

## COZY HOME CORNER

By the Zerodraft House Doctor

### Stopping Drafts and Improving Comfort in Historic Homes and Older Buildings through Cast-in-Place Gasket Air Sealing

**Air sealing single-glazed, metal-framed operable windows in historic homes and older buildings can improve the durability, energy efficiency and comfort.**

If you are fortunate enough to own an historic home, you are probably only too aware of this particular comfort and energy drawback. Warped, twisted, pitted and rusted metal-framed, single-glazed operable windows in your historic home are letting in so much air you can't sit beside the window in winter. But you can't replace them, because they're historic.

You **can** air seal them. It's a little more difficult than simple weatherstripping, but the dividends in terms of increased comfort and decreased energy bills is well worth the extra effort.

To get the job done, you'll need some silicone caulking and 1-inch strips of 2-mil clear plastic.

Start by cleaning the bearing surfaces thoroughly using a wire brush and alcohol or mineral spirits.

Install a bead of silicone caulking onto either the frame or the bearing surface, depending upon which gives you the ability to apply a consistent bead all the way around without any breaks (see Figure 1). The frame is your first choice, because you can have the caulking gun outside away from obstruction. For bigger gaps, apply a slightly larger bead of silicone.

Next, apply a one-inch band of the 2-mil polyethylene plastic over the caulk (see Figure 2). Do it gently. Close the window slowly to squash the caulking under the plastic, allowing it to conform to the shape and width of the gaps (see Figure 3).

Leave the window closed for at least three days to allow the silicone to cure properly. After it has cured, open the window, carefully remove the plastic and then trim the excess caulking (see Figure 4).

Don't forget to caulk the trim and loose glass panes using clear siliconized latex to complete air seal continuity.

This cast-in-place gasket method of air sealing operable historic windows can also be used on other types of windows to improve occupant comfort and energy efficiency.

