consistency of crude pottery: yet, by calcination, it acquires very little solidity. The analysis of this soil gave.—

Carbonate of lime,		.010
Silex of quartzose sand,		.785
Alumine,		.110
Oxide of iron,		.030
Water and organic matter,		.065
		<hr/>
		1.000

This soil must contain about 33 per cent. of clay and consequently .565 of quartzose sand.

The analysis shows that the soil of park Gauthier, has very nearly the same composition as the non-calcareous portion of the Saffron soil, and that it might be improved by adding half its weight of limestone earth in powder.

Idem.

Analysis of a vegetable soil from Cuba. By M. P. BERTHIER.

This soil was sent to the laboratory by M. Mollien, consul general of France, at Havanna. It is that in which sugar, coffee and tobacco are raised with so much success. It is red, resembling an earthy ferruginous mineral. It is in small agglomerated masses, but is very easily crushed. No stony matters are discoverable, but vegetable remains are conspicuous, apparently proceeding from sugar cane. It exhales a disagreeable odour, analogous to sheep dung. It forms a paste with water, which contracts on drying, without splitting, and acquires much tenacity. It would form an excellent material for red antique pottery.

By levigating and sifting, only two per cent. are separated of white calcareous fragments, and vegetable fibres. Dried at the boiling heat it loses .99 of hygroscopic water. It contains:

Carbonate of lime,		.080
Peroxide of iron,		.140
Oxide of manganese		.010
Silica		.336
Alumine		.170
Water and organic matter		.250
		<hr/>
		9.86

The organic matters are equivalent to .04 of carbon.

This soil must retain water very firmly, and also acquire great stiffness, or hardness, in drying by the sun, and it is difficult to conceive how the roots of plants can get through it.

Idem.

Analysis of the Sulphate of Iron of Nordhausen. By M. P. BERTHIER.

This salt is that from which the smoking sulphuric acid of Nordhausen is made. It is in amorphous pieces, has a granular fracture, white inside, and of a sulphur yellow on the outside. It dissolves wholly in water, and forms a colourless solution. Heated to dull redness in a platina crucible it undergoes semi-fusion, and loses at least .35 of water without disengaging any sulphurous, or sulphuric, acid. It is composed of