

return of muscle function and the prevention of deformity in acute and subacute infantile paralysis. Two grants amounting to \$7,930 to Michael Reese Hospital, Chicago, will permit a continuation of previous studies in various aspects of the treatment of infantile paralysis and some aspects of the after-effects of the disease.

Grants amounting to \$23,400 have been made to the National Organization for Public Health Nursing, New York, one of them to continue a previous grant to encourage nurses with desirable qualities to prepare themselves for the field of orthopedic public health nursing; another will continue aid to provide seven scholarships in orthopedic nursing care. A grant of \$8,500, made to the National League of Nursing Education, New York, will provide instruction of nurses whose main interests are the care of orthopedic patients in institutions.

Other grants include \$5,600 to the University of Minnesota; \$4,980 to the department of bacteriology and parasitology of the University of Chicago; \$5,000 to the department of bacteriology of the University of Southern California; \$13,900 to the Bureau of Laboratories of the Michigan Department of Health; \$5,300 to the City Hospital at Cleveland, and \$12,000 to the New York State Department of Health. Smaller grants are made to various institutions.

SURVEY OF INDUSTRIAL RESEARCH

A COMPREHENSIVE report by the National Research Council on "Industrial Research" has been transmitted to Congress by the National Resources Planning Board. The document is one of a series on Research Resources being prepared by the National Resources Planning Board with the assistance of scientific councils and committees.

The survey was conducted by members of the National Research Council as operating agency of the National Academy of Sciences, with funds provided by the National Resources Planning Board. A committee of the council responsible for the survey, with F. W. Willard, president of the Nassau Smelting and Refining Company, as chairman, was composed of industrial executives, research directors and representatives of universities active in industrial research. The immediate direction of the survey was placed by the council in the hands of Raymond Stevens, vice-president of Arthur D. Little, Inc., of Cambridge, Massachusetts. With him were associated Dexter North, of Washington, D. C., and Dr. Caryl P. Haskins, president of the Haskins Laboratories in Schenectady, as assistant directors of the survey. Representatives of the interests of industrial laboratories, universities and special research institutions prepared sections of the report.

It is pointed out that the continuous and increasing application of science by industry is "contributing

most significantly to the high standard of American living." American industry employs more than 70,000 workers in over 2,200 laboratories at an estimated annual cost of \$300,000,000. Industrial research is generally accepted "both by informed labor and by informed management as a desirable and constructive force." "Organized labor is officially on record in favor of research and the annual reports of many of the most successful corporations have stressed the relation of research to earning power."

Among the findings set forth by the committee are the following:

Industrial research is possible for all industrial units, small and large. The distribution of research in industry seems to follow no definite rule but to depend rather upon management policy. It is apparent that research is most active in companies utilizing technically trained men in design, production or sales activity.

Industrial research acts as a protection against unfavorable changes taking place both within and without an industry. Industry looks to the universities for trained technical men, and for principal advances on the frontiers of science. However, it is of interest that advances are not infrequently made on these frontiers in the course of research projects originally designed to achieve immediate commercial objectives.

The United States is now virtually independent of foreign sources for adequate apparatus and facilities for laboratory research.

It is recommended that leaders in several industries take steps toward initiating research programs where they do not now exist. There are wide variations between amounts spent in various industries, the chemical industry leading in the percentage of income devoted to research.

One portion of the report deals with the extent to which the recognized disciplines of science—physics, chemistry, mathematics, metallurgy, the several fields of engineering, biology and borderline fields—are applied in different industries.

It is pointed out that:

In several branches of pure and applied science, abstracts of the technical literature are supported by scientific societies. Such support is becoming increasingly burdensome and increasingly inadequate in the face of the enormous and rapidly expanding amount of technical matter being published. An excellent means of Government contribution to industry would be proper provision for systematic and complete publication of abstracts of scientific and technical literature.

Extension of research means increasing dependence upon adequate and correct standards of reference. Establishment of standards requires most exacting and long-continued laboratory work, a high caliber of technical personnel, and, frequently, expensive facilities. There is need for much more research on standards of measure-

ment than is now conducted, and it is recommended that the National Bureau of Standards be given encouragement and increased tangible support for research on standards. It is also recommended that any appropriations for such support provide ample funds for adequate publication and distribution of the Bureau's findings.

In transmitting the report to President Roosevelt, the National Resources Planning Board said: "We endorse in principle the findings and recommendations of the special committee and wish to call attention to the great importance of industrial research in

relation to both the present defense effort and also to developments in the post-defense period."

In a letter to Dr. Frank B. Jewett, president of the National Academy of Sciences, and Dr. Ross G. Harrison, chairman of the National Research Council, Mr. Willard said: "It is my duty to record here the gratitude of your committee to the leaders of private enterprise in the United States of America who have, without exception and without reservations, responded to your committee's request for information. Lacking this wholehearted cooperation, your committee's task could not have been performed."

SCIENTIFIC NOTES AND NEWS

DR. JEROME C. HUNSAKER, head of the department of mechanical engineering at the Massachusetts Institute of Technology, has become coordinator of research and development for the Navy. He will be assisted by a special board, to be composed of representatives of the chief of naval operations and the commanding officers of the Bureaus of Ships, Ordnance, Aeronautics and Yards and Docks.

DR. WILLIAM F. DURAND, professor emeritus of mechanical engineering at Stanford University, has been appointed a member of the National Advisory Committee on Aeronautics. He succeeds Dr. Robert E. Doherty, president of the Carnegie Institute of Technology, who resigned his membership on July 3 to become chairman of the Production Planning Board of the Office of Production Management.

THE medal of the Society of Chemical Industry has been awarded to Dr. Elmer K. Bolton, chemical director of the E. I. du Pont de Nemours and Company, in recognition of his work in connection with the development of neoprene, nylon and synthetic rubber. The medal "may be awarded annually to a person making a valuable application of chemical research to industry."

THE Rivers Memorial Medal for 1941 of the Royal Anthropological Institute of London has been awarded to Dr. Diamond Jenness, ethnologist of the National Museum of Canada, for his work among the Eskimos of Arctic America. The Wellcome Medal for 1940 has been awarded to Dr. Audrey I. Richards for her essay on "Bemba Marriage and Present Economic Conditions." Dr. Richards has filled the post of lecturer in social anthropology at Bedford College for Women, the London School of Economics and the University of Witwatersrand. She has made anthropological expeditions to study the tribes in Northern Rhodesia.

THE honorary degree of doctor of letters was

awarded at the commencement exercises of Jefferson Medical College, Philadelphia, to Dr. John M. T. Finney, emeritus professor of surgery at the School of Medicine at the Johns Hopkins University.

FRANK B. COOPER, research chemist at the Institute of Pathology of the Western Pennsylvania Hospital, Pittsburgh, received an honorary doctorate of science at the sixty-fifth annual commencement of Grove City College, Pa.

AT the commencement exercises of the Philadelphia College of Pharmacy and Science, the degree of doctor of science was conferred on Dr. Victor O. Homberg, formerly a member of the department of chemistry of the Massachusetts Institute of Technology, and on C. P. Dubbs, of Chicago, in recognition of "his outstanding contributions to the field of industrial chemistry."

A PORTRAIT of Dr. Torald H. Sollman, professor of pharmacology and materia medica at the School of Medicine of Western Reserve University, given by six hundred alumni and friends, was presented to the university during commencement week. A book containing the names of those who gave the portrait was presented to Dr. Sollman.

THE thirtieth anniversary of Dean R. B. Dillehunt's joining the faculty of the University of Oregon Medical School was celebrated on July 10 by a faculty dinner and by the unveiling of a portrait.

In a wireless dispatch to *The New York Times*, dated July 5, it was stated that Dr. Carrel had been commissioned by the Vichy government to organize in France in the occupied zone an institute for scientific and medical research. This dispatch was quoted in *SCIENCE* for July 11. We are informed that this information is not correct. Dr. Carrel is at present in occupied France. He fully intended to return to