Bureau of Plant Quarantine	3,747,930	2,490,125	2,158,514	1,797,694
Grain Futures Administration	221,480	218,838	200,000	166,639
Food and Drug Administration	1,810,228	1,716,167	1,589,505	1,493,000
Total, Ordinary Activities	**$68,571,854**	**$58,629,125**	**$53,636,448**	**$42,794,618**
B. Payments to States, Etc.:				
Experiment stations	$ 4,357,000	$ 4,374,000	$ 4,381,000	$ 3,285,750
Extension work	8,672,936	8,728,096	8,738,096	6,553,572
Cooperative forest fire prevention	1,775,000	1,611,580	1,587,513	1,190,635
Distribution of forest planting stock	95,000	79,960	74,730	56,047
From National forest receipts, contributed, and other special funds	4,015,500	3,555,475	3,087,020	2,469,616
Total, Groups *A* and *B*	**$87,487,290**	**76,978,236**	**71,504,807**	**56,350,238**
C. Special Items:				
Forest fire deficiency	4,260,000	3,087,020	2,000,000(a)	2,000,000(a)
D. C. rent	.....	.....	25,000(b)	25,000(b)
Estimated special non-recurring cash carry-over	1,814,300(c)	1,814,300(c)	1,814,300(c)	1,814,300(c)
Comparable Grand Totals	**$93,561,590**	**$81,879,556**	**$75,344,107**	**$60,189,538**

(a) Rough estimate for forest fire deficiency, based on five-year average.

(b) Rough estimate of supplemental appropriation based on special provision in Agricultural Appropriation Act, 1934.

(c) Rough estimate, based on survey of probable carry-over for payment in 1934 of non-recurring obligations of prior years; including acquisition of land and other special items; this figure included in appropriation columns to provide for comparability of grand totals.

THE NORTHWEST RESEARCH FOUNDATION AND THE UNIVERSITY OF MINNESOTA

THE way to a series of scientific researches that may open important and valuable industrial opportunities in the Northwest was opened at a meeting of the Board of Regents of the University of Minnesota, when that body approved the contract between itself and the Northwest Research Foundation. The foundation, whose membership is made up of leading business men of the Twin Cities and the Northwest, will raise a fund with which to investigate the commercial possibilities of regional raw materials not now being utilized to the full.

A campaign to raise funds for the foundation is expected to be launched shortly. It will be announced by the officials of that organization. James Ford Bell, chairman of General Mills, Inc., is its head.

More than a year ago the University of Minnesota pointed out that such raw materials as lignite, the aspen or "popple" forests of northern Minnesota, the peat deposits of this state, and the millions of bushels of grain of inferior grade that are a part of every crop, should be examined with detailed care to determine what commercially useful products could be made from them. There are other materials, also, worthy of consideration, among them casein, of which millions of pounds are available in Minnesota creameries and cheese factories.

The plan of the foundation is that it shall raise money to be turned over to the University of Minnesota for use in research. If a discovery is made and patented, it may be turned over to a manufacturing concern under a licensing system. From the proceeds or royalties from this license, the first money will be used to reimburse the donated fund for the cost of the research. In the second place, the donors will be reimbursed. Money over and above the amount needed for these purposes will be divided into two equal parts, half of which will go to the university outright, while the second half will go to the foundation as a fund with which to finance further scientific researches. Thus if a license should produce $100,000 after $10,000 had been spent on the original research, the foundation would get back its $10,000, the donors would be reimbursed in like amount for their donations, but without interest, and of the remaining $80,000 there would be $40,000 outright for the university and $40,000 to finance further researches for the foundation.

Professor Lloyd H. Reyerson has been the prime mover in the project from the university's side. He has had, during the past year, cooperation of a faculty committee, appointed by President Coffman, and from the group of business men who plan to finance the plan.

The resolution of the Board of Regents, entering into the agreement, reads as follows:

WHEREAS, A group of public-spirited citizens have associated themselves and organized the Northwest Research Foundation as a non-profit institution established to promote researches designed to improve the economic life of the Northwest, and

WHEREAS, The Northwest Research Foundation proposes to support researches at the University of Minnesota having for their object the development of new uses for the natural resources and products of the State of Minnesota and the Northwest,

Be it Resolved, That the Regents of the University of Minnesota approve and authorize the proper officers to execute the following memorandum of agreement between the Northwest Research Foundation and the University of Minnesota.

Be it Further Resolved, That the Regents of the University of Minnesota direct the president of the university to create within the university a research institute to be known as the Northwest Research Institute which shall have the responsibility of carrying into effect the terms of this agreement. The institute shall be administered by a director who shall be appointed by the president of the university, subject to the approval of the Board of Regents.

CHEMISTRY AND GEOLOGY AT THE BOSTON MEETING OF THE AMERICAN ASSOCIATION

THE Section of Chemistry of the American Association for the Advancement of Science, which meets in Boston from December 27 to January 2, will have three sessions for contributed papers. One of these will be devoted to physical chemistry and another to chemistry related to biochemistry and medicine.

For a joint session with the Section of Social and Economic Sciences a symposium has been arranged entitled "The Chemical Revolution." It will deal with the economic significance of chemistry. Papers will be given concerning the repercussions of chemical changes upon international trade, the effects of chemical progress upon the relations between industries, the economic readjustments resulting from progress in chemical technology, and the possible future economic changes indicated by our present research progress.

The address of the retiring vice-president, Dr. Frank C. Whitmore, on "Some General Aspects of the Polymerization and Depolymerization of Olefins," will be given at 2 o'clock on the afternoon of December 29. In the evening the Northeastern Section of the American Chemical Society will cooperate with Section C in an informal dinner and evening meeting, when it is expected that an address will be given on the subject of "Nutrition."

Professor Arthur B. Lamb, of Harvard University, is vice-president of the association and chairman of the section; J. H. Simons, 6217 N. Talman Avenue, Chicago, Illinois, is secretary. Titles and abstracts of contributed papers should be in the hands of the secretary before November 20.

Titles of papers, accompanied by abstracts of approximately two hundred and fifty words, intended for presentation at the meeting of Section E, geology, should be submitted to Dr. Kirtley F. Mather, secretary of Section E, Geological Museum, Cambridge, Massachusetts, not later than November 15. Section E will meet for the reading of technical papers during the forenoon and afternoon of Wednesday, December 27. If necessary an additional session will be held on Thursday morning. The address of the retiring vice-president, Professor William H. Hobbs, of the University of Michigan, will be delivered at 11:00 A. M., on December 28. It is expected that the majority of papers on the program will deal with the geology of New England and topics related thereto.

RECENT DEATHS

DR. SAMUEL FRANKLIN ADAMS, of New York City and White Plains, specialist in internal medicine and until two years ago head of the metabolism division of the Mayo Clinic at Rochester, Minnesota, died on September 28, at the age of thirty-seven years.

DR. ARTHUR DERMONT BUSH, professor of physiology and pharmacology at Emory University until his retirement in 1927, died on September 6, at the age of fifty-eight years. Dr. Bush had previously been connected with Olivet College and the universities of Southern California, Missouri and North Dakota.

JOHN EDWARD MARR, emeritus professor of geology at the University of Cambridge, died on October 2, at the age of seventy-six years.

WILLIAM HOPE FOWLER, the British radiologist, died on October 5, at the age of fifty-seven years. Although he had retired at the age of fifty years as chief surgical radiologist of the Edinburgh Infirmary, he continued to carry on his experiments with radium. His death was directly due to this work.

DR. F. S. PEPPERDENE, the well-known British radiologist, died in Quebec on September 25 of x-ray burns. He was seventy years old.

DR. P. EHRENFEST, professor of theoretical physics at the University of Leiden, committed suicide on September 25.

SCIENTIFIC NOTES AND NEWS

THE degree of doctor of science was conferred by Lehigh University on October 4 on Dr. Hans Zinsser, professor of bacteriology and immunology at the Harvard Medical School. Dr. Zinsser gave on that day the Founders' Day address.

PROFESSOR EDWARD W. BERRY, vice-president of the Johns Hopkins University, has returned to Baltimore after spending the summer in Venezuela. While there he was awarded a gold medal by the Venezuelan Ministry of Education.