## **D** Letters

### Not So Fast, Sherlock To the Editor:

I love a mystery such as the collapsed glazing issue (*Notebook*, 5/02). I immediately recognized the oval condensation area in the photo as being like others I've seen in the home inspection business. I've never known what caused it, though.

However, I think someone will run into a dead end with the idea that when the argon outgasses, no other gas reenters, resulting in a partial vacuum that collapses the glazing. The statement that "argon molecules are smaller than most of the gas molecules found in air" is probably not true. Argon has an atomic number a sort of measure of size — of about 18. Nitrogen, the most common (79%) air molecule, has an atomic number of 7 and even in its common diatomic form is only 14. Same with oxygen (18% of air); it has atomic numbers 8 and 16, monotomic and diatomic. So argon is relatively large. I believe that if argon outgassed, it would be replaced by one of these common gases pretty quick. I also believe that when the mystery is solved, it will be found to have a thermal component, such as repeated, temperature-related resealing of the window after the argon has leaked out, resulting in a partial vacuum.

Wayne Richard FootHills Home Inspection via e-mail

## Water Heater Abuse

To the Editor:

Regarding the story on the exploding water heater (*Notebook*, 4/02): What causes such calamity is continuing neglect and ignorance of pressure and temperature relief valves, which were invented by the Watts Co. in the 1940s.

Their usefulness as a warning device is further diminished by various "code" inspectors who actually require the discharge to be piped outside, where, because of rain, no one would ever notice its warning signs.

Your story brings to mind an event in which a landlord capped a dripping discharge tube, only to have a four-year-old tenant in an adjacent room killed by the blast. (Fortunately, he's in prison, hopefully for life!)

The same thing could occur when city water mains are shut down and residents aren't warned to close valves to prevent the water from being syphoned out of their water heaters. Should that occur, the active water heater can become a partly filled steam vessel that can easily turn into a 2,500- to 3,000-psi bomb, like the one in your story. I recently tried to persuade city officials to warn residents of this, but to no avail.

More education is needed about the installation, testing, and replacement of pressure and temperature relief valves.

> Ron Guglielmone Draingo Plumbing Redwood City, Calif.

# **Architectural Abbreviations** To the Editor:

Regarding the question concerning construction abbreviations (*On the House*, 4/02): A good website for both abbreviations and symbols is www.americantech.net/pdf/resources.cfm. It's in PDF format and gives permission to print its information.

Charles Alley Structural Design Group Nashville, Tenn.

# Valve for Artesian Well To the Editor:

Regarding the drawing in the July *Letters* column, showing the "correct" installation of the ball valve near the pressure tank: There is one situation where you might want to put a cutoff on the well side of the line. An artesian well is always flow-

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### Letters

ing, pushing water through the line typically at 2 to 20 psi. If your home has an artesian well, you need a valve on the incoming pipe before the pressure tank so that you can work on or replace the pressure tank without flooding the house.

Rex Cauldwell Copper Hill, Va.

# Use Caution in Bid Language To the Editor:

Thanks to Rick Stacy for the excellent article on presentation of bids (Strictly Business, 5/02). I have a couple of suggestions. First, be very cautious about making performance promises. Rick includes "Install selfadhering ice and water membrane at eaves and valleys to prevent ice damming" in the description section of his sample quotation. This waterproof membrane, required by most codes in cold climates when shingles are applied to a bare roof deck, will do absolutely nothing to prevent ice damming. It will prevent water infiltration from ice damming in many, but not all, installations. Even if there is no water infiltration problem, ice dams may damage gutters. What do you say to the customer who holds you responsible for that because you promised to "prevent ice damming"?

Second, use careful wording with regard to reusing existing building components. Rick's quotation includes "Reuse existing dormer and wall flashing and repair as necessary." Then below, under "Not Included," appears "Replacing dormer and wall flashing." Nowhere is the issue addressed of how it would be determined whether replacement vs. repair is warranted. Further complicating the issue is that in this case, repair would typically take the form of partial replacement. Some definitions or different wording would be in order.

Peter Dean Minneapolis, Minn.

## **Asphalt Shingle Quality**

To the Editor:

Regarding the question about the differences between 20-year, 25-year, and 30-year shingles ("Asphalt Shingle Q&A," 5/02), Carl Cash responds that "a shingle's duration depends on a number of factors, including the direction in which the roof faces, its geographical location, the degree of shading provided, and the color of the shingles." But an article in the April 1996 issue of RSI magazine states, "Reported [shingle] failures start as early as six months and go up to 12 years, with most of the failures in the five- to six-year range. Shingles fail on all exposures of the building, different roof pitches, over plank or panel sheathing, staple or nail fasteners, insulated or non-insulated roofs, and all regions of the country. Any shingle roof can fail." Have shingles improved since 1996 to the point where that paragraph is no longer true?

> Les Deal Cedar Rapids, Iowa

Carl Cash responds: Are the commodity (lowest-price) shingles getting any better? Probably not, because some manufacturers think they need a lowpriced line to protect or increase their market share and serve large-volume distributors. Are the average shingles getting better? Some are and some are not. Recently, 20-year shingles have become 25-year, 25-year have become 30-year, and so on. The warranted life is like the price, subject to negotiation, and has no connection to service life. I suggest using mid-range to long-range warranted shingles from a manufacturer that stresses quality, not price.

#### **KEEP 'EM COMING!**

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