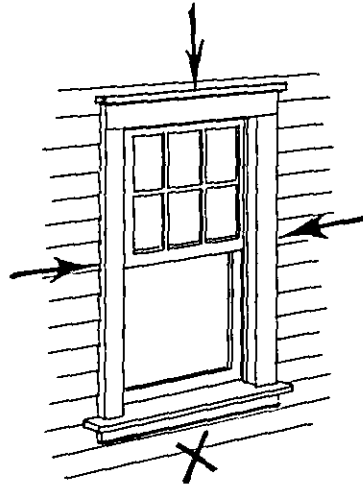


SEVEN WAYS to

WHEN COLD WEATHER SETS IN, old houses tend to feel it first. Given their seasoned construction, some lose heat through conduction (transfer through materials), but even more escapes via infiltration (air movement through cracks and joints).

The secret—if there is one—to making an old house more thermally efficient and comfortable in cold weather is limiting the opportunities for these losses. It's picky work, but low-tech in terms of skill and materials. Plus, it more that pays for the minimal materials costs. As you work your way around the building this fall, look to improve the following key weatherizing areas—and keep your caulking gun handy.

by The OHJ Technical Staff

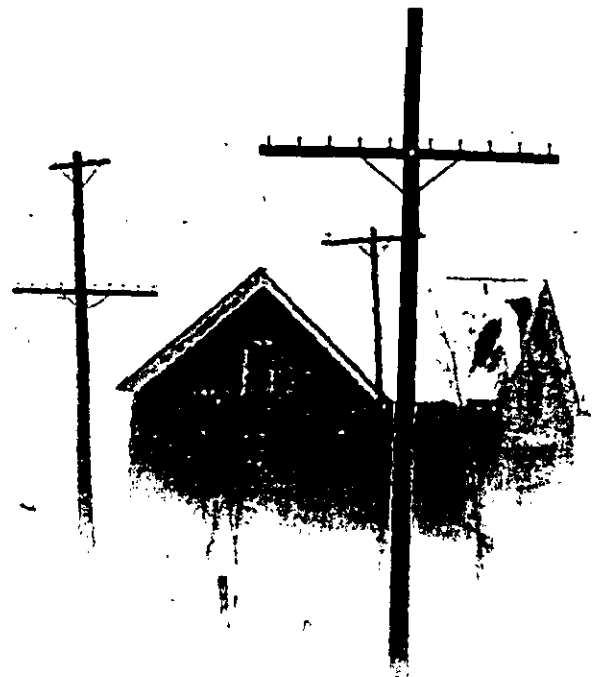


1) Seal window and door exteriors

Caulking all around the frame, especially where trim edges meet shingles or clapboards, helps prevent air and water infiltration through these joints and gaps in the building envelope. (It improves the paint job too.) Also caulk joints between dissimilar building materials, such as where wood meets stone. However, do not caulk the undersides of windows or doors, or where clapboards lap. These spaces are important exits for moisture vapor. Clear silicone or polyurethane caulks are good for this work; where the surface will be painted choose good-quality acrylic-latex caulk.

2) Point up foundations

Many old houses sit on stone, brick, or concrete block foundations. As this masonry settles slightly or wood sills shrink, gaps can appear at the sill line. Before addressing any large air leaks with caulk, trowel them closed with mortar.



WEATHERIZE

3) Inspect weatherstrips on doors

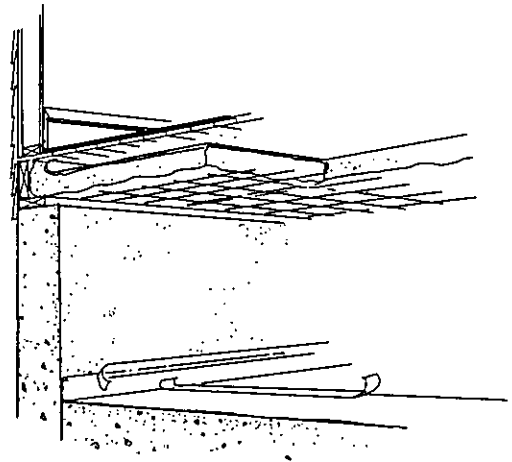
If your exterior doors have surface-mounted weatherstrips, such as rubber bulb seals along the jamb or sweeps along the floor, check their seal by looking for drafts with a lighted stick of incense. Then adjust if necessary. Inspect integral spring-metal weatherstrips for bent or missing sections and repair.

4) Check fireplace dampers

Most fireplaces built since 1900 have dampers just above the firebox that close off the flue to limit heat loss when it's not in use. Make sure the damper is not damaged by age or stuck open (or shut) because of fallen debris. Call in a chimney sweep for major problems.

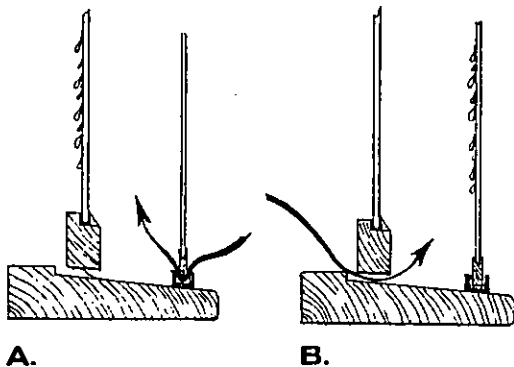
5) Insulate unheated crawlspaces

Install rolls of batt insulation in the bays between upper floor joists. Staple wire mesh or rabbit fencing to the joists to hold the insulation in place. Though it's been said many times before, place the vapor retarder (foil or other facing) towards the living space, not towards the ground. Also, install batts so there is an air space between the vapor retarder and the subfloor, and block the ends (to prevent moisture from entering the air space). Finally, lay medium-weight polyethylene sheeting across the ground (to block moisture migration) and tape joints.



6) Check storm windows and sashes

Storm windows not only protect the main window from winter rain and snow, they slow heat loss by creating a dead-air space - however, only if they are tight enough to limit air movement. Make sure storms fit snugly all around the window frame, leaving only a small weep hole to permit moisture vapor to escape. Loose storms are not only ineffective, they promote frost on the indoor window surface (A). Sashes should be equally tight or they will lead to frost on the storm window (B).



7) Seal all attic penetrations

Pipes, vents, hatches, recessed lights, and cracks that penetrate the second-floor ceiling are easy avenues for heat loss. Even more important, they allow moisture vapor to migrate to the attic, where cooler temperatures cause it to condense into liquid water that saturates insulation or freezes into frost. Close off large penetrations with plywood or wallboard, then seal all joints and cracks with clear caulk.

