

CAMBRIDGE.—On account of the death of his Majesty the King all invitations issued for the laying of the foundation-stone of the New Museum of Archæology and Ethnology are cancelled.

The increased entry in the University is shown by the fact that on May 3 seventeen undergraduates matriculated. This brings the total number of students for the academic year 1909-10 up to the present date up to 1217, as contrasted with 1163 at the same date last year.

The Special Board for Geographical Studies has reported on the financial position of the Department of Geography. The University makes an annual grant to the Board of 200*l.*, and the Royal Geographical Society makes a grant of a similar sum. This latter sum is primarily assigned to the stipends of a university lecturer in regional and physical geography and a university lecturer in surveying and cartography, who are called the Royal Geographical Society's lecturers in their respective subjects. The department has, however, grown, and the Special Board is of opinion that a further 200*l.* a year is the smallest additional sum with which it will be possible to make adequate provision for the study of the subject. The Board is of opinion that further accommodation for the department is urgently required. Application has already been made for the assignment of a lecture room, a laboratory, and some private rooms in the block of buildings now under construction. In order that geography may assume its due place in the studies of the University the Board looks forward to the appointment of a professor and of a reader with three lecturers under them.

Mr. Cyril Strickland, of Gonville and Caius College, has been appointed assistant to the Quick professor in place of Mr. H. B. Fantham, who has resigned the post.

Dr. T. G. Longstaff will deliver a lecture in Cambridge on Thursday, May 19, at 5 p.m., on "Glacier Exploration in the Eastern Karakoram Himalayas." The lecture, illustrated by lantern slides, will be given in the Sedgwick Museum.

Mr. E. Torday will give a lecture on his investigations among the Bushongo of the Kasai basin on Thursday, May 19, at 8.30 p.m., in the Museum of Archæology and Ethnology.

OXFORD.—Dr. G. C. Bourne, Linacre professor of comparative anatomy, and Mr. E. S. Goodrich, fellow of Merton College, have been appointed representatives of the University at the eighth International Congress of Zoology, to be held at Graz in August next.

MR. W. FISCHER WILKINSON has been appointed principal of the newly constituted School of Metalliferous Mining (Cornwall). Mr. Wilkinson's duties will not commence until the next session in September, but he has already associated himself with the governors in drafting the prospectus of the new school, which will be issued shortly. Mr. J. J. Beringer, who for twenty-eight years has been principal of the Camborne Mining School, will join the staff of the School of Metalliferous Mining and will take charge of the metallurgical subjects.

Science announces that Johns Hopkins University has received an offer of 50,000*l.* from the General Education Board for the purpose of aiding the University in its efforts to put into operation certain extensions and improvements that have been under consideration for several years, including the erection of new buildings. This sum will be contributed conditionally on the raising of a supplementary sum of 125,000*l.* by the University by December 31, 1910. The University, however, is endeavouring to raise 400,000*l.*, half for new buildings, while the other 200,000*l.* will be used for endowment. Among the extensions contemplated are a school of engineering, a department of preventive medicine, and a building for pathology. From the same source we learn that a joint hearing on the Bills to appropriate 130,000*l.* for new buildings for the College of Agriculture and 26,000*l.* for new buildings for the Veterinary College at Cornell University was given last month by the finance committee of the Senate and the ways and means committee of the assembly.

THE seventh annual meeting of the central council of the Association for the Advancement of the Scientific Education of Indians was held in Calcutta on April 14. We learn from the *Pioneer Mail* that the resolutions were

carried unanimously to the following effect:—That the Government be asked to fulfil its promise of starting graduate classes in mechanical and electrical engineering, mining and industrial chemistry, in connection with the Sibpur Engineering College at an early date; that Indian capitalists be appealed to to start industries and employ Indian experts in preference to foreign experts; that this council strongly urges upon the University and the Government to insist upon the training of the hand and eye of students attending schools; that Indian capitalists may, with every prospect of success, start the following industries, which have proved successful in Japan:—matches, pencils, porcelain, enamel, tobacco, sugar, hosiery, soap, perfumery, paper, glass, umbrellas, biscuits, leather, and printing-ink, industries for which experts trained by the association are available; that a syndicate be formed to raise 25 lakhs of rupees from the people of Bengal for starting industries to give employment to the large number of students who have been sent to foreign countries for industrial education.

In view of the fact that the Union Government will have to take over higher education shortly in Cape Colony, Prof. A. S. Kidd, of Rhodes University College, has prepared a brochure of forty-eight pages on the subject, and it is published by Messrs. Grocott and Sherry, of Grahams-town, at the price of one shilling. Prof. Kidd first explains the Higher Education Act of 1874, deals with the recommendations of the commission of 1879, and then describes the various colleges of the west and east of Cape Colony. His concluding section is concerned with the future of higher education in South Africa, and urges that one of the first duties of the Union Parliament should be to appoint a commission to inquire into and to report upon the whole subject. The chief work of the commission, Prof. Kidd thinks, should be the consideration of the following points:—which of the existing colleges deserve to be recognised as State colleges receiving generous support; what should be the constitution and functions of the various college councils; the special lines on which each college should be encouraged to develop; the salaries, good service pensions, and status of professors; the advisability of having some system of triennial inspection of college progress and efficiency; and the existing debts on colleges in Cape Colony, endowed chairs, bursaries, and scholarships.

As has been announced already in these columns, the third International Congress for School Hygiene is to be held in Paris from August 2 to August 7. The president of the congress is Dr. A. Mathieu, the honorary president being the French Minister of Public Instruction. The business of the congress will be transacted in ten sections, as follows:—educational buildings and furnishings, president, Prof. Courmont, of Lyons; hygiene of residential schools, president, M. Jules Gauthier, director of secondary education to the Minister of Public Instruction; medical inspection of schools and individual health records, president, M. Le Gendre; education and physical training, president, M. Cazalet; the prevention of contagious diseases in schools, president, Prof. Hutinel; out-of-school hygiene, president, M. E. Petit; the hygiene of the teaching staff, president, M. G. Lyon, rector of the University of Lille; teaching of hygiene, president, Prof. Pinard; teaching methods and syllabuses in relation to school hygiene, president, Prof. G. Lanson; and special schools for abnormal children, president, M. Gasquet, director of primary instruction to the Minister of Public Instruction. The general secretary of the congress is Dr. Dufestel, 10 Boulevard Magenta, Paris. Sir Lauder Brunton, Bart., F.R.S., is the president of the English organisation committee, and Dr. James Kerr and Mr. E. White Wallis are the honorary secretaries, to whom inquiries should be addressed at the Royal Sanitary Institute, 90 Buckingham Palace Road, London, S.W.

SOCIETIES AND ACADEMIES.

LONDON.

Zoological Society, April 19.—Dr. S. F. Harmer, F.R.S., vice-president, in the chair.—Stanley Kemp: Notes on the photophores of decapod Crustacea.—J. Lewis Bonhote: Variations of *Mus rattus*, founded on an

examination of the forms of that species found in Egypt. The author pointed out that on examination of the hind-foot measurements of a considerable number he found that the curve showed three distinct apices, and that two of these apices belonged, respectively, to the two forms found in Egypt, these forms being also more easily distinguished by their colour characteristics. The author in dealing with the rats of this species from the Oriental region had some years ago subdivided them into three subgroups, and it was now shown that the size of the feet typical of the three Oriental subgroups corresponded with the three apices in the curve of the Egyptian forms. He was inclined to think that these apices represented centres of variation, and were probably inherited as Mendelian characters, for were this not the case the smallest apex would have become swamped, and a regular curve would result. It was, however, evident that the small foot character was present and ready to become the dominant form in a very short time should conditions giving advantage to a small foot arise. On comparing the curve of the hind feet of *Mus norvegicus*, three apices were also observed, showing that in this species the "hind-foot character" was also present, but as there were no corresponding colour differences it was impossible to tell to which group any particular individual belonged. The author drew the following conclusion, viz. that there was considerable *prima facie* evidence that the size of the hind foot and the colour of the hairs on the underparts were Mendelian characters, and pointed out that the former character was also found in another species, *Mus norvegicus*, and the latter in a third species, *Mus musculus*.—G. E. Bullen: An example of posterior dichotomy in an Aylesbury duckling. A detailed account of a dissection performed on a duckling having supernumerary legs. In addition to a re-duplicated pelvis and the usual condition of the limbs presented in posterior dichotomy, it was found that the specimen showed evidence of a further re-duplication of the part dichotomised.

Royal Microscopical Society, Apr. 120—Mr. E. J. Spitta in the chair.—E. M. Nelson: What did our forefathers see in a microscope? The author dealt with the subject of what sort of image would be seen in a microscope of the highest type before 1825, about which date the achromatising of objectives was begun. After describing various old forms of microscope, particularly Dr. Robt. Smith's catadioptric microscope, the author gave examples with modern instruments.—E. M. Nelson: Critical microscopy. The author described the image of an object as being critical when it had been obtained by means of an objective of fine quality which had been placed in correct adjustment for that object, and when the illumination was critical. An object was said to be illuminated critically when it was placed at the apex of a solid axial cone, the aperture of which was not less than three-quarters of the N.A. of the objective.

Institution of Mining and Metallurgy, April 21.—Mr. Edgar Taylor, president, in the chair.—W. McDermott: The elements of slime concentration. In this paper the author gave a brief review of certain factors in the problem of slime concentration which seem to be established by practice, and then proceeded to draw conclusions from that review which would show the lines on which inventive and constructive development should proceed. He made a broad classification of the types of machine in use into five groups having different functions, and from that went on to analyse the conditions essential to efficiency, these being, respectively, time required for settling, smoothness of surface in final separation, speed of the washing water, and the special shaking motion necessary for settling and separation. Following these points was a consideration of the direction likely to be taken in future improvements, which may or may not provide for the production of a middle product, while the desirability or otherwise of classification under commercial conditions also received notice.—J. M. Campbell: The origin of laterite. The author dealt more especially with occurrences of laterite in West Africa, which he had observed and studied, though he sought to establish a similarity of origin for the Indian laterites, also in con-

tradiction to the generally accepted theories of the Geological Survey of India. His definition was, briefly, to the effect that laterite is a porous rock, formed above low water-level in the strata on low-lying gentle slopes, by the gradual removal of some or most of the mineral constituents of either alluvium or rock *in situ*, and of the deposition therein of ferric and aluminous hydrates from mineralised water coming from below, the deposition being determined by contact with atmospheric oxygen.—J. M. Campbell: Native iron smelting in Haute Guinée (West Africa). This is a brief note compiled from observations of some native furnaces which are probably survivals of an ancient system of iron smelting, no record of which appears to exist. Their chief interest consists in the method of operation by natural draught only, induced by the introduction of clay tuyers, which convey air to the combustible matter, so dispensing with artificial blast. The note is of historical interest only, as the method of smelting is now almost extinct.—H. B. Williams: Hammer drills in overhand stoping and raising. In this paper the author gives particulars of the construction, operation, and work performed by a hammer drill operated by compressed air, which has been in practical use for some time in some gold mines in British Columbia, and has shown some distinct advantage over hand labour and ordinary piston drills in certain classes of work.

Challenger Society, April 27.—Dr. A. E. Shipley in the chair.—A. Earland: The Foraminifera collected by the fishery cruiser *Goldseeker*, with special reference to the survival of boreal species in a southern locality. These Foraminifera had been dredged in the area of the Moray Firth and North Sea to the east of Scotland as far north as the extremity of Shetland, and eastwards to about 150 miles from the Scottish coast. Off Buchan Ness large and typical specimens of *Polystomella arctica*, P. and J., were obtained. In the deep "gully" off Burghead, Moray Firth, *Botellina labyrinthica*, Brady, was found in abundance, and *Hippocrepina indivisa*, Parker, a truly Arctic type, was frequent. From these records, and from the gigantic size attained by many arenaceous types in the comparatively shallow water of the central North Sea, the author considered that the present rhizopod fauna of the North Sea was of Arctic origin, surviving from the comparatively recent geological times when the North Sea had no connection with the Atlantic in the south. The immigration of warm-water types by way of the north of Scotland was regarded as further proof of the correctness of the geological theory, and many instances of such rhizopod types occurring in the northern area of the Moray Firth, but nowhere south of it, were mentioned.

Geological Society, April 27.—Prof. W. W. Waits, F.R.S., president, in the chair.—R. G. Carruthers: The evolution of *Zaphrentis delanouei* in Lower Carboniferous times. The simple corals that belong to the genus *Zaphrentis delanouei* are of common occurrence in the Lower Carboniferous rocks of Scotland. Their distribution is sporadic, but it is possible to collect over areas of which the stratigraphy is known. Many specimens have been got together from horizons scattered throughout the sequence. The ontogeny has been investigated by serial transverse sections. The evolutionary changes observed are confined to the disposition of the septa, which has influenced the shape of the cardinal fossula in a marked manner. *Zaphrentis delanouei* is typically a Tournaisian species, and it has a wide fossula, expanded inwardly. When the genus first appears in the Scottish rocks *Z. delanouei* is the predominant form, but is associated with a mutation in which the fossula is parallel-sided. In the higher limestones of Lawston Linn another mutation appears, which is regarded as a sport from the direct line. In the succeeding Lower Limestone group the genus undergoes further modification. Adults of the two Cementstone species are extremely rare, and the predominant form has a fossula which narrows rapidly to the inner end. In the still higher horizons of the Upper Limestone group the last-mentioned mutation becomes predominant, and persists up to the Millstone Grit, where the septa become more

amplexoid. All these mutations in neanic life have characters seen in adults of the preceding form. Mutational percentages are given for many localities in the Carboniferous Limestone series of the Central Valley, together with an analysis of the data so obtained.—A.

Wiltmore: The Carboniferous limestone south of the Craven Fault (Grassington-Hellifield district). Some of the beds are massive, coarsely stratified limestones, made up largely of crinoids, or corals, or shells; others are well bedded, almost flaggy, black limestones made up of comminuted matter, with abundant foraminifera. The strata are much disturbed everywhere. A series of folds strike roughly north-east and south-west, and are somewhat complex. The well-known knolls ("reef-knolls") are discussed. Their beds and those in the neighbourhood are much disturbed. Irregular coarse bedding, folding, and weathering will explain their structural peculiarities. A typical knoll is dissected, and it is seen to consist of folded, faulted, grey, coarsely bedded limestone, with great joints and much internal weathering. It is not easy to work out the exact zonal sequence, because of the disturbed character of the strata and the prevalence of glacial and fluviog-lacial drifts. The strata are apparently all Viséan (and probably there is nothing lower than Middle or Upper S). In some beds, and in some circumstances, fossils are exceedingly plentiful. Some corals receive special notice.

MANCHESTER.

Literary and Philosophical Society. April 5.—Mr. Francis Jones, president, in the chair.—**R. L. Taylor:** A preliminary note on the action of carbon dioxide and of air on bleaching powder and similar substances. Contrary to what is generally supposed, carbon dioxide, in presence of moisture, liberates no hypochlorous acid from bleaching powder, either solid or in solution, but only chlorine. Similarly, carbon dioxide liberates nothing but bromine from a mixture of a bromide and a hypobromite. When air, freed from carbon dioxide, is passed through a solution of bleaching powder, it slowly sweeps out hypochlorous acid, which is present in the free state in the solution, being produced by the action of water on the calcium hypochlorite. If, however, moist air containing the usual small amount of carbon dioxide is passed through bleaching powder, either solid or in solution, a mixture of chlorine and hypochlorous acid is given off, the chlorine usually largely predominating. In the case of the solid substance, after the moist air has been passed through for a considerable time, and the bleaching powder has thus become quite wet, there is no hypochlorous acid produced, but only free chlorine. When bleaching powder is heated with water and boric acid, practically pure hypochlorous acid is given off, no matter what proportion of boric acid is used. This forms a convenient method of preparing a solution of hypochlorous acid. Under similar conditions, a mixture of a bromide and a hypobromite evolves nothing but bromine.

April 20.—Mr. Francis Jones, president, in the chair.—**G. P. Varley:** The state of magnetisation of the iron boundary fence on the ridge between Black Sail Pass and the top of the Pillar Fell in the Lake District. The heavier iron uprights, which were firmly fixed in the rock, showed a north polarity below and south polarity above, while the floating uprights used for spacing the wires had, with few exceptions, the south pole below and the north above. The magnetisation of the heavy fixed bars was what one would expect from the action of the earth, but that of the floating uprights was not readily explicable.—**Prof. S. J. Hickson:** A new octoradiate coral. Some corals observed by Mr. Standen, of the Manchester Museum, in a bottom deposit obtained by Mr. Townsend at a depth of 156 fathoms in the Gulf of Oman (Persian Gulf) were submitted to the author for examination, and were found to belong to a genus that had not previously been described. It was therefore proposed to name them *Pyrophyllia inflata*, from the resemblance of the undulating septa to flames issuing from a cauldron. The zoological position of this coral could only be considered fully when its structure had been more carefully studied. All that could be said at present was that there were only two recent corals that seemed to approach it at all in the

system of *Zoantharia*. These were *Gygnia annulata*, Duncan, from the Adventure Bank in 92 fathoms of water, and *Haplophyllia paradoxa*, Pourtales, from off the coast of Florida in 324 fathoms of water.

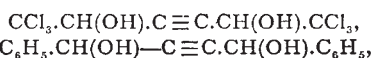
EDINBURGH.

Royal Society, March 21.—**Dr. R. H. Traquair, F.R.S.**, vice-president, in the chair.—**Dr. J. R. Milne:** A photometric "paddle-wheel." This apparatus has some resemblance to the well-known rotating sector, but possesses the advantage that the brightness of the light can be altered and the intensity recorded without the wheel being stopped. In its simplest form it consists of a disc fixed to the axle of a small electromagnet, and furnished with a number of vanes projecting beyond the edge of the disc, and set paddle-like with their planes parallel to the axis. When the axis of the disc is set parallel to the beam of light the vanes move in succession across the field edge on, and intercept very little light. If, while the wheel is rotating, the axis is inclined to the direction of the beam, the vanes will intercept a certain amount of light, depending upon the inclination of the axis to the beam. The paper contained graphical tables, from which the percentage of light transmitted can be found for various forms of vane and different angles of inclination of the axis. The position of the wheel can be recorded by a simple device, which in no way interferes with the rotation. The observer adjusts the rotating wheel until the intensity of the beam is brought to the right value, marks the position by means of a needle prick upon a strip of paper, and then proceeds to the next comparison without removing his eye from the eye-piece of the telescope.—**Dr. J. R. Milne:** A photometer on the flicker principle. The chief novelty of the instrument lies in a part consisting of a small telescope, in front of which two semi-circular glass wedges are rotated by an electric motor in such a way that there is made to fall alternately on the observer's eye first the light that has passed through the absorbing solution and then the light that has passed above it. The brightness of the latter beam is cut down by means of the photometric paddle-wheel described above until it is equal to the brightness of the former, this equality being shown by the absence of flicker.—**D. P. Macdonald:** A chemical investigation into the nature of the clay substance in the Glenboig fire-clay. The results obtained show that the clay substance contains 1.5 per cent. of water in excess of that required to satisfy the formula for kaolinite, and that the mineral is almost entirely decomposed by boiling in concentrated hydrochloric acid for thirteen hours.—**W. A. Caspari:** Contributions to the chemistry of submarine glauconite. Glauconite grains, when subjected to the action of acid, followed by that of alkali, disintegrate with formation of colloidal suspension of glauconite, whence pure amorphous glauconite may be coagulated. The pure glauconite prepared from grains found off Panama and the Cape of Good Hope answered to the formula $KFeSi_2O_6 \cdot H_2O$, where K_2O is largely replaced by MgO and FeO . Glauconite grains contain a small percentage of organic matter closely resembling alkali-soluble humus. This and other facts indicate that humus may well play a part in the formation of glauconite. Experiments on the absorption of water by glauconite show that it belongs in this respect to the same class as zeolites or colloidal silicates.

PARIS.

Academy of Sciences. May 2.—**M. Emile Picard** in the chair.—**J. Violle:** The fight against hail in the Beaujolais. The conclusion drawn by M. André in a recent note was to the effect that hail cannon serve no useful purpose. The author criticises the statistical methods of M. André, and states that during the six years 1901-6 the annual losses in the districts provided with hail cannon were only 0.24 of the average annual loss for the preceding twenty years. In the whole department the losses were 0.76 of the previous annual average.—**C. Guichard:** A mode of generation of triple orthogonal systems with spherical lines of curvature in a single system.—The perpetual secretary announced the death of **Edouard van Beneden**, correspondant for the section of anatomy and

zoology.—Ernest **Esclangon**: The changes in Halley's comet. On April 27 the most brilliant part of the nucleus was very close to a seventh-magnitude star in brightness, but the comet as a whole would appear to be of a higher magnitude to the naked eye. In the nebulous mass surrounding the nucleus there are two clearly marked surfaces of discontinuity, meeting at the nucleus at an acute angle.—J. **Haag**: Certain triple orthogonal systems.—P. E. **Gau**: The integration by the method of M. Darboux of the partial differential equations of the second order of the form $s = a(x, y, z)p + b(x, y, z)q + c(x, y, z)$.—A. **Chatelet**: The summation of continued arithmetical fractions.—Jean **Chazy**: The differential equations deduced from certain invariants of linear forms.—S. **Lattès**: The convergence of the relations of recurrence.—Léon **Lichtenstein**: The general definition of analytical functions.—André **Léaute**: Superintensities and supertensions due to the working of switches on the switchboard.—Eugène **Bloch**: The curves of saturation in the Hertz photo-electric effect.—M. **de Broglie**: The ionisation of gases by the actions of mechanical division of liquids: active and inactive bodies.—A. **Besson** and L. **Fournier**: The action of the silent discharge on chloroform and carbon tetrachloride in presence of hydrogen, and also upon methyl chloride. The products isolated from the first of these reactions include tetrachlorethylene, trichlorethylene, hexachlorethane, hexachlorpropylene, and higher boiling products. Methyl chloride (without hydrogen) gave a complex mixture which proved to be very difficult to separate by repeated fractional distillation.—G. **Dupont**: The isomerides of some acetylene γ -glycols. The glycols examined included



and



two isomers of each glycol being described.—H. **Gault** and G. **Thirole**: The condensation of the secondary amines with γ -bromodimethylacetic ester.—J. F. **Thorpe** and G. **Bianc**: The product of the methylation of diacetoacamporphic ester of M. G. Komppa. It is shown that the diketocamporphic ester of M. Komppa, one link in the synthesis of camphoric acid, has not the constitution assigned to it.—G. **Vavon**: The addition of hydrogen to essence of turpentine. The fractions from French, German, and American turpentine boiling under 165°, on treating with hydrogen in presence of platinum black, all gave a hydrocarbon with the same density, boiling, and melting points. Hence both α and β pinenes give the same hydride.—A. **Arnaud** and S. **Posternak**: The partial hydrogenation of the acids of the stearolic series and the isomerism of their addition compounds with hydriodic acid.—M. **Biéler-Chatelan**: The function of micas in arable soil.—H. **Sérégé**: An experimental study of the specific action of the Vichy springs employed in thermal therapeutics.—A. **Moutier**: The rôle of the arterial wall in the measurement for clinical purposes of the arterial pressure.—H. **Vallée** and L. **Guinard**: The physiological properties of extracts of the Koch bacillus, condensed and rendered sensitive. A study of the physiological properties of the precipitate obtained by adding serum from a horse which had been subjected to a special immunising treatment to culture solutions of the Koch bacillus.—Gabriel **Bertrand** and M. **Rosenblatt**: The temperature at which the plant tyrosinases lose their diastatic activity. The temperatures found varied between 60° and 95°, and these differences cannot be attributed to the nature of the solvent, but rather appear to be a specific property of the diastatic substances.—L. **Launoy**: Certain protoplasmic enclosures of the normal hepatic cell of the rabbit. The author describes under the name of pigmented lipid bodies certain hitherto unnoticed corpuscles of complex structure in the hepatic cell of the adult rabbit.—Jean **Boussac**: The tectonic interpretation of the fisch of central and eastern Switzerland.—F. **Grandjean**: Remarks on the siphon of the ammonites and belemnites. The envelope of the siphon consists chiefly of calcium phosphate, and not calcium carbonate, as hitherto supposed.

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CALCUTTA.

Asiatic Society of Bengal, April 6.—E. **Brunetti**: Review of our knowledge of the Oriental Diptera. The paper is a comparison between our present knowledge of the Oriental Diptera and that possessed by entomologists at the date of Van der Wulp's "Catalogue of South Asiatic Diptera" (1896).—Lieut.-Colonel D. C. **Phillott**: Vocabulary of technical and sporting terms in Urdu, Persian, and Arabic.—E. R. **Watson**, Monohar **Gupta**, and Satish Chandra **Ganguli**: A chemical examination of the butter-fat of the Indian buffalo.—E. W. **Vredenburg**: *Chondrodonta bosei*, a new species of fossil lamellibranch from the hippurite-bearing beds of Seistan. The first bivalve mollusc described in the Records of the Geological Survey, vol. xxxviii., part iii., proves to be a Chondrodonta, here named *Chondrodonta bosei*.—Hem Chandra **Das-Gupta**: Palæontological notes on the Gangamopteris beds of Khunmu (in Kashmir). On a visit to Khunmu, in Kashmir, remains of a palæoniscid and an ichthyod orulite fish were found, which are briefly described.—H. E. **Stapleton**: Contributions to the history and ethnology of north-eastern India, ii. This paper deals with the coinage of Assam in its relation to the history of Assam as given in the *Buranjis*. The chief materials on which it is based are:—(a) the find of nearly 1000 coins made in 1906 at the Daflating Tea Garden, near Jorhat, in Assam; (b) the cabinet of Assamese coins in the possession of Mr. A. W. Botham, C.S.; (c) the recent catalogue of Assamese coins in the British Museum, published in the *Numismatic Chronicle* by Mr. J. Allan; and (d) the writer's own collection of Assamese coins.

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