



NOTES

from ABROAD

SCANDINAVIA

The isolation of the Scandinavian Countries during the war, and the difficulties for the different activities of society that arose from it, made clear to the authorities the essential role played in national management by scientific and technical research. To this growing understanding the splendid results of American and British science, and its decisive importance for the successful termination of the war, vastly contributed. In unoccupied Sweden a steady increase in government support of science already began in 1942, but the other countries had to wait until the war was over. Since 1945 much has been done in this field in all the Scandinavian Countries and therefore some leading scientific organizations now found the time ripe for a joint conference on scientific organization problems, where experiences could be exchanged. Such a conference was arranged in Copenhagen on February 5-7 of this year.

It turned out that the development had followed rather different paths in the different Scandinavian Countries. As indicated above, Sweden had had more time than the other countries to promote her scientific organization. Besides the Academy of Sciences and the Academy of Technical Sciences in Stockholm, both of which existed earlier, there were now special research councils for natural sciences, for medicine, for engineering, for agriculture, and for social sciences. All of these were founded by the state authorities and have comparatively big grants from the government at their disposal for the support of scientific research in their different domains.

In Norway there was set up after the war a combined research council for natural and engineering sciences, which has already done a good deal to encourage the efforts of the Norwegian scientists, although it has had to work under very unfavorable conditions, as little was done at the universities in Norway during the occupation.

In Finland a rather interesting type of organization, the Academy of Finland, was set up in the fall of 1947. It consists of twelve members with a

salary which is intended to make it possible for the 'academicians' to devote their whole time to scientific work. At the same time the government established a considerable number of fellowships for younger and also for more experienced scientists. There has also been built up a big institute of engineering research.

Denmark has relied more upon private initiative than the other Scandinavian Countries. Of old this country has had very important private funds available for science, and also one rather big fund set up by the government. The Danes have not had time enough to settle their postwar problems yet, but a government committee is planning to strengthen the position of science, and it is hoped that something similar to what has happened in the other Scandinavian Countries will come out of this committee's work.

The conference in Copenhagen laid much stress on the cooperation among research institutions of Scandinavia in this field. It was generally understood that much can be done—the organization of inter-Scandinavian scientific papers, cooperation concerning the invitation of prominent foreign scientific guests, especially from the United States, and so on.

GÖSTA FUNKE

GREAT BRITAIN

The physics of metals is a wide subject, and in this article I would like only to deal with one part of it, the study, as a subject of pure physics, of the mechanical properties of metals and alloys. Research in this field stands in very striking contrast to nuclear physics. The natural phenomena which depend on the atomic nucleus were hardly known before the beginning of this century; but since then experiment and theory have both made the most rapid advances, so that nuclear physics has now become one of the most important branches of science. Our knowledge of the mechanical properties of metals, on the other hand, is almost as old as our civilization, and in the last 150 years the amount of practical information obtained about them has, of course, been very great indeed. But this information has nearly all been of a practical kind, and in contrast to the case of nuclear physics, very little theory has been built up with it. In fact, it is only in the last year or so that it has been possible to formulate a real theoretical basis for the subject, of the same