Tips & Tricks using CASTLEMOLDS Part 3

Making Computer Printed Doors

1. I've found a way to make doors easier. On the Building Plans page I've added a color page of doors.

   Start by **printing out the doors on a color printer**. You'll also need a hobby knife, glue stick and a piece of thick card stock.

2. Using a glue stick, glue the door down onto the card stock. Then use the hobby knife to cut out the full door.

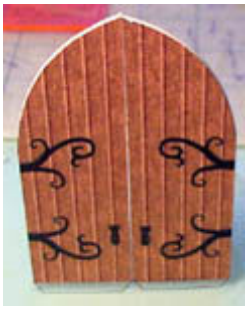
   Place this door in the doorway and see how it fits. You will most likely have to trim it down slightly.

3. Place glue on the backside and glue a color copy on the back. You may have to hold it up to a window to position it correctly.

   Trim the excess paper off and cut the doors apart.

4. To make the door stand up, I'm going to mount it onto a piece of stiff plastic. This piece of plastic is a file folder tab that I purchased at Wal-mart (very cheap).

   The plastic is thin enough to cut with a pair of scissors but stiff enough to help the door stand up.



5. Cut two small pieces of plastic and glue the doors onto them with super glue. I've enhanced the photo so you can see the edges of the plastic, but actually they're nearly invisible.

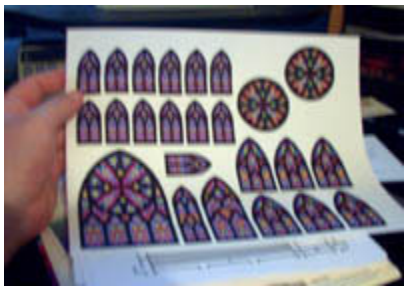
   As a finishing step, take a black or brown magic marker and color the edges of the doors.

6. **Your doors are finished!** The plastic helps them stand up but is not easily seen. Also, you can place your door in an open or closed position, or decide not to use a door at all. I find this method much simpler and quicker than trying to hinge the door.

The building plans page has other doors sized for different arches from my kits. If anyone would like to work up JPEG files for additional doors and things, I would be glad to add them to the building plans page.

Easy Stained Glass Windows

1. I've found a great way to make stained glass windows. On the Building Plans page I've added a color page of stained glass.



You can print the windows out on paper from a color printer.

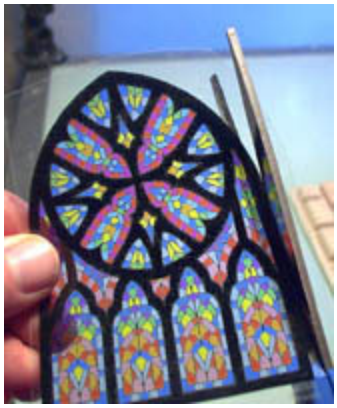
2. You could print out two copies, glue them back to back, then glue them in the windows, or if you only needed one side, just glue one copy in the window.

You can print the windows out on transparency plastic from a color printer. **Be sure it's especially made for your printer!**

3. I'm using Hewlett Packard's Premium Inkjet Transparency Film #HP C3834A. You can get it directly from Hewlett Packard if an office supply store nearby doesn't have it.

Do not try to print on any old plastic! I won't be responsible for anyone screwing up their printer by using the wrong stuff.

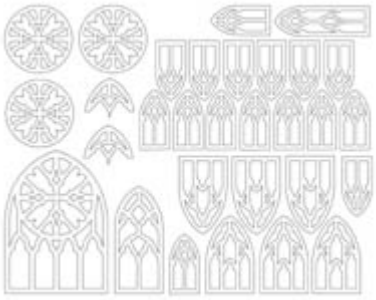
4. If you have a printer other than an HP, call the manufacturer and ask them what kind of transparency they would suggest.



When printed, simply cut out the plastic window and glue it into place.

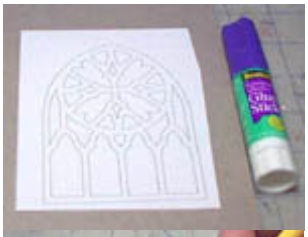
5. For an even nicer effect, combine the stained glass window along with the stone tracery (shown in the next section).

Window Tracery



Here's a way to make stone tracery. It's not the easiest, but it has a nice effect.

1. On the Building Plans page I've added a window tracery page. It's an Adobe Acrobat file, so you'll need Acrobat to open it.



2. Glue down the tracery page onto a piece of cereal box. You can use thicker card stock for a better effect, but it's much more difficult to cut.

   A glue stick works the best. If you use Elmer's, it stays wet for a long time and warps the paper.

   Using a hobby knife, cut the details out of the windows. I'm using a cutting board to make the blade last longer and make smoother cuts.

   Test fit the window and see if it needs any trimming before you paint it.

3. I painted the cathedral using three colors; a dark, medium and light color of grayish-brown. I'm going to paint the tracery **using the medium color** of grey-brown.

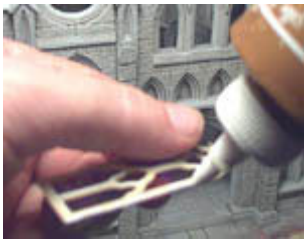
   I'm using one of these cheap sponge brushes. It puts on a thick coat (by dabbing it on) and you can throw the brush away when you're done.

4. When dry, use the lightest color or grey-brown to paint the highlights. **You don't have to do this if you don't want to** I just thought it would add a nice touch.

   Add white to the bottom right edges of every part of the tracery.

5. Here's what the tracery looks like set in the window. It will look pretty good this way without the stained glass (kind of a cold deserted look).

   For my cathedral, I'm going to do both. I've planned the stained glass windows and the tracery so they would match up perfectly.



6. **To do both,** cut out the stained glass windows and also cut and paint the traceries. **Carefully glue the traceries on the stained glass**. They should line up nicely. Test fit them into the window in case they need trimming.

   To glue them onto the cathedral, place a small bead of glue around the outside edge and place them in the window. They should fall against the curved part of the decorative trim. Use a paintbrush handle to push the window in securely all the way around.

   I did notice an odd thing about printing on the transparency material. The transparent print is extremely clear. You can see the colors fine, but you can also see the inside of the cathedral as well (which isn't quite as realistic).

   I would prefer that the windows were translucent. I had to place a white piece of paper behind the window before placing a light behind it for the windows shown in this photo (otherwise you would see the light bulb as well).

   I suppose you could print on vellum (a translucent paper drafter's use) but the print would only be on one side.

7. **Overall, I was pleased with the end result**. After finishing this, a lot of new ideas flooded into my head.

   If you printed on velum or thin paper, you could make a section of a dungeon layout with arched windows and stained glass, and the backside of the windows could be covered with stone. In between the windows and the back could be small Christmas lights lighting up the stained glass (back lighting). The effect would be nice and the lights would be hidden.

   Any other ideas for this sort of thing would be appreciated. Feel free to use the message board to share your ideas.

Making a Foam Rock Face

This article and the next article run together. I'm going to make a wrought iron fence that goes around the cathedral, along with a rock face around the very outside.

I want to set the cathedral up on a hill slightly. **I'm going to use polystyrene insulating board** (also known a Dow Blueboard, but it comes in pink as well). This is used to insulate a house before they put on siding. You can find
1. it at most building supply stores or lumber yards.

I'm using a hot foam cutter I bought a couple of years ago and have been happy with it ever since. You can purchase one at www.micromark.com. Mine was fairly expensive (about $150) but I now find that I can't get along without it. There are cheaper ones available that may do just as well. I wouldn't suggest the battery powered ones unless you use rechargeable batteries.

2. I placed the cathedral base on a piece of 1/2" foam and used the hot wire cutter to trim around the outside.

This will form the small hill that the cathedral will set on.

I set this hill on a larger piece of 1" foam. The edge of the blue foam is where the rock face will be.

3. The markings on the blue foam are where the posts for the wrought iron fence will go. I measured it out exactly so I know how big to make each section of fence.

Using the foam cutter, I cut the outside edge. Weave the cutter back and forth as you go down the edge.

4. The wire is held about 90 degrees to the foam, but the rock will appear more natural if you change the angle a little (randomly) as you cut.

I had to enhance this photo so you could see what's going on.

5. Now angle the foam cutter about 45 degrees and weave the cutter around the outside edge again. Once again, change the angle a little (randomly) and you weave the cutter around.

Finally, I made horizontal cuts at random around the outside of the foam.

6. I pushed the ends of the tool together so the wire would form a loop that could make the cuts (wire shown in red).

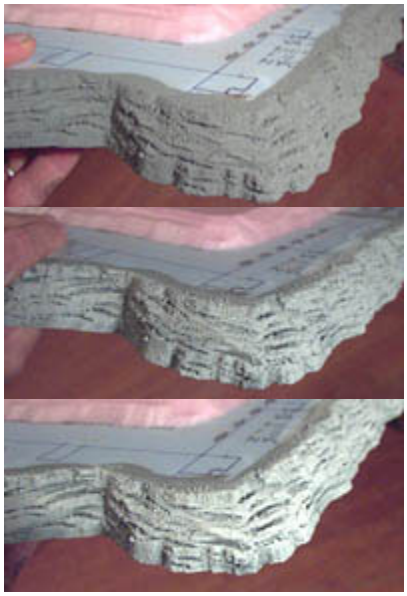
I've seen people use sawdust to texture the surface. Since I didn't want to go searching for sawdust **I just decided to use dirt!** I went to the back yard, broke some up with my hands and brought it in.

To hold the dirt on good, paint Elmer's glue (a thin water base glue) on straight from the bottle. Then sprinkle the dirt on.

7.

I thought I might have to sift out the larger pieces, but they fall off anyway. Only the small and medium size bits stick. An occasional root or piece of grass adds character.

I'm going to use three shades of grey to color the rock. **Start out with a dark grey**. Make sure it's nice and thin so it will go into all the cracks.



Next apply a medium grey, but don't thin the paint. Dip your brush in and wipe most of it off on a paper towel before you paint.

8.

Finally, apply light grey, lightly dry-brushed on top. The results will look pretty good. Lastly you can apply a greenish brown to the top surface and sprinkle ground foam for grass.

This finishes the article about making a rock face. Scroll further on down to see how it goes together for a finished product.

Making a Wrought Iron Fence

I've never attempted anything like this before. Let's just see how it goes.

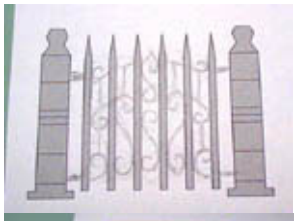
1. Since I need several copies of fence sections, I'm going to make a mold of them. Since I'm making a mold, it doesn't matter how sturdy the section is (it doesn't have to stand up on its own). The section will most likely be destroyed in the mold making process.

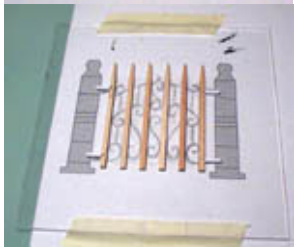
2. I'm making the smaller posts out of thin flat wooden sticks. I found these in the craft section at Wal-mart (the bag contains other wooden shapes as well). You could use match sticks if you want. **It's very important that the sticks are flat on the back side**.

3. I had drawn out what the fence sections should look like. Graph paper works well for this.

   Place a piece of Plexiglas over the drawing and tape it down. Next **glue the wooden sticks down** to the plastic. Don't use a lot of glue, just a few small dots of super glue on the back side. The neater you are with the glue, the better the mold will come out.

   Press the pieces down firmly on the plastic so the mold rubber won't run under them too much. I also glued small plastic pieces on the sides where the fence joins the main posts.





4. Believe it or not, I'm going to squeeze auto-body filler through an icing bag.

   Let's see what kind of a mess this makes!

5. I mixed the body putty in a cup because some parts were runny.

   Turn the bag inside out so you can load the stuff in without getting it all over the bag.

   Once the stuff is in, twist the bag to push the putty near the tip. I'm not sure what size icing tip I used, but it was small and round. You'll have to experiment with it yourself.

After squeezing out the design, I thought it looked like hell. The bag is difficult to control (unless you're good at cake decorating). I decided to scrap this approach and try another method.

6. Looking back on it, **it probably would have worked out OK**. Once you make several fence sections and paint them black, **all of the weird distorted defects add character** and it really looks pretty good!

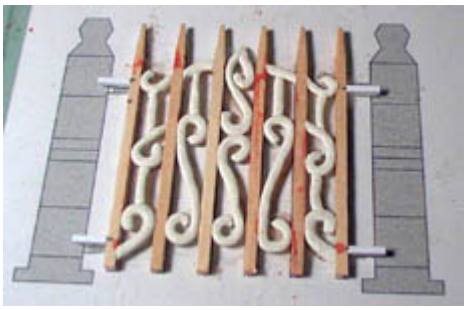
By the way, **the auto putty dissolved the bottom of my cup**. Be careful when experimenting with these kinds of materials!

This time I'm using epoxy putty. I feel I have a little more control over this stuff.

7. Roll it out into a **thin cord**. I'm using a dental tool to position and cut each piece. Be sure that it presses firmly against the wooden sticks and joins up well.

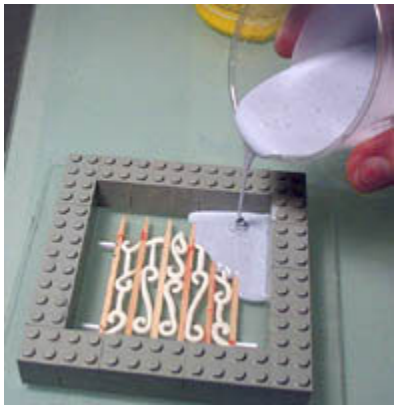
After you lay the pieces down, it's important to **press them down a little**. You want them to lay flat against the Plexiglas or the mold won't come out.

Here's what the finished section looks like.



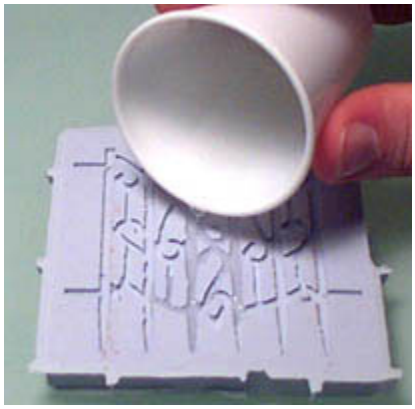
8. To make a mold, I'm using a silicone RTV from Smooth-On. You can get a sample kit from them for $20 (one time only) at www.smooth-on.com.

For a complete story on mold making, check out the Mold making page.



9. This rubber is a 1-to-1 ratio so you don't need a scale to weigh the parts. You can pour the rubber very slowly over the section, but I would **suggest brushing a thin coat over it** first (I neglected to do that here and had a few air bubbles to deal with).

Fill the thing up and wait overnight until it hardens.



10. I'm making casts using some stuff called CR600 casting resin. I purchased it at www.micromark.com. The good thing about this stuff is it's as thin as water. it takes 45 minutes to cure fully so you have a good 8 minutes of water consistency when you pour it in.

Casting plastic will deteriorate your mold! Casting plastic pulls the moisture from the mold which makes it more brittle (and will eventually crack)and the isocyanate in casting plastic attacks the mold.

Mold release compound will extend the life of the mold. You can buy the spray kind which is easier to apply. If you don't use mold release, you'll get about 8 good casts before you'll see the mold warp slightly from the moisture loss. After about 12 casts, you'll see small bits of rubber pulling off of the mold. After 16 casts the mold will have deteriorated severely.

11. I had to cast this sucker about 20 times. Actually, after the first mold started to deteriorate, I made 2 more molds using my casts as the originals (the shrinkage didn't matter in this case).

Afterwards, the fence sections were spray painted black.

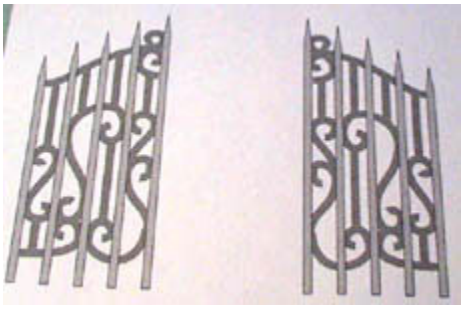
Making a Gate from Epoxy Gel

1. **I only need one copy of the front gates**, so I'm not going to make a mold of them. Since I need something that will hold together well, I'm going to use Epoxy Gel to make the gates.

   I purchased this Epoxy Gel at the local hardware store. It comes in a double syringe which makes it easy to dispense. Be sure to buy a couple of packs - the stuff gets used up fast.

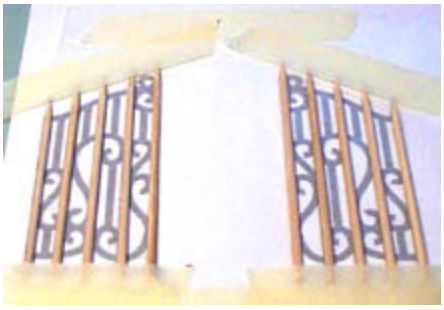
2. I drew the gate using a graphics program. That way I could mirror one half for the other side of the gate. You can design one on graph paper just as easily.

   Cover the gate with wax paper and tape it down, otherwise the epoxy gel will stick to your drawing.



3. I'm using **kabob skewers** for the vertical parts of the gate.

   Once they're cut to length, tape them to the wax paper so they won't move around.



4. **Don't try to extrude epoxy gel through a cake decorating bag!** I made that mistake. I found that epoxy gel heats up as it cures and it about **burnt my hand off!**

5. **I'll use a syringe** to squeeze out the epoxy gel. You can get these at most large drug stores or even at a veterinarian's office. **Buy at least four**. You don't want the needle with it (unless you have other plans). These are most used to dispense liquid medicine orally to children or pets.

6. Dispense the epoxy gel in a cup. Use a wooden stick to mix it up and work it into the syringe.

   Try to work fast, this stuff will start to thicken in 3 minutes.

7. Carefully squeeze out the gel to follow the flowing parts of the design as best you can. You might want to practice on a scrap piece of paper first.

   Don't panic if it doesn't go exactly where you want! **Just keep going!**

8. I played around a little on the center design. Once again **don't give up if it's not going your way!** Trust me; it will look a whole lot better when you spray paint it black.

   I had to mix up another batch (and use another syringe) halfway through this gate.

9. Here's half of the finished gate after it's painted.

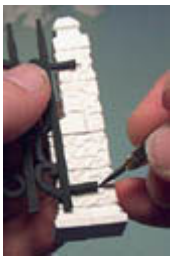
   Don't feel you have to make perfect curves on the thing. You can get a lot of nice eerie effects if you purposefully make it wavy. If you like, you don't even have to draw a plan, just squeeze the stuff out and see what happens.

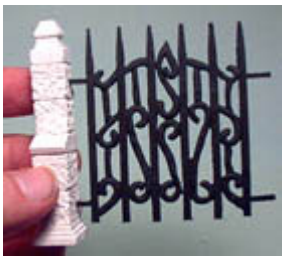
   The epoxy gel is very strong when it cures. You'll have a nice sturdy gate when finished.

Finishing the Fence

1. **Now for the posts**. I created the post out of blocks from the molds used on the cathedral. There are 16 simple posts, 4 corner posts (upper right), and two gate posts (upper left).

   They will be painted the same color as the cathedral after I drill the holes for the fence sections.





2. Lay a fence section against a post. Mark the post with a pencil.

   Use a drill bit to drill a hole 1/4" deep. You should be able to hold the bit in your fingers. **Paint the fence posts after you drill them**.


3. I had marked out earlier where the fence-posts will go. **I'm placing pins in the foam** the mark their place. Unless I do, I'll lose my place when I paint it.

   Paint the surface with a light greenish-brown flat wall paint.



4. Thin some white glue slightly. You'll need about 1/4 cup for this project.

   Use a 1" paint brush and paint the area where two fence posts will go with one section of fence in between.

   Set down a fence post. **Put a dab of glue on the ends of the fence section** and slip it into the fence post. Now place the other fence post on the other side.

   While the glue is still wet, sprinkle ground foam (railroad scenic materials) around the fence posts and under the fence.

   I've found that it looks more like grass if you get about 3 different colors and sprinkle them in odd shaped patches. **Don't mix the colors of foam before hand** or you'll get a salt-and-pepper effect that doesn't look as good.

Continue by painting under the next post with glue; add a fence section and a fence post.

5. Sprinkle ground foam around the newly glued sections until you get all the way around the fence.

6. Here I've added the steps after the grass was glued on. The gates will span across the steps here.

7. To hinge the gate, bend a piece of stiff wire into a small loop. Wrap the loop around the edge of the gate and close it with pliers. **Don't close it tightly** or the gate won't swing open or closed.

Take a small drill bit (or piece of wire) and twist it to drill a small hole.

8. Place a drop of glue on the loop of wire attached to the gate and place it in the hole. Let it dry completely.

You adjust how straight the gates are by sliding the wire in or out of the hole before the glue sets up.

Here's the finished gate with the cathedral added behind.

9. You don't have to make a wrought iron fence for the cathedral. They would look excellent around a graveyard, ruins or spooky old mansion.

Feel free to cut and bend sections, add broken stone or rubble, or just make a section or two in addition to some ruins.