## feature project by Danny Proulx

# Garden Wishing Well



But, I wasn't impressed by the examples I had seen in gardening books and around the area. Most were very innovative, but I wanted something that really looked like an old time well!

I looked through some old books at the library and began to notice certain similarities of style with these wells. They all had a wooden base and uprights of some type to support a small roof. I'm not sure what original purpose the roof served but it was a beautiful detail.

Cedar and pine seemed to be the wood of choice. Most old farms had the wells painted with a milk paint or none at all, which resulted in a weathered grey structure. And, all had a wooden bucket with a tired looking old rope to pull the water from the well.

It was obvious that I had to scale down the old farm full size well structure. I decided to try a few "mock ups" in the shop and came up with a design for the well. This wishing well is about six feet tall and a little over two

few friends said they'd really like to have a unique plan for a garden well. So during the next month I began to notice how many people had a wishing well in front of their house. I hadn't paid attention before but now that a "well" was on my potential project list, I began to notice dozens of designs.

feet square. Just right for the average garden or front lawn!

I've used construction grade western cedar with four inch tongue and groove vertical siding to reflect the old time bead board. Many old wells that I have seen, didn't get this fancy, but, there were a few that were very detailed - obviously built by a very proud crafts person.

The roof is covered with traditional hand split cedar shingles. This feature was very common in areas where cedar wood was cheap and plentiful. The rope is an old piece of frayed line that I meant to throw in the garbage many times. I'm glad I kept it around - it added a nice touch.

The bucket is simply 3/4" cedar boards, cut at an angle to form a "round" bucket. This type of pail is very common and often made by the owner/farmer. A few examples I've seen were much better constructed with metal bands which meant the town was lucky enough to have their own cooper.

The popularity of this project really surprised me. The majority of shop visitors, during construction of the well, wanted one for their yard. The comments such as, "My parents had one in their yard and I've always wanted one" were very common. I now have about six more to make and only about a dozen people have seen the finished project.

This is really an enjoyable project to build. But, be warned, you'll end up making more than one. In fact, you may just be spending half the winter making wishing wells. Which, come to think of it, isn't a bad way to spend the winter months.

### MATERIALS LIST

- 4 1 1/2" x 1 1/2" x 60" Uprights
- 8 1 1/2" x 1 1/2" x 21" Cross Braces
- 4 1 1/2" x 1 1/2" x 21" Roof Plates
- 28 3/4" x 3 1/2" x 29 3/4" Siding Boards
- 4 3/4" x 2 1/2" x 30" Wide Corner Boards
- 4 3/4" x 1 3/4" x 30" Narrow Corner Boards
- 8 3/4" x 2 1/2" x 21 1/2" Fence Boards
- 4 1 1/2" x 5 1/2" x 28" Ledge Boards
- 6 1 1/2" x 3 1/2" x 20" Common Rafters
- 2 3/4" x 3 1/2" x 24" Fascia
- 10 3/4" x 3 1/2" x 24" Sheathing
- 3 3/4" x 3 1/2" x 8' Gable Siding
- 2 3/4" x 3 1/2" x 24" Bucket Supports
- 1 1" x 5" Dowel Handle
- 1 1" x 27" Dowel Shaft
- 1 3/4" x 1 1/2" X 5" Connector
- 8 3/4" x 3 1/8" X 10" Bucket Staves
- 8 3/4" x 1" X 8" Bucket Bottom
- 1/2 Bundle
  Cedar Shingles



#### **CONSTRUCTION STEPS**

#### STEP 1

The frame is built with 2 by 2 cedar lumber. Or, you can rip 2 by 4 stock to size. Prepare four boards that are 60" long and 1 1/2" square.

#### STEP 2

Sand the four uprights and ease all the edges with a router equipped with a 1/4" round-over bit.

#### STEP 3

Cut 8 cross braces at 1 1/2" x 1 1/2" x 21" long.

#### STEP 4

To build the well frame work, attach two of the cross braces to two uprights. Then connect the two frames to each other as shown in the photo.

#### STEP 5

Cut and attach four boards at 1 1/2" x 1 1/2" x 21" to the top section of the frame that will form the roof plates.

#### STEP 6

To ensure the frame is square, and stays square, you'll need four corner blocks. These are simply right angle triangles cut from a 1 by 4 piece of lumber at 45 degrees.

Use a scrap piece of the 1 1/2" upright as a template for the ledge notch. Each cut out is one half of an upright at 45 degrees or an equal lateral right angled triangle. Two ledge boards held together form a square with their notches.

#### STEP 7

Install one block at each corner with construction adhesive and screws in pre-drilled holed as shown.

#### STEP 8

Install 28 siding boards at 3/4" x 3 1/2" x 29 3/4" with a bead of construction











adhesive and 1 1/2" galvanized common nails at the bottom and top of each board. Cover all sides. I have used tongue and groove boards which are less than 3 1/2" wide. However, any type of siding can be used for the well. Don't be overly concerned about the corners as they will be covered. Hold the boards flush with the







Use two biscuits per joint. Or, if you haven't got access to this tool, use dowels or splines. This is a "rustic" water bucket for our well so the joints aren't critical - in fact, the rougher the better. You can use simple glue joints and masking tape to hold the bucket staves together until the glue sets.

top of the middle brace which will raise them slightly off the ground.

#### STEP 9

Each corner will be faced with two boards. You'll need four at 3/4" x 2 1/2" wide x 30" long and four at 3/4" x 1 3/4" wide by 30" long. Orient the boards as shown.

#### STEP 10

Cut and attach four upper and four lower face boards at 3/4" x 2 1/2" wide x 21 1/2" long. However, verify the measurement prior to cutting the boards as it will vary depending on the thickness of siding boards used. Run a bead of construction adhesive from corner board to corner board and attach the face boards with two small finishing nails. The adhesive will secure the boards once it cures.

#### STEP 11

The well ledge is made from 2 by 6 stock, mitered at each corner, and notched

to fit around the uprights. Each well is slightly different so custom fit the ledge boards, one at a time. Once the boards are dry fit and you're satisfied, apply a bead of adhesive and secure the boards with a 2 1/2" screw from the underside of the cross brace.

#### **STEP 12**

Building roofs and calculating rafter dimensions are intimidating to many people. However, there are very simple mathematical formulas that can be applied to find common rafter sizes. Six common rafters are needed to begin framing the roof. The angle at the peak is cut at 22 1/2 degrees and matched at the birds mouth notch to hold the rafter angle plumb at it's peak. Assemble the rafters with glue and a 3" screw holding the peaks together. Install the rafters as shown with one set flush at the front uprights and one set flush with the back uprights. Center the third set. Using construction adhesive and one 3" screw per joint, secure the rafters at the top plate from the underside as shown.

#### **STEP 13**

Unlike sheathing for an asphalt shingle roof, cedar shingles roofs are covered with boards that are spaced to allow air circulation under the wood shingles. The spacing is equal to the amount of exposure or distance between shingles referred to as the reveal. Since we will use a 4 1/2" reveal when installing the cedar shingles, the "on center" spacing of the roof boards is 4 1/2". Cut 12 boards at 3/4" thick by 3 1/2" wide by 24" long. Two will be used as fascia boards covering the ends of the rafter tails and the remaining ten will be used to sheath the roof. Fascia boards are attached with construction adhesive and nails. One board covers the end of the rafter tails on each side. The first roof board is attached flush with the outside edge of the fascia board and all other boards are layed to the peak at 4 1/2" on center.

We're not concerned about building codes with our wishing well, so just about any shingle exposure is acceptable. You might prefer to use a 3" reveal or a wider 6" reveal to save on shingles. The choice is yours. On center roof board spacing should roughly match the shingle reveal. But, always start sheathing the roof by placing the first board flush with the outside surface of the fascia board and work towards the roof peak.

#### **STEP 14**

The same tongue and groove siding that was attached vertically on the base was used to cover both gable ends of the well. The number and length of boards is dependant on the slope of the roof or directly related to the rafter length. In this case, we used four lengths of siding that were cut shorter as we progressed higher on each gable end. As shown in the photo, mark each board in place to accurately determine the correct length and angle. Start at the bottom of each gable end, clamp the board in place, mark and cut to size. The first or lowest board is held flush with the bottom of the rafter tail. Attach the siding boards with construction adhesive and a finishing nail.

#### **STEP 15**

Once the gable ends are covered, the roof can be shingled. The first row, known as the starter course, is a double row. Set the first row on each side so the shingles overhang the fascia board by 1" and the gable ends by 3/8". The second row is placed on top of the first row covering the joints. Begin the second row 4 1/2" up from the edge of the first row. Use two 3/4" galvanized roofing nails per shingles, each 1" from the edge and 5 1/2" from the bottom of the shingle as shown.

#### STEP 16

The ridge cap is a series of cedar shingles that were all cut 4" wide. The exposure is 4 1/2" and each row is alternately overlapped as shown.

#### **STEP 17**

To begin the assembly of the decorative water bucket, cut and shape two boards. Note that one support arm has the 1" hole drilled completely through the board while the other hole is drilled 1/2" deep. Attach





each arm to the uprights 12" above the well ledge boards with adhesive and a 2" screw per side.

#### **STEP 18**

Build the bucket crank assembly using two 1" diameter dowel rods cut at 27" long and 5" long and a connector board as shown. The connector board is 3/4" thick by 1 1/2" wide by 5" long and all edges are eased with a 1/4" round over bit.

#### **STEP 19**

Attach the handle assembly to the well by placing the 27" dowel through the hole in one support arm and butted against the bottom of the hole in the other arm. Hold the assembly in place with a 1/4" by 1" long lag bolt. Drilling a pilot hole, slightly smaller than the bolt's shaft diameter is necessary to prevent splitting the dowel rod. Place a washer on the bolt and attach securely.

#### **STEP 20**

The water bucket is made up of eight boards from 1 by 4 stock cut as shown. They are 3 1/8" wide by 10" long and cut at a 22 1/2 degree angle on each side. When joined with biscuits and glue, the bucket is made up of eight 45 degree angles equalling a 360° circle.

#### **STEP 21**

Once the glue sets, lay the bucket on a 1 by 8 piece of 3/4" stock and trace the bottom from the bucket's inside. Cut and install with glue and brad nails.







#### **STEP 22**

Locate an old rope and wind it on the crank assembly. Drill two holes opposite each other in the bucket's side, near the top, and thread the rope.

The wishing well is now ready for final sanding and finishing.

#### **CONSTRUCTION NOTES**

Building the well is a fairly straight forward, simple process. The only area that might be a little intimidating is the roof construction and cedar shingle application.

For those that haven't built a roof this is a simple one to begin learning roof framing. The cedar shingle application is a little more difficult because it's such a small roof. I used standard shingles but you may want to use the smaller shakes to lessen the rapid build up as you lay each course.

Information about cedar shingle and shake installation is available on the Internet at the Cedar Shake & Shingle Bureau web site. They provide diagrams and information brochures about their products and proper installation techniques.

Cedar is a relatively soft wood and tends to split very easily. It's advisable to drill pilot holes for all the fasteners. Nailing close to the end of a board can also cause splitting so drilling a small pilot hole or blunting the nail point is helpful.

The project well will be left unfinished which means it will turn grey over time. But, it also means that wood deterioration may occur sooner if the bottom is in contact with the earth. You might consider a clear







protectant if the well will be placed in a damp area.

#### **VARIATIONS AND OPTIONS**

One obvious variation is the choice of wood. Cedar may not be common in your area and pine may have been the wood of choice for the old wells. You can use any wood that's readily available, even old barn boards for that authentic old time appearance.

I'm really pleased with the scale of the well. But, you may find it a little large for a small garden setting. If that's the case, build one at half scale.

Another option is the choice of roof shingle. There are many available, including asphalt, tile, or metal. Quite a few that I came across opted for the asphalt shingle. If you plan on using one of these options, sheath the roof with 1/2" plywood.

You may decide to paint your wishing well a color that matches other structures in the garden. If so, you can use pressure treated wood that is easily painted with a good exterior solid finish. If you do plan on using cedar or redwood and want to preserve the natural tones, finish the well with a clear preservative.

And finally, as with all outdoor furniture projects, investigate the potential problems of wood deterioration. Is the well in close contact with soil? Will it be subjected to wind and rain? If the conditions are going to be severe, take some extra precautions to protect the wood. The outdoor conditions should always be an important factor when deciding on wood and finishing products.

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