matter, which ran through the sieve, must next undergo the test of experiment. After being weighed, agitate the whole in water till the earth be taken up from the bottom and mechanically suspended, adding water till this effect be produced. Allow the mass then to settle two or three minutes, and in that time the sandy particles will all have sunk to the bottom. Pour off the water which will then contain the clay in suspension and the insoluble earth arising from animal and vegetable decomposition. The sand should first be attended to, and if, from inspection, it be thought either silicious or calcareous in its nature, the requisites may be instantly applied. If silicious, it will scratch glass; if calcareous, by being dried and vinegar applied, bubbles will rise to the top. By this time the mixture will have deposited, at the bottom of the vessel, the clay and other earths, with the insoluble animal and vegetable matter. After pouring off the water, dry the sediment, and place it in a pot ignited to redness, and the animal and vegetable matter will burn and fly off in aeriform products. The remainder, lying in the bottom, will be found to consist of clay, magnesia, or lime. To obtain accuracy, take four ounces more from the same heap, and go over the same a third, or even a fourth time, so that the operation will rectify any blunder which may have been previously committed, or which may satisfactorily prove the result of the experiment. Persons experimenting should have a small set of weights, divided into ounces and drachms. M. Jillet, in some experiments made at Paris, found that a soil composed of three-eights clay, two-eights sand, and three-eighths finely divided limestone, was the best suited for wheat.

Mr. Heney, of East Lothian, Scotland, examined a fertile corn (oats) soil, in that district, and divided it into a hundred parts, as follows:—He found, upon analysis, clay 45, sand 25, calcareous earth 11, vegetable manure 9, the water in absorption 4, and the remaining 6 were taken up in chemical compounds, chiefly the sulphrate of lime. He also tested soil celebrated for growing large crops of wheat and beans in Somersetshire, and found it as follows:—Eight-ninths calcareous marl, and one-ninth a compound of clay and lime. Sir H. Davy found a soil eleven-twelfths sand and one-twelfth clay, to grow a fair crop of turnips, and a soil eight-ninths clay and one-ninth sand, to grow fair crops of grain.

Where silicia prevails, as is the case in many sands, we call the soil silicious; where clay prevails, we may call the soil aluminous; and when lime exists in any quantity, as in the case of chalk or marl, we may call the soil calcareous. I am not aware of there being any of the latter in this county. The silicious, aluminous, alluvial and bog soils I will now bring under your notice. The two former I have already described. The two latter are known to the most inexperienced farmers, the one being of an ashy colour, and from its