

SCIENCE NEWS A CENTURY AGO

The Observatory of the Rajah of Travancore

"We have seen with not a little pleasure," said the *Athenæum* of December 7, 1839, "an Astronomical Ephemeris, printed at the press of the Rajah of Travancore, and calculated for the meridian of the observatory recently established at Trivandrum, the capital of that State. Those who feel an interest in the intellectual progress of the people of India must be gratified to learn that the computations for this work were all made by native youths of Travancore, who received their education at the free school maintained by the Rajah. His Highness . . . came to a determination, in 1837, to establish at his capital an observatory of a superior kind; with the double view of affording his aid to the advancement of astronomical science, and of introducing, by its means, correct ideas of the principles of this science among the rising generation under his government. For the situation of Astronomer he chose Mr. John Caldecott, who, aided by Colonel Fraser, the British Resident at Travancore, decided on the plan of the building which is now erected, and which stands in latitude 8° 30' 35" N., longitude 76° 59' 45" E. Hitherto the observations have been carried on with small but excellent instruments belonging to Mr. Caldecott; but his Highness the Rajah intends to furnish it with the finest instruments to be procured in Europe, having, for this purpose, secured the services of T. Jones, T. Simms, and Dollond. . . ."

John Caldecott, who was born in 1800 and died in 1849, was the commercial agent to the Government of Travancore, but after the erection of the observatory devoted himself entirely to science. He was elected a fellow of the Royal Society in 1840.

Vegetable Monstrosities

THE issue of the *Medical Times* of December 7, 1839, contains the following note: "At the Linnean Society on December 3 the secretary read a communication from the Rev. Mr. Hicks describing some vegetable monstrosities recently met by him in the neighbourhood of York. They consisted in a union of two or more flowers into one, without any lines of junction whatsoever being visible, and in a multiplication of the stigmata, the pistils and petals of the plant—what De Candolle has denominated, with great propriety, an unnatural excess of fructification. In one or two species of iris and in a specimen of *scrophularia nodosa*, or sulphur wort—all which were exhibited to the meeting—the malformation of structure was strikingly apparent."

Iron Smelting in India

At a meeting of the Asiatic Society on December 7, 1839, extracts from a journal by Captain Jacob, of the Bombay Army, were read. One of these referred to the process of iron smelting in the Mahabaleshwar Hills. The smelting was carried on in the most primitive way imaginable. The ore was dug from pits 20 or 30 feet deep, and in appearance was like rough gravel. The furnace was a hole in the earth lined with charcoal, and fitted with a clay oven. The bellows were two goat skins, worked alternately by the hand, and terminated in a clay pipe, which formed the nozzle. About three hours were required to smelt 12 seers of ore, producing about 5½ seers of a rough, drossy, impure iron, which lost about 2 seers

more in being worked into its destined form. This quantity sold in the bazaars for a quarter of a rupee (less than a penny a pound). Better English iron was finding its way into the hills, at the same price or even cheaper.

Mortality in Malta

THE issue of the *Medical Times* of December 7, 1839, contains the following information: "From the absence of all malarious agencies the character of this island has been supposed exceedingly salubrious. The returns adduced, however, show that compared with Britain, the mortality is as 25 to 22 per 1,000 of all ages: among the troops during the 20 years antecedent to 1837 it averaged 18½ths and the admissions to hospitals 1·142 per 1,000 of the force annually. Passing over the ordinary forms of disease, such as fever, ulcer, syphilis and others whose fatality in the tropics is proverbial, the prevalence of diseases of the lungs, in a climate hitherto supposed particularly favourable to persons predisposed to them, is marked as a singular circumstance. Consumption in particular carries off a larger population, both civil and military, than it does in the whole United Kingdom, for it appears by the bills of mortality that two thirds of the deaths are from this disease."

APPOINTMENTS VACANT

APPLICATIONS are invited for the following appointments on or before the dates mentioned:

TEACHER OF ENGINEERING SUBJECTS—The Principal, Technical Institute, Ladywell, Dover.

UNIVERSITY GRADUATE to direct Institute of English Studies, Sofia—British Council, 3 Hanover Street, W.1 (December 14, quoting 'Sofia').

TEMPORARY FORECASTERS, Grade II (Male) in the Meteorological Office—The Under-Secretary of State, S.2.b. (Met.), Department Q.A., Air Ministry, Adastral House, Kingsway, W.C.2.

TEMPORARY METEOROLOGICAL ASSISTANTS (Male) in the Meteorological Office—The Under-Secretary of State, S.2.B. (Met.), Department Q.J., Air Ministry, Adastral House, Kingsway, W.C.2.

REPORTS AND OTHER PUBLICATIONS

(not included in the monthly Books Supplement)

Great Britain and Ireland

British Standards Institution. No. 853: British Standard Specification for Calorifiers. Pp. 60. (London: British Standards Institution.) 3s. 6d. net. [2011]

Memoirs of the Cotton Research Station, Trinidad. Series A: Genetics, No. 15: (a) The Genetics of Leaf Shape in Diploid Cottons and the Theory of Gene Interaction; (b) The Genetics and Taxonomic Distribution of some Specific Lint Quantity Genes in Asiatic Cottons. By R. A. Silow. Pp. 239-293. 2s. 6d. Series B: Physiology, No. 11: Experiments on the Extraction of Sap from the Vacuole of the Leaf of the Cotton Plant and their Bearing on the Osmotic Theory of Water Absorption by the Cell, by T. G. Mason and E. Phillips; Studies on the Partition of the Mineral Elements in the Cotton Plant, 1: Preliminary Observations on Nitrogen and Phosphorus, by E. Phillips and T. G. Mason. Pp. 531-586. 2s. 6d. (London: Empire Cotton Growing Corporation.) [2011]

Other Countries

Mémoires du Musée Royal d'Histoire Naturelle de Belgique. Mémoire No. 86: L'Ordovicien de Sart-Bernard. Par Eug. Maillicux. Pp. 60+3 plates. Mémoire No. 87: La biologie du domaine souterrain et la faune cavernicole de la Belgique. Par Robert Leruth. Pp. 506. Mémoire No. 88: Die subterrane Molluskenfauna Belgiens. Von Casar R. Boettger. Pp. 63+1 plate. Mémoires Hors Série. Résultats scientifiques du voyage aux Indes orientales Néerlandaises de LL. AA. RR. le Prince et la Princesse Léopold de Belgique. Publiés par V. Van Straelen. Vol. 2, Fascicule 20: Gastropoda-pulmonata, Scaphopoda et Bivalvia. Par W. Adam et E. Leloup. Pp. 126+7 plates. (Bruxelles: Musée Royal d'Histoire Naturelle de Belgique.) [2011]

An Indian Medical Review. By Major-General E. W. C. Bradfield. Pp. v+658. (Delhi: Manager of Publications.) 2.8 rupees; 4s. [2011]