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| <p>November 17, 2009<br/>Tuesday<br/>7:00 PM</p> | <p>Home of Diane Oestreich<br/>816 22nd Street, Rock Island<br/>Website critique and brainstorming.</p>                                                                                                                                                                          |
| <p>December 15, 2009<br/>Tuesday<br/>7:00 PM</p> | <p>Home of Terri and Pete Cone<br/>1604 22nd Street, Rock Island<br/>Please come to this festive social meeting. There will be a potluck of sweets and snacks but don't let it keep you from joining us if you are unable to bring a dish to share – there is always plenty!</p> |
| <p>January 19, 2010<br/>Tuesday<br/>7:00 PM</p>  | <p>Home of Linda Anderson and Bruce Ohrlund<br/>The Ardo Mitchell House<br/>1718 21st Street, Rock Island</p>                                                                                                                                                                    |

Comments and suggestions for Society activities are always welcome, now and in the future!  
Remember to keep the third Tuesday of each month marked on your calendar for monthly RIPS meetings and activities.

## RESTORING OLD WINDOWS

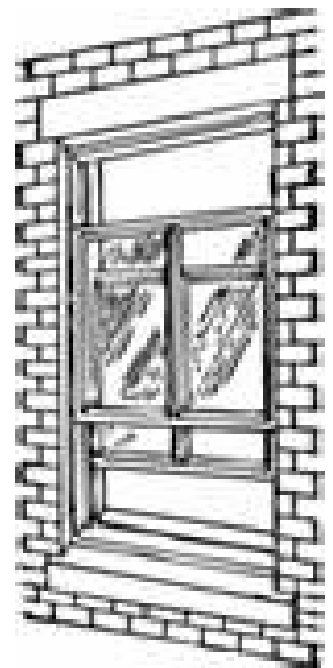
*RIPS member Pete Cone recently undertook the daunting task of restoring the windows of the three season porch on his Highland Park home. At the request of many friends and fellow preservationists, he has written out the procedures he followed in order to restore the original windows. Our thanks to Pete for sharing his expertise!*

### Restoring Old Windows by Pete Cone

This article is about some of the things I learned while restoring windows in my century-old home. This article has been abbreviated, but the full text is available on the RIPS web site [www.rockislandpreservation.org/newsletters/](http://www.rockislandpreservation.org/newsletters/)

Start your project by gathering the tools and supplies you'll need .

- Hammer
- Finish nails
- Nail set
- Small pry bar
- One-inch putty knife
- Scraper
- Razor-blade scraper
- Heat gun (optional, highly recommended)
- Sash cord
- Glazing compound (e.g., Dap 33)
- Glazing points
- Primer
- Paint



*Article continues on Page 2*

# RESTORING OLD WINDOWS

## THE PROBLEM:

The paint is cracked and peeling on the windows, plus the glazing is cracking and missing in places. This lets moisture into the wooden parts of the window, and the wood will rot over time. If the deterioration has gone too far, replacement may be your only option. If the wood is still fairly solid, you can save the window.

### WARNING:

*When dealing with an older home, there is a good chance the paint has lead in it. You can either have the paint tested for lead to be sure, or make the safe assumption that lead is present. There are a lot of publications available on lead paint and how to handle it properly. Follow recommended procedures and remember that lead dust is your biggest enemy.*

## THE SOLUTION:

### A. DISASSEMBLY

To get started, **remove the inside stop molding** that holds the inner (lower) sash in its channel. Use a putty knife or some similar thin blade to gently pry the molding away from the side of the opening. You may need to use a utility knife to first cut through the layers of paint that may be holding this molding in place. Work carefully along the length of the molding to pry it out from the side. The finish nails that hold it in place will be exposed as you pry the molding loose. The nails may come out with the molding, or tear through the wood and stay in the jamb. When you get the molding off, remove any nails that are still embedded in it by pulling them through from the back side of the molding. Do not try to pound them back through the molding. The heads of the nails will splinter the wood around the nails holes. You will then have to fill those holes later when reinstalling the molding. The nails still in the jamb can just be pried out. Discard all the nails and use new nails when you are ready to put everything back in place. The stop molding at the top of the window opening can be removed if it will make the job easier; it will not interfere with removing or replacing the window sashes.

Now **remove the lower sash**, which should be free to pull out of the opening. Pull one side of the sash clear of the opening so you can see its side. The sash cord will come through a pulley at the top of the jamb, extend down through a slot in the side of the sash, and have a knot in its end that fits in a hole in the side of the sash. Usually there will be a small nail that holds that knot in the hole so it can't pull out. Holding the sash cord securely against the tension of the sash weight, remove the nail and gently pull the cord away from the sash. Do not let the sash weight drop. Make sure the sash is steady on its perch and carefully let the sash cord retract up into the pulley. If the weight does not come to rest at the bottom of the pocket it rides in, you may have to run another nail through the knot to keep the end from disappearing into the wall.

Repeat for the other sash cord. Once both weights are disconnected from the sash, you can remove the sash

from the window opening. Place the sash in the area you have set up for working on the windows. One thing to keep in mind when moving and working on these old windows is that the glass will likely be chipped or cracked along its edges, and those small defects can cause the glass to break without warning if not handled properly. Keep the window sash vertical until the glass has been removed.

Unless the upper sash is already able to move up and down freely, you won't know if the sash cords are broken. The only thing holding up the full weight of that sash might be the paint that is lodged in its channel. Take a length of two-by-four or other sturdy prop and place it under the upper sash to support its weight. Then **remove the stop molding** (parting stop) that lies in a groove between the two sashes. Again, use a utility knife to cut through any paint that is holding this piece in place. There will be small finish nails holding this molding in place. This molding is usually available at hardware stores, and it will be easier to just replace it.

Once the inner stop molding is out, you are able to **remove the top sash**. You may need to pull on the sash to break loose the paint on the outside that is locking it into the opening. Once it is free, disconnect the sash cords the same as was done for the lower sash.

During the removal of the upper and lower sashes, take notice of any weather stripping that might be present. This can sometimes be reused. If none is present, or it is badly damaged, you can use plastic V-channel or other weather stripping that will fit your application.

### B. REPAIR

Once both sashes are removed, it is time to **replace sash cords**. There are two upper and two lower cords. To replace a cord you need access to the weight. Toward the bottom of each jamb is a section that is cut away from the rest of the jamb. Remove the nails or screws used to hold this section in place. The access panel can be pried carefully out of its pocket, exposing a cavity behind the sides of the jamb. There may be just one panel that gains access to both weights, or one for each weight. If a cord was broken, the weight should be resting in the bottom of the cavity.

Work on the sash cords for the upper sash first. Remove the weight from the cavity. Cut a length of sash cord with enough extra for the knots using the length of the old cord as a guide. If the old cord was missing, get the length from the pulley down to the top of the weight as it rests in the bottom of the cavity and use that length to cut your cord. Fish the cord through the pulley and down through the cavity until you can reach it through the access opening. Tie a knot at the upper end of the cord, and use a nail if necessary to prevent it from falling through the pulley opening and down the cavity. Tie the lower end of the cord through the hole in the weight with a strong knot. A square knot or a sheep shank will work well. Place the weight back in the cavity. When you pull the upper end of the cord through the pulley,

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*Continued* the weight should move freely up and down in the cavity. Do this for both of the upper sash cords.

Using the same technique, now replace the cords for the lower sash weights. Once you have good sash cords for both sashes in place, you can begin the **removal of the old paint and finish** on the window jamb, if needed. Remember to follow the proper procedures for handling lead paint waste. I used a heat gun and scraper for removing the old paint from the window jamb. After removing the paint and old shellac finish from those areas, I sanded them smooth (wetting the surfaces to control dust). I used an oil-based primer on all the bare wood surfaces, followed by latex enamel paint. If your windows are stained and varnished instead of painted, you can refinish them.

You will need to use the heat gun to **soften and remove the old glazing** that remains around the glass. Do not let the heat gun apply too much heat directly on the glass. Work your way around the sash, carefully scraping away the old glazing. Once the glazing is removed, remove the old glazing points (small metal tabs that hold the glass in the sash) with your putty knife. The glass will still be sticking to the inside of the sash, so gently break it loose with a putty knife so the glass can be lifted out. Remember to keep the glass vertical as you remove it. Set it down on a tarp or old rug for cleaning. Use a razor blade scraper to remove old paint and glazing from the glass. Work slowly and carefully to avoid breakage.

Now **remove paint and any remaining glazing from the wooden sash**. Inspect any seals still on the sash, and remove them if they need replacing. Once the paint is removed, sand the roughness off the bare wood. Prime the entire sash, except the sides that will contact the jamb. Be sure to prime the pocket where the glass will rest. Allow the primer to dry completely.

To **prepare for the glass to be placed back** into the sash, you need a small bed of glazing for the glass to rest in. Remove a working amount from the can and knead it in your hands. This will mix and soften the glaze, making it much easier to work with. Then form a thin bead around the entire sash where the glass will rest. Only about 1/16-inch thickness or less is required. This will form an inner seal, but you don't want it to be thick. Once this is ready, being sure the sash is now propped up in a nearly vertical position, carefully set the glass back into the sash. Gently press around the edge of the glass to seat the glass into the glazing. New glazier's points should now be installed around the glass to hold it firmly in place. "Push points" work well because they have a tab so you can push them in with a putty knife.

Now add the triangular bed of **glaze around the sash**. This will require some practice to get smooth, uniform results. You should knead a ball of glazing compound about the size of a golf ball at a time, roll it into a rope about 1/4-inch thick, and lay it in place against the glass. Using a clean putty knife held at a fairly flat angle, draw the knife along the entire length of the bead, one side at

a time. Work slowly, and angle the putty knife blade so the inside edge of the glazing matches the height of the wooden sash on the other side of the glass. Try to get a good, smooth finish on the glazing in one pass. The more you go back and try to "tweak" the bead, generally the worse it looks. Don't get discouraged at the first few attempts. If it looks bad, just remove the glaze while it's still soft, and start over. It will get better with practice.

The finished glazing generally needs a few days to firm up enough to paint. An oil-based primer should be applied over the glazing to **seal it from the weather**. Once dry, the entire sash can be painted. Again, leave the sides that will contact the jamb unpainted to avoid the sash sticking in its channel.

### C. REASSEMBLY

When the **upper sash is ready to go back** into the opening, rest it in the opening. You might need some help in steadying the sash as you work. Next, grab the knot on the end of one of the sash cords and pull it down to the sash. You should be pulling against the weight during most of its travel. Push the knot into the hole in the side of the sash, and guide the cord into the slot. Tap a one-inch finish nail into the sash so it will prevent the knot from pulling out of the hole. Repeat with the other sash cord. As you affix the cords to the sash, the weights will begin to support the weight of the sash. The sash at this point is basically ready to slip back into its channel in the jamb.

At this point, the issue of the **weather stripping** should be addressed. I reused the original zinc strips on the upper sash, and those were nailed in after the sash was in place. If you found no weather stripping on your sash, or it couldn't be salvaged, you can try adding a plastic "V" weather strip to the outside surface the sash will ride against, and possibly another on the inside stop molding. The tightness of the fit will limit how much thickness you can add without the sash binding in the opening. The sash should have a firm feel to it once the stop molding is in place, but still move up and down without a lot of force.

The **stop molding is installed** against the upper sash next. It should be primed prior to installation, but finish painting can be done afterward. The upper half that contacts the sash will not need paint, but the lower half that will show will need to be painted. The one thing you will want to avoid is having two painted surfaces in contact. If you end up with two such painted surfaces in contact, just apply a thin coat of petroleum jelly to the edge of the jamb before sliding the sash into its channel and installing the stop molding.

Next **install the lower sash** into the channel the same way, installing the sash cords and sliding it into its channel. Use weather stripping on the lower sash as required. Remember, this sash will be doing most of the sliding up and down, so make sure it moves easily. I used the self-stick "V" strips on the inside and outside of the lower sash, plus I added a 1/8-inch thick felt strip to each side.

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*Continued from previous page* This helped seal the sash, and eliminated the “rattling” around in the opening due to the loose fit on the sides. The extra thickness of the “V” strips on both inside and outside of the sash is okay on the lower sash. The molding that holds this sash in place can be positioned to give the amount of tension against the sash that you want. Now nail the inside molding to the sides of the opening. Use appropriate finish nails, making sure the sash moves freely. Set the heads of the nails just below the surface of the wood with a nail set and fill the holes. The final paint finish can now be applied.

**Replacing the hardware** is the final step. I used orange paint stripper to remove the caked-on paint from the lock and other hardware to get the lock moving freely. You can install new or salvaged hardware, depending on your goals for the restoration. When done, both windows should be movable and able to be locked. The locking mechanism serves to pull the two sashes together tightly at the meeting rails, providing a better seal against drafts.

### ENJOY!

When you're done, you will have a finished product to be proud of. You can bore your friends and family with the details. It's a great feeling of accomplishment to have restored the windows that were there when the house was new.

## WEBSITE UPDATE

**It is time to update our website and we need your help!**

**Go to [www.RockIslandPreservation.org](http://www.RockIslandPreservation.org)**

What do you see that needs to be improved?  
And what would you suggest to help improve it?

**Please come to the November Meeting with your ideas and examples of other websites which have features you would like to see incorporated into the RIPS website.** They don't have to be preservation or historic sites, just sites that caught your attention and made navigation easy. If you can't make the meeting, email suggestions and links to Diane Oestreich at [blueskies78900@yahoo.com](mailto:blueskies78900@yahoo.com). You may request that your suggestions remain anonymous.

## PRESERVATION AWARDS

Take a look around your neighborhood and around town and make note of restoration projects that are finishing up for the season. We will be looking to honor our neighbors who make preservation a priority on their historic home or business.



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