



## Screen and Grout Fill-in

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I'm a refugee from Los Angeles, living in backwoods Puerto Rico for about 35 years now and loving it. I built my own home from discarded nylon fishnet and cement.

## Intro: Screen and Grout Fill-in

The underside of my cement washing machine was awkward to clean of leaves and other debris (see: <http://www.instructables.com/id/Hand-powered-WASHING-MACHINE> ). At first, I decided to block it in solidly with styrofoam and cement, but then decided to take a more minimalist approach, just creating a surface skin to enclose air. It was another chance to practice with the plastic window screen and grout technique I used previously to patch a broken section of privacy wall (see: <http://www.instructables.com/id/Grout-and-Screen-Hole-Patching> ) .

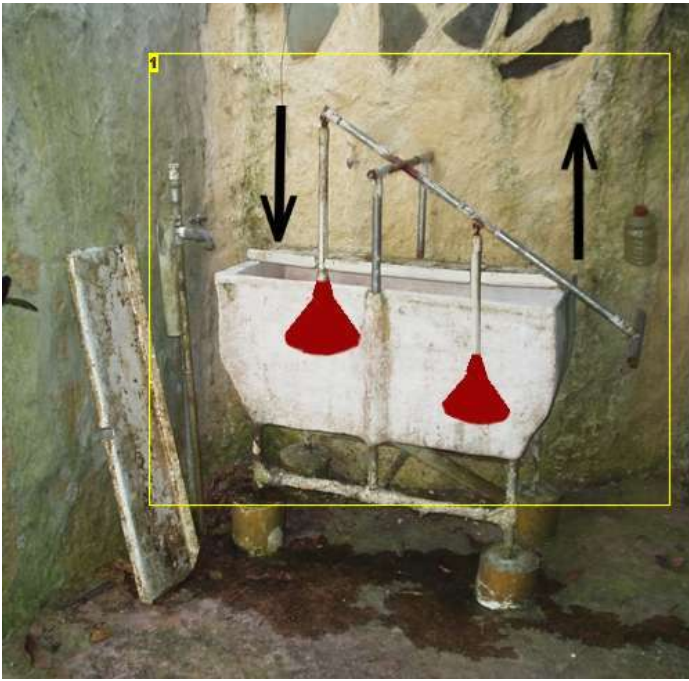
The shape in this project was more complicated, but as expected, the material adapted nicely to the task at hand.

The shape of the filled in area is highest in the back corner and slopes steeply toward either side to help leaves wash down to the base in front.

I'm sure that, even with their strength limitations, women and children would not have trouble working with this material. The grout is easy to mix in small batches, and is just brushed on with a house brush for the most part. The grout membrane is pretty strong, considering how thin it is.

The screen is just stuck down with grout to the existing structures. It's a quick and easy technique.





#### Image Notes

1. Pumping the handle makes the funnels go up and down, agitating the load.



#### Image Notes

1. This is the under-side area that was hard to keep clean.

### Step 1: Tools and Materials

Like cement, when stored in plastic buckets with lids, grout will last a long time in storage. Sanded grout, or "pega" as it is called here, is used to glue down tiles. It doesn't shrink, so is less prone to crack than is cement. Mix it with water to a thick cream consistency for brushing.

Plastic window screen comes in rolls. Cut it with scissors.

You need rubber gloves, a house brush and a mixing container. A little trowel is also sometimes useful. A wet sponge helps for cleaning up spots.



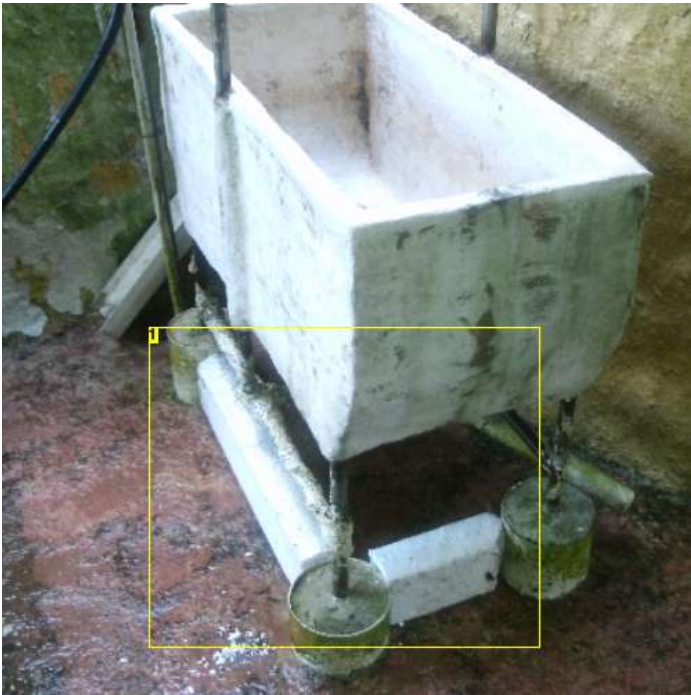




## Step 2: Putting up the Screen

I stuck the screen to the walls of the house and the washing machine by first brushing some grout on the surfaces and then just pressing the screen into the wet grout to hold it. Let that harden up before brushing more grout on the unsupported areas of screen. I stuck some styrofoam down to the base line to glue the bottom of the screen to, and put some plastic rain gutter material under the screen in one area to make sure the screen channel was well defined.





#### Image Notes

1. Styrofoam scraps used to block in the base line.

### Step 3: Coating the Screen

This step is not at all difficult. Although the screen is not tightly stretched, the mesh is small enough that the brushed on grout has no difficulty filling it in. If you have any trouble, the grout may need thinning down a little with more water.

With one coat, the thickness is about 1/16". Once it hardens up, you can add on however much more material you want. Grout, in thicker consistency, is also a great sculpture material ( see: <http://www.instructables.com/id/Portrait-Busts-an-original-technique> ). If you want to get fancy you can add 3-d designs to the surface of it.

I will eventually colorize the surface with either grout or cement with added pigment. (see: <http://www.instructables.com/id/Painting-with-Colored-Cement> ).







#### Step 4: Other Possible Uses for This Material

Just as the underside of the washing machine is hollow, I could see maybe making hollow shapes with doors in them for use as cabinets, bird houses, dog houses, etc. For boxy shapes, the material might be applied over cardboard boxes, for example, with the cardboard removed from the inside upon completion. Maybe cover the cardboard with plastic wrap to prevent sticking. Scratch through the grout while it is still wet to mark the cut lines, and cut the screen with a knife when the grout hardens to make doors that fit the openings. Hinges might be sections of rope adhered in place with more grout.

Anyway, it's a nice material combination. Play with it and you might find solutions for some of your own problems.

The pictures below are a 4-ply sample of the material I made on a non-stick plastic sheet.



## Related Instructables



**Grout and Screen Hole Patching** by Thinkenstein



**Garden Art - Bowling Ball Garden Spheres** by GardensAndCrafts



**Pacman Tile Mosaic Desk** by pameroth



**Drywall patching** by Dick Barnes



**Mosaic for Dummies** by sharong



**How to Fix a Hole in the Wall** by mmpluim