

department. It has also recommended that a readership in vertebrate zoology be established and that Mr. C. Forster Cooper, of Trinity Hall, be appointed to the readership as from October 1, 1932.

EDINBURGH.—A legacy of £1,300 by the late Prof. Baldwin Brown has been received to establish a "Baldwin Brown Travelling Scholarship in Fine Art" for the benefit of women students in the subject of fine art. It is to be used for the study of archæology, painting and sculpture and the decorative arts among the buildings and collections of England, France, Belgium and Holland.

WALES.—The Council of the Welsh National School of Medicine has appointed Dr. J. B. Duguid as professor of pathology and bacteriology, and Dr. G. I. Strachan as professor of gynæcology.

THE quarterly record of current educational publications issued by the Office of Education, Washington, is, in its recently improved form, an invaluable instrument for enabling teachers in the United States (where about a million persons are, it is said, engaged in educational work) to keep abreast of the literature of their vocation. It includes a classified and annotated list of significant publications selected by specialists in each of the following fields: nursery-kindergarten-primary, elementary, secondary, exceptional children, educational psychology, junior colleges, education of teachers, universities, public school administration, adult education, vocational education and guidance, negro education and foreign education. In addition there are useful itemised lists of proceedings and annotated lists of reports of associations, and, of course, lists of the publications of the Office of Education itself. The space devoted to the subjects falling within the headings "Exceptional Children" and "Psychology" is remarkable. It includes the following among other sub-headings: behaviour and problem cases, gifted children, guidance, heredity, individual differences, learning, measurement, mental tests, personality and character.

THE *Universities Review* for October contains a further contribution to the discussion, begun a year ago, of "What is Wrong with the Modern Universities?" The writer, Mr. P. Mansell Jones, of Cardiff, suggests that "it is our working idea of a university which is wrong". The schemes of study and methods of work lack the elasticity indispensable for meeting the differing needs of individual students, and degree requirements necessitate the pursuit of numerous short courses administered in water-tight compartments. Hence the (alleged) prevalence among British students of an artificial separation between life and work, resulting in indifference to and sterilisation of the intellectual life. In the same issue of the *Review* is a report of a lecture by Sir Josiah Stamp delivered at Princeton University last April on the contribution of academic life to economic problems of the day. Referring to the impression he had received in America of widespread loss of faith in institutions, men, and 'slogans', Sir Josiah exhorted his hearers not to lose faith in the value of striving for intellectual solutions. Not only should economic problems be subjected to strenuous investigation by scientific methods but there is also an economic hinterland and a moral hinterland to every field of specialised knowledge, and this region should be surveyed with confidence by every outgoing graduate.

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Calendar of Geographical Exploration

Dec. 5, 1766.—Bougainville's Circumnavigation

Louis Antoine de Bougainville sailed south for the third time in the *Boudeuse*, charged with the commission of ceding the settlement on the Falkland Islands, which he had organised in 1763-65, to Spain, and continuing his voyage across the Pacific. Bougainville returned in 1769, having accomplished the circumnavigation of the globe, the first Frenchman to achieve this. His voyage is of interest because a botanist and an astronomer were taken for purposes of scientific research, an example soon followed by other expeditions, with great benefit to the cause of science. Bougainville discovered many new islands in the Pacific, including the Navigators' Islands in the Samoan group, the Grand Cyclades of the New Hebrides, and Bougainville and Buku Islands in the Solomon group; the strait between the former island and Choiseul is named after him. The simplicity and humour of his narrative of the journey round the world gained great popularity for it.

Dec. 7, 1872.—Start of the *Challenger* Expedition

H.M.S. *Challenger* sailed from Sheerness on one of the most fruitful scientific expeditions ever organised. The British Admiralty and the Royal Society co-operated in organising the voyage, Sir G. S. Nares undertaking the naval command, and Sir Charles Wyville Thomson taking charge of the scientific side. Two traverses of the North Atlantic Ocean were made, and one of the South, the Wyville Thomson ridge being charted. The Pacific and Antarctic were then visited and the *Challenger* returned in 1876 with scientific data which filled fifty volumes published between 1880 and 1895, under the editorship of Sir C. Wyville Thomson and Sir John Murray. Many little-known places were charted and surveyed and the longitude of others was corrected. The contours of the great ocean basins were determined, much new information about deep sea temperatures and about ocean currents was obtained, the structure of coral reefs was investigated and many biological surveys were recorded.

Dec. 10, 1607.—John Smith in Virginia

John Smith set out to discover the source of the Chickahominy River. It was on this voyage that Pocahontas, the little daughter of the great Indian chief Powhatan, saved Smith's life by her pleadings. In the spring of the same year, Smith had accompanied Capt. Newport in an exploration of the James River to the falls at Richmond. In 1608 Smith explored Chesapeake Bay and went up the Potomac to the site of the present city of Washington and up the Rappahannock to where Fredericksburg now stands. Smith's maps of Chesapeake Bay and of the New England coast from Penobscot to Cape Cod are remarkably accurate.

Dec. 10, 1883.—The Masai Country

Joseph Thomson reached Victoria Nyanza after successfully crossing the country inhabited by the Masai, whose fierce exploits had barred the way to Uganda. Thomson had been sent out by the Royal Geographical Society to examine the possibility of taking a caravan through their country. Leaving Mombasa he crossed the Njiri Desert, explored the rift valley and discovered Lake Baringo. In 1878 the same Society had sent an expedition to East Central Africa and when its leader died, Thomson, who was then

but twenty years old, took over the command, crossed the country between Nyasa and Tanganyika and discovered Lake Rukwa. Later, Thomson explored part of the Atlas range. In 1890 he set out from Quilimane and travelled in the regions between Nyasa, Bangweolo and the Zambezi, covering nearly a thousand miles of unexplored country.

Societies and Academies

LONDON

Mineralogical Society, Nov. 1.—H. H. Read and B. E. Dixon: On stichtite from Cunningsburgh, Shetland. Stichtite is found at the above locality as rose-pink patches, partly replacing chromite in a serpentine rock. Characters determined include $D = 2.19$, refractive indices $\gamma 1.559$, $\alpha 1.543$. Probably biaxial. Chemical analysis and discussion of earlier analyses give as the most probable formula $2(\text{Cr, Fe})(\text{OH})_2 \cdot 5\text{Mg}(\text{OH})_2 \cdot \text{MgCO}_3 \cdot \text{Mg}[\text{CO}_3, (\text{OH})_2] \cdot 4\text{H}_2\text{O}$.—H. H. Read: On quartz-kyanite rocks from Unst, Shetland Islands, and their bearing on metamorphic differentiation. Quartz-kyanite rocks occur as vein-like bodies in kyanite-chloritoid-schist, also as blocks scattered over the slopes. They are intimately associated with rocks much poorer in silica and richer in alumina than the normal country rock. The main component of these associated rocks is kyanite, with chlorite, and 'iron ore'. The origin of the rocks and certain general problems connected with metamorphic differentiation are discussed.—L. J. Spencer: A new meteoric iron found near Kyancutta, South Australia. A mass of iron weighing 72 lb. was found in June 1932 just below the surface in a sandy paddock, 28 miles east-south-east of Kyancutta. It shows the characters of the common type of medium octahedrites, and is very similar to the numerous masses of iron found around the meteorite craters near Henbury, in Central Australia, 630 miles distant from Kyancutta.—C. A. Silberrad: List of Indian meteorites. The places of fall of the 106 meteorites that have been recorded in India since 1795 are located as accurately as now possible, and plotted on a map. Percentages are given for the day and night falls, and of the monthly falls.—W. Campbell Smith: Meteoric stones from Suwahib, Arabia. Within 30 miles of Buwah in Suwahib, where Mr. Bertram Thomas found a chondritic meteoric stone in 1931, two other stones were found a year later by Mr. Philby. They closely resemble the Buwah stone and may belong to the same shower. Sixty miles to the south a third stone was found at Umm Tina, near Shanna well. This is a chondrite of Baroti type and differs from the other two, which belong to the Cronstad type.—Arthur Russell: An account of British mineral collectors and dealers in the seventeenth, eighteenth and nineteenth centuries (contd.). Sir Charles Lewis Giesecke, born on April 6, 1761, and died on March 5, 1833, was christened Johann Georg Metzler. He wrote the libretto of Mozart's "Magic Flute" (1791) also other operas. In 1794 he began the serious study of mineralogy and travelled extensively. Later he settled in Copenhagen. In 1806 he undertook a mineral collecting trip to Greenland and remained there seven years, amassing a large collection. The specimens collected during the first two years were captured by an English frigate on their way to Denmark, and were brought to Leith, where they were bought by Thomas Allan. On his return from Greenland in 1813 Giesecke landed at Leith and traced his collection to Allan, with whom

he became very friendly. In 1814 he was appointed professor of mineralogy to the Royal Dublin Society, which position he held until his death.—Arthur Russell: Note on an occurrence of witherite at the Morrison North Pit, Stanley, Co. Durham. Pure, massive witherite fills a fault fissure cutting coal at this pit.—M. H. Hey and F. A. Bannister: Studies on the zeolites (4). Ashcroftine (kalithomsonite of S. G. Gordon). The pink zeolitic mineral described by S. G. Gordon in 1924 as a potassiferous thomsonite (kalithomsonite) is shown by X-ray and optical data to be an independent species in no way related to thomsonite, and the name 'ashcroftine' is proposed for it. Ashcroftine is tetragonal with cell sides $c 17.49$, $a 34.04\text{Å}$, a unit-cell content about $40[\text{NaK}(\text{Ca, Mg, Mn})\text{Al}_4\text{Si}_5\text{O}_{18} \cdot 8\text{H}_2\text{O}]$, and $D 2.61 \pm 0.05$. The refractive indices ($\epsilon 1.545$, $\omega 1.536$) are much higher than those of artificial potassiferous thomsonites, and the optic orientation is different.—W. C. A. Guthrie and Christina C. Miller: The determination of rock constituents by semi-micro-methods. The ordinary course of the analysis of an igneous rock can be very considerably expedited by the use of smaller amounts of material throughout, the necessary accuracy of weighing being attained by means of a microbalance. Numerous experiments show that such a procedure is reliable and involves no loss of accuracy.

Royal Meteorological Society, Nov. 16.—J. Edmund Clark, Ivan D. Margary, Richard Marshall and C. J. P. Cave: The Phenological Report, 1931. 1931 was officially described as 'wet and dull', the emphasis is on the latter; yet it was the tenth successive year with excess of rain, the total being that of eleven average years. A fresh table gives for each of the thirteen districts the number of weeks showing 'decided' and 'excessive' divergence from the average for temperature, rainfall and sunshine. December 1930 and November 1931 were alone much on the warm side; March and September cold. Such short cold spells in spring threw the flower records back half a week and although migrants reached our coasts to date their progress inland was belated. Slugs and weeds, as might be expected, caused exceptional trouble. Thanks to a second broadcast in March 1931 the corps of observers slightly exceeded 600. More would be specially welcome in West Ireland and North Scotland.—Sir Napier Shaw and Comdr. L. G. Garbett: A new sort of wind rose. In ordinary meteorological practice, for the representation of wind conditions for stations on land or selected areas at sea, figures or roses for the several months are set out on separate sheets. Consequently, anyone who wishes to visualise the sequence within the year has to take note of information on twelve separate pages. Examples are now given of diagrams in which the results for the twelve months of the year are combined without sacrificing the information for the separate months.—G. S. P. Heywood: Katabatic winds in a valley. A Dines pressure-tube anemometer was erected in a valley in the Cotswolds, with the vane 15 ft. above the ground. The meteorological station at Leafield was situated $2\frac{1}{2}$ miles away, and the records of the anemometer of that station were compared with those obtained in the valley. The speed of the katabatic flow was seldom greater than 1 m./sec., when a katabatic flow was taking place, and the temperature records at Leafield showed an inversion on all those occasions. Observations of smoke drift show that katabatic flow may occur in a layer near the ground without influencing the anemometer at 15 feet