of potash, and probably other useful matters, but further investigation is required relative to them.

There seems to be still some difference of opinion in reference to the effects of lime containing magnesia.

In former days, when large doses (sometimes even 360 bushels of fresh lime) were applied to the acre in England, serious injury resulted in many instances when dolomitic lime freshly burned was used. This was attributed to the fact of this variety containing nearly as much magnesia as lime. I have myself observed a similar result in Baltimore county, in which it took some seven or eight years for a soil to recover, after which it became quite productive.

This has been attributed to the fact that *caustic* magnesia is injurious to plants, and it very slowly regains carbonic acid so as to become mild again.

Another reason is, that a dolomitic lime, when wetted, does not slake, (like the purer kinds, or those containing moderate proportions of magnesia,) but like hydraulic cement, hardens into grains and lumps which remain a very long time in the soil in a caustic state.

When magnesia exists in small proportion it is not injurious, but beneficial to soils in which it is deficient, as in some of the lower counties on the Eastern Shore.

If the dolomitic kind be used, it is better to mix it with earth or muck, so that it may not become a cement as before noticed.

Upon a future occasion, and after certain investigations shall be completed, it will be proper to go fully into the subject of the advantages as well as to point out *all* the special effects of lime in agriculture. The propriety of using lime or marl as a manure, is now almost universally admitted.

It was first applied to the soil in Baltimore county about sixty years ago, and its use slowly extended in that and the adjacent counties. It was not an easy matter twenty-five or thirty years ago to persuade farmers of our western counties, owning what are called limestone lands, to try it, even on a small scale. I often urged parties to it, but they preferred to be governed by theories of their own, to the effect that their "limestone soils could not possibly be deficient in lime." This affords one among many proofs of the danger of theorizing without a sufficient knowledge of the circumstances upon which the theory is based.

A moderate acquaintance with the principles of geology and chemistry would have shown that the *so-called limestone soils* (when *in place* and not covered by transported matter) consist of the *foreign matters* of the limestone, and that in general the *lime has almost entirely been dissolved out of them*, and carried off in the manner indicated in Chapter IV.

During a recent tour in one of these limestone districts I