Harvard University and recently elected head of the department of psychology at the University of Minnesota, is chairman of the committee, and has been made a major in the Sanitary Corps of the Army in charge of the Section of Psychology, which has been established in the office of the Surgeon General.

A number of committees were organized and are now at work on different problems connected with the conduct of the war and national efficiency, partly under the auspices of the office of the Surgeon General and partly in the office of the Adjutant General. Information concerning the work of the committee on the psychological examination of recruits has been communicated to the press.

The members of that committee are R. M. Yerkes, W. V. Bingham, professor of psychology, Carnegie Institute of Technology, Pittsburgh; H. H. Goddard, director of research, the Training School, Vineland, N. J.; T. H. Haines, professor of medicine, Ohio State University; L. M. Terman, professor of educational psychology, Stanford University; F. L. Wells, psychopathologist, McLean Hospital, Waverley, Mass.; and G. M. Whipple, professor of educational psychology, University of Illinois. This committee met continuously for two weeks planning methods and tests. The seven men then separated, went to various parts of the country and applied the methods in actual practise. After making about 500 examinations they gathered again for two weeks and worked over the methods.

Six weeks after the first gathering of these psychologists, their test sheets, report blanks, etc., were ready for the printer. Arrangements were made for a trial of the method under working conditions with large numbers of men. About 4,000 men in regular organization camps, officers' training camps and naval stations, were examined, and special attention was given to correlating the ratings from the psychological examinations with the ratings prepared by the usual army methods.

The results of these thousands of examinations were sent to Columbia University, where, under the direction of Professor Thorndike and with the cooperation of Professor Cattell, Professor Woodworth and other members of the department of psychology, ten assistants and computers worked a month assembling and analyzing the statistical results. Again the seven psychologists went over their methods in the light of these 4,000 examinations to make further improvements.

The psychological examinations are now in progress in four of the national army cantonments: Camp Devens, at Ayer, Mass.; Camp Dix, at Wrightstown, N. J.; Camp Lee, at Petersburg, Va.; and Camp Taylor, at Louisville, Ky. There are about 160,000 men to be examined in these cantonments, and each will receive an intelligence rating as a result of the psychological examination.

The work is undertaken, first, to supplement the medical examination and second, to give line officers estimates of the mental ability and special aptitudes of their men. Reports of the psychological examinations will be made to the chief surgeon of the camp or the psychiatric officer in order that those mentally incompetent may be considered for discharge, and to the regimental and company officers in order that they may use this additional information concerning their men for the improvement of the service.

SCIENTIFIC NOTES AND NEWS

Dr. Otto Klotz has been appointed chief astronomer and director of the Dominion Astronomical Observatory at Ottawa.

Dr. Salvador Debenedetti has been appointed to the directorship of the Museo Etnografico at Buenos Aires, in place of the recently deceased Dr. Juan B. Ambrosetti.

Clarence Ebaugh, professor of chemistry in Denison University, is on leave of absence for the year 1917–18, to serve as chairman of the Council of National Defense for the state of Utah.

Dr. John Preston, superintendent of the State Insane Hospital, Austin, has been appointed by the Medico-Psychological Society to organize neuropsychiatric hospital units to be attached to the base hospitals and other

military sanitary units. Dr. Preston has appointed the following committee to carry out these plans: Drs. Marvin L. Graves, Galveston; John S. Turner, Dallas; George F. Powell, Terrell; Thomas B. Bass, Abilene; James R. Nichols, Austin, and John W. Bradfield, Austin.

DR. G. BACHMANN, professor of physiology in the Emory University School of Medicine, has been appointed cardio-vascular examiner with the rank of first lieutenant and has been assigned to duty at Camp Gordon, Atlanta, Ga.

MAJOR CHARLES F. HOOVER, professor of medicine, Western Reserve University and assistant director of Lakeside Base Hospital in France, is now in Cleveland on leave of absence.

DR. RESTON STEVENSON, assistant professor in charge of physical chemistry in the College of the City of New York, has been appointed captain of the Sanitary Corps of the United States Army.

SEVERAL members of the faculty of the Pennsylvania State College are on leave of absence for national work. Professor E. D. Walker, head of the department of civil engineering, is captain in Company A, of the 5th regiment of Engineers, which left Pittsburgh about July 8 for foreign service. Professor Hugo Diemer, head of the department of industrial engineering, has received a commission as major in the Ordnance Department. He is at present located at Lowell, Mass., in charge of the inspection of fire arms. Other members of the faculty who are in military service are Mr. J. J. Light, of the department of mechanical engineering, who has been commissioned a captain; Lieutenants Steel, Long and Bryans, of the department of civil engineering, are on duty at various camps; Mr. Mills, of the electrical engineering department, is in Washington on naval construction.

OF the members of the instructing staff of the department of chemistry at the Massachusetts Institute of Technology, Professors W. H. Walker and J. F. Norris, Dr. F. H. Smyth and Mr. R. E. Wilson are on leave of absence, and Professor W. K. Lewis devotes only part of his time to the institute during the present year. All these men are actively engaged on gas-defense problems, and are holding responsible positions in the organization which is dealing with these problems at Washington and elsewhere. Professor A. A. Noyes spends a part of his time at Washington, in connection with the work of the National Research Council and the Nitrate Committee. Professors Mulliken, Spear and Mueller have also been engaged at the institute on investigations relating to gas-defence. Professors F. J. Moore and H. P. Talbot gave, during a portion of the summer, courses of instruction to students who were expecting to apply for commissions in the Reserve Officers Training Corps.

AMONG the appointments recently made in the state department of education and registration by the governor of Illinois are those of Professor Thomas C. Chamberlin, head of the department of geology at the University of Chicago, and Professor John Merle Coulter, head of the department of botany at the same institution, to the Board of Natural Resources and Conservation. Professor Chamberlin is commissioner of the Illinois Geological Survey and has been president of the Illinois Academy of Sciences. Professor Coulter is now the president of the Chicago Academy of Sciences and has been for many years a special agent in botany for the United States Department of Agriculture. The Board of Natural Resources and Conservation is part of the state department of education and registration, at the head of which is Francis Wayland Shepardson, formerly associate professor of American history at the University of Chicago.

FRANK CARNEY, Ph.D., professor of geology and geography at Denison University, has resigned to enter the employ of The National Refining Company of Cleveland, Ohio.

PROFESSOR H. F. CLELLAND, secretary of the New England Intercollegiate Geological Excursion, announces that the excursion will be taken on Friday and Saturday, October 12 and 13, and will be in charge of Professor J. B. Woodworth, of Harvard University, and Dr. Edward

Wigglesworth, of the Boston Society of Natural History. It is planned to visit the cliffs of Weyquobsque, Nashaquitsa, and Gay Head, on the island of Martha's Vineyard. Information can be obtained from Professor Woodworth at the Geological Museum, Oxford St., Cambridge, Mass. Circulars will be sent to all persons on the secretary's list.

At Harvard University, a plan for an investigation of the stratigraphy of the Ordovician formations of the Appalachians has been approved by the committee on the Shaler Memorial Fund. Three seasons, under the supervision of Professor Percy E. Raymond, have been arranged. During the past summer, work has been carried on in Vermont, Pennsylvania and Virginia by Dr. Raymond, in collaboration with Mr. Richard M. Field, lecturer at Brown University, Professor E. W. Shuler, of Southern Methodist University, and Professor S. L. Powell, of Roanoke College.

The National Geographic Society's expedition to Mount Katmai, which sailed for the north on May 28, reached Seattle on September 30. The head of the expedition is Dr. Robert F. Griggs, of the Ohio State University.

The Elisha Mitchell Scientific Society held its business meeting September 20. The following officers were elected: Mr. J. G. Beard, president; Dr. J. M. Bell, vice-president; Mr. W. W. Rankin, recording secretary. The following board of editors was elected for the *Elisha Mitchell Journal:* Dr. W. C. Coker, chairman, Mr. M. H. Stacy and Mr. Collier Cobb. The following were elected to membership in the society: Dr. A. W. Hobbs, Messrs. B. Markham, H. M. Sharpe and W. W. Kirk; to associate membership in the society: Messrs. J. C. Bynum, L. G. Marsh, G. B. Lay, W. W. Eagle, E. H. Griffin, W. F. Morrison, R. W. Parks, J. W. Sawyer, N. A. Reasoner, J. W. Smithey, C. H. Herty, Jr., R. H. Rimmer, B. L. Meredith, I. V. Giles, and R. D. Ballew.

The California Academy of Sciences has provided a course of lectures on popular scientific subjects to be given at three o'clock each Sunday afternoon in the auditorium of the Academy's Museum in Golden Gate Park, as follows:

September 23. Professor S. J. Holmes, department of zoology, University of California, "Social evolution and eugenic progress."

September 30. Professor C. A. Kofoid, department of zoology, University of California, "A visit to Easter Island," illustrated by stereopticon.

October 7. Dr Barton W. Evermann, director, California Academy of Sciences, "Birds of Pyramid Lake," illustrated by moving pictures.

October 14. Dr. Chester Stock, department of paleontology, University of California, "Pleistocene caves of California."

October 21. Dr. H. W. Fairbanks, supervisor of geography, Berkeley Schools, "Influence of climate and topography upon California's development."

Dr. Charles Hughes Johnston, professor of education in the University of Illinois and editor of *Educational Administration and Supervision,* was killed in an automobile accident near Elkridge, Md., on September 3, aged forty years.

The department of zoology of Smith College has been presented by the Boston Society of Natural History, through its curator, Dr. W. C. Johnson, with a complete collection of the land and freshwater mollusks of Massachusetts. This collection—every specimen of which is accurately determined and labelled by Dr. Johnson, will serve as a standard of comparison for any one wishing to identify the local molluscan fauna.

The *Indian Forester,* as quoted in *Nature,* describes the organization of the Chinese Forest Service, which came into existence in January, 1916, as a subordinate branch of the Ministry of Agriculture and Commerce at Peking. The heads of the service, styled "co-directors," are Mr. Forsythe Sherfesee, for six years employed in, and lately director of, the Philippine Forestry Bureau, and Mr. Ngan Han, who studied forestry in Cornell and Michigan universities several years ago. There are other Chinese in the service, who have received a technical training in the United States, and an expert from Kew, Mr. W. Purdom acts as botanist and is chief of one of the six divisions into which the service is organized. In this article an ambitious program of afforestation, education, propaganda,

etc., is sketched out, but no details are given of any work that has been actually accomplished.

IN connection with the search for potash and nitrates in the United States the government receives many reports of supposedly valuable discoveries. A letter recently received by the United States Geological Survey of the Interior Department describes a cave in one of the Southern States which was worked by the Confederacy during the Civil War for potassium nitrate. This cave is said to contain at least 1,000,000 tons of nitrous earth, which, however, contains only 1 to 2 per cent. of nitrate. The survey now states that it seems very doubtful whether such material can be profitably used as a source of nitrate salts. The minimum grade of caliche now worked in the Chilean fields contains 12 per cent. of sodium nitrate, and though there has been much criticism of the crudeness of the methods employed there, the work is done by very cheap Indian labor, and it is doubtful whether leaner material could be worked to advantage here, where the price of labor is so much higher. Several hundred thousand dollars have recently been expended in one of the Western States in testing the proposition to utilize low-grade nitrate. The results have been negative. The nitrate caves in the South were worked during the Civil War by very crude methods. Generally the cave earth was shoveled into iron pots, where it was treated with water and heated over wood fires to leach out its soluble parts. The liquor was drawn from one pot into another and used for treating fresh material until it became a highly concentrated solution of nitrate salts. It was then drawn off and allowed to cool, whereupon the nitrate crystallized. The remaining liquor was then employed to leach fresh material and the crystals were separated and sacked for use.

To make the desert regions of the western part of the United States more accessible by locating their widely separated watering places and erecting hundreds of signposts to give directions and distances to the watering places is an interesting and practical project recently undertaken by the United States Geological Survey, Department of the Interior. The project involves also the work of making accurate maps showing the locations of the watering places, of preparing guides describing them and giving the distances between them, of selecting well sites, and of developing watering places (so far as money available will permit) in localities where water is most needed and where the geologic investigations indicate that underground supplies can be obtained. It is expected that this work will help to expedite the discovery and development of the rich mineral deposits in parts of these regions. It will, of course, also be valuable in other respects. In recent years the water-supply geologists of the Geological Survey have developed trustworthy methods of locating ground water in arid regions from surface indications and of estimating the depth to water and the approximate annual yield of the underground reservoirs. These methods will be applied and further developed in connection with the survey of desert watering places. A number of Survey parties are now being organized in Washington and will in a few weeks be at work in the most arid parts of Arizona, California, and Nevada. Each party will consist of a geologist and one or more assistants and will be provided with an automobile and camping outfit.

UNIVERSITY AND EDUCATIONAL NEWS

THE will of Miss Kate Collins Brown, formerly of New Orleans, who died on August 19, disposes of an estate of more than $700,000 of which she left nearly $500,000 in direct bequests and gave the residue to Columbia and New York Universities and the Presbyterian Hospital. The share of the educational institutions is to establish scholarships paying $300 a year to needy students.

THE Pacific Coast Gas Association has given $4,415 to the University of California to further instruction and research in gas engineering.

THE nineteenth annual conference of the Association of American Universities will hold