

Memoranda showing the Quantities and Values of Copper and Nickel Ores exported from the Island of Newfoundland in the undermentioned Years

Years.	Parts cleared from.	Copper.	Nickel.	Value.	Value of nickel ore.
		Tons.	Tons.	Dollars.	Dollars.
1854 to 1864	St. John's	627 $\frac{1}{2}$ <sup>1</sup>		22,980	
1875 to 1879	"	544 $\frac{1}{2}$ <sup>1</sup>		19,179	
	Total St. John's ...	1,172		42,159	
1869	Union Mine Tilt Cove	5,938	30	190,016	7,200
1870	"	4,218	88	134,976	8,800
1871	"	1,924	7	61,568	700
1872	"	4,774 <sup>3</sup>	8	152,768	25,60
1873	"	5,414	233	189,490	9,320
1874	"	4,346	—	104,304	—
1875	"	4,838	17	179,006	1,360
1876	"	6,464	28	232,704	2,800
1877	"	5,389	—	194,004	—
1878	"	4,450	—	97,966	—
1879	"	1,964	—	35,352	—
	Total Tilt Cove ...	49,719	411	1,572,154	32,740
1875	Bett's Cove	6,280		232,360	
1876	"	18,670		456,481	
1877	"	42,065		1,093,768	
1878	"	31,370		690,140	
1878	Regulus	750		34,500	
1879	"	26,421 $\frac{1}{2}$		475,587	
	Total Bett's Cove ...	125,556 $\frac{1}{2}$		2,982,836	

The ores returned for 1878-79 were largely derived from Little Bay Mine and partly from Colchester, all belonging to the Bett's Cove Mining Company.

Thus the total value of the ores of copper and nickel exported since 1854 amounts to \$4,629,889, or nearly £1,000,000 sterling. ALEX. MURRAY

UNIVERSITY AND EDUCATIONAL INTELLIGENCE

CAMBRIDGE.—In Groups C and E of the Higher Local Examination this year there were respectively fifty-four and ninety-nine candidates; five obtained a first class in Group C (Mathematics) and eight a first class in Group E (Natural Science); nine candidates failed in Group C, and twenty-six failed in Group E. Three candidates answered the questions in Differential and Integral Calculus, and showed considerable knowledge. In botany a fair average of proficiency was attained; in geology the papers were below the average. In zoology inferior text-books had been too much preferred, to the exclusion very largely of practical work. The work in chemistry was unequal, but some candidates showed a very good acquaintance with the details of manipulation. Physics can scarcely be said as yet to be studied by the candidates. In physiology the answers were in some cases accurate and to the point, but the majority of candidates failed.

The elections to the Council of the Senate were made on Monday, and show in a very practical manner that residents are in favour of considerable improvement in University matters. Only one member who approves of the retention of Greek as a universal subject in the "Little-go" was elected, viz., Mr. G. F. Browne, whose place in the Council is due to his active work in connection with the University Local Examinations and his knowledge of the intentions of the University Commissioners, as one of their secretaries.

<sup>1</sup> Chiefly from Huronian rocks.  
<sup>2</sup> Partly from openings in Notre Dame Bay.  
<sup>3</sup> Cloanthite and Millarite.

Dr. Phear, Professors Cayley and Liveing, and Mr. Peile, are among those who were elected to the Council well known for their scientific eminence and breadth of view.

Prof. Stokes, Lord Rayleigh, and Mr. Vines were added to the Council of the Philosophical Society at its annual meeting.

Mr. Forbes, Prosector to the Zoological Society, has been elected to a Fellowship at St. John's College.

At an examination held on Wednesday, October 27th ult., Mr. M. Milburn, of Longtown, was elected to a vacant bursary in connection with the "Young" Chair of Technical Chemistry, Anderson's College, Glasgow. The bursary, which is of the value of 50l., and tenable for three years, is the gift of Mr. James Young, LL.D., F.R.S., of Kelly and Dullis, founder of the Chair.

SCIENTIFIC SERIALS

*Journal de Physique*, October.—Experimental verification by S. Carnot, of the principle he discovered, by M. Lippmann.—Apparatus and experiments for elementary demonstration in optics, by M. Gariel.—Influence of velocity of propagation of sound in the shock of elastic bodies, by M. Elie.—New form of plates for air pumps, by M. Terquem.—*Proceedings* of the Physical Society of St. Petersburg (including papers, in abstract, on the chemical and photographic action of light, the transmission of the current in water with unequal platina electrodes, variations of volume and coefficient of elasticity of palladium and its alloys under the influence of absorbed hydrogen, &c.).

*Rivista Scientifico-Industriale*, No. 18, September 30.—On the relation between terrestrial storms and the planetary relations of the solar system, by Prof. Zenger.—Excursions (geological) in the neighbourhood of Modica, by Prof. Lancetta.—Palaeontological studies in Bohemia, by Prof. Fritsch.—Beats, the third sound of Tartini, and the differential resultant sounds of Helmholtz, by Dr. Crotti.

No. 19, October 15.—New registering pluviometer, by S. Grimaldi.—New apparatus with petroleum heating, by S. Esser.—On a new variety (Rosterite) of Elban beryl, by Prof. Grattarola.

*Kosmos*, July 1880, contains a translation of Prof. Huxley's "The Coming of Age of the Origin of Species" (vide NATURE, vol. xxii. p. 1).—Dr. Ernst Krause's sketch of the developmental history of the History of Development.—Dr. H. Müller, the importance of Alpine flowers in connection with the "flower theory."—H. Schneider, observations on some apes.—Prof. Dr. Caspari, the conception of a soul and its significance in connection with modern psychology.—Short contributions and extracts from journals (among the short articles is one on the resemblance between flowers and fruit, by Hermann Müller, and on the occurrence of a five-toed example of *Archibuteo lagopus*, by W. von Reichenau).

August, 1880.—Dr. Oscar Schmidt, the severance of species and natural selection.—Dr. Ernst Krause, sketch of the developmental history of the History of Development, No 2.—Dr. Herman Müller, on the development of the colours of flowers.—Prof. A. H. Sayce, on the history of writing (translation).—Short contributions and extracts from journals.—Literature and critical notices.

*Revue des Sciences Naturelles*, September.—M. Mathias Duval, on the development of the spermatozoa in the frog (plates 3 and 4).—M. Lavocat, on the construction of the extremities of the limbs.—Dr. A. Godron, on the absence of a glume in the lateral spikelets of Lolium.—M. Leymerie, sketch of the Pyrenees of the Aude.—Notices of French memoirs on zoology, botany, and geology.—Bibliography and notice of the death of Dr. A. Godron.

SOCIETIES AND ACADEMIES LONDON

Chemical Society, November 4.—Prof. H. E. Roscoe in the chair.—The following papers were read:—On the compounds of vanadium and sulphur, by E. W. E. Kay. The author shows that the products obtained by Berzelius are oxy-compounds, that the substance obtained by Berzelius in the dry way is a true trisulphide of vanadium V<sub>2</sub>S<sub>3</sub>, the disulphide and pentasulphide have also been prepared and are described in the present paper.—On the atmospheric oxidation of phosphorus and some reactions of ozone and peroxide of hydrogen, by C. T. Kingzett. The author concludes that in the above oxidation both ozone and peroxide of hydrogen are formed, the former