both pedagogic and disciplinary. Still fewer, with the men, means and reputation, say half a dozen in our whole country at first, will bravely lop off all collegiate work as soon as it is adequately provided for elsewhere and stand forth as full-fledged universities—places for the purposes of true advanced education, for real (not sham) investigation, and for the training of leaders in thought, science and action. Our nation does not yet seem to make a strong demand for many of these, judging by recent experience. What will probably take place, along with more efficient instruction, will be to make the break between collegiate and university work at the end of the present sophomore year as the Germans practically do. There are sound reasons for doing this both from educational and from administrative standpoints, and to these may be added the strong economic argument that it will place our young men and women-quite as well trained as our present college graduates-in the world of outside activities two years earlier in their lives.

As to salaries, with these reforms carried out, there can be no doubt of a continuation of the present trend toward improvement with a hope of an ultimate scale permitting a standard of living within the line of suitable dignity and comfort. The writer would again draw attention to the fact, overlooked too long, that the instructorship is the real key to the situation of the improvement in higher instructional efficiency, and that any fundamental improvement in conditions must be begun in the treatment of this rank. In disclosing the real state of affairs and in guiding the institutions toward a closer cooperation, and unification into an efficient whole, the reports of President Pritchett, of the Carnegie Foundation, have already proved to be of extreme value. Further reports along the lines already indicated will undoubtedly but add to the indebtedness of the educational world to this foundation. With its trained staff and financial support it can carry out investigations which, even with the greatest industry and devotion, would be impossible of achievement through individual effort.

As a final paragraph, the writer would call the attention of his fellow teachers to the inspiring vision of this vast army of young men and women coming forward for training for the duties of life. Well may we conceive a new respect for the importance and significance of our calling, and in all sincerity and humility dedicate ourselves afresh to a life of unselfish service in the cause of humanity; for to our hands is entrusted no less a power than that of effectively molding the controlling ideals of our nation's immediate future. Bacon says:

We advise all men to think of the true ends of knowledge, and that they endeavor not after it for curiosity, contention or the sake of despising others, nor yet for reputation or power or any such inferior considerations, but solely for the occasions and uses of life.

The great heart of America is sound; her ills of haste, diffusion and superficiality are curable. Humanly speaking, the key to the solution of all her problems lies in the substitution of trained, clear thought-processes for the still too prevalent slovenly-mindedness.

GUIDO H. MARX

STANFORD UNIVERSITY

SCIENTIFIC NOTES AND NEWS

A COMPLIMENTARY dinner was given on April 17 at Hotel Somerset, Boston, in honor of the seventieth birthday of Professor F. W. Putnam, since 1886 professor of American archeology and anthropology at Harvard University and for twenty-five years permanent secretary and later president of the American Association for the Advancement of Science.

A large volume of anthropological essays contributed by various friends and associates was presented, and numerous letters and telegrams of congratulation were received from scientific bodies in this country and in Europe.

WE much regret to learn that Professor Simon Newcomb, who had been recovering from an operation performed in January, has been compelled to return to the Johns Hopkins Hospital.

AT a convocation of McGill University to be held on the occasion of the opening of McDonald College at St. Anne's on June 3, the degree of LL.D. will be conferred on the Hon. James Wilson, secretary of agriculture; Dr. James Earl Russell, dean of Teachers College, Columbia University; Mr. Gifford Pinchot, chief forester; Dr. D. McEachern, former dean of the faculty of comparative medicine of McGill University, and Dr. James W. Robertson, principal of Macdonald College.

The Cullom Gold medal of the American Geographical Society of New York, awarded to Professor W. M. Davis in the spring of 1908, was presented to him at the meeting of April 20, 1909, when he lectured before the society on the "Lessons of the Colorado Canyon."

Professor A. Lawrence Rotch has recently been elected an honorary member of the Austrian Meteorological Society.

At the Washington meeting of the American Physical Society, Professor Max Planck, of the University of Berlin, now in this country to lecture at Columbia University, was elected an honorary member.

To Professor L. H. Friedburg his colleagues of the chemistry department of the College of the City of New York, gave a dinner on May 1 in celebration of the fortieth anniversary of his receiving the doctor's degree at Göttingen.

Professor Charles B. Richards, for the past twenty-five years head of the mechanical engineering department in the Sheffield School of Yale University, has signified his intention of retiring.

THE office of the superintendent for suppressing the gypsy and brown-tail moths by an act of the general court of Massachusetts has been combined with the office of state forester under the title of the latter. Governor Draper and his council appointed Mr. F. W. Rane to the new position on April 14 at a salary of \$5,000. The office of state forester has been moved from the State House to No. 6 Beacon street.

Mr. H. Foster Bain has become associate editor of the *Mining and Scientific Press* at San Francisco. Mr. T. A. Rickard, editor of the journal, is about to start a monthly mining magazine at London, England.

Professor Arthur Hoskins, professor of mineralogy in the Colorado School of Mines, was seriously injured by a collision of the train carrying 135 members of the senior class of the School of Mines on a trip of inspection to Utah and Montana.

Professor Wallace C. Sabine, dean of the Graduate School of Applied Science, of Harvard University, sailed from New York on April 29 for Naples. He goes in the interests of the university to observe the equipment and methods of various technical schools in Europe and to study the acoustics of some of the buildings. He will visit technical schools at Turin, Zurich, Aachen, Munich, Leipsic, Charlottenburg, Breslau, Paris, London, Manchester, Leeds and other places.

Dr. Robert Kennedy Duncan, professor of industrial chemistry at the University of Kansas, sailed on May 15 for Europe to attend the International Congress of Applied Chemistry.

Dr. A. Hrdlicka, of the U. S. National Museum, has returned from a five months' trip to Egypt and Europe.

Dr. Warren D. Smith has resumed his duties as chief of the Mining Division of the Bureau of Science, Manila, after ten months spent in America and Europe in working up Philippine material. He spent some time in Leiden in comparing Philippine fossils with Dr. Martin's Javan types. While in London Dr. Smith was elected a fellow of the Royal Geographical Society.

Professor J. Mark Baldwin, of the Johns Hopkins University, has been giving courses under the auspices of the Mexican Department of Public Instruction on University Organization and on Scientific Psychology. According to the *Mexican Daily Record*, in one of his lectures, attended by the minister of public instruction and fine arts, he advocated the union of the professional schools in the City of Mexico and the establishment of a university under the auspices of the government.

Dr. L. A. Bauer gave the following course of lectures on terrestrial magnetism at the Johns Hopkins University, May 4-7: "The Earth's Magnetism and its Variations"; "Solar Activity and Magnetic Storms"; "Magnetic Surveys"; "Methods and Results."

On May 4 Professor Svante Arrhenius began a course of two lectures at the Royal Institution on "Cosmogonical Questions." These are the Tyndall lectures. The Friday evening discourse on May 7 was delivered by Major Ronald Ross, on "The Campaign against Malaria," on May 14 Professor George E. Hale will lecture on "Solar Vortices and Magnetic Fields."

LIEUTENANT E. H. SHACKLETON will describe his Antarctic expedition at a meeting of the Royal Geographical Society to be held in the Albert Hall on June 24.

A TABLET in memory of the late President Thomas M. Drown has been placed on the walls of the chemical laboratory of the Massachusetts Institute of Technology. A similar tablet will be placed in Drown Memorial Hall of Lehigh University.

THE sixtieth congress appropriated, as has been noted here, five thousand dollars for the erection of a suitable memorial to Major J. W. Powell, to be placed on the brink of the Grand Canyon of the Colorado. For the purpose of complying with the will of congress in this behalf, the Secretary of the Interior asked a committee consisting of W. H. Holmes, chairman, H. C. Rizer and C. D. Walcott to assist him in determining the character of the monument and in selecting the site. At the earnest solicitation of numerous old-time associates of Major Powell, this committee has consented to initiate a movement among his friends for the

erection of an appropriate monument over his grave at Arlington National Cemetery, which remains as yet unmarked. The character of the monument will not be decided upon until the fund has been raised, but the committee will be glad to receive from contributors suggestions relating thereto. Subscriptions should be sent to Colonel H. C. Rizer, U. S. Geological Survey, Washington, D. C.

The bill to establish a state geological survey in Tennessee has passed both houses of the legislature by a large majority. The bill provides for a commission composed of the governor, secretary of agriculture, state inspector of mines and the heads of the three leading educational institutions of the state, the University of Tennessee, Vanderbilt University and the University of the South (Sewanee). The act carries an appropriation of fifteen thousand dollars for each of the years 1910 and 1911. In view of the unusual expenditures for 1909 the appropriation was not made available until 1910.

For the second time within three months fire threatened with destruction on May 9 the building in Washington in which the Geological Survey is housed. The blaze was extinguished, not, however, until the chemical laboratory had been destroyed and valuable maps and charts stored in the building had been again damaged by water. It is not known how the fire originated, but it is practically certain that crossed electric wires were the cause of the trouble, as they were of the blaze three months ago.

The seventh annual meeting of the Nantucket Maria Mitchell Association was held in Boston on April 28. In addition to routine business, a committee was appointed to collect twenty-five thousand dollars, the income of which shall be used to meet the expenses of an astronomical observer; it is proposed that said fund shall be known as the Memorial Research Fellowship of the Nantucket Maria Mitchell Association and shall provide for the appointee several months study in one of the larger universities, the remaining working months of the year to be given to the Memorial Observatory on Nantucket, where original research work shall be accomplished together

with instructions to classes or individuals. The appointee shall preferably be a woman if equally competent with other applicants, and the fellowship shall be awarded by a committee of six, composed of the president of the association, the chairman of the observatory committee and four others to be named by the president. The committee appointed for this service is Chairman, Professor Mary W. Whitney, Vassar College; Miss Annie J. Cannon, Harvard Observatory; Miss Caroline E. Furness, Ph.D., Vassar College; Mrs. Thomas W. Sidwell, Washington, D. C.: Dr. Emma B. Culbertson, Boston, and Mrs. Charles S. Hinchman, secretary, 3635 Chestnut street, Philadelphia, Pa.

UNIVERSITY AND EDUCATIONAL NEWS

The recent Minnesota legislature appropriated to the State University \$2,150,000 for the biennial period. This is in addition to the mill tax amounting to \$235,000 annually. Of the appropriation made by the legislature, \$190,000 is for support in 1909–10 and \$200,000 support for 1910–11. The sum of \$350,000 is appropriated for campus extension, and nearly \$1,000,000 for new buildings. The latter are to include a general medical building and an anatomical building, each to cost \$200,000.

The trustees of Columbia University announce that \$500,000 had been secured for the erection of Kent Hall and work on the new law school building will soon begin. Other gifts announced were \$30,000 for general university purposes and \$5,000 for the department of pathology, both being anonymous.

A fund of \$100,000 has been collected for Middlebury College, of which \$25,000 has been given by Dr. D. K. Pearson.

Mr. John R. Lindgren has given \$25,000 to the Northwestern University to establish a fund for the promotion of peace.

The new hall of engineering of Northwestern University was dedicated on May 7, when addresses were made by Professor John F. Hayford, director of the College of Engineering and Mr. C. W. Baker, editor of *The Engi*neering News. The inauguration of Dr. Abbott Lawrence Lowell, as president of Harvard University, and the attendant ceremonies will be held on October 6 and 7, 1909.

AT Columbia University Dr. A. P. Wills, adjunct professor of mechanics, has been appointed professor of mathematical physics, to succeed Professor Richard T. Maclaurin, who will become head of the Massachusetts Institute of Technology. Dr. Bergen Davis has been appointed adjunct professor of physics to fill the vacancy arisen through the death of Professor Tufts. Dr. Geo. B. Pegram has been promoted to an adjunct professorship in the same department. Dr. Hugh Angus Stewart, of Edinburgh and recently of the Johns Hopkins University, has been called to an adjunct professorship of pathology in the College of Physicians and Surgeons.

The new professorship in the department of teaching of the University of Vermont has been filled by the appointment of Dr. J. F. Messenger, A.B. (Kansas), A.M. (Harvard), Ph.D. (Columbia), now professor of pedagogy in the Virginia State Normal School at Farmville.

DISCUSSION AND CORRESPONDENCE

OCCURRENCE OF THE KILLER WHALE (ORCINUS
ORCA) ON THE NEW JERSEY COAST

To the Editor of Science: Neither of the two zoologists, Messrs. Rhoads and Stone, who have recently published extensive catalogues of the vertebrate fauna of New Jersey, records any instances of the stranding of killer whales on the coast of that state. Mr. Rhoads remarks of them (1903):

While often found off the New Jersey coast, there seem to be no records of its stranding, or being captured.

In view of this circumstance, it may be of some interest to note that the National Museum has obtained the skull and other parts of the skeleton of a killer whale which stranded at Barnegat, N. J., in January, 1909. The animal was at first reported to be a strange creature, of a most extraordinary kind, with hair, claws, a long neck, etc., but upon receipt of the skull it was at once seen that these characters were imaginary. The specimen was reported to be about thirty feet