LETTERS

Forced Hot Air Adds Water to Exterior Walls

To the Editor:

I'd like to add a couple of thoughts to Stephen Smulski's excellent article "Water in the Walls" (8/94). In Case 2, the humidifiers on the home's two forced-hot-air systems are listed first among a number of probable causes. My own experience confirms this, and suggests that even without a humidifier, a forced-hot-air (FHA) system can be the key factor driving moisture into exterior walls.

It's common for FHA systems to have undersized returns and/or large return leaks in the basement, both of which result in the house being pressurized. This in turn drives airborne moisture in the house into the walls and ceilings.

To add insult to injury, in the case cited by Mr. Smulski, the FHA systems had central humidifiers, which were adding considerable moisture to the house. Humidifiers can also add moisture directly to the walls if duct risers located in the exterior walls are leaky.

Conventional wisdom has it that FHA houses are "dry," and therefore need added humidification. However, because many new homes are unintentionally tight, they require moisture to be removed, not added, in the winter. Leave those central humidifiers out, and invest the money in fresh-air ventilation instead. Both the home and the occupants will be healthier.

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No Material Benefit from Gluing Subfloors

To the Editor:

I read Stephen Smulski's article "A Guide to Construction Adhesives" (9/94) and got all excited. The prospect of being able to increase the spans of floor joists by using a glued-and-nailed floor system seemed too good to be true.

Alas, a call to the American Plywood Association's technical support services revealed that the glued-and-nailed system's ability to increase spans is no longer true. APA's 1990 tables did allow the stiffness criteria that Smulski refers to, but the 1993 and 1994 tables no longer provide that benefit in most applications.

The current tables are limited by strength criteria, not stiffness. It still is a good idea to use glue *and* nails on a subfloor, but you won't be able to reduce materials costs by doing so.

J.J. Gasparotti
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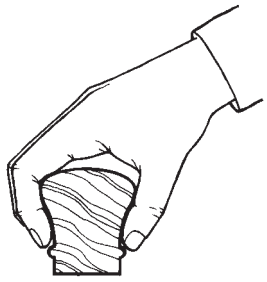
Getting a Power Grip

To the Editor:

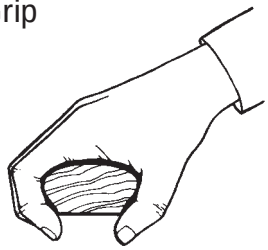
As one who has taken a strong position on stair and railing safety in many building code hearings over the last ten years, I noted with more than usual attention the article "Getting a Grip on Railing Codes" (6/94). Having studied railing ergonomics, I believe that *none* of the four railing shapes (shown in Figure 4 of the article) meets the "equivalent graspability" provision in the BOCA *National Building Code*.

In addition, the fairly common "colonial" railing shape ("B" in Figure 4 of the article) fails both in terms of section dimension (which is measured diagonally across the rail, not simply horizontally) and perimeter limit (measured simply by wrapping a measuring tape tightly around the rail). Most important, as shown in the illustration, above right, this common shape permits only a relatively ineffective *pinch grip*, not the *power grip* permitted by the other shape shown (which has exactly the same width and top configuration).

Builders do their clients (and themselves) a disservice to unfairly deride proper handrail shapes as "broom handles." Broom handles typically have a cross-section diameter of about one inch or less. Code-permitted shapes for handrails can have twice that diameter and can have, if oval, dimensions of 1 1/2 by 2 1/4 inches — a very comfortable and extremely functional shape. Indeed, builders need go no further than their toolbox to see what makes a functional, hand-conforming shape: Imagine trying to hold and use a hammer that has its handle replaced with one of the traditional, decorative railing shapes.



Pinch Grip



Power Grip

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Keep 'em coming! We welcome letters, but they must be signed and include the writer's address. The *Journal of Light Construction* reserves the right to edit for grammar, length, and clarity. Mail letters to *JLC*, RR 2, Box 146, Richmond, VT 05477.