Home Repair Resource center

HOMEOWNER REPAIR GUIDE

WALL FASTENERS

For do-it-yourself repairs

Lath-and-plaster walls are common in older houses (those constructed from the late 18th Century until the early 1950's, when drywall became the common building technique). Whether it's an oil portrait of an early ancestor or wall-hung kitchen cabinets, securing things onto older lath-and-plaster walls can present a bit of a dilemma.

HOW LATH-AND-PLASTER WALLS WERE BUILT

First, let's talk about how lath-and-plaster walls were constructed. Once the house was framed (generally with studs spaced 16″ on-center), the exterior sheathing and siding completed, and the doors, windows and mechanicals (plumbing, heating, electrical) installed, the plasterers would start covering the walls with wood strips called "**lath**." The pieces of lath were generally 3/8″ thick, about 1-1/2″ wide and 48″ long, with a gap of 3/8″ between them. A thick layer of gypsum-based coarse plaster (gray or brown colored) was troweled onto the lath until it oozed through, forming "**keys**" that held the plaster to the lath. A thin layer of white finish plaster was applied after the coarse layer had cured.



Plaster and lath wall

HANGING ITEMS ON PLASTER

To attach lightweight items to this type of wall, it's usually enough to drive a nail or screw into the plaster surface and catch a piece of the lath beneath it. If the nail goes through easily, it didn't get into the lath; pull the nail out and try again, 1/2″ higher or lower.

THE HARD AND FAST RULE

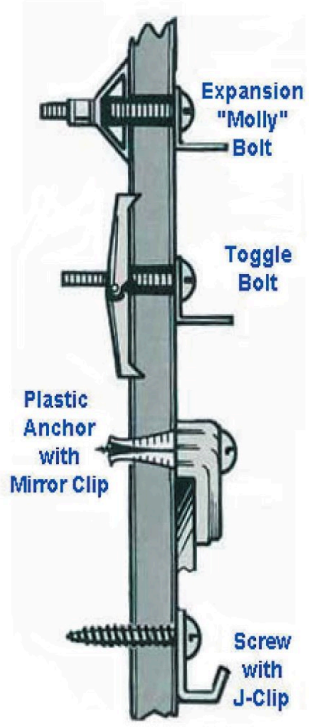
If you are hanging anything on a plaster wall that weighs more than a couple of pounds, the hard and fast rule is to find a **stud**, and screw or nail your item to that. Switch and outlet workboxes should also be attached directly to studs, so they won't become loose and move about as you use them.

FINDING THE STUDS

So, how do you find the studs? Some old-timers used powerful magnets to locate the lath nails. There are modern versions that use the same principle. Tool manufacturers have come up with a swiveling magnetic stud finder in a clear plastic vial. Another option, in this semiconductor era, is an electronic stud finder, which measures the density of the wall to locate the stud. These tools have been on the market for quite a long time, and can work fairly well, although they sometimes are less successful locating studs in traditional lath-and-plaster walls. So, in older houses, you may find that a magnetic model can work better to find the nails in the studs.

HANGING ITEMS ON DRYWALL

You'll have more options for hanging items from drywall. There are many types of hardware available; the most common designs utilize screws that are driven into plastic anchors or "wings" that spread out on the back side of the drywall (see illustration). Most of these devices will handle lightweight items, but you will still want to anchor heavier things directly to the stud. Luckily, stud finders usually work well on drywall, probably because there is a row of nails or screws along each stud securing the drywall in place.



Types of drywall anchors

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Home Repair Resource Center empowers homeowners to maintain their homes for sustainable and diverse communities.

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