

Home heating costs reduced

The Ontario government recently opened Howland House, a demonstration centre for home renovation and energy conservation.

Located in downtown Toronto, the semi-detached three-bedroom house was built in the 1880s. It was selected by the ministry because it was worth preserving, being attractive and structurally sound.

The house required extensive improvements (totalling \$150 000) to bring it up to modern standards and give it a new lease on life. A principal measure of cost cutting, was the installation of a natural gas furnace which operates at 92 per cent efficiency.

The Clare "Megasave I" furnace was selected and features improved heat exchangers, electronic spark ignition and a low temperature exhaust. It produces so little waste gas that it only requires a 76-millimetre plastic vent pipe, in place of a chimney.

Designed and engineered by Clare Brothers of Cambridge, Ontario, the "Megasave I" utilizes electric ignition which eliminates the constant use of fuel by the pilot light in conventional furnaces. In addition, a standard feature of the furnace is an automatic, dual set-back clock thermostat which lowers and raises the temperature of the house at

preset times.

Other energy conservation measures employed at Howland House include super-insulation, triple-glazed windows and insulated draft-proof doors. Howland House was so well insulated and airtight that space heating requirements were reduced to such an extent that purchase of efficient heating equipment was not really justified.

However, a high-efficiency natural gas furnace was installed at Howland House as a demonstration of a technology which may be suitable for homeowners who still face high annual heating loads.

The energy conservation measures and renovations at Howland House are expected to reduce the home's estimated heating bill for the 1982-83 season by more than 90 per cent to \$100 from the previous season's \$1 400.

The Ontario government has established the goal of improving the energy efficiency of Ontario households by 30 per cent by 1995. Howland House is intended to aid homeowners of new and older residences to accomplish this goal.

Canadians better educated — census

Canadians became better educated, more active in the labour force and more prone to live in rural areas during the past decade, the 1981 census reveals.

The new national profile painted by the census, parts of which have been released by Statistics Canada, also shows increasing numbers of people working at white-collar jobs and living in bigger houses.

Although houses contained more rooms than in 1971 — more than 551 000 included three or more bathrooms in 1981 — fewer people lived in each dwelling.

Among the most dramatic statistics noted in the census are those concerning the labour force, which grew by 40 per cent during 1971-81, exceeding 12 million people.

No reason was given for this growth, but the maturing of the so-called postwar "baby boomers" and an influx of women into the labour force are probably responsible.

This large increase occurred at a time when the country's population was growing by only 1 per cent a year, reaching 24.3 million in 1981.

Twice as many adults had a university education in 1981 as in 1971. Almost 1.5 million people, or 8 per cent of all adults,

had a university degree in 1981, compared to almost 719 000, or 4.8 per cent, in 1971.

The number of adults with less than a Grade 9 education decreased to 4 million, or 21.9 per cent of the population, from 5 million or 33.3 per cent.

Changes in work

The type of work being performed by Canadians underwent several changes during the 1970s, generally showing an increase in white-collar jobs.

There was a 138 per cent growth in the number of people working in such fields as social sciences, social work and law, a 118 per cent increase in the managerial and administrative categories, a 105 per cent growth in artistic, literary and recreational occupations and a 72 per cent increase in natural sciences, engineering and mathematics.

Nevertheless, the largest occupational groups remain in the clerical field at 2.19 million, or 18 per cent, sales at 1.15 million, or 9 per cent, and service with 1.43 million, or 12 per cent.

Women made considerable gains in some male-dominated professions. There were five times more women engineers; six times more lawyers, three times as many accountants and more than four times as many bus drivers as a decade ago.

A back-to-the-country trend first noticed in the 1976 census was reinforced in the 1981 survey.

"The 1970s were the first decade in Canada's history to record a faster growth rate for rural areas than for urban areas," according to Statistics Canada. "Since 1976, the rural population has grown by 8.9 per cent — almost double the urban growth rate of 5 per cent."

For the first time since the 1930s, there was no decrease in the number of people working in agriculture. The figure remained at about 481 000, although the number of such workers as a percentage of the labour force fell to 4 per cent in 1981 from 5.6 per cent in 1971.

The rapid aging of the general population, new lifestyles and declining fertility resulted in the average number of people in a household declining to 2.9 from 3.1.

One-person households increased by almost 40 per cent and households larger than seven people decreased by more than 40 per cent.

Single-parent families increased by 28 per cent to 714 005 in 1981 from 559 300 in 1976. However, such families comprise only 11.3 per cent of all families, compared to 13.6 per cent in 1931.



David Peters of the Ministry of Municipal Affairs and Housing shows the Clare "Megasave I" gas furnace.