"Then we were approached by the Northern Canada Power Commission of the Department of Indian and Northern Affairs, the Atlantic Regional Laboratory of NRC and the Defence Research Board for information about our prototype wind turbine.... The NCPC and DRB are interested in the potential use of the wind turbine for providing electrical power for isolated stations in northern Canada. The NRC Halifax laboratories need to pump and agitate water in oceanic vegetation studies in isolated coastal locations.

"The results of the 15-foot diameter turbine investigations in the NAE's 30-foot wind tunnel look very promising," Mr. Rangi says. "Wind travelling at 22 feet per second (15 miles per hour) that strikes a 15-foot diameter wind turbine will produce 1.2 horse-power or 0.9 kilowatt.

"The wind, acting on the rotor blades, gives them a peripheral speed which is very small near the hub, but increases as the considered location nears the tip, where that peripheral speed is the highest, and may reach several times the wind speed. For example, when our 15-foot-diameter rotor works at maximum efficiency, turning at 170 revolutions a minute in a wind of 15 miles an hour, the peripheral speed at the blade tip is equal to six times the wind speed."

A patent application for this wind turbine was filed with Canadian Patents and Development Limited, an NRC subsidiary. A search by the Patents Office found that Georges Jean Darrieus, a French inventor, had patented a similar vertical-axis wind machine in France and the United States in 1931. By an ironic quirk, the scientific reasoning and experimentation of Mr. South and Mr. Rangi produced a working model of a wind turbine which is similar to the Darrieus invention. The French and American patents for Darrieus' wind turbine have since expired.

## THE HOME OF THE CANADIAN PLAYWRIGHT

While French-speaking artists have for some time been developing a truly French-Canadian tradition in the arts, English-speaking artists have continued to be borrowers and imitators of British and American theatre. In particular, the Canadian playwright in English-speaking Canada has not attained the acceptance and professional standard achieved by writers in the other literary arts. This is now changing, and across Canada new kinds of experimental theatres are emerging. They call themselves everything from community theatres to theatre communes, from experimental laboratories to underground playhouses, from guerilla theatres to outlets for Canadian playwrights. This "separate" stage is charged with nationalism and it likes to think of itself as "a home for the Canadian playwright". In addition to producing new playwrights, these theatres offer the most important break-in centres for new directors, actors and designers.

Indian culture is also undergoing a resurgence.

The participation of Indian artists in Canada's centennial celebrations started the organization which, today, is advancing the cause of Indian cultural relations. Never has the outlook been more promising for the development and encouragement of Canada's native people as actors, singers, musicians, dancers, directors and playwrights.

The Dominion Drama Festival was formed in 1932 to help live theatre to survive in Canada. Theatre Canada, its successor, adheres to the original philosophy and objectives tailored to the needs of the 1970s. For four decades the Festival has thus been a stimulating and constructive influence on Canada's theatre. Its nationwide competitions and the encouragement given to Canadian playwrights and the formation of drama companies have contributed much to the vitality of the stage in Canada. By moving around the country, the Dominion Drama Festival fulfilled the implication of the "Dominion" in its name. It is probably less important that the theatre it offered was non-professional than the fact that it provided an outlet for several generations of actors who maintained themselves by other occupations during the day.

While the Festival's main purpose was simply to hold a three-act play competition, it has contributed to a much wider area of Canadian theatre. Its 13 regions, set up to provide preliminary competitions, also serve as the geographical and organizational basis for drama and theatre groups and other organizations. As new opportunities for employment in the professional theatre have appeared, many "graduates" of the Dominion Drama Festival have filled them. In recent years, other organizations and media have also begun to take on the responsibility of supplying members to the professional stage, but the Drama Festival has continued to expand its role by involving itself in the solution of problems of the Canadian theatre. At the same time, it has maintained its role of providing the opportunity for participation in, and appreciation of, the theatre at the non-professional level. (The foregoing article is one of a series reprinted from the July/August issue of the Canadian Imperial Bank of Commerce Commercial Letter.)

## **EMBASSY IN BUDAPEST**

The Secretary of State for External Affairs, Mr. Mitchell Sharp, announced recently that a Canadian embassy had been established in Budapest. The establishment of this senior mission follows the announcement by the External Affairs Minister last April that Cabinet had approved the opening of an embassy in Hungary.

The Canadian Ambassador to Hungary is Mr. M.H. Wershof, who is also accredited to Czechoslovakia and is normally resident in Prague. In his absence from Budapest, the embassy will be under the direction of the Chargé d'Affaires a.i., Mr. R.B. Edmonds, who holds the rank of counsellor.