

dred meters. In the valleys lie the moraines of local glaciers, to which reference has frequently been made by various observers.

#### MISCELLANEOUS.

*Appalachia* for January contains well illustrated narratives of ascents in the Canadian and Montana Rockies, and the California Sierra. The photographs by the Topographical Survey of Canada exhibit the great extent of lofty mountainous country in which deep valleys are dissected.

THE *National Geographic Magazine* (now issued monthly) for January, February and March contains descriptive articles on Russia by G. G. Hubbard, Venezuela by W. E. Curtis, Arctic exploration by S. Jackson, A. W. Greely and W. H. Dall, the Panama and Nicaragua canals by R. T. Hill and A. W. Greely, Tehuantepec ship railway by E. W. Corthell, the submarine cables of the world by G. Herrle, and the survey of Indian Territory by H. Gannett. Geographic literature and notes are briefly treated in each number.

AN abstract of explorations by Obruchef in central Asia is given in the *Scottish Geographical Magazine* for February. It emphasizes the mountainous character of much of the desert of Gobi, which was treated as a plain in older descriptions. "A marked peculiarity of many chains in central Asia is that they stand on high broad pedestals insensibly sloping down to the low central parts of the depressions." This is probably an incorrect interpretation of ranges nearly buried in alluvial wash.

THE same journal for March gives a sketch of British Guiana, by Chalmers, briefly characterizing the coastal plain, the inner highlands and their mountains, and the falls of the rivers in their descent from the higher to the lower district. Roraima and Kaitum are outlined.

VAUGHAN's journeys in Persia are nar-

rated in the London *Geographical Journal* for January and February. Special account is given of the Dasht-i-Kavir, or Great Salt desert, 360 miles east-west by 150 north-south, with a central depression one or two thousand feet below its margin, and including a great salt bed 440 square miles in area.

THE same journal for February has a paper on the Japanese Alps by W. Weston, speaking highly of their picturesque scenery. They consist of a backbone of granitic rocks, through or over which vast quantities of volcanic rocks have been poured.

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#### SCIENTIFIC NOTES AND NEWS.

MR. WILLIAM I. HORNADAY, formerly of the National Museum, has been appointed Director of the proposed Zoölogical Park in New York. He is eminently qualified for the position by his extensive knowledge of zoölogy, his ability as an untechnical writer upon travel and natural history, and especially by his experience in connection with the establishment of the National Zoölogical Park at Washington. He enters upon his duties immediately and will first consider and report to the Executive Committee upon the difficult question of location of the Park. At the last meeting of the Society the three first honorary members were elected as follows: Sir William H. Flower, Director of the British Museum of Natural History, President of the London Zoölogical Society; Prof. Alexander Agassiz, of the Museum of Comparative Zoölogy, and Prof. J. A. Allen, of the American Museum of Natural History.

THE first session of the Bahama Biological Station under the direction of Prof. Charles L. Edwards, University of Cincinnati, was held during the summer of 1893, at Bimini Islands, Bahamas. For the coming season it has been decided to locate the laboratory at Biscayne Bay, Florida, in the latitude of the Bimini Islands, and just across the Gulf Stream. Here is found the same equable climate, clear water and sub-tropical fauna and flora, for which the Bahamas are famous. An all-rail route of two

days, at excursion rates, gives the more accessible Florida location a decided advantage. The Station is open to a limited number of investigators, teachers and students in biology. The session will begin Monday, June 22, 1896, and continue six weeks. The course of instruction consists of lectures, dissection and microscopic work in the laboratory, with observation of the organisms in natural environment. In order to supply students, or institutions at a distance, with materials for practical work, a collecting department has been established. Orders for laboratory material, or applications for admission to the Bahama Station, should be made to the director before June 1st.

THE bill appropriating \$500,000 for an additional wing for the American Museum of Natural History has been signed by Governor Morton. This, in addition to the wing now in course of construction, and the wing recently opened to the public, will make the Museum one of the finest in the world. The new wing will be in the form of an 'L' completing the 77th street front and extending a short distance along Central Park.

A PROVISIONAL Committee has been formed in England to promote the International Memorial to Pasteur. The Executive Committee consists of Sir Joseph Lister, Sir John Evans, Sir Henry Roscoe, Dr. Thorne Thorne and Prof. Percy Frankland (Honorary Secretary).

AT the annual meeting of the American Philosophical Society, at Philadelphia, on May 1st, the meeting will be devoted to a discussion of 'Evolution,' in which Professors Cope, Minot and Bailey will take part.

THE following is the program of lectures before the National Geographical Society for April and May: April 6 (sixth Monday afternoon), 'From Sitka to the Sunset,' Mr. Marcus Baker, of the U. S. Geological Survey; April 10 (special Friday afternoon), 'Cuba as Seen by a War Correspondent,' Capt. Wm. F. Mannix; April 13 (seventh Monday afternoon), 'A Journey in the Interior of Alaska,' Prof. I. C. Russell, of the University of Michigan; April 17, 'The Geography, Scenery and Resources of Idaho,' Hon. Fred E. Dubois, U. S. Senate; April 24, 'Progress of Africa since 1888, with Special

Reference to South Africa and Abyssinia,' Hon. Gardiner G. Hubbard; May 8, 'Geography as Illustrated by Precious Stones,' Mr. George F. Kunz, of Tiffany & Co., New York. The total membership of the Society is now 1,374, consisting of eleven honorary, 1,070 active and 293 corresponding members.

THE death is announced of M. Julius Belleville, an eminent French inventor.

THE bill before the House of Representatives adopting the metric system of weights and measures as legal standards in the United States has been referred back to the committee. The Bill was ordered to a third reading by a vote of 119 to 116, but this vote was afterwards reconsidered.

DR. WILKES has been elected President of the Royal College of Physicians, London, the final vote standing 114 for Dr. Wilkes and 32 for Sir William Broadbent.

MR. HENDRICK R. HOLDEN has been appointed New York State Fish, Game and Forestry commissioner.

THE Huxley Memorial Committee will be glad to receive designs for a medal to be awarded by the Royal College of Science, London. Further particulars will be furnished on application, which must be sent in before May 1st to the honorary secretary of the Huxley Memorial Committee, Prof. G. B. Howes, Royal College of Science, South Kensington, S. W.

WE learn from *Nature* that Prof. Wyndham R. Dunstan has been appointed Director of the Scientific Department of the Imperial Institute, which has hitherto been under the direction of Sir Frederick Abel. Prof. N. A. Moor of the Elphinstone College, Bombay, has been selected for the post of Director of the Government Observations at Colaba, in succession to the late Mr. Charles Chambers.

ARRANGEMENTS are being made for a tour abroad by a hundred American physicians, who will visit during the coming summer the principal health resorts of Europe. It is expected that various courtesies will be shown them at the places visited.

THE fourth International Hydrological, Cli-

matological and Geological Congress will be held at Clermont-Ferraud at the end of September, 1896.

A LETTER signed by Prof. John Caird, Principal and Vice-Chancellor of the University of Glasgow and Sir James Bell, Lord Provost of Glasgow, has been sent to various universities and learned and scientific societies, inviting them to send representatives to the jubilee of Lord Kelvin, which will be held at Glasgow on the 15th and 16th of June next.

AT a meeting of the fellows of the Royal Botanic Society, in London, on March 28th, it was stated that since the gardens have been open to the public on Mondays and Saturdays there has been a good attendance, a total of 6,000 persons having attended on eleven of the Mondays. It had been claimed that fellows would resign if the grounds were open to the public, but instead of that the roll of fellows had been greatly increased. The plan of having promenade concerts in the garden has not been favored by the Council, but will be again considered.

It is stated that Huxley's library is now offered for sale.

REUTER'S Agency states that the Windward, of the Jackson-Harmsworth expedition will leave again for the Arctic seas early in June. The Windward will carry a budget of letters for Dr. Nansen, on the chance of falling in with him north of Franz Josef Land. More members will be sent out to recruit the Jackson-Harmsworth expedition. The Windward will call at Archangel. The organizers of the expedition are in communication with Mr. Andrée, the projector of the balloon voyage towards the Pole, who, in view of the possibility of his balloon drifting in a southeasterly direction, is receiving full particulars of the depots which have been established by Mr. Jackson.

AT a recent meeting of the British Astronomical Society, a number of papers were read under the title of 'Eclipse Suggestions.' According to the report in the London *Times* Mr. J. Lunt suggested a method of determining the general brightness of the corona. The principle of the method was to photograph a small 'window' through which the coronal light was

streaming, and the squares of which varied from clear glass through various degrees of opacity, such that the coronal light was able to penetrate with actinic effect through a square of medium opacity in the time at the observer's disposal during totality. Mr. A. C. D. Crommelin read a note on 'Some of the attendant phenomena of total solar eclipses.' The President also contributed some suggestions, his subject being 'Camera work.' He said that two lessons were suggested by the Californian experiences—namely, the need for mounting the camera very solidly, and the unwisdom of attempting too many photographs. Mr. A. Fowler read a paper and showed twelve lantern slides illustrative of the observations that might be made with a pocket eclipse spectroscope.

D. APPLETON & Co.'s spring announcements include *The Warfare of Science With Theology in Christendom*, in two volumes, by Andrew D. White; *Genius and Degeneration*, by Dr. William Hirsch; *Our Juvenile Offenders*, a new volume in the Criminology Series, by W. Douglas Morrison; *The Intellectual and Moral Development of the Child*, by Gabriel Compayré, and *A B C of Sense-Perception*, by William J. Eckoff, new volumes in the International Educational Series; *Ice Work, Present and Past*, by T. G. Bonney, a new volume in the International Scientific Series; and *Familiar Trees*, by F. Schuyler Mathews.

HENRY HOLT & Co.'s announcements of scientific works include *Electricity*, by Prof. Charles A. Perkins, of the University of Tennessee, and *A Problem Book in Elementary Chemistry*, by E. Dana Pierce, of the Hotchkiss School, Lakeville, Connecticut. The same publishers will add at once to their German Texts Eckstein's *Preisgekrönt*, edited by Prof. Charles Bundy Wilson, of the University of Iowa.

THE experiment about to be made at London of using sea water for watering the streets, flushing the sewers and other purposes will be watched with much interest in America. The Croton system supplying New York City is now being enlarged at much expense, and the additional supply is needed only for a short time during the year when sea water would be of course available. In addition to the possible

economy it is urged that salt water will keep the roads and sewers much cleaner and more wholesome.

THE French Admiralty and a large number of railways and other corporations have adopted the metric system of screw threads recommended by *La Société d'Encouragement pour l'Industrie Nationale*, of Paris. It is proposed to consider the subject at an international conference at Berne, where it is probable that the new system will be adopted, and in this case the Whitworth system would soon be superseded.

*The British Medical Journal* states that a water famine is threatened in London. In 1895 the total amount of rain measured at the Royal Observatory, Greenwich, was only 19.73 inches, against an average of 25.06 inches. This deficiency is still in progress in the present year. In February the total rainfall at Greenwich was only 23 per cent. of the average for the month, and at Paris only 16 per cent. During January and February together the value was as low as 65 per cent. short of the mean at Paris, while in London the deficiency was 68 per cent. The rainfall of 1896 in London has so far, in fact, amounted to less than one-third of the average.

In a paper presented before the Paris Academy on March 23d, MM. le Prince Galitzine and A. le Carnojitzky claim that they have been able to polarize the X-rays by means of tourmalines. Lord Blythwood reported to the Royal Society on March 19th that he had been able to reflect the rays. The most perfect photographs hitherto taken by means of the Röntgen rays are produced in recent issues of the *British Medical Journal* and the *Lancet*, one of a monkey and one of an infant three months old; not only is the skeleton of a child shown with great distinctness, but some of the soft parts are clearly outlined.

PROF. J. C. EWART, of the University of Edinburgh, has undertaken an extended series of experiments upon telegony. He has a mare in foal by a zebra and a zebra mare in foal by a zebra stallion, and has arranged a number of other crosses in which the paternal and maternal characteristics are strong but less easily recog-

nizable than in the above cases. Breeders thoroughly believe in telegony, or the transmission of the influence of a previous sire. A number of apparently authentic cases have been cited besides the famous one of Lord Morton's mare, but none that fully satisfy the most critical. The matter of transmission of characteristics from a previous sire in such an important one that it requires fresh verification, and Prof. Ewart's experiments will be watched with interest.

In an editorial comment entitled 'The Taming of the Shrews' on the recent monographs by Dr. Merriam and Mr. Miller, *Natural Science* remarks: "In looking through these publications the conviction is forced upon one that 'they know how to do things in America,' and one wonders what work will be left for the poor fellows of the next generation. So far as North America is concerned, at any rate, there will be no new species to discover nor any work to be done in unravelling synonymy, for this is all done so thoroughly by the writers of these monographs. They know, too, how to print books in America; in this, as in their other government publications, both the paper and type are all that can be desired, and might well be commended to the notice of the 'Printers to the Queen's most excellent Majesty.' "

*Appleton's Popular Science Monthly* for April contains the Presidential address by Surgeon-General George M. Sternberg before the Biological Society of Washington on the 'Practical Results of Bacteriological Researches,' an article on the X-rays by Prof. Trowbridge, a continuation of the articles by Mr. Herbert Spencer, Prof. Ripley and Prof. Newbold, and other articles of interest, including a sketch of Benjamin Smith Barton, with a portrait.

#### UNIVERSITY AND EDUCATIONAL NEWS.

THE Calendar of the University of Michigan for 1896-97 shows the following attendance :

Department of Literature, Science and the Arts	1204
“ of Engineering.....	331
“ of Medicine and Surgery.....	452
“ of Law.....	675
School of Pharmacy .....	83