worked out by the Purdue branch of the association, is expected to provide a background of experience for a much more wide-spread survey that may soon become essential.

Beyond the goal of full utilization of scientific resources, in terms of the full-time employment in war work of all available personnel and materials, lies the problem of the most efficient utilization of these resources. Men and machines capable of more important war work than that being done may have to be converted further from the less to the more urgent tasks. One aspect of this problem has been mentioned in relation to the current shortage of physicians. Ultimately, as the exigencies imposed by total war become more and more apparent, and as the need for outright conversion of all science to war purposes is made inescapable, it may become imperative that all scientific activity be centralized and coordinated by a single government agency. A bill (S.2721) with essentially this purpose was introduced by Senator Kilgore on August 17, and has been referred to the Senate Committee on Military Affairs. The bill provides for a single government authority to survey, mobilize and coordinate all technological personnel and facilities of the nation for a maximum war effort. Certain changes in it appear desirable, particularly to remove its ambiguity with respect to the medical and biological sciences, and to insure continuity of the functions and adequate coordination of government agencies which now exist for the utilization of scientific resources.[3] It behooves all scientific workers to study this bill closely, since it affects their interests directly and embodies sweeping changes in their peacetime habits of life. If the "Office of Technological Mobilization" called for in the bill, or an analogous centralized government office of science, ever becomes a reality, the basis laid by expanded volunteer scientific work as outlined in this paper will take its place alongside the OSRD, the National Roster, and other official and semi-official government agencies as invaluable experience and as mechanisms in actual operation that may be expected to fit into the new centralized scheme with a minimum of alteration. All these efforts have their place in promoting the full utilization of scientific resources for total war. Volunteer effort, stimulated and guided from above, is not the least of them, and merits more attention as an essential part of this process of conversion of science to war than has heretofore been accorded to it.

SCIENTIFIC EVENTS

DEATHS AND MEMORIALS

DR. ARTHUR P. HONESS, professor of mineralogy and petrology at the Pennsylvania State College, died on October 17, at the age of fifty-five years.

DR. FRANZ C. SCHMELKES, assistant director of research of Wallace and Tiernan Company, Inc., manufacturers of pharmaceutical products and water-purifying apparatus, died on December 11. He was forty-three years old.

DR. MAX HARRISON DEMOREST, until recently instructor in geology at Wesleyan University, known for his researches in glaciology, according to information received from the War Department, died on November 30 in Greenland, where he was serving as a specialist with the rank of First Lieutenant at a remote military outpost. He was thirty-two years old.

PROFESSOR WILMOT V. METCALF died on November 21, at the age of eighty-two years. He had taught chemistry and physics at Whitman College, Carleton College, Fisk University and Berea College. His training included a bachelor's and master's degree at Oberlin College, the doctorate from Johns Hopkins, a year's post-doctorate study at Wurzburg and two years at Leipzig. In 1917, after persistent but unsuccessful efforts to enlist at the age of fifty-seven years, he volunteered for service with an ambulance unit and served for a time in France, paying all his own expenses. Later he served with the Army Y.M.C.A., his special interest being in personally delivering Y.M.C.A. supplies to the boys in the front-line trenches. Professor Metcalf's professional field was physical chemistry. Early in life he became interested in the philosophy of science. He was studying zealously in that field at the time of his death, having maintained a wide correspondence on the subject and contributed a number of papers to scientific and philosophical magazines in recent years. Professor Metcalf was the older brother of Maynard M. Metcalf, the zoologist, who died in 1940.—LLOYD W. TAYLOR.

A CORRESPONDENT writes: Robert Peele, who died at his home in New York City on December 8, in his eighty-fifth year, had been emeritus professor of mining of Columbia University since 1925 and a member of its staff since 1892. A graduate of the School of Mines with the class of 1883, after ten years of varied professional experience in the United States and South America, he was appointed adjunct professor in 1892

[3] Since this paper was presented, another bill has been introduced by Representative Tolan and by Senators Kilgore and Pepper. The Tolan-Kilgore bill embraces provisions similar to those of the original Kilgore bill, but as part of a broad program for total mobilization of the nation's manpower and resources. The modifications in the Kilgore bill referred to above have been largely included in the newer bill.

and made full professor in 1904. His many former students will remember him best for his conduct, for thirty years, of the supervised and directed summer school work in the field, where he trained them in accurate analysis and observation, and the precise recording of data. He published his two books, "Compressed Air Plant," 1908, and "The Mining Engineers' Handbook," 1918, both of which have gone through several subsequent editions. He was awarded the gold medal of the Mining and Metallurgical Society of America in 1922, the Egleston Medal of the Engineering Alumni Association of Columbia University in 1939, and was made an honorary member of the American Institute of Mining Engineers in 1935.

A WIRELESS dispatch from London under date of December 13 to *The New York Times* reads: "Tercentenary observances of the birth of Sir Isaac Newton were begun to-day at Grantham, near the peaceful hamlet of Woolsthorpe-by-Colsterworth, where the scientist was born. As townspeople and others, including Sir Henry Dale, president of the Royal Society, looked on, a laurel wreath was laid at the foot of Grantham's statue of Sir Isaac, which has been denuded of ornamental railings formerly surrounding it. The honor of laying the wreath fell to a youngster named J. H. Foster, head boy of King's School, where Newton received his early education. Newton's birthday was Christmas Day, 1642, but so many observances had been planned that it was decided to start them to-day. At church services at Grantham this morning, the Right Rev. A. A. Markham, of Stoke Rochford, Bishop of Grantham, offered special prayers 'in thankful remembrance of Isaac Newton' and 'for the right use of science.'"

THE BRITISH TECHNICAL ADVISORY COMMITTEE ON NUTRITION

THE work of the first meeting, recently held in London, of the British Technical Advisory Committee on Nutrition to investigate the post-war nutritional needs of European countries overrun by the Axis nations, is reported in *The Times,* London.

The Nutrition Committee is one of five technical advisory committees which work in conjunction with the Allied Post-War Requirements Bureau, the organization set up as a result of the St. James's Palace conference of September 24, 1941.

At an early stage the bureau set up a technical advisory committee on agriculture under the chairmanship of Sir John Russell, director of the Rothamsted Experimental Station. This committee has already completed a report on seed requirements needed in Europe after the close of hostilities, and is now investigating the problems of restoring live-stock herds, training tractor drivers, supplying agricultural machinery and estimating likely fertilizer needs.

Within the past few weeks other technical advisory committees have been set up to deal with such matters as inland transport and medical needs. The committee is composed of transport experts of those allies who are most intimately concerned with post-war conditions in Europe.

The medical committee has decided upon a basic list of 59 drugs, showing the total quantities required per 100,000 of population for the first month after liberation. Further lists for those special areas where diseases are endemic or epidemic are now under consideration.

It has been realized from the outset that considerable help in the bringing of relief to occupied regions can be given by British and international voluntary societies, and the bureau maintains close contact with a Consultative Council on which such voluntary societies are represented.

RURAL LAND USE

COMPREHENSIVE programs of post-war public construction to conserve and improve rural lands are outlined in "Public Works and Rural Land Use," a report transmitted to the President by the National Resources Planning Board, recently made public. The board in its letter of transmittal said:

> The importance of this statement at this time lies in the clear indication which it provides of the needs and possibilities for activity after the war to develop these basic resources. We hope the report may stimulate the preparation now of plans for rural works of tested merit which can be undertaken when the war is won.
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> Although the report is not primarily concerned with public land acquisition, it does contain a discussion of public land acquisition as one of the effective tools for facilitating land-use adjustment. It is noted, for example, that of the 1,900,000,000 acres of land in Continental United States 415,000,000 acres are classified as crop land, of this crop land total 339,000,000 acres or 82 per cent. are suitable for cultivation under appropriate soil conservation practices, and the remaining 76,000,000 acres are classified as land which could not be cultivated safely and profitably under normal prices. Our policy with respect to rural public works must therefore take into account the following:
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> (1) Promotion of those public works and undertakings required to conserve and improve crop lands suitable for cultivation, forest lands and range lands.
> (2) Public acquisition of submarginal crop lands and their conversion to more suitable land uses.

This report, which forms a part of the National Resources Planning Board program of post-war planning was prepared under the direction of the Land Committee of the board, by representatives of construction agencies in the Department of Agriculture and by the Department of the Interior. It consists of five statements, covering public construction on