## Who's That Top-Hatted Gent on the Roof?

BY JOYCE BUPP Staff Correspondent

SEVEN VALLEYS - Don't be startled someday if you happen to glance skyward and see a tophatted figure perched atop a neighborhood roof.

It's not Superman in formal attire, but more likely your local chimney sweep.

A chimney sweep is a kind of inexpensive insurance against a seasonal hazard: chimney fires.

Just as sure as October's foliage turns to yellows and reds, so chilly October evenings turn many homeowners' thoughts to fireplaces and woodstoves. But lurking behind the cheery orange glow and pungent woodsmoke scent is danger, in the form of a tar-like deposit called creosote.

Creosote is formed by chemical changes which occur when wood is heated. Heat causes gases and tiny liquid droplets of tar and water to be released in smoke.

While wood begins chemically breaking down at 500°F, the gases that fuel a fire will ignite only if the fire's temperature is over 1100°F. For maximum efficiency of combustion, that high temperature must be maintained.

Since wood burning is never totally efficient, a certain percentage of the fuel is lost in smoke. Because chimney and stove pipe surfaces are cooler than the fire, the tars and gases in the smoke



That residue buildup, creosote, is highly volatile.

That's where chimney sweeps, like Ken Klein come in.

Klein is by profession a paramedic and former firefighter for Baltimore County, Md. About two years ago, while waiting in a hospital for his son, he happened to flip through a magazine and spotted information on chimney

Having been considering starting his own business, and with some experience of chimneys and chimney fires from his firefighter background, Klein figured chimney sweeping might be just the answer.

Armed with equipment that included a commercial vacumn cleaner, various sizes of ladders, assorted stiff wire brushes, extender rods, and miscellaneous small cleaning tools, Klein offered to clean the chimneys of his friends, free, for the experience.

With that practical experience. plus studying that he did on his own, Klein began advertising his sideline. Meanwhile, his friends, now with clean chimneys, told their friends, who told their friends, and Mason-Dixon Chimney Sweep, at Seven Valleys R2, was in business.

A protective tarp goes down first when a chimney and fireplace or woodstove is in line for a cleaning. That protects carpets and floors from the soot.

If the chimney is safely accessible from the house roof, Klein, wearing his top hat that is the classic symbol of a chimney sweep, heads up a ladder or TV antenna tower. Using long handled brushes, he can sweep the upper portion of the chimney by reaching down from the top. If a homeowner prefers, a cover can be installed that helps keep birds and debris from falling down the flue.

Many chimneys can be cleaned from the inside of the fireplace, reaching up with extender rods on the brushes. While that may be safer than climbing about on the roof, the creosote and soot brushed down falls on the sweep crouching in the fireplace interior.

Thus, the classic image of chimney sweep, dusted and smudged from head to foot with soot, is fact.

Chimney sweeping is dirty work. Rosalie Klein sometimes assists her husband on the sweeping jobs, helping to operate the vacumn cleaner that whisks the soot away, and handing him the necessary tools as he works in the cramped chimney spaces.

Smoke chambers and smoke shelves are also carefully cleaned, since soot and creosote builds up in these spots, and the sides and floors of fireplaces are brushed and swept. Woodstove systems are taken apart and thoroughly brushed down.

"For fireplace burning, a chimney should be cleaned whenever the creosote buildup reaches a quarter-inch thickness.' says Klein. "Woodstoves or fireplace inserts need cleaning at least once or twice a year.

Stoves are more efficient fuel users than fireplaces, but can coat with residue very quickly if burned at low levels. Low settings cause



Rosalie Klein lends a hand as the "go-fer," and as tool assistant when Klein is working inside a fireplace interior.



Respirators help protect chimney sweeps from soot that can accumulate in lung deposits, causing serious disease.



Sporting the top hat symbolic of chimney sweeps, Klein heads up a ladder to perform the valuable service of helping prevent chimney fires.

wood to burn more slowly, at cooler temperatures, and cause heavier deposits of creosote.

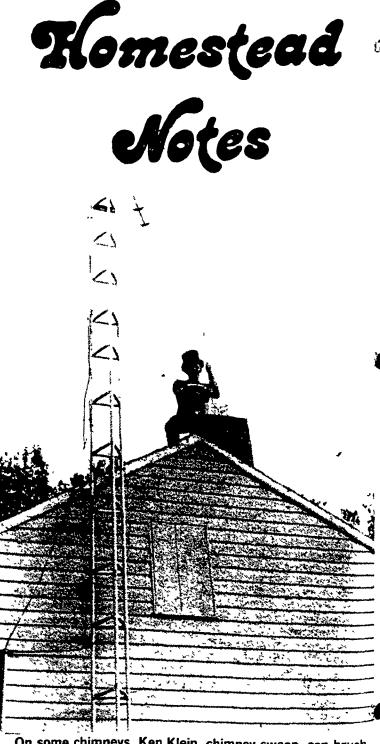
"A small, hot fire, burned at least a half-hour or hour a day in a woodstove, helps cut down on creosote deposits," Klein recommends. "But every wood-

stove system should still be cleaned out at least annually.'

Burning green or wet wood also causes heavier deposits of creosote. Instead, wood should be air dried, preferably outside.

One of Klein's "horror" stories is

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On some chimneys, Ken Klein, chimney sweep, can brush out much of the flue from the rooftop, using long-handled wire brushes with extender rods.