at the present moment, be considered in many instances as of comparatively little practical value. No doubt practical deductions of importance, may be occasionally drawn from a careful analyses of a soil, but the great majority of those hitherto made, fail to give the desired information. This may, in part, be owing to the imperfect analyses which have too often been made, but it is certainly mainly due to imperfect knowledge of the chemical conditions requisite for fertility; and until these are clearly known, we cannot expect to derive from the analysis of a soil the important conclusions which it ought to, and, at some future time, certainly will yield."

Although I fully agree that in the present state of agricultural chemistry we must not expect too much from analyses, yet I fully agree with him in the belief that there are cases in which "practical deductions of importance may be drawn from the careful analyses of a soil."

I have secured several samples whose analyses, I think, will prove to be of this description, but it was impossible to complete them in time to be noticed in the present report. These analyses will be of the most elaborate character and require the utmost care. The soil from which one of the samples was taken, I have been informed by most reliable testimony, was planted in corn during seventy consecutive years without manure, and since then a rotation of corn, wheat and clover, and sometimes tobacco has been produced without any other manure than gypsum. A sample was also taken from the spot adjacent to the above, which, it is believed, never was in cultivation, but there is no doubt that they were originally alike.

Samples have also been received from other localities which will be analysed with great care, and I hope will assist in enabling us to form correct conclusions upon this interesting subject.

One serious difficulty in the way of analyses of soils is that we cannot, in most cases, determine the exact condition of their constituents. Each of two soils may shew a very similar chemical composition and yet differ widely in their productiveness, because the constituents required for crops in the one are more soluble, or in a state more readily available to the roots of plants, than in the other. Again the physical conditions of soils are known to exercise great influence upon their fertility.

Sometime since, several samples of soil were sent me from a farm in Baltimore county, about which there were some peculiarities that induced me to pay a special visit to the place. I found part of the soil had been produced from a hornblende rock which usually gives a fertile soil, but in this case the rock had a very coarse granular structure, and the