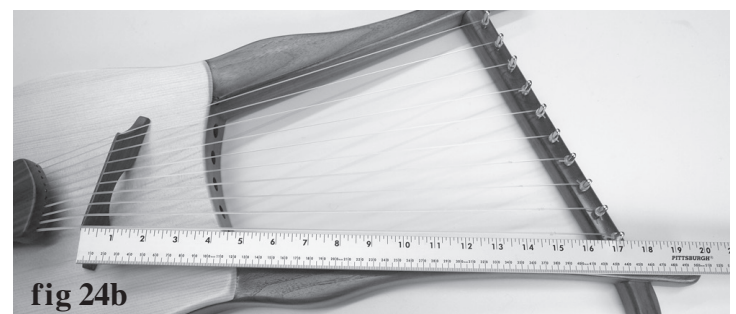


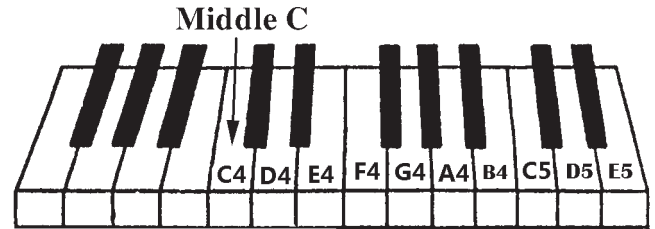
fig 24b



\_\_\_\_ 25. Once all the strings are installed, you can begin tightening them up to pitch. This may require several tunings because the strings (especially nylon) are stretching and the instrument is adjusting to the tension.

Tune the strings to the C major scale, beginning on Middle C (longest string) and proceeding up the scale to high E5 (shortest string). If you don't have a piano or keyboard to help with this, go to our on-line tuner at [harpkit.com/freetuner](http://harpkit.com/freetuner).

Don't worry that one half of each nylon string is being used for a different note than the other half. Tune each pair fairly evenly, and when they are close to the correct pitch, you can fine tune them to their respective notes. The tension on each half of the pair will be so similar that there will be no slip-page through the tail piece.



\_\_\_\_ 26. If you installed wire strings on this instrument, we recommend clipping the stubs of wire as short as possible next to the tuning pins, just to avoid poking yourself or catching your clothing on those sharp ends of wire.



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