

Miscellaneous.

Agricultural Geology.

By J. M. DeCOURTENAY.

The progress of the science of Geology has drawn attention to a great blank yet visible in so useful a study. For, until lately, geologists had only considered the skeleton of the globe we inhabit as worthy of any interest; so far differing from the practical farmer who regarded the flesh of that skeleton (the loam from the cultivation of which he derived his existence) as the only part worthy of notice.

In the eyes of the geologist, this valuable loam was at best an amount of rubbish, by which the crust of the globe was covered, and was of little interest, further than being particles of the crust itself, reduced to its pulverized state by friction, or decomposed by time, or physical and chemical agencies employed by nature in its wonderful metamorphoses.

Monsieur Elie de Beaumont and Monsieur Dufrinay, in their admirable description of the geology of France, were very strongly convinced of the necessity of filling up this gap, and Monsieur de Caumont made a formal proposition to the Council General of Agriculture (which was received with enthusiasm) that a map of Agricultural Geology relating only to the pulverized or workable surface of France should be produced, thereby conferring upon agriculture the same advantages that purely geological maps had previously conferred upon the mining interests of the country. These interests, however important they are becoming, can never be compared to those of agriculture, the only solid basis of national prosperity, and of real wealth; although in new countries mining holds out more imaginary attractions to the masses, than the more certain and solid, although more tardy, profits of agriculture can offer. It has been calculated with precision that men labour more willingly, and for less remuneration in their search after gold, than for any other purpose whatsoever; and there is evidently something instinctive in the minds of men that renders mystery attractive—which makes them value more the possible gain, uncertain and concealed in the bowels of the earth, than the more probable and positive one, so easily calculated, and so readily obtained by patient and honest labour at its surface. The fast proclivities of this continent, the haste to enjoy, the repugnance to enterprises of long term, prevent men from undertaking anything, by the fruits of which they may not immediately profit. The decay of family feeling caused by a rapid transmission of the soil, passing from hand to hand, and rendering transient all enterprises formerly belonging to many generations, has destroyed the faith that formerly existed in agriculture, as a means of prosperity; and has urged on the rising generation to enterprises where the hopes of rapid realization are the greatest. In mining as in war—success is a lottery, where the fortunate are prominently visible, and the blanks are silent.

The mining interests of Canada (an active minority whose interests are well attended to) have accused Sir William Logan of paying more attention to the age of an old bone, than to the importance of their more positive and material interests; and that feeling was represented at one time both in the House, and even in the Cabinet, and an abortive effort made to abolish the geological survey, which has proven itself so useful and so creditable to the province.

The recollection of this very effort, may yet, and perhaps at no distant period, be a means of inducing Sir William Logan and his very efficient staff to initiate a project so important to the material interests of the country, as would undoubtedly be, a survey of its Agricultural Geology.

I hoped to have been able to enter more fully into this very important question which, however, may be developed some day by Sir William Logan or Dr. Hunt, and with their usual professional ability—but many friends engaged in preparations for the planting of vines in early spring, request me to abbreviate my remarks upon other subjects, or postpone them to a later period—to which I willingly accede in the hope of being to them of some utility—and of perhaps inducing others to follow their example and my own.

SIN-TAX.—“Well, my boy, do you know what syn-tax means?” said a schoolmaster to a child of a teetotaler. “Yes, sir, it is the duty on spirits.”

Dr. Channing, in his recent lecture before the Boston Science Association said that the Russian Peasantry had a way of washing which he had not seen related in any book of travels. They took a mouthful of water from the pump, and, after holding it until the chill was well off spurted it with a lively jet, into the hands, and applied it briskly to the face. Towels they have none.

“A MAN'S A MAN FOR A' THAT.”—Robert Burns was once taken to task by a young Edinburgh blood, with whom he was walking, for recognizing an honest farmer in the open street. “It was not,” said the poet “the great coat, the scone bonnet, and the boot-hose that I spoke to, but the man that was in them; and the man, sir, for true worth, would weigh down you and me, and ten more such any day.”

CLEVER ANAGRAM.—It is said that Napoleon, when he was asked by Dr. O'Meara if he really thought he could have invaded England at the time he threatened to do so, replied in the following anagram:—“Able was I ere I saw Eba.” Whether this is true or not, we should like to see a more ingenious or extended anagram, which, the reader will observe, reads the same backward or forward.

TO KEEP RATS FROM EATING HARNESS.—“Philomen,” of Champaign Co., writes the *Agriculturist* as follows: “I have a remedy that has never failed with me. It is simply salting the rats regularly. I do this by laying salt on the sills and ties of the stable, if that is the place they most frequent; but in fact, they will hunt for it. It will occur to any farmer that sees this remedy, that harness is most cut where the greatest amount of sweat has dried, an indication that salt contained in it is what they want.”

LUBRICATOR.—Having considerable machinery to run the past winter by horse power, and knowing of no accessible lubricator that would not grow hard in cold weather, I have been experimenting, for the purpose of getting a lubricator that would stand the cold, not gum, be cheap, and accessible to all, and have found the following to answer the purpose very satisfactorily.

Lard oil, three parts, and kerosene one part. The oil should be warm, i. e., about 75° Fahrenheit, when the kerosene is put with it, and then shaken occasionally through the day, when it will be cut and mixed. This compound remains liquid some 60 or 60 degrees colder than the best lard oil. I have used it four or five months on most kinds of wood and iron working shop machinery, with better satisfaction than with any sperm oil I have ever found. A larger proportion of kerosene stands cold still better, and a smaller proportion gives more body. The same also works well for the axles of carriages, putting in more or less kerosene, according to the time of year and degree of cold.—*Locust Homestead.*

THE TWO LABOURERS.—Two men I honour, and no third. First the toil-worn craftsman that with earth-made implements laboriously conquers the earth and makes her man's. Venerable to me is the hard hand, wherein lies a cunning virtue; venerable is the rugged face, whether tanned, with its rude intelligence, for it is the face of a man living manlike. Toil on; thou art in thy duty, be out of it who may. Thou toiled for the altogether indispensable—for daily bread. A second man I honour, and still more highly; him who is seen toiling for the spiritually indispensable—not daily bread, but the bread of life. Is not he too, in his duty, with Heaven-made implements, conquering Heaven for us? If the humble toil that we may have food, must not the high and glorious toil for him in return, that he may have light and guidance, freedom and immortality? These two, in all their degrees, I honour; all else is chaff and dust, which let the wind blow whither it listeth. Unspeakably touching, however, is it, when I find both dignities united, and he that must toil outwardly for the lowest of man's wants, is also toiling inwardly for the highest. In him we may see the splendour of Heaven spring forth from the humblest depths of earth, like a light shining in great darkness.—*Thomas Carlyle.*

WORK AND INVENTIONS.—Mr. Mill tells us in his “Political Economy,” that the labour-saving inventions of modern times have not yet lessened the daily labour of mankind. The steam engine does the work of about one thousand millions of men—more men than are in the world—and this inconceivable addition to the world's working force has all occurred in ninety years; yet no man finds his day's work diminished by it. On the contrary, we work harder than we did ninety years ago, and hardest where there are the most steam engines. The farmer on our western

prairies, by the aid of the moving machine, gets in, in one week, a crop which his father could not have got in by working till the grain dropped over-ripe from the straw; and then he thrashes, in six hours, more than his father could have flailed out in a whole winter. But he works harder than his father did, winter and summer. Ladies have made the same remark upon the sewing machine; they can sew at a pace that would have made their grandmothers gape to see, but their sewing is never any nearer done than it was when they set every stitch by hand.

We believe it will be so to the end of the chapter. We do not believe that any possible development of invention will ever much lessen the amount of human toil. As long as the world stands, we think the world will daily require, for carrying on its business, its entire daily revenue of force.—*Mining Press.*

THE WONDERS OF THE UNIVERSE.—What assertion will make one believe that in one second of time—one beat of the pendulum of a clock—a ray of light travels over 155,000 miles, and would therefore perform the tour of the world in about the same time it requires to wink with our eyelids, and in much less time than a swift runner occupies in taking a single stride? What mortal can be made to believe, without demonstration, that the sun is over a million times larger than the earth, and so far from us that a cannon-ball shot directly towards it, and maintaining its full speed, would be twenty years in reaching it, yet the sun affects the earth appreciably, by its attraction, in an instant of time? Who would not ask for demonstration, when told that a gnat's wing, in its ordinary flight, beats many hundred times in a second? Or that there exists animated and regularly-organized beings many thousands of whose bodies laid together would not cover the space of an inch? But what are those to the astonishing truths which modern optical inquiries have disclosed, and which teach that every point of a medium through which a ray of light passes is affected with a succession of periodical movements regularly recurring at equal intervals no less than five hundred millions of millions of times in a single second; that it is by such movements, communicated to the nerves of the eye, that we are enabled to see; may more, that it is the difference in the frequency of these movements that enables us to appreciate the diversity of colour? That, for instance, in acquiring the sensation of redness, our eyes are affected four hundred and eighty-two millions of millions of times; of yellowness, five hundred and forty-two millions of millions of times; and of violet, seven hundred and seven millions of millions of times, per second? Do not such things sound more like the ravings of madmen than sober conclusions of people in their waking sense? They are, nevertheless, conclusions to which anyone may certainly arrive who will only beat the trouble of examining the chain of reasoning by which they have been obtained.—*Mark Lane Express.*

Poetry.

The Lessons of the Leaves.

How do the leaves grow
In spring upon their stem?
Oh, the sap swells up with a drop for all,
And that is life to them.

What do the leaves do
Through the long summer hours?
Oh, they make a home for the wandering bird,
And shelter the wild flowers.

How do the leaves fade
Beneath the autumn blast?
Oh, fairer they grow before they die,
Their brightest is their last.

We are like leaves, too,
O children, weak and small;
God knows each leaf of the forest shade,
He knows you each and all.

Never a leaf falls
Until its part is done;
God gives us grace like sap, and then
Some work to every one.

You must grow old, too,
Beneath the autumn sky;
But lovelier and brighter your lives may be,
Like leaves before they die.

Brighter with kind deeds,
With love to others given;
Till the leaf falls off from the autumn tree
And the spirit is in heaven.