

Finished

Hurdy Gurdy



Musicmakers

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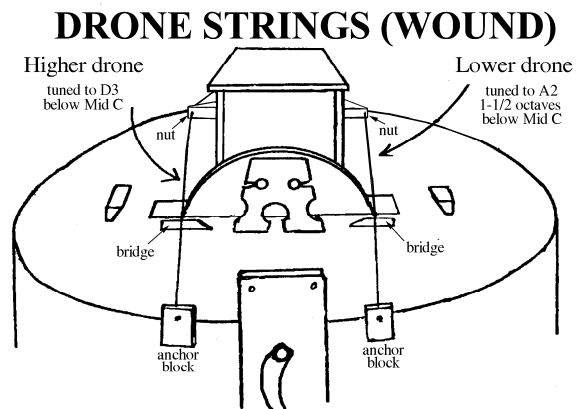
Finished Hurdy Gurdy Parts:

- 1 Rope of Cotton
- 1 Cake of Rosin

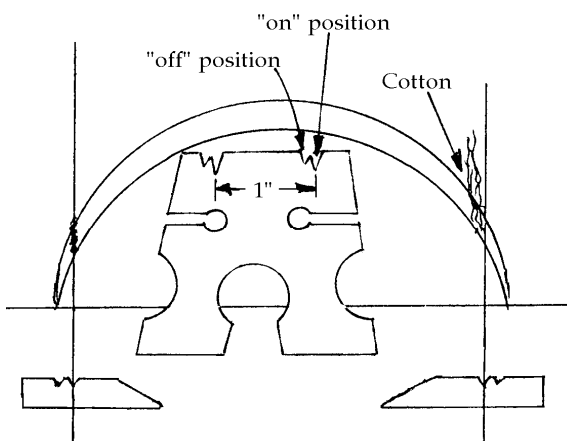
Instructions for restringing your Hurdy Gurdy:

_____ **1.** Install the two drone strings (cello C and cello G) by threading them through the holes in the **DRONE ANCHOR BLOCKS** and the **DRONE NUTS** and the **TUNING POSTS** that poke through to the outside of the **PEGHEAD**. Note these are two different diameter strings. We like to locate the heavier one (low C) on the same side as the keys.

Wind the strings up until taut by turning the **TUNING PEGS**. Clip off the excess length with a wire cutter. **Check to see that the drone strings rest in the notches of the bridges.** One notch allows the string to touch the wheel for playing, and the other notch holds it away from the wheel in the "off" position.



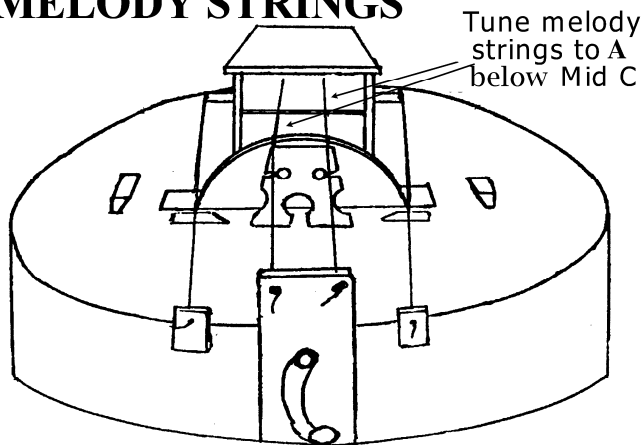
_____ **2.** Hold the cake of **ROSIN** against the **WHEEL** and turn the **CRANK** several revolutions to apply some rosin to the wheel. The drone strings should begin to make noise--I mean, music! You can listen to one at a time if you pull one string away from the wheel while turning the crank. Tune the heavier drone string to low G2 (1-1/2 octaves below Middle C) and the lighter drone to D3 (almost one octave below Middle C). This will give you the key of D major (Note: we use two different size strings here to allow tuning the drones a 4th, 5th or an octave apart, depending on the key you want).



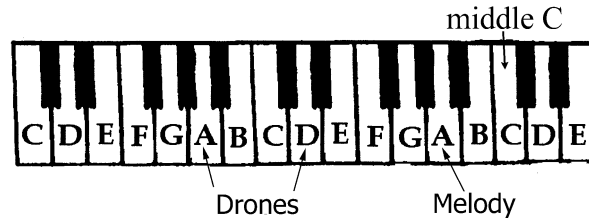
_____ **3.** The strings need some padding to protect them from wearing thin and to give the rosin a little something more to bite into as the wheel turns. We provide a rope of unbleached cotton balls that works well for this purpose. It requires only a tiny amount of cotton on each string, so this supply should last many years.

Pull a very small amount of cotton from the rope and hold it near the string as you turn the crank. The **WHEEL** should "grab" the fibers and start winding them around the string as it turns. You want a thin layer of cotton to cover each string where it contacts the wheel. Re-tune both drone strings, if necessary, to the proper notes.

MELODY STRINGS



TUNING CHART



____ **4.** Install the melody strings by threading them through the small holes in the **TAIL PIECE**, tying a simple overhand knot in the end so they cannot pull back through the holes.

Thread the melody strings through the holes in the other end of the **KEYCHEST**. Put them into the **TUNING POSTS** on the inside of the **PEGHEAD** and wind them up until taut. Clip off excess material with a wire cutter.

Tune the two melody strings to A below Middle C. This will give you the key of D major (with "do" on the third key) or B minor (with "do" starting on the first key) You can lift off the strings that you don't want to hear by hooking them in the "off" position, as shown. That way you can tune one string at a time.

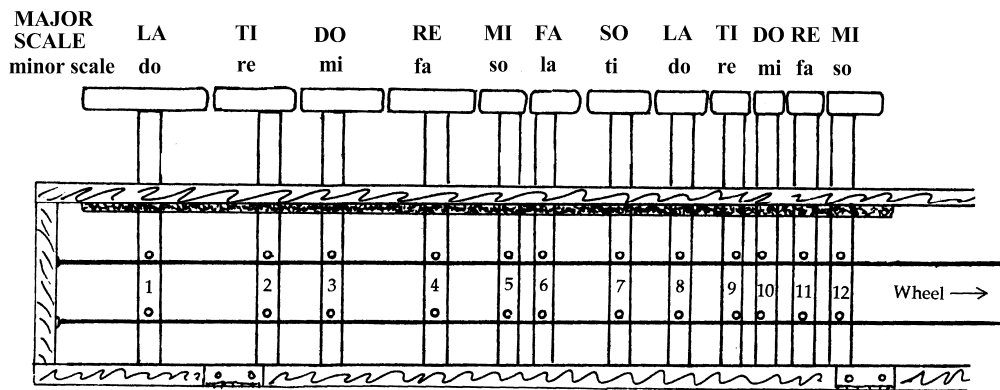
Feed a small amount of cotton onto these melody strings too. That will protect them and make them sound a little louder and sweeter. It will take awhile for the strings to settle in and stay at the proper pitch.

The volume of the strings can be increased in two ways: **1)** rub more rosin onto the wheel; and **2)** lower the strings more firmly against the wheel. The second method can be done by filing the notches in the bridges a little bit deeper to lower the strings more firmly against the **WHEEL**. Be careful with the melody strings though. Too much pressure against the wheel causes rough and scratchy sounds...

____ **5.** When the four strings are all playing clearly and in tune, check out the sound of the **KEYS**. Pressing a key should make the two "tangents" touch the melody strings at the same time, effectively shortening the vibrating length and raising the pitch of the string, just like pressing a string down against a fret on a guitar. We have installed spring wires to the keys so they return to the off position when you release your finger from the key.

The major scale starts on the **THIRD KEY**, which should make the melody strings sound the same note as the lower drone string when engaged. That is "Do" of the scale. Now walk your fingers up the scale as you move from one key to the next, turning the **CRANK** all the while. If any notes sound out of tune, you can correct the pitch by turning the **TANGENTS** inside the keychest.

Turning them toward the **WHEEL** will raise the pitch, and vice versa. Make sure to adjust both **TANGENTS** on a key identically, so they make the two melody strings sound the same pitch.



The notes that are most fussy are those nearest the wheel. A slight change in the **TANGENTS** will make quite a difference in pitch.

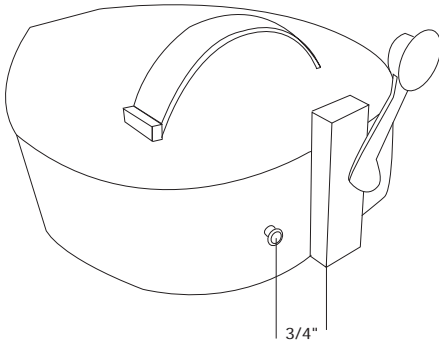
FURTHER HINT: Customers have occasionally thought that the key placement must be off because all the notes are considerably out of tune. This is usually caused by having too much cotton on the strings. A bulky wad of cotton will hamper the vibration of the string, causing inaccurate tuning, so keep the cotton to a minimum.

7. When satisfied with the sound, install the **WHEEL COVER** by wedging it between the two **WHEEL COVER BLOCKS**. It should be held firmly in place without need for glue, but sometimes we add felt to the inside edge of each **COVER BLOCK** to achieve a more secure grip. Some people like to add a string to tie the **COVER** to one of the **COVER BLOCKS**, and that's a good way to make sure you don't lose the thing or inadvertently leave it behind somewhere.

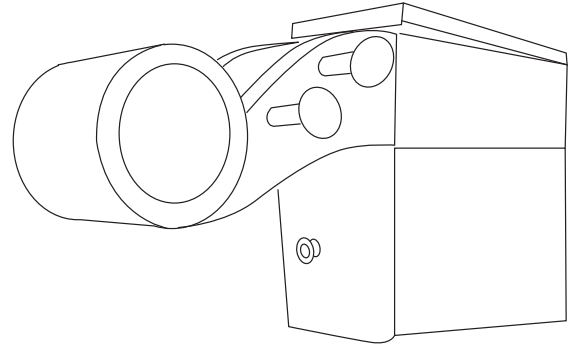
DIFFERENT TUNINGS:

Key of C: Tune the lower drone to F2 (1-1/2 octaves below Middle C), and the higher drone to C3 (a musical fifth higher), and the melody strings to F3 (below Middle C). This tuning also gives you Am if you start the scale with "do" on the first key.

Key of G: Tune the lower drone to G2 (over one octave below Middle C), and the higher drone to D3 (a musical fifth higher), and the melody strings to G3 (below Middle C). Then twist the 6th key tangents to aim them sharply right (toward wheel). With this tuning, "do" of the scale will begin with the open melody string.



Install strap button 3/4" off the edge of tailpiece, so it does not interfere with crank



ACCESSORIES

STRAP-2
HURDSTRG
HURDBAG

Strap with 2 Buttons
Spare set of 4 strings for Hurdy Gurdy
Padded Gig Bag for Hurdy Gurdy

This instrument is easier to play if you add a strap or belt to help hold it on your lap. Attach the ends to the **HEEL** and **TAIL** of the Hurdy Gurdy, making sure that the strap does not interfere with the operation of the crank. We offer an adjustable strap with two attaching buttons that works well on this instrument.

CARE AND FEEDING OF YOUR HURDY GURDY

You should know that this can be a cranky instrument (pun intended). Don't be surprised if it requires a bit of tuning and adjustment every time you play it. Here are some hints to help you work out the excessive squeaks and squawks:

GENERAL THEORY OF ROSIN APPLICATION: Too little rosin makes a weak sound, too much rosin causes chatters and squawks. We just hold the cake of rosin against the wheel while turning the crank about a dozen revolutions, and that usually suffices for initial application. After applying the rosin, hold a smooth block of wood against the wheel while turning the crank. This burnishes the rosin and polishes the surface of the wheel. A highly polished wheel makes the sweetest sound.

COTTON-PATCH COROLLARY: We find it best to be minimalistic with cotton -- just enough to pad the string where it contacts the wheel. It is also good to check the cotton occasionally for clumps of rosin that cause the string to jump and chatter against the wheel. In other words, change your cotton frequently and often, especially after adding rosin to the wheel.

STRING ACTION AXIOM: The big question is how deep to cut the notches in the bridges to obtain the proper pressure of strings against the wheel. The drone strings are not so fussy -- we like fairly good pressure on those. But the melody strings can be tricky. The highest notes won't play well if the strings press too firmly against the wheel. If you need to raise a melody string, glue a sliver of wood in the notch under it.

CHILD'S-PLAY POSTULATION: The more the kids make noise on this beast, the quicker the wheel gets polished and the better it starts to sound! Honestly, we find that our display model instrument that gets cranked by every child who walks into the store is the one that sounds the best. But it takes awhile to get "broken in." Our best suggestion is to hire a youngster to sit out behind the barn and serenade the cows for a few days.

Thanks again for your patronage, your patience, and your sense of humor. With your help we can re-populate the street corners of the world with hurdy-gurdy players! Heaven help us....