



BEAD WINDER - a building project by Greg Alvey

Over the years, folk artists have built yarn winders for amusement, wonder, and decoration. There are many types and variations of winders. One type may have a crank handle that turns a spindle in order to wind a ball of yarn. Another, referred to as a niddy noddy, has a central bar with crossbars at each end, offset from each other by 90°. There are used to make skeins from yarn. Many are built on two or more levels with threads or beads connecting the levels in a patterned form. They may be connected by wrapping the thread around the arms of each section or, by passing the thread through a hole in the ends of the arms. The latter is the style illustrated here.



TOOLS USED:

The following is a list of the tools I used for my project. Additional tools may be required pending the winder you elect to make.

Coat Hangers and Stiff Wire – Several different bends are used. I like to put a wooden handle on my hangers to make them more comfortable and secure to use.

Drill – need to be able to drill micro sizes.

Glue and Varnish – wood and epoxy glue, clear fingernail polish, satin finish varnish or lacquer.

Tape Measure – good metal ruler with both inches and metric displayed.

Sander and various sandpapers – both hand and machine sanding were used in this project.

Hobby Miter Box and Saw – found at craft and hobby stores.

Miscellaneous Tools – tweezers, scissors, paint brushes, X-acto knife.

Lathe – used on this project but not required.

Gathering and Preparing the Materials

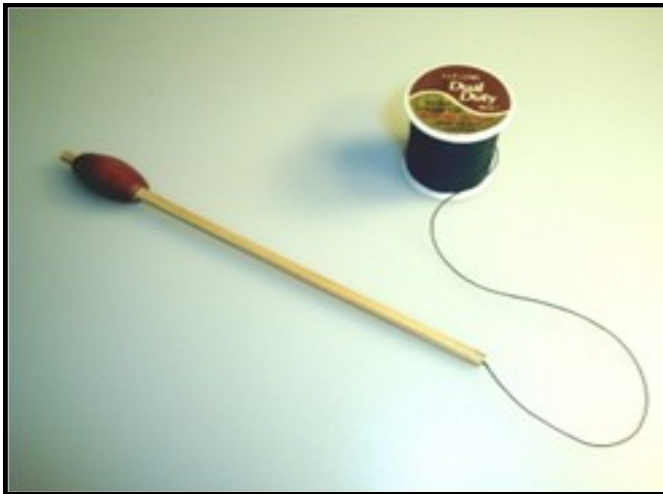
Bottle: Select a bottle appropriate for the size and style you wish to build. The bottle used for this project, purchased years ago from Pier 1, was chosen because of its size, clarity and the fact that it did not have any markings or seams. The overall size is 11 inches high by 2 ¾ inches diameter (28 cm x 7 cm). The bottle's neck is tapered and the narrowest point of the opening is 5/8". Begin by cleaning and inspecting the bottle thoroughly. Be sure to check it several times before you seal the bottle for good.



Base: The “+” base is made from two bass-wood strips cut to a size of 2 1/8” x 5/8” x 1/4”. The two pieces are notched in

the center of each to create a lap joint. I had to round the bottom of the base to custom fit it to the shape of this bottle. After staining and varnishing the wood, I added my maker information: “Greg Alvey 2012 KY” (for Kentucky) in black ink on the rounded bottoms. The base was not glued to the bottom of the bottle since it is held down or “pinned” by the stopper.

Center Post: The center post is 7 3/8” long and is made from a bamboo skewer. After applying the stain and varnish, a very small hole was drilled in the end of the post and a long length of thread was securely glued in the hole. **This is a very important step that you will find crucial to having a successful build.**

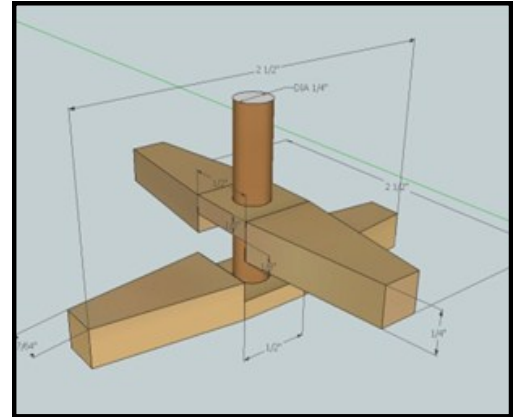


This thread is used as a guide to help maneuver your pieces onto the shaft as they are placed in the bottle. You will notice in the accompanying pictures that this guide thread is black just like the other threads I use.

Big mistake! Be sure that the guide thread is a different color from the other threads so that you can quickly and easily find it among the other threads as construction progresses. (Later, I did mark this thread with an acrylic white paint to help me distinguish it from the others).

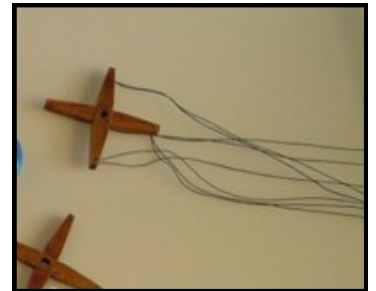
Crossarms: Four crossarm sections are used for this bottle. Each of the “+” crossarms are made from bass-wood and are cut and shaped to the appropriate size for your bottle and your individual preference (see Diagram A).

The two pieces used in each section are notched in the middle of each piece to form a lap joint. A 1/4” hole is



drilled through the center of each crossarm and two small micro holes, one in front of the other, are drilled at the ends of each crossarm; the outer hole is used for the tassels, and the inner hole for threading the beads (Diagram A). The size of these micro holes varies depending on the thickness of the threads you use. The crossarms are then stained and varnished.

Bottom (first in the Bottle) Crossarm – the only difference in this first section and the other three is that each of the four arms has two threads secured on the end of each arm. This thread is used for stringing the Mercury bards and should be very long so that it amply extends out of the end of the bottle.



Tassels: Red and blue store-bought tassels were used in this project but you can make your own if you prefer. The tassels are attached on the end of each crossarm by suspending them from the small hole on the very end of the arm. The color and style is a personal preference. Instead of tassels, you can also use other items such as beads, feathers, teardrops, and the like. You may decide to not attach or suspend anything, which makes the building process much simpler, and gives full view of the contents of the bottle.

Spacer: The spacers referred to here are the wooden beads that go on the shaft between the crossarms. Two different styles were selected for the shaft. I chose different shapes to make the center shaft more

interesting, and to get the right fit. The spacers were painted with craft acrylic paints in colors that complemented the beads and tassels and then they were varnished.



Mercury beads:

I bought a large assortment of vintage Mercury beads some time ago on eBay and decided to use them for this winder. Mercury beads were

commonly used in Christmas decorations from the late 1800's through the 1950's. I liked the glass look and the size and colors (red, white and blue) gave just the look I wanted. Mercury beads have been used over the decades in bottle whimsies, particularly those from the late 1800's and early 1900's. They were often used to create a trick stopper like the ones found in the Soldiers Home bottles. While Mercury beads make a nice appearance, other type of beads and mixed patterns look great.

Stopper: The type of shaft you use will depend on the size of your bottle, the length of its neck, and size of the opening. The shaft can be very elaborate and even include a trick stopper, or it can be as simple as sticking a cork in the bottle to seal it. The stopper I used in this project came from an old broom handle turned on a lathe so that it would custom fit the tapered neck of this bottle. I drilled a 1/8" hole the length of the shaft and then stained and varnished it.

Thread: The thread used is heavy duty, and extra strong for buttons, carpets and very heavy fabrics. It should hold up just fine for years to come. You could

consider using beeswax on the thread to reduce fraying.

Inserting the Pieces

After ensuring that the bottle is clean, you begin by inserting the base pieces one at a time. Once you have the pieces in the correct position, securely join them together at the lap joint. The base was not glued to the bottom of this bottle since it will be securely held down by the stopper, but it is okay to secure the base to the bottom of the bottle if you prefer.

Next, the wooden center post with the guide thread extending outside the bottle is inserted in the hole in the center of the base. Again, I did not glue this piece in but you can do so if you prefer. After checking the fit and looking under the bottle to be sure that my maker information could clearly be read, I proceeded to the next step.

Note:

Throughout this build be sure you remember to run the guiding thread up through the bottom of each piece and not down from the top.

After running the guiding thread through the first



spacer bead and maneuvering it onto the post, you are ready to insert the first or bottom crossarm section. This bottom section has two threads coming from each of the four arms. These eight threads are used for the Mercury beads. To insert the bottom section, run the guide thread through the hole of the bottom arm piece

and insert it in the bottle and on to the post. Add the top arm of the crossarm in the same manner. Once in the bottle and on the center post make sure that the two arms locked together securely at the lap joint.

NOTE: From this point on, you will have to deal with eight separate threads that will always seem to get tangled, will always be in your way, and will always make it difficult to find the thread you need. Different colors of thread would be helpful; however since portions of the thread show in the bottle, I wanted this thread to be the same color. To help guide the threads through the beads and the small holes in each arm, I use clear fingernail polish on the ends of the threads to make them stiff. In some cases, you may find it easier to guide both threads through holes at the same time. Temporarily “gluing” the threads together with the polish can help with this. It also helps to secure a binder clip to the threads from time-to-time. These add weight to a thread when needed and also help you find the thread you want to use (or avoid).

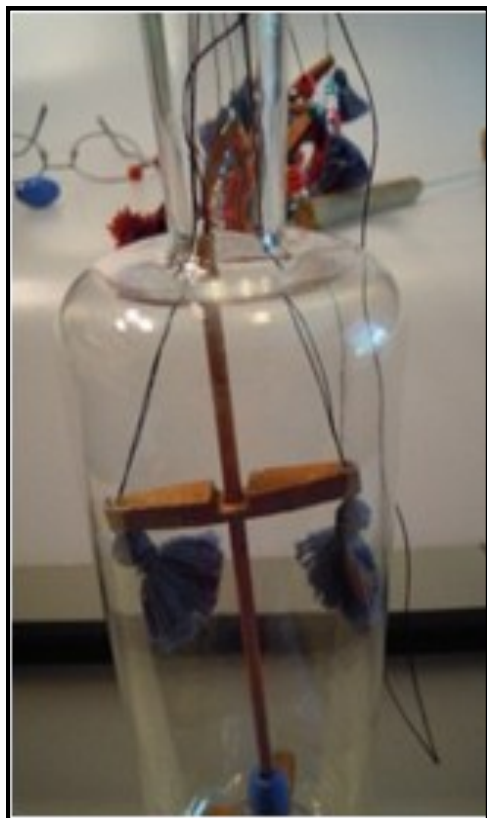
Next, take one thread from one arm and thread the beads; then one thread from the arm next to it and thread those beads. These two threads will go through the same hole in the crossarm above this one. This step will be repeated for the other arms of this

crossarm, and for all of the remaining sets of crossarms. The method of beading creates a diamond shape in the bottle and makes the crossarms stagger with each other. Other beading methods and patterns can be used if preferred.

Add your next set of spacer beads (three in this project) and then add the next section of crossarms following the same directions as above. Remember, if you use tassels, they will move around as you build this bottle. Use your coat hanger wire to position the tassels where you want them. This step will need to be done many times during construction.

Repeat these steps as you move up the bottle. Take your time and take ample breaks, particularly if things aren't going so well. When you have reached the top, you are ready for the final steps for finishing this bottle.

Do a slow, final, and critical inspection of everything. Here, you want to make sure the tassels are where you want them; the crossarms are in the right position; the Mercury beads are pulled up tight and form the correct pattern; and that no foreign objects, loose threads, tassel strands, etc. have worked their way in the bottle; and that the bottle is clean. When the bottle passes inspection, you are ready to secure the



threads. I pulled all of the threads through the shaft and after gluing them with wood glue, I “pegged” the threads inside the shaft with a piece of wood about the size of a toothpick. After the glue is thoroughly dry I cut away the excess threads and added the final top to the shaft. The top is a wooden ball a small dowel inserted to connect the ball to the shaft. The ball and dowel are securely glued to the shaft completing your bottle.



Congratulations, you have created a wonderful Bead Winder!

Conclusion

I designed this winder to have four crossarms sections plus the base. Near completion of this bottle, I realized the nearly flat glass top of the bottle was going to make it seemingly impossible to add the final crossarm top section since it had to be inserted in the bottle and then tilted back

horizontally while avoiding the neck so that it could be maneuvered to rest on the bottom crossarm section which would complete the crossarm. Disappointedly, I was already making plans for changing my original design in the event I could not position the final top section. The plan for this design would be to pull all of the threads holding the Mercury beads up through a hole going through the length of the stopper and out of the bottle. These threads would be glued and pegged with a small wood dowel, perhaps a section of a toothpick just below the top of the stopper. The hole in the very top would be filled and finished so that you would not see or notice it. Fortunately, I was eventually able to solve the problem and maneuver the top section into place just as I had originally planned. Although, I did not have to use this variation, the picture to the left shows how it would have looked. Actually, it

would have been a very nice design to use and some may even prefer it, but I was determined to complete the bottle to the very top.

This is the first winder bottle I have built and it took approximately 18 hours to complete. Throughout the project there were times of confusion, uncertainty, and frustration. In spite of that I found this to be a very enjoyable project. It is a project that can be done by both the experienced and the novice.

The author, Greg Alvey, is a builder and avid collector of folk art, whimsy, and ships in bottles. He is the owner of www.folkartinbottles.com, a website devoted to this art and craft. This article may not be transmitted, published, or re-printed in whole or part without the expressed, written consent of Greg Alvey. He can be contacted at: folkart@folkartinbottles.com. Copyright, April 2012.

