# SCIENCE NEWS

*Science Service, Washington, D. C.*

## THE CANADIAN NATIONAL RESEARCH COUNCIL

THE Canadian National Research Council, Ottawa, has issued a review of its work during the past year, in which its important war functions in the field of science are covered. The council conducts eleven research laboratories, acts as adviser to the various government departments, and organizes and coordinates wartime scientific, engineering and technological research activities in universities, colleges and industrial laboratories throughout the nation.

This third function is performed generally through fifty "Associate Research Committees, a distinctly Canadian mechanism of proved effectiveness." These committees are set up and convened by the National Research Council, but operate as associations of the leading experts in their particular research fields. They receive financial grants, lay out programs and allocate problems to various laboratories.

This Canadian Council, set up over twenty-five years ago, has greatly expanded during the war and now directs practically all its efforts to war work. Its principal activities are in problems concerned with aeronautics, explosives, ballistics, medicine, foods, and in secret matters in which experts of the departments of national defense, munitions and supplies are collectively engaged. In addition to research problems in its own laboratories, it is supporting one hundred and sixty-two projects in the laboratories of twenty-nine widely distributed institutions.

To help it to keep informed on development by other agencies, the president of the National Research Council is a member of such service organizations as the Army Technical Development Board, the Wartime Technical and Scientific Development Committee, the Test and Development Establishment, the Canadian Inventions Board and other governmental science and engineering groups. It has an officer in London with the High Commissioner's Office. He has access to all scientific developments in England. It has a somewhat similar representative in Washington, D. C., and it has sent many scientists to the United States, England, Russia, China and Australia for liaison and contact work.

The range of studies covered by the research work of the council is wide, extending from foods and fuels to medicine and health problems and to aircraft, ships and munitions. It employs chemists, physicists, biologists, physicians, agriculturists and engineers.

Prior to the war, the primary work of the National Research Council was to foster, stimulate and coordinate scientific and industrial research in Canada. It provided scholarships for research workers in an effort to build up a body of scientifically trained young men in Canada who would remain in the country and devote themselves to science and research. The council also made financial grants to university professors to aid in research.

## ITEMS

THE hundredth anniversary of Kiev Observatory can now be celebrated in the restored university buildings. The work of rebuilding the observatory—built in 1845, and thus one of the Ukraine's oldest scientific institutions—is completed. When the astronomers returned to Kiev from Sverdlovsk, a town about 1,900 miles away where the valuable equipment had been sent for safe keeping, they found the observatory building empty, its contents having been plundered by the German occupants. The older scientific men aided the technical staff in repairing the buildings and erecting the instruments, so that now regular observations are being carried out and students are again being taught in the observatory. Plans have been made to extend the observatory in the near future. Work has already begun for mounting a big modern refracting telescope. A deep basement will be built for seismic apparatus and a building will be constructed for an astrophysical laboratory.

EGGS—best replacement for point-scarce meats—may be kept in good edible condition for as much as a year by means of a new flash heat treatment developed by Professor Alexis L. Romanoff, of Cornell University. The treatment is very simple, and requires only such equipment as may be found in an average kitchen. It consists merely of plunging the eggs in boiling water for five seconds, letting them cool, and putting them away in a refrigerator. Eggs thus treated may even be kept without refrigeration, but they will stay good for only about three months, as contrasted with twelve months in the refrigerator. Cold-storage eggs remain in edible condition for about six months.

THE redder the apples the better they sell. But the right shade of green in the apple-tree's leaves is an indicator of how red the apples will be, since healthy dark-green in leaves and lively red in apple skins both result, in part, from proper adjustment in the amount of nitrogen fertilizer fed to the tree. Working on this principle, O. C. Compton and Professor Damon Boynton, of Cornell University, made careful laboratory studies of the color of leaves collected in midsummer from trees under different nutritional conditions. Using their spectrophotometer data a New York City research corporation made up a set of seven carefully compounded printing inks, with which a chart of seven leaf-green shades has been prepared. Now all an apple-grower needs to do is hold the chart alongside sample leaves from his trees, and he will get an idea of how things stand with their nitrogen nutrition. In general, high nitrogen produces apples of large size but poor color; and since color is the deciding sales factor a compromise must be sought between color and size. The work has thus far been confined to one apple variety, the McIntosh. However, since about half the apples raised in New York are of this variety, their studies are considered of particular importance for this state.