

Cyanogen becomes liquid at -25°C , and begins to solidify at -30° , assuming a radiated texture. Its boiling point is -20.7°C .

Ammoniacal gas must be perfectly dried before being liquified. Its boiling point is -33.7° .

I have in vain tried to reduce to the liquid state, by a reduction of temperature as far as -50° , the gas which results from the combination of hydrogen with chlorine, bromine, iodine and phosphorus.

We may obtain sulphuretted hydrogen in a liquid state by subjecting hypersulphuretted hydrogen to decomposition in a tube; but it requires the presence of a little water. If bits of chloride of calcium be introduced into the tube, the hypersulphuret may be preserved intact while the tube remains hermetically sealed.

Annales des Mines, tom. xvii, p. 317.

Chemical constituents of Sugar Beet. By HENRY BRACONNOT.

It results from the researches that I have made on the Sugar Beet of Silesia, that this root contains—1, crystalizable sugar; 2, non crystalizable sugar; 3, albumine; 4, pectine; 5, mucilaginous matter; 6, lqueous matter; 7, phosphate of Magnesia; 8, oxalate of potash; 9, niclate of potash; 10, phosphate of lime; 11, oxalate of lime; 12, an acid fat having the constitution of tallow; 13, matter analogous to wax; 14, chloride of potassium; 15, sulphate of potash; 16, nitrate of potash; 17, oxide of iron; 18, animalized matter soluble in water; 19, an unknown odorous and acrid matter; 20, indeterminate sal ammoniac in small quantity; 21, pectic acid.

Ann. de Chem. Dec., 1839.

Manufacture of Lead bullets, by rolling.

At the Arsenal, at Woolwich, in England, they now manufacture leaden bullets by drawing and compression.

These bullets have the advantage of being without *blows* or air cavities, and are rolled out of round bars of lead, which are passed between rolls formed like the roulettes used for ornamental work on the lathe.

The rolls are constructed with hemispherical cavities, each one of which forms one half of the ball, whilst the correspondent cavity forms the other half; the bullets are then finished by removing the extra metal, and being rolled together in a barrel.

Journal des Usines.

On the Irregular Movements of the Barometer. By T. HOPKINS.

Mr. Hopkins maintained that the *irregular* movements of the barometer arise, not from the alterations of surface temperature, but from the condensation of aqueous vapour, and the consequent formations of rain. This (he said) caused local heatings of the atmosphere and considerable reductions of its pressure in the locality, particularly in the colder latitudes. Within the tropics, the barometer does not ordinarily fall as much as in colder latitudes, notwithstanding the abundant rains which take place there, because the conden-