

in the Carib dialects, as the latter never approached nearer than the south of Cuba.

In the *Zeitschrift für Ethnologie* 1897, Heft II., Dr. Paul Ehrenreich contributes new materials to the tongues spoken on Purus river by the Paumari, Ipurina, Araua and Yamamadi tribes, showing that these are branches of this widespread stock. He remarks: "From the islands of the Antilles far south to the sources of the Paraguay and Madeira rivers, one can now follow an almost unbroken line of Arawack dialects, in which, in spite of the great distance of more than thirty degrees of latitude, it is easy to show a complete grammatical identity."

This is another example of the general fact that the extension of accurate research is rapidly diminishing the number of South American linguistic stocks.

THE ALLEGED SUMMERIAN LANGUAGE.

THE Summerians, so-called, inhabited southern Babylonia about 5,000 years B. C. Their northern branch are known as 'Ak-kads.' Some say that they spoke a tongue allied to the Semitic stock, while other authorities have maintained that the sufficiently abundant remains of this very ancient idiom show marked analogies to the Ural-Altaic tongues. The latest advocate of this opinion is Dr. K. A. Hermann, of Dorpat, who, at the tenth Russian Archæological Congress, urged strongly that the Summerian had the same construction, vocal harmony and phonetics as the Finnish-Ugrian branch of the Ural-Altaic stock.

In his paper, as reported in the *Centralblatt für Anthropologie*, Dr. Hermann fails to note the objections urged by the eminent Ural-Altaic scholar, Dr. Hugo Winkler to the supposed similarities of Summerian to Ugro-Finnic tongues. These objections are so cogent that they must be held conclusive for the negative. The Summerian, if it was not Semitic, which is still possible, may

have been Dravidian, or even a very primitive Aryan idiom. Either of these is more likely than the Ural-Altaic hypothesis.

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SCIENTIFIC NOTES AND NEWS.

THE WINTER MEETINGS OF THE SCIENTIFIC SOCIETIES.

THE societies meeting at Ithaca as we go to press represent perhaps the most important attempt to bring the sciences into fruitful relations now existing in America. The National Academy of Sciences and the American Association for the Advancement of Science are more important organizations. They have done more for science in the past, and it may be that they will do more in the future. The National Academy, however, at the present time does not exert a great influence. At a recent session there was only one person present in addition to about twenty members, and each of the papers presented was only of interest to two or three of the members. There was not a line regarding this session in the daily papers of the city in which the Academy met, and it was, perhaps, referred to nowhere except in this JOURNAL. The American Association has during the past ten years had at its annual meetings an average attendance of only about four hundred members with a tendency to decrease. These have by no means been exclusively the four hundred most competent men of science in America, and the total work of the Association has been disappointing. We may hope for much from the anniversary meeting at Boston next year, but it must be acknowledged that at present the Association is in a position to need help from scientific men rather than to give help to them.

The associations devoted to a single science meeting during the Christmas holidays—the Mathematical Society, the Geological Society, the Chemical Society and the affiliated societies concerned with the biological sciences convening at Ithaca—are doing their work with thoroughness and with fruitful results. We miss a physical society, but otherwise each of the leading sciences is represented by a well or-

ganized association which is contributing its share to scientific advance. The Society of Naturalists and the affiliated associations are, perhaps, of especial interest because they represent an attempt to keep a group of sciences in mutually helpful relations. Each society has its own organization and special work, but men of science in different but related departments are brought into personal contact, so that each may learn to appreciate the work of the others. The programs of the different societies promise that the meetings this winter will be of special interest, and we are sure that this promise will be confirmed by the reports to be published in this JOURNAL.

THE ECLIPSE EXPEDITIONS FROM GREAT BRITAIN.

ACCORDING to the London *Times* a considerable rearrangement has been made of the stations proposed to be occupied by the various British parties setting out to observe the total eclipse of the sun on January 22d. Sir Norman Lockyer will, as before arranged, occupy the most westerly of these stations—at Viziadrug, on the coast of India. The next station towards the east is where the Southern Mahratta Railway crosses the central line of totality near the station of Karad. Here Professor Michie Smith, the government astronomer at Madras, with his party, will take up his position. The Great Indian Peninsular Railway crosses the central line about 100 miles farther east at Jeur. Here Professor K. D. Naegamvala, the curator of the observatory of the Royal College of Science, Poona, with a large party of resident observers, will be encamped. A wide interval separates this station from the next, which will be occupied by a party sent out by the British Astronomical Association. This will consist of Mr. John Evershed, Mr. and Mrs. E. W. Maunder, Captain P. B. Molesworth, R.E., and Mr. C. Thwaites. This party is travelling out by the P. and O. steamer Ballaarat. Their camp will in all likelihood be pitched at Talni, on the line between Amraoti and Nagpur. Near them will be the second of the official parties sent out by the joint committee of the Royal Society and the Royal Astronomical Society, Sir N. Lockyer's party forming the

first, and consisting of Captains Hills, R.E., and Mr. Newall. Mr. Newall has already started, and Captain Hills will travel by the P. and O. steamer Oriental. Another 120 miles along the shadow track the third official station will be occupied by Dr. Copeland, Astronomer Royal for Scotland, on the high road between Nagpur and Seoni; whilst the fourth party, consisting of the Astronomer Royal (Mr. W. H. M. Christie) and Professor H. H. Turner, of Oxford, who also travel by the Ballaarat, is expected to be located at Sohagpur, on the line from Jubbulpore to Bilaspore, some 150 miles from Dr. Copeland. Finally, the second party of the British Astronomical Association, which will be under the leadership of the Rev. J. M. Bacon and will go out by the Egypt, is expected to take up its quarters for the eventful day at Buxar, on the Ganges, some 220 miles farther on. With the favorable meteorological conditions which prevail in India in January and this wide distribution of observing forces, it is to be hoped that no such severe disappointment as was felt in Norway and Japan during the eclipse of last year will be experienced on this occasion.

GENERAL.

As we go to press we receive intelligence of the important discovery announced by Professor J. C. Kapteyn, of Gronigen, that the Star Cordoba Zone Catalogue 5^h. 243 has a proper motion of 8''7 on arc of a great circle. The largest proper motion hitherto known is that of 1830 Groombridge — 7''0 on arc of a great circle.

At the session of the Academie des Sciences held at Paris, December 13, 1897, the Cuvier prize of 1,500 francs was awarded to Professor O. C. Marsh, of Yale University. This prize 'is awarded every three years for the most remarkable work either on the Animal Kingdom or on Geology.'

THE post of Government Botanist of Victoria, vacant by the death of Baron von Mueller, has been filled by the appointment of his former assistant, Mr. J. G. Luehman.

A CABLEGRAM reports that the will of Dr. Thomas W. Evans, the opening of which has been awaited with much interest, leaves nearly

This entire estate, estimated at \$8,000,000, for the Thomas W. Evans Museum and Institute of Philadelphia. Further details are lacking.

DR. T. PORTER, whose herbarium was reported to have been destroyed by the recent fire in Pardee Hall, Lafayette College, has made the following statement: "The Pennsylvania flora is saved entire and complete. It is the best in existence, and I am greatly relieved. I have labored a lifetime on it. The collection of North America is saved to the extent of a little more than two-thirds; much that appeared utterly destroyed Saturday proves not to be so badly damaged as to be valueless. The offers of my friends in all directions which are coming in on me like a blessed shower will enable me to restore the collection. I am deeply touched by their generous sympathy and aid."

THE Harvard Natural History Society celebrated on December 17th its sixth anniversary. Professor Shaler gave an address on the history of the Society, and William T. Hornaday, of the New York Zoological Society, lectured on the preservation of our native birds. The Society now numbers over seventy members and has recently been organized into sections for the various branches of natural history.

THE sixty-sixth annual meeting of the British Medical Association will be held in Edinburgh from Tuesday, July 26, to Saturday, July 30, 1898. Since the Association met in Edinburgh twenty-three years ago many changes have taken place in the medical institutions of the city, and the Association will next year be able to meet in McEwan Hall, the magnificent new building of the University of Edinburgh.

THE deaths are reported of Dr. Friedr. Wilhelm Snyder, the botanist, at Braunsberg, at the age of 87 years; of Professor Raphael v. Erlanger, the zoologist, at Heidelberg, aged 33 years; of Dr. Wilhelm Joest, the explorer, in Australia; of Mr. Samuel A. Miller, of Cincinnati, the author of numerous contributions to zoology and paleontology, on December 19th, aged 61 years; of Dr. F. C. Schneider, emeritus professor of chemistry in the University of Vienna, aged 84 years, and of Dr. Schrauf, professor of mineralogy in the University of Vienna, aged 60 years.

WE are requested by Professor I. P. Roberts, Director of the College of Agriculture of Cornell University, to call attention to the university extension work in agriculture, provided last year by the Nixon Bill and placed under the direction of the College of Agriculture. The object of the work is the promotion of agricultural knowledge in the State. A reading course class has been organized for the study of some of the fundamental principles which underlie agriculture, and this study may be taken up at the farmers' homes. Those wishing to join the class, now numbering several hundred, will receive, free of cost, printed matter for study which will be followed by questions intended to lead to a discussion of any points not well understood by the pupil.

THE Société des Laboratoires Bourbouze, of Paris, offers scientific courses to workingmen, free of charge, on Sunday from nine to eleven o'clock. Physics and chemistry will be taught in the laboratories, the courses being adjusted to the practical needs of the students.

DECEMBER 5th was the sixth anniversary of Museum Sunday, instituted in Great Britain by the Sunday Society in 1892. About one hundred institutions were opened on that Sunday. The attendance at the British Museum was 458, and at the Natural History Museum 554. These numbers are scarcely as large as might have been expected.

THE United States Civil Service Commission announces that the examination which was scheduled to be held at Washington and elsewhere on January 8th, for the position of Comptroller in the Nautical Almanac Office, has been postponed to January 10th and 11th, it being found that it will be necessary to give two days for the examination. Very few applications have as yet been received for examination for this position. All persons desiring to compete should write to the Commission at once for application blanks and information.

PROFESSOR GABRIEL LIPPMANN, who was recently awarded the 'Progress' Medal of the Royal Photographic Society for 'Photography in colors by the interference method,' read a

paper on the subject before the Society on the 14th of December.

WE announced recently that the American Forestry Association would hereafter publish a journal devoted to the interests it represents. *Garden and Forest* states that the Association will take *The Forester*, founded and for the past three years edited by Mr. John Gifford, Princeton, N. J. The new office of *The Forester* will be at No. 73 Cochran Building, Washington.

THE Report of the Director of the Field Columbian Museum for 1896-7 reflects much credit upon the Museum staff, showing that a large amount of work has been accomplished by a small force and that good progress has been made in caring for the study series as well as in installing the exhibits. The report contains a number of plates showing the methods of installation in the various departments. The 'monographic installation of North American forest trees' seems extremely good, both from an educational and scientific standpoint. It comprises a branch, flowers, fruits and block of wood from one tree; a photograph of the same tree in summer and winter; a seven-foot section of the trunk, a transverse section; commercial planks and, finally, a map of North America colored to show the distribution of the species. The mammal groups of Mr. Akeley, who is unrivaled in this work, are deserving of special notice, particularly that of the Lesser Koodoo with its striking central figure. The group of Musk oxen contains, so far as we are aware, by far the best series contained in any museum.

Appleton's Popular Science Monthly for January contains an article on the 'Causes and Distribution of Infectious Diseases,' by Surgeon-General George M. Sternberg. The subject is treated historically, and includes a brief outline of the more serious epidemics of the past one hundred years.

WE quote the following editorial note from the December issue of the London *Educational Times*: "Eulogistic notices of the late J. J. Sylvester, Savilian professor at Oxford, whom our readers will remember as a frequent con-

tributor to our columns, have appeared in the mathematical and other journals of America, France, Germany and Belgium. Professor Halsted, writing in *SCIENCE* (U. S. A.), says: 'When one thinks that Sylvester, William Thomson, Maxwell, Clifford, J. J. Thomson, have all been second wranglers, one asks involuntarily if any senior wranglers, Cayley excepted, have been put on the same parallel with them?' Professor Halsted might have added Whewell and Glaisher to his seconds. But, as to the seniors, what about Paley (to match Whewell), Wollaston, the double seniors Kaye and Alderson, Herschel, Sir George Airy, Main, Stokes, Adams, Todhunter, Tait, Lord Rayleigh, and Cayley aforesaid? However, it must be admitted that there are some heavy weights in the other scale." There is nothing in any American college or university corresponding to the extreme specialization of the mathematical Tripos at Cambridge. Yet a method which secures such extraordinary results should at least be carefully studied.

To the numerous 'Années' recently established in France will now be added *L'Année sociologique*, edited by M. Durkheim, professor of sociology at Bordeaux, and published by M. Felix Alcan, Paris. The volume for 1897 will be issued early next year and will contain original articles by the editor and by Professor Simmel, of Berlin, followed by systematic reviews of the literature. We regret that the attempt will not be made to give a complete bibliography, but perhaps this will be added to later volumes.

THE *Western Medical and Surgical Gazette*, which has just begun publication at Denver, under the charge of professors in the Gross Medical College is, we believe, the two hundred and twenty-sixth monthly medical journal now being published in the United States. This would allow one monthly journal for each 500 physicians in the country, and probably not one-half of them subscribe for any journal. It is not necessary to predict whether mediocrity or progress through survival of the fit will result. It is, however, but fair to state that the new *Gazette* promises better than many of the medical journals that we receive.

PROFESSOR G. SERGI, of the University of

Rome, expounds in the January *Monist* his theory of the origin of Latin and Greek civilization, which he claims was not the creation of the Aryans, who were an inferior stock, but of the Mediterranean race proper; the Aryans merely transformed the *language* of the Mediterranean races. In the same number Major Powell traces 'The Evolution of Religion' in the light of ethnology and the general history of civilization; Dr. Woods Hutchinson holds an impassioned brief for 'Love as a Factor in Evolution,' wherein he shows that love, sympathy, charity, etc., which are generally supposed to be subversive of natural selection in society, are really the prime conditions of evolutionary progress, through their strengthening of the moral fibre and their enhancing of solidarity. The philosophical articles are: (1) 'Causation, Physical and Metaphysical,' by C. Lloyd Morgan; (2) 'The Philosophy of Laughing,' by Dr. Paul Carus; (3) 'On the Philosophical Basis of Christianity in Its Relation to Buddhism,' by Professor Rudolf Eucken. As for the first of these, Professor Morgan seeks the solution of the problem of causation in the separation of the domain of knowledge into two provinces, a physical province and a metaphysical province. The search for transcendental causation in the latter province is as legitimate in its way as the search for scientific causation in the former province. The book reviews of the number embrace philosophy, psychology, biology and comparative religion.

TEN or twelve years ago *The Critic* published a series of 'Authors at Home,' including sketches of Lowell, Whittier, Holmes and other American men of letters. In its issue for the 18th ult. *The Critic* begins a new series of 'Authors at Home,' with a sketch of 'Charles Conrad Abbott, M.D., at Trenton,' by Mr. Ernest Ingersoll, who holds that 'systematists and dissectors' have not appreciated Dr. Abbott's contribution to science, owing to 'its literary form.'

The Contemporary Review.—Why can we not have in America monthly reviews as good as *The Contemporary*, *The Fortnightly* and *The Nineteenth Century*?—for December contains several articles of scientific interest. A well-in-

formed writer who signs himself 'A British Naturalist' discusses the seal question from an American point of view. The article concludes with the paragraph: "Hence, considering that the industry is commercially of no great importance, that the pelagic sealing involves the killing of pregnant females and the starving of their pups, and that the United States can settle the question over the heads of England and Canada, it seems a pity that the argument should be embittered by abuse of the United States. The question has been so simplified that the officials on both sides no doubt see the advisability of a friendly settlement. And it is to be hoped that the British press will give that fair open-minded consideration to the American claims that has marked the irreproachable attitude of the British Foreign Office."

ANOTHER article in the current number of *The Contemporary Review* is a criticism, by Mr. Andrew Lang, of the recently published work on 'The Evolution of the Idea of God,' by Mr. Grant Allen. Mr. Lang maintains, and not without reason, that Mr. Allen's treatment is not strictly scientific in character, but Mr. Lang himself holds that savages got their idea of spirits from converse with real spirits. Whence the conclusion is not unnatural that literature, science and writing for the market do not combine to produce results of value to science.

At a recent meeting of the Royal Botanical Society, of London, Mr. Sowerby, the Secretary, called attention, as reported in the *London Times*, to some kola plants grown in the gardens, and said that the tree, which was a native of the west coast of Africa between Sierra Leone and the Congo, belonged to the natural order Sterculiacæ. The seeds, several of which were contained in a fleshy fruit, 4 inches to 6 inches long, were the well-known kola nuts of West Africa, where they had been used as far back as it was possible to trace. By eating these seeds people were enabled to endure prolonged labor and exertion without fatigue. It was estimated that kola paste is five times more sustaining than cocoa; it contained over 2 per cent. of pure caffeine, and, compared with tea, coffee and cocoa, the kola preparations were

far more nutritious and did not create biliousness, as did cocoa and coffee, nor nervous excitability, as in the case of tea, so that the problem of "What may we drink?" might probably be solved. A number of these plants were propagated at Kew in 1880 and distributed to Calcutta, Ceylon, Zanzibar, Demerara, Dominica, Sydney, Mauritius, Java, Singapore and Toronto, where the nuts were now produced. It had been reported from Jamaica that if a demand should arise for them the nuts could be shipped to the extent of many tons per year. Notwithstanding its important properties, it is only lately that any great demand has arisen for the production. As a medical agent it is specially valuable as a powerful nerve stimulant. The kola nuts may supply a valuable medicine to the pharmacopœia, as Mr. Sowerby states, but it is doubtful whether the Kew Gardens have done a philanthropic work in extending its use. It is already sold in large quantities, both in Great Britain and America, and while it may itself be no more harmful than coffee, when mixed with from 10 to 25 per cent. of alcohol, as is usually the case, it becomes a powerful and dangerous intoxicant. The fact that it is sold at apothecaries, often to women and children, rather than in saloons does not decrease the harm that it does.

UNIVERSITY AND EDUCATIONAL NEWS.

IN amplification of the note published last week in this JOURNAL regarding the gifts of Mr. W. C. McDonald to McGill University, Montreal, we are informed that the endowment consists in the foundation of an additional chair of chemistry. It will be remembered that Mr. McDonald recently erected a new chemical building at a cost of \$240,000. Mr. McDonald has further now given an additional endowment of fifty thousand dollars for the Faculty of Law, to the Deanship of which Faculty, with the chair of Roman Law, Mr. E. P. Walton, of the Scotch bar, was recently appointed. Mr. McDonald has, moreover, supplemented the existing endowments associated with his name by a further gift of \$200,000, to provide for any deficiency in income that may result from the fall in the rate of interest on investments.

THE sum of \$45,000 has now been collected for a Science Hall for Syracuse University. It is expected that the erection of the building will be begun in the spring.

MRS. GEORGE SMELTZ, of Hampton, Va., has given \$5,000 to Richmond College, to be used in the erection of a science building.

A NEW building for the biological laboratory was begun at Adelbert College in October, and will probably be completed in September, 1898. The building is of Gothic design and is to be built of stone, three stories high and basement. The outside dimensions are about 93 by 63 feet. The estimated cost with equipment is \$43,000.

WITH the October Convocation the University of Chicago closed its first period of five years of graduate work, during which it conferred the degree of Doctor of Philosophy on seventy-seven candidates, distributed among the several departments as follows: Zoology, 12; Chemistry, 6; History, 6; English, 6; Sociology, 5; Semitic, 5; Political Economy, 4; Germanic, 4; Greek, 3; Romance, 3; Geology, 3; Physiology, 3; Mathematics, 2; Indo-European Comparative Philology, 2; Physics, 2; Anthropology, 2; Philosophy, 1; Botany, 1; Biblical and Patristic Greek, 1; Political Science, 1; Paleontology, 1; Comparative Religion, 1; Old Testament Literature, 1; Systematic Theology, 1; Church History, 1; not represented, Anatomy, Archæology, Astronomy, Latin and Neurology. The student of science may fairly ask whether, when twelve doctorates are conferred in zoology and but three in Latin and Greek combined, this means that there is less demand for teachers of the classics or that a less exacting preparation is required.

WE quoted in a recent issue the statement of the principal of the 'late' Evelyn College to the effect that the College had been closed because Princeton University refused to recognize its work for the higher education of women. A correspondent fully acquainted with the facts writes us: "Evelyn College was closed on account of bad debts, and in the opinion of its own board of trustees should have been closed some time ago. So far from giving the institution the cold shoulder the University authorities allowed