

## News of the arts

### Five appointments to Senate

Prime Minister Pierre Trudeau recently announced the following appointments to the Senate: Robert Muir, Conservative M.P. from Nova Scotia; Fernand Leblanc, Liberal M.P. from Quebec; Norbert Theriault, a former Liberal Cabinet minister in the New Brunswick Legislature, and Dalia Wood (Liberal) from Quebec.

A fifth Senate seat was given to Yvette Rousseau, president of the Canadian Advisory Council on the Status of Women. Mrs. Rousseau, who has not been active in politics, will sit as a Liberal.

The appointments leave seven vacancies in the 104-seat Senate. It is traditional for the Prime Minister to make several appointments prior to an election.

Mr. Trudeau also appointed retiring Liberal M.P. Jean-Robert Roy from Timmins, Ontario, a commissioner of the International Joint Commission.

Standings in the Senate now are: Liberal 75, Conservative 18, Independent two, Independent Liberal one, Social Credit one, with seven vacant.

A statement accompanying the announcement of the Senate appointments warned the new senators they might not remain in the Upper House until their compulsory retirement age of 65.

Mr. Trudeau wants to revamp the Senate so half of its members are appointed by provincial governments. The Prime Minister at present recommends all appointments to the Senate.

The Senate normally sits three days a week and only when the Commons is in session.

### New rules for parolees

The National Parole Board and provincial boards of parole will now be permitted in certain cases to grant parole before the inmate would otherwise be eligible.

Under no circumstances would the new measures apply to murderers, dangerous sexual offenders, dangerous offenders or habitual criminals, Solicitor-General Jean-Jacques Blais said.

To be eligible for parole by exception, an inmate must meet one of the following criteria: he must be terminally ill; he must be subject to a deportation order; or, his continued incarceration would result in serious physical or mental harm.

### Special telephone switching system

An Ottawa firm, Mitel Corporation Ltd., is manufacturing and marketing an electronic telephone exchange with a memory.

The system, referred to in the industry's jargon as an EPABX (Electronic Private Automatic Branch Exchange), was developed through the aid of a National Research Council Industrial Research Assistance Program (IRAP) grant. It is a small telephone switching device, installed on business premises, which provides internal telephone switching as well as outside connections.

The compact console of the EPABX is designed for easy visual monitoring and fingertip control of all operations. Light emitting diodes provide visual confirmation of each operation: they indicate if the telephone of the party being called is ringing, busy or on hold, and which of the available lines are being used; if the line is busy, the EPABX automatically makes the connection when the other line is free, without the caller having to redial. Other useful features such as coded, double digit dialing of commonly called numbers and music for callers on hold are also part of the system.

#### How it works

What makes this versatile and flexible system operate is Mitel's innovative electronic gadgetry housed in the console

control cabinet, which contains two shelves accommodating 22 easy-to-remove circuit cards. At the heart of the electronics are microprocessors (minicomputers) which contain the system's operating program. Traditionally bulky electro-mechanical switching devices have been replaced by a new electronic system contained in small silicon chips. Also, special Mitel design has allowed the elimination of transformers which interface with telephone lines. Extensive use of CMOS (Complementary Metal Oxide Semiconductor) circuitry has reduced power requirements, which not only saves money but prevents heat build-up and prolongs life of the component.

Another attractive feature of the EPABX is the built-in diagnostic system for localizing problems. A series of self-check routines informs the user by digital of any malfunction and its location.

#### International interest

American Telephone and Telecommunications Corporation has approved the system, opening the way for Mitel to sell to the U.S. Bell companies. At least 40 other companies in the U.S., Canada and Europe have also shown interest. At present, 20 units from a pre-production run are being tested by prospective clients and factory production increases are leading up to a rate of 100 units a month.

*(From an article by Sadiq Hasmain, in Science Dimension, 1978/5.)*



*The attendant console.*