

Such a survey as is contemplated will not fail to bring to light certain corollary questions, which will of necessity have to be pursued to some degree in order to get that breadth of comprehension necessary to an inclusive judgment and action.

On the basis of the information comprehended in this statement of aims, there should be opportunity to set up certain forward-looking and comprehensive objectives for the profession. Engineers are presumed to be analyzers and planners. It is therefore logical to believe that by analyzing the profession they would be able to formulate some major objectives for the profession to endeavor to realize in the years ahead.

ENROLMENT IN THE MEDICAL SCHOOLS

THE U. S. Bureau of Education has issued a statement in regard to enrolment in the medical schools throughout the United States, according to which an investigation made in the fall of 1926 showed that the 8,500 individual applicants made altogether 20,093 applications, or each applicant on the average had applied to two and one half medical schools. Of the applications received 6,420 were accepted, but when the session began, only 5,020 students were actually enrolled, indicating that 1,400 students had applied and had been accepted by two or more medical schools. Thus, at the beginning of the college year 1926-27, there were 1,400 vacancies still existing, or one fourth of the entire first-year capacity. Fortu-

nately, the medical schools had waiting lists, so that 989 of these vacancies were filled, as later reports showed that 6,009 students had been admitted. The report of the investigation stated also that of the 3,480 not accepted, 2,622 were rejected because of unsatisfactory qualifications.

The number of students graduating from medical schools during the past two years has increased from 3,962 to 4,262, an increase of 300 in the two years.

For the students who graduated in 1928, a special tabulation was prepared which gave the average age at graduation from the four-year medical course as 26.8 years. Or, counting the fifth year of hospital internship, the average age was 27.8.

Greatly enlarged plants at Columbia University and the University of Colorado medical schools have been completed within the past two years, as have also new buildings at Howard University and the State Universities of Iowa, Kansas and Tennessee and at the Johns Hopkins. Thus the capacity of medical schools is continually being increased, which is making it possible to enroll increasing numbers of medical students.

The United States has 149,521 physicians to its 118,127,645 population; this is a greater percentage (126.59 per 100,000 population) than that of any other country. However, this is a smaller number to each 100 square miles than in 18 other countries, but a larger number than in 22 other countries.

SCIENTIFIC NOTES AND NEWS

THE William H. Welch Medical Library of the Johns Hopkins University and the Department of the History of Medicine are being dedicated on Thursday and Friday of the present week. The principal addresses are by Dr. Harvey Cushing, Moseley professor of surgery in the Harvard Medical School and surgeon-in-chief at the Peter Bent Brigham Hospital, and Dr. Karl Sudhoff, emeritus professor of the history of medicine at the University of Leipzig.

ON Tuesday and Wednesday of this week the Wilmer Ophthalmological Institute of the Johns Hopkins University was dedicated. According to the program, it was expected that addresses would be made by Mr. Hubert L. Satterlee, president of the William Holland Wilmer Foundation, and by Mrs. Henry Breckenridge. In connection with the dedication, lectures were arranged by Professor Ernst Fuchs, of the University of Vienna; by Dr. George E. de Schweinitz, of the University of Pennsylvania, and by Sir John Herbert Parsons, of the University of London.

THE Francis P. Garvan chair of chemical education at the Johns Hopkins University was dedicated

on October 11 when in addition to President Ames and Mr. Garvan the speakers were Dr. John J. Abel, of the Johns Hopkins Medical School, and Dr. Irving Langmuir, of the General Electric Company, president of the American Chemical Society.

THE Institute of Pathology of Western Reserve University was dedicated on October 7. The building is the gift of the General Education Board of the Rockefeller Foundation. The dedication program began at 1:30 P. M. with inspection of the building. Formal dedication was held at five o'clock in the Florence Harkness Memorial Chapel with the address by Dr. Henry R. Dean, professor of pathology of the University of Cambridge. At seven o'clock Dr. Robert E. Vinson, president, was the host at a dinner in Hayden Hall to delegates of universities and learned societies and to trustees of the university and of the university hospitals. Honor guests of the occasion beside Dr. Dean were Dr. William T. Councilman, of Harvard University; Dr. Ludvig Hektoen, of the University of Chicago, and Dr. Simon Flexner, of the Rockefeller Institute for Medical Research. Dr. Howard T. Karsner is director of the institute.

THE Moore Laboratory of Chemistry at Amherst College will be dedicated on October 25. The principal address will be given by Dr. C. E. K. Mees, director of the Eastman Kodak Company.

THE Lady Herdman Memorial Building for geology of the University of Liverpool will be opened by Mr. Stanley Baldwin on October 21.

THE seventh Josiah Willard Gibbs lecture will be delivered at Des Moines on the afternoon of Tuesday, December 31, by Professor Irving Fisher, of Yale University. This lecture is given under the joint auspices of the American Mathematical Society and of Section A of the American Association for the Advancement of Science. The subject will be "The Application of Mathematics to the Social Sciences." Professor Fisher was a colleague of Professor Gibbs. He started his teaching career as a tutor and later an assistant professor of mathematics at Yale. Some of his earliest publications were in the field of mathematics and his later economic works have been noted for their use of that science.

AMONG the honorary degrees conferred on the occasion of the centennial celebration of Illinois College were the degree of doctor of science on Dr. James Howard Brown, professor of bacteriology at the Johns Hopkins University; on Dr. Joseph A. Capps, professor of clinical medicine in the University of Chicago, and on Dr. Samuel W. Parr, professor of chemistry in the University of Illinois. The degree of doctor of laws was conferred on Dr. James Rowland Angell, president of Yale University.

DR. GEORGE FILLMORE SWAIN, of the engineering school of Harvard University, has been made an honorary member of the American Society of Civil Engineers.

THE doctorate of science was recently conferred by Beloit College on Dr. Walter V. Bingham, director of the Personnel Research Federation of New York City.

AT the forty-second meeting of the American Astronomical Society in Ottawa, the following new officers were elected: *Vice-president*, R. G. Aitken, 1929-31; *Secretary*, R. S. Dugan, 1929-30; *Treasurer*, Benjamin Boss, 1929-30; *Councilors*, E. S. King, 1929-32, F. H. Seares, 1929-32; *Members of Division of Physical Sciences, National Research Council*, S. A. Mitchell, 1930-33. It was decided to hold the next meeting, in December, at the Harvard College Observatory.

PROFESSOR ASAPH HALL, for many years astronomer at the U. S. Naval Observatory, has recently retired. He is making his home at Upper Darby, Pennsylvania, where he is actively continuing certain work, using the instruments at the Flower Observatory.

AT the University of Kentucky and Agricultural Experiment Station Dr. A. M. Peters, chemist, and Dr. Harrison Garman, head of the department of entomology and botany, have retired, both having reached the age of seventy years.

ANNOUNCEMENT is made of the retirement of Professor R. A. Cooley, State College, University of Montana, Bozeman, as head of the department of entomology, Experiment Station entomologist and state entomologist. After thirty years' service in Montana, at his own request he retires as head and continues as research professor in entomology and entomologist in the board of entomology. The release from executive duties will enable Professor Cooley to devote more attention to tick parasites in foreign countries and to their possible use in controlling the spotted fever tick in the northwest.

WILLIAM L. COOPER has been appointed director of the bureau of foreign and domestic commerce in the Department of Commerce to succeed Dr. Julius Klein.

DR. ROBERT B. GREENOUGH, assistant professor of surgery at the Harvard Medical School, was elected to the newly created office of chairman of the board of directors of the American Society for the Control of Cancer on October 9. The appointment of Dr. C. C. Little as managing director, which has already been reported, was confirmed.

THE London School of Hygiene and Tropical Medicine announces in the *London Times* that the transfer of Dr. J. G. Thomson to the Ross Institute will not take place. Dr. Thomson retains his appointment in the school as director of the department of protozoology.

PROFESSOR DR. B. ISSATSCHENKO has been elected chief of the department of general microbiology of the Institute of Experimental Medicine of Leningrad in succession to the late Dr. W. Omelianski.

THE following post-doctorate fellows have been appointed at the University of Pittsburgh: Hans du Mont, Ph.D., Greifswald, exchange fellow, and Chi Fang Lai, chemical engineer, National Institute of Technology, Peking, China.

DR. F. E. SMITH, director of scientific research at the British Admiralty since 1920, has been appointed secretary to the Committee of the Privy Council for Scientific and Industrial Research, in succession to Mr. H. T. Tizard, who recently resigned upon his appointment as rector of the Imperial College of Science and Technology, London.

DR. J. ALLEN SCOTT, of the school of hygiene and public health of the Johns Hopkins University, has accepted a position to do research work in the Public Health Laboratories at Cairo, Egypt.

J. W. BIGGER, professor of bacteriology and preventive medicine in Trinity College, Dublin, is spending October and November in Canada and the United States visiting the medical departments of the universities and hospitals under the auspices of the Rockefeller Foundation.

SCOTT TURNER, director of the United States Bureau of Mines, sailed from San Francisco on October 10 to attend the World Engineering Congress in Tokio, Japan, which will be held from October 29 to November 7. Following the appointment of President Hoover, then secretary of commerce, as honorary chairman of the World Engineering Congress for the United States, Mr. Turner was appointed by Mr. Hoover as one of the five federal engineers who are to represent the United States government at the congress.

THE American School of Prehistoric Research, of which Dr. George Grant MacCurdy, of Yale University, is director, will cooperate with the British School of Archeology at Jerusalem next April, May and June, in excavating three caves at the foot of Mount Carmel, near Athlit, Palestine. Dr. MacCurdy returned to New Haven on October 1 after conducting the ninth summer term of the school in selected portions of England, France and Spain. About half the term was devoted to excavating a rock shelter in Dordogne. Students attending the tenth summer term beginning the first of July, 1930, will have an opportunity to excavate not only in the Dordogne, but also in Spain.

DEAN L. E. CALL and Professor George A. Dean, of the Kansas State Agricultural College, left on September 23 to inspect the European corn-borer work in Ohio, Indiana, Michigan and Ontario. Dean Call and Professor Dean are chairmen of committees appointed by the American Society of Agronomy and the American Association of Economic Entomologists to study the investigational and control work on the corn-borer, and to report to their national societies.

At the Minneapolis meeting of the American Medical Association in 1928 the section on the practice of medicine established the Frank Billings Lectureship Fund in view of the distinguished services which Dr. Billings has rendered to American medicine. The object of the fund is to provide a lecturer each year before the section. The trustees—Drs. Rollin T. Woodyatt, Chicago; James E. Paullin, Jr., Atlanta; Russell L. Cecil, New York; Warfield T. Longcope, Baltimore; Walter L. Bierring, treasurer, Des Moines—will endeavor to complete the fund within the next two years.

DR. BERGEN DAVIS, professor of physics at Columbia University, will lecture on October 24 before the

Franklin Institute, Philadelphia, on "The Capture of Electrons by Swiftly Moving Particles."

AN Associated Press despatch reports that the meeting of the Italian Congress of Science opened at Florence on September 18. Scientific men from the United States who were present included Dr. Lauder W. Jones, professor of chemistry at Princeton University, and Dr. W. J. Robbins, professor of botany at the University of Missouri, who took part in the discussions. Among other visitors was General Perrier, president of the French Association for the Advancement of Science.

THE one hundred and fifty-ninth regular meeting of the American Physical Society will be held in Chicago at the Ryerson Physical Laboratory on Friday and Saturday, November 29 and 30. The one hundred and sixtieth regular meeting will be held at Stanford University on Saturday, December 7. If the length of the program requires it, there will be sessions on Friday, December 6.

THROUGH the efforts of the United States Fisheries Association the Bureau of Fisheries had an exhibit at the convention of that association in Atlantic City, N. J., on September 5, 6 and 7. The exhibit covered the following subjects: Net preservation, nutritive value and use of fishery food products and by-products, oyster culture or farming and tagging of fish useful in the study of the migrations of commercial species of fish. According to the *Fisheries Service Bulletin* a great deal of interest was shown in the exhibit, especially that part pertaining to the nutritive value and use of fishery food products and by-products in dietetics and animal nutrition. A map of the United States, prepared by the United States Public Health Service, showing the goiter belts, based on statistics obtained from the examination of 2,500,000 men for World War service, was shown, together with a mimeographed article for distribution explaining the necessity for including sea foods in the diet as a source of iodine in those regions of iodine deficiency. Interest in the bureau's exhibit was evidenced not only by those attending the fisheries convention but by physicians, dietitians, school teachers and other professional people from Atlantic City locally or from among guests at the various hotels, who came in large numbers to study the features of the exhibit from an educational and medical standpoint.

THE federal government's basic survey of the United States, which would require about 80 years at the present rate of progress, can be completed, according to a statement made by President Hoover which is reported in the *U. S. Daily*, within 18 years at an estimated cost of \$1,000,000 annually under plans submitted by the Secretary of the Interior, Ray Lyman

Wilbur, and the Secretary of Commerce, Robert P. Lamont. The report on the government's surveys will be incorporated in estimates to be submitted to Congress by the Bureau of the Budget. These surveys are being made by the Coast and Geodetic Survey of the Department of Commerce and maps of the surveys by the topographic section of the Geological Survey, Department of the Interior. Secretary Wilbur and Secretary Lamont had submitted a plan for completion of the surveys within 18 years which will be incorporated in the estimates to be submitted to Congress by the Bureau of the Budget. It is proposed to expedite this work, which the President said he regarded as of very great economic importance, both to the various states and the federal government's activities, at a cost of \$1,000,000 annually. About 43 per cent. of the accurate mapping has been completed by the federal government. It has taken 70 years to complete 43 per cent. of the work and the government does not want to wait 80 years to complete the remainder of the task. The President pointed out that if there had been adequate maps of the Mississippi River flood area it would have been possible to have saved 100,000 head of cattle at the time of the 1927 Mississippi flood.

THE new division of radiation and organisms of the Smithsonian Institution, the purpose of which is to study the exact dependence of the growth of plants and the health of animals on rays such as are received from the sun or from electric lamps, is making rapid progress. Four rooms in the west basement of the Smithsonian building, formerly used for storage, have been converted into laboratories, one of which is already fully equipped and in operation as a glass-blowing laboratory in charge of Mr. L. B. Clark. Special apparatus for the work, including photographic, electric and spectroscopic appliances, is being installed, and a growth chamber of special design for useful plants is being constructed. The offices of the division have been placed in the recently finished upper rooms of the flag tower, in which an elevator has been installed. The other rooms in the flag tower are being finished, and eventually there will be eight offices there where formerly there was nothing but storage rooms and a place for pigeons. The personnel of the division consists of Dr. F. S. Brackett, director; Dr. E. S. Johnston, of the University of Maryland, collaborator; Mr. L. B. Clark, laboratory assistant and technician, and Miss Virginia P. Stanley, stenographer.

UNIVERSITY AND EDUCATIONAL NOTES

By the provision of the will of Miss Annie Clarkson, of New York City, Clarkson Memorial College of Technology of Potsdam, N. Y., receives outright \$100,000. Mrs. W. A. Moore, Potsdam, N. Y., a sister of Miss Clarkson, is to have the income of the residue of the estate, conservatively estimated at \$1,000,000, during her life, and at her death this is to be turned over to the Clarkson Memorial College of Technology. Mrs. Moore has decided to waive use of this sum and to turn over the amount to the college at once. By this double gift of the two Clarkson sisters the college will be able to move from the village of Potsdam to the beautiful Clarkson estate, which had already been given to the college by Miss Annie Clarkson.

A BEQUEST of \$500,000 from Frank A. Champlin, who died recently in Los Angeles, has been made to Colby College, to be part of the permanent endowment fund of the college and to be known as the "James Tift Champlin and Mary A. Champlin Gift."

JOHN D. ROCKEFELLER, JR., has given \$300,000 to the trustees of Hartford Seminary Foundation toward an endowment fund of \$1,500,000.

A GROUND School in Aviation has been instituted at Union College, Schenectady, being carried on in

cooperation with the Colonial Airways Corporation. The work is under the direction of the department of physics of Union College and part of it will be given there and part at the Colonial hangar of the Albany Airport.

THE department of anatomy of the University of Illinois College of Medicine announces the following new members of its staff: Dr. Franklin P. Reagan, associate professor, formerly at the University of Indiana; Dr. Arnold A. Zimmermann, assistant professor, formerly at Loyola University, and Dr. Gustav Zechel, instructor, formerly at the German university in Prague.

DR. C. Y. CANNON, head of the department of dairy husbandry at Brigham Young University, has been appointed head of the section of dairy husbandry at Iowa State College.

DR. E. C. ANGST has been appointed assistant professor of botany at the University of Oklahoma in charge of courses in bacteriology and cryptogamic botany. Rufus H. Moore has been appointed instructor in botany.