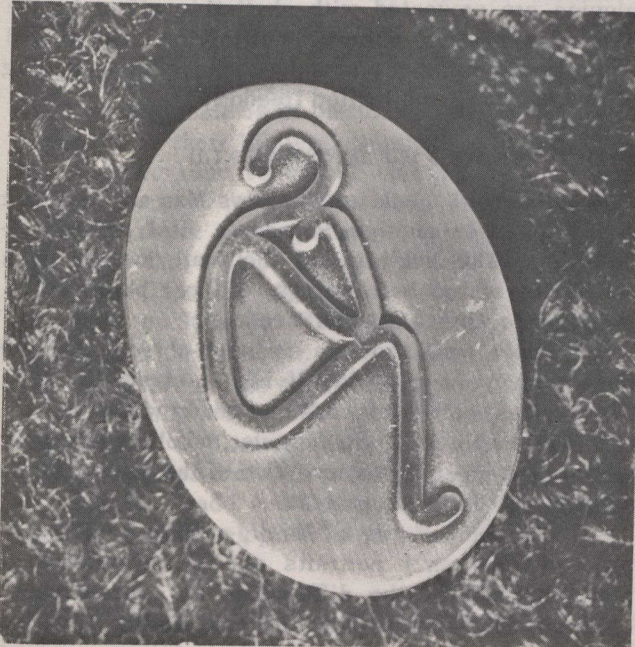


## INVENTORS' PINS

Three hundred and ninety Canadian inventors whose products have been licensed for commercial exploitation by Canadian Patents and Development Limited are now entitled to wear in their lapels a special pin, known as "The Inventor". This design – a stylized version of Rodin's *The Thinker* – has



been designated the official symbol of CPDL, a subsidiary of the National Research Council of Canada, which is responsible for patenting and licensing of inventions of government and university scientists.

Half-inch silver ovals bearing the raised, polished "Inventor" figure have been awarded to inventors whose patents, issued between 1954 and 1969, are being actively exploited by CPDL. A certificate declaring recipients to be inventors accompanies each lapel pin.

Dr. B.G. Ballard, President of CPDL, says The Inventor was conceived because CPDL's activities are so largely and so closely associated with inventions and because the process of inventing seems invariably to include much intense thinking.

He says that use of the symbol will be restricted to *bona fide* inventors.

"We have set restrictions because throughout the history of mankind the quite small proportion of people which has comprised the inventor-group has made contributions to societies enormously out of proportion to their numbers. We believe that being designated as an inventor should not come easily," Dr. Ballard says.

Response on the part of the individual inventor has been uniformly favourable – so much so that Dr. Ballard confesses that the enthusiasm of many of the recipients exceeds his expectations.

## NEW NUCLEAR REACTOR

A small nuclear reactor with a range of possible applications extending from pollution studies to crime detection has been brought into operation at the Chalk River Nuclear Laboratories of Atomic Energy of Canada Limited.

The reactor called, SLOWPOKE, went critical (began producing a controlled chain reaction) early last month and is now undergoing a series of tests and evaluations to confirm its operating capabilities and some of its potential uses.

The core of the reactor, containing uranium fuel, is only nine inches in diameter and ten inches high. By comparison, the reactor vessel or core of NRU, largest of the five other reactors at Chalk River, is 3,000 times larger in volume.

But it is not so much the size of SLOWPOKE that distinguishes it as its operational features. It is designed to be safe, reliable and maintenance-free, to turn off and on with the flick of a switch, and to run for as long as ten years without being refuelled.

As a producer of neutrons, SLOWPOKE can be used for neutron-activation analysis,<sup>(1)</sup> for the production of short-lived radioisotopes employed in medical treatment and for university and hospital research and forensic science.

## HISTORY OF SLOWPOKE

The trade-name stands for Safe Low-Power Critical Experiment. It had its genesis at AECL's Whiteshell Nuclear Research Establishment in Manitoba several years ago, when a development study and a market appraisal of small power reactors were carried out. From the data obtained, it was concluded that, no matter how carefully engineers designed small nuclear power plants, it would cost more to make and operate them than it would comparable conventional plants.

During the small-reactor appraisal, new information from Las Alamos Scientific Laboratory in the United States showed that it was possible to construct small reactors requiring less uranium than was previously supposed. Following this lead and applying experience gained in the Whiteshell study, several members of the study group turned their attention to a reactor design suitable for neutron production rather than power production. Motivating this approach was the growing demand for neutrons, principally in the field of neutron-activation analysis.

(1) Neutron-activation analysis is a method for identifying and measuring chemical elements in a material by bombarding it with neutrons. The newly-formed radioactive atoms in the sample give off nuclear radiations which tell what kinds of atoms are present and how many. Activation analysis is used in research, industry, archaeology and criminology.