in the top companies list.

Northern Telecom's data processing revenue now accounts for \$568 million. compared with total revenue of \$2.05 billion, most of which comes from telecommunications products. The increase in the company's computer hardware activity is largely because of the acquisition of the U.S.-based Sycor Incorporated and Data 100 Corporation, which pushed the Canadian ownership figures to 35 per cent from 23.1 per cent a year earlier.

IBM Canada's total domestic revenue showed a healthy 22.4 per cent increase, higher than the parent company's worldwide revenue growth of 14.7 per cent.

Nine new companies appeared on the list. The 109 companies surveyed had total revenue in fiscal 1980 of \$3.87 billion, an 18 per cent increase, which was slightly higher than the 17 per cent predicted by Evans Research a year ago.

Canadian National Railways plans to spend \$500 million by 1990 to upgrade its 1,083-kilometre line between Prince Rupert and Red Pass Junction in British Columbia, where it joins the main CNR line to Vancouver, reports Canadian Press.

CNR plans to upgrade line

Major coal and grain terminals are planned for the north coast port of Prince Rupert. By 1995 "we should be well advanced with double tracking the line" said Ross Walker, CNR mountain region vice-president.

The bulk of investment in this decade will be concentrated in the years 1982 through 1985, with spending on heavie rail for much of the 748 kilometres of line between Prince George and Prince Rupert, the extension of sidings, improvement of signalling, purchase of rolling stock and provision of maintenance facilities.

This year the railway will spend \$12 million on its north line, which was opened in 1914.

The big push will come next year, in an effort to meet coal traffic to Prince Rupert from new mines being developed in the northeast of the province by Teck Corporation of Vancouver and Denison Mines Limited of Toronto.

As well as coal, there will be increased grain traffic. An eight-million-bushel ele vator is being built at Prince Rupert 10 handle 3.5-million tons of grain a year starting in 1984.

A 2.25-million-bushel elevator Prince Rupert may be torn down retained in service to handle speciality

Botany subject of stamps

Two noted Canadian botanists and the Floralies in Montreal are the subjects of three postage stamps issued recently by Canada Post.

Frère Marie-Victorin was born Conrad Kirouac at Kingsey Falls, Quebec, in 1885. In 1901 he joined Les Frères des Ecoles chrétiennes, a Roman Catholic men's teaching order. He taught school while increasing his knowledge in botany, which he acquired largely by self-instruction. His scholarly reputation grew quickly, and in 1920 the University of Montreal hired him as a botany professor. Despite lifelong poor health, Frère Marie-Victorin did extensive field work, and became the



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foremost Canadian botanist in the field of geographical distribution of plants. The Montreal Botanical Garden and the Botanical Institute of the University of Montreal were founded by him. He died in 1944.

Born in Ireland in 1831, John Macoun came to Upper Canada in 1850 where he studied botany in his spare time, later becoming a professional botanist. Macoun's Catalogue of Canadian Plants "placed the study of systematic botany in Canada on sound footing". More than 100,000 of the plants Macoun collected are now in the National Herbarium in Ottawa. Macoun sometimes suffering great hardships during his field trips. His Peace River expedition of 1875 reduced him to a starva-

tion diet of moldy pemmican. Macoun visited the western plains in 1879 and 1880 and disproved the theory that this area was a desert, claiming that "the so-called arid country was one of unsurpassed fertility..." He died in 1920.

The botanist stamps were designed by Roger Hill of Toronto. The designs feature portraits of the individuals with a collage of dried plant specimens, as a symbol of their lifetime interest in the study of plants.

Last year Canada hosted Les Floralies internationales de Montréal, a floral exhibition. The outdoor garden on He Notre-Dame is now a permanent botanical exhibition. The Floralies will pro-

vide an opportunity for visitors to see not only landscaped gardens from many different countries but also a variety of Canadian landscapes, notably the northern tundra.

The stamp design features the Montreal Rose, a flower specially bred for Les Floralies and the City of Montreal by the Rosiériste Jean Gaujard of Lyons, France. The stamp, based on a photograph by Roméo Meloche, was designed by Jean-Pierre Beaudin, Jean Morin, and Tom Yokobina, all of Montreal.



grain.

Future electronic office system

Seven Canadian firms have merged to produce a new kind of electronic office system for the international market.

The coalition, called OCRA (Office Communications Research Association expected to produce a prototype of the office system for testing next year. It will include data transmission equipment small business computers and other confi munications equipment. The firms prising OCRA are: CNCP Telecommunications cations, Gandalf Data Communications Limited, Nabu Manufacturing Corpore tion, Telecable Laurentien, Ottawa Tolk Skyline Cablevision and the Cable Tele communications Research Institute.