

eration; for, unless the stone be well and thoroughly calcined the lime it yields will be filled with *core*, adding to its weight and bulk a material of no use to the soil, as it can never become incorporated with it. It behoves the farmer, therefore, if he burn his lime himself to have it well done; or if he purchase it, he should see that it is in a pulverulent state, as free from lumps and *core* as possible. Upon the subject of lime-burning, there is much yet to be enquired into, and I have reason to believe that the results of a series of experiments and inquiries that have been commenced, will enable me, at a future period, to suggest some valuable improvements in this art. The investigation relates to the best mode of constructing the kiln, the most expedient manner of disposing of the stone for its perfect calcination, the best kind of fuel, and to the most economical employment of it. The importance of the subject will at once be appreciated, here and elsewhere, when we are told that in our most usual modes of burning limestone we obtain scarcely more than six hundred bushels of lime with sixteen cords of wood, whilst we are informed that the perpetual kilns of Pennsylvania yield seven hundred bushels for every eight cords of wood and one ton and a half of anthracite consumed, and in New York *two thousand* bushels of lime are burned with *twelve* cords of wood.* If it be found practicable to introduce improvements in the construction of our kilns that would enable us to realize such results, the immense benefit that would accrue to those portions of the State, as in Harford and Baltimore counties, where twenty or thirty kilns are almost constantly in operation in one vicinity, will be readily conceived.

Having failed, so far, to discover any limestone within the limits of Montgomery county, my next object was to ascertain what facilities existed for obtaining it elsewhere. Its transportation by the Chesapeake and Ohio Canal from the limestone valleys of Frederick and Washington counties, along the whole Potomac side of the county, affords a cheap and convenient means of procuring it in this direction, and it should be taken advantage of at all those places whence the stone or the lime can be easily distributed. Kilns have been erected at Georgetown, where it is understood the refuse lime is sold at 16 cents. It has been used with entire success by some farmers on the road to Rockville. At the mouth of Seneca, Mr. William Darns is about to build two kilns, from which he expects to distribute lime to the neighboring country at 25 cents a bushel. Similar enterprises might be undertaken at the mouth of the Monocacy, at the Great Falls, and in other equally eligible situations along the margin of the canal. Good compact limestone may be obtained in a low ridge lying between Bennet's creek and the Monocacy, W. of the Sugar-loaf mountain, on the farm of Mr. Simmons, where it

* Professor Shepard's Report on the Geological Survey of Connecticut.