Plaster Patching Part II

by Walter Jowers

Last month, we talked about patching holes in plaster walls and ceilings the way it was done before the days of drywall—with plaster. And we left off with a cliffhanger: How do you finish the patch?

One option—the more familiar one for most builders—is to use drywall mud, not genuine finish plaster, for the finish coat. I've done it myself, when the patching job was small; or, when I was doing a one-day job and didn't want to fool with mixing finish plaster and waiting for it to cure. (You can't even *prime* finish plaster until about three days after it's applied.) Drywall-mud patches are definitely quicker—the stuff is pre-mixed, and you can paint it as soon as it's dry. If you start a patch in the morning, you can have it sanded and painted by the end of the day.

The disadvantages of mud:

- It takes two or three coats of the stuff to finish off a patch, so you have to keep going back to the work. If you patch with finish plaster, you put on one coat and you're done with it.
- Mud dries much softer than finish plaster—it's easily nicked in high-traffic areas.
- No amount of sanding will make mud as slick as finish plaster—in the right light, you can always see where the plaster stops and the mud starts.

Mud Patching

If you want to make a mud patch, here's how you do it: First, use an old paintbrush to knock any debris out of the patch. There's nothing more aggravating than getting a bunch of little pebbles mixed up with your drywall mud. Put the mud of your choice into a clean mud pan, then find a drywall knife that's wider than the hole you're patching. If the hole is more than a foot wide, just make do with a 12-inch knife. Take the mud out of the pan with the knife, and apply one coat of mud, no thicker than about 1/16-inch, over the brown coat of plaster, and clean your knife on the edge of the mud pan after every stroke. Don't fuss with this coat; it doesn't need to be perfectly smooth. Don't worry if you leave a ridge or two in the middle of the patch; you're just going to cover this coat up anyway. After the mud is dry (it'll turn pure white) apply a second coat of mud—again about 1/16-inch thick—this time coming just past the edges of the first coat of mud. Bear down on the edge of the knife away from the center of the patch. That way you won't leave ridges in the middle. If this brings your patch up level with the old finish plaster, all you have to do is wait for the mud to dry, sand the edges of the patch with some 100-grit paper, and paint. If you need a third coat of mud, apply it the same as you did the second coat, again bringing the mud out a little past the coat underneath. Three coats of mud ought to be enough for any patch.

The Real Thing

If you want to make a genuine plaster patch, hard and smooth like a patch ought to be, here's how you do that: First you'll need to mix up some lime putty, which is simply finish lime and clean, drinkable water. I use USG Ivory finish lime, and I usually make up about half of a five-gallon bucketful. The recipe for my half-bucketful is simple: I pour in about one-third of a bucketful of water, dump in enough lime to cover the water up, stir with my drill attachment, then "fine-tune" the mix with more water or finish lime as needed. The idea is to wet every grain of lime, without leaving any standing water. Unlike gypsum plaster, you can make up as large a batch of lime putty as you want. It'll keep as long as it's not allowed to dry out—just place an airtight lid on your bucket. The proper consistency is somewhere between soft butter and whipped cream.

Note: Finish lime is very corrosive; it can damage your eyes, burn your lungs, and it's no good for your hands. Be sure to wear goggles, a dust mask, and latex gloves when you mix up the lime. And seal up the bag when you're not working with the stuff, to keep children or pets out.

Dump about a gallon of lime putty onto the mortarboard. (Any old piece of plywood up on sawhorses will serve as a mortarboard.) Use your margin trowel (a small rectangular trowel with an offset handle) to form the putty into a ring, as shown. Fill the center of the ring about two-thirds full with water. Sprinkle moulding plaster into the water until the plaster no longer sinks into, but starts to float on, the water. You want a mix of approximately one part moulding plaster to three parts lime putty. With your margin trowel, mix the water and plaster in the center of the ring together. Then, fold in the lime putty from the ring, thoroughly mixing all the ingredients. The resulting brew is finish plaster, which has a limited working time. The mix described here is good for about 15 to 20 minutes.

Use your plasterer's trowel to pull the finish plaster from the mortarboard onto your hawk. Then, sweeping your trowel hand in an arcing motion, trowel the finish coat into the patch. It's not difficult to work the finish coat smooth, though describing the action is sort of like describing the proverbial elephant to a blind man. Suffice it to say that it doesn't take long to develop a "feel," and finish plaster smooths out more easily than drywall mud. Finish plaster stiffens as you work it; it doesn't stay all wet and sloppy like drywall mud. As the plaster stiffens, you can go back over spots, adding little dabs of plaster to fill in hollows, and smoothing out ridges with a stroke of the trowel. To get the finish coat really slick, use a spray bottle to spray a fine mist of water onto the plaster and make a few final passes with your trowel. Straighten hard-to-reach areas, like edges or corners, with your margin trowel.

Once the finish plaster starts to set, discard any that you haven't used—don't try to stretch it. It's not hard to tell when the plaster has "gone off;" it becomes stiff and unworkable.

Finish plaster won't take paint unless it's allowed to age at least a month, or unless it's sealed with shellac or an alkyd primer-sealer. If I need to paint finish plaster before a month is up, I wait about three days, then wash the wall around the patches with clean water (to remove residual lime). Then I use a disposable brush to paint the patches with pigmented shellac. (It's hard to tell what you've painted if you use non-pigmented shellac.) The shellac dries in about a half-hour; then I paint with either latex or alkyd paint. If any lime "burn-throughs" appear after the first coat of paint has dried, I paint over them with another coat of shellac. Some paint manufacturers recommend letting finish plaster age sixty days before painting, but the above method has always worked for me.

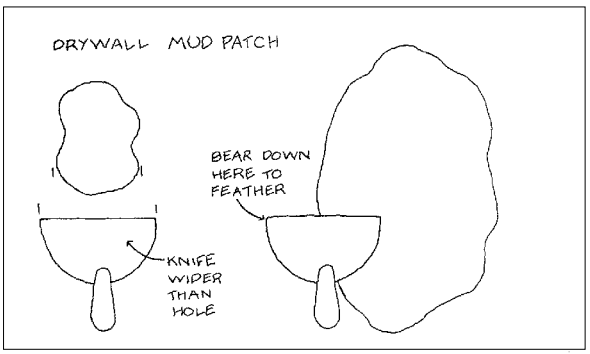
Note: To find USG products, call: South: 404/393-0770; East: 914/332-0800; Central: 312/321-4101; West: 818/956-1882.

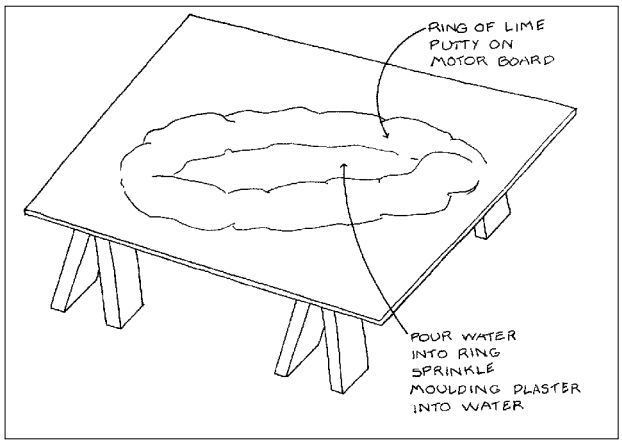
Patching hairline cracks

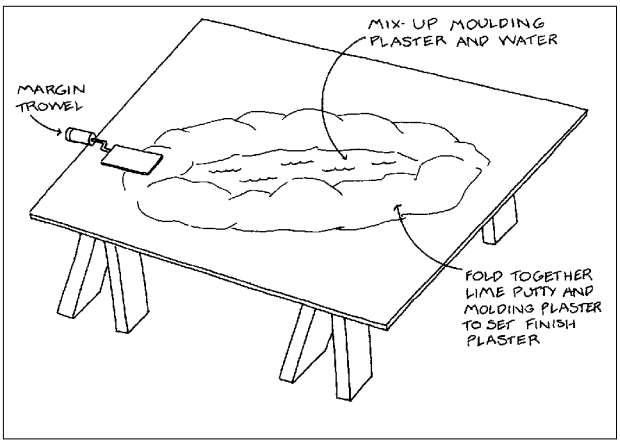
In most old houses, there are hairline cracks in plaster that is otherwise sound; that is, the plaster isn't spongy, it doesn't bulge, and the cracks don't open and close noticeably with changes in temperature or humidity. To patch such cracks, you use a scaled-down version of the method drywall finishers use to finish drywall joints.

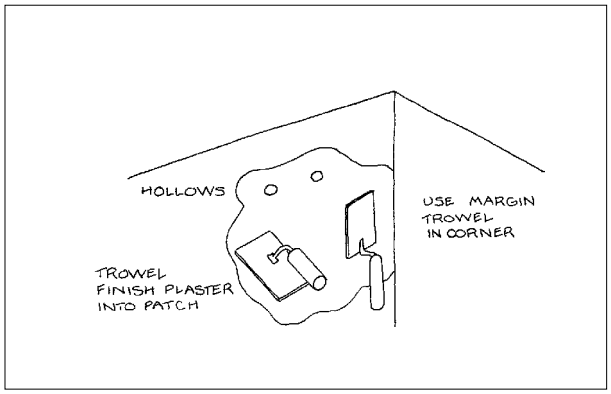
The first step is to tape the crack. Though paper joint tape will work fine, its use adds a step to the process. (You have to lay a bed of joint compound over the crack, then press the tape into the compound with a drywall knife. If you don't get the tape bedded properly, it'll pull loose and ruin the patch.) I find it's much easier to use adhesive-coated fiberglass joint tape such as Fibatape (Bay Mills Limited, 201 Huge1 Ave., Midland, Ontario); you just stick it right over the crack.

When you're patching a structural plaster crack (one that opens and









closes with temperature and humidity changes), or filling a joint between a drywall patch and plaster, you should always bed the joint tape.

Once the crack is taped, use a six-inch drywall knife to apply a layer of joint compound over the mesh tape. Don't try to build this coat up to any real thickness, and don't worry about making it too pretty. The idea is to apply a smooth coat that's just thick enough to fill in the interstices of the tape. Let the joint compound dry, then knock off any ridges with the blade of your drywall knife.

When you're patching a structural crack, you should always bed the joint tape.

Apply a second coat of joint compound. Holding the handle of your drywall knife at a right angle to the tape, lay a bead of compound down the middle of the tape. Then, rotate the knife so the handle is in line with the tape and spread the compound out to the width of the knife. Clean the knife on the edge of the' mud pan, then use the edges of the knife to feather the compound. Clean the knife again, then make one continuous "flat" pass down the bead of compound. This technique, once mastered, will give a slick, even, slightly convex surface. After the compound has dried, again knock off any ridges with the blade of a drywall knife.

If you need to-apply a third coat of compound to completely cover the tape, or to fill in hollows, follow the instructions for applying the second coat, only use a 12-inch drywall knife.

Sand slight imperfections out of drywall compound with medium (say, 100 grit) sandpaper. Though many people prefer to wet-sand with a sanding sponge (ostensibly to hold down dust), it gives me the creeps, like fingernails on a blackboard. I just don my dust mask, fire up my trusty orbital sander, then vacuum up the dust with a shop vac—no big deal. If you're working in a fancy house full of antiques—a place that shouldn't get dusty—use the sponges if you can stand it. ■

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