threads that we must weave through the fabric of our industrial production and transportation systems to supply and maintain our modern armies and navies.

By contributing to the solution of America's rubber crisis, each one of us will do a wartime job of No. 1 importance. Any circumstance or any policy that prevents the effective functioning of our home-front industries and essential civilian transportation can be just as disastrous to our war effort as a defeat in battle.

Our gallant fighting men know that courage alone is a thin weapon against Axis planes and tanks. They look squarely to our country to deliver in time and where needed superior weapons and equipment—weapons and equipment which require thousands of tons of rubber.

The design, construction and capacity operation of our many giant synthetic rubber plants—in time—will be one of the greatest industrial achievements of all time. Conservation of rubber must bridge the gap until our rubber problem has been solved.

Industry is supremely conscious of its part in this grave responsibility, and the American people are now fully conscious of their own important role.

SCIENTIFIC EVENTS

RECENT DEATHS

DR. GARY N. CALKINS, emeritus professor of protozoology, of Columbia University, died on January 4, in his seventy-fourth year.

DR. DAVID M. LICHTY, who retired in 1932 from an associate professorship of chemistry at the University of Michigan, died on December 24, at the age of eighty years.

THE death is announced of Alfred Nelson Finn, for many years chief of the department of optical glass of the National Bureau of Standards, at the age of sixty years.

DR. JAMES EDMUND IVES, until his retirement in 1936 senior physicist of the U. S. Public Health Service, died on January 1, of injuries received when struck by a street car on New Year's Eve. He was seventy years old.

DR. ANDREW H. PALMER, who from 1914 to 1924 was a meteorologist of the U. S. Weather Bureau and was later superintendent of crops and weather insurance of the Aetna Affiliated Companies, San Francisco, died on December 26, at the age of fifty-six years.

DR. PURNENDU NATH CHAKRAVORTY, a native of India, research chemist with the Upjohn Company and formerly associated with the department of chemistry at Princeton University, was killed in a railroad crossing accident on December 23. He was thirty-seven years old.

HARVEY L. WESTOVER, senior agronomist in charge of forage crop investigations in the Bureau of Plant Industry of the U. S. Department of Agriculture, known for his work with alfalfa, died on January 2, at the age of sixty-three years.

FREDERICK DIXON CHESTER, chief chemist of the Mimex Company, Long Island City, died on January 1, at the age of eighty-one years.

DR. E. J. ALLEN, from 1895 to 1936 secretary of the Marine Biological Association of the United Kingdom and director of Plymouth Laboratory, died on December 7 at the age of seventy-six years. The Linnean Gold Medal was awarded to him in 1926; the Darwin Medal of the Royal Society in 1936, and the Agassiz Medal for Oceanography of the National Academy of Sciences in 1936.

AMERICAN LIBRARIES AND FOREIGN PERIODICALS

IT is reported by Harold Lancour, librarian of Cooper Union, chairman of the Engineering School Libraries Section of the Association of College and Reference Libraries, that American librarians are tracking down hundreds of publications which seep into this country from Axis-dominated areas and which contain valuable technical and scientific data eagerly sought by scientific workers.

Through an investigation in progress since last August, the section has already ascertained that more than 800 periodicals published in Germany and Japan as well as in countries occupied by the Axis are reaching the United States sporadically and by devious channels, despite mailing restrictions and accidents in transit.

Many foreign periodicals legally mailed go down with torpedoed ships or are held up to make room for more vital cargo. Others, not permitted to go outside the country which publishes them, are smuggled out by refugees; some pass the censor in limited numbers; still others reach Americans by mail from scientific men in conquered lands which do not permit bulk mailings but which allow individuals to send out one or two periodicals.

Spotty holdings of foreign periodicals by libraries throughout the country, with many issues and titles missing completely since 1939, has created a demand for a master file through which every library will be able to find quickly any issue of any foreign peri-

odical known to be available in some library in the country. By referring to an over-all list showing which libraries are in possession of certain issues of the various periodicals, it will be possible to obtain urgently needed material by borrowing or by photostatic reproduction of the desired material.

Important government research projects, such as the experimental production of a substitute for hemp which is to be undertaken jointly during the coming year by the U. S. Department of Agriculture and Iowa State College, are dependent to a considerable degree upon war issues of foreign journals.

Almost daily calls are received by libraries for issues of foreign periodicals published since the war's beginning on the prevention of disease among human beings and animals, as well as publications shedding light on food and nutrition problems.

Mr. Lancour points out that "we are pledged to secrecy regarding the nature of much of the research work in progress. Research in wartime is accelerated at a rate it would never reach in peace time, and the government is spending money, energy and time to an unprecedented extent on technical and scientific investigations. The importance of intensive research in wartime is amply borne out by Germany, who would be lost without her 'ersatz' products—largely made possible by chemical research."

So important is the preparation and maintenance of a master file of current technical and scientific literature published abroad and obtainable in this country, that the Library of Congress has recently taken over the project begun by the Engineering School Libraries Section, which embraced only technological and engineering publications. The Library of Congress, it is explained, will continue the investigation and broaden the list to include publications devoted to agriculture, medicine and other scientific and technical fields.

Hundreds of libraries throughout the United States are aiding investigators in establishing the whereabouts of missing issues and titles. Each library will report on its own holdings, and make additions to the list of titles circulated to them for checking. The final list, which will also include periodicals available only on microfilm or photostats, will be kept up to date through regular checkup reports by participating libraries. All libraries on the mailing list of the Library of Congress will receive a copy of the up-to-date list at intervals for their own use in filling requests for foreign publications.

THE SCHOOL OF DENTAL AND ORAL SURGERY OF COLUMBIA UNIVERSITY

IN his annual report Dr. Willard C. Rappleye, dean of the School of Medicine of Columbia University, states that the School of Dental and Oral Surgery may continue in the post-war period the accelerated program by which students graduate in three years instead of four, provided that it is possible to give financial assistance, and that necessary adjustments can be made in state laws governing licensure for practice.

He points out that it seems logical that loans and scholarships for these men and women would be a good investment, both from the standpoint of the individual student and the community. The inauguration of the accelerated program presents a very serious problem to students who have been dependent upon funds earned during the summer period. He writes: "We are extremely grateful to the W. K. Kellogg Foundation for a grant of $10,000 for a special scholarship and loan fund for our students. This gift will make possible the completion of the professional education of many of our students who might otherwise have been obliged to abandon their dental course."

An attempt is being made to modify the instruction somewhat to compensate for the decreased efficiency of students working during the summer months. More conferences will be held, and an extensive use will be made of kodachrome microphotographs of the slides of the tissues and organs. The report points out further that

> the war has had a decided effect upon the operation of the Dental School. Nine members of the staff have been granted leave of absence to serve with the Army or Navy. The fact that dental students have been able to apply for reserve commissions as ensigns in the Navy and as second lieutenants in the Medical Administrative Corps of the Army has assisted in reducing the tremendous amount of clerical work previously required in securing deferment of dental students for periods of six months from the local draft boards.
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> However, the fact that the Army, the Navy and the Marines are competing with each other in advertising for young men to enlist is going to deplete the ranks from which dental students have been drawn and result in a less desirable selection of students for the schools and a wasteful use of the nation's manpower. Of the forty-six male members of the graduating class all but seven are commissioned in the Army or Navy, and twenty-one have been called to active service.
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> The war has also made itself felt in the increased cost of supplies and equipment for the operation of the school clinic and in the inability to secure many items at any price.
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> The department of physiology has been devoting much of its investigative work to the study of traumatic shock, under contract with the Office of Scientific Research and Development. Additional support for this and related studies has been received from the Josiah Macy, Jr., Foundation.