

## Science News a Century Ago

## Exploration in North America and Abyssinia

AMONG the papers read at the meeting of the Royal Geographical Society on May 13 was an account of the recent arctic discoveries of Messrs. Dease and Simpson. This was communicated by the Governor and Committee of the Hudson Bay Company, and when thanking the Company the president announced that two gold medals had been awarded to the explorers. A map was displayed showing the discoveries of Franklin, Ross, Dease and Simpson in 1837-38 and from this it was shown that 150 miles had yet to be explored to connect the recent discoveries with those of James Ross in 1832 and Captain George Buck in 1834.

At the same meeting, Antoine Thompson d'Abbadie (1810-97) gave an account of his recent travels in Abyssinia with his brother Michel Arnaud d'Abbadie (1815-93). They started from Jeddah and visited Massawah, Adowah and also Gondar, from which place Michel endeavoured to penetrate to Enárea.

## The Royal Society

At a meeting of the Royal Society on May 16, 1839, a paper entitled "On the Visibility of Certain Rays beyond the Ordinary Red Rays of the Solar Spectrum" was read by J. S. Cooper, who had sent it to Faraday. The author stated that he had observed an extension of the red portion of the solar spectrum, obtained in the ordinary way, beyond the space it occupies when seen by the naked eye, by viewing it through a piece of deep blue cobalt glass. He had found that the part of the spectrum thus rendered perceptible to the right was crossed by two or more very broad lines or bands; and he observed that the space occupied by the most powerful calorific rays coincided with the situation of the red rays thus rendered visible by transmission through a blue medium.

## Ductile Thread from Rock Salt

IN a communication printed in the *Athenæum* of May 18, 1839, a foreign correspondent said: "M. Gaudin, one of the employés of the Observatory of Paris, has just submitted to the Academy of Sciences a process for converting Rock Salt into ductile thread. You must not shake your head at this, M. Gaudin is no quack. The Academy, at any rate, received his memoir with marked favour. Everybody knows that glass when in a state of fusion, may be drawn out into very slender threads; and M. Gaudin having succeeded in melting down rock salt, discovered that it was susceptible of the same modifications as vitreous substances—that it could be wound round a bobbin, or converted into a solid tissue at will. But of what use, you may say, is this discovery. According to M. Arago there are various ways of turning it to good account. The Torsion balance (la balance de torsion) which in the hands of Coulomb has proved so useful is rendered *uncertain* by the variable elasticity of the wires which support the electric or magnetic needle. To remedy this defect, there can be no surer way than to substitute rock salt threads for the metallic wires now employed". There are other applications equally interesting.

Marc Antoine Augustin Gaudin was born April 5, 1804, and for a long time was a calculator for the Bureau des Longitudes. He devoted much time to researches in optics and in photography.

## Societies and Academies

## Paris\*

Academy of Sciences (*C.R.*, 208, 953-1060, March 27, 1939).

R. FAIVRE and A. MICHEL: Chemical composition and crystalline structure of the product of slow oxidation of magnesium in a moist medium. The black compound formed seems to be brucite (a magnesium hydroxide) with additional magnesium atoms inserted in the lattice.

C. BARON: Use of light metals in the composition of explosives with an ammonium nitrate base. Addition of powdered aluminium increases the power of the explosive by 10-12 per cent.

P. JACQUET and P. ROCQUET: Application of electrolytic polishing to the micrographic examination of iron and steels.

G. COSTEANU and P. RENAUD: Action of water on sodium, copper and mercury.

H. GUÉRIN: Arsenates of calcium; study of the system  $As_2O_5 - OCa - OH_2$  at 17°.

J.-M. DUNOYER: Reduction by hydrogen of allotropic varieties of manganese dioxide.

Mlle. B. TCHOUBAR and O. SACKUR: Alkaline deshalogenation of chloro-1 cyclohexylmethyl-ketone and of chloro-1 cyclohexylphenyl-ketone; transposition in  $\alpha$ -substituted cyclohexylformic acids.

D. BODROUX: Preparation of true acetylenic hydrocarbons.

L. DENIVELLE: Butane diol-2, 3 and its esters.

M. TUOT: Carbonation of organo-magnesium compounds and the secondary reactions which accompany it in the aliphatic series.

R. PAUL: Reactivity of the two dienic systems of furylethylene.

A. MICHEL-LÉVY and J. WYART: Synthesis of anorthite by pneumatolysis with the help of an explosive (hexogene).

R. ABRARD and E. A. DE LA RÛE: Marine quaternary formations in the neighbourhood of Obock (French Somaliland).

G. DELÉPINE: Extension and characteristics of the marine fauna of the oil basins of Djerada (Morocco) and Kenadza (Southern Oran).

H. BREUIL, L. AUFRÈRE and MME. A. BOWLER-KELLY: The *Elephas meridionalis* alluvial deposits of the Carpentier quarry near Abbeville.

E. PELLERIN: A water-sampling bottle. A metal tube of capacity about 2½ litres is used; the limit of depth is about 250 metres.

Mlle. J. SALMON: Formation and structure of the sieve tubes in the hypocotyledonary axis of *Cucurbita pepo*.

A. BRUNEL and R. ÉCHEVIN: Assimilation of allantoin by the higher plants.

E. POZZI-ESCOT: A case of xenia in the vine.

G. NICOLAS and Mlle B. AGGÉRY: Effects of the simultaneous presence of three parasitic fungi in *Senecio vulgaris* L.

MME. S. LALLEMAND: Action of colchicine on the chick embryo at different stages of development. The strophosomic reaction is only produced in embryos of 40-68 hours.

A. VANDEL: Mode of distribution of the sexes of the terrestrial isopod, *Armadillidium vulgare* (Latr.). Proportions of the sexes are extraordinarily variable.

M. LECAMP: Regeneration of buccal pieces in phasmids.

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