

than in leaving it to him at last with common ignorance. The mind is capable of infinite expansion, and is able to reason, generalize and conclude in proportion to its strength and knowledge. The naturally strong mind is doubly strengthened by discipline, and thus its reasoning connected, while the weaker intellect of him who would be the dupe and victim of the cunning, would be rendered mighty enough to cope with the world, to succeed in business, and maintain its rights. Hence, the weak need discipline, if anything more than the strong. But it is difficult to discriminate in youth, and the safe rule is, to educate all. In every business enterprise, there are many things to consider and foresee in order to ensure success. The farmer has as many difficult problems to solve, and as many intricate calculations to make, as any other individual. The correctness of his solutions and the accuracy of his calculations depend upon the strength of his faculties, and the extent of his knowledge.

3. But wherein does science directly aid the farmer in money getting? It enables him to seize upon every hint, every new occurrence, and every phenomenon that occurs in the range of his pursuit, and turn them to profitable account. Having a mind well disciplined and fruitful in resources, he is able to take such advantage of even familiar things and perpetually recurring accidents, as would escape the attention of the ignorant. The falling of an apple was nothing new or extraordinary in the course of nature, yet a Newton seized upon the trivial occurrence and developed the great law which governs the universe. Almost all great discoveries have been occasioned in such a manner as to excite our astonishment that they were not thought of before, after being explained to us by the discoverer. Yes, "why where they not thought of before?" Simply because there had been no one who thought enough to think of them. The unintelligent farmer does little more than follow in the footsteps of his father, and if the father laboured under disadvantages and met with frequent losses that might have been avoided he also is toiling for nought, under this erroneous example, not knowing how to correct it. He does not dream that any improvement can be made, and frequently persists in following the old practice long after others have made thousands by adopting a new course. Many, too, likewise ridicule what they call "book farming," as though all the routine of their business were simple and

known by every farmer's boy. To estimate the simplicity of agriculture, let us look at it in its reality. Besides embracing much of almost every branch of learning it draws extensively upon Chemistry, Mineralogy, Geology, Botany, and Meteorology. The first teaches the composition and properties of the different soils, and species of vegetation, together with that of light and heat, air and moisture, and every material thing. The second teaches the description and classification of the extensive variety of minerals which make up the globe, and constitute the basis of the soil, while its hand-maid, Geology, teaches the manner in which they enter into formation of the earth, the signs by which different soils may be known, &c. Botany describes to us everything that vegetates and blooms, and Meteorology directs our attention to the winds and the storms, and enables us to prognosticate the changes of the natural elements. To these may be added vegetable Physiology, which teaches the influence of light, heat, earth and water in producing vegetation. By these sciences we are enabled to know exactly the adaptedness of different soils to different grains, grapes and plants, before planting, and hence the farmer can give each kind of seed its most natural nurse without incurring the loss and delay of repeated failures. He is also thus enabled to guard his farm, and keep each field in its original vigor and constant productiveness. Had we time and space, we might give some idea of the simplicity of agriculture. With proper knowledge, the farmer might make more money with a pleasurable amount of toil than he now does by constant slavish labour. Ohio is not half as productive as she should be with the same physical effort. She has animal strength enough, all she needs is mental power.

Is not then, the business of the farmer as arduous, and does it not require as much varied learning as any other pursuit? And if discipline and science facilitate money getting in the professions, will they not much more facilitate it in agriculture? The lawyer, doctor and clergyman deal with man, while the farmer deals with nature. The study of the human character may be intricate, but the study of nature in her greatness and grandeur is not less so.

But let it not be understood that science and a cultivated mind are valuable only in facilitating money getting. No, no, they have a nobler, loftier end in view—the elevation of the charac-