

Majors—Robert U. Patterson, Medical Corps, U. S. Army, commanding officer; Harvey Cushing, director; Richard P. Strong (absent in Europe), chief laboratory section; Roger I. Lee, chief medical section; Robert B. Osgood, chief surgical section.

Captains—Daniel F. Harmon, Medical Corps, U. S. A., Adjutant; Walter B. Cannon; Reginald Fitz; George S. Derby; Walter A. Boothby; Edward B. Towne; Charles Rund, Jr., quartermaster, O. R. C., U. S. Army; Percy Browne, Horace Binney, Elliot Cutler, Henry Lyman.

Lieutenants—George P. Denny, Gilbert Horrax, Frank R. Ober, John J. Morton, Oswald H. Robertson, Thomas R. Goethals, Samuel C. Harvey, James L. Stoddard, Henry Forbes, A. V. Bock.

Dental Surgeons (Lieutenants)—William Potter, Harrison L. Parker.

Those with the Presbyterian Hospital and Columbia University unit include: Drs. George Emerson Brewer, Homer Swift, William Darach, Sidney R. Burnap, Fordyce B. St. John, Alex McCreery, John A. Peters, Benjamin R. Allison, William F. Cunningham, William Barclay Parsons, Robert Kennedy, William C. Woolsey, Gerhard Cocks, Armitage Whitman, Willard B. Soper, Louis Casamajor, Alwin M. Pappenheim, A. R. Stevens, Roderick Grace, Austin Hobbs, Malcolm McBurney, Henry S. Dunning and E. H. Raymond.

The Mayo Foundation of the University of Minnesota has offered the government for foreign service a fully equipped field hospital unit, headed probably by Dr. William J. Mayo. The organization is known as the University of Minnesota Field Hospital Unit and has 500 tented beds of the latest model, full surgical apparatus and a portable shelter for an operating room. Dr. E. H. Plummer, Dr. Charles Judd, Dr. Frank C. Todd, Dr. H. Robertson and Dr. S. Marx White are among the medical men who have enrolled.

After the conference of the medical board of the Council of National Defense with Colonel T. H. Goodwin, of the Royal Army Medical Corps, in Washington, D. C., on April 29, it was announced that plans had been made to send one thousand American surgeons to Europe for service with the allied armies. This offer came from the American College of Surgeons. The deans of forty-six medical schools

met in conference with the general medical board and agreed to continue instruction without shortening the courses so as to furnish new graduates. Both the schools and the hospitals, however, will cut down in the number of men on the staff as much as possible so as to set them free for service in the army.

SCIENTIFIC NOTES AND NEWS

At the recent meeting of the National Academy of Sciences, Dr. Charles D. Walcott, secretary of the Smithsonian Institution, was elected president, in succession to Professor William H. Welch, of the Johns Hopkins University. To fill the vacancy in the secretaryship, caused by Dr. Walcott's election to the presidency, Dr. A. A. Michelson, of the University of Chicago, was elected.

THE Franklin Medal awarded by the Franklin Institute to Dr. M. A. Lorentz, professor of mathematical physics at Leiden, will be received by the minister from Holland at a meeting on May 16. A Franklin medal will also at the time be presented to Admiral D. W. Taylor, chief constructor of the United States Navy, who will make an address on "The Science of Naval Architecture."

ON May 3 of each year the Howard Taylor Ricketts prize for research by students in the departments of pathology and bacteriology and hygiene, in the University of Chicago, is awarded by the university, this being the anniversary of the death of Dr. Ricketts from typhus fever acquired by him while investigating that disease in Mexico City. The prize this year is awarded to Mr. Enrique E. Ecker, for his work entitled, "The Pathogenic Effect and the Nature of a Toxin produced by *Bacillus Paratyphosus B.*"

THE seventh Edison medal, which was awarded to Nikola Tesla "for meritorious achievements in his early original work in polyphase and high-frequency electric currents," will be presented to him at the annual meeting of the American Institute of Electrical Engineers in the auditorium of the Engineering Societies Building, New York, on the evening of May 18. President H. W. Buck will preside, and addresses will be made by Dr. A.

E. Kennelly, chairman of the Edison medal committee; Charles A. Terry, New York, and B. A. Behrend, Boston.

PROFESSOR HIRAM BINGHAM, of Yale University, and Dr. Isaiah Bowman, of the American Geographical Society, have been elected corresponding members of the Geographical Society of Philadelphia.

PROFESSOR ROBERT A. MILLIKAN, of the department of physics of the University of Chicago, has been appointed to direct research by the National Research Council. He has been granted leave of absence by the university for the spring quarter.

DR. BEVERLY T. GALLOWAY, formerly assistant secretary of agriculture, will work in cooperation with the Council for National Defense in mobilizing the agricultural interests of the country.

PRESIDENT TROTTER, of West Virginia University, has appointed the following committee to cooperate with the National Research Council: Professors Waggoner, Reese, Davis, Alderman and Schultz.

DR. ALEXANDER HAMILTON RICE has returned to New York on the steam yacht *Alberta*, on which he sailed in November last to the upper Amazon River. The party included William T. Councilman, professor of pathology in Harvard University; Ernest Howe, a geologist, of Newport, and Earl F. Church, of the United States Coast and Geodetic Survey.

PROFESSOR JULIUS STIEGLITZ, director of the chemical laboratory, University of Chicago, and president of the American Chemical Society, gave, on April 20 and 21, two lectures before the department of chemistry of the Johns Hopkins University on the electronic conception of valence. Dr. Eugene C. Bingham, professor of chemistry at Lafayette College, recently gave three lectures before the department on the nature of viscous and plastic flow.

HENRY MARTYN SEELY, professor emeritus of chemistry and natural history at Middlebury College, died on May 4, in his eighty-ninth year. He was active head of his department for thirty-four years. Professor

Seely, who is a graduate of Yale College, a member of the American Geological Society and a fellow of the American Association for the Advancement of Science, was the author of important publications on the origin of the Champlain Valley.

DR. HENRY MCHATTON, a distinguished physician and surgeon of Macon, Ga., died on April 2, at the age of sixty-one years. Dr. McHatton had been president of the Medical Association of Georgia and medical director of the Macon Hospital. He was the author of numerous contributions to medical science.

SURGEON-GENERAL SIR WILLIAM TAYLOR, late director-general of the Army Medical Service of Great Britain, died on April 10, at Windsor.

THE *Journal* of the American Medical Association reports deaths as follows: I. A. Shabad, professor of pediatrics at the state Woman's Medical College at Petrograd, aged forty-seven years, who had made a special study of rachitis, its origin, nature and treatment. A. Prieur, editor of the *France médicale*, which he transformed into a historical journal, founder of the Société française d'histoire de la médecine, aged fifty-two years. W. Winternitz, the pioneer of scientific hydrotherapy, professor of internal medicine at the University of Vienna since 1881, aged eighty-two years. C. Hartwich, professor of pharmaceutical chemistry, at Zurich, aged sixty-five years.

PROFESSOR BRADLEY M. DAVIS, secretary of the American Society of Naturalists, reports the following actions of the executive committee:

First. The publication of the number of the *Records* due in 1917 has been deferred, the executive committee holding the view that the funds of the society should not be employed at this time on a publication which is not vital to its welfare.

Second. It has been voted that the next meeting of the Naturalists be held at Pittsburgh in conjunction with the meetings of the American Association for the Advancement of Science.

THE ninth semi-annual meeting of the American Institute of Chemical Engineers will be held in Buffalo, N. Y., from June 20 to 23.

ON May 5 administrative officials of 180 leading institutions of learning in the United States conferred with a committee of the Advisory National Defense Commission and arranged machinery for cooperation with the government during the war. Secretary Baker told the conference that important defense work could be done by the schools of the country, and the educators adopted resolutions embodying plans for active service. The resolutions recommended that the Bureau of Education and the States' Relations Service prepare a comprehensive policy of cooperation between the government and the educational institutions "which will make for the most effective use of these institutions throughout the duration of the war." In a statement of principles adopted the educators went on record as believing that all colleges and universities should so modify their calendars and curricula as to comply fully with the present needs of the nation.

AT the annual meeting of the China Medical Missionary Association of Yale University, in January, Dr. Edward H. Hume presented a comprehensive report upon the status of medical education throughout the country, basing his conclusions upon his recent inspection of all the medical centers from Moukden to Canton.

THE Minnesota legislature, recently adjourned, passed a law giving the Minnesota State entomologist needed authority to combat the white pine blister rust in that state, and appropriated for his use \$15,000 for the biennium for fighting this disease. The U. S. Government will also use in the state an equal sum. It is hoped, with the legal machinery and the money available, the disease can be stamped out where it occurs in a limited area on the eastern boundary of the state.

A NUMBER of Akron rubber factories have established at the Municipal University of Akron thirty scholarships in the engineering college to be chosen from high-school graduates ranking in the upper third of the class, preference being given to graduates of Akron

High Schools although others will also be received. The scholarships will cover all tuition, incidental and laboratory fees. Upon entrance the scholarship holders will be assigned to a course upon the cooperative basis, working alternate two week periods in factory and college. Each student will receive from the company employing him the sum of \$37.50 for each two-week period during which he is employed. At the end of the four-year course the graduate will have the opportunity of a permanent position in the organization in which he has been trained.

A COURSE on laboratory organization and management is offered in connection with the summer session at Columbia University by Professor Thomas B. Freas and Professor W. L. Estabrooke. The course is planned to take the students' full time for six weeks. The subjects carried will be: location, laboratory construction, ventilation, etc., of buildings; laboratory equipment, including desks, lockers, shops, gas, electricity, water, suction, liquid and compressed air, balances, etc.; buying from foreign and domestic markets, economic and scientific handling of supplies; organization of stockroom employees and their cooperation with the teaching staff; glass blowing by a professional glass blower will be a special feature; a series of trips in and about New York to manufacturing establishments, industrial and university laboratories, including trips to Boston, Washington, Niagara Falls, Buffalo, Rochester, Syracuse and Philadelphia, in which there will be opportunity to observe application of chemistry especially to university, college and research laboratories.

IT is announced that an Italian who had long made his home at Marseilles has bequeathed \$7,000,000 to the city of Marseilles, mainly for the purpose of founding and maintaining a large hospital.

THE Medical and Chirurgical Faculty of Maryland has created a fund of \$10,000, to be known as the Osler Testimonial Fund, the income of which is to be used for the purchase of books for the faculty, library and for the

upkeep of the hall which bears Sir William Osler's name.

ON April 30 an illustrated lecture on "The Talgai Skull; a Fossil Human Skull Found in Queensland, Australia," was given before the American Ethnological Society, at the American Museum of Natural History by Professor S. A. Smith, professor of anatomy in the University of Sydney. A cast of the skull was exhibited. In view of the fact that this skull is the first relic of Pleistocene man to be discovered in Australia, and one of the most primitive human skulls known, especially as regards the palate form and dentition, this find ranks as one of the most important in human prehistory. Dr. Smith's very careful studies of the Talgai skull will shortly be published by the Royal Society of London.

WE learn from *Nature* that recent enterprises in connection with the preparation of food and the development of its concessions in West Africa and elsewhere have led to the establishment of a research department by the Cooperative Wholesale Society, and Dr. Geoffrey Martin has just been appointed to direct its work. This appointment marks a new departure in connection with the cooperative movement, and has been rendered necessary by the concessions acquired by the Cooperative Wholesale Society in West Africa, Nigeria and elsewhere, as well as by the development of fresh undertakings at home.

THE resident commissioner of the Bechuanaland Protectorate has written respecting the preservation of the remains of Dr. Livingstone's house at Koloben, and of the graves in its vicinity. It appears that action in this direction was the outcome of an appeal by Sir Meiring Beck that steps should be taken to preserve these mementoes of Livingstone's early missionary labors, dating from his residence among the Bechuana before starting on his great exploring journeys to the north. Through the cooperation of the chief Sechele the ruins have now been fenced in and a shed has been erected over the remains of the walls of the house. The ground will in future be regarded as under government protection, and Sechele has been impressed with the necessity

of keeping the site clear of jungle and guarding against injury by veldt fires or cattle. The headman of a neighboring village has been placed in charge, and an inspection of the site will be made from time to time.

Knowledge, the English magazine devoted to popular science founded by the late Mr. Richard A. Proctor thirty-six years ago, which has hitherto appeared monthly, will be published four times a year during the war.

IT is announced that beginning on May 15, *Psychobiology* will appear every second month and will include in the yearly volume, approximately 600 pages. Its pages will be devoted primarily to research which lies in the field common to psychology and the several biological sciences, or which has a distinct bearing on the biological foundations of psychology. No formal limit of length has been imposed on contributors, but short articles will be preferred, and unnecessary length will be considered a bar to publication. While the function of the journal will be primarily to promote the speedy publication of research, discussions of important points may be admitted at the discretion of the editors, such discussions being limited in any case to two pages. Manuscript, submitted for publication should be addressed to Professor Knight Dunlap, The Johns Hopkins University, Homewood, Baltimore, Md.

THE New York Botanical Garden announces its course of spring lectures for 1917. The lectures will be delivered in the lecture hall of the Museum Building of the Garden, Bronx Park, Saturday afternoons, at four o'clock, as follows:

April 28. "Early Spring Flowers," by Dr. N. L. Britton.

May 5. "School and Home Gardening Courses at the New York Botanical Garden," by Mr. Henry G. Parsons.

May 12. "The Spring Flower Garden," by Mr. G. V. Nash.

(Exhibition of Spring Flowers, May 12 and 13.)

May 19. "Garden Soils and their Treatment," by Professor H. F. Button.

May 26. "Modern Methods of producing Seeds for Farm and Garden," by Dr. A. B. Stout.

June 2. "Vacant-lot Gardening," by Mr. Carl Bannwart.

June 9. "Garden Roses," by Professor A. C. Beal.

(Exhibition of Roses and Peonies, June 9 and 10.)

June 16. "The Seaweeds of New York and Vicinity," by Dr. M. A. Howe.

June 23. "Lillies for Everybody," by Mr. Arthur Herrington.

June 30. "The Food Value of Wild Mushrooms," by Dr. W. A. Murrill.

WE learn from the *Fisheries Service Bulletin* that in the early part of September the *Fish Hawk* made another cruise in Chesapeake Bay for the purpose of ascertaining the abundance and quality of the hydroid, or "sea moss," material available at this season. A Baltimore manufacturer of sea-moss articles accompanied the vessel. While the growth is not of the best quality at this season, abundant supplies were obtained, and the manufacturer expressed himself as well satisfied with the opportunity for a commercial fishery. On the conclusion of this trip the eighth regular cruise of the Chesapeake Bay investigation was completed. During the latter part of August the schooner *Grampus* left Norfolk, Va., to continue investigations in Atlantic coast waters, in charge of W. W. Welsh. A line of hydrographic stations was first made from Cape Henry to the gulf stream. About twenty miles southeast by east from Cape Henry a good haul of croakers was made with a small otter trawl, suggesting the possible use of this type of net for the capture of this species. Samples of sargassum weed were obtained for analysis in regard to the possible use of this material as a source of potash, and possibly of iodine and bromine. The vessel then proceeded to Cape May, N. J., and an examination was made of the pound nets in the vicinity of Five Fathom Bank. Observations were continued between Cape May and Gloucester, Mass. At the latter point a shortage of seamen made it necessary to tie up the vessel, and the work that had been planned for the Gulf of Maine was, therefore, abandoned.

UNIVERSITY AND EDUCATIONAL NEWS

PLANS are now being prepared for a new chemistry building at the Montana State Col-

lege to replace the one burned down last October.

FIVE departments of fellowships in mining and metallurgical research, each valued at \$720 for a year of twelve months, are offered by the College of Mines of the University of Washington in cooperation with the federal Bureau of Mines.

DR. EDWARD M. FREEMAN, assistant dean of the department of agriculture of the University of Minnesota, has been offered the deanship of the college of agriculture of the University of Arizona, at Tucson.

THE following instructors at Wellesley College have been advanced to assistant professorships: Mabel A. Stone, botany; Helen S. French, chemistry, and Sarah R. Davis, hygiene.

DR. HOWARD PARSHLEY, who has been working at the Bussey Institution, Harvard University, has been appointed assistant professor of zoology at Smith College.

FRED T. ROGERS, Ph.D., assistant professor of physiology in Baylor University, Waco, Texas, has been appointed to an instructorship in physiology at the University of Chicago.

J. F. REILLY has been promoted to an associate professorship of mathematics at the State University of Iowa.

VICTOR E. RECTOR, principal of the Antioch Industrial School near Hartsville, S. C., and a member of the House of Representatives, has been elected professor of agriculture at the University of South Carolina.

DISCUSSION AND CORRESPONDENCE THE VARIETAL RELATIONS OF CROWN GALL

THE disease known as crown gall and hairy root has been the subject of much experimental inquiry. It has long been known that there were several forms of this disease appearing on apple trees and for some time it was a question whether these several forms were due to the same causal organism. There have been recognized a hard and a soft form of crown gall and the simple, woolly knot, broom root and aerial forms of hairy root.¹

¹ Hedgecock, Bureau of Plant Industry, Bulletin 186.