Communications.

ON THE REGIONS OF THE NORTH,

In connexion with the causes now in activity in destroying the Animal and Vegetable Kingdom, or Animate and Inanimate Nature, from all that is well authenticated.

BY WILLIAM SMITH,
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TO MOSES H. GRINNELL, MERCHANT, NEW YORK.*

We will now prosecute our design of explaining the causes in activity in destroying the animal and vegetable kingdom. In these peaceful times, when the progress of events is slow, and the tumult of national war taking its rest for a time, the fall of a monarchy, the rise of a republic, laying the foundation of a mechanic's institute, for pouring the treasures of knowledge into the human mind, the changes in the moral and political world, the awful destruction of human life by war and pestilence, we survey with indifference the operations going on in the natural world, the various wonders that are presented to our view, both on the surface and in the interior of the earth, the majesty of mountains, with volcanoes blazing at their summits, sending forth vapours and torrents of liquid fires, and forcing up from below immense fragments of rock and indurated lava, overwhelming cities, spreading itself among the plains, carrying desolation and ruin in its train, and ingulphing the proudest monuments of man in the bosom of the earth, the inhabitants living in a state of stupid security, regardless of the wonders that surround them, and unmoved even by the dangers that, sooner or later, may overtake them.

The destructive epidemic which seized the potatoe in 1844, became general in 1845. This esculent is said to have been discovered in this hemisphere. In what way it was conveyed to the Old World, and remained sound and healthy for a long time, and constituted a principal part of the food of the human race, is somewhat strange. In vain did that celebrated traveller, Humboldt, look for the potatoe in its native state, when travelling in the new continent, on the Orinoco, the Rio Pure, the Rio Negro, and the Amazon, the Antilles, Terra Firma, the elevated plains of Mexico, and the more elevated regions of Peru. In the year 1818 or 19, Ruig and Domberg discovered the potatoe solanum tuberosum, in the valleys of Lima and Peru, in the immediate neighborhood of Chili, near the sea coast of the Pacific, not more than fourteen leagues from Lima. It is now said to be found at Montevideo. In its natural state it is small and bitter. One of the most interesting inquiries into the nature of the potatoe disease, took place in 1846, in England, by men of science. I shall transcribe it, with a little abridgement:

Mr Hogan read a communication which had appeared in a Continental journal, and in which it was recommended that the potatoe plant should be propagated by seed, as the best means of guarding against the disease.

Dr. Crook said that it had been satisfactorily proved that potatoes raised from seed were as liable to the disease as the plants raised from tubers. He considered the disease to be entirely owing to meteoric causes, and not to anything contained in the plant. It was supposed by some that the disease arose from the over-shallowness of the eyes, but he would not concur in that opinion, as it was known that some of the very best varieties were those having the shallowest eyes. He doubted extremely whether any plant had been properly acclimated. All that could be done was to produce new varieties from seeds, and these would unquestionably be better adapted for our climate than the originals would ever be.

Dr. Daubeny said the disease existed in America before it came over to this country. It appeared there in very different seasons, and in different parts of the Continent at the same time. He wished to hear from some gentlemen acquainted with the copper-furnaces of Swansea, whether it was true, as he had heard stated, that the disease had not made its appearance within the influence of the smoke there. It was said the disease was caused by fungi, but there was nothing to show whether the presence of these parasites might not be the effect and not the cause of the disease.

The Dean of Westminster said it appeared that the phenomena in the present year, 1846, were exactly the same as last year; that fungi existed in the diseased potatoes was an established fact, but it happened that the disease sometimes spread in a tuber so quickly that the fungi had not time to make their appearance. It was also a fact that the disease appeared in insulated spots in a field, just as the blight was known to affect fields of wheat in the most barren spots, and as the cholera attacked dissipated and diseased persons. He perceived one year, when the potatoe disease appeared, characterised by great drought, and another by extreme humidity; and the proposition he wished to establish was, that the extremes of climate, either of heat or cold, rendered the more delicate plants liable to the attacks of the fungi, the seeds of which were constantly floating through the atmosphere. He thought he could not recommend too strongly the importance of having the potatoes left in the ground for the regular time, and then dug in the dry days of autumn, and the affected tubers carefully separated and the sound ones spread under the sand. In his opinion it was not enough to have new seed, because the newest varieties had been attacked as generally as the oldest. He mentioned that on the lands of the Duke of Portland, where eighteen kinds of potatoes were all sound on the Saturday, every one of which had been attacked on the Monday evening following. Dr. Lindsey stated that he had brought home seed potatoes from Norway, where the disease had not made its appearance, and the sacks had only been lying for four days in the shop of Mr Lawson, seedsman, Edinburgh, when the disease was found to have appeared among them. It would appear that it was no use to import seed from foreign countries.

A member observed that a friend of his brought some potatoes from Mexico, and planted them in his lands in Warwickshire, and yet the crop which they produced were as much affected as any that grew around them.

Professor Playfair said the disease could be produced on a common plate in two hours, by mixing the gluten and starch of a scraped potatoe, as in that time the fungi made their appearance. He had the misfortune to be a potatoe commissioner, and after all his experiments in that capacity, he freely confessed he knew less about the disease than when he began his experiments. It was no use attempting to account for an affection of which they were entirely ignorant, by calling it a miasma, when they knew that it had existed for twenty years. He should rather inquire what had caused the disease to increase so much latterly. He got the stalks of his potatoes mowed down, and in a short time after he found the stumps of the stalks which remained in the ground, and which had been at the time green and sound, attacked by five different kinds of insects. He recommended pulling the stalks instead of mowing.

Mr Burk said he could not agree with Dr. Buckland, that the cholera did not attack all persons.

Mr Ogleby remarked that the disease in the potatoe plant did not make its appearance in Ireland last year until towards the end of October, whereas in the present year it appeared before the tubers were formed.

Dr. Solby said three or four causes of the disease had been suggested, the most important of which were the chemical and the fungus. His own impression was in favor of the former, but he should add that he became every day more dissatisfied on the entire subject. He thought that the fungus theory had lost ground latterly very materially. As to electricity being the cause of the disease, he felt very strongly against that also; and as to its being occasioned by frost, there were no facts to prove that such was the case. He feared they had got into a permanent disease, which could not be accounted for by any of the causes before known.

A member observed that potatoes in which the disease was only just appearing, presented no appearance of fungi. Another argument against the fungus theory was, that all the fungi found in the diseased tubers were not of the same species. As a proof that the disease was of external origin, he might mention that it first affected the epidermis, and then descended gradually into the interior. Another fact observed in diseased potatoes was the presence of cubical crystals.

Dr. Crook explained that his argument agreed with that of Dr. Buckland, that the fungi were the consequence and not the cause of the disease.

Professor Balfour stated that he had examined the potatoe plant carefully, and always found the fungus present. It should, however, be stated, that some form of bohyets attacked healthy plants, while others were only found in diseased kinds.

Dr. Lancaster said that the number of facts brought forward to substantiate any plan for remedying the potatoe disease, was quite insufficient. With regard to the cause of the potatoe disease, there had not been one theory borne out by evidence that would lead to its being adopted by a man of science. That it depended on atmospheric changes was assumed, but there was no proof of it, and there was only the coincidence of certain kinds of weather and the disease. That it arose from debility in the potatoe plant was also on assumption. No debility had been proved to exist. What were the symptoms of debility in a potatoe? That fungi were the cause had now been disproved by observation. He thought that it ought to go forth to the world that the only conclusion yet arrived at was negative, and the more they investigated the matter the more evident did it become that prevailing theories and remedial recommendations were founded on ignorance and assumption.

Had these men known how to connect the argument a priori with experience, their knowledge would have shone with scientific brightness. As the disease lies far beyond the reach of manual chemistry, where, then, are we to look for its cause? not in the doings of the atmosphere; not in dry or humid weather; not in the plant being properly acclimated; not in producing the disease on a plate in two hours, but in meteoric electricity and the millions and millions of atoms or molecules that constitute the principle of oxygen and light. It may not be improper to make a few remarks on what the two first great discoverers say concerning it, namely, Priestley and Lavoisier. The doctrine of phlogiston, published by the former in 1800, while in America, and in a great measure retired from Saience, he says—"having made the discovery of oxygen gas some time before I was at Paris in the year 1774, I mentioned it at the table of Lavoisier, when most of the philosophical people in the city were present, saying that it was a kind of air in which a candle burnt much better than in common air, but I had not given it a name; at this all the company, and M. and Madam Lavoisier as much as any, expressed great surprise. This occurred in 1774. In the next year, 1775, Lavoisier communicated to the Academy that having reduced red oxide of mercury in a retort, he obtained from it a peculiar kind of air, which maintained combustion better than common air, and which he considered to be an exceedingly pure portion of our atmosphere. The atmosphere is said to be a vast laboratory, in which nature constantly performs numberless processes of analysis, solution, precipitation, and combination is an immense recipient, in which all the attenuated and volatilized productions of terrestrial bodies are received, agitated, mingled, and combined or separated. Considered in this view, the atmospheric air is a chaos, an indeterminate mixture of mineral vapours, vegetable and animal molecules, seeds and eggs, through which the luminous, the calorific, and the electric fluids incessantly pass and repass in all directions, giving origin to aireal electricity, and meteors producing those beautiful coruscations in the Aurora Borealis.

To the Editor of the Gleaner.

Sir,—The Worthy Patriarch of Northumberland Division having thought proper to contradict some of the statements made in my former letters, I must, in justice to myself, trouble you once more; but I shall be as brief as possible, as this controversy must be as unpleasant to you, as it is "unprofitable to your general readers."

I would ask any unprejudiced person to read carefully the third paragraph of Mr Johnson's letter, wherein he attempts to prove that the narrative of the Pic Nic was drawn up by request of the *Division*. He there states that on the Friday evening following the Pic Nic, "it was *moved* in Division" that Filius should be a committee for that purpose; but at his own suggestion it was postponed for a week, until it was ascertained what notice would be taken of it in the Gleaner. And again—"on the Friday evening following, it was again *moved* that he be requested to prepare the narrative, when he stated that in consequence of the previous *motion, he had* written an account of the Pic Nic, and forthwith drew the article from his pocket, stating that he had *hurriedly* thrown together a few ideas (or words to that effect), said "few hurried ideas" occupying *only* two closely-printed columns of your paper. Now, according to the Worthy Patriarch's own showing, the matter was merely *moved* in; he does not make the most distant allusion to a *resolution*. The most careless reader will easily perceive the difference between a *motion* and a *resolution*, and indeed the ambiguity of the whole paragraph will be apparent. I stated in my letter of week before last, that I had no doubt Filius was requested to prepare the narrative by two or three persons, but I denied that he was appointed by the Division "in a formal manner," and that assertion has not been controverted.

If Filius was requested to write that article by resolution, why is it not recorded on the Minutes of the Division? why was it not read and submitted on the evening after it was passed, as customary? It is the duty of the Recording Scribe to "keep a fair and impartial record of the proceedings of the Division," I will therefore not recognise any act, or acknowledge any proceeding, not inserted in the minutes, and as that resolution is not so inserted, I still maintain I am correct. But for what purpose was such a motion made, I would ask? Had you, Mr Editor, not been in the habit of noticing every thing of the sort which occurred in the community, it would have been perfectly natural to make such a request; but as it is well known you never allow any public event to pass unnoticed, particularly anything in which the Sons of Temperance bear a part, such a course was, to say the least of it, very unusual, and leads to the supposition that something more was intended than met the eye.

Why was the resolution requesting the writer to publish the article not printed with his communication? *Did I think myself justified in using private conversation*, I could easily assign a reason!

That the "published resolution of the Division was laid before the Chair in the handwriting of, and signed by, the mover," I have no doubt, but I still assert my belief that it was not his production; and I am confident that every man of judgment who reads the resolution in question, and who may be acquainted with the parties, will arrive at the same conclusion. As to the "mover" of that resolution having been made a tool of, the public will be better able to judge when I inform them, that that gentleman made every motion, with one solitary exception, which came before the Division in this matter, and took a warm interest in the whole affair.

If "Truth in its strictest sense" is one of the things weekly urged upon each member of the Division, is it not somewhat singular that a person, while representing the Division as a member of a Committee, has been openly charged, time and again, with deception and falsehood, and up to this moment no notice whatever has been taken of it by the Division?

I will now leave the matter with the public, or with such portion of the community as may take any interest in the question at issue. I reiterate and re-assert every statement made by me; and am perfectly willing to abide by any punishment which the "cool reflections of my better judgment" may inflict upon me for any deviation from "Truth" of which I may have been guilty. I have no desire to enter into a controversy with the Worthy Patriarch. I believe that gentleman incapable of committing any act not sanctioned by "Truth, Virtue, and Honor" in their "strictest sense," and I think it fortunate for the Division that he is in the Chair at this time. For him I have a sincere respect and esteem, and did two or three others whom I could name, possess the same high sense of honour and gentlemanly feeling that he does, this controversy would not have arisen.

I shall not trouble you again on this subject, Mr Editor, come what may; and with many apologies for the uncomfortable position in which I have placed you, and others in your office, I beg to subscribe myself, a "*genuine*"

SON OF TEMPERANCE.

Miramichi, September 7, 1850.

*Continued.

Editor's Department.

MIRAMICHI:
CHATHAM, MONDAY, SEPTEMBER 9, 1850.

EUROPEAN NEWS.

Papers to the 24th August were obtained by us on Friday last. The news they furnish is not important. A few selections will be found under the proper head.

AN INDEPENDENT JOURNALIST.

Our American exchanges furnish us with the following incident. We would recommend it to the serious consideration of all such who fancy, that when they subscribe to a Newspaper, *they confer an especial favor on the publisher*; and when any article appears in his paper, bearing heavily on their "susceptibilities," or if in office, exposes a few derelictions of duty, imagine they manifest a proper spirit by writing to the publisher laconic epistles, requesting him to *stop their papers*. Very many such notes have we obtained in our day, and no doubt the parties were astonished to perceive the paper issued as usual on the following Tuesday, without manifesting some visible sign, that *such an important event had occurred during the week*.

Mr Langdon, Editor of the Mobile Advertiser, is also Mayor of that city. He recently made some remarks in opposition to a convention held at Nashville, when some of his political friends and *patrons* of his paper, undertook to dictate to him the opinions he should advocate, and to read him a lecture on the deference which should be paid by the Press to public opinion. He concludes his reply to their remonstrance, with the following spirited remarks:

"If the course of my paper is not approved, if the sentiments therein expressed are not such as my friends can sustain, they have a perfect right to express their disapprobation by withdrawing their patronage. If they think it is exerting a dangerous influence upon the public mind, or if it is not worth to them the price of subscription, let them discontinue it, but let them not insult me by an attempt to dictate the course I should pursue. I acknowledge no obligations to please any one but myself. If I cannot, in pleasing myself, satisfy enough of the public to keep me from starvation, I will abandon my newspaper and engage in some pursuit where a man's *opinions* will not interfere with his *bread*. I, as Editor, acknowledge no obligations to you. If you take my paper, you take it because you think it worth to you the price you pay for it. If you advertise, you do so to promote your own interest not mine. Whenever advertising ceases to be a source of profit to you, it is discontinued, and when the paper fails to interest you, you stop it. It is all a fair business transaction, and you have no more right to call in question the mode in which I think proper to transact my business than I should have to object to yours."

His "patrons" after receiving this lecture, must have felt their self-importance diminish considerably from their previous estimate of it.

THE TELEGRAPH TO QUEBEC.

The Quebec Mercury of the 22nd ult. contains the annexed paragraphs:

"A Meeting of the Stockholders of the British North American Electric Telegraph Association, will be held to-morrow in the House of Assembly, at 3 o'clock, to take into consideration the expediency of continuing or selling the line.

"It is hoped that there will be a numerous attendance of the stockholders, that something may at least be done to secure the accomplishment of a telegraph communication between Quebec and Halifax. From information afforded to us, the prospects of success for the company are much improved, by a recent change of feeling in New Brunswick and Nova Scotia, in the former Province especially. We have been told that if the Quebec Company will carry their line through from River du Loup to the Grand Falls, the New Brunswickers will meet them at that junction; and the line, once established, will furnish Reports over the Quebec wires at the same time of serving the Boston office. A gentleman from New Brunswick is now in town, on business connected with this extension, or rather deviation of the line, who, we understand, will be present at the meeting of tomorrow.