

In the division of oral histology, Professors Charles F. Bodecker and William Lefkowitz have shown that structural changes occur in the dentin after the eruption of the teeth. These changes have been called "protective metamorphosis" because they offer an added resistance to decay. Dr. Lefkowitz has demonstrated that protective metamorphosis begins in the crowns of the teeth five years after their eruption and progresses to the root. These changes show that vital activity occurs in the dentin long after this tissue is fully formed.

DIVISION FOR EMERGENCY TRAINING AT THE UNIVERSITY OF MICHIGAN

SPECIAL training programs for all students preparing for military and civilian service to the country which do not fall within the scope of the fourteen existing schools and colleges of the University of Michigan will be organized and directed by a new Division for Emergency Training, established by the Board of Regents at their December meeting. The division will not take over the functions of the older schools and colleges or attempt to duplicate their work, but will supplement their activities and act in cooperation with them.

The teaching staff will be recruited in so far as possible from the present faculties, many of whose members can be loaned by their respective schools and colleges in view of reduced teaching obligations resulting from the draft of men of college age and the calling up of college reservists. Associate Professor Marvin L. Niehuss, of the Michigan Law School, was named coordinator of emergency training and will act as executive head of the division.

The regents directed the new division to plan and announce training programs relating to the war effort for the following classes of students:

- (1) Those high-school graduates who wish to receive special preparation prior to their induction in the armed service.
- (2) Those students now enrolled in the university who wish kinds of preparation for special war or supporting civilian service not available in the schools and colleges in which they are enrolled.
- (3) Adults, including those who are not high-school graduates, but who are qualified to take courses offered in the division.
- (4) Officers and enlisted men and women of the armed forces who may be sent to the university for prescribed training not available in the other schools and colleges.
- (5) Veterans of the present war who wish specialized training not provided in the existing schools and colleges.
- (6) Such other selected individuals not eligible for admission to other schools and colleges of the university for whom it is possible and expedient to provide programs of instruction that would increase their efficiency in the armed forces or in supporting civilian services.

Establishment of the division is especially important in the light of the newly announced plans of the

Army and Navy which contemplate the use of college and university facilities for training officers and specialists for various branches of military service and in view of the demand for specialized training of personnel for jobs in the supporting civilian economy. Training in both these categories may cut across the lines separating the functions of the existing university units and call for a centralizing agency which can mobilize all university facilities in the emergency. The division will be able to admit students for special war training who do not meet entrance requirements in the older teaching units, thus eliminating the necessity of changing these requirements and disrupting the existing instructional programs which are essential for other groups of students.

BEQUEST FOR THE ENDOWMENT OF THE TECHNICAL INSTITUTE OF NORTH-WESTERN UNIVERSITY

A BEQUEST of more than \$20,000,000 is made to Northwestern University by the will of Walter P. Murphy, manufacturer of railway supplies, who died on December 16. Dr. Franklyn B. Snyder, president of the university, points out that this is the largest bequest ever made to higher education by a citizen of Chicago, and is probably the largest in the nation since 1924, when James B. Duke bequeathed \$40,000,000 to Trinity College (now Duke University).

Notification of the bequest came to President Snyder from the executors of the Walter P. Murphy estate, who informed him that Northwestern University will receive the entire estate after payment of bequests to relatives and friends and that the value of the gift was estimated to be "in excess of twenty million dollars."

Mr. Murphy specified that the fund should be used to develop, maintain and operate the Technological Institute of Northwestern University, which was founded in 1939 with a gift of \$6,735,000 from the Walter P. Murphy Foundation. Beyond this restriction, no limitation was placed on the use of the bequest, leaving to the board of trustees of the university the final decision as to future management.

Mr. Murphy expressed a desire that as much as possible of the principal should be held intact and used for endowment of the institute. At the same time he empowered the trustees to spend portions of the principal from time to time, and all or any part of the annual income, for additional buildings, equipment, professorships, scholarships, books, research and such other purposes as the trustees think necessary to the proper operation of the institute. He also specified that the institute, as a part of its operations, may give instruction in science to other than engineering students of the university.

The present bequest is Mr. Murphy's fourth benefaction to the university. He made two gifts in 1923, one of \$5,000 to the College of Liberal Arts and one of \$10,000 to the School of Commerce. In 1939, through the Walter P. Murphy Foundation, he gave \$6,735,000 to erect and equip the new building of the institute.

Completed in the fall of 1941 at a cost of \$5,000,000, the Lannon stone building was dedicated on June 15 and 16, 1942, with a series of conferences in which educational and industrial leaders of the nation participated. It houses the departments of civil, chemical, mechanical and electrical engineering of the institute, and the departments of physics and chemistry of the university.

The institute is operated on the "work-study" plan in which student engineers alternate three months of study on the campus with equal periods of work in cooperating industries. It began operations in the fall of 1939, before the present building was erected, and to-day has an enrolment of 750 full-time students.

Approximately 95 industrial organizations in thirteen states cooperate with the institute in its work-study program.

Built to accommodate about 1,000 engineering students, the institute is to-day training 4,500 men and women to acquire technical skills essential to winning the war. In addition to training engineers, it is carrying on the following vital activities: a Naval Radio Operators' School; an Army Signal Corps Officers' Training School; a pilot training program for the Navy; evening courses to train workers for war industries; and a vast program of confidential war research for the government.

Mr. Murphy has consistently avoided any personal recognition of his generosity in founding the institute, rejecting on several occasions the suggestion that the institute be named after him. In the great halls of engineering and science that he established, there is no mark of recognition of him except one—a portrait that he permitted to be hung in the faculty lounge on the top floor of the north tower.

SCIENTIFIC NOTES AND NEWS

DR. JAMES B. CONANT, president of Harvard University, formerly Sheldon Emery professor of organic chemistry, will receive the annual award of the New York Academy of Public Education for distinguished service to education. The presentation will be made at the annual dinner meeting of the academy, which will be held at the Hotel Waldorf-Astoria on February 18. Dr. Conant will be the speaker at the dinner. His subject will be "The Relation of Science to Society in the Post-War World."

SIR JOHN RUSSELL will retire on September 30, under the age limit, from the directorship of the Rothamsted Experimental Station. Sir John succeeded Sir Daniel Hall in 1912. The station reaches its hundredth year in 1943, and but for the war the centenary would have been the occasion of an international celebration.

IN recognition of his distinguished services as rector of the Imperial College of Science and Technology from 1929 to 1942, Sir Henry T. Tizard, president of Magdalen College, Oxford, has been elected to an Imperial College fellowship.

THE honorary degree of doctor of science was conferred by the Drexel Institute of Technology, Philadelphia, on December 17 on William L. Batt, chairman of the Engineering Industrial Division of the National Research Council, who gave the commencement address at the Founder's Day and commencement exercises of the institute.

AT the fiftieth anniversary commencement of the

New Jersey College of Pharmacy in Newark on January 6, Rutgers University conferred the honorary degree of doctor of science on George D. Beal, assistant director of Mellon Institute of Pittsburgh. According to the citation the action was taken "to pay appropriate tribute to Dr. Beal for his contributions to scientific progress in general and to pharmaceutical chemistry in particular."

THE *Journal* of the American Medical Association reports that Dr. John L. Myers, Kansas City, was presented with a wrist watch during the meeting of the American Academy of Ophthalmology and Otolaryngology, in appreciation of his sixteen years' service as a section secretary of the academy.

DR. WILLIAM A. PROUT has been appointed acting director of the School of Pharmacy of the Medical College of the State of South Carolina, Charleston. He will continue as professor of pharmacy.

Chemical and Engineering News reports that R. Bowling Barnes, of the Stamford Research Laboratories of the American Cyanamid Company, has been elected first president of the National Conference of Electron Microscopy formed by leading workers in this field meeting at the National Chemical Exposition in November. Albert F. Prebus, of the Ohio State University, was elected vice-president, and Charles Banca, of the RCA Manufacturing Company, Camden, N. J., secretary-treasurer. Dr. V. K. Zworykin, of the Radio Corporation of America, and Dr. O. S. Duffendach, of the University of Michigan, were