

Walkie-talkie inventor receives Order of Canada

Burnaby man credited with vast range of inventions

By **CHERI HANSON**

Hip problems keep Donald Hings in a wheelchair most days, but the Burnaby man credited with inventing the walkie-talkie stood proudly Thursday as he received the Order of Canada from Governor-General Adrienne Clarkson at a ceremony in Vancouver.

Hings, 93, said it meant "a tremendous amount" that Clarkson and her husband, John Ralston Saul, travelled from Ottawa specifically to present the award at the University of B.C.'s Museum of Anthropology.

Receiving the honour in Vancouver was wonderful, he said, because travelling to Ottawa "was a little out of my range of capabilities."

While the walkie-talkie is Hings' most famous invention, he holds more than 50 patents, including those on an aircraft landing system and the electronic piano.

Born in England in 1907, Hings emigrated to Canada at age three with his mother. They first settled in Lethbridge, then moved to New Westminster several years later.

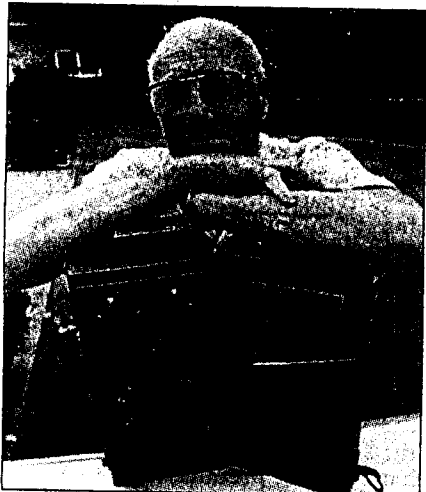
As a teenager, Hings relocated to the B.C. Interior near Rossland, but was never educated beyond elementary school level. He has no formal or post-secondary training in engineering or any other discipline his work has covered.

"He was one of the great pioneers in the field," said his grandson Morgan Burke. "It was so new, he just made it up as he went along."

In the 1930s, Hings worked with Consolidated Mining and Smelting Company (now Cominco) to develop radio communication lines that enabled company surveyors and bush pilots to communicate across northern Canada. He also designed and developed a two-way air-to-ground communications network for mining exploration in the Yukon, Northwest Territories and B.C.

Thursday's ceremony brought back strong memories of the North, said

See **WALKIE-TALKIE B7**



VANCOUVER SUN FILES

Donald Hings in his Burnaby backyard with the walkie-talkie he invented while working for Cominco.

THE VANCOUVER SUN, FRIDAY, AUGUST 17, 2001

LOWER MAINLAND

Walkie-talkie design had origins in the bush

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Hings as tears shone in his eyes.

"If you've ever stood on a frozen mountain where the sun never sets, and you're being bombarded with gamma rays from outer space, then you realize just how big you are."

During the Second World War, Hings worked with the National Research Council to develop military communications. An earlier compact bush radio design laid the groundwork for development of the "C-58 wireless set," later dubbed the "walkie-talkie."

The design was revolutionary, allowing wireless communication between troops in battle. The model had variable antennas and power supplies for maximum field versatility, a voice scrambler to prevent eavesdropping, and a special filter to eliminate transmission noise. Hings patented the walkie-talkie, and offered it to the government and British high command without royalties. He said it was his contribution to the war effort.

Although Hings has always been modest about his invention, about 18,000 walkie-talkies were built and shipped overseas, where they saved the lives of Canadian and Allied soldiers fighting in Europe. After the war, Hings and his wife moved from Ottawa back to B.C. He had stood on north Burnaby's Capitol Hill at age 10 during a Boy

Scout trip and vowed he would settle there. In the late 1940s, he and his wife Rakel built their home in that very spot.

He still lives in the house, although Rakel died in 1999. His four children, daughters Doreen, Elaine, Mary-Lynn and son Don, all live in the Greater Vancouver area, and he receives frequent visits from his 14 grandchildren and 30 great grandchildren. On Capitol Hill, Hings not only purchased the land for his home, but nearly two-and-a-half city blocks surrounding the spot to build his business, Electronic Laboratories of Canada Ltd. As president and chief engineer, he oversaw contracts with the department of national defence, Noranda Mines, and B.C. Marine Plastics, among others. The company was housed in a large complex of buildings, connected directly to Hings' home. The proximity was convenient for the insatiable researcher, but also provided a great place for his grandchildren to explore.

"They were full of this fabulous old mad scientist stuff," Burke said, "and he would always be in there tinkering away."

Burke said a childhood fascination with his grandfather's research led to his own scientific career in sub-atomic and particle physics software at UBC's TRIUMF laboratories. "He's always been my hero."

From his Burnaby lab, Hings

continued to patent inventions and work on contracts for communications, radar technology and geophysics, well past his retirement. He continued to conduct lab experiments, purely for his own interest, until it became physically impossible a few years ago.

Long-time family friend Bob Calderwood nominated Hings for the Order of Canada. "I saw all these other people being honoured for their contributions, and I thought, 'I know a guy who's done something for Canada.'"

After a few months of research and help from Hings' children, Calderwood sent off a letter with full documentation of Hings' patents and accomplishments.

While preparing the nomination, Calderwood said he gained great appreciation for the vast scope of Hings' research and even learned the Seattle-based Microsoft Corporation had named Hings among Canada's top 10 inventors.

Hings is also a member of the Association of Professional Engineers of B.C., the Association of Professional Engineers of Ontario, and the American Geophysical Union. In 1946, he was honoured as a Member of the British Empire for his contributions in radio communications during the war. Two months ago, Calderwood learned Hings would be honoured by his country. "I was so happy. ... It's just unbelievable what he's done."