Peculiar Pipes: Why That Clanging Noise May Have More to do With Porcelain than Poltergeists

By Laura Day, Contributing Editor

It’s not uncommon for homeowners to believe there’s a ghost in the house rattling around at all hours of the night. Hissing, cracking, hammering and clanging have all been used to describe the noises problem plumbing tends to make. And, while those noises are most likely not Casper; one of the real life Ghost Hunters from the SyFy Channel may actually be the right guy for the job.

“Odd noises are rarely caused by other worldly things,” SyFy Channel’s Ghost Hunter Jason Hawes said with a smile. Hawes is a real life Roto-Rooter plumber in Rhode Island. “Most of the time, these unexplained, strange noises are actually a sign of plumbing problems that can, in most instances, be easily fixed.”

“Being plumbers, we’ve explained away lots of alleged hauntings by recognizing the sounds we see every day while working for Roto-Rooter,” Ghost Hunter Grant Wilson said. “We hear so many stories about things that go bump in the night that don’t need a paranormal expert, they need a good plumber.”

Common noisy plumbing problems include unsecured water supply pipes, expanding and contracting pipes or common water hammers, Hawes and Wilson added.

The most common pesky pipe problem is unsecured pipes, said plumber Raymond VinZant. VinZant has been a plumber since the age of 14 and is now the training coordinator for Roto-Rooter’s St. Paul Branch and a blogger on the company’s web site. He says many of his customers complain of a clanging noise when they turn a faucet on or off.

President of Maile Custom Builders Rich Maile agrees. “With water pipes, you typically hear them rattle when they aren’t properly secured,” said Maile, “Ideally we try to design the placement of those pipes by securing them properly and, as well as we can, insulate those walls for sound.”

Wayne Peppercorn, high school physics teacher, adds that “Over time, the collision of water molecules loosens the pipe and attachments and creates an additional sound, the rattling pipe,” he said.

As far as hissing and cracking noises go, VinZant says hot water causes a pipe to expand and after the hot water has flowed through the pipe, it contracts creating a cracking or clicking sound.

“If your piping is metal, such as copper, and runs through the structure of the house, joists or studs, then it may be simple expansion and contraction,” VinZant said.

The easiest way to solve this problem is to allow more room for the pipes to expand and contract in wall cavities. VinZant says copper piping can expand significantly when heated and needs room to grow. Placing insulation around the pipe, removing debris or cutting a larger notch in wood framing for the pipe to run through are solutions for this problem.
One of the loudest plumbing problems is something called a water hammer. Water hammers, or fluid hammers, typically occur when dishwashers, washing machines or toilets suddenly stop the flow of water. When the water is shut off, there is a loud banging sound.

Peppercorn says that the noises created by water hammers have to do with simple physics. “All that momentum and kinetic energy has to be absorbed somewhere,” he said, “Since energy is conserved; some of the kinetic energy is converted into acoustical energy, thus the collision noise.”

VinZant equates a water hammer to suddenly stopping a speeding car. “You feel the momentum carry you forward, but if you hit a brick wall you would bounce back,” he said. After shutting off a faucet, the traveling water still has some force and it is usually absorbed in the pipe.

VinZant says water hammers can be stopped by installing water hammer arrestors on the affected water lines or using expanding foam.

Also, Maile says that hot water heaters now have expansion tanks that will also absorb some of the shock from a water hammer situation. “Instead of driving through the pipes, the pressure goes into the expansion tank and has some room to absorb it,” he said.

And, while it is possible the hammering in the night could be a ghost or demon, most likely it’s just the drain. This phenomenon is part of the inspiration for a book that teams plumbing and drain service giant Roto-Rooter with TV’s Ghost Hunters. The book, Chilling Tales From the Porcelain Seat, features stories from regular people throughout North America who have made odd discoveries or had funny encounters with unusual plumbing problems.

The book, originally published in 2009 and re-launched this fall, also includes shocking tales of do-it-yourself disasters, and bad plumbing advice combined with humorous stories of dentures, prosthetic eyes and critters that were lost down toilets and drains only to be rescued with sheer tenacity and skill by unsung hero plumbers. The Ghost Hunters, who penned the foreword to the book, offer commentary and practical advice that will have you laughing one minute and recoiling the next. The book is filled to the brim with tips, fun facts and strange tales.