

Owyoung's Nested Soil Sifting System

Part 1

Written by Kathleen O'Donnell • Photos by Kathy Owyoung

Description:



With experiences as both a civil and mechanical engineer it's no surprise that Vince Owyoung is a masterful problem solver.

Worth sharing, Vince's latest **do-it-yourself** project takes the drudgery out of sifting bonsai soil.

This article documents the steps it takes to 'build your own' set of nested sieves, seated in order of progressively finer screens.

Good luck! Follow the step by step directions. You'll find the list of the materials you'll need below.

Materials List:

THREE 5-GALLON BUCKETS

SHARPIE TYPE MARKING PEN

MEASURING TAPE OR RULER

2'x2' PIECE OF 5/8" OR 3/4" PLYWOOD OR PARTICLE BOARD

HACKSAW OR DREMEL SAW

FILE OR SAND PAPER

POP RIVET GUN

24 EACH 1/8" X 3/8" ALUMINUM RIVETS WITH PLATED STEEL PULL PINS AND 24 EACH 1/8" ALUMINUM WASHERS

2'x2' PIECES EACH OF:

- + FINE WINDOW SCREEN
- + 1/8" HARDWARE CLOTH SCREEN
- + 1/4" HARDWARE CLOTH SCREEN

A TACK AND A FOOT LONG PIECE OF STRING

TIN SNIPS



Steps:



1 Remove bucket handles.



2 Mark two inches below the bucket stops.



3 Mark a line at 2" all around the bucket.



4 Use a hacksaw or a Dremel saw to free the top of the bucket from the bottom.



Wear a dust mask if using a Dremel saw.



6 Feed the bottom through the top.



7 Make sure the top is snug with the bottom.



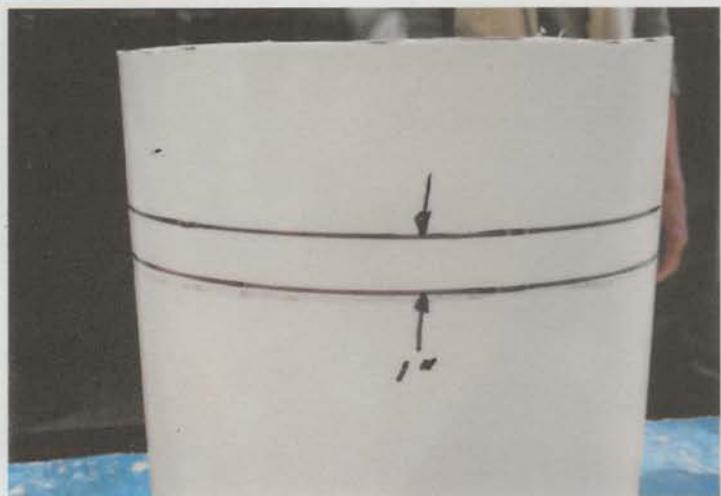
5 File or sand off the rough edges.



8 Flip over and notice a slight gap.



9 Flip back over. Measure to assure it is equal height all around.



12 Continue to scribe a one inch band around the bucket.



10 Follow the bottom of cut top, scribe all the way around with a marking pen.



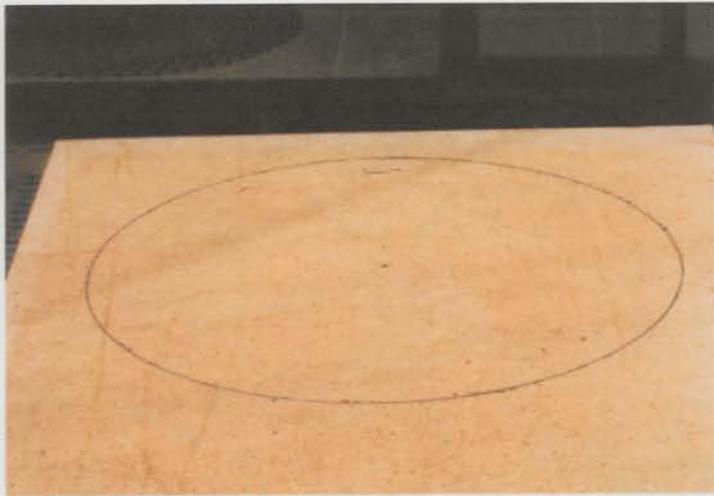
13 Cut the ring band using a Dremel saw (alternative to hacksaw).



11 Measure one inch below the scribed line.



14 Rough edges get sanded or filed.



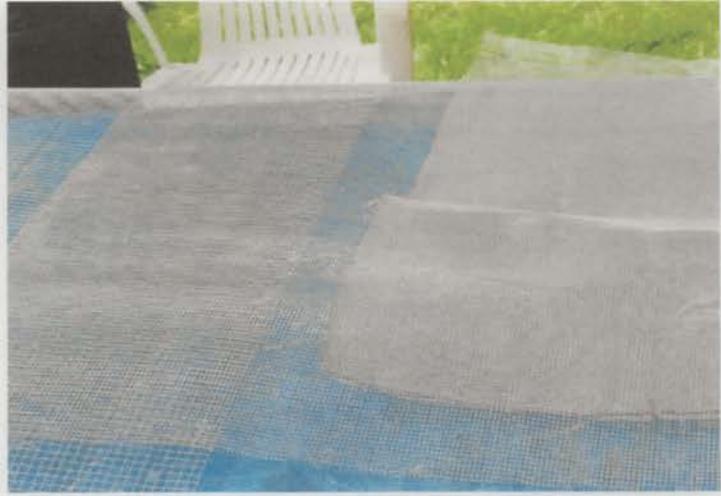
15 On a particle board or plywood, scribe the **inside** of the cut edge of the top bucket for a template.



16 Cut the template (circle) out of your board. Mark the center.



17 Template and band ring.



Above: 1/4" hardware cloth, 1/8" hardware cloth, and window screen. You will make a sieve using each of these..



18 Mark two circles: one the size of the ring-banded template (ring not shown) and the outer circle 3/4" larger.

Take Heart-
The end result will be
worth the trouble!

Bucket sieve project crew: Timm Johnson, Kathleen O'Donnell, Carmen Scott, Renee Seely, Kathy and Vince Owyoung

Join the "bucket sieve project crew" in the next issue of Golden Statements for part II of this article--finishing up the sieve set!

STEP BY STEP GUIDE TO BUILD THE

Owyoung's Nested Soil Sifting System

Part II

Written by Kathleen O'Donnell • Photos by Kathy Owyoung

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Steps:

19 Use a string and marking pen to scribe the circles.



20 Mark the center of the circle and cut the outer circle of the screen with tin snips



21 Mark radial lines about 1" apart between the two circles



22 Cut the radiating lines up to $1/16"$ short of inner circle



23 Align the center point of the screen with the center point of the ring-banded template. Bend down the opposite ends of the screen tabs until all are bent.



24 Seat the top of the bucket on the screen together with the ring-banded template



25 This is the hardest part.



26 Remove the template board. Leave the inner ring holding the screen



27 Measure and mark $5/8"$ up



STEP BY STEP BUILDING GUIDE

28 Mark 8 spots equal distance " from one another



31 Rivets and rivet washers used



29 Drill hole with 1/8" drill bit.



32 Pop the rivet in with the rivet gun.



30 Insert washer and rivet in drilled hole.



33 Proceed to opposite side and repeat drilling hole and rivet. If you don't follow this procedure, the screen will 'walk' on you. Continue until all 8 holes drilled and riveted.



Sieve is now complete. Repeat steps for other two sieves. Board template can be reused for the other two sieves.

And Ta Da!!

You have a Nest of the 3 sieves!

To use:

The Soil to be sieved is poured into the Nested sieves. The 1/4" sieve is on top, followed by the 1/8", and then the window screen, with an empty bucket on bottom to catch the fines.



Bucket sieve project crew:

Timm Johnson, Kathleen O'Donnell, Carmen Scott, Renee Seely, Kathy and Vince Owyong

Owyong's Nested Soil Sifting System Part I was published in the 2015 Summer issue of Golden Statements.

Just rock the buckets and the soil will easily flow through the sieves!



The results: 3 sizes of sieved soil (fines in bottom bucket - not shown)

