

shark-like teeth, to which special interest attaches, owing to a similarity, recently pointed out by Dr. Eastman, to fossil teeth occurring in the Upper Cretaceous, which would appear to indicate the existence of Characinidæ in that geological epoch, a range in time which Mr. Boulenger had predicted as probable thirteen years ago.

CORRESPONDENCE.

DEPOSIT OF GRANULAR IRON-ORE ON THE COAST OF
BUENOS AYRES.

SIR,—The newspapers of Buenos Ayres have recently announced the discovery of a deposit of granulous iron-ore on the Atlantic seaboard of the province of that name. As the whole Argentine Republic has hitherto only been able to boast of one genuine occurrence of that valuable mineral, in the shape of the famous meteorite hurled into the Gran Chaco in the north (see section of same in the Geological Department of the British Museum (Natural History), South Kensington), popular curiosity was much aroused and excited.

As possibly the subject may contain some points of interest, I herewith furnish the more important details.

The locality is the sea-coast and both sides of the mouth of the River Quequen Grande, in (roughly) lat. 38° and long. 58°. And it is somewhat to the south of the recently named Chapadmalalense formation, the site of the Ameghino palæontographical controversy.

The total area of the deposits is estimated at some 5,000 hectares. It is stated that the magnetic iron-ore is found distributed through the sand from the surface to an average depth of 10 metres (otherwise to where it rests on the "tosca" or loëss of the Pampean formation), and in a proportion of 30 per cent of mineral. The result, in accordance with these figures, would represent the colossal amount of 750 millions of tons. As, however, the preceding is the commercial phase, or view taken by the parties who have obtained the concession for exploiting the situation, it may be open to very considerable discount.

I have before me the analysis and reports furnished by various Government specialists and departments. On account of the length, etc., of these, I have selected in preference one emanating from London itself, and which is as follows:—

ANALYSIS OF TWO SAMPLES OF MINERAL.

	Marked 18.	Marked 21.
	%	%
Silica	1·36	1·10
Titanium oxide	17·66	18·14
Ferrous oxide	74·27	74·11
Manganous oxide	0·56	0·62
Alumina	0·22	0·16
Lime	0·38	0·34
Magnesia	0·42	0·33
Combined water, alkalis, and loss	5·13	5·20
	100·00	100·00

A special search was made for sulphur and phosphorus, giving the figures:—

	Marked 18.	Marked 21.
	%	%
Sulphur	0·055	0·074
Phosphorus	0·109	0·115

Both samples are titaniferous iron-ore of moderate quality.

ERNEST GIBSON.

25 CADOGAN PLACE, LONDON, S.W.1.
 May 5, 1918.

OBITUARY.

PROFESSOR GEORGE ALEXANDER LOUIS LEBOUR,
 M.A., D.Sc., F.G.S., VICE-PRINCIPAL OF THE ARMSTRONG COLLEGE,
 NEWCASTLE-UPON-TYNE.

BORN 1847.

DIED FEBRUARY 7, 1918.

By the death of Professor Lebour in his 71st year, on February 7, 1918, the scientific world loses a prominent and interesting figure. Born in 1847 and educated at the Royal School of Mines, he served from 1867 to 1873 on the Geological Survey of England and Wales. He was lecturer in geological surveying at the University of Durham College of Science (later, Armstrong College) in Newcastle from 1873 to 1879, and succeeded Dr. David Page as Professor of Geology in the University. This position he occupied until his death, so that for forty-five years he was connected with the College, and for thirty-nine years occupied the chair of Geology. In 1904 he was awarded the Murchison Medal by the Council of the Geological Society, and in the same year was elected Vice-Principal of Armstrong College.

The transference of heat through the crust of the earth occupied Lebour's attention early and led to measurements of underground temperature in northern coal-pits, and also in conjunction with Herschel, to the determination of the thermal conductivities of a great number of rocks. This important work, issued in a series of British Association reports from 1873 to 1881, is well known, and many of the data obtained are accepted as standard.

Lebour's name will always be associated with the geology of Northumberland and Durham. Besides his official maps, he brought out in 1877 an excellent geological map of the county of Northumberland, which is the embodiment of much strenuous, clear-sighted labour. He was joint author with William Topley of a widely quoted paper on the Great Whin Sill, which may be said to have definitely established its intrusive character. The stratigraphical relations of the Carboniferous rocks form the subject of many papers, in which the divisions of the system and the description and correlation of the important limestones, etc., are set forth with admirable lucidity. The economic aspects of the subject find expression in papers on the Redesdale Ironstones and the coals of the Bernician series, especially those associated with the Little Limestone. The future importance of these coals, which occur in