

The insoluble residue consisted apparently of amorphous silica.
The part soluble in hydrochloric acid seemed to be a mixture of—

Phosphate of lime ($\text{Ca}_3\text{2PO}_4$),	.	.	.	60.0	per cent. of the whole substance,
Carbonate of lime (CaCO_3),	.	.	.	9.4	" "
Fluoride of calcium (CaF_2),	.	.	.	1.4	" "
Binoxide of manganese (MnO_2),	.	.	.	1.6	" "
Ferric oxide (Fe_2O_3),	.	.	.	4.8	" "

and minor constituents.

Ratio of equivalents of phosphoric acid, carbonic acid, and fluorine—

$(\frac{1}{2}\text{P}_2\text{O}_5)$		(CO_2)		(F_2)
1	:	0.162	:	0.037

In the recent whale's bone (No. 8) we found :—

1	:	0.162	:	<i>nil.</i>
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No. 5. *Portion of a Whale's Bone much impregnated with Manganese.*

Station 286 ; 2335 fathoms, South Pacific.

The outer portions of this specimen were perfectly black ; most of the inner portion also was black, but a small portion in the centre had remained untinged with manganese. This comparatively uncoloured central portion was removed, prepared for analysis, and used for the following determinations :—

	P.	$\frac{\text{P.}}{\text{E.}}$
Moisture,	2.87	
Phosphoric acid (P_2O_5),	29.13	1.231
Fluorine (F_2),	1.44	0.076
Lime (CaO),	36.05	1.287
Parts insoluble in hydrochloric acid,	2.91	

Ratio of equivalents of phosphoric acid and fluorine—

1	:	0.062.
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There was an appreciable quantity of manganese present, and also a trace of cobalt.

The outer manganiferous portion of this specimen was completely analysed, with the following results :—