## How to Sweeten Up Your Library

Richard D. Smith, Ph.D., is President of Wei T'o Associates Inc. Wei T'o is an ancient Chinese god, protector of books from destruction by fire, worms, insects and robbers. Mr. Smith and his associates are actually more concerned with acid. Until about 1850 the paper in books had a high rag content and posed no problems. Then publishers began using wood pulp paper and the books began deteriorating.

As a book gets older its acid content goes up. Heavy deterioration begins when it is around 56 years old. At 90 to 100 years its pages will crack when they are turned.

Dr. Smith is the inventor of a deacidification process that can restore books to their youthful vigour at a cost of about \$4 each. The process (which was refined by the York division of Borg-Warner) has been installed at Canada's Public Archives and National Library where it is used to process 150 books in eight hours, day after day after day. It liquifies and de-liquifies gas, back and forth-somewhat as in the cycle of a refrigerator. The books are placed in a wire basket and shoved into a pressurized tank. There they are flooded with a solution supplied by Wei T'o. After they're soaked, the excess liquid is drained into a storage tank. The pressure is reduced and the process tank is emptied. The books are then flash-dried in a few minutes. They look exactly as they looked before the treatment, but they will now survive uncracked for centuries.

The Canadian Public Archives was the central force in putting the process together, and they are



interested in having other libraries adopt it. Those wishing more information may write to Records Conservation, Public Archives Canada, 395 Wellington Street, Ottawa, Ontario K1A 0N3.

## Burn Your Own Smoke



The Dorwood Futura furnace has a catalytic combustor. It burns all kinds of wood and it burns the creosote that causes smoke and gases too.

The catalytic combustor is a pyroceramic honeycomb, five-and-a-half inches in diameter and one-and-a-half inches thick, coated with a catalyst made mostly of palladium.

It sits in a chamber on top of the stove and reduces the ignition point of smoke from 500°F (260°C) to about 300°F (75°C). This causes the smoke to burn before it goes up the chimney.

The Dorwood Futura heats up to 2,000 square feet. It is 33 inches high, 24 inches wide and 21.5 inches deep. It can burn seventeen-inch logs and it can, with adjustments, burn coal. It is made of heavy steel plate and has a ceramic glass door. It costs \$850 to \$900 Canadian.

The more creosote or air pollutants the wood produces, the better it burns—which means that wet pine burns as cleanly as dry birch.

For more information write or call Dorwood Industries Ltd., 2901 Sturgeon Road, Winnipeg, Manitoba R2Y 0L4, (204) 837-7857.