



## HOW-TO BOOKLET #3040

# PATCHING PLASTER



### TOOL & MATERIAL CHECKLIST

- Spackling or Joint Compound
- Premixed Cement (Sand or Gravel)
- Cold Chisel/Baby Sledge
- Trowel/6-inch Tape Knife
- Mixing Tub/Bucket
- Gloves/Safety Glasses

*Read This Entire How-To Booklet for Specific Tools and Materials Not Noted in The Basics Listed Above.*

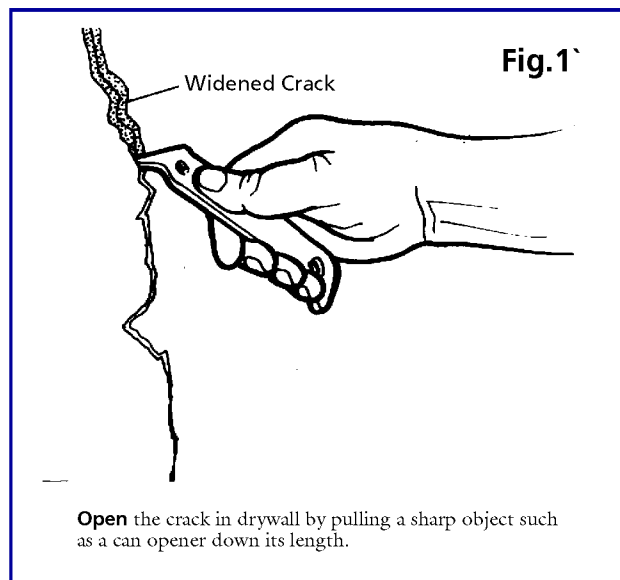
Patching a hole in gypsum wallboard (drywall), a lath-and-plaster wall, or in concrete takes more muscle than skill. The same goes for patching cracks of any size in these materials. The techniques are cataloged and illustrated to make the project go faster, easier, and better

### PATCHING HOLES IN DRYWALL SURFACES

Hiding nailholes and hairline cracks in drywall is a fast and easy job with spackling compound (not glazing compound or caulking), a lead pencil, and a putty knife, scraper, or taping knife.

For nailholes, insert the lead of a freshly-sharpened pencil into the hole and push the pencil into the hole. Slight pressure is enough. What you are doing is pushing the broken paper covering on the drywall (gypsum) into the core so the patch won't be "raised" after it is patched. This trick is easier than trying to peel back the paper covering and feather out the patching compound to match the surface surrounding the patch. Push the patching material into the hole with a putty knife, scraper, or taping knife and "wipe" the excess off the wall surface with the tip of the tool. When dry, sand the patch with fine grit abrasive on a sanding block and then finish the surface with fine grit abrasive on a sanding block and then finish the surface with paint.

For hairline cracks, break and press the paper covering into the core with a pointed can opener (**Fig. 1**). Then patch the crack as detailed for nailholes.



If the holes and cracks in drywall are large, follow the step-by-step instructions below:

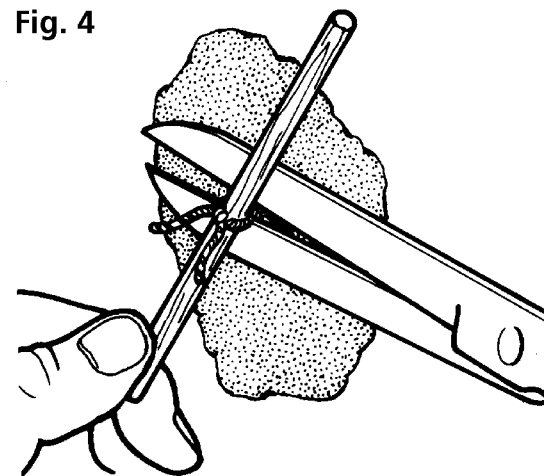
- 1** Thread a loop of 18-inch length of string through a piece of ordinary wire screening cut slightly larger than the hole to be repaired. Clear away any loose gypsum and paper covering from the edge of the hole. Wet the edge on the inside with water and then coat it liberally with patching compound. Put the screen through the hole and pull it flat against the patching compound. The fresh compound will help hold the screening in position (**Fig. 2**).
- 2** Tie the string/screening to a dowel, pencil or similar other light-weight object to hold the screening in position. Now plaster the screening not quite flush with the wall. Tighten the string very slightly by twisting the anchor. Let the compound dry several hours (**Fig. 3**).
- 3** After the patching compound has set, cut the string at the screening. Apply a second coat over the entire patch surface to make it almost flush with the surrounding wall surface. Let the patching compound thoroughly dry—three days or so if you can wait this long (**Fig. 4**).

- 4** If you can, use joint compound to finish the patch, covering the hole and feathering the edge. A drywall joint taping knife is the tool to use for this. Let the patch dry for a week and then sand it smooth. Use abrasive on a sanding block to prevent digging into the patch and spoiling its surface (**Fig. 5**).

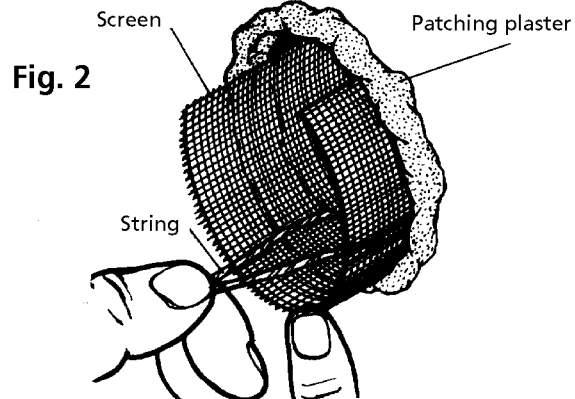
**For large cracks in drywall**, undercut the crack slightly so the patching compound will stick and not fall out of the crack.

- 1** Gouge out a small amount of gypsum (or plaster) at either end of the seat the patch. Remove any gypsum or plaster dust from the crack. If the crack is a long one, use this procedure but gouge holes in the crack to anchor the patching compound every foot or so along the length of the crack.
- 2** Seal the crack with joint compound, overlapping the sound surrounding surfaces slightly. Let the compound dry for at least one day and fill it again if the patch shrinks. Let the filling compound dry for another day and then sand the patch smooth. It is recommended that you use fine-to-medium-grit abrasive on a flat sanding block. Finish with paint or whatever is on the wall's surface (**Fig. 6**).

**Fig. 4**



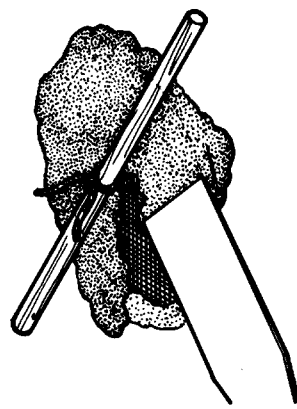
**Cut the string** when the first layer of patching compound is dry. Then apply another layer of patching compound.



**Fig. 2**

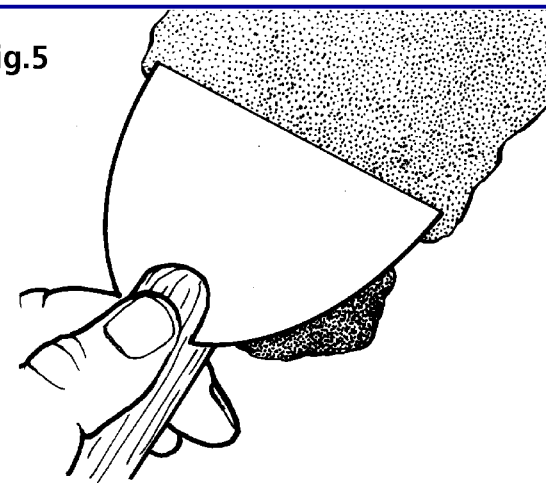
**Coat the edges** of the hole with patching plaster before inserting the screen wire back-up so it will be "tacked" to the wall.

**Fig. 3**



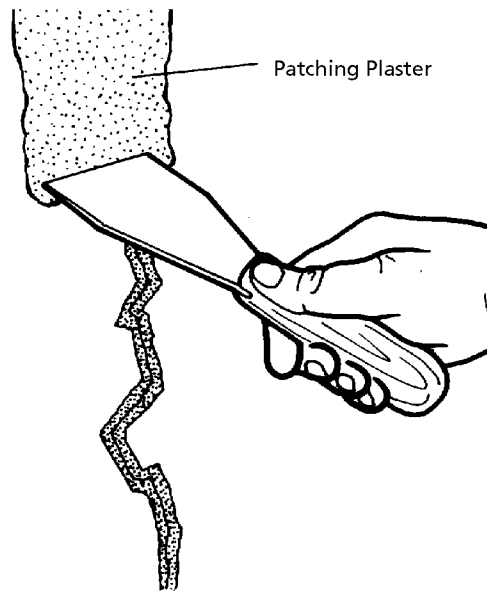
**Pull the screen** flush with the back side of the drywall, tighten it, and then cover the area with a thin layer of patch compound.

**Fig. 5**



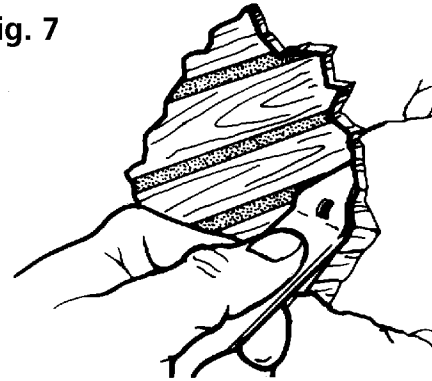
**Finish the patch** with a thin layer of joint compound. Let this coat dry at least 24 hours before you sand it.

Fig. 6



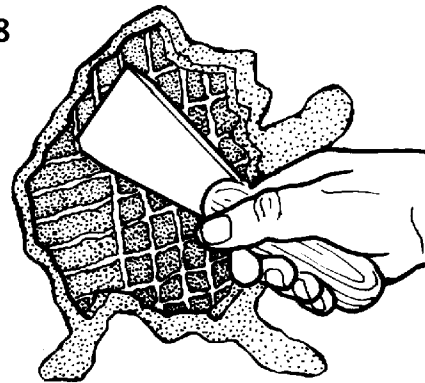
Fill the crack with joint compound. Feather out the compound at the edges and then sand the surface when dry.

Fig. 7



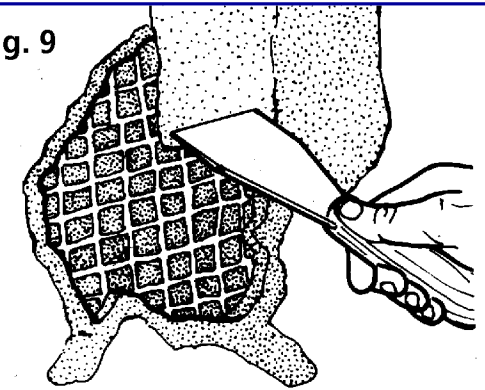
Clean away all damaged plaster. Cut it back so there is no loose plaster next to the wooden or metal lath beneath.

Fig. 8



Undercut the edge of the plaster so the patch will have an anchor to the wall surface. Clean away all debris.

Fig. 9



Fill the cleaned hole. Then groove the surface of the patch with the tip of the knife. This provides "bite" for next coat.

## PATCHING HOLES IN PLASTER SURFACES

Holes in plaster walls, ceilings, and other surfaces are usually easier to patch than holes in drywall because the lath (metal or wooden) backs up the hole so the patch can be laid right in the hole after the area is cleaned.

- 1 Chip and scrape away all loose plaster around the edge of the hole. Go back into a sound plaster surface. Any loose plaster not cleared away will prevent the patch from anchoring properly to the wall at that point. Don't worry about enlarging the hole (Fig. 7).
- 2 Give the patch a sound foundation and an anchor base by undercutting the plaster around the edge of the hole. Do this with a can opener or other tool with a hooked point. Carve under the edge so the plaster slopes from the front edge to the back edge of the hole.
- 3 Wet the edge of the hole with water. Then fill the hole with patching plaster, covering the entire surface of the lath evenly, out to a level just below the level of the surrounding wall. Score the plaster with the corner of the scraper or taping knife to make it easier for the top coat to adhere to the one underneath. Let the patch dry for several days—or according to the manufacturer's instructions on the patch package (Fig. 8).

- 4 When the patch is dry, apply a coat of joint compound over the patch and feather the edges into the surrounding wall surface. Let this coat dry overnight (or longer if you can wait) and sand it smooth or apply another coat if the first has shrunk below the surface of the wall. Use a sanding block with the abrasive (Fig. 9).

**Outside corners.** If the damage is minor, you can usually repair it with joint compound and a taping knife, shaping the corner against a straightedge.

If the damage is extensive, use the method illustrated. Clear damaged plaster from edges and prepare the surface, following the procedures above.

Tack a straightedge lightly to one side of the corner and use it as a guide for filling one side of the damaged area with an undercoat of patching plaster to within 1/8 inch of the surrounding surface. Move the guide and repeat on the other side. Then finish the patch with joint compound and a taping knife. When the patch is dry, sand it smooth and level with abrasive stretched over a sanding block (Fig. 10).

## PATCHING CRACKS IN CONCRETE SURFACES

Concrete, of course, is harder than plaster so preparing the crack or hole for patching is a little more difficult, although the procedure is almost identical with plaster or drywall.

↑ Some cracks in concrete are not worth the trouble of cleaning and filling. If a crack is a hairline or slightly larger, patch it with ready-mixed epoxy cement. If the crack is wide enough to get the blade of a chisel into it comfortably, open it up and undercut the sides as illustrated so the patching material can anchor itself under the beveled edges (Fig. 11).

Use a cold chisel and baby sledge for this. Sweep out debris and dust. Concrete patching material with a latex binder that substitutes for water may cost too much for large patches, but it is ideal for patching small cracks. Follow the mixing instructions on the package label. Also, for your safety, be sure to wear safety glasses or goggles and gloves when chipping out concrete. Pieces of the hard material can fly and cause injury.

2 When you are ready to fill the break, flush it out with plenty of water from a garden hose. This will clean the hole and condition it for the patch so that the old concrete won't soak up water from the new patch.

3 Mix the material for patching and pack it into the crack with the sharp edge of a trowel. Force the material into all the crevices and undercutting you have cleaned. Don't skimp on the patching material. Pack in as much as you possibly can. When the crack is filled, level and smooth the patch with the flat surface of the trowel (Fig. 12).

You can buy pre-mixed cement in 40- and 80- pound bags: gravel-mix for concrete floors and driveways; sand-mix for mortar for bricks and blocks; and mortar-mix, also for bricks and blocks. If the patch you are filling is fairly small, it is recommended that you use either sand- or mortar-mix. If the patch is a large one, the best buy is gravel-mix. For small cracks, you can buy pre-mixed concrete filler-an epoxy or latex mix.

