

mate of New England. A circular giving full details has been issued, and may be procured from the undersigned.

SOME INTERESTING REPRINTS.

PROFESSOR HELLMANN, of Berlin, has recently issued three more of his *Neudrucke von Schriften und Karten über Meteorologie und Erdmagnetismus*. These are: No. 7. EVANGELISTA TORRICELLI: *Esperienza dell' 'Argento Vivo*. ACCADEMIA DEL CIMENTO: *Istrumenti per conoscer l'Alterazioni dell' 'Aria*, containing the most important papers relating to the discovery of the barometer, thermometer and hygrometer, some of them in facsimile. No. 8. HALLEY, VON HUMBOLDT, LOOMIS, LEVERRIER and RENOU, *Meteorologische Karten*, being the earliest synoptic weather charts with wind, isotherms and isobars drawn between 1688 and 1864. No. 9. HENRY GELLIBRAND: *A Discourse Mathematical on the Variation of the Magnetical Needle*, containing the discovery of the secular variation of magnetic declination. This is a facsimile of the very rare work published in London in 1635. A few copies of these pamphlets may be had of A. L. Rotch, Blue Hill Observatory, Readville, Mass., at the publisher's price of 3 marks, or 75 cents each, postpaid.

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HARVARD UNIVERSITY.

CURRENT NOTES ON ANTHROPOLOGY.

THE AGE OF MAN.

In his recently published 'Handbuch der Palæontologie,' Professor Zittel, of Munich, reviews the alleged instances of the discovery of human remains in strata older than the alluvial period. His general conclusion is that "prehistoric researches do not yield positive information or definite results as to the antiquity of the human species." He follows Virchow in rejecting the high antiquity of the Neanderthal skull and denies that any discovery of glacial man in America has yet been made. He

accepts, however, as probably 'fossil or quaternary,' the skull of Eguisheim, the jaw of Naulette and that of the Schipka cave, and the skull of Olmo in Tuscany.

Professor Morselli, who reviews Zittel's conclusions in the 'Archivio per l'Antropologia,' doubts the skull of Olmo, but argues that Zittel is generally too sceptical. He also adds the statement that the fossil human skeleton from the Pampean formation of the Argentine Republic, said by Zittel to be in the Museum of Milan, is not there.

ON SMALL CHIPPED FLINTS.

THERE is a class of small chipped flint objects, with a general similarity of shape and finish, found in England, France, Egypt, India, North Africa and elsewhere. In the *Revue de l'Ecole d'Anthropologie* for November, A. de Mortillet offers a careful study of their forms, geographical distribution, use and antiquity.

They are generally rudely triangular, rhomboidal, or like the segment of a circle. One edge is neatly dressed with secondary chipping, while another is left with the natural cleavage. The length varies from 15 to 35 millimeters. They may have been used as arrow points, as scarificators, as tools, or, in some instances, as fish hooks. In age, they appear to belong to the earliest neolithic period. Their singular similarity does not entail the proof of transmission, but rather of independent development.

While in America there are many specimens generally akin to these described by Mortillet, they cannot be said to represent any distinct culture area or period.

D. G. BRINTON.

UNIVERSITY OF PENNSYLVANIA.

SCIENTIFIC NOTES AND NEWS.

DR. THOMAS M. DROWN, President of Lehigh University, has been elected President of the American Institute of Mining Engineers.

THE students of the Massachusetts Institute

of Technology will place, as a memorial, a bust of the late President Walker in the corridor of the Rogers Building. The memorial will be designed by Mr. D. C. French.

AT the regular January meeting of the Regents of the Smithsonian Institution, Mr. Charles D. Walcott was, as already noted, appointed Assistant Secretary of the Institution, and placed in charge of the U. S. National Museum, his official designation being 'Acting Assistant Secretary in Charge of the National Museum.' At an adjourned meeting of the Regents, Mr. Richard Rathbun was appointed Assistant Secretary 'with duties connected with the bureaus of the institution other than the National Museum,' and was placed in charge of the office and exchanges. By these appointments the position and duties of the late Dr. Goode are divided between two officials, of whom the last appointed performs certain additional duties.

It is stated in *Nature* that Lady Prestwich is collecting material for a biography of the late Sir Joseph Prestwich, and will be grateful to friends if they will forward to her any letters they possess, addressing to Shoreham, near Sevenoaks. They will be at once copied and carefully returned.

ONE of the silver medals of the Veitch memorial fund of London has been awarded to Professor L. H. Bailey for distinguished services to horticulture.

THE Chanute prize of \$100 for the best monograph on kites has been awarded by the Aeronautical Society to Professor C. F. Marvin, of the United States Weather Bureau.

THE Royal Society of New South Wales has awarded its bronze medal and a money prize of £25 to J. Milne Curran for a paper on the occurrence of precious stones in New South Wales, with a description of the deposits in which they are found.

THE University of Cambridge will confer the degree of LL. D. on Dr. Fridjof Nansen.

DR. JULIAN APARICIO has been appointed Director of the Meteorological and Astronomical Observatory of San Salvador in the room of the late Dr. Don Alberto Sanchez.

PROFESSOR J. FRANZ, astronomer at the Kön-

igsberg Observatory, has been appointed Director of the Observatory at Breslau and professor at the University in the place of Professor T. Galle, who has retired.

DR. F. FOLI has retired from the Directorship of the Royal Observatory, Brussels.

M. JEAN PERRIN has been nominated by the Paris Academy of Sciences to the Joule Scholarship of the Royal Society, which is awarded alternately in England and in other countries.

WE regret to record the deaths of Professor W. Wallace, professor of moral philosophy in the University of Oxford, who was killed on February 19th by a fall from a bicycle, and of Professor Charles Tomlinson, F. R. S., a writer and lecturer on scientific subjects, who died at Highgate, England, on February 15th.

PROFESSOR A VON KÖLLIKER, professor of anatomy in the University of Würzburg, will celebrate his eightieth birthday and the fifteenth anniversary of the commencement of his career of a teacher on July 6th.

AMONG the lectures given at the Royal Institution, London, during the present month were the following: February 11th, Dr. J. W. Gregory, of the British Museum (Natural History), the first of a course of three lectures on 'The Problems of Arctic Geology.' Friday evening discourse, February 12th, by Professor John Milne, F. R. S., on 'Recent Advances in Seismology.' February 19th, Mr. G. Johnstone Stoney, on 'The approaching return of the great swarm of November Meteors.'

PROFESSOR J. J. STEVENSON, President of the New York Academy of Sciences, will give a public lecture before the Academy at Columbia University this evening. The subject is 'A Talk on Coal,' and the lecture will be illustrated.

THE department of paleontology of the University of Kansas will send to the coming international exposition at Brussels copies of large restorations of seven extinct animals, based upon the material in the museum and prepared by or under the direction of Dr. Williston.

WE learn from *Nature* that a German antarctic meteorological station will be established

shortly in Victoria Land, under the direction of Dr. Rudolph Mewes. The station will be in connection with the 'German South Polar expedition, and will have for its object the determination of meteorological conditions during the anarctic winter.

THE library of the late Professor du Bois-Reymond is offered for sale by Gustav Fock, Leipzig. It contains 14,000 books and pamphlets, including many valuable sets of periodicals. The heirs wish it to be sold as a unit and offer it for 22,000 Marks. It would be an unusually desirable acquisition for an American university library.

It is reported that Mme. Larapiedie has given money for a meteorological and astronomical observatory and a museum at Jerusalem.

THE Academy of Sciences of Vienna has sent to Bombay a commission, composed of Dr. Hermann Müller, Dr. Ghon, Dr. Albrecht and Dr. Pösch, to investigate the nature of the plague. The expenses are defrayed by the Treitl fund, left to the Academy by the late Herr Treitl, and amounting to \$500,000.

A BILL has been introduced into the New York Legislature, authorizing New York City to spend \$2,500,000 in the erection of a library building on the site of the reservoir adjoining Bryant Square. The income of the Astor, Lennox and Tilden foundations is about \$160,000 annually, and if the building were provided this would be sufficient to maintain an adequate reference and circulating library in New York City.

THE fourth Annual Exhibit and Reception of the New York Academy of Sciences will be held at the American Museum of Natural History on Monday and Tuesday, April 5th and 6th, and will be open from eight to ten in the evening, and on April 6th from three to five in the afternoon. Arrangements are in progress for having a demonstration and lecture of about half an hour in length in the lecture hall each evening. Exhibits of newly invented apparatus will be welcomed from men of science, not resident in New York, who should address the Chairman of the Committee of Arrangements, Professor R. E. Dodge, Teachers' College, New York.

THE second annual convention of the American Association of Manufacturers met at Philadelphia on January 26th, 27th and 28th. The membership of this Association has during the past year increased from 300 to 900 and the revenue for the year amounted to \$40,000. The Association has sent commissions to South America, Mexico and Japan to study manufactures and commerce, and the reports of these commissions and the results of the discussions on these and other subjects have a certain amount of scientific interest. It was recommended that a Department of Commerce and Manufacture be established under the government and that the consular service be placed under this proposed department.

As we reported sometime since, the sum of \$60,000 left by the late Sir William Macleay, for the establishment of a lectureship in bacteriology in Sydney, was not accepted by the University, and reverted to the Linnean Society of New South Wales. The Society is now prepared to equip a laboratory and wishes to receive applications for the lectureship, the duties of which are chiefly research. The salary is £350.

D. APPLETON & Co. announce for early publication 'Pioneers of Evolution,' from Thales to Huxley, by Edward Clodd; 'The Aurora Borealis,' by Alfred Angot; and new editions of 'Dynamic Sociology,' by Professor Lester F. Ward, and 'Sight,' by Professor Joseph LeConte.

DR. JOHN W. HARSHBERGER, of the University of Pennsylvania, has now in manuscript a book entitled 'The Botanists of Philadelphia and their Work.' It will contain about 500 pages of printed matter and 50 full-page plates.

THE British Balneological and Climatological Society has published the first number of a new quarterly journal edited by Dr. Samuel Clyde, Chairman of the Council of the Society.

THE Foreign Affairs Committee of the House of Representatives will report favorably a bill for the reorganization of the Consular service. According to this bill a commission would be appointed by the President which would reorganize the service by a system of civil service examinations for admission, the abolition of the fee system and the rating of Consular offices in grades at stated salaries and tenure of office

during good behavior, with removals only by the action of a board after a trial on charges. A reform in the American Consular service might contribute to scientific progress, as it certainly would to economic and commercial interests. It is doubtful whether United States Consuls would be competent to write reports such as those of the British Consuls on the advantages of the metric system published in the last number of this JOURNAL.

KÖLLIKER'S well-known and esteemed shorter treatise on embryology entitled 'Grundriss der Entwicklungsgeschichte' is now being reissued. The preparation of the new edition (the third) has been entrusted to Professor Oscar Schultze. The first part has been issued by Engelmann, at Leipzig, and follows closely in typography and so forth the previous editions, which means that the illustrations are superior to what is usual in American and English scientific books. The present part deals with the early stages, the development of the external form and the fetal envelopes and placenta. The scope of the text has been extended so as to make the book really a manual of mammalian embryology, and this has involved rewriting so extensive that we have practically a new work. It is one of very great merit; the difficult descriptions are both clear and concise, and the author displays a broad and accurate knowledge of his subject. We hope to give a fuller notice of the work upon its completion.

Up to February 18th the returns of the health authorities of the plague report that since its outbreak there have been 6,853 cases and 5,447 deaths from the disease in Bombay, and in the entire Presidency 9,911 cases and 8,006 deaths. The mortality attributed to other sources has also been excessive. 75 per cent. of the inhabitants have left Bombay. The conference on the plague now meeting in Venice has been divided into two bodies, but details regarding its work are lacking. It may, however, be well to quote from the *Times* some facts regarding this and preceding conferences: It will be practically the fourth of a series of international sanitary conferences, and will, it is expected, complete a system of efficacious measures for the prevention of the spread of epidemics. Now, as in

the three preceding instances, the initiative is due to Austria-Hungary and has been taken exclusively for the general welfare. The upshot of the first sanitary conference, held at Venice in 1891, was to close the door in Egypt to the spread of epidemics to Europe. The result of the second conference, which was held at Dresden in 1893, was to adopt a maximum of protection accomplished by a minimum of hindrances to international traffic. On the basis of the Dresden Conference almost all the Powers concluded territorial conventions with their neighbors on very broad lines. The third conference, which met in Paris in 1894, supplemented the work of the two previous conferences with regard to the pilgrimages from India to the sanctuaries of the Sunnite Mahomedans at Mecca and Medina.

AN editorial article in the current number of the *Journal of Geology* recommends that the winter meetings of the Geological Society of America be held regularly in Washington. It is argued that the success of the recent meeting of the Geological Society was undoubtedly due to the fact that it was held in Washington. No other city in the country offers so many attractions to geologists in the winter time as the National capital. Containing, as it does, the largest body of geological investigators to be found in any one place in the world, it has become a center of geological activity and the repository of many valuable collections. Located within easy reach of the universities of the East and South and of the Middle West, it has become a favorite rendezvous for geologists scattered throughout these parts of the country. For these reasons the writer of the article holds that the suggestions made by Mr. Walcott, Director of the U. S. Geological Survey, that the Society hold all its winter meetings in Washington and its summer meetings elsewhere is an excellent one. It was heartily endorsed by the retiring President, Professor Le Conte.

DR. R. ELLSWORTH CALL has directed our attention to a report in the Indianapolis *Journal* of perhaps the most extraordinary piece of legislation ever undertaken. A bill has been passed by the Indiana Legislature, part of which reads as follows:

"It is impossible to compute the area of a circle on the diameter as the linear unit without trespassing upon the area outside of the circle to the extent of including one-fifth more area than is contained within the circle's circumference, because the square on the diameter produces the side of a square which equals nine when the arc of ninety degrees equals eight. By taking the quadrant of the circle's circumference for the linear unit we fulfill the requirements of both quadrature and rectification of the circle's circumference. Furthermore, it has revealed the ratio of the chord and arc of ninety degrees, which is as seven to eight, and also the ratio of the diagonal and one side of a square, which is as ten to seven, disclosing the fourth important fact, that the ratio of the diameter and circumference is as five-fourths to four, and because of these facts and the further fact that the rule in present use fails to work both ways mathematically it should be discarded as wholly wanting and misleading in its practical applications. * * * And be it remembered that these noted problems had been long since given up by scientific bodies as unsolvable mysteries and above man's ability to comprehend."

WE have received from the Australian Museum at Sydney, N. S. W., a memoir which is the first of a series giving an account of the Atoll of Funafuti by Mr. Charles Hedley, conchologist. We learn from an introductory note by the curator, Mr. R. Etheridge, Jr., that the local committee of the Funafuti Coral Reef Boring Expedition, of the Royal Society, in charge of Professor Sollas, having suggested to the Trustees of the Australian Museum that one of their officers should be deputed to accompany the expedition, Mr. Charles Hedley was selected for the purpose. Mr. Hedley left Sydney in H. M. S. 'Penguin,' under the command of Captain Mervyn Field, R. N., on May 1st, arriving at Funafuti on May 21st. He remained on the island for two and a half months, leaving in the same vessel. On the return voyage to Fiji, the Island of Nukulailai was touched at, where scientific investigations were renewed for two days. Mr. Hedley finally reached Sydney on August 22d. During his stay on Funafuti, Mr. Hedley succeeded in amassing an interesting collection, particularly of invertebrate and ethnological objects, together with much valuable scientific information. The collections are now in process of de-

scription by the Scientific Staff of the Museum, and the results are being published in the order in which the study of the various groups is completed.

UNIVERSITY AND EDUCATIONAL NEWS.

THE late Mr. William Lampson, of LeRoy, New York, has bequeathed his fortune, with the exception of a few small bequests, to Yale University. The bequest is said to amount to about \$500,000. \$150,000 is to be used for an auditorium and the rest for the endowment of professorships.

THE Stevens Institute of Technology, celebrated the 25th anniversary of its foundation on February 18th and 19th. There was a dinner at the Hotel Waldorf, a reception by Mrs. E. A. Stevens and a meeting at which addresses were made by Bishop Potter and President Morton, who described the achievements of the institution, its present condition and its future aims. Mr. Dod read a letter from President Morton, in which the President gave 1,000 shares of stock of the Texas Pacific Railroad to the board of trustees, 'to be held until their appreciated value with such other funds as may be devoted to the purpose, may be adequate for the erection and maintenance of the proposed new building generally referred to as the alumni building.'

THE Marquis of Bute, the present Lord Rector of the University of St. Andrews, will erect for the University four laboratories, including lecture rooms and museums, for the departments of anatomy, physiology, materia medica and botany.

MISS UMPHERSTON has been appointed lecturer in physiology at St. Andrews University.

DISCUSSION AND CORRESPONDENCE.

'THE ARGENTAUROM PAPERS.'

TO THE EDITOR OF SCIENCE: I think I ought not to pass unnoticed a statement and an unauthorized use of my name, made by Mr. S. H. Emmens in an advertisement just published in SCIENCE. He says: "The author has received many communications from eminent authorities explicitly approving of his work; while others have written in such a manner as to show that