

color of the South American Indians. His observations lead him to the following conclusions: 1. The darker coloration of portions of the body is due to exposure to sun and air, resembling in this the white race. 2. Judging from the color of the protected portions of the skin, the South American Indian approximates more closely to the yellow race than to the white or to a red race.

In the discussion of the paper when read in the Berlin Anthropological Society, Dr. Staudinger observed that variations of color under exposure is largely individual in all races, some negroes burning darker, some Europeans not 'tanning' at all; a fact well-known among ourselves.

D. G. BRINTON.

UNIVERSITY OF PENNSYLVANIA.

SCIENTIFIC NOTES AND NEWS.

THE grants made for scientific purposes at the recent Bristol meeting of the British Association amount to £1,495.

AT the recent Congress of Physiologists a committee was appointed, at the suggestion of M. Marey, to consider methods of standardizing and making comparable physiological instruments. The committee consists of Professors Bowditch, Foster, von Frey, Hürthle, Kronecker, Marey, Mislawsky, Mosso and Weiss. The members of the committee are expected to secure information in their respective countries, and will meet in M. Marey's laboratory at Paris in September, 1900.

THE Library and Natural History Museum of New Westminster, B. C., was totally destroyed by the fire which consumed that city on September 11th.

A FULL-SIZED *replica* of the well-known portrait of Huxley painted by the Hon. John Collier in 1883 has been presented by Mr. Collier to the trustees of the National Portrait Gallery.

HERBERT LYON JONES, associate professor of botany at Oberlin College, died at Granville, O., on August 27th, at the age of 32 years. He had held this position but a single year, coming

from Cambridge, where he had been an instructor in Harvard and Radcliffe Colleges for a number of years.

THERE will be a general conference of the International Geodetic Association at Stuttgart, beginning October 3d. Besides the usual reports from the different countries on progress made toward the measurement of the Earth, a number of important questions will come up for discussion. It is expected that the program for a systematic study of the variations of latitude, involving the occupation of stations for a term of years, will be definitely arranged. Two of the points will be in the United States, one in Japan and one in Italy. The latest acquisition to the Association is England, which will be represented this year for the first time. Mr. Preston, of the Coast and Geodetic Survey, goes as the delegate from the United States.

THE Italian Congress of Public Health will meet in Turin from September 29th to October 1st under the presidency of Professor Pagliani.

THE Fifth International Congress of Hydrology, Climatology and Geology will be held at Lüttich from September 25th to October 3d, 1898.

THERE were only 322 members in attendance at the Nantes meeting of the French Association for the Advancement of Science, although the membership of the Association numbers some 4,000. Complaints are also made that the leading French men of science do not attend the meetings. There was, with the exception of the President and Vice-President, only one member of the French Academy of Sciences present at the meeting, and he did not take part in the proceedings.

It is stated in *Nature* that 226 members were in attendance at the recent International Congress of Physiology. The different nationalities represented were as follows: Austria-Hungary and Germany, 33 members; Belgium, 9; Denmark and Sweden, 3; Egypt, 2; France, 29; Holland, 3; India, 2; Italy, 9; Japan, 4; Roumania, 2; Russia, 7; Switzerland, 9; United States, 16; Great Britain and Canada, 98.

THE Scientific Commission, appointed jointly by the Colonial Office and the Royal Society to

investigate the mode of dissemination of malaria with a view to devising means for preventing the terrible mortality which now takes place among Europeans resident in tropical and sub-tropical climates, has now been nominated. It will consist, according to the *British Medical Journal*, of Dr. C. W. Daniels, of the Colonial Medical Service, British Guiana, who is well known for the many valuable contributions he has made to tropical medicine; Dr. J. W. W. Stephens, formerly Lawrence student in pathology and bacteriology at St. Bartholomew's Hospital, and the author of the essay on the Bacteriology of Asiatic Cholera in Allbutt's 'System of Medicine,' and Dr. R. S. Christophers, of University College, Liverpool. Dr. Daniels will proceed at first to Calcutta, where he will acquaint himself practically with the remarkable work which Surgon-Major Ross, of the Indian Medical Service, is carrying on into the relation of mosquitos to the dissemination of malaria. Drs. Stephens and Christophers will at first proceed to Rome, where they will spend some time in studying malaria. Subsequently the Commissioners will meet together at Blantyre, British Central Africa.

WE learn from *Nature* that the Tenth Congress of Russian Naturalists and Physicians was opened at Kieff on September 3d, with an attendance of nearly 1,500 members, under the presidency of Professor N. A. Bunge. The Presidents of the different sections were the following professors: Mathematics, V. P. Erma-koff; Sub-section of Mechanics, G. K. Susloff; Astronomy, M. T. H. Khandrikoff; Physics, N. N. Schiller; Sub-section of Aeronautics, N. E. Zhukovsky; Chemistry, N. A. Bunge; Mineralogy and Geology, K. M. Feofilaktoff; Botany, O. K. Baranetsky; Zoology, N. V. Bobretsky; Anatomy, Physiology and Medical Science, M. A. Tikhomiroff; Geography and Anthropology, V. B. Antonovich; Agriculture, S. M. Bogdanoff; and Hygiene, V. D. Orloff. Two papers were read at the first general meeting: one by Professor Bugaëff, on the philosophical purports of mathematics; and the other by Professor Mendeléeff, on the oscillations of the balance.

THE Geologist's Association of London, says

Natural Science, held their long excursion in the Birmingham district from July 28th to August 3d, under the directorship of Professors Lapworth and Watts, Dr. Stacy Wilson, and Messrs Jerome Harrison and Wickham King. Messrs. Sollas, Blake, Sherborn and Miss Wood, of Birmingham, were among the fifty or sixty persons present. Mr. Frederick Meeson acted efficiently as Excursion Secretary. The main attraction of the excursion was the comparison of the Archæan and Cambrian rocks of the district with those seen on a previous occasion in the Shrewsbury area under the same directors. The basic dyke in Abel's Quarry, near Nuneaton, penetrating the Archæan, but cut off by the overlying Cambrian Quartzite, was an object of much interest, while the Hyolithes beds of Cambrian age yielded sparingly *Kutorgina*, *Hyolithes* and other fossils. The remarkable bending of the edges of the Menevian beds underlying the Carboniferous conglomerate was examined in detail, and the theory of the movement of soil-cap was held to be sufficient to account for it without calling in any more violent means. The geologists were shown, by Professors Lapworth and Watts, the imaginary restoration of the old Triassic sea, with its islands of Charnwood, Nuneaton, Lickey, Shrewsbury, etc. The head of a trilobite was found for the first time in the Lowes Stockingford Shales, thus helping forward the elucidation of the life of the period. The last day an excursion was made to the Dudley and Wren's Nest Silurian, and owing to the excellent arrangements made by Mr. Claughton the workings were explored in boats in a most complete manner.

OWING to his absence in Colorado, where he will be occupied in inspection of forest reserves until November, Mr. J. G. Jack will not give his usual course of lectures at Arnold Arboretum on trees and shrubs this autumn.

DR. F. W. DAFERT has been appointed Director of the Agricultural Chemical Station in Vienna.

Dr. VOGES, assistant in the Berlin Institute for Infectious Diseases, has been appointed Director of the Bacteriological Institute at Buenos Ayres.

THE Welby prize of £50, offered for the best essay on 'The Causes of the Present Obscurity and Confusion in Psychological and Philosophical Terminology and the Directions in which we may hope for Efficient Practical Remedy,' has been awarded to Dr. Ferdinand Tönnies, of Hamburg. A translation of the successful essay will appear in *Mind* shortly.

THE new cable between Brest and Cape Cod was completed on August 16th. This cable, 6,000 km. in length, is said to be the longest in the world and affords the most direct connection between Europe and America.

THE Marshall Museum of the University of Chicago is about to receive further valuable collections from the Egyptian excavations of Dr. Flinders Petrie and Mr. Quibell.

THE observatory established on Mount Blanc at an altitude of 4,400 m., by M. Vallot, is being moved to a position where the drifting snow will not interfere so seriously. The woodwork for the new building, which is larger and better arranged than its predecessor, is being carried up the mountain by some forty men, work having been begun on July 16th.

THE City of Hamburg has established a station for the protection of plants which has been placed under the direction of Dr. Brick, of the Hamburg Botanical Museum. It will be the duty of the station to supervise imported plants and to study diseases of plants, with special reference to their occurrence in the neighborhood of Hamburg.

THE Second International Sea Fisheries Congress met at Dieppe on August 3d, under the presidency of M. E. Perrier, professor of zoology at the Paris Museum of Natural History. After listening to an address by the President, the Congress was divided into four sections for the discussion of special topics, viz.: (1) Scientific researches, under the presidency of M. Mathias Duval, director of the fishery school at Boulogne; (2) fishery apparatus, preparation and transport, under the presidency of M. Delamare-Deboutville; (3) technical education, under the presidency of M. Jacques Le Seigneur, Commissioner of Marine at Granville; and (4) fishery regulations, under the presidency of M. Roché, Inspector-General of Fisheries. About

forty papers were presented before these sections, which were, however, in many cases of local rather than of international importance. The present, like the first Congress, was organized by the French Society for the Promotion of Technical Instruction in matters relating to Sea Fisheries, but an international committee has been named for the organization of future congresses.

THE Press Association states that Mr. Stanley Spencer and Dr. Berson ascended on September 5th from the Crystal Palace in a balloon inflated with pure hydrogen gas, and attained the remarkable altitude of 27,500 ft. Numerous scientific instruments, including a self-recording aneroid barometer, were carried, and compressed oxygen gas for inhaling at the greatest height. The descent was near Romford. It is expected that this will far surpass the results of simultaneous ascents at St. Petersburg, Moscow and Berlin, being only 1,500 ft. less than Coxwell and Glaisher's highest in 1862. The atmosphere was clear and the coast range visible. At 25,000 ft. the air became so rarefied that both explorers had to breathe compressed oxygen from tubes. The balloon had a capacity of 56,500 feet.

THE steamer *Antarctic*, with the members of the Swedish Arctic Expedition under Herr Nathorst, arrived at Tromsø on September 7th. The expedition had thoroughly explored King Charles Land and circumnavigated West Spitzbergen and North-East Land.

MR. HERBERT SPENCER is about to issue the first volume of the revised and greatly enlarged edition of his 'Principles of Biology.'

PROFESSOR A. H. KEANE'S work on ethnology, dealing with fundamental ethnical problems and primary ethnical groups, will be followed by a volume entitled 'Man, Past and Present,' which will be issued by the Cambridge University Press.

MESSRS. C. ARTHUR PEARSON'S announcements for the autumn season include two books of travel. Captain Guy Burrows, of the Congo State military force, will, in 'The Land of the Pigmies,' describe his exploration of a region into which very few white men have ever penetrated. It is known as the district of the Upper

Uelle and lies to the north of the Aruwimi river. The pigmies, among whom Captain Burrows has lived, are a race about 4 feet in height; but, unlike all the other inhabitants of this region, they are not cannibals. 'Spinifex and Sand,' by the Hon. David Carnegie, will be a narrative of five years' pioneering and exploring in Western Australia, including a journey across the waterless deserts of the interior and through a vast territory that had not been previously explored.

THE foreign members of the Zoological Congress made an excursion, says the *London Times*, to the zoological institution which owes its existence to the enterprise and generosity of the Hon. L. Walter Rothschild. A party of over 150 members of the Congress travelled by special train to Tring, and drove from the station to the museum, over which they were conducted by Mr. Walter Rothschild, Mr. Charles Rothschild, Dr. Hartest and Dr. Jordan. The museum is still young and has grown rapidly from small beginnings. Mr. Rothschild when a boy began to make a collection of birds and insects. Owing to his expenditure of time and money the collection increased rapidly. A special house known as the 'Cottage' was built for it in 1889, to which a public exhibition gallery was subsequently added. The museum consists of two parts—a large hall containing a general zoological collection, and a series of private rooms containing the special collections, which are only available to students. The public gallery is packed with material, all of high quality, and much of it unique. The general collection is so rich that it is difficult to select objects for special mention, but the value of the material may be illustrated by reference to the unrivalled collection of the birds of paradise; to the specimens of the rare Caspian seal and the now extinct quagga; to the fossil birds from Chatham Island described by Mr. Andrews, and the unique monotreme from New Guinea (*Proechidna nigroaculeata*). Among specimens of more general interest may be mentioned the beautifully mounted Grevy's zebra, and the 'white' rhinoceros killed in Mashonaland by Mr. Rhodes's secretary, Mr. Coryndon, and the Chimpanzee 'Sally.' Although the exhibition gallery is full of specimens such as these,

the special study collections of birds and insects are the most important part of the museum. In spite of its recent foundation the museum contains some 40,000 bird skins, and the number of butterflies and beetles is reckoned by hundreds of thousands. Mr. Rothschild early realized the need for systematic work on zoogeography. The area to which he has devoted most attention is Malaysia, where he maintains a staff of collectors, who go from island to island and thus trace the distribution of the various elements in the Malaysian fauna with a precision less systematic efforts could never attain. The collections are sent to Tring. Since 1894 memoirs on the collections have been published in a special journal, the *Novitates Zoologicae*. Four complete volumes have been published. Attached to the museum is a paddock, where there is a collection of living animals.

SOME members of the Zoological Congress also visited Woburn to see the valuable collection of deer in the Abbey Park. To avoid disturbing the herds more than necessary, the Duke of Bedford's invitations were limited to about 50. The zoologists were met at Woburn by Mr. Lydekker, whose recent monograph, 'The Deer of all Lands,' is illustrated by numerous photographs of the Woburn herds, taken by the Duchess of Bedford. The deer there may be seen living under exceptionally favorable conditions. Many of the species, such as the elk and Père David's deer of northern China (*Elaphurus Davidianus*), are allowed to run at large about the open park; others, such as the small Indian muntjacs, live in the coverts. Those which cannot be allowed such liberty are confined in paddocks. The largest enclosure contains 150 acres, and is occupied by a herd of wapiti, sambar and bison. In a slightly smaller paddock are some Altaian wapiti, including the first living specimens brought to this country. The Indian spotted deer, or chital, share a third enclosure with some Virginian deer and Caspian red deer. Although the collection is of recent foundation it already includes 40 species, and the herds are much larger than can be seen in the Zoological Gardens. With the exception of a dredging expedition in connection with the Marine Biological

Laboratory at Plymouth, this excursion brought the Congress to a close.

In the Irish Courts the Master of the Rolls recently delivered judgment, says the *British Medical Journal*, on a question brought before him in reference to the Carmichael Trusts. Application was made on behalf of the College of Surgeons that the existing scheme for the management and administration of the Carmichael Prize Fund, created by the will of the late Dr. Carmichael, might be altered, and a new scheme for the management of the fund should be settled by the Court. The late Dr. Carmichael, by his will of 1849, bequeathed to the College of Surgeons a sum of £3,000, and directed that the interest arising from this sum should be applied in giving every fourth year a premium of £200 for the best essay, and £100 for the second best essay on medical education; and he directed that the authors of such essays should make suggestions as to the improvement of the profession with a view to rendering it 'more useful to the public and a more respectable body than it is at present.' From time to time the College of Surgeons advertised in the public press for essays, but generally the essays submitted were deemed to be of insufficient merit, and no prizes were awarded. In 1866 the first prize was awarded to Dr. Mapother, and the second to Dr. Ashe. In 1879 the prizes were awarded to Mr. Rivington and Dr. Laffan, and in 1887 they were again awarded to the same two gentlemen. Since then no advertisements have been inserted for further prizes, the income of the fund being insufficient to pay for the printing of the 700 copies of each which were directed by the testator to be printed, and copies sent to Cabinet Ministers, heads of colleges, etc. The cost of printing each essay was on an average £100. One of the essays exhibited in court ran to 1,200 pages. The Council of the College of Surgeons were, it was stated, of opinion that the essays were doing no good, and they proposed that the income of the fund should be apportioned between the College of Surgeons and the Royal Medical Benevolent Fund Society of Ireland, the College of Surgeons to get three-fourths of the income, and the other body one-fourth, the Royal Medical Benevolent Society having been mentioned by the testator as

the body to get the £3,000 in the event of the College of Surgeons not carrying out the trusts named in the 'sequel.' The College of Surgeons proposed that their three-fourths of the income should be used in awarding every second year to a licentiate of the College a traveling prize of £100, in order to enable the successful candidate to visit hospitals in Vienna and other capitals on the Continent. Affidavits in support of the application were made by Sir Charles Cameron, Sir William Thomson, Sir William Stokes, Sir George Duffey, Sir William Thornley Stoker, Dr. Heuston, Dr. Jacob, Dr. Story and other leading members of the Colleges of Surgeons and Physicians. The Master of the Rolls said the original gift in this will had not in any legal sense at all failed, and, except as regarded the amount of money now available for the trust, it appeared to him quite possible to carry out the instructions of the testator, and he was of opinion that he had no power to devote the testator's money to a purpose which he did not contemplate or sanction. However, as the income of the fund was now insufficient to pay prizes of £200 and £100 every fourth year, including the large expenses of printing prize essays, and owing to the fact that the College has no fund to pay examiners of those essays, he thought some modification of the existing scheme was necessary. He would, therefore, refer the matter to chambers for an inquiry as to what alterations in the scheme were necessary to make it practicable and workable.

Nature quotes from the *Atti*, of the Reale Accademia dei Lincei, of Rome, the recent awards of prizes given by the King of Italy. For the Royal prize for mathematics eight competitors sent in no less than about ninety written and printed memoirs; and after a critical examination of these the judges have now divided the prize equally between Professor Corrado Segre and Professor Vito Volterra. The papers submitted appear to have been of a very high standard of excellence, and are stated to form a worthy sequel to the works of Betti, Brioschi and other illustrious Italian mathematicians. The award of the Royal prize for social and economic science has been deferred for a period of two years. A similar decision has been ar-

rived at in the case of the prize for astronomy, but a sum of 3,000 lire has been awarded to Professor Filippo Angelitti in consideration of his valuable work in editing and discussing the unpublished writings of Professor Carlo Brioschi. The prize for philology has been divided between Professor Angelo Solerti and Professor Remigio Sabbadini, and finally a Ministerial prize of 1,500 lire for natural science has been awarded to Professor L. Paolucci for his monograph on the fossil plants of the Ancona district. The Academy has recently elected the following associates and foreign members: National Associates—in physics, Professors A. Righi, A. Roiti, and A. Pacinotti; in geology and paleontology, Signore G. Scarabelli; in zoology, Professor C. Emery. Correspondent in mechanics, Professor C. Somigliana. Foreign Members—in mechanics, Professors A. G. Greenhill and V. Voigt; in physics, Professor W. C. Röntgen; in geology and paleontology Professor A. Karpinsky and Sir Archibald Geikie; in zoology, Professor E. Ray Lankester.

AN ichthyosaurus 20 feet in length, the head two feet across, has, as we learn from *Nature*, recently been uncovered in the Warwickshire village of Stockton. The land is excavated by cement firms and has yielded many lower middle Lias fossils. The present specimen will, it is said, be presented to the Natural History Museum by the owner of the quarry.

UNIVERSITY AND EDUCATIONAL NEWS.

IT is reported in the daily papers that Miss Jennie Flood has given to the University of California her Menlo Park mansion, together with five hundred and forty acres of land, and four-fifths of the stock of a waterworks plant which she owns.

THE National Council of Education has authorized the appointment of a committee of fifteen to investigate the whole subject of the establishment of a national university and to report to the Council at its next meeting.

AT Princeton University Mr. A. H. Phillips and Dr. E. O. Lovett have been appointed to assistant professorships in mineralogy and mathematics, respectively.

MR. A. A. HELLER, instructor in botany in the University of Minnesota, has resigned his position to devote his time entirely to collecting. Professor Conway MacMillan may be addressed in reference to the Exchange Bureau.

THE State Department at Washington has received from Minister Conger at Pekin information that Dr. William A. P. Martin has been appointed President of the University of China, recently established by imperial decree. Dr. Martin was President of Pekin University for nearly thirty years. He is a citizen of the United States, but went to China as a missionary about forty years ago. Associated with Dr. Martin in the presidency is Hsu King Chang, now Minister to Russia. The selection of the corps of professors, some twenty, not including fifty native tutors, is left entirely to Dr. Martin.

MR. E. G. COKER has been appointed assistant professor of engineering in McGill University.

DR. RUDOLF COHN, docent in physiological chemistry in the University of Königsberg, has been made professor. Dr. Zograf has been appointed assistant professor of zoology and Dr. Mrens bier assistant professor of comparative anatomy in the University of Moscow. Professor Hölder, of Königsberg, has been called to the chair of mathematics at Leipzig. Dr. Koetz has qualified as docent in chemistry in Göttingen and Dr. Smoluchowskie von Smolen as docent in physics in Vienna. Dr. Adam Nell, professor of mathematics in the Darmstadt Technological Institute, has retired, having reached the age of seventy-four years.

PROFESSOR RIEDLER has presented to the engineering laboratory at Berlin machinery valued at \$30,000.

SCIENTIFIC LITERATURE.

Nature Study in Elementary Schools. By MRS. L. L. WILSON, PH.D., Philadelphia Normal School for Girls. Pp. xix + 262. Price, \$1.00. A *Reader* accompanying the same, pp. xv + 181. New York, The Macmillan Company.

This 'Manual for Teachers,' the first of the books mentioned, is planned to meet the needs of the ordinary grade teachers in the first four years of the public schools of a city. In its scope it includes studies of the weather, of