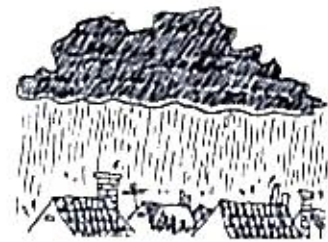


The Damage Water Can Do To Your Chimney and How You Can Prevent It

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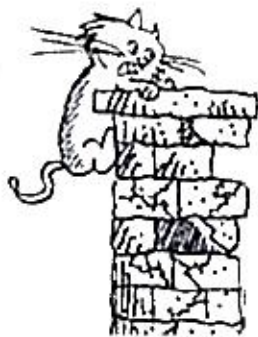


Water, wind and weather carved out the Grand Canyon, and if we do nothing to thwart them, the same awesome forces cause slow and persistent damage to our homes year after year.

Unprotected chimneys and foundations crumble, roofs leak around faulty flashing, gutters clogged with debris overflow, neglected wood siding deteriorates, and wood structure rots.

The durability of a chimney depends most of all upon its ability to resist water penetration.

Brick, stone and concrete are not as solid as they look. They expand and contract. Masonry absorbs moisture and heat at different rates, which causes movement. Untreated masonry is very porous, readily soaking up water.



Movement of the sun across the sky causes differential expansion – as temperatures on the sunny side of the chimney rise, those on the shadow side fall. This can lead to cracking of mortar joints.

Even a chimney retired from use can give entry to

damaging rain and snow melt-off.

A masonry chimney must be protected from the elements, and serviced yearly.

Here are some harbingers of trouble:

- Damp spots on the inside wall or near the chimney
- Water running out of the base of the chimney
- White powdery stains or black sooty ones on the outside bricks
- Broken tiles or mortar
- A rusted damper assembly in the fireplace
- Irregular “rumbling” sounds when the furnace starts up (which could mean your furnace is malfunctioning because the flue is blocked with soot and debris washed down by water in the exhaust gases).

If you note one or more of these signs, have your chimney inspected by a professional.

Exterior damage is easy for the practiced eye to spot, but problems inside the flue are a tougher call. Some sweeps do an inspection with flashlight and mirror; others run a video camera into the flue and study it on a closed circuit monitor.

High efficiency gas or oil fired appliances venting into an unlined chimney or an oversized clay-tile liner can result in high volumes of acidic condensation collecting on flue walls and causing severe damage. Mortar and masonry can be eaten away, rendering a chimney unsuitable for further use.

Another common occurrence is for soot and debris to be washed down and plug the flue soon after installation of a high efficiency appliance. This presents the threat of carbon monoxide poisoning when the colorless, odorless product of incomplete combustion spills into the house.

In such cases, the appliance needs its own code-compliant vent pipe running up inside the length of the chimney. Many sweep companies offer this installation service.

A neglected chimney can predispose a house to catching on fire. Flames from a creosote fire can escape to the structure of the house through a cracked flue. Or excessive heat radiating through chimney walls can heat up nearby combustibles to the point of spontaneous ignition.

If damage is not too severe, a chimney can be repaired. It will need shielding on the outside from excess moisture and acidic exhaust gas condensation on the inside.

A spray coat of a water-repellent product made for masonry applications is your best defense against wind driven rain and snow. Many sweep companies offer chimney repair/protection services.

Do NOT, however, allow the use of a waterproofing compound that seals the surface. A chimney must “breathe” in order to allow water vapor to pass through. Otherwise, trapped vapor can undergo freeze/thaw cycles

that can cause structural damage.

Installing a rain cap on your chimney is another smart move. Ask your chimney sweep to show you a selection of chimney caps appropriate for your situation.

Because home improvement rip-offs abound it is essential that you check credentials and ask for customer referrals from anyone you



hire for chimney work. I suggest you use a CSIA* Certified Chimney Sweep® or one who has been around long enough to build a reputation in the community for know-how, skillful work and high integrity.

**The Chimney Safety Institute of America in Plainfield, IN is a non-profit educational body dedicated to chimney and venting system safety. For the names of CSIA Certified Chimney Sweeps in your area, go to www.csia.org or call 317-837-5362.*

