

These were the *Pithecanthropus* discussion, late palæolithic finds in France and England, the study of folk-lore, the mythologies of primitive peoples, the growth of religions and the progress of the Ethnographic Survey of Great Britain.

It is gratifying to see that in several passages he fully recognizes the uniformity of action in the human mind, and pertinently asks: "It does not surprise us that the same complicated physical operations are performed by far distant people without any communication with each other; why should it be more surprising that mental operations, often not so complex, should be produced in the same order by people without any such communication?"

#### A NEOLITHIC LADY.

WE should hardly expect to have a handsome and accurate portrait bust of an upper-class lady from Neolithic times. But the marvels of science do not diminish. At the last meeting—in August—of the German Association of Physicians and Naturalists, Professor Kollmann, of Basel, exhibited the bust of a female whose skull and portions of whose skeleton had been exhumed from a Neolithic grave in one of the caverns of southern France. The principles of the reconstruction, as well as modern examples of the method, prove its accuracy. The soft parts of the head and chest can be restored without risk of error.

This Neolithic dame was rather good-looking, and presented the undoubted features of the white race, demonstrating, as Professor Kollmann insisted, that empires may crumble and states decay, but the essential features of each human race persist indefinitely and unchanged.

D. G. BRINTON.

UNIVERSITY OF PENNSYLVANIA.

#### SCIENTIFIC NOTES AND NEWS.

THE American Mathematical Society will hold its annual meeting at Columbia University,

on Wednesday, December 28th. The Chicago Section of the Society will hold its fourth regular meeting at the University of Chicago, on December 29th and 30th.

THE American Physiological Society will, as we have already announced, hold its eleventh annual meeting in New York, on Wednesday, Thursday and Friday, December 28, 29 and 30, 1898. The first day's session will be held at the College of Physicians and Surgeons, 437 West 59th Street; the second day's session at Schermerhorn Hall, Columbia University, West 116th Street, partly in conjunction with the American Psychological Association; the third day's session at the University and Bellevue Hospital Medical College, 26th Street and 1st Avenue.

DR. C. WILLARD HAYES and Mr. Arthur W. Davis, experts of the Nicaragua Canal Commission in geology and hydrography respectively, have recently returned to Washington after more than a year of field work. Results of their scientific investigations are already promised for meetings of scientific societies.

DR. J. WALTER FEWKES, of the Bureau of American Ethnology, is in the field, continuing researches among the Hopi Indians.

DR. W. J. MCGEE, of the Bureau of American Ethnology, and Professor W. H. Holmes, of the United States National Museum, have returned from an ethnologic and archæologic trip through the southern Sierra region of California. Important collections were obtained for the Museum, and interesting observations were made on the surviving California Indians, while the much-discussed archæologic problems of the region received special attention. Both have promised contributions embracing the results of their work to the winter meeting of the Section of Anthropology of the American Association for the Advancement of Science to be held in New York next month.

THE *American Naturalist* states that Dr. W. McM. Woodworth has gone to the Samoan Islands in the interest of the Harvard Museum of Comparative Zoology.

AN MS. Geometry by Lobachévski has been found at Kazan and is of extraordinary interest as being of much earlier date than anything

published by the illustrious Russian. It is purposed to issue it, inserting as frontispiece the beautiful portrait from the bust of Lobachévski made by *The Open Court* from a photograph furnished by Dr. G. B. Halsted, accompanying his life of Lobachévski in *The Open Court* for July, 1898.

THE Sylvester Memorial Committee has met in London and closed its accounts. The entire amount collected was about £875. It was decided to establish a medal in bronze; to be given every three years, together with the interest on the fund for that period, for distinguished work in mathematics. Of the two appointed to collect subscriptions in America, one, Dr. Cyrus Adler, was present at the meeting in London.

THE French Minister of the Interior has awarded a bronze medal to M. Imbeaux for his contributions to hygiene. Dr. Calmette, of the Pasteur Institute, of Lille, has been made an officer of the Legion of Honor.

PROFESSOR J. MARK BALDWIN, of Princeton University, has been elected a member of the French Institute of Sociology.

DR. D. G. BRINTON is giving, at the Drexel Institute, Philadelphia, a course of lectures entitled 'The New Lands, Present and Prospective, of the United States.'

THE lecture season of the Imperial Institute, London, was inaugurated on November 14th, by a lecture on Trinidad, with some account of the recent hurricane in the West Indies, by Mr. Henry Carraciolo, the delegate from Trinidad to the recent International Zoological Congress.

THE Christmas course of lectures, specially adapted to young people, at the Royal Institution will be delivered this year by Sir Robert Ball, Lowndean professor of astronomy and geometry in the University of Cambridge. The subject will be 'Astronomy,' and the lectures, which will be illustrated by models and the optical lantern, will deal with the sun, the moon, the inner planets, the great planets, shooting stars and new methods. The first lecture will be delivered on Tuesday, December 27th, at 3 o'clock, and the remaining lectures

on December 29 and 31, 1898, and on January 3, 5 and 7, 1899.

A MEMORIAL meeting in honor of Dr. William Pepper was held at the University of Pennsylvania on November 29th. If the announcements on the program were carried out, Governor Hastings presided and addresses were made as follows: Dr. S. Weir Mitchell for the trustees of the University, Dr. James Tyson for the medical faculty and the College of Physicians, General I. J. Wister for the institution which bears his name, Daniel Baugh for the archæological and paleontological museums, Hampton L. Carson for the General Alumni Society, Frederick Fraley for the American Philosophical Society, Professor W. P. Wilson for the Philadelphia Commercial Museums and John Thompson for the free libraries of the city. Mayor Warwick will then speak for Dr. Pepper's work as a citizen.

THE death is announced of Sir John Fowler, the engineer, at the age of eighty-one years. Sir John Fowler had charge of a large number of important engineering works, but is best known for the construction of the great bridge across the Firth of Forth.

THE provisional program of the State Science Teachers' Association, for the approaching meeting in New York, is as follows:

*Thursday, December 29th.* 11:00 A. M.—Opening Session; Address of Welcome, by President Seth Low; Response by retiring President of the Association, Professor E. L. Nichols; Introduction of President-elect, Professor Chas. W. Hargitt. 11:30 A. M.—Paper by Dr. Davenport, of Harvard University, on 'Zoology as a Condition for Admission to College;' Discussion opened by James E. Peabody, Boys' and Girls' High School, New York, followed by Mr. Arthur E. Hunt, Manual Training High School, Brooklyn, and others. 2:15 P. M.—Report of Committee of Nine, by Professor Cooley. 3:00 P. M.—Union Meeting with the American Naturalists. 8:00 P. M.—Annual Address by the President. 9:00 P. M.—Reception.

*Friday, December 30th.* 9:30 A. M.—Sectional Meetings. *A.* Biology: Chairman, Professor Charles L. Bristol, of New York University; Introductory paper, by Professor G. F. Atkinson, of Cornell University. *B.* Earth Science: Chairman, Professor A. P. Brigham, of Colgate University. *C.* Nature Study: Chairman, Professor Chas. B. Scott, Oswego

Normal School. *D. Physics and Chemistry*: Chairman, Professor Albert L. Arey, Rochester. 11:30 A. M.—Paper by Dr. C. F. Hodge, Clark University, on 'The Active Method in Nature Study.' 2:00 P. M.—Paper by Mr. Arthur G. Clement, of Regents' Office, on 'The use of the Microscope in Secondary Schools.' 2:45 P. M.—General Discussion of the Report of the Committee of Nine. 8:00 P. M.—Meeting, with lecture, in the American Museum.

THE Chemical Society gave a banquet on November 11th at the Hôtel Métropole in honor of the past Presidents who have been Fellows for half a century—namely, Sir Joseph Henry Gilbert, 1841; Sir Edward Frankland, 1847; Professor William Odling, 1848; Sir Frederick Augustus Abel, 1848; Dr. Alexander William Williamson, 1848; and Dr. John Hall Gladstone, 1848. Professor Dewar, LL.D., F.R.S., the President of the Society, was in the chair, and a company of 260 guests were present. Congratulations were presented from the Russian Chemical Society and the German Chemical Society. The President, Professor Dewar, made an address to which each of the past Presidents replied. Speeches were also made by Sir William Crookes, Professor Ostwald, Lord Reay, Lord Lister, Professor Foster, Dr. Thorne, Mr. Haldane and Dr. Böttinger.

THE opening meeting of the present session of the Royal Geographical Society, London, was held on November 14th, and was devoted to the subject of Antarctic exploration. The address of the President, Sir Clements Markham, reviewed the progress of geographical work during the year, but was chiefly directed to the subject of Antarctic exploration. He spoke of the expeditions under M. Gerlache and Mr. Borchgrevink as not likely to secure important results, but the German expedition of 1900 under Dr. Erich von Drygalski would be admirably organized under the auspices of the German government, and Great Britain would be left in the rear if it were not prepared to send an expedition to cooperate with that from Germany. He announced that the Council of the Society would subscribe \$5,000 towards the expedition. Further addresses were made by Professor Foster, Professor Rücker, Sir Joseph Hooker, Sir Erasmus Ommanney, Sir Leopold McClintock and Admiral Sir W. Whar-

ton. Since the meeting Mr. Alfred Harmsworth, the publisher, whose interest in arctic exploration has been shown by the Jackson-Harmsworth expedition, has subscribed £5,000 towards the fund.

AT the monthly general meeting of the Zoological Society of London, held on November 17th, at the office, in Hanover-square, Dr. Günther, F.R.S., Vice-President, in the chair, it was stated that there were 409 additions to the Society's collection of living animals during the months of August, September and October, of which 210 were acquired by presentation, 44 by purchase, 128 received on deposit, 24 had been born in the garden and three received in exchange for other animals. It was further stated that the number of visitors to the Society's gardens during the months of August, September and October had amounted to 267,799.

THE annual meeting of the Michigan State Horticultural Society will be held in Ann Arbor, December 6th, 7th and 8th. The program includes papers by Professor Albert B. Prescott, 'Fruit Acids;' Professor Frederick G. Novy, 'Preserving Fruits;' Professor Paul C. Freer, 'Beet Sugar and Sugar Beets;' Dr. James B. Pollock, 'The Ripening of Fruits;' Professor Frederick C. Newcombe, 'What are Fruits?'

THERE will be, under the auspices of the government, an exposition of arts and manufactures in Venezuela, opening on January 1, 1900.

THE Massachusetts Horticultural Society offered a large number of prizes for the herbarium exhibition, on November 25th and 26th, at the Horticultural Hall, Boston. The premiums were given for school gardens, school herbariums and children's herbariums, the latter competition being open to all children in the State not over eighteen years old.

THE plague returns for the week ended the 11th inst show a slight increase in Bombay city. Dharwar district shows a large increase, over 2,200 deaths being reported.

DR. HAYDEN, a medical officer who visited India during the plague, arrived in Victoria in July, bringing with him plague microbes. The government, fearing a repetition of the Vienna outbreak, demanded the surrender of the mi-

erobes. This Dr. Hayden refused to do unless he received £300 compensation, and the government has, consequently, seized and destroyed them.

THE following extraordinary statement has been given to the press: "Mrs. Mary Baker Eddy, discoverer and founder of Christian Science, has just completed the examination of a class of about seventy of the active workers in Christian Science mind healing to confer upon them the degrees of the Massachusetts Metaphysical College as healers and teachers of this system of medicine, whose only crowned head is divine sovereignty, whose only priest is spiritualized man."

At the funeral of the late John W. Keely his work was eulogized and the plans of the Keely Motor Company promoted by four clergymen of the Methodist Episcopal Church. Rev. W. C. Best, D.D., said: "The wave of sorrow caused by Mr. Keely's death came to all lands and reached all shores. Thousands of investigators and scientists, though not visibly present, are gathered in spirit around his casket." Rev. W. J. Colville said: "When that mighty force shall cause suffering and poverty to cease on earth, then will statues be reared to Keely and he will be looked upon as one of the greatest men, not only of America, but of the world."

WE learn from *Electricity* that Messrs. Irving E. Burdick and Francis G. Hall, of the electrical engineering department of Yale University, have designed a submarine arc lamp of from 1,000 to 2,000 candle-power. The lamp is absolutely water-tight, with an inner and outer globe, the upper part of the outer globe being hermetically sealed to the metal cylinder containing the feeding mechanism by means of rubber gaskets and rings. The feeding mechanism in this lamp differs from that of the ordinary arc lamp in that it is enclosed in a cylinder both water- and air-tight. From the top of the cylinder, through a carefully-packed aperture, issue the two insulated wires, which, for convenience, are bound together into a cable. The lower portion of the lamp is protected by an eight-wire guard. Tests of the lamp at the depth of twenty-five feet are said to have been very satisfactory.

THE botanical expedition to the La Plata and San Juan Mountains, of Colorado, says the *Botanical Gazette*, was in the field four weeks last summer, the time being unexpectedly shortened. During that time the three collectors, Professor F. S. Earle, C. F. Baker and S. M. Tracy, secured about 25,000 specimens. Eighteen uniform sets (all sold in advance) will be distributed shortly, besides which there will be a number of partial sets (a few yet remaining unsold). It is believed that the series is more than usually valuable, both on account of the biological importance of the region and from the care exercised to secure all available forms and variations. There are also a number of new species, and quite a number of rare ones, including *Ranunculus Macauleyi* in flower and fruit, *Astragalus Wingatensis*, *Cerastium arvense*, *Fuegianum*, *Fendlera rupicola* and others. The sets will form the basis for a report upon the season's work to be issued with the aid of Dr. E. L. Greene.

#### UNIVERSITY AND EDUCATIONAL NEWS.

THE late Edward Austin, of Boston, has given by his will \$1,100,000 for public purposes; \$500,000 is left to Harvard University, \$400,000 to the Massachusetts Institute of Technology, \$30,000 to Radcliffe College, \$30,000 to Roanoke College, and \$30,000 to the Tuskegee Normal and Industrial School. The income from these large bequests is to be used for scholarships. The sum of \$10,000 is also given to the bacteriological laboratory of the Harvard Medical School.

MR. J. N. TATE, of Bombay, has guaranteed 1,250,000 Rs per annum for advanced education in India, mainly for post-graduate study and scientific research. *The Indian Textile Journal* says: "The examples of other countries, and especially of America, have offered every encouragement;" and it is further remarked: "The systematic instruction of teachers of handicraft on an adequate scale in India has yet to be begun."

It is proposed that the bequest to Cambridge University of £10,000 by Mr. Allen, the income to be applied for a scholarship, should form the endowment of a student to be called the Allen Student, whose duty it shall be to devote him-