

known, though nothing else is known of this weaver than that he was the first to introduce the blanket manufacture in England.

ON THE REGIONS OF THE NORTH,

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

BY WILLIAM SMITH,
Shoemaker, Miramichi, New Brunswick.
TO MOSES H. GRINNELL, MERCHANT, NEW YORK.*

It is said by chemists that combustion and respiration are continually diminishing the quantity of oxygen contained in the atmosphere. If, therefore, the wise Author of our nature had not provided for its continual support or reproduction, the air must soon become unfit for the support of life. But, say they, Vegetables absorb water and carbonic acid gas, which substances they decompose, and appropriating the hydrogen of the former and the carbon of the latter to their nourishment, exhale the oxygen in a very pure state. Animals and vegetables, therefore, work the other, and by this admirable reciprocity the atmosphere is always kept sufficiently pure, and the equilibrium of its component parts constantly maintained. It was this production of oxygen by the green part of plants exposed to light, or apparently depending on the decomposition of carbonic acid, which gave rise to the opinion, almost universally maintained since the days of Priestley, that vegetables in all circumstances, were continually employed in purifying the air which had been deteriorated by the respiration of animals. Had not physiologists and chemists obviously satisfied themselves with contemplating at a distance the beauty of the final cause, whose existence it implied? Mr Davey says, I once suspected that all the carbonic acid gas produced by plants in the night, or shade, might be owing to some decay in some part of the leaf, or epidermis, and I found that a perfectly healthy plant of celery, in a given portion of air for a few hours only, occasioned a production of carbonic acid gas, and an absorption of oxygen.

In the experimental sciences, it is chiefly by the detection of each other's errors, that men of science arrive at the truth; for rarely indeed does it happen that human sagacity can at once foresee and appreciate all the possible circumstances in an experiment which may influence and control its result; there is therefore no cause to wonder that great philosophers did not discover those sources of fallacy which the more advanced state of science has alone enabled their successors to point out; and the reflection that apparently more correct views will in a short time be promulgated, that great writers have rested their views of the purification of the atmosphere by vegetation, not so much on observation and experiment, as what they conceived to be its necessity in the general economy of nature, and with more perhaps of piety than prudence, and certainly with a zeal not according to knowledge, have represented the contrary doctrine as derogatory to the wisdom of Providence, and a calumny against nature herself. It is indeed true, and among the most gratifying results in the pursuits of science, that every real step which is made in the knowledge of nature, serves to illustrate the skill and wisdom with which all its parts are contrived to advance the general purposes of the whole. But of this whole, it should be recollected, that we as yet see but a part, and as through a glass darkly. Hence, imperfect and erroneous views of the order of nature may be often taken, and false conclusions may be grounded on them, and were these conclusions afterwards announced as examples of Divine wisdom, and be allowed to borrow the authority of final causes for their support, the history of science abundantly testifies that the vainest conceits of fallible man may in time come to be worshipped as the institutions of unerring nature. It behoves us, therefore, to employ no ordinary portion of delicacy and caution in pronouncing on the general plans and purposes of Providence, from the little and partial views of nature which we at present are permitted to take, lest in the effervescence of our zeal we degrade the wisdom we pretend to exalt, and prevent the designs of the goodness we profess to revere. With respect also to the charge of calumniating nature, he surely who, by assiduous observation of the facts which she offers to his contemplation, seeks to discover the laws of their connection, and proposes his opinion of those laws as the simple result of his inquiries, may be regarded less as a calumniator than he who supplies the imperfection and deficiency in his facts by the suggestions of imagination, and confidently imposes upon nature, laws and conditions which she utterly disowns and disdains. In large towns and populous cities, where combustion and respiration are continually performed on a large scale, the air must be less pure than in the country, where there are few of these causes to contaminate the atmosphere, and where vegetables, at least during the summer months, are continually showing their beauty, and emitting their pleasing odours, while the air of large towns would soon become unfit for respiration. From the greater purity of the air in the country proceeds that rosy bloom found in the rural cottage, which we in vain look for in the stately palace or the splendid drawing-room. Large towns are the graves of the human species; they would perish in a few generations, if not constantly re-

*Continued.

cruited from the country. The confined putrid air which most of their inhabitants breathe—their want of natural exercise—but above all, their dissipation, shorten their lives, and ruin their constitutions.

In the year 1806, I left my natal spot to push my fortune in the great commercial City of Glasgow. When within 15 miles of that city, I observed a dark cloud right a-head. I asked the guard of the coach what the cloud could be; he replied that it was the smoke of the great city we were fast approaching. The enormous waste of fuel may be estimated by that cloud, which continually hangs over that city, and frequently overshadows the whole country far and wide. This dense cloud is certainly composed almost entirely of unconsumed coal, which, having stolen wings from the innumerable fires of the city, has escaped by the chimnies, and continues to sail about in the air till it loses the heat which gave it volatility. What a great difference must have taken place since that time. Its population is more than trebled. What must become of this vast quantity of azote? Is the atmosphere enabled to put it through a process of consumption? Azote may be divided into two classes—fixed and moving. Then it must proceed from moving and fixed combustion. Three times the quantity of fire must cause three times the quantity of gas, that is, from fixed combustion. The atmosphere has now to receive moving azote, along with a vast quantity of arterial effluvia. Now it is this moving azotic gas, along with volcanic azote, that proceeds from internal combustion, wrought into proper consumption by meteoric electricity, which adulterates the atmosphere to a terrible extent, along with eccentric azote, like a confirmed hue circulating through every vein or current of the atmosphere; we mean that kind of azote which proceeds from the field of battle. The following laws may be deduced from what has been said concerning combustion.

1. Combustion cannot take place without the presence of Oxygen.
2. In every instance of combustion there is an absorption of Oxygen.
3. In the products of combustion there is always an augmentation of weight equal to the quantity of Oxygen absorbed.
4. In every instance of combustion, light and heat are disengaged. The phenomena of combustion may be distinguished into three states; ignition, inflammation, and detonation. The first takes place when the combustible body is not in an eriform state, nor capable of assuming that state. The second is, when the combustible body in the form of vapour or gas, comes in contact with oxygen gas.

The third is a sudden inflammation which occasions a noise by the instantaneous formation of a vacuum. In the greatest number of instances in which detonation takes place, this phenomenon is produced by the combustion of hydrogen gas with oxygen. With regard to internal combustion: formerly earthquakes were caused by the struggles of giants, whom Jupiter had confined beneath huge mountains. After Jupiter's dethronement, earthquakes were produced by subterranean fires, which were confined within vast caverns. On the invention of gunpowder theorists new-modelled their machinery. Keith says earthquakes are caused by nitrous and sulphurous vapours enclosed in the earth, and accidentally ignited where there is no vent. But the query is, where does the oxygen get admission far into the interior of the earth? The process is thus explained:—the vapours may take fire by fermentation, or the collision of the rocks and stones in the hollow places of the earth. Gregory's Dictionary of arts and sciences, says, the sudden explosion that occurs from volcanoes, depends on the accumulation of a quantity of water which enters through some fissure connected with the sea; if the water is sufficient, it will extinguish the volcano, if not it will be converted into steam, the expansive power of which exceeds the force of gunpowder. Combustion itself, was formerly attributed to phlogiston, a very subtle and insensible agent. Phlogiston was so light that some bodies became heavier by losing it. Combustion is now performed by means of oxygen. When combustible bodies arrive at a certain temperature, oxygen loves to unite with them, and as it passes from the form of air to a fixed state, it liberates the calorick which distended it, and for which it no longer possesses any use. The calorick takes its departure and scatters all around and warms us in a cold day. Internal combustion or the influence which the interior of our planet exercises upon its external, envelope in the various stages of its refrigeration on account of the unequal aggregation in which its component substances occur, is at the present day in a very diminished condition; restricted to a small number of points, intermittent, simplified in its chemical effects, producing rocks, only round, small, circular apertures, or over longitudinal cracks of small extent, and manifesting its power at great distances only dynamically, by shaking the crust of our planet in linear directions, or in spaces which remain the same during a great number of ages. Previous to the existence of the human race, the action of the interior of the globe upon the solid crust which was increasing in volume, must have modified the temperature of the atmosphere, and rendered the whole surface capable of giving birth to those productions which ought to be considered as tropical. Since that time by the effect of the radiation and refrigeration of the exterior, the relations the earth to a central body, the sun, began to determine the diversity of latitudes.

According to Humboldt, it is a generally received opinion, that the Gulf of Carriaco, owes its existence to a rent of the continent

the remembrance of which was fresh in the minds of the natives at the time of Columbus's third voyage. In 1850 the coast of Paria and Cumana were agitated by shocks; and towards the end of the sixteenth century earthquakes and inundations very often occurred. On the 21st October, 1766, the city of Cumana was, entirely destroyed in the course of a few minutes. The earth opened in several parts in the Province, and omitted sulphurous waters. During the years of 1766 and '67, the inhabitants encamped in the streets, and they did not begin to rebuild their houses until the earthquakes took place only once in four weeks. These commotions had been preceded by a drought of fifteen months, and were accompanied and followed by torrents of rain.

It has long been believed at Cumana, Aca-pulca and Lima, that there exists a perceptible communication between earthquakes and the atmosphere which precede these phenomena. On the coast of New Andalusia, the people become uneasy when in exceedingly hot weather, and after long drought, the breeze suddenly ceases, and the sky, clear at the zenith, presents the appearance of a reddish vapour near the horizon. But these prognostics are very uncertain, and the evil has arrived in all kinds of weather.

Editor's Department.

MIRAMICHI:

CRATHAM, MONDAY, SEPTEMBER 16, 1850.

EUROPEAN NEWS.

The Mail Steamer Asia arrived at Halifax on Monday last, after a passage of 8½ days. It is said she would have been in on Sunday, had it not been for a violent storm.

Our papers are to the 31st of August, and we have taken therefrom some extracts.

EXPENSIVE LAW SUIT.—An exchange paper furnishes the following paragraph relative to the case between the Bishop of Exeter and Mr Gorham:—"The costs of both parties in this case would have been sufficient to build and endow 20 churches of the size of Bampfild Speke. Sir Fitzroy Kelly, M. P. alone, has had three separate retainers of 500 guineas each, besides consultation fees, which will bring up his share to nearly £2,000. It is stated in legal circles, that the whole costs are upwards of £80,000."

BRITISH WEST INDIA ISLANDS.—The London Morning Herald closes an article on the inconsistent policy pursued by the British Government in reference to the West Indies, with the following significant remarks:—

"Are we to insist on their relinquishing slave labour, and, at the same time, are we to pour slave labour into Brazil and Cuba? Are we deliberately to cut off the power of our colonists to earn their daily bread? If they prove to us, beyond all doubt, that without a moderate protective duty it is not more easy to supply us with sugar than it is for them to send their produce to the moon, are we still to deny their rightful claim, and still to shower our favours upon the slave owner, whose practices we proclaim abhorrent to Christianity and hateful in the sight of man? The question must be answered speedily one way or another. If we are content to be simply just, Mauritius and Jamaica may long continue appendages of the empire and subject to the authority of the Queen. If we resolve to perpetuate the misery of these unfortunate islands, no man in his senses can arrive at any other conclusion than that, in a very brief space of time, starving men will repudiate all connexion with the power that has worked their ruin, and will claim elsewhere the protection and aid to which they have a natural right, and which, most assuredly, they will instantly receive from nations more alive to the value of colonial connexion than Britain, in her latter-day madness, has proved herself to be."

AN EDITOR'S DIFFICULTIES.—The Editor of the St. John Morning News having opened his columns to anonymous communications from this quarter, has, it appears, speedily become tired of the experiment. At the bottom of the second one received, published in his last, he remarks:—

"We suppressed the name of the County, from which our correspondent made his charges, (because his letter came to us anonymously), so that no particular set of Overseers could feel themselves attacked, unless they were open to attack. It seems, however, that our present correspondent feels himself called upon to repel the aspersions—although his name is not given—and in justice to the anonymous County, we consider it to be our duty to publish the other side of the story, without knowing the name of any of the parties on either side. In future, however, we shall publish nothing from the country which makes open charges, unless the names of the authors are sent along with them; and we must also be referred to some person in this city who has a knowledge of the writers."

Our contemporary will sympathize with us, when we inform him we have had to deal

with similar communications for the last 25 years.

THE RAILROAD.—On the subject of the European and North American Railway—we take from late papers the following extracts:

"Should the Eastern Line be made and in successful operation, St. John instantly rises to the rank of a great city. * * * But as regards St. John, there will be no modification; every way she gains. On the one hand she intercepts the trade and traffic of Montreal and Quebec. On the other she finds access to the Gulf of St. Lawrence and its fisheries; to the navigation of the St. Lawrence; and to the traffic of her own fertile northern shores, Prince Edward Island and the adjacent countries. In her increase those western countries will find an improved market and thus receive reflected back a share of benefit from the Eastern Route.—Hon. Mr Johnston's Address to his Annapolis Constituents.—St. John Morning News.

"It needs no person from a distance to remind us of these things, and yet every opinion so expressed is welcome, and worth jotting. An object is sometimes best seen from a distance; and perhaps the advantages likely to accrue to this city, from the construction of the Great Eastern line, are better understood and appreciated in Nova Scotia, than by some of our leading men and capitalists; Hence the necessity of bringing every thing beneath their notice calculated to awaken them to a sense of duty. When we find men of capital—those most benefited—standing aloof at such a time as this; or at best giving but a negative assent to the importance of the great project—we are at a loss to understand their meaning, or to imagine what real good they can ever expect to derive from their lands and tenements if this city of Saint John continues to remain stationary and beggarly. There is an undefined something in their natures, which no mortal, not even themselves can account for. The books have been open for a week—some of our first men have been waited upon, and most of them have subscribed nobly and patriotically. Others however still want time for reflection. They are not yet prepared to do their duty, the consequence is the book remains blank, with the exception of the few names that were entered the two first days. Now, we do not speak discouragingly on this account; St. John will do her duty, as soon as the books are put into general circulation for signature, manure the lukewarmness of the wealthy few.

Will done Westmoreland!—We learn on good authority the sum of twenty thousand pounds will be subscribed in Westmoreland, towards the great Railroad—upwards of fifteen thousand having already been put down. Public meetings have been held in several parts of the county, and the utmost unanimity prevailed. A meeting is to be held in Dorchester in a day or two. A gentleman residing a few miles above Torryburn, informs us that he has conversed with many of the farmers on the road between St. John and Hampton, and they all express a willingness to grant a right of way for the railroad, through their properties—to say nothing of what else may be done in the way of taking stock. A Public Meeting is to be held in Sussex Vale immediately.

WHO IS GOVERNOR.—The Sherbrooke Gazette contains the following capital story:—

"Lord Elgin passes for the Governor General of Canada, but there are those who insinuate that another person has more to do in directing the affairs of Canada than His Excellency. An incident occurred at the dinner given by Lord Elgin to the members, during the recent session, touching this point, which is too good to be lost.

"After the cloth had been removed, and the wine began to circulate freely, the guests indulged in conversation, jokes, and story-telling, as inclination or humor prompted. Among other good stories, Mr Wilson, the member for London, related the following, intending to illustrate the peculiar characteristics of a New York Governor; but many of the guests thought the moral equally applicable, as the Almanac makers say, to the meridian of Canada.

Governor Seward, said Mr Wilson, was recently travelling by stage coach, in the northern part of New York, and the carriage being crowded his Excellency took a seat on the outside to enjoy the scenery, and to indulge in a chat with the driver, who was very intelligent and communicative, and, as the sequel proved, more than a match for the Governor in mother wit. The driver not knowing his companion entered freely into conversation, and his Excellency, laying aside his official dignity, chatted and joked on various topics, and was highly pleased with his ride. Just before arriving at the end of their journey for the day, the Governor wishing to surprise the driver, asked him if he knew with whom he had been joking?

"No," but I suppose you may be a lawyer, a Justice of the Peace, or perhaps a Member of Congress."

"No," said the Governor, "higher than that."

After several other ineffectual guesses, he was told that his companion was Governor Seward.

"You Governor Seward! Don't believe it!"

"It is true though," said the Governor, "I will bet you five dollars you ain't," said the driver.

"Done," said the Governor, "and we will