

extracted from the Irish *peat*.\* The following are among the most desirable localities:—Canaan, Clinton, and the towns of North-East, Washington Hollow, and Rhinebeck, in Dutchess County, as well as many other places in the river counties. I am inclined to believe that this substance, properly prepared, where it is not underlaid with marl, may be used in the reduction of the hematite ores to advantage.

**Iron Ore.**—As this ore is the most abundant mineral and its use almost universal, it may not be out of place to notice some of its important localities in the State of New-York. At Bethlehem, hematite and bog ores are found; at Calais, black oxide of iron; at Canajoharie, hematite. On the West side of Lake Champlain, in Washington, Essex, Clinton and Franklin Counties, is found, in unlimited quantities, magnetic oxide of iron existing in gigantic mountains, and in veins and beds, from one to twenty feet thick; also, specular oxide of iron, iron sand, red hematite, red oxide and brown hematite. At Catskill, specular iron ore is found; at Cold Spring, magnetic iron and iron sand; at Guiderland, bog ore; at the Highlands, magnetic oxide of iron; at Hillsdale, hematite ore; at Malone, black oxide of iron; at Lyons, Wayne County, argillaceous oxide of iron; at Monroe, Orange County, black oxide of iron, very abundant (octahedral iron); at New Lebanon, hematite; at New-York city and island, large beds of bog ore, containing large quantities of manganese; the oxide of manganese is contained in hollow and friable pebbles, very pure; red oxide of iron and green phosphate of iron at Staten Island; black oxide of iron, hematitic iron and chromate of iron in Oneida and Ontario counties, likewise lenticular iron ore, in immense beds, and also in Madison County. Scaly red oxide of iron occurs along the shore of Lake Ontario; and in Saratoga, magnetic iron, hematitic iron, and magnetic oxide, lenticular, argillaceous oxide of iron; in fact, almost every town in the county has workable veins or beds of iron ore. Lenticular, argillaceous oxide of iron is found, also, in the town of Vernon; arsenical iron in the town of Warwick; granulated oxide of iron at West Point; lenticular argillaceous oxide of iron occurs in the town of Williamson and at Carthage, Jefferson County. In Hamilton, Montgomery, St. Lawrence and Lewis counties, ores of iron, in great abundance and purity, exist in the vicinity of dense forests capable of furnishing fuel of the best kind, with water powers of vast magnitude sufficient to propel the machinery necessary for its reduction. As the coal fields of England, Scotland and Wales, are giving out, may we not hope soon to hear the forests of Northern New York resound with the note of preparation to make the hidden treasures of the earth subservient to man, and thus for ever shut out the pauper product of the Old World? For whilst the English landed proprietors refuse to use our sugar and our cotton because it is the product of slave labor, we consent to use their iron, produced by a system of slavery that would make the iron itself sweat drops of blood were it possible.

Lead ores are found in the following localities:—Cambridge, Canaan, Canajoharie, Carlisle, Catskill, Claverack, Florida and Greenbush. In Lewis County, near the village of Martinsburg, there is an extensive lead and zinc mine of great value, and which cannot fail to be remunerative to parties working the same. It is on the estate of a Mr. Arthur. Lead is found also at Rhinebeck, Salisbury, and Shawangunk Mountains. At the latter, the mine has been worked both for lead and zinc at intervals, but it is evident the vein is copper; and it will eventually be worked successfully. At the Sing Sing silver mine, the vein is highly argentiferous, accompanied with masses and sheets of metallic

silver. It was extensively worked by Sampson Simpson, Henry Remsen, Colonel James and others, from the year 1764 to 1776, when the smithy houses were removed by the Continental army to West Point. Valuable specimens of the metallic silver have been preserved by the heirs of Mr. Simpson. Lead also occurs in the towns of Vernon, Wawarsing, Westmoreland, White Creek, and in several other localities. So far as I am acquainted but six of the mines are now worked, one at Wawarsing, the Ulster lead and the Ancram mine, and one in Dutchess County near the residence of Judge Boker, but with what success the writer is unadvised; also, in the northern part of St. Lawrence County, they are working "the Great Northern," formerly "the Rossie" lead mines, and the St. Lawrence Mining Company's mine, and I believe both companies are producing lead. Copper also occurs in several places in the State of New-York, of which the following are the most prominent: At Shawangunk Mountains, the yellow sulphuret; at Ancram, yellow sulphuret, and black oxide, and green carbonate of copper; at Canajoharie, green carbonate of copper; and at Catskill Mountains, green carbonate or malachite of copper. Antimonial gray copper occurs near Keesville in Clinton County; at Florida there is a green carbonate of copper; also, at Fort Lee; also, at Salisbury, in Saratoga County. Green carbonate and yellow sulphuret of copper are found at Staten Island; detached pieces of copper ore are frequently met with near Fort Tomkins. Sulphuret of copper exists near Ticonderoga; copper is also met with in several places in Wawarsing and Mamakating valleys. At this time I am not advised of more than one copper mine worked in the State of New York, and that is at Crown Point. It is worked by Messrs. Hammond & Co., but what results have been realized the writer is not informed.

Zinc ore occurs in several localities of which the following are the most prominent:—Dutchess County; Columbia County; Ancram; Wawarsing; Shawangunk Mountains; Martinsburg, Lewis County; Verona and Westmoreland, Oneida County; Canajoharie, Carlisle, Clinton near the College, Duphney, Florida Highlands, Niagara Falls and Rome. The above locations produce sulphate of zinc, and chromate and carbonate. Eventually they will be worked when the price of labor is reduced or the demand for lead increased.

Sulphate of barytes is found at nearly all the localities of lead and zinc; also in the bed of the Genesee River near Rochester, and at Pillow Point in Jefferson county, near Sackett's Harbour; also in the town of Smithville.

**Manganese.**—Occurs on Manhattan Island, Staten Island, at Ancram, and several other places in the State. Perhaps the most important locality is near Martinsburg, Lewis county.

**Phosphate of Lime.**—Many localities of this powerful fertilizer are known to exist in this State; the most important of these are at Crown Point, and Mariah, Essex county. They have been extensively worked. This mineral occurs in twenty-six different places. One of which is in Washington county; one at Anthony's Nose, and one at Lake George, and in most of the magnetic iron mines in the State; also at the Highlands, also on Manhattan Island. Phosphate of iron occurs also at West Point.

**Gypsum.**—This valuable mineral exists in many parts of the State. The following are amongst the most valuable localities: Near Cayuga Lake, Cherry Valley, Chittenango, Galway, Lewistown, Oneida Creek, on the shore of Lake Ontario, and below the falls on the Genesee River, at Rochester. In the absence of the phosphate of lime, gypsum seems to abound; and in that

\* See Kane and Upjohn's report on value of Irish peat, to House of Lords, &c., 1846.