

The great purity of ore, and its capability of making a superior quality of steel is shewn by the following analysis:

Analysis made on the Ore.

	Prof. Chapmann.			Griswold & Co., per Wendell.	Blodget, Britten.	Cumbria Works	E. Riley, F.C.S.	Harrington.	With. — Surface specimen.
	1	2	3						
Peroxide or Sesquioxide of Iron	89.80	88.08	85.45	87.40	55.93	.....	89.04	.....	78.98
Protoxide of Iron	7.06	6.86	5.24	3.93	10.09	.....	7.92	.....	.....
Titanic Acid.....	2.34	3.17	2.12	3.41	3.84	.....	.....	.....	0.87
Protoxide of Manganese	Trace.	0.55	0.41	0.37	.....	.....	.....	.....	0.96
Magnesia	0.22	0.13	0.17	0.47	0.08	.....	0.40	.....	1.13
Lime	Trace.	0.55	0.41	0.66	0.13	.....	0.56	.....	2.14
Phosphoric Acid.	Trace.	0.16	0.13	0.25	0.14	.....	0.21	0.34	0.012
Sulphur	Trace.	0.03	0.07	0.10	0.02	.....	0.04	0.37	0.04
Graphite.....	0.43	0.35	0.28	.....	.....	.....	.....	.....	.....
Insularrockmatt'r	0.11	0.26	5.77	.....	1.09	.....	.....	.....	.....
Oxygen with Iron	.....	.....	.....	.....	26.85	.....	.....	.....	.....
Alumina .....	.....	.....	.....	1.07	0.40	.....	0.32	.....	8.70
Silica .....	.....	.....	.....	2.10	1.34	.....	1.77	.....	Acid8.07
TOTALS	99.96	100.14	100.05	100.34	100.00	.....	100.26	.....	.....
Metallic Iron	68.34	66.08	63.83	64.24	66.02	66.00	68.49	64.45	Bed 64
Phosphorus.....	as =	66.40	.....	0.10	0.06	.....	0.093	.....	.....

The tests made by melting the ore have proved very satisfactory, giving in all cases at the first heat, a fine quality of steel, from which tools have been made, taking a good cutting edge, and this from the pure ore itself, shewing that the ore contains within itself the components parts of good steel.

The first test was made by Mr. S. K. Wellman, Superintendent of the Nashua Steel Company, New Hampshire, who ran two lots in a Siemens Furnace, giving in the first instance 62 per cent. of metal, in the second 60 per cent., as see his communication.

NASHUA, N.H., Oct. 8th, 1873.

To. E. HAYCOCK, Esq.,

We smelted the first sample of ore you sent us early in September in our Siemens Furnace, and it produced sixty-two per cent. of pure metallic iron, of which you took a sample. The second lot sent we smelted yesterday, and it produced sixty per cent., and sample went to you to-day.

S. K. WELLMAN,

Supt. of the Nashua Iron and Steel Co.

From this metal cold chisels, knife blades and rasors, were made of good quality, at the works of Blasdel & Co., Ottawa, under the direction of Horace Merrill, Esq., whose opinion as to the merits of the steel, is, that it is superior to the best imported English cast steel, a remarkable fact, insomuch that this metal was only the ordinary pig metal, or first run, direct from the ore.