mechanical philosophy, mineralogy, botany, and chemistry, may be as practically taught in our common schools as arithmetic; and that the structure and uses of the earth which we inhabit; the composition and uses of the air which we breathe; and the organization and functions of vegetable and animal life, may be made as familiar to the minds of our agriculturalists and mechanics, as their household words, and this too without any great expenditure of either money or time to accomplish it.

And what would be the result if this could be accomplished! I answer: it would create of the mass, a nation of philosophers; a nation of reasoning beings, instead of their being, as they too often are, the blind instruments of passion, and the dupes of designing men. It would open the book of nature to them, and as a natural result, by familiarizing their minds with nature's works, elevate them to nature's God. Thus the important objects of intellect and morals would be attained; while a flood of light would be poured upon every operation, and open the way to profit, enterprize, and improvement. That such should be the results, is as inevitable as that natural causes should be followed by natural effects; as that day should follow night, and lassitude and weariness, a period of protracted labour.

What then are the obstacles to be overcome! I answer but few: and these neither great nor formidable. It is only necessary that the present foundation of common schools should be extended, and that we should establish in addition thereto Normal Schools, for the instruction of teachers. Let every candidate for instruction as a teacher, be required to comply with the following conditions:—1st. To produce proof of his thorough acquaintance with the common and ordinary branches of education:—2nd. To give security that he will, after his instruction, continue to teach a common school, (health permitting), for some definite period of time, so as to make a return of benefits to the public, for those he has received.

Let it be the business of such Normal Schools to instruct teachers in all the above sciences, and in the best and most approved mode of conducting schools, and communicating instruction to others. In short let lectures be delivered, books and apparatus be provided, and cabinets be formed at the public expense, sufficient to illustrate every subject; and as soon as each teacher shall be fully qualified to teach, let him receive a license for that purpose: but let it be incumbent on him to deliver lectures at least twice per week in the school house, and twice in the evenings; and to teach and illustrate every subject in the same way as in the Normal Schools.

By this simple machinery, our common schools would soon become instruments of much greater usefulness. They would be the means of lifting many from obscurity to high intellectual attainment. They would, during the long winter's evening, become focuses of attraction to the old and young, and confer blessings on present and future times.

And what would be the expense of all this? But light indeed compared with the advantages; perhaps one thousand pounds per annum for each District.

I am aware that many objections may be offered to this plan, and so there may to any other that could be suggested. The importance of the subject, however, is a sufficient justification for offering it, and therefore you are at liberty to publish it.

It is a curious fact that a plan, somewhat similar to the one here contemplated, has been some years in operation in despotic Prussia; and its effects are that she now possesses the best educated peasantry and yeomanry in the world: while in most other countries, these classes have been shamefully neglected.

The latter fact is indeed most melancholy; for if we estimate dignity by immediate usefulness, agriculture is undoubtedly the first and noblest science which can engage the attention of man; and it is neither just nor equitable that those who feed all the other classes, and contribute most to sustain the social fabric, should be doomed to neglect, and considered to occupy the lowest grade in society.

That conscious ignorance should court obscurity, and beget apathy and indifference to the acquisition of knowledge, is in accordance with experience; but it surely becomes the duty of those who are entrusted with the destinies of mankind, to take care that the means of intelligence are placed within the reach of the most numerous classes, who are in truth both the basis and the superstructure of the social pyramid; the privileged idlers being but its gaudy trappings, which could be dispensed without injury to the structure.

But my desire would be to see the working classes in every community, not only the basis and superstructure of the pyramid, but forming also its Corinthian columns and capitals, and combining all that is solid and substantial, with all that is elegant and beautiful; which I think quite practicable by following out the outline here suggested.

The profession of agriculture indeed affords many facilities for the study of nature; yet there is a veil over the path of science, which requires more patient industry for its removal, than the unassisted agriculturist can bestow. The consciousness of this often deters him from the attempt; yet give him but the facilities here pointed out, and nature will be to him no longer a sealed book; those simple and beautiful laws which our Creator has ordained for the perpetuation of, and government of his physical, moral, and intellectual universe, will then be contemplated with pleasure and delight; their application every where, to the business of life, will be understood, as well as the consequences of violating them.

It is in obedience to these laws that the water-drop steadily pursues its course from the mountain to the ocean, giving impulse to innumerable wheels and contrivances for aiding the operations of industry. It is in obedience to the same laws that it again mounts into the atmosphere, to descend anew in the form of dew, rain, hail, or snow; and that it again commences a new circuit through the earth, ocean, and air.

It is by the investigation of these laws that we are enabled to understand the composition of our globe, and of the different soils, metals, and minerals which compose it; and can transform, combine, and modify at pleasure, so as to convert them to the purposes of society.

It is by the investigation of these laws, that we are enabled to discover the organization and qualities of vegetables, their capacity for improvements, their adaptation to different soils, their best mode of culture, and the most effectual means of guarding against the effects of climate and the ravages of insects.

It is by searching into the laws that regulate and sustain the animal kingdom, that we learn the mechanism and functions of an animal body, and the means by which health is preserved and invigorated, as well as the best means of combatting disease, and the best selection of animals for profit, food, or labour.

Again, by prosecuting these enquiries, we learn the relations between the different kingdoms of nature, between health and the atmosphere we live in, between soils and the vegetables they sustain, and between the different animals and the vegetables they feed upon and know what to cultivate and what to avoid.

The following example admirably illustrates some of the beautiful and wonderful economy of nature. Respiration is a natural process, for the purpose of supplying heat and oxygen to the blood; and none of the perfect animals can exist without it. This oxygen is derived from the atmosphere, which is a great natural reservoir for containing it; but as the consumption is continually going on, if there were no provision for supplying it, the animal creation must soon cease to exist from its exhaustion — This provision is bountifully made by our Creator in the vegetable kingdom. By vegetable nutrition carbonic acid-gass—a fluid expelled from the lungs of animals, and destructive to animal life is decomposed; and while its carbonic is appropriated as vegetable food, its oxygen is disengaged, to supply that consumed by respiration. Thus it is, that a flourishing agriculture at once purifies the air, and becomes conducive to health, nay, supplies that fluid which is essential to animal existence. Thus it is also, that the study of nature is the study of our country's wisdom, goodness, and beneficence, and is above all studies, calculated to improve the mind, by raising it to the great source of light and knowledge.

That our agriculturists and mechanics may, with much pleasure and profit, and with but little expense and trouble, become familiar with all the great fundamental laws which govern all created beings, I sincerely believe; only let the outline here suggested be carried out to its natural and legitimate consequences, and in a few years we shall find cabinets of natural, rare, and valuable curiosities formed in every family; we shall find books, maps, and simple apparatus, for trying chemical experiments, in the hands of every youth, instead of pitching quoits, or coppers, ball-playing, and petty gambling; we shall find mechanics' institutes and lyceums established by the aged, in every village, to discuss the natural sciences, and to aid and assist each other in the pursuit of knowledge; in short, we shall find the greatest moral revolution that the world has ever seen; a whole people knowing their rights and their duties, and determined to maintain the observance of both.

I am, Sir,
Yours' respectfully,
JAMES HUNTER.

Provincial.

The following is another proof, amongst the numerous others already given by our Bytown contemporary as well as ourselves, of the fertility of the soil along the mighty Ottawa:

"Sir:—Having noticed a short time since in a United States paper, an account of a 'Large Turnip,' weighing 16 pounds, I was induced to weigh one which I raised this season, the weight of which was with top 22¾lbs. without top 17¼lbs. I may also mention as a proof of a productive soil, that I this year cut over 2½ tons of second crop Hay, and upon 3½ acres of land, cut 12½ tons Hay, (first and second crop). So much for farming in this part of Canada significantly called *'beyond Sunset.'*

Yours, &c.
A Young Farmer."

"P. S. The land upon which the Hay above mentioned was cut, has been under cultivation nine years, and has never been manured.

Ottawa River, 100 miles above Bytown.—*Bathurst Courier, Oct. 26th*, 1841.

Died—*The Canadian Farmer and Mechanic* which we noticed last month, is said to have died—from want of care and nourishment.—*Genesee Farmer.*