

of the changes briefly outlined above, is that during this, or possibly some previous earthquake, vast quantities of snow and ice were shaken down from the mountains upon the gathering grounds of these glaciers, starting a wave of advance whose thrust is now being felt by some of the glaciers, the thrust being sufficiently powerful to crowd forward and break up even the nearly stagnant termini. The selective action of this process, by which some of the glaciers are caused to advance and others not, may be only apparent, for it is possible that the wave of advance has not yet affected glaciers which will ultimately begin to move forward. It is highly probable, however, that in some instances the supply ground of the glaciers did not have conditions favorable to the large accession of snow necessary to cause a rapid crowding forward.

The future progress of this interesting phenomenon should be carefully watched. In order to discover and definitely prove its cause, we need to have a series of observations extending through successive years to see what happens to those glaciers which have just advanced, and to determine whether other glaciers are influenced in the same way, and exactly how they are affected. There is no region of active glaciers known to me which promises to yield more important results than this, if carefully watched for the next few years.

RALPH S. TARR

CORNELL UNIVERSITY,
ITHACA, N. Y.

SCIENTIFIC NOTES AND NEWS

DR. EDWARD L. NICHOLS, professor of physics in Cornell University, has been elected president of the American Association for the Advancement of Science for the meeting to be held next year at Chicago. The New York meeting, held from December 27 to January 1, under the presidency of Dr. W. H. Welch, professor of pathology in the Johns Hopkins University, has had no equal in size and probably no parallel in its service for the advancement and diffusion of science. The full report of the general secretary will be printed in the next issue of *SCIENCE*, and reports of the proceedings of the national scientific societies

which met in affiliation with the association will follow.

THE council of the British Association has now appointed the presidents of sections for the meeting of the association to be held at Leicester next year. Of Section A (mathematical and physical science) the president will be Dr. Love, Sedleian professor of natural philosophy at Oxford; Section B (chemistry), Professor A. Smithells, professor of chemistry in the University of Leeds; Section C (geology), Dr. J. W. Gregory, professor of geology at Glasgow; Section D (zoology), Dr. W. E. Hoyle, keeper of the museum in the Victoria University, Manchester; Section E (geography), Mr. George G. Chisholm; Section F (economic science and statistics), Professor W. J. Ashley, dean of the Faculty of Commerce in Birmingham University; Section G (engineering), Professor Silvanus Thompson; Section H (anthropology), Mr. D. G. Hogarth; Section I (physiology), Dr. A. D. Waller, director of the Physiological Laboratory in London University; Section K (Botany) Dr. J. B. Farmer, professor of botany in the Royal College of Science; and Section L (educational science), Sir Philip Magnus.

PROFESSOR THOMSON, of Cambridge, M. Moissan, of Paris, Professor Golgi, of Pavia, and Professor Ramón y Cajal, of Madrid, were present at Stockholm on December 10 to receive the Nobel prizes awarded to them.

DR. HENRY RUTGERS MARSHALL, of New York City, has been elected president of the American Psychological Association, and Dr. H. N. Gardiner, of Smith College, has been elected president of the American Philosophical Association.

MR. F. H. NEWELL, chief engineer of the Reclamation Service has been elected president of the Washington Society of Engineers.

GRAF VON ZEPPELIN, known for his work in aeronautics, has been given the honorary doctorate of engineering by the School of Technology at Dresden.

DR. ADOLF LIEBEN, formerly professor of chemistry at Vienna, has celebrated his seventieth birthday.

PROFESSOR E. HERSEY SNEATH has resigned the chair of theory and practise of education in Yale University owing to ill health.

THE special board for biology and geology at Cambridge University has adjudged the Walsingham medal for 1906 to W. E. Agar, for his essay on 'Researches into the Embryology of the Dipnoi,' and to W. L. Balls, for his essay entitled 'Studies of Egyptian Cotton.'

PROFESSOR H. W. FISK, formerly professor of mathematics at Fargo College, Fargo, N. D., Messrs. P. H. Dike, formerly of the U. S. Coast and Geodetic Survey, and E. H. Bowen, formerly instructor in physics in the University of Maine, are at present engaged in magnetic work under the auspices of the department of terrestrial magnetism of the Carnegie Institution of Washington.

DR. H. E. ANNETT, professor of comparative pathology in the University of Liverpool, has gone to St. Vincent in order to study certain diseases of animals for the government.

DR. ACLAND, having been appointed by the Royal Colleges of Physicians and Surgeons official visitor to the examinations of the Cairo Medical School, has left London for a few weeks in connection with the appointment.

DR. VON LECOQ, a scientific emissary of the Prussian government, has arrived safely at Srinagar, after making important excavations in Chinese Turkestan.

THE Friday evening meetings of the Royal Institution of Great Britain will be resumed on January 18, when Sir Andrew Noble, Bart., F.R.S., will give an address on 'Fifty Years of Explosives.' On February 1 Sir Almroth E. Wright, M.D., F.R.S., will speak on 'The Methods of Combating the Bacteria of Disease in the Interior of the Organism.'

DR. EDWARD J. NOLAN, recording secretary of the Academy of Natural Sciences of Philadelphia, is engaged on a history of the Academy from its foundation in 1812. He is desirous of having access to any correspondence or documents, apart from the official records of the society, which may relate to its work, especially during the first half century of its existence. If such papers be confided to Dr.

Nolan, they will be discreetly used and returned safely to the owners.

THE Women's Medical Association of New York City will hold a memorial meeting at the Academy of Medicine on January 4, as a tribute to the memory of the late Dr. Mary Putnam Jacobi. There will be addresses by Dr. William Osler, Dr. Charles L. Dana, president of the Academy of Medicine; Professor Felix Adler, Mrs. Florence Kelley and others.

THE death is announced of Mr. John Ward, a British geologist, known for his valuable work on the carboniferous faunas.

DR. ERNST PFITZER, professor of botany at the University of Heidelberg, has died at the age of sixty-one years.

THE U. S. Civil Service Commission announces an examination on January 16, 1907, to fill a vacancy in the position of forest planting assistant, at \$700 per annum, in the Forest Service of the Department of Agriculture.

THE College of Physicians of Philadelphia announces that the next award of the Alvarenga prize, being the income for one year of the bequest of the late Senor Alvarenga, and amounting to about \$180, will be made on July 14, 1907.

ACCORDING to foreign journals, a wealthy landed proprietor named M. Audrac, who died recently at Le Luc, near Draguignan, has left the Pasteur Institute the whole of his fortune, valued at the equivalent of \$250,000 at least. Interviewed on the subject, Dr. Roux, the distinguished director of the institute, stated that he had received a visit from a lawyer, who informed him that a will had been found bequeathing the whole of the property to the institute. The reserve, however, was made that another document might possibly come to light making various bequests or otherwise disposing of part or whole of the property; consequently, Dr. Roux says that some time must elapse before the Pasteur Institute can know definitely how it stands with regard to the inheritance.

THE Magnetic Survey yacht *Galilee*, engaged in the magnetic survey of the Pacific Ocean under the auspices of the Carnegie

Institution of Washington, left San Diego, California, on December 22 on her third cruise, which will extend to the end of the year 1907 and will embrace about 25,000 to 30,000 miles. It was found necessary to defer the proposed circumnavigation cruise and instead to pursue a course indicated by the following ports of call: Nakuhiya (Marquesas Islands), Tahiti, Apia, Yap, Shanghai, Hongkong, Yokohama, Honolulu, Dutch Harbor (Aleutian Islands), Sitka and return to San Diego, from which port it is possible that another circuit situated between the Galapagos Islands and Marquesas Islands may be undertaken. The vessel, as during the past year, is again commanded by Mr. W. J. Peters, who is assisted by Messrs. J. C. Pearson and D. C. Sowers, magnetic observers, and Dr. George Peterson, surgeon and recorder. The sailing master, as during the past two cruises, is Captain J. T. Hayes.

THE Vienna Geographical Society has celebrated the fiftieth anniversary of its foundation under the presidency of Archduke Rainer.

THE preliminary program of the second International Congress on School Hygiene, of which King Edward is patron, has been issued. The session will be from August 5 to August 10, 1907, at the University of London, South Kensington. The work of the congress will be divided into eleven sections, each presided over by an authority on the subject dealt with.

WE learn from *The British Medical Journal* that news has come from the Sesse Islands, Victoria Nyanza, of Professor Koch's expedition for the study of sleeping sickness. The expedition is divided into two parts. One, under the direction of Professor Koch himself, is working at Kion, the other, under Professor Beck, at Boumangi. Natives are said to be coming to both stations from the remotest provinces, the average number attending being some three hundred a day. Professor Koch, it is said, will publish nothing as to his method until he has had more definite results than have yet been obtained. The members of the expedition live in rooms destitute of the comforts of civilization, which serve as bedroom, dining room and laboratory.

WE learn from *The Atheneum* that Messrs. Heffer & Sons have purchased the mathematical library of the late Professor Joly, of Dublin, and the botanical library of the late Professor Marshall Ward, of Cambridge, catalogues of which are in preparation.

THE London *Times* states that the 52d annual dinner of the Society of Engineers took place on Wednesday night, December 12, at the Hotel Cecil. The president, Mr. Maurice Wilson, Assoc. M. Inst. C. E., was in the chair, and among those present were Sir Alexander Kennedy (president of the Institution of Civil Engineers), Dr. Glazebrook (president of the Institution of Electrical Engineers), Commander Caborne, C. B., Colonel L. Blakeney Booth, Mr. Maurice Fitzmaurice, Mr. R. St. George Moore (the president elect), Mr. J. W. Wilson (vice-president), Professor S. H. Cox, Mr. D. D. Butler (honorary treasurer), and Mr. Perry F. Nurse (secretary). Sir Alexander Kennedy, in proposing 'The Society of Engineers,' said that it was now the day of the engineers, and they had better make the best of it they could. Clearly the essential thing was that they should be as good engineers as they could, and one of the things which had helped them to be good engineers hitherto, and was helping them now, was their extraordinary tendency to form themselves into technical societies. One of the pioneers was certainly the Society of Engineers, which was third in age of the engineering societies, and which he hoped might live and flourish for many years to come. The president, in responding, said that their membership had increased during the past year, and their financial position was exceedingly sound, sounder, perhaps, than it had ever been. They had unfortunately lost their oldest honorary member, Sir Edward Reed, who was elected nearly thirty years ago and who was naval constructor about the time of the transition from wooden walls to armour-clad ships. Their ordinary meetings had shown an increase in their average attendance during the past year, and they had had read to them numerous interesting papers, not the least interesting of them being one by their indefatigable honorary secretary, who had con-

tributed his twenty-fourth paper to their transactions. Their members could be found all over the world, and included men of all nationalities. Mr. R. St. George Moore proposed the toast of 'Kindred Institutions,' for which Dr. Glazebrook responded, and the toast of 'Our Guests' was submitted by Mr. J. W. Wilson and acknowledged by Mr. Maurice Fitzmaurice.

IN 1905 the total value of our mineral production was \$1,623,877,127, as compared with \$1,360,883,554 in 1904. As heretofore, iron and coal are the most important of our mineral products. The value of the iron in 1905 was \$382,450,000; the value of the coal, \$476,756,963. The fuels increased from \$584,043,236 in 1904 to \$602,477,217 in 1905, a gain of \$18,433,981, or 3.16 per cent. Anthracite coal showed an increase in value of \$2,904,980 from \$138,974,020 in 1904 to \$141,879,000 in 1905. The increase in value of the bituminous coal output over 1904 was \$29,480,962, a combined increase in value of coal of \$32,385,942 in 1905, or 7.3 per cent. The gain of \$262,993,573 in the total value of mineral production is due to gains in both metallic and non-metallic products, the metallic products showing an increase from \$501,099,950 in 1904 to \$702,453,108 in 1905, a gain of \$201,353,158, and the non-metallic products showing an increase from \$859,383,604 in 1904 to \$921,024,019 in 1905, a gain of \$61,640,415. To these products should be added estimated unspecified products, including molybdenum, bismuth, tungsten, and other mineral products, valued at \$400,000, making the total mineral production for 1905 of \$1,623,877,127. Besides the usual table and summary of quantities and values of the country's mineral output by products, the volume contains this year, for the first time, a summary, in tabulated form, of the value of the mineral products by States. These tables were compiled by Mr. Wm. Taylor Thom.

UNIVERSITY AND EDUCATIONAL NEWS

NEW YORK UNIVERSITY has received a gift of about fifteen acres of land adjoining the

south line of its grounds and extending towards 180th Street. The value of the property is said to be between \$200,000 and \$300,000.

MR. ANDREW CARNEGIE has given to the College of Physicians of Philadelphia \$100,000 towards the erection of its new building, on condition that a like sum be subscribed, of which \$80,000 has already been received.

THE department of archeology of the University of Pennsylvania has received a gift of \$40,000 from Mr. Eckley Brinton Coxe, Jr. The donor has specified that of the gift \$8,600 a year shall be paid for five years to the new curator of the department of Egyptology, Dr. D. Randall McIver, who is now in Egypt, where he has been instructed to begin excavations.

WE learn from *Nature* that Gonville and Caius College, Cambridge University, having decided to close their chemical laboratory at the end of the present academic year, a syndicate was appointed on November 8 to consider the assignment of a site for the extension of the chemical laboratory. The conclusion arrived at is that, of the sites available, the one site which is not liable to considerable objection lies between the chemical laboratory and the new medical schools, with a frontage next Pembroke Street.

THE University of Turin celebrated on October 27 the five hundredth anniversary of its foundation, this celebration having been postponed for two years, owing to the disastrous fire. In honor of the occasion a history of the university has been published.

DR. WILLIAM A. NOYES, head of the department of chemistry in the Bureau of Standards, and secretary and editor of the American Chemical Society, has been elected professor of chemistry in the University of Illinois.

THE council of King's College, London, has appointed Mr. H. de Sadow Pittard, M.A., Ph.D., as assistant lecturer in mathematics, and Mr. A. W. Sikes, D.Sc., M.D., F.R.C.S., as demonstrator in physiology.