### Kromski Polonaise Spinning Wheel

of-all

Tension screw

First, thanks for choosing the Kromski Polonaise. We want your spinning experience to be enjoyable and the first thing to do is to assemble the wheel correctly and with care so that it works properly. We suggest you read through these instructions completely before you begin as this will resolve any questions you may have before they arise.

After your wheel is assembled we will offer a few words of advice about adjusting it and maintenance.

Mother-

**Finishing** 

If you purchased an unfinished wheel we suggest a finish of your choosing. A good wood stain and surface finish will help prevent a degree of staining from regular use and from the use of lubricating oil. Finishing a wheel prior to assembly is probably the best way to proceed. For a clear, natural look we suggest tung oil; otherwise, any quality stain and finish is acceptable.

#### Unboxing the wheel

The Polonaise was boxed in Poland and has traveled some distance to get to you so the first thing to do is to unbox the wheel, remove all the parts and check for any problems that may be obvious. If you observe a problem, contact your dealer.

Table

Table

Bench

Thumb Wheel post Screw

Wheel adjusting screw

Footman

We suggest that you remove all the small parts first, things like legs, footman, bobbins and anything else that is loose in the box. You may unwrap each item and place to the side. You may have to pull the wheel and mother-of-all table out together, as they are usually intertwined in the box. Finally, you should be able to remove any remaining small items and the treadle-leg-bench assembly.

Make sure all parts are unwrapped and set aside. Give yourself some room to work away from the parts so you don't step on anything. Smaller parts are in plastic bags so you may want to empty the bags and examine these items. Everything will go together easily so don't be concerned with the number of parts.

Please refer to the attached detailed drawings to help you assemble your wheel. They will help you greatly.

#### Step 1

The first step is to attach the rear leg. The base of the leg sits flat on the floor so you want to make sure you insert the leg into the bench hole correctly. Mark the leg and table, remove leg, apply wood glue to hole and reinsert leg, making sure to match the two marks you made. Make sure the leg is "driven home" so it sits well into the hole. **Please do not glue the leg if you believe something has happened to these parts during shipment.** 

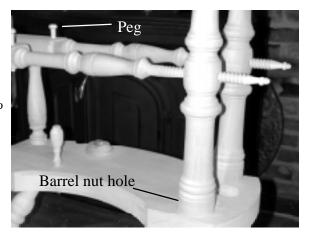
Place the assembled parts on a very flat surface to make sure the rear leg sits flat on the surface.

#### Step 2

Attach the mother-of-all table (this is the small table that is at the left side of the wheel) to the bench using the barrel nuts and bolts set (this consists of a hex-head bolt, a barrel nut (metal cylinder with threaded hole), a silver washer and a gold centering washer). The two holes on the end of the table will face towards the wheel. Put a barrel nut into each of the predrilled holes in the two table legs (note that the nuts have a slot for a screwdriver; this should face out) and insert a hex bolt with a washer and center washer up through the base of the bench into the table legs. If you find two of the four bolts in the parts bag to be shorter, use them at this location. Use a screwdriver to line up the barrel nut with the bolt, as needed. Using the supplied 4 mm Allen wrench, snug the two bolts even and tight.

#### Step 3

Find the two wheel posts (these are the largest pieces of wood from all the parts) and two long threaded wheel adjusting screws (about 17" long). Refer to



the parts pictures as needed. Carefully screw an adjusting screw into each post, ensuring that the predrilled hole near the bottom of the post (a hole you will use for another barrel nut) is on the same side as the adjusting screw. Again, refer to picture as needed. Turn in the adjusting screw enough so that you can place the wheel posts into the bench and the adjusting screws can be lined up with the hole at the end of the mother-of-all table. Using the two remaining hex-head bolts, barrel nut, washer and center guide, attach the two posts to the bench by inserting the bolt assemblies up from the bottom of the bench into the post and through the barrel nut. Snug but do not tighten bolts yet; the post must be able to rotate a bit so you can do the next procedure.

Rotate the posts so you can line up and then back the adjusting screws into the holes at the end of the mother-of-all table. Do not put any pressure on the adjusting screw at this time since only one end is now supported. Continue to back in the adjusting screws until you can look down through the peg hole on the top of the table and see the peg groove on the adjusting screws. At this point you should insert a locking peg into each hole, securing the adjusting screws to the table but allowing them to rotate. DO NOT ROTATE THESE SCREWS after pegging. They must stay in a "neutral" position for the time being.

Now the wheel posts are properly aligned with the table and adjusting screws. Tighten the two hex bolts that hold the wheel posts so the posts are as rigid as can be.

#### Step 4

Now you will assemble the mother-of-all base (this refers to the structure that supports the flyer and bobbin above the table). Locate the following: a threaded tension adjusting screw (about 12"), mother-of-all base with a flat plate attached by two screws, tension guide screw (an "eye" bolt), and a threaded, round locking nut.

Insert the tension adjusting screw through the hole at the end of the mother-of-all table. Screw through the tension guide screw (with the threaded end pointed up) so that the peg notch on the adjusting screw can be lined up with the locking peg hole at the far left of the table. Insert a locking peg to secure the adjusting screw.

Place the mother-of-all base over the wooden I-bolt so that the pegs on the bottom plate face down and U-cutout is to the left. Secure loosely with the round wooden lock nut.



Maidens, mother-of-all, and table

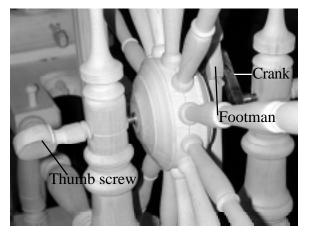
Attach the front and rear maidens (maiden with round leather bearing hole closest to the spinner). The rear maiden should fit firmly but be able to rotate if given a twist (your preference may be to glue the rear maiden so it does not rotate). The front maiden is secured with a diamond shaped wood nut. No need to attach the flyer at this time.

If you like, you can first set the leather bearings of the two maidens in a cup of oil and allow it to wick up into the entire leather. (If you will be finishing the wheel make sure to finish first, then oil the leather bearings)

#### Step 5

Pre-position the drive band by making a double loop. Drop the loop over the front wheel post. This will allow you to fix the band around the wheel in just a moment.

The wheel on the Polonaise is supported and rotates on two metal pins that are imbedded into the ends of two threaded crank thumb screws. Begin by attaching these two thumb screws from the outside of the wheel support posts. Screw in until about .25" of the screw comes through to the inside of the post.



Place the footman (long, flat piece of wood) on the metal wheel crank by working it into position using the large hole area on the footman. Once it is in position on the crank pull it down so the small end sits on the crank. In your parts bag are two small wooden pins. The longer pin is used to secure the footman tightly to the crank by inserting it through the two predrilled holes on the footman you see near the crank.

You will now hang the wheel. Bring the wheel and footman in between the two wheel posts. Drop the bottom end of the footman through the hole in the wheel bench. Bring the hub of the wheel into position so that the metal cups on each side of the crank/hub line up with the pointed ends of the thumb screws coming through the posts. Holding the wheel with one hand, advance the thumb screws equally so that the metal pins nest into the metal cups on the crank. The wheel is properly supported when you can visually detect a slight deflection of the two wheel posts. If you can push from the outside in,

on both thumb screws, and do not feel movement, you are probably set right. If in doubt, err on the side of more tension and a tighter fit. These bearing points are machined to nest nicely so more tension is not a problem.

Attach the footman to the treadle using the leather strap from the parts bag. There are three holes at the back end of the treadle. You can use any of these in any combination to make your tie (normally start with the front one). When done, you want to make sure the footman does not come into contact with the bench hole as the wheel makes its rotation. It is a good idea to first wax the strap with a candle or paraffin to reduce noise caused by flexing during spinning.

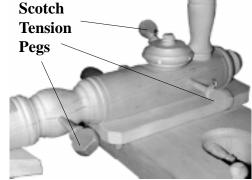
Lace the leather strap through the hole on the bottom of the footman. Bring the two ends together and push down through the front hole on the treadle. Bring the footman down tight with the treadle and rotate the wheel one revolution, observing if the footman touches the bench. If it does not touch, separate the two ends of the leather strap and bring an end up through the remaining two holes on the treadle. You want no slack in the connection between footman and treadle so draw the ends tight and tie off. If your footman touches the bench start with another hole on the treadle, or try this: If further adjustments are needed to prevent the footman from

touching the bench during a full rotation of the wheel, you can move the wheel towards the front or towards the back by adjusting both thumb screws one way or the other, which will have the effect of moving the footman away from the bench.

#### Step 6

Now there are some small jobs to complete before you spin. You can now attach the fancy wheel post caps to the top of the two wheel posts. Do not glue.

The Polonaise comes with two whorls. Assemble the flyer with a bobbin and a whorl. WARNING: AS WITH MOST DOUBLE DRIVE WHEELS, THE WHORLS AND SPINDLE SHAFT ARE REVERSE THREADED. DO NOT ATTEMPT TO ATTACH THE WHORL IN THE WRONG DIRECTION. GOING ON, TURN IN A COUNTER-CLOCKWISE DIRECTION. CLOCKWISE TO REMOVE. DON'T LET CHILDREN PLAY WITH THIS.



For anyone new to double drive spinning, note that there are two different size pulleys on the bobbin. Depending on the size of the whorl you are using, always make sure that the bobbin pulley being used is smaller than the whorl groove you are using.

On the metal spindle you will find a small brass spacer at the base of the spindle. It is important that this remain on the shaft all the time. If it is not on the shaft check the parts bag.

Bring the drive band up and place over and around the wheel. Now move the mother-of-all towards the wheel by turning the tension adjusting screw accordingly. Holding the flyer, lay one strand of the drive band over a groove on the whorl and the other over the pulley of the bobbin and mount the flyer on the leather bearings, adjusting the front maiden to get a proper fit. Tighten the front maiden into position. There is some play here and you can adjust to your liking. The flyer should float a bit, front to back. Rotate the rear maiden so that the two leather bearings are basically parallel. If you stand above the flyer, you can do this very quickly and you may not need to rotate the rear maiden again. Using the tension adjusting screw, move the mother-of-all to the left until you have proper tension on the drive band.

Find the remaining short wooden pin and insert it into the predrilled hole on the top back of the bench (use a drop of wood glue if you like). You will use this to secure your extra whorls. The threading hook goes into the hole on the bench. Bend the wire on the hook to suit your needs.

#### **Scotch Tension**

The Polonaise uses three thumb pegs to implement the scotch tension setup. (If you do not intend to use Scotch tension you may skip this section.) Two pegs have metal eye bolts on them, one has a hole in its shaft. This last thumb peg goes in the hole on the mother-of-all base which is closest to the spinner. Insert the other thumb screws into their holes on the base of the mother-of-all, eye bolts up.

The brake band for scotch tension is in the parts bag with a spring attached. Attach the spring to the eye bolt on the far left peg. Loop the string over the bobbin pulley, down to the next tension peg, thread through the eye then forward to the thumb peg. Secure by tying the string through the hole in the peg with enough slack to allow you to wind the string around the peg as you apply brake to the bobbin. If you are not using the brake (when in double drive operation), drape the band under the flyer.



**Tensioned lazy kate** - Screw two eyescrews into the predrilled holes on the base. Insert the ends of the short piece (handle) into the predrilled holes at the top of the two long posts. Now press the bottom of the two longer posts into the base ensuring that the small hole in the handle is at the same end as the two eye screws. Glue base if you want to make a secure, permanent unit. Attach the Lazy

Kate brake band by hooking the spring to the eyebolt closest to the corner of the lazy kate base. Thread the band through the other eyebolt and tie off the end of the band through the hole on the horizontal handle. You exert tension on the bobbins by rotating the handle, winding the band around the handle. When using the tension option, make a "S" curve with the band around the pulleys on the bobbins; increase the braking action by turning the handle.

#### Wheel adjustment

The Kromski Polonaise is very true to the style of wheel that originated in the Baltic and Scandinavian area of Europe. It is the only wheel we know of that holds to this design style. Today this style is typically called Norwegian. In this design, the crank and the footman are located inside the two wheel posts and the wheel rotates using "pin and cup" bearings. Because the wheel "floats" on these pins and because the wheel adjusting screws actually work (meaning you can turn them and something happens) the drive wheel can be displaced laterally. In an ideal spinning scenario, you want the wheel to always line up with the whorl and bobbin so that the drive band tracks well around the wheel and over the whorls. You adjust this tracking (we call it aiming) by turning the two wheel adjusting screws simultaneously but in opposite directions. Always rotate both screws the same amount and never one at a time.

Start the aiming process by first adjusting the mother-of-all to get proper tension on the drive band. Loosen the nut on top of the mother-of-all base; use the tension adjusting screw to the left of the mother-of-all to move the mother-of-all left or right to get the proper tension on the drive band. With experience you will learn what is best. Snug the nut down again; it need not be real tight.

The best way to "aim" the wheel is to stand looking at the wheel from the wheel end. Eyeball a straight line from the middle of the wheel to the gap between the bobbin and the whorl. You can do this with or without the drive band being on. If you need to "aim" the wheel more to your right, take hold of both wheel adjusting screws and rotate both of them out, or away, from the wheel. If you need to "aim" the wheel to the left, take hold of both wheel adjustment screws and rotate both in towards the wheel. You will see the wheel move on its axis in the direction you want. Once this adjustment is made you will not need to do this step again until you change whorl size, if then. Remember, always adjust the screws simultaneously, in opposite directions and in equal increments.

As with any new wheel, there will be a break-in period, not only for the wheel but for the spinner to get accustomed to the feel and adjustments that need to be made during spinning. Follow the lubrication suggestions below and then treadle for a while without spinning. New bobbins on new flyers sometimes can be sluggish. Make sure there is nothing on the shaft that will impede easy rotation of the bobbin. Make sure the treadle/footman connection is secure. Make sure the footman does not touch the bench (or make adjustments as noted above). Find the "sweet spot" on the treadle that will allow you to start the wheel from nearly any position without the use of your hand. This requires that your foot be well up on the treadle, but still in a comfortable position.

#### Maintenance

All spinning wheels have points that require lubrication. On the Polonaise you need to regularly oil the following points:

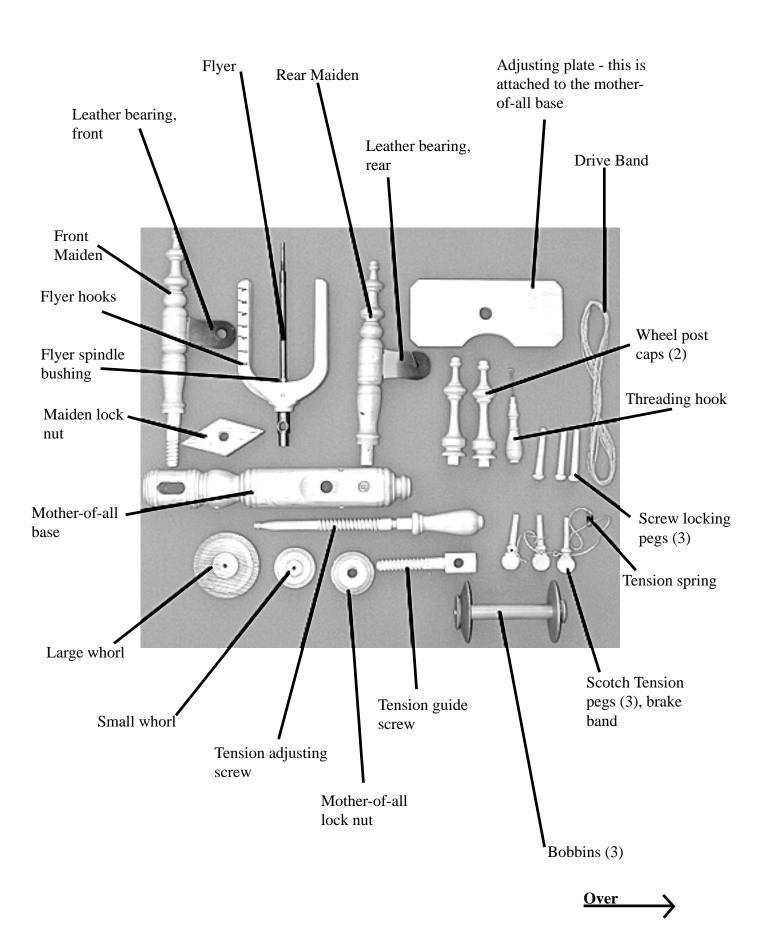
Treadle ends where they enter the front legs Leather bearings that support the flyer Metal spindle shaft at both ends where the bobbin bearings ride The footman/crank point The two metal pin/cup bearings points on the wheel hub

Your Kromski Polonaise comes with a handy needle nose oiling bottle. It is ideal for all these locations. We recommend that all these points be oiled when you begin spinning for the day and you may want to oil the pin/cup bearing more often.

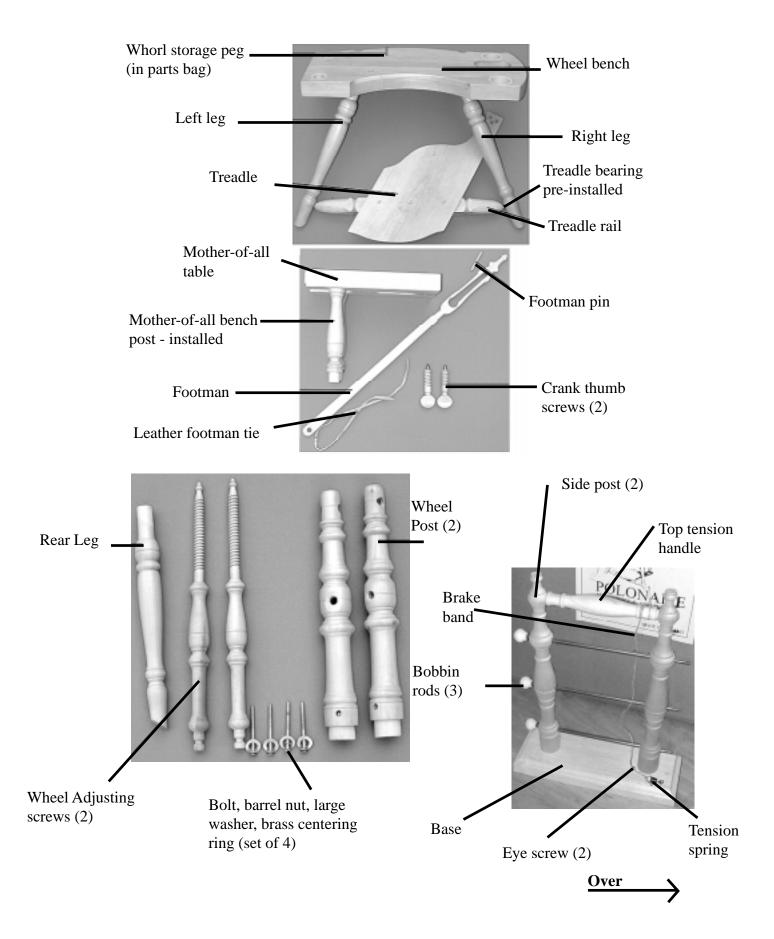
One other step you may care to do is waxing the wooden screw threads on the tension adjusting screw. To do this, remove the peg on the adjusting screw and back the screw out. Using a candle or a bar of paraffin (never soap), work the wax onto the threads from one end to the other. Reassemble and you should notice easier movement. You could also remove the other threaded parts on the mother-of-all and wax them as well. Do this after finishing the wood. (Because the wheel adjusting screws move so little as you "aim" the wheel we do not think it is necessary to wax these; but you may.)

Kromski Spinning Wheels Imported and Distributed by New Voyager Trading P.O. Box 468 Murfreesboro, NC 27855

## Parts List - Kromski Polonaise



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### **Having Problems...**

You have put your Polonaise together and it doesn't look right; the wheel doesn't line up with the flyer (yes, you have read the instructions but still...). Here is what some spinners have said:

- "you have a serious design flaw with the wheel"
- "the wheel does not line up with the flyer whorl regardless of the amount of adjusting I do with the thumb screws"
- "you mean those wheel adjusting screws really work?"

We admit that the manner of hanging the Polonaise wheel and the adjustments that have to be made to line up the wheel and flyer are different from almost all other wheels but it is the way this style of wheel was developed years and years ago.

#### Don'ts

- Don't attempt to line up the wheel and flyer with the thumb screws. The thumb screws are only used to hang/support the wheel and to adjust the wheel position if the footman touches the hole in the bench. The wheel is hung correctly when you can see deflection of the wheel posts as you turn the thumb screws.
- When assembling the wheel, don't "play" with the wheel adjusting screws until you are ready to line-up the wheel with the flyer. If you have, you can put them in "neutral" by removing the two locking pegs so you can reposition the notch in the wheel adjusting screws.
- Don't expect the wheel to be parallel with the bench, or the flyer to be perpendicular to the bench once everything is aligned. Both will need to be off at a slight angle. See below.

#### Do's -

• When the wheel is first mounted and there is no tension on the wheel adjusting screws (you did not play with them yet, have you?) the wheel will be parallel with the bench. Now you want to "aim" the wheel towards the whorl on the flyer. Do this by grasping both adjusting screws and rotating them, both in towards the wheel or both out, or away, from the wheel. Turn them an equal amount. Watch the rim of the wheel move so you can aim it at the whorl. You should end up with an imaginary line running from the middle of the wheel rim to the gap between the whorl and the bobbin.

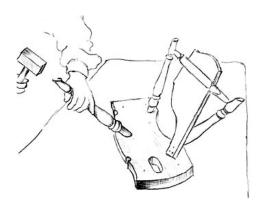
Voila, wasn't that easy? Do this once when you change whorls, but otherwise it need not be done again.

If you have further questions, call your dealer for advice.

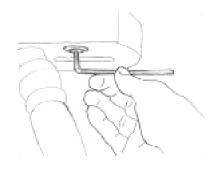


Exaggerated view of Polonaise before and after you adjust flyer and aim wheel.

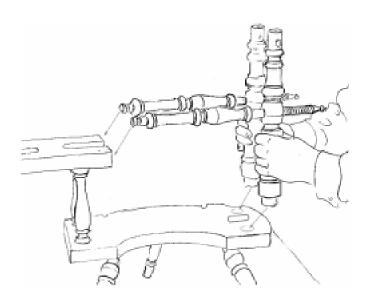
# Polonaise Assembly - by the picture

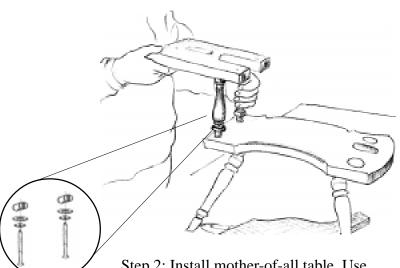


Step 1: Install rear leg. Glue in place if you prefer.

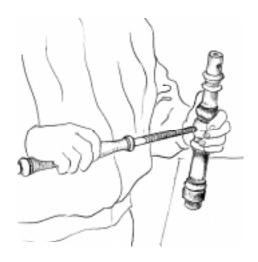


Step 3: Tighten bolt with allen wrench.



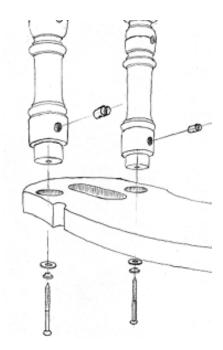


Step 2: Install mother-of-all table. Use barrel nut, bolt, a center guide and a washer. Use a screwdriver on nut to help line up hole in barrel nut.

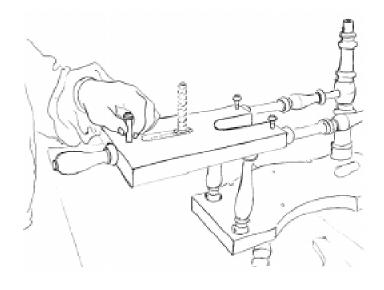


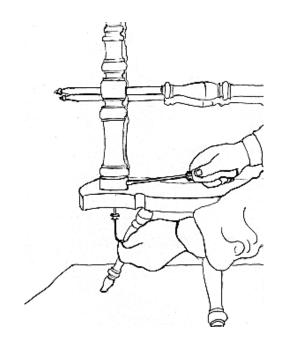
Step 4: Screw wheel adjusting screws (2) in to wheel posts (2); you will need to go all the way to the end. The screw starts on the same side as the small hole at bottom of the post.

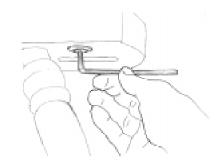
Step 5: Place the two wheel posts into the countersunk holes on the bench.



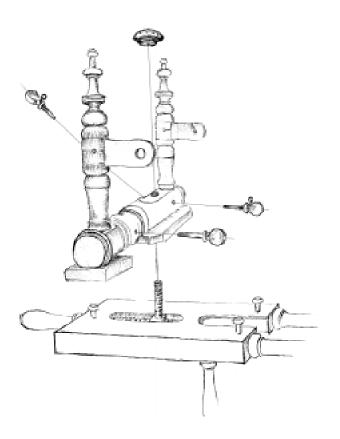
Step 6: Insert barrel nut into hole near the base of the post. Use a screwdriver to line up nut with bolt. Be sure to use centering ring and washer. Back adjusting screws into the two holes on the right edge of table to the point where you can see the peg notch by looking down through the peg hole. Insert a peg into each hole. Tighten the two bolts with the allen wrench. Do not rotate the two adjusting screws at this time.

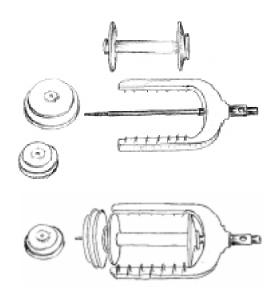




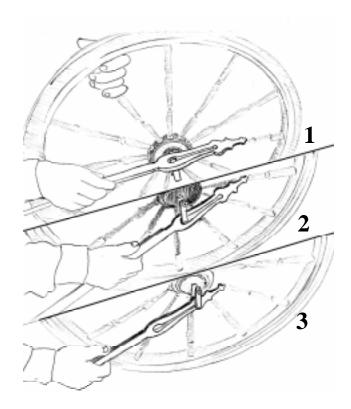


Step 7: Install tension adjusting screw through hole on left edge of table. Thread through the tension guide screw (threaded end up). Secure screw by inserting a peg into hole on top of the table.

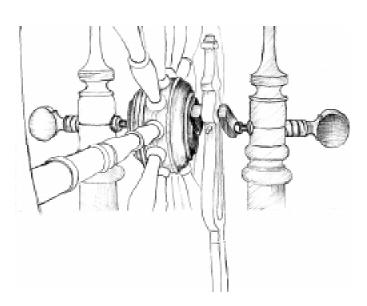




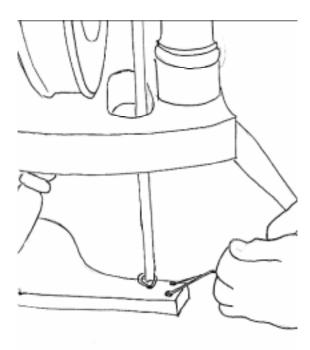
Step 8: Assemble the Mother-of-all as shown left. Place a bobbin on the flyer and screw on one whorl - nut side nearest the bobbin. **NOTE** - reverse threads on whorl; counterclockwise to put on, clockwise to remove.



Step 9: Work the footman on the crank. Secure with long wooden pin.



Step 10: Hang the wheel. The footman goes through the bench. Screw in the two thumb screws that support the wheel equal distances. The posts should deflect out a bit when the wheel is properly secure. Use more rather than less pressure. Footman should not touch bench hole as wheel turns.



Step 11: Thread leather tie through bottom of footman; now thread the two ends through front hole on treadle. Bring each end up through the two remaining holes and tie off.

