

Ask Jon Eakes

Making an invisible patch in a lathe and plaster wall

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To fix a bulge or hole in a lathe and plaster wall, we need to pay special attention to two things: limit the damage as we remove the loose plaster, and make sure the new plaster sticks solidly to the old lathe.

DEFINE THE PROBLEM AREA

Start by using a pencil to draw a line around the entire soft area that you want to remove. Tapping on the plaster gently will give an audio indication of what is solidly attached, and what has come loose.

SECURE WHAT IS NOT TO BE DISTURBED

Then, using either thin washers and drywall screws, or special 'plaster washers' with holes in them to help hold finishing plaster, secure the wall all around the area you will be cutting out. The extra thin spring metal plaster washers can occasionally be found in hardware stores or at LeeValley.com and Amazon.ca. Like drywall screws, you want the washers just slightly recessed from the surface of the wall so they can be covered with plaster, but they shouldn't break into the old plaster wall. They will crack the paint a little, but you can touch that up when the patch is finished. Then, with a utility knife, cut all the way down to the lathe (wood) to clearly define the edge of the patch. The washers and the outline cut will protect the rest of the wall when you start removing the loose material.

PARTIALLY FILL THE HOLE WITH SHEET MATERIAL

To lessen the quantity of plaster required you should screw some kind of material onto the lathe. Drywall is usually too thick and we definitely want whatever material we use, to fill the hole, to be less, not equal, to the plaster wall thickness. One of my favourite materials for this is pegboard, because the plaster can grip all those little holes.

Then, we wet the edges of the plaster as well as the wooden lathe and/or filler board with a spray of water. We don't want it dripping, but we don't want it dry. When you put wet plaster on a dry surface, the dry part draws the water away from the joint and you don't obtain as good adhesion as when you apply it to a moist surface. If you apply plaster to a dripping wet area, you will dilute the plaster and that's not good either. Spray it several times, if necessary, to end up with a moist but not dripping wet surface. Often neglected, this 'moist plaster to moist wall' rule is a critical step in any drywall or plaster repair.

THE FIRST DEPTH COAT IS A THICK PLASTER THAT YOU MIX

A good job will use two different types of plaster: a quick setting heavy body plaster for the base and a smoother easy to sand plaster for the finish.

Start with something like Durabond 90 or SheetRock 90 -- which cure in 90 minutes through a chemical process, not by drying. These products are rough and cure so hard that they're almost impossible to sand. Hence they're never used as a finishing product but make a very sturdy filler. Work a thin coat onto the lathe boards or filler board and into the edge of the plaster hole. You will find that as you apply it, some of it just wants to fall off. That happens because of the dust on the surface that you couldn't get rid of. Working the wet material onto the surface with a spatula effectively picks up that dust and works it into the mix. You keep on 'working' it until it has thoroughly stuck to the surface, even if it is just a skim coat. Don't cheat here. You don't want the patch hanging by a prayer; you want it well stuck to the surface. Then you can immediately go back and put on a rather thick layer. If it wants to sag, you must work the sag out before it sets, or you will be scraping for a long time

to get that wall flat. This heavy body base coat must not stick out past the finished wall surface at all. It is used to fill in as much of the hole as possible, but never leave yourself a sanding job with this stuff. Within 90 minutes it will have set hard but it's not at all dry. Hard is what we want, dry is optional.

FINISHING COATS OF JOINT COMPOUND

Now, we take either a standard drywall compound or one of the fine non-sagging light weight fillers like Poly-Instafill (not Poly-Filler, which cures hard like the Durabond). The Instafill can be put on thickly because of its extremely light weight but, if using drywall compound, that must never be put on more than 1/8th of an inch thick or it will crack as it dries. These two products cure by drying rather than by a chemical reaction. So this time, you will have to wait for it to properly dry before sanding and filling in holes with other coats. If the base coat was wet, it will take longer for the drywall compound to dry, as there is simply more water trying to come out of the wall. The reason we put up with the slow drying requirements of drywall compound is that it sands so easily to a beautifully fine finish.

The trick to knowing when plaster is dry is to run your hand over the patch and over the old wall. If the patch is colder than the wall, it is still evaporating water and is not yet dry. You can cheat a little with sanding and secondary coats as long as it is quite firm, although sanding is always more difficult with moist plaster because it gums up rather than dusts off.

You need to realize you are not a professional with plaster which means you may not get a perfectly smooth wall with no imperfections in just one or two coats. There will be little air holes and spatula marks. Let it dry, sand it off flat, blow out the dust and do it again, until it is perfect. What you might not have in technique or large trowels, you can make up for with patience. If you want no plaster dust in the house, it is rather easy to "wet sand" a patch like this -- here's the video.

THE PATCH MUST BE TOTALLY DRY BEFORE PAINTING

Where we cannot cheat with a plaster patch is waiting for it to be completely dry before painting. There must be no temperature difference between the patch and the wall. If you apply a water based paint to plaster that still has water deep down in the patch or joint, it will affect the colour of the paint, resulting in that perfectly smooth wall showing its patch because of a colour difference. This happens all the time with inside drywall corners that so often look like we forgot a coat of paint in the corner. Even after it is totally dry, all the new plaster will require a primer/sealer before painting the wall, otherwise the coloured paint will simply soak into the dry plaster more than into the previously painted wall and that patch will stand out. Painting on totally dry plaster and using proper sealers is what allows you to paint the wall so that your perfect patch remains invisible.

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