

# THE GLEANER:

AND NORTHUMBERLAND, KENT, GLOUCESTER AND RESTIGOUCHE  
COMMERCIAL AND AGRICULTURAL JOURNAL.

OLD SERIES]

*Nec aranturum sane textus ideo melior, quia ex se fila gignunt, nec noster vilior quia ex alienis libamus ut apes.*

[COMPRISED 13 VOLUMES

New Series, Vol. IX.

Miramichi, Monday Evening, December 23, 1850.

No. 9.

## Agricultural Journal.

### THE HUSBANDMAN'S MEDITATION IN THE FIELD.

With toilsome steps when I pursue,  
O'er breaking clouds the ploughshare's  
way,  
Lord teach my mental eye to view  
My native dissoluble clay.

And when with seed I strew the earth,  
To thee all praises let me give,  
Whose hand prepared me for the birth,  
Whose breath informed and bade me live.

Pleas'd, I behold the stately stem  
Support its bearded honor's load:  
Thus, Lord, sustained by thee, I came  
To manhood, through youth's dangerous  
road.

Purging from noxious herbs the grain,  
Oh! may I learn to purge my mind:  
From sin, rank weed of deepest stain,  
Nor leave one baneful root behind.

When blight destroys the opening ear,  
Life, thus replete with various woe,  
Warns me to shun, with studious care,  
Pride, my most latent deadly foe.

When harvest comes, the yellow crop  
Prone to the reaper's sickle yields;  
And I, beneath Death's scythe must drop,  
And soon or late forsake these fields,

When future crops in silent boards,  
Sleep for a while to service dead;  
Thy emblem this, Oh Grave! affords  
The path of life, which all must tread.

From Chambers's Edinburgh Journal.

### CHEMISTRY OF CREATION.

The carbonic acid formed in the air by respiration, putrefaction, and other processes, is considered to be the source of the carbon which forms the great bulk of plants. In fact the grandest trees of the forest derive their substance from the thin air. Mr Ellis describes several experiments which prove that plants draw their nourishment from carbon and then inquires whether the air can really be supposed to contain food enough for the whole vegetable world? Humboldt tells us that in some forests of America a monkey might run for a hundred miles upon the tops of the trees. Does, in fact, the atmosphere contain a sufficient amount of this element to account for the separation of so great a mass of it as exists in this single instance, not to take into consideration the entire vegetation of the rest of the globe? The carbonic acid of the atmosphere has been estimated at one thousandth of its whole weight. The entire weight of the atmosphere is known; and calculating upon it, it has been found that the entire weight of carbon contained at one time in the atmosphere is about three thousand and eighty five billions of pounds. Calculations have been made as to the actual demand upon the atmosphere for carbonic acid of the whole vegetation of the earth. If we suppose the actual surface covered by vegetation to be one-fifth of the entire area of our globe, that will give a space of two millions of square miles, or of 43,124 millions of acres. Let us suppose that each acre derives every year 2000 pounds of carbon from the air; then the whole annual necessities of the vegetable world in a year amount to about 300 billions of pounds of carbonic acid. How is this enormous annual drain to be supplied? Dr. Schleiden calculates that from tobacco smoking alone we have a supply of carbonic acid in a year equivalent to 1000 millions of pounds. He bases this odd calculation on the following grounds:—North America alone produces in a year enough tobacco, on its being burned, to yield the immense sum of 340 millions of pounds. The other tobacco growing districts supply the rest. Yet how insignificant does even this enormous sum appear compared to that which from combustion of fuel alone, escapes into the air! When it is remembered that from a number of other sources carbonic acid is discharged into the atmosphere, little

difficulty as to the existence and constant supply of a sufficiency of this gas in the atmosphere to account for all the wood upon the earth's surface will be experienced.

Although air gives the substance, light is essential to the life of a plant. The sunbeam has recently been divided into actinic, luminous, and calorific rays.

The actinic or chemical rays are indispensable to germination; under the influence of the luminous rays, a mantle of green over-spreads forest and field, and the woody tissue is formed while the calorific rays bring forth flowers and fruit. Thus spring, summer and autumn, enjoy each a peculiar influence from the sun: although probably in all the three processes of germination, growth, and fructification, the three forces are concerned, but in modified activity. Even during the day this distinction is observed, in the evening there being less actinic power than in the morning, and at noon more luminous and calorific power. These results are of entirely new discovery in science.

We have left ourselves little room for giving a notion of the contents of Part III., relating to the chemistry of the ocean, although it is not less interesting than the others. The quantity of saline matter differs in different seas, owing to the influence of evaporation removing a portion of the watery particles, and to the influx of fresh water from the land. But the quality differs, likewise, in different portions of the same mass of water, from the circumstance of sea water, in consequence of its saline contents, being more dense and heavy than fresh water. This is occasionally turned to some advantage by navigators; for it is found that, in calm weather, the fresh water overlies the salt, just as oil does in respect of water: by drawing water, therefore, from the surface, fresh water may be obtained; whereas, if the hose of the pump penetrates some feet down, it may encounter a stratum of salt water.

A highly interesting event, in connection with the chemistry of the waves, and important as illustrating their combined mechanical and chemical force, took place on the coast of Ballybunion in Ireland. The cliffs on this coast contain a large quantity of alum and iron pyrites; and being incessantly exposed to the violent action of the Atlantic billows, they become worn away into the most strange forms. Large caverns, natural bridges, and the resemblance of human architecture, abound on the sea coast, being produced by the unequal wasting away of the different strata. The roofs of these caverns are painted with various hues by the water percolating through the overlying strata, and carrying with it a solution of the mineral ingredients encountered in its passage. Streamlets also run down the side of the cliffs, staining them in ochreous colors, proving that the water contains iron, and probably other salts in solution.—These solutions are conveyed into the sea, and there undergo various decompositions in contact with the saline matter of sea water. Some years since, part of these cliffs assumed an appearance of a very extraordinary character: the waves by continual dashing, had worn and undermined the cliff, which, giving way, fell with tremendous violence into the sea; the consequence was, that several great strata of pyrites were exposed to the chemical influence of the air and sea water; rapid oxidation took place, eliminating such an intense heat, as very shortly to set the whole cliff on fire. For days the great rocks continued burning with great fierceness, torrents of steam and smoke rising up as the heavy billows of the Atlantic leapt upon the glowing masses, and at a distance presenting all the appearance of some violent volcanic disturbance. After the fresh substances, thus exposed, had become oxidised, the steaming cliff gradually cooled down; and now the slow and silent work of mechanical and chemical destruction is being carried on without

any external manifestation of its existence. The heat given out during this singular and grand chemical phenomenon was so great, as to convert masses of clay in its vicinity into red brick! while melted slags lie about, giving to the whole scene such an appearance as to render it a fit representation of the workshop of the mythological Cyclops.

Such are a few specimens of the interesting and amusing contents of a volume which will impart knowledge to the ignorant, while it recalls it in an agreeable manner to the learned.

## European News.

From *Wülmers & Smith's EUROPEAN TIMES*  
November 30.

### STATE OF THE COUNTRY.

OXFORD.

Yesterday week a meeting the clergy of the diocese of Oxford was called together by the bishop by circular, for the purpose of, as stated in the circular, protesting against the intended partitioning of England into dioceses by the Bishop of Rome. The Bishop of Oxford occupied the chair, and after some discussion, a protest against the proceedings of the Bishop of Rome was adopted.

### MEETING OF DISSENTERS IN LIVERPOOL.

On Tuesday a meeting of Dissenters, constituted principally of ministers of the various denominations of religionists, was held in the Institution-house, relative to the question on the present Papal aggression.

### THE FREE CHURCH OF SCOTLAND.

The quarterly meeting of the Commission of the General Assembly was held on Wednesday, in Edinburgh, the Rev. Dr. Paterson, of Glasgow, Moderator. Mr Tweedle laid on the table a short report from the committee on Popery. Dr. Candlish then, in a masterly speech, which was followed by addresses from Dr. Cunningham, Dr. Begg, Mr Nixon, Dr. Buchanan, Mr Sorley, and Dr. Beith, proposed a series of nine resolutions in which the Pope was denounced, as 'that Anti-christ that Man of Sin, and Son of Perdition, who exalteth himself in the Church against Christ, and all that is called God.' The next of the resolutions were in a corresponding strain.

### BIOGRAPHY OF DR. WISEMAN.

Cardinal Wiseman is now in his forty-ninth year, having been born on the 2nd of August, 1802. He is descended from an Irish family, long settled in Spain. At an early age he was brought to England, and sent for his education to St. Cuthbert's Catholic College, at Usham, near Durham. At the age of eighteen he published in Latin a work on the Oriental languages, and he bore off the gold medal at every competition of the colleges of Rome. The cardinal came to England after he had reached manhood in 1833, and in the winter of that year delivered a series of lectures on the Sundays in Advent. From the moment of his arrival he attracted attention, and soon became a conspicuous teacher and writer on the side of the Catholics. In Lent, 1836, he vindicated, in a course of lectures—delivered at St. Mary's Moorfields—the doctrines of the Roman Catholic Church; and gave so much satisfaction to his co-religionists that they presented him with a gold medal, struck by Mr Scipio Cluitt, to express their esteem and gratitude, and commemorate the event. He was afterwards appointed President of St. Mary's College, Oscott, and contributed by his teaching and writings very much to promote the spread of Roman Catholicism in England. He was a contributor to the *Dublin Review*, and the author of some controversial pamphlets. The cardinal's second visit to Rome led to further preferment. He was made Pro-Vicar Apostolic of the London district, in place of Dr. Griffiths, deceased. On the death of Dr. Walsh, in 1849, he became Vicar

Apostolic of the London district. To him the Roman Catholic body acknowledges itself indebted for the completion and dedication of the Cathedral in St. George's-fields. His success in negotiating the re-establishment of the Roman hierarchy in England gratified his Holiness. In a Consistory held on the 30th of September, Nicolas Wiseman was elected to the dignity of cardinal, by the title of Saint Prudentia, and was appointed Archbishop of Westminster. Under the Pope he is the head of the Roman Catholic Church in England, and a Prince of the Church of Rome. Cardinal Wiseman is the seventh English cardinal—if he can be called English, having been born in Spain, and passed the greater portion of his life in Rome—since the Reformation. The other six were Pole, Allen, Howard, York (a son of the Pretender, who was never in England), Weld, and Acton (a member of an English family, we believe, long settled in Naples).

### OPINIONS OF A CATHOLIC PEER.

Lord Beaumont, a distinguished Roman Catholic Peer, has addressed the following letter to the Earl of Zetland, in connection with the late county meeting at York:—

'Dublin, Nov. 20, 1850,

'My dear Lord Zetland,—I perceive that the newspapers have announced the intention of the High Sheriff to call a public meeting to consider the propriety of addressing the Crown on the subject of the late insult offered to this country by the Court of Rome; and I learn from the same sources of information that the step on the part of the High Sheriff has been taken in consequence of a requisition signed by nearly all the resident peers in Yorkshire. It is a matter not only of no surprise, but of no regret to me, that such a proceeding should be adopted by the country, for the acts in question are of quite as much political and social importance as of religious and sectarian character. The Pope by his ill-advised measures, has placed the Roman Catholics in this country in a position where they must either break with Rome, or violate their allegiance to the constitution of these realms: they must either consider the Papal bull as null and void, or assert the right of a foreign prince to create by his sovereign authority English titles and to erect English bishoprics. To send a bishop of Beverley for the spiritual direction of the Roman Catholic Clergy in Yorkshire, and to create a see of Beverley, are two very different things—the one is allowed by the tolerant laws of the country; the other requires territorial dominion and sovereign power within the country. If you deny that this country is a fief of Rome, and that the Pontiff has any dominion over it, you deny his power to create a territorial see, and you condemn the late bull as 'sound and fury signifying nothing.' If on the contrary you admit his power to raise Westminster into an archbishopric and Beverley into a bishopric, you make over to the Pope a power which according to the constitution, rests solely with the Queen and her Parliament, and thereby infringe the prerogative of the one and interfere with the authority of the other. It is impossible to act up to the spirit of the British constitution, and at the same time to acknowledge the jurisdiction of the Pope in legal matters. Such is the dilemma in which the lately published bull places the English Roman Catholic. I am not, however, sufficiently acquainted with their views on the subject, or their intentions, respecting it, to give any opinion as to the effect this newly assumed authority of Rome will have upon their conduct; but I am inclined to believe that the *Tablet* and *L'Univers* newspapers speak the sentiments of the zealous portions of the Roman Catholic community, and that they are the real, if not the avowed organs of priest-hood. The Church of Rome admits of no moderate party among the laity; moderation in respect to her ordinances is lukewarm-