

Science News a Century Ago

A Charter for the University of London

At a Court of the Common Council of the City of London held on April 3, 1834, the Lord Mayor stated that he had received a request, numerous signed, calling on him to convene a special meeting to consider the propriety of presenting an address to His Majesty praying that a charter might be granted to the University of London. A supporter stated his belief that the King and Ministry agreed in the desirability of granting the charter, and that the signature of His Majesty would have been put to the charter had not a petition against it been presented by the University of Oxford. It was urged against the proposition that Oxford, Cambridge, and other colleges never had the power of conferring degrees until they had gained a high reputation for ecclesiastical and scientific learning. The speaker looked upon the University of London as a mere joint stock company, and stated that he held in his hand a £100 share of the University of London, which had been sold that very morning for £23. He proceeded to ask how the Corporation could be justified in going to the King for a charter for a concern the shares of which were sold for £23 apiece. The motion to present an address to His Majesty in favour of granting a charter to the University of London was carried without a division.

Paris and London Geographical Societies

The Paris Geographical Society was founded in 1821, that of London in 1830. From the time of institution of the latter, the two bodies were on most friendly terms, and exchanges of courtesies were frequent between the respective officers.

The French society was itself considerably assisted in its early years through the co-operation of the reigning house. On January 1, 1834, the president, M. le duc Decazes, with many members, waited upon the King and Queen at the Palace of the Tuileries, and were received in audience for an hour and a half. The heir to the throne, the Duke of Orleans, was also present, and various State functionaries. In an address to the King, the president alluded to the interest of the Duke of Orleans in the Society. The King in his reply confirmed his own good wishes and desire to secure for France the honour of geographical discovery. An address to the Queen followed.

On April 4, 1834, at a general assembly of the Society, it was announced that the Duke of Orleans had offered a prize of 2,000 francs to the navigator or traveller whose geographical observations and results should be useful to agriculture, or in the industrial arts, in the course of 1834 and 1835. At this assembly, also, the award of a gold medal was decreed to Capt. John Ross for his recent discoveries and additions to geographical knowledge. (*Bull. Soc. de Géog. Paris*, ser. 2, vol. i.)

Surrey Zoological Gardens

The Surrey Zoological Gardens on the south side of the Thames in London were opened in 1831 by Edward Cross, who had previously had a menagerie at Exeter. On April 5, 1834, the *Times* announced that "a most important addition has just been made to the already valuable collections in these gardens, in the acquisition of a fine young rhinoceros, the

only one of the species which has been in this country for the last 20 years. . . . The great value attached to the possession of a living specimen of this animal, and the difficulty in procuring one may be inferred from the fact that the cost of the present, from the time it was taken in the Birman Empire, and the charge of its food and conveyance to England have exceeded 1000£ though it is yet little more than a year and a half old". After describing the animal, its food and its habits, the *Times* said: "The present specimen, owing to its youth, is as we have already stated, very harmless, and will follow in a fawning manner those who feed it; yet we understand that as it approaches to mature age its native fierceness will break out and will not tolerate the familiar approach of man, nor at times can its keeper enter its den without considerable danger. The last rhinoceros in this country was so fierce that it could not be exhibited until it was secured in its den by very heavy chains."

Death of Baron de Lesseps

On April 6, 1834, Jean-Baptiste-Barthélemy, Baron de Lesseps, the traveller and diplomatist, died suddenly at Lisbon at the age of sixty-eight years. For many years he had represented France, first in Russia and then in Portugal, and had held a post in Moscow previous to the disaster of 1812. He was born at Cette on January 27, 1766, and in 1785, when La Pérouse was fitting out the frigates *Boussole* and *Astrolabe* for an expedition to the Pacific, de Lesseps was appointed to accompany him as interpreter. The ships left Brest on August 1, 1785, doubled Cape Horn, visited the shores of California and in January 1787 reached Macao. Thence they proceeded to the coasts of Tartary and Kamtschatka, and at Avatska de Lesseps was sent home overland with the journals of the voyage; the journey across Siberia and Russia taking about a year. In December 1787, La Pérouse, leaving the north, called at the Friendly Islands and in January 1788 sent home from Botany Bay his last letter. Thirty-eight years later the remains of his ships were found by an English captain in the Queen Charlotte Islands. In 1790 de Lesseps published a journal of his journey from Kamtschatka, and in 1831 enriched with notes an edition of the "Voyage" of La Pérouse.

Mrs. Somerville Honoured

In 1831 Mrs. Somerville had published her "Mechanism of the Heavens" and in the beginning of 1834 her "Connexion of the Physical Sciences". These works gave her a place among the most eminent women of science of all time. She was honoured by various scientific societies and on April 6, 1834, Mrs. Marcet wrote to her from Geneva: "I am desired by Professor Prevost to inform you that you were elected an honorary member of the Société de Physique et d'Histoire Naturelle de Genève on the 3rd April, and that a diploma will be forwarded to you by the earliest opportunity. After all the honours you have received, this little feather is hardly worthy of waving in your plume, but I am glad that Geneva should know how to appreciate your merit. You receive great honours, my dear friend, but that which you confer on our sex is still greater, for with talents and acquirements of masculine magnitude you unite the most sensitive and retiring modesty of the female sex; indeed, I know not any woman,

perhaps I might say any human being, who would support so much applause without feeling the weakness of vanity. Forgive me for allowing my pen to run away with this undisguised praise, it looks so much like compliment, but I assure you it comes straight from the heart, and you *must* know that it is fully deserved." Mrs. Marcet was the author of "Conversations on Chemistry", which Faraday said "gave me my foundation in that science".

Societies and Academies

LONDON

Institute of Metals (Annual General Meeting), March 8. H. A. SLOMAN: Alloys of silver and beryllium. The constitution of the whole range of alloys in the silver-beryllium system has been redetermined by thermal and micrographic analyses. Modifications and amplifications of Oesterheld's original constitutional diagram are proposed. A description is given of new tarnish-resisting silver alloys obtained by the addition to silver and to some 'standard' silvers of very small quantities of beryllium. C. E. PHILLIPS and J. D. GROGAN: Transverse tests of sand-cast aluminium alloy bars. The transverse test in the measurement of the ductility of alloys of low elongation does not yield information concerning ductility which is not obtained equally readily from the tensile test when a high degree of accuracy of measurement is available. D. HANSON and E. G. WEST: Constitution of copper-iron-silicon alloys. The solubility of iron in copper is decreased by the presence of silicon. Over the greater portion of the range of compositions examined, iron exists in the alloys as such; its solubility in the solid state decreases rapidly with fall of temperature and becomes very small below 700° C. Within certain ranges of composition, iron and silicon combine to form another constituent, probably FeSi, which forms a series of alloys with the *a* solid solution. FeSi also appears to form systems of alloys with the alpha, beta, gamma, delta and epsilon constituents of the copper-silicon series. The shape of the liquidus and solidus curves has been determined. R. TAYLOR: Transformations in the copper-palladium alloys. The determination of the electrical resistance-temperature curves has been carried out with a much slower change of temperature than had previously been used. The occurrence of two transformations at 10-30 atomic per cent and 35-50 atomic per cent, respectively, and associated with different types of electrical resistance curve, has been confirmed. OWEN W. ELLIS: The malleability of nickel and of monel metal. A discussion of the effect of annealing temperature on the hardness of two rods, $\frac{1}{2}$ in. and 1 in. in diameter, respectively, of cold-drawn nickel, which were the subject of malleability tests at temperatures varying from 250° to 1,100° C. The relationship between energy of blow and percentage reduction in height of normal $\frac{1}{2}$ -in. samples is demonstrated, as is the influence of the initial hardness of the same material on its resistance to deformation at 750° C. JOHN L. HAUGHTON and J. M. PAYNE: Alloys of magnesium research. (1) The constitution of the magnesium-rich alloys of magnesium and nickel. The constitution of magnesium alloys containing up to 50 per cent nickel has been studied by thermal and microscopic methods. Magnesium forms a eutectic with the compound

Mg₂Ni at a temperature of 507° C. and a composition of 23.5 per cent nickel. The solubility of nickel in solid magnesium is less than 0.1 per cent.

Royal Meteorological Society, Feb. 21. CHANG-WANG TU: China rainfall and world weather. Walker's shorter method has been used for the calculation of the correlation coefficients and his criteria have been applied for testing the reliability of the coefficients. Four fairly homogeneous regions have been chosen and the rainfall of each region is correlated with the pressure, temperature and rainfall of different seasons of various important stations of the world. Increased circulation of the southern oscillation is generally responsible for the heavy rainfall of the rainy season in China. The total correlation coefficients obtained from the equations for the North China coast, Yangtze Delta, Yangtze Valley and south-east China coast are respectively 0.78, 0.62, 0.68 and 0.68. C. E. P. BROOKS: The variation of the annual frequency of thunderstorms in relation to sunspots. Annual frequencies of thunderstorms are formed for 22 groups of stations in all parts of the world, over periods up to 66 years, and are compared with the annual sunspot numbers. When sunspots are numerous, thunderstorms are more frequent than usual in high northern latitudes and in the tropics, but in temperate latitudes the relation, if any, is small. The 11 $\frac{1}{2}$ -year 'thunderstorm cycle' is then compared with the sunspot cycle, and the two are found to run parallel in Sweden and Siberia, but in maritime tropical areas the thunderstorm cycle lags about five months behind the sunspot cycle. Over the earth as a whole, the frequency of thunderstorms at sunspot maximum averages about 22 per cent greater than the frequency at sunspot minimum.

EDINBURGH

Royal Society of Edinburgh, February 5. R. A. FLEMING: The psychology of crime and criminals, with special reference to measures for reformation. The importance of mental defect, of the evil effects of newspaper and other accounts of crimes, and of the influence of detective stories in cinema and theatre were stressed. The great value of Borstal training, provided there was careful grading of inmates, was emphasised and its extension to cases outside the terms of the existing Act was urged. Freud's preconscious and unconscious theories which presuppose a dynamic energy, attached to the thoughts in both, striving for expression in the conscious are accepted, although the present methods of psycho-analysis which take for granted the necessity of unearthing all the sexual thoughts of the analysand, a procedure harmful for patient and psycho-analyst alike, are deprecated.

PARIS

Academy of Sciences, February 5 (*C.R.*, 198, 513-624). JULES DRACH: Systems of partial differential equations with two variables reducible to a Laplace linear system. GABRIEL BERTRAND and P. SERBESCU: The toxicity of aluminium according to its mode of entrance to the system. Continuing their experiments on the alleged poisonous action of aluminium derived from cooking utensils, the authors describe experiments on rabbits proving that when the metal