

Nuts & Bolts

Volume 29, Number 1
January-February 2011

a newsletter from Home Repair Resource Center

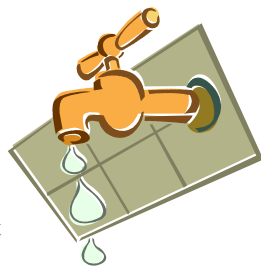
Before you send us your card, take a minute to congratulate yourself for all the hard work you did this year. Then, think back to your 2010 “to do” list and consider whether you accomplished all the projects that were on it. If you didn’t get to everything, you can start now to plan and prepare for next year’s repair season.

In this issue...

- 1 Repairing “washerless” faucets
- 2 HRRC news
- 5 Women’s repair program
- 6 Workshop schedule
- 8 HouseMender University
- 8 Financial Fitness series
- 10 The Short Circuit

Repairing “washerless” faucets

There is nothing more annoying than a dripping faucet. Not only does it waste water, but the repeated action of the water can also cause a spot in the sink surface below. Whether you have a single spout faucet or a mixing faucet (two separate units that share the same spout), fixing the problem is usually fairly simple. (The two units that form a mixing faucet are repaired separately.)

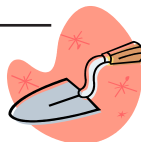


With both traditional compression faucets and the newer “washerless” faucets, leaks can originate in several areas, so it’s a good idea to replace all the parts that can wear out while you have the faucet apart. The first step is to turn off the water to the faucet. If you don’t have shut-off valves on the hot and cold water supply lines under the sink, you can usually find the zone valve in the basement that controls the water supply to that part of the house. In a pinch, you can use the main water shut-off near the meter that controls water for the entire house. When you have closed off the valves, turn on the

continued on page 3

It’s time to enroll in our next Home How-To program!

HRRC’s women’s repair course teaches single women homeowners to do basic carpentry, electrical, and plumbing repairs.



Hardest-Hit Fund can save houses

Home Repair Resource Center is one of the HUD-certified counseling agencies that can help homeowners access Ohio's Hardest-Hit Fund for foreclosure assistance. The fund helps people who have experienced a loss of income in the last 1-1/2 years due to hardship (job loss or reduction in hours, health issues, etc.) and are now struggling to make their house payment or have fallen behind on their mortgage.

HRRC counselors help homeowners evaluate their situation and prepare the necessary documents to qualify for assistance. Funds are available to help bring mortgages current, help with mortgage payments during a job search or training program, reduce the principle owed to encourage loan modification, or help with various ways to return the home to the mortgage servicer to avoid foreclosure. Call (216) 381-6100 for an appointment.



Holiday Closings:

Friday, December 24th
(Christmas holiday)
Friday, December 31st
(New Year's Eve)
Monday, January 17th
(Martin Luther King Day)
Monday, February 21st
(Presidents' Day)

*Plan ahead to get any tools
or information you'll need.*

*Best
Wishes
for a Joyous
Holiday Season*

from all of us at
Project Repair
and
Home Repair
Resource Center

Please help:

If you have't yet returned the "Repairs Completed" card enclosed with your last *Nuts & Bolts*, please mail it to us, drop it off at our office, or call us at 381-9560 with your list of repairs that done in 2010 with the help of Project Repair (both do-self and contracted.) We'll add the value of your projects to those done by other participants and come up with one measure of PR's value to the community. **This is a way that each and every PR member can help!**

Repairing “washerless” faucets

continued from page 1

faucet until the water stops flowing. Then close or cover the drain, to prevent losing small parts.

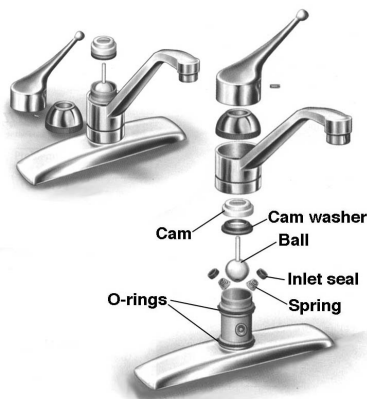
There are several common types of “washerless” faucets: **ball faucets** (such as the ones made by Delta), **cartridge faucets** (such as the ones made by Moen), and **ceramic-disc faucets** (such as the ones made by American Standard and Kohler). Most have a single handle that controls both hot and cold water. Despite their name, these faucets do have some washers in them. The replacement parts are generally inexpensive and easily available; however, the specific items you will need and the way they are replaced will depend on the manufacturer. It's usually easiest to buy a replacement kit for the make and model of your faucet at the plumbing supply or hardware store. The kit will contain the all washers, springs, O-rings, etc., you'll need to replace.

Repairing a leaking faucet is a common home maintenance task. Patience and a bit of manual dexterity can allow you to save the cost of a plumber by doing the job yourself.

Ball Faucets:

The first step is to remove the faucet handle. With a ball faucet, you loosen the screw in the base of the handle and lift the handle off the spout.

Water leaking from beneath the handle of a ball faucet is corrected by tightening the adjusting ring, a threaded washer that you see when you remove the handle. Place a putty knife in the slots on top of the washer and turn it clockwise. Replace the handle and test the faucet; if it still leaks, tighten the ring a bit more. Sometimes tightening the ring will make the handle too hard to move. If this happens, unscrew the ring and then the domed metal cap beneath it, and lift out the plastic and rubber cam assembly below the cap. These cam parts can be replaced.



If water leaks from the spout, you'll need to get to some parts that sit below the cam assembly. The ball, O-rings, seals and springs are subject to wear and need to be replaced periodically. Remove the old ball, and then twist the spout upward to remove it from the faucet's central tube. Once you have exposed the faucet body, use a screwdriver to pry off the O-rings surrounding it; then use

continued on page 4

Repairing “washerless” faucets

continued from page 3

needle-nose pliers to remove the small rubber seals and the tiny springs that fit into the faucet’s inlet holes. The replacement parts must match the old ones exactly, although you can choose either a plastic replacement ball or one made from brass – a more expensive option, but one that will last longer.

Clean all the surfaces and scrape off any mineral deposits, then reassemble the faucet. Use plumber’s grease to lubricate the O-rings before rolling them into their grooves on the faucet body. When you reinstall the spout, push down hard while twisting. Then install the springs and seals, and fit the slot of the ball over the pin in the side of the faucet body, so that the ball’s ports will be aligned with the hot- and cold-water inlets in the faucet when you want the water to flow.

Finish by reassembling the cam assembly and handle. If water still leaks from beneath the spout, tighten the cap; if you have a leak from beneath the handle, tighten the adjusting ring as described above.

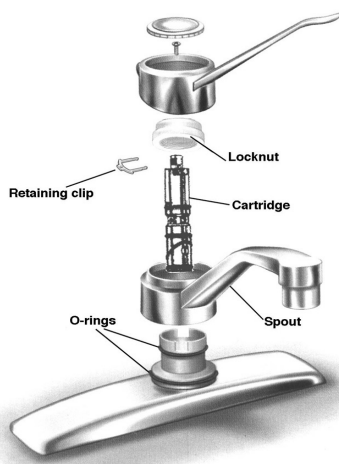
With both traditional compression faucets and the newer “washerless” faucets, leaks can originate in several areas, so it’s a good idea to replace all the parts that can wear out while you have the faucet apart.

Cartridge Faucets:

On a cartridge faucet, pry off the decorative cap and remove the screw underneath; then, lift off the handle and the handle body, a cylindrical slotted fitting. Before removing the spout, you’ll need to unscrew the round retaining nut on top of it.

For leaks from the base of the faucet, remove and replace the O-rings around the faucet body. For other types of leaks, pry out the horizontal metal clip on top of the faucet body, and then pull out the sleeve cartridge from inside it. Buy replacements for the cartridge and the O-rings around it. (Cartridges with brass casings are more expensive, but will last longer.) To install the new cartridge, pull out the stem as far as possible, and press the cartridge into the faucet body. (It’s normal for water to pool around the stem when you do this.) Rotate the cartridge until the protrusions at the top are aligned with the slots in the faucet body

continued on page 9





Women's repair program to be offered again this spring!

Call now! Women heads of house are encouraged to reserve their spot for the 2011 offering of our repair education series, "Home How-To." This intensive, six-month program will provide an opportunity for you to work together with other women homeowners to master basic carpentry, electrical and plumbing skills. Absolutely no previous experience is required!

You'll benefit from personalized instruction and will have ample opportunity for "hands-on" practice with tools and repair techniques. By the end of the program, you will have gained the confidence and experience to complete a variety of home repairs on a do-self basis, saving money that can be put toward materials or "bigger" contracted projects.

There are two additional benefits to the program: each participant will receive an in-home consultation with HRRC's Repair Instructor to identify needed repairs, and each will have one repair accomplished by the class at her house.

This year, most of the classes will be held on Wednesday evenings, but a few workshops – those involving more extensive repairs, as well as "rain dates" for exterior projects – will be held on Saturdays. The series will run from late April through October.

Because the goal is small-group learning, enrollment will be limited to 18 women who meet the following criteria:

- Woman owner/occupant of a house in Cleveland Heights
- Sole head of house
- Income within program guidelines:

family of 1: \$45,375	family of 4: \$64,825
family of 2: \$51,875	family of 5: \$70,000
family of 3: \$58,375	family of 6: \$75,200
- Willing and able to attend at least 16 of the 25 classes (one class per week, most lasting about 2-1/2 hours)

Each participant will be asked to pay a \$40 fee for program supplies, as well as for materials installed during the class at her home. If interested, call Becky at (216) 381-9560.



Workshop Schedule

This winter, we will again offer our popular series of electrical and plumbing classes. You can enroll for individual workshops or for the entire series. We encourage you to make your reservations early, as these classes can fill rapidly.

All classes are open to Cleveland Heights residents, and payment of a modest **materials fee** is now required. (*See our website for details, or call us for more information.*) Call 381-9560 to save your spot.

January

Intro to Electricity

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

This “lecture” class must be taken before the “Basic,” “Intermediate,” or “Advanced” electrical workshops. You’ll learn what electricity is, how it comes to your home and is distributed to your appliances, how to compute the load on your circuits, and how to ensure your safety when working with electricity.



Basic Electrical Repairs

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

You’ll learn how to replace single-pole switches and outlets (including GFCIs) and how to install simple fixtures.

Intermediate Electrical Repairs *(Two-part class)*

Tuesday, January 18th, 7 - 9 p.m. *and*

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

Learn how to run wires through finished walls, how to add or change circuits, how to install more complex fixtures and three-way switches, and how to correct overloaded circuits.

Advanced Electrical Repairs

Monday, January 31st, 7 - 9 p.m.

You’ll learn to update your service panel (and replace an old fuse box with circuit breakers) and how to install 220-volt lines and outlets for appliances.

February



Doorbells & Other Low-Voltage Systems

Monday, February 7th, 7 - 9 p.m.

Working with low-voltage wiring (for doorbells, telephones and landscape lighting) is really quite simple. We'll show you how to install and repair these systems, easily and safely.

Copper Water Lines

Monday, February 14th, 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, February 28th, 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. (*Note: We need a site for this class. Call 381-9560 if interested.*)

March

Plastic Water Lines

Monday, March 7th, 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 14th, 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

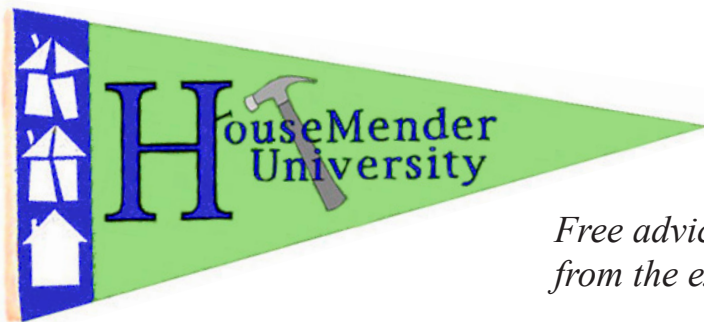
Monday, March 21st, 7 - 9 p.m.

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.

Tankless Water Heaters

Monday, March 28th, 7 - 9 p.m.

Learn all about tankless water heaters (an alternative to the traditional hot water tank) and how to install them. (*Note: We need a site for this class. Call 381-9560 if interested.*)



*Free advice
from the experts . . .*

Designing & Installing a Deck or Patio

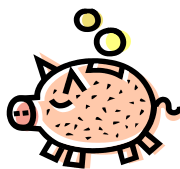
Alex Pesta, City Architecture

Adding a deck or patio can enhance the appearance and functionality of your property, but the design should be appropriate to the age and style of your home. Learn what options to consider in planning your design.

Wednesday, February 23rd, 2011 - 7 pm

HRRC's Financial Fitness/ New Home Buyer Classes

Home Repair Resource Center's interactive Financial Fitness series will help you develop your money skills, provide you with strategies for improving your credit, and teach you how to protect your home investment. Classes will run from 6 to 8 p.m.:



January	6	Thursday	Creditworthy Equals Choices
	13	Thursday	Power of a Personal Budget
	20	Thursday	Avoiding Mortgage Delinquency
	27	Thursday	Understanding Mortgages & Refinancing
February	3	Thursday	Power of a Personal Budget
	10	Thursday	Creditworthy Equals Choices
	17	Thursday	Understanding Mortgages & Refinancing
	24	Thursday	Avoiding Mortgage Delinquency



**HOME
REPAIR
RESOURCE
CENTER**

*HRRC's HouseMender University and Financial Fitness
Classes are free and open to residents of any community.*

They will be held at

**Cleveland Heights - University Heights
Public Library, 2345 Lee Road**

Reservations requested – call (216) 381-6100

Repairing a “washerless” faucet

continued from page 4

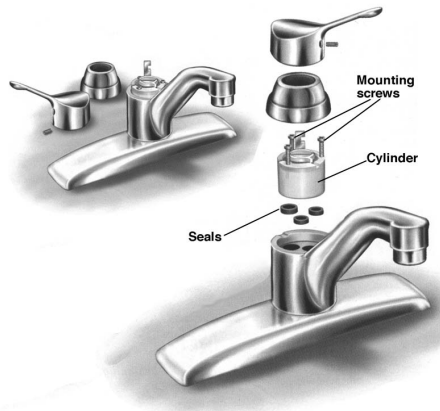
for the retainer clip; press down on the cartridge and slide the clip under the protrusions and into the slots.

Position the stem so that its horizontal notch points toward the sink. Then, reassemble the spout and retainer nut. To replace the handle, the ringed end must slide into the handle body and the rear end must hook over the rear of the retaining nut. After you have reinstalled the screw, test the faucet. If the hot and cold water positions are reversed, remove the handle, rotate the stem 180°, and reassemble.

There are several common types of “washerless” faucets. Most have a single handle that controls both hot and cold water. Despite their name, these faucets do have some washers in them. The replacement parts are generally inexpensive and easily available. It's usually easiest to buy a replacement kit for your make and model that contains the all washers, springs, O-rings, etc., you'll need to replace.

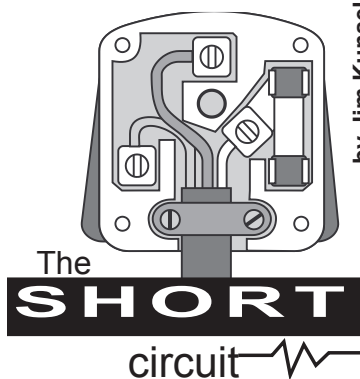
Ceramic-Disc Faucets:

In a ceramic-disc faucet, the cylindrical valve typically contains two discs; when the handle is moved to the “on” position, one disc rotates over another in such a way that holes in both discs align and allow the water to flow. Start by removing the handle and the locking nut beneath it, and then pry out the cylinder. Because the valve is made from ceramic, a durable material that resists damage from grit and sediment in the water, you will seldom need to replace it. However, the inlet seals and/or O-rings are subject to wear. Replacement parts can sometimes be difficult to locate, but removing the old ones and inserting the new is reasonably simple.



Once you have replaced all the parts, reassemble the faucet and turn on the water.

Repairing a leaking faucet is a common home maintenance task. Patience and a bit of manual dexterity can allow you to save the cost of a plumber by doing the job yourself.



by Jim Kunselman

Somehow during the Great Depression, my grandparents managed to come up with enough money to buy a property in Ashtabula County near Pymatuning Lake, so that my great-grandparents would have a place to retire to in their golden years. The house was a post-and-beam cottage, originally built in the 1860's and then moved to the lot around 1910. The place was tiny, with only 480 square feet on two floors. My siblings, cousins, and I loved to spend our summer days out there visiting Great-Grandma in the little house near the lake.

In the mid-1960's, as my grandparents approached their retirement, the family helped add another 240 square feet onto the front of the original structure, for a grand total of 720 square feet. Gramp and Gram lived there happily for 20-odd years after they retired. Most people today would consider a 720 square foot house far too small for them, but some folks are changing their minds about what their needs require and how they impact the world with their "carbon footprint." Smaller housing means lower utility costs to heat and illuminate, and less money to maintain.

With my children gone, I myself am living alone in a 1400 square foot house with my critters (and mortgage). While I still have some time before I'm ready to retire, I'm trying to consider my options for finding a smaller place that will be easier for me to maintain and less costly as I age. I'm hoping I can find a lot in Ashtabula County where I can build (or rebuild) a one-story place, about 500-800 square feet in size and with an outbuilding for a workshop.

When I searching the web for house plans last year, I happened upon the website for Jay Shafer and his Tumbleweed Tiny House Company (www.tumbleweedhouses.com). Jay has been building and living in tiny homes since 1997, and he eventually started a business to sell them. According to his site, he currently lives in an 89 square foot house. (That's 10 square feet smaller than my kitchen, and I certainly can't imagine my two 100-pound dogs bumping around in there, too.) He holds workshops to train others to build their own homes – there's even a fifteen year-old Sonoma County (CA) boy building one to use as his housing for college. Some of the homes are

continued on page 11



[@tumbleweedhouses.com](http://tumbleweedhouses.com)

The Short Circuit

continued from page 10

mounted on trailer frames (65-140 square feet) and can be moved whenever the need or desire arises. These homes range in price anywhere from \$30,000 to \$50,000 if professionally built, and about \$15,000 if you build it yourself. Other plans are available for houses, ranging in size from 250-837 square feet, that are mounted on a stationary foundation.

Another site that I find interesting is the Texas Tiny House (www.tinytexashouses.com). The houses shown on the site are styled to look like 100-plus years old structures. The site says that 99% of the materials the builder uses are salvaged from old structures and then re-used to build these small houses in Texas. As their tagline says: “Building the future with the past.”

Most people today would consider a 720 square foot house far too small for them, but some folks are changing their minds about what their needs require and how they impact the world with their “carbon footprint.” Smaller housing means lower utility costs to heat and illuminate, and less money to maintain.

Both Texas Tiny House and Tumbleweed stress “off-grid” living – using composting toilets, propane or wood stoves for heating, and solar panels for both heating and lighting. They also talk about collecting rainwater for gardening or flushing toilets. While I’ve long been interested in alternative sources for energy and heating, I’m still not quite sure I could give up the luxury of a flush toilet in my residence. (Not that I’m being a wimp about it. When my companion Mary and I visit our hiking club’s cabin in New York, we use an outhouse – even though it gets a bit malodorous in the summer and really cold in the winter.)

Nevertheless, I hope to someday build my own “tiny house,” a structure that is sufficient for simple day-to-day living, as well as an occasional social gathering. As my family lovingly remembers Great-Grandma’s little house in Williamsfield, maybe someday my great-grandchildren will fondly remember their Granddad’s little rustic place in the country....

Operating support for HRRC is provided by individual donations, foundation grants, and HUD Community Development Block Grant funds through the City of Cleveland Heights.



**HOME
REPAIR
RESOURCE
CENTER**

2520 Noble Road
Cleveland Heights, OH 44121

Address Service Requested

Nonprofit
Organization
U.S. Postage
PAID
Cleveland, OH
Permit 1992



216.381.9560 www.hrrc-ch.org