

LONDON.—Prof. J. A. S. Ritson, professor of mining in the University of Leeds, has been appointed to the University chair of mining tenable at the Imperial College (Royal School of Mines) from January 1, 1936.

OXFORD.—Prof. Julian Huxley has been granted the degree of D.Sc.

Mr. A. J. Ayer has been elected to a research studentship (that is, fellowship) at Christ Church. In addition to problems in formal logic, Mr. Ayer is working on the philosophy of science.

Science News a Century Ago

An Inventor of the Screw Propeller

On June 1, 1835, Thomas Charles Auguste Dallery, one of the inventors of the screw propeller, died at Jouy-en-Josas, near Versailles. Born at Amiens on September 4, 1754, he showed a great aptitude for mechanics, and succeeded to his father's business of an organ builder. Just before the French Revolution, he was commissioned to build an organ worth 400,000 francs for the cathedral of his native city, but the order was cancelled. He afterwards turned his attention to steam navigation, and in 1803 constructed at his own expense a steam-boat driven by a screw or *escargot* as he called it. The vessel was launched on the Seine at Berey; but, like the attempts of so many other pioneers, Dallery's efforts proved a failure. His patent included several innovations besides the screw, among them being a boiler with vertical tubes. Nine years after his death a commission of the Paris Academy of Sciences, composed of Arago, Dupin, Morin and Poncelet, examined the claims of the Dallery family in regard to his inventions, and reported favourably on them.

South American Deserts

In his "Journal" of his journey northward from Coquimbo to Copiapó, where Capt. FitzRoy had offered to pick him up, Darwin records on June 3, 1835: "Yerba Buena to Carizal. During the first part of the day we crossed a mountainous rocky desert, and afterwards a long deep sandy plain, strewn with broken sea-shells. There was very little water, and that little saline; the whole country, from the coast to the Cordillera, is an uninhabited desert. I saw traces only of one living animal in abundance, namely, the shells of a *Bulimus*, which were collected together in extraordinary numbers on the driest spots. In the spring one humble little plant sends out a few leaves, and on these the snails feed. As they are seen only very early in the morning, when the ground is slightly damp with dew, the Guasos believe that they are bred from it. I have observed in other places that extremely dry and sterile districts, where the soil is calcareous, are extraordinarily favourable to land shells".

Earthquakes in Sussex

At a meeting of the Royal Society on June 4, 1835, the secretary, Dr. P. M. Roget, read a "Report of a Committee for collecting Information respecting the Occurrence of, and the more remarkable Phenomena connected with, the Earthquakes lately felt in the Neighbourhood of Chichester", which had been sent to him by J. P. Gruggen. "This paper," said the *Philosophical Magazine*, "contains an authentic report of several shocks of earthquake

which, during the last two years, have been felt at Chichester and the surrounding country; drawn up from accounts given by various correspondents, in answer to printed queries extensively circulated. The first shock occurred on the 18th of September and the second on the 13th of November 1833. Another and more severe shock was felt on the 23rd of January 1834, and in the latter end of the same year two slighter shocks were experienced, namely, one on the 27th of August, and the next on the 21st of September; the last, which was less than any of the former, took place on the 12th of January 1835."

The Process of Malting

Among the original contributions to the *Records of General Science* of June 1835 was an article by Prof. Thomas Thomson and Dr. Andrew Steel on the "Chemical Analysis of Gadolinite together with an Examination of some of the Salts of Yttria and Cerium", and another "On Malt", by the editor, Dr. R. D. Thomson. In the course of his article, Dr. Thomson said: "The process of malting consists essentially 1st in producing a change in the constituents of grain by inducing germination; and 2nd in stopping the vegetation when it has been carried to a certain extent by exposure to heat". The subject was one which was exciting some interest at the time and Dr. Thomson added: "A knowledge of the peculiarities of this interesting process is important in a double point of view, because it affords a remarkably beautiful specimen of the chemistry of nature, and because its product forms a staple commodity of British manufacture, no less than forty millions of bushels of malt being annually consumed in the United Kingdom, which at 60s. per quarter, exceeds in value the large sum of £24,000,000 and contributes to the Government at 2s. 7d. per bushel more than £5,000,000 per annum".

Societies and Academies

DUBLIN

Royal Irish Academy, May 13. WILLIAM J. McCALLIEN: The metaphorphic rocks of Inishowen, Co. Donegal. The nature and distribution of the following subdivisions of the Dalradian rocks of Ireland were described; Malin Head quartzite (oldest), Glengad schists, Linsfort black schists, Stragill calcareous schists, Crana quartzite, Culdaff limestone, Inch Island limestone group, Fahan slates and grits, Inishowen green schists, grits and phyllites. The suggested correlations with the Scottish Dalradians indicate that the first four of these divisions belong to the Islay sequence and that the overlying groups belong to the Lough Awe succession.

PARIS

Academy of Sciences, April 15 (*C.R.*, 200, 1373-1444). MARCEL DELÉPINE: The trichlorides of III. iridium-aquo-dipyridine, $\text{Ir}(\text{H}_2\text{O})\text{Py}_2\text{Cl}_3$. LAUGE KOCH was elected *Correspondant* for the Section of Geography and Navigation. MAX SERRUYS: The extension of the theory of nuclear inflammation to the case of injection motors. VINCENT NECHVILE: The dissymmetry of stellar movements and a method for the determination of the apex of the sun and of the vertex of the ellipsoid of velocities. SANTIAGO ANTUNEZ DE MAYOLO: The electromagnetic field and quanta. JEAN VILLEY: The classification of energy losses according to the types of irreversibility.