Nuts & Bolts

Volume 28, Number 2
March-April 2010

a newsletter from Home Repair Resource Center

Check out the schedule for our 2010 Community Home Remodeling Fair on page 7.

Experts will share their knowledge to help you get the best quality for your remodeling dollar, and will offer information on sustainability and "green" remodeling.

In this issue...

Home Remodeling Fair: Saturday, March 20th at Heights Main Library

Home Repair Resource Center has a new site for our annual Community Home Remodeling Fair: the Cleveland Heights - University Heights Main Library on Lee Road. Don't miss this exciting event, which will be held on Saturday, March 20th. Registration will begin at 9:30, with presentations from 10:00 to 2:15.

Again this year, the Fair will provide an opportunity for you to hear from contractors, product suppliers, architects, representatives from the City, and other experts willing to share their knowledge. You can attend workshops, ask questions at our "advice tables," and even meet with an architect for a free 25-minute consultation to help you prepare for your remodeling project. *(Register for "Ask an Architect" by calling 381-6100 beginning March 1st. Time slots fill quickly.)*

The tentative schedule includes presentations on such topics as kitchen and bathroom remodeling,

continued on page 3

As of April 2010 there are new rules for paid contractors who perform renovation, repair, and painting projects in homes built before 1978.

New Site for Dunn Hardware

Dunn Hardware & Home Repair has a new home! The store is now located at 5144 Wilson Mills Road, just east of Richmond Road in Hilltop Plaza. Customers will find a larger sales area, with wider aisles, more products, ample parking, and easier access.

Dunn Hardware and Home Repair has long honored our Project Repair discount card for reduced prices on tools and materials for home repairs. We thank owners Patrick and Kathiann Smith for supporting the home maintenance efforts of Cleveland Heights residents, and encourage Project Repair members to check out Dunn Hardware's services and products for their next project.

Go "green" – get your *Nuts & Bolts* online

Send your email address to rstager@hrrc-ch.org, with "newsletter address" as the subject. We'll email your copy, saving printing and postage costs and reducing our "carbon footprint" to help the environment.

Adopt a hydrant

It's been one of Jim's special missions over the years to make sure the fire hydrants and street sewer grates at his home and at the HRRC offices are kept clear. A clean sewer grate reduces street flooding, which goes a long way toward preventing accidents and property damage. A cleared fire hydrant will save precious minutes that our firemen can use to save homes, instead of having to chop ice and snow before connecting to a water source. Recent budget cuts and reductions in manpower mean that street drains and hydrants can no longer be cleared regularly by city employees. Jim asks that Cleveland Heights residents adopt the grates and hydrants in front of their homes and keep them cleared. The property you save may be your own.

Home Buyer's Fair

HRRC will offer a Home Buyers' Fair on Saturday, April 3rd from 10 a.m. to 1 p.m. at the Heights Main Library, 2345 Lee Road. Realtors and others involved in the home buying process will provide information about down payment assistance programs, financing options, and what to expect when buying a home.

This free event is open to anyone considering home purchase.

Home Remodeling Fair

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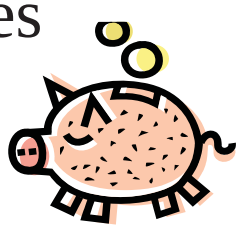
roof replacement, basement waterproofing, new windows, garage replacement, and other "big ticket" projects where it is particularly important to make good decisions on what products to install and who to hire for the work. We are also including presentations that focus on conserving resources (retrofitting an old house for energy savings and installing a rain barrel), but we are asking all our speakers to incorporate sustainability and "green" remodeling into their presentations, as appropriate.

You'll find the complete Fair schedule on page 7. The schedule will also be listed on our website (www.hrrc-ch.org).

Representatives from the City, County, and other organizations will be available to help you with such things as researching the history of your house, checking whether any liens are filed against it, and verifying your property taxes. You can also check out the handouts, books, videos, and contractor evaluations available through HRRC's Resource library.

The Fair is FREE and open to residents of all communities. So, grab a friend or neighbor and "come to the Fair" on March 20th!

HRRC's Financial Fitness Series



Home Repair Resource Center's interactive Financial Fitness series will help you develop your money skills, provide strategies for improving your credit, and teach you how to protect your home investment. Call **381-6100** for information or to reserve your spot in these FREE classes (all 6 - 8 p.m.):

March *Classes to be held at the CH-UH Main Library, 2345 Lee Road*

2	Tuesday	Power of a Personal Budget
9	Tuesday	Creditworthy Equals Choices
16	Tuesday	Understanding Mortgages & Refinancing
23	Tuesday	Avoiding Mortgage Delinquency
30	Tuesday	Home Maintenance for Home Buyers

April *Classes to be held at the CH-UH Main Library, 2345 Lee Road*

3	Saturday	***Home Buyers' Fair*** *(10 a.m - 1 p.m.)*
8	Thursday	Creditworthy Equals Choices
15	Thursday	Power of a Personal Budget
22	Thursday	Avoiding Mortgage Delinquency
29	Thursday	Understanding Mortgages & Refinancing

You can offer your repair project
for a summer workshop

Each year, we identify exterior repairs – on the outside of houses, on garages, and in yards – and use them as projects for our summer "hands on" workshops. Many of the skills we teach help people deal with problems while they are still small, relatively inexpensive, and can be fixed by the homeowners. **Here's what you need to know about volunteering your house as a workshop site:**

The host provides the materials needed for the repair; if Project Repair will be picking up the materials, the host pays the anticipated cost in advance. *(PR can cover part of the cost for low- and moderate-income homeowners – see chart on page 5.)* As the host, you will also be responsible for any preparatory work necessary, and you must participate in the class itself.

We'll provide tools and advice to help you get the site ready for the class, and, at the workshop, we'll teach repair skills and oversee the job. If the repair cannot be finished during the class time available, we'll tell you what you'll need to do to complete the project.

We are particularly looking for good places to teach these repairs:

- **Carpentry repairs:** sites where we can replace support posts, steps, railings, tongue-and-groove flooring, or other parts of wooden porches; straighten and/or repair frame garages; replace a storm door, entry door, or one or two windows *(first floor, please).*
- **Roofs and gutters:** sites where we can replace a "flat" roof on a shed-type garage or second-floor porch; replace a shingled gable-type garage roof; replace gutters and the fascia boards behind them (along a first-floor porch or garage); snake a storm sewer and install a clean-out on a downspout.
- **Tuckpointing:** sites where we can replace deteriorated mortar between bricks on a foundation, steps, etc. *(enough work for a class of 16-20 people.)*
- **Concrete repair:** sites where we can level a sidewalk or replace a small section of concrete (usually, 1 - 2 sidewalk blocks).

We're also interested in other kinds of exterior repairs – so give us your ideas! (Keep in mind that we select our workshop sites for how well they'll work for TEACHING PURPOSES, and there are limits to what can be accomplished. We can't re-roof a house or replace an entire driveway in a two-hour class!)

To volunteer your house as a workshop site, complete the form on the next page and return it to our office, or call us at 381-9560 any weekday morning and describe your repair need. We'll look at all the sites offered as soon as possible,

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Volunteer Your Site

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probably in late March (Since we'll be looking at exterior repairs, you won't need to be home when we come.) We're sorry that we won't be able to get back to each person who offers a site, but **we'll contact you if we are interested in using your house** for a class. So, think about the projects you'll be working on this repair season. We're waiting to hear from you!

Low-Moderate Income Guidelines

We have not yet received the 2010 guidelines, but the 2009 guidelines are listed below:

Family size	*Gross yearly income*	*Family size*	*Gross yearly income*
1	*$36,300*	*4*	*$51,850*
2	*41,500*	*5*	*56,000*
3	*46,650*	*6*	*60,150*

Summer Workshop Site Volunteer Form

I would like to offer the following repairs for Project Repair's summer classes:

(Note: Please be as specific as possible in your description of the repair you're offering – for example: replace two blocks in front service walk, replace fascia board and gutter on southwest side of garage, etc.)

_____

_____

_____

_____

submitted by: Name: _____

Address: _____

Phone: _____ (day) _____ (evening)

Please check: I do _____ do not _____ qualify under the Low-Moderate Income Guidelines for help with material costs.

Return to: Project Repair
2520 Noble Road
Cleveland Hts., OH 44121

EPA issues new rules for contracted jobs on older homes

Because common renovation and repair projects (like demolition, sanding, and cutting) can disturb lead-based paint in older homes, the Environmental Protection Agency has enacted new regulations to protect adults and children from hazardous lead dust and chips. Under the rule, **as of April 2010, paid contractors who perform renovation, repair, and painting projects that disturb lead-based paint in homes built before 1978 must be certified and must follow specific work practices to prevent lead contamination.** Since most of the houses in Cleveland Heights fit this category, owners should be aware of this new regulation.

This rule does not apply to homeowners who are doing renovation, repair, or painting in their own home – although the EPA encourages homeowners to protect their families by becoming knowledgeable about lead-safe work practices. And it does not apply to minor maintenance or repair activities where less than 20 square feet of lead-based paint is disturbed on the exterior or less than six square feet of lead-based paint is disturbed in a room. (Note: The EPA specifies that window replacement is *not* minor maintenance or repair.)

Although the rule targets homes where children currently live or visit regularly, lead dust created by repairs or renovations done today can harm any child who might someday live in that house. For that reason, HRRC recommends that lead-safe work practices be used for all projects that can generate lead dust or chips. If you will be getting work done at your home, HRRC suggests that you talk to the contractors from whom you are getting bids about lead: whether the job will create any lead contamination, if they will be following lead safe work practices, and how they will clean up after the work is finished. You can also ask whether they are certified and/or if they have attended any classes in preventing lead exposure.

If you are an owner of rental housing, be aware that additional rules apply. You must give your tenants certain lead hazard information and make sure that workers performing renovations, repairs, and painting jobs have taken the necessary training and follow lead-safe work practices.

For more information about the new regulations, visit the EPA websits at http://www.epa.gov/lead/pubs/renovation/htm. HRRC's Resource Library has information about the dangers of lead-based paint, how to find a lead-certified contractor, and how to work lead-safe when doing repairs yourself.

2010 COMMUNITY HOME REMODELING FAIR
Saturday, March 20th - CH-UH Main Library

sponsored by Home Repair Resource Center

10:00 – 2:15 **Advice Tables** *(individual advice – drop by)*

- **"Ask an Expert"** *(as available when not teaching – see below)*
  Jim Kunselman, HRRC Repair Instructor
- **Talk with a Lender about Financing Your Project**
  Alison Perry, KeyBank, & Eureka Herd, US Bank
- **Historic Preservation/Exterior Paint Color Choices**
  Jamie Phillips-Bertram Cleveland Restoration Society, and
  Kara Hamley O'Donnell, CH Historic Preservation Planner
- **Ideas for Northeast Ohio Yards**
  Bremec Garden Center
- **Ask about Lead-Safe Remodeling**
  Jeff Hanchar, County Board of Health Lead Prevention Program
- **Ask about Deeds, Living Wills, Property Taxes, etc.**
  Representatives from the County Auditor's & Recorder's Offices

10:00 - 2:00 **"Ask an Architect"** — a free 25-minute individual consultation with a local architect. *If pre-registered, sign in at the "Ask an Architect" table; can register for any remaining spots on day of Fair.*

10:00 – 11:15 **Session 1: Workshops**

Bathroom Remodeling
Jeff O'Donnell, Architect

Roof Replacement
Chris Kamis, Absolute Roofing & Construction, Inc.

Retrofitting Old Houses to Lower Energy Use
Jeff Eizember, Architect

11:30 – 12:45 **Session 2: Workshops**

Kitchen Remodeling
John Wagner, AIA, LEED-AP, and
Alex Pesta, AIA, LEED-AP, Architects, City Architecture

Choosing a New Heating System
Bill Jubell, A New Image Heating & Cooling

Basement Water Control: Interior vs. Exterior
Steve Allen, Integrity Waterproofing

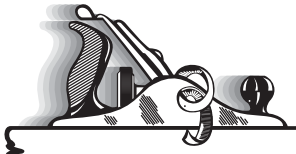
1:00 – 2:15 **Session 3: Workshops**

Installing a Rain Barrel
Jim Kunselman, HRRC Repair Instructor

Choosing Replacement Windows
Troy Vandervoort, American Building

Garage Replacement
Bill Knop, Rehab Specialist, City of Cleveland Heights

***All day** – HRRC's Resource Library, with videos and contractor evaluations*



Workshop Schedule

Our spring Project Repair workshops will include our popular plumbing series, followed by classes on other interior and exterior repairs Classses are open to Cleveland Heights residents; reserve your spot early by calling 381-9560.

A modest **materials fee** is charged. *(See our website for details, or call for more information.)*

March

Copper Water Lines

Monday, March 1st, 7 - 9 p.m.

You'll learn to measure, cut, and solder copper pipe and fittings. You'll also practice making various types of connections in water supply lines and learn where each should be used.

Replacing Galvanized Water Lines with Copper

Monday, March 8th, 7 - 9 p.m.

At this class, you'll assemble copper pipe and fittings to replace old iron supply lines "on-site" in a Cleveland Heights home.

Plastic Water Lines

Monday, March 15th, 7 - 9 p.m.

If you want an alternative to copper, two types of plastic water lines have now been approved for use in Cleveland Heights. We'll show you how to measure, cut, and connect each type, and how to ensure your installation will pass inspection.

PVC Drain Lines

Monday, March 22nd, 7 - 9 p.m.

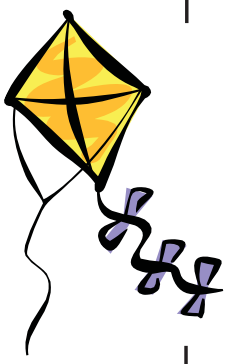
We'll discuss how your drain lines function, and how to maintain and update your drain system. You'll learn how to assemble plastic drain pipes, fittings, and traps, and how to operate a drain snake to clear clogged lines.

Faucets & Toilets

Monday, March 29th, 7 - 9 p.m.

We'll show you how to repair those annoying leaks in faucets, valves, and toilets; how to replace a toilet; and what tools to use when your toilet is clogged.

April



Hardwood Floor Refinishing

Monday, April 5th, 7 - 9 p.m.

You'll practice sanding a floor with a flat plate sander and learn how to complete the process with stain and/or polyurethane. *(We need a site for this class; call 381-9560 if interested.)*

Laminate Flooring

Monday, April 12th, 7 - 9 p.m.

If you're considering laminate flooring (Pergo™, etc.), this class may help you decide which product will best fit your needs. We'll show various materials and how each is installed.

Door Locks & Deadbolts

Monday, April 19th, 7 - 9 p.m.

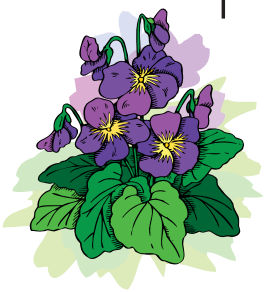
At this class, we'll discuss various kinds of door locks and the advantages of each. You'll then practice installing a deadbolt on an exterior door, using a hole saw on your drill.

Plaster Repair

Monday, April 26th, 7 - 9 p.m.

Learn to repair plaster – small cracks to larger areas. We'll show you basic techniques, "tricks" for a smooth, solid surface, and ways to minimize the spread of lead-based paint dust.

May



Flat Roof Replacement

Monday, May 3rd, 7 - 9 p.m.

Learn how to replace a "flat" roof over a porch or shed-type garage using cold process **modified bitument roofing**, which lasts far longer than traditonal asphalt roll roofing.

Porch Railings

Monday, May 10th, 7 - 9 p.m.

You'll learn how to construct a wooden railing and install it on a second floor porch roof in such a way as to minimize leaks.

Shingled Roofs & Flashing

Monday, May 17th, 7 - 9 p.m.

Learn the right way to replace a shingled roof – minimizing leaking and ice-build-up – and replace torn or missing shingles.

Gutters & Downspouts

Monday, May 24th, 7 - 9 p.m.

Learn to connect and hang gutters at the proper pitch. We'll discuss sectional vs. seamless gutters, metal gauges, and how to replace rotted fascia boards and rafter ends.

information sessions presented by

Home Repair Resource Center

a community nonprofit organization

Designing & Installing a Deck or Patio

Michael Beightol, ASLA, LEED-AP
John Wagner, AIA, LEED-AP
Alex Pesta, AIA, LEED-AP

If you are thinking of adding a new deck or patio to your home, learn from several architects about options in design, materials, and installation.

Tuesday, April 27th, 2010 - 7 pm

Lawns on a Budget

Larry Cirillo

Learn how to make a beautiful lawn the easy, inexpensive way. A long-time master gardener will share his knowledge about fertilization, mowing and watering, as well as how to control weeds, insects and fungus in your lawn.

Wednesday, May 26th, 2010 - 7 pm

these HouseMender University sessions will be held at

Cleveland Heights - University Heights Public Library

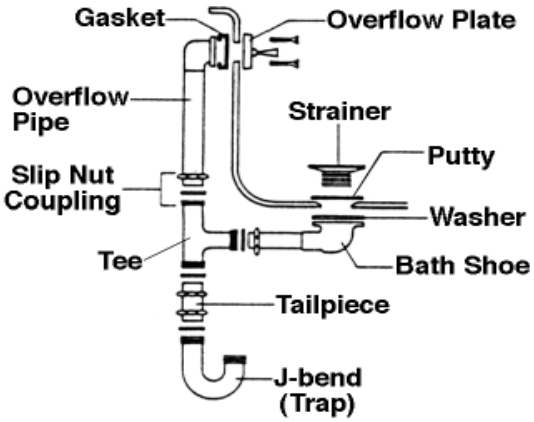
2345 Lee Road

Reservations requested –
call (216) 381-9560

HOME REPAIR RESOURCE CENTER

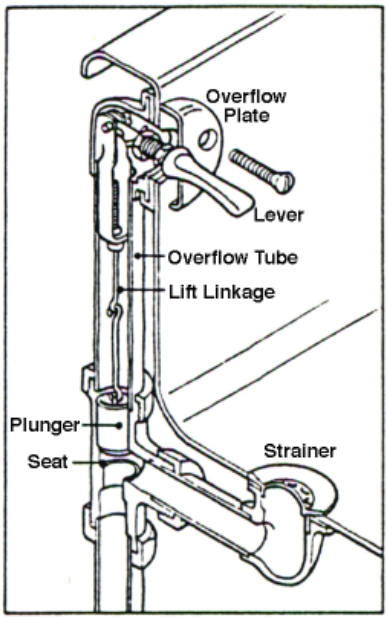
BATHTUB DRAINS

The drain from your bathtub may have one of several different configurations. When problems occur – clogged lines, leaks, etc. – the way you approach it will probably depend on how the drain line is designed.

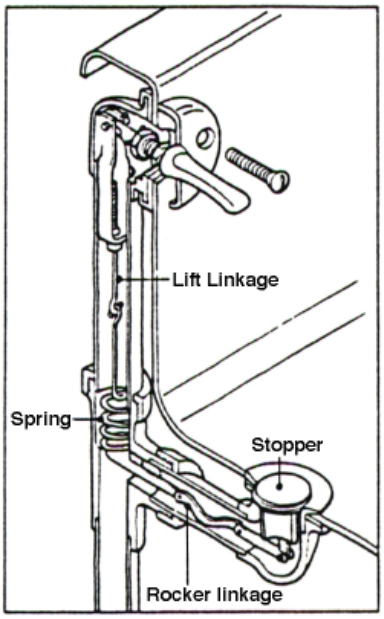


Nearly all tubs will have a waste and overflow drain assembly, comprised of three primary components: the overflow pipe from the upper tub wall, the waste pipe from the main drain opening, and the trip-waste mechanism that opens and shuts the drain opening *(shown in illustrations below.)*

There are two types of trip-waste designs. The **plunger-type** has a strainer that sits in the drain opening, while the **pop-up** model has a plug that is moved up and down by a trip lever on the tub wall.



Plunger-type waste and overflow



Pop-up waste and overflow

To adjust a plunger-type drain, you'll need to unscrew the cover plate for the trip lever and pull the cover plate, lift linkage, and plunger out of the overflow drain opening. Clean the linkage and plunger. To adjust the drain flow, use needle-nose pliers to unscrew the locknut on the threaded lift rod;

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Bathtub Drains

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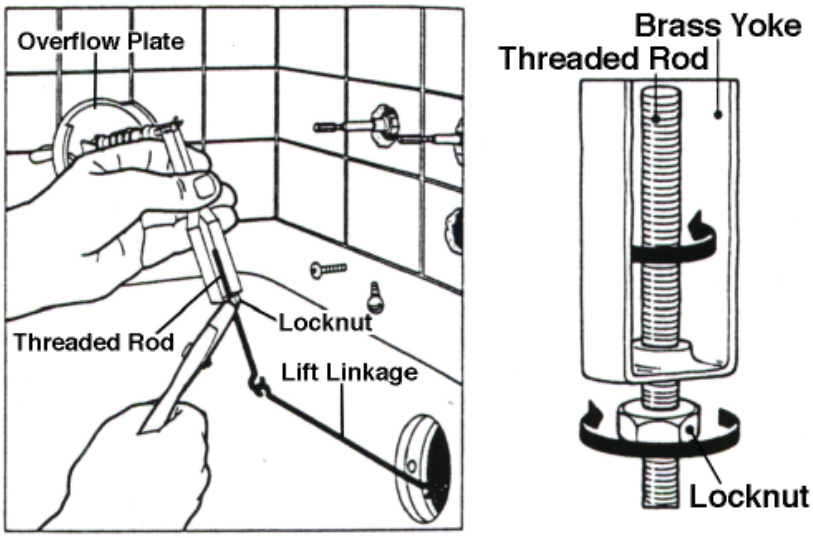
screw the rod down about 1/8” and tighten the locknut again. Then, reassemble the entire mechanism. The plunger cylinder should slide into place and close the drain opening when the trip lever is in the down position.

Older tubs may have a **drum trap** that will make snaking the drain line in this way difficult, if not impossible. To snake a line with a drum trap, you’ll need to remove the cover of the trap and snake “upstream” toward the tub and then “downstream” toward the main stack.

To adjust a pop-up tub drain, raise the trip lever to the full-open position and pull the stopper and rocker arm assembly out of the drain opening. Then, remove the screws from the cover plate and pull the cover plate, trip lever, and linkage out of the overflow drain opening. Clean off any hair and debris, especially from the spring on the end of the lift wire. To adjust the height of the drain plug, use needle-nose pliers to unscrew the locknut on the threaded lift rod; screw the rod up about 1/8” and tighten the locknut again. Then, reinstall the entire assembly. If necessary, turn the lift linkage inside the overflow tube until it catches the rocker arm assembly. When the trip lever is in the up position, the pop-up should seat itself and plug the drain opening; when the trip lever is down, the plug should be pushed up so the tub will drain.



Adjusting the tripwaste linkage

Loosen the locknut on the liftwire and thread the wire up or down.

The drain line itself will generally have a trap that prevents the sewer gases from leaking into the bathroom. In modern tubs, a **P trap** is usually incorporated into

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Bathtub Drains

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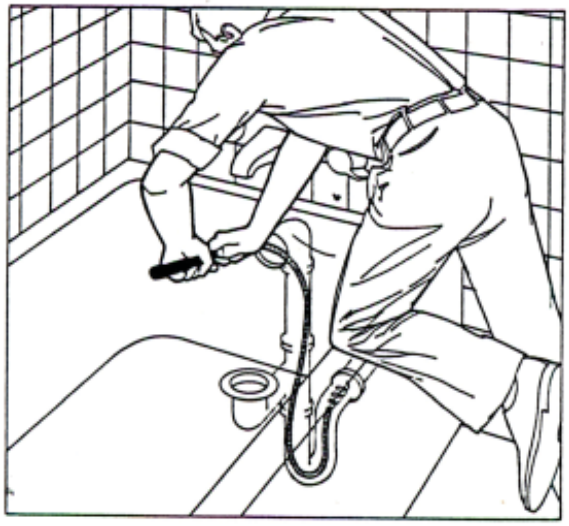
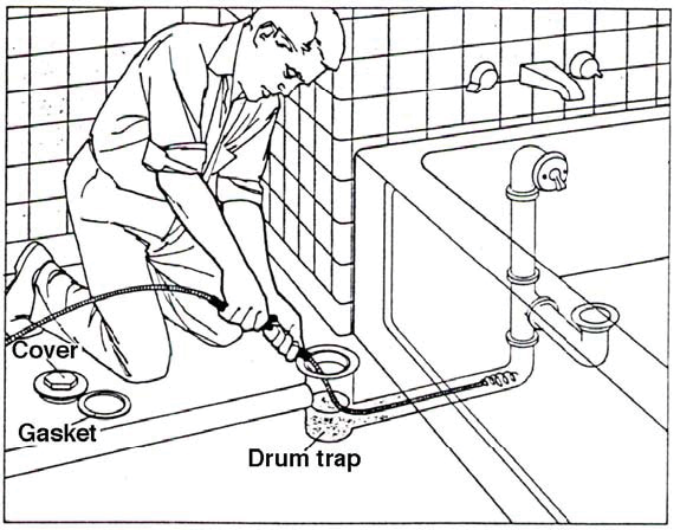
the drain line below the tub, but you can seldom access it for snaking when the drain is clogged. Instead, unscrew the overflow plate and lift out the linkage as described above. Then, run a hand or electric snake into the over-flow tube and through the drain line beyond it.



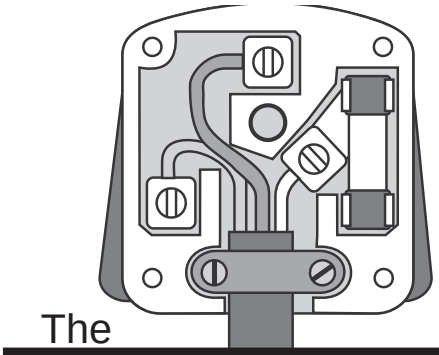
Left: To snake a bathtub with a hand-powered auger or electric drain snake, run the cable through the tub overflow opening to reach the P trap.

Below: Older-style drain systems may have a drum trap. To snake a drain with this configuration, remove the cover of the trap and snake both "upstream" toward the tub and "downstream" toward the main stack.



Older tubs may have a **drum trap** (located in the floor alongside the tub or mounted in a closet or behind an access panel) that will make snaking the drain line in this way difficult, if not impossible. To snake a line with a drum trap, you'll first need to remove the cover of the trap. There are several different designs; if you can't turn the cover, you may need to chisel through it – the covers are usually made from soft brass – and plan to buy a replacement cover from a plumbing supply store. From the drum trap, snake "upstream" toward the tub, and then "downstream" toward the main stack.

Leaks in the drain line are rare, but not impossible. In most cases, getting access to the drain line will involve cutting into the ceiling of the room below. Before calling a plumber, however, check to see if the water might instead be coming through hairline cracks between the ceramic tiles in the tub area; re-grouting and sealing the tile may be necessary, instead of drain repair.



by Jim Kunselman

I've recently gotten several questions about about radiant floor heating retrofits. While I'm not really a heating guy, efficient heating interests me. So, I checked out the Department of Energy website (and others) for information.

Radiant heating systems supply heat directly to the floor or to panels in the wall or ceiling of a house. The delivery of heat directly from the hot surface to the people and objects in the room via the radiation of heat is known as **infrared radiation.** (If you ever walked along a brick wall just after the sun sets, the stored-up warmth you feel is infrared radiation.)

Radiant heating is more efficient than baseboard heating and usually much more efficient than forced-air heating, because no energy is lost through the ductwork. The lack of moving air can also be advantageous to people with severe allergies, as dust and pet dander or germs are not lofted into every room. Forced air systems also tend to dehumidify the air more than radiant systems, drying out our skin and noses.

There are radiant air floors (using air as the heat-carrying medium); electric radiant floors; and hot water radiant floors. Air does not hold large amounts of heat, so radiant air floors are not cost-effective in most applications and are rarely installed. Because of the relatively high cost of electricity, electric radiant floors are usually found locally in bathrooms; these systems feature mats of electrically conductive plastic mounted onto the subfloor below a tile floor covering.

The majority of radiant systems I have seen in this region are floors heated by gas-fired **hydronic** (water-based) systems that generally use high-efficiency boilers – models that burn less gas than forced air furnaces and steam boilers. The hydronic systems can also be heated with a variety of other energy sources, including gas- or oil-fired boilers, wood-fired boilers, solar water heaters, or a combination of these sources.

Most hydronic radiant floor systems pump heated water from a boiler through tubing laid in a pattern underneath the floor. Systems installed from the 1940's to the '70's used copper piping; in the 1980's, plastic piping such as PEX became commonly used. In some systems, the temperature in each room is controlled by regulating the flow of hot water through each tubing loop, using a system of zoning valves or pumps and thermostats. The cost of installing a hydronic radiant floor will vary by location, and depend on the size of the home, type of installation, floor covering, remoteness of the site, and cost of labor.

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The Short Circuit

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A “wet” installation that embeds the tubing within a concrete floor slab (commonly found in “slab” ranch houses without basements) is the oldest form of modern radiant floor systems. The tubing can be embedded in a thin layer of lightweight gypsum concrete, or other material installed on top of a wood subfloor. If concrete is used and the new floor is not on solid earth, additional floor structure may be necessary because of the added weight. A structural engineer should be consulted to determine the floor’s load-carrying capacity.

“Dry” floors, in which the tubing run beneath a wood floor, have been gaining in popularity, mainly because a dry floor is faster and less expensive to build. However, because dry floors involve heating some air space, the radiant heating system may need to operate at a higher temperature. A common retrofit involves suspending the tubing underneath the subfloor between the joists. This method usually requires that the basement ceiling be removed and holes drilled through the floor joists in order to install the tubing. Reflective insulation is installed under the tubes to direct the heat upward. In new construction, the tubing can be installed from above the subfloor, between the subfloor and finish flooring. In these instances, the tubing is often fitted into aluminum diffusers that spread the water’s heat across the floor in order to heat the floor more evenly. The tubing and heat diffusers are secured between furring strips (sleepers), which carry the weight of the new subfloor and finished floor surface.

Hydronic radiant floor systems pump heated water from a boiler through tubing laid in a pattern underneath the floor. In some systems, the temperature in each room is controlled by regulating the flow of hot water through each tubing loop.

For new construction, several companies make a plywood subfloor material manufactured with built-in tubing tracks and aluminum heat diffuser plates. The manufacturers claim that this product makes a radiant floor system considerably less expensive to install and faster to react to changes in room temperature.

Finish options will change the “look” of the floor. In one building I saw, the concrete floor had been stained and polished – and I must admit that the thought of being barefoot on a warm concrete floor in February was quite intriguing. Ceramic and stone tiles are common and effective floor coverings for a concrete slab radiant floor, as the tiles conduct heat well and add thermal storage because of their high heat capacity. Common floor coverings like vinyl and linoleum sheet goods, carpeting, or wood can also be used, but any covering that insulates the floor from the room will decrease the efficiency of the system. Most of the sites advise that only thin carpeting with dense padding be used, and as little of it installed as possible. Laminated wood flooring will shrink and crack less from the drying effects of the heat than solid wood flooring.

HOME
REPAIR
RESOURCE
CENTER

Return Service Requested

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