

HURON SIGNAL.

"THE GREATEST POSSIBLE GOOD TO THE GREATEST POSSIBLE NUMBER"

TWELVE AND SIX PENCE AT THE END OF THE YEAR.

VOLUME III.

GODERICH, COUNTY OF HURON, (C. W.) THURSDAY, JANUARY 2, 1851.

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The Huron Signal.

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Poetry.

SONG OF THE ELECTRIC TELEGRAPH

BY E. L. BARNARD.

Away where the sunlight is brightening,

Awake in its last beams expire,

I moved with the flash of the lightning,

I fly on the wings of the wind.

By me are earth's barriers riven;

By me are its boundaries spread;

A word—and the impulse is given,

A word—and the mission is sped.

Hush! 'tis the best conjuration

That Science, the wizard has done!

Through me swift notes are sent,

And all are united in one.

In silence I stealthily travel,

Unseen, unheard, and unthought;

For not till my agents unravel

My secret, in whisper'd words.

Through darkness and daylight unheeding,

I glide on my errand unceasing.

To deep-throated hearts ever speeding

My tidings of gladness or woe.

Ere the voice of the echo had spoken—

Ere thought could recall from its birth—

My links of my path were unbroken,

My flight would encompass the earth.

From the bright star that gleams far above us,

Flashed onward through measureless space,

A welcome from voices that love us,

My own in a second would trace.

Oh! I would that some kindred commission

To men we could give to impart

To a band of such magical union

Might link every heart unto heart!

Not a tear that we seek to smother

From the eyes of the sorrowing;

Not a joy that the heart of another

Would thrill with the bliss that it shared.

We need not, should fate give denial,

This fanciful dream wholly spare;

Let sympathy touch the dial,

Let us sympathize with each other.

No wish need be kept unpaired,

Or lost as on selfishness driven,

But each on the heart as it throbs,

Would find a response in ours.

Oh! let us take the world and prepare it,

As swift to respond as receive;

Let us hear but of sorrow to share it,

And know but the want to relieve!

ATTEMPT AT ASSASSINATION BY A WOMAN.

The Tipperary indicator contains the following extraordinary statement:—

A young woman named Dwyer, sister of William Dwyer, who was transported for sheep-stealing at Charles Quarter Sessions, was on Friday evening to the house of the principal witness on the trial, and on meeting him pulled a pistol out of her breast and fired. The shot fortunately only slightly grazed the arm of the amazon's intended victim, and she effected her escape. Search was made at her house by the Tipperary police on hearing of the outrage, but she had taken to the hills, and though a rigid pursuit was instituted she succeeded up to Monday in eluding all attempts to arrest her. On Monday morning, however, the subject Nolan rode out to her brother's farm, and was fortunate enough to find the object of his search asleep (having been out all night) and unarmed. She was taken prisoner, and in the course of the day was placed in the bridewell of Templemore. Her brother was a comfortable farmer, and herself a well-to-do widow, and a young man in the neighborhood to whom she was shortly to be married, her brother giving her a dowry of £100.

A FRENCH TAQDRY.—Great sensation has been caused in the department of the Charante by the arrest of the Countess du St-Germain on the charge of having poisoned the servant of the latter, in order to prevent her from revealing the adulterous connection which existed between them. The body of the servant, which the cure had caused to be buried with great haste, has been dug up, poison discovered in it. When the Countess du St-Germain was brought to trial, she was a highly respectable and highly honorable man, heard of the horrible accusation against his wife, proposed to her that she should both commit suicide, and should make their child aged eight, die with them. The Countess consented. A pan of charcoal was lighted, and the three fastened themselves in a closed room. When however, the father saw his son struggling in the agonies of death, his courage failed him and he broke the window for air. Medical assistance having been promptly afforded, all three recovered. The Countess and her clerical paramour were lodged in the goal of Angouleme, to await their trial for the alleged murder.—*Gallant's Messenger.*

LONDON MISTAKE.—A Chinaman in a parish church not one hundred miles from Poole, England, having put a notice into the clerk's hand, stating that the service would be future morning and evening, and that he would attend alternately, the honest Rector interpreted it, and said that the service would be "all eternity."

AGRICULTURE.

LECTURES ON AGRICULTURAL CHEMISTRY.

BY HENRY TODD HIND.

THE SOIL.—The uniform constitution of the atmosphere differs widely from the heterogeneous mixture we meet with in soils, which are as variously compounded as the rocks upon which they repose.

The elements forming common air are few in number, and simple in character. The substances we find in soils are frequently numerous, and often complex in their constitution. All soils spring originally from the disintegration and decomposition of solid rock; the agents most active in effecting these changes are water, temperature air, and vegetables themselves. Various bodies are found in soils which do not enter into the composition of vegetables. In an elementary view of Agricultural Chemistry, we do not require to consider their properties, without their present effects such a change in the relations of the soil to temperature and moisture as seriously to affect the growth of vegetables. It is sufficient for our present purpose if we consider the relation to vegetable life, of certain ingredients which necessarily enter into their composition, and invariably form part of fertile soils.

The transmission of water through the roots and stems of vegetables, and its final escape at the leaf, furnish us with the remarkable mode in which dissolved solids are conveyed into their interior, and made to assist in the formation of their different organs. These solids are nine or ten in number, and are named respectively,

1. SULPHUR; 2. PHOSPHORUS; 3. POTASH; 4. SODA; 5. LIME; 6. MAGNESIA; 7. IRON; 8. FLINT; 9. CHLORINE; 10. IODINE.

Water possesses the property of dissolving quantities of these bodies, either directly or indirectly: all, with the exception of iodine are required by all plants, and they constitute what is termed the 'Ash,' when vegetable substances are burned in the open air.

The quality of ash found, in cultivated vegetables varies remarkably with the nature of the soil, and the species under examination. It is evident that every fertile soil contains the constituents of ash in abundance, also in such a state, that enough for the wants of the growing crop, are soluble in water, in order that they may be conveyed into the interior of the vegetable.

The waters of rivers, springs and wells always contain a small quantity of various solids in a state of solution. By washing a soil repeatedly with pure rain water, we find that each time of washing the quantity of some of the substances dissolved is diminished, until, at length, no portion is taken up. It is evident that a large supply of soluble substances, cannot exist in ordinary soils, exposed to rain, snow, and dew. Every little stream is bearing its load of dissolved materials, to that great storehouse and depository, the Sea. The continual actions of rains washing out the soluble portions, and either conveying them altogether away, or transporting them into the subsoil below, coupled with repeated cropping without the return of one particle in the form of manure, must, in the long run of years, render the most fertile soil destitute of soluble mineral substances, and consequently unfruitful. The quantity yearly abstracted by these means may be perfectly insignificant compared with the abundant store remaining behind—that small quantity, nevertheless, is of vital importance, for, although there may be thousands of tons of sulphur, potash, soda, &c., present in the soil, yet if no portion is soluble in water, the soil, with reference to immediate agricultural purposes, is absolutely barren. The fertility of such a soil can be restored by the hand of time; and its restoration can be accelerated by those means which science suggests, and experience approves, for giving solubility to as much as will satisfy the imperative demands of growing crops.

The analysis of a good crop of wheat will exhibit the quantity of solid ingredients abstracted from the soil during its growth, and conveyed away in the straw and grain. A crop of twenty-five bushels to the acre, contains about 300 lbs of solid mineral ingredients; and average crop of clover from 250 to 300 lbs. of solid mineral ingredients.

These quantities appear to be small, but when we consider that in many parts of this Province, little return is made in the form of manure, that crop after crop of the same kind of vegetable is often grown for years together, and that rains are continually washing out, and streams and rivers bearing to the sea, the soluble ingredients of the soil—when we associate these considerations with the circumstance, that it requires many months and even years for temperature, moisture and air, to render soluble in water a sufficient quantity of each particular kind of ingredient required by growing crops, we can not be surprised that complaints are made of diminishing scales of produce.

SULPHUR.—Certain organs or parts of plants require for their formation a small amount of sulphur. It is of no importance to know, at present, the name and disposition of those organs; the bare fact that the presence of sulphur is absolutely necessary will determine the agriculturist in investigating the subject.

In 1000 lbs of the ash of wheat there were found 12 lbs sulphur.

do do do wheat straw 40 " "

do do do oat straw 40 " "

do do do Hay 151 " "

do do do Yetch 170 " "

do do do Peas 171 " "

These numbers vary slightly with the nature of the soil they serve, however to show the kind of plants which require much sulphur, to which may be added hops, asparagus, sugar cane, grape, black and white mustard, turnips, tobacco, &c.—Wheat, barley, rye and Indian corn, require comparatively little sulphur. The most common and widely extended source of sulphur in soils, is doubtless gypsum or sulphate of lime, (sulphuric acid or oil of vitriol, combined with lime.) A barrel of gypsum contains about 33 lbs. of sulphur and 116 lbs. of lime the remaining portion consisting of oxygen. Gypsum is slightly soluble in water; its effects when spread upon the land, are greatly increased by mixing with it an equal quantity of common salt before sowing. The quantity of sulphur, annually taken from the soil in Canada is enormous. A very insignificant portion ever finds its way back to the soil, on account of its being bound up in those materials which rarely swell the manure heap. This useful substance is found in considerable quantities in the wool of sheep, in the hair and skin of animals generally, it is also invariably met with in urine.

In 1848, Canada exported 3,500,000 bushels of wheat, which contained of sulphur alone, no less than 252,000 lbs. in the same year she raised 2,339,746 lbs. of wool, which with the wasted urine, &c., contained at least an equal amount, making a total of half a million pounds of sulphur, abstracted from the soil, without the possibility of one particle being returned to it from those sources, in the form of manure.

PHOSPHORUS.—Phosphorus is found in the seeds of most vegetables, especially those cultivated for food. A very large quantity is annually taken from the soil.—In 1847-8 Canada exported in the grain of wheat not less than 733,500 lbs.

When phosphorus is burned in the air, it emits a very copious volume of white smoke, which consists of phosphorus, combined with oxygen. The white smoke may be collected and dissolved in water. It has a sour taste, is therefore an acid, and is named phosphoric acid. Now, when lime, potash, soda, magnesia, iron, &c., come in contact with phosphoric acid, a union takes place and a number of new bodies are formed, which all go by the general designation of phosphates; thus a compound of phosphoric acid and iron phosphate of iron, &c., &c.

Phosphoric Acid is always found in very minute quantities in primitive rocks, when sought for. Its detection is frequently a matter of some difficulty: it exists in all soils, often however, in a state very insoluble in water, and it is one of those bodies, which like sulphur, do not, under ordinary circumstances find their way to the manure heap. Phosphorus is found in many parts of the animal frame, especially in the bones. England imports annually very large quantities of bones for the purposes of manure. The bones are either crushed or dissolved in sulphuric acid, and applied to the soil, in order to restore a small portion of the phosphorus which, during centuries of cultivation, has been washed away by rains or abstracted by crops. So far back as 1837, England imported 40,000 tons of bones, having a value of 600,000 dollars.

Since that period a great increase has taken place in the trade, so much so, that many large vessels are now employed in conveying from South and North America, and from various parts of Europe, the bones of animals to fertilize the fields of England. No grain crops can succeed in a soil destitute of a supply of soluble phosphates; and one pound of bones contains as much phosphorus as is required by one hundred pounds of wheat. At the lowest calculation enough phosphorus was exported from Canada in the year 1847-8 to build up the bony framework or skeleton, of sixty thousand full grown men. Every good cow in one year abstracts from the soil, as much phosphorus as is contained in 80-100 lbs of bones, much of which enters into the composition of milk, and the remainder is lost in the urine, (see urine.) Pure phosphate of lime, (the substance which gives strength to the bones) is found in many parts of Canada, in certain rocks. The time may not be far distant when it will be profitable to collect and grind it for agricultural purposes.

[To be continued.]

TOO WILLING BY HALF.

BY THE YOUNG 'UN

Many of our readers will recognize the point of the following joke, which we heard related "long time ago," but which we never saw in print. It is a "good 'un," and will bear re-telling.

While General Jackson was President of the United States, he was tormented day after day by importunate visitors, (as most Chief Magistrates of this "great country" are) whom he did not care to see—and in consequence, he gave strict directions to the messenger at his door to admit only certain persons, on a particular day, when he was busier with State affairs than usual.

In spite of this peremptory order, however the attendant bolted into his apartment, during the forenoon, and informed the General that a person was outside whom he could not control, and who claimed to see him—orders or no orders.

"By the Eternal!" exclaimed the old man nervously, "I won't submit to this annoyance. Who is it?"

"Don't know, Sir."

"Don't know! What's his name?"

"His name! Beg pardon, sir—it's a woman."

"A woman! Show her in, James; show her in," said the President wiping his face; and the next moment, there entered the General's apartment, a neatly clad female of past the "middle age," who advanced courteously towards the old man, and accepted the chair he proffered her.

"Be seated, Madam," he said.

"Thank you," responded the lady, throwing aside her veil, and revealing a handsome face to her entertainer.

"My mission hither, to day, General," continued the fair speaker, "is a novel one, and you cannot aid me, perhaps."

"Madam," said the General, "command me."

"You are very kind, Sir. I am a poor woman, General—"

"Poverty is no crime, Madam."

"No Sir. But I have a little family to care for—I am a widow, Sir; and a clerk employed in one of the departments of your administration, is indebted to me for board, to a considerable amount, which I cannot collect. I need the money, and I come to ask if a portion of his pay cannot be stopped from time to time, until this claim of mine—an honest one, General, which he had the full value—shall be cancelled."

"I really—Madam—that is, I have no control in that way—how much is the bill?"

"Seventy dollars, Sir; here it is."

"Exactly! I see. And his salary, Madam?"

"It is paid to be \$1,200 a year."

"And not say his board bill?"

"As you see, Sir—this has been standing five months unpaid. Three days hence he will draw his monthly pay; and I thought, if you would be kind enough to—"

"Yes, I have it. Go to him again and get his note, to-day at thirty days."

"His note, Sir! It wouldn't be worth the paper on which it was written; he pays me no one a dollar, voluntarily."

"But he will give his note—will he not, Madam?"

"Oh, yes—he would be glad to have a receipt in that way for a month, no doubt?"

"That's right, then. Go to him, obtain his note, at thirty days from to-day, give him a receipt in full, and come to me, this evening."

The lady departed, called upon the young clerk, dunned him for the amount—at which he only smiled—and finally, asked him to give her his note for it.

"To be sure," said he, "give a note—"

"And much good may it do you, mum."

"You'll pay it when it falls due, won't you Sir—thirty days hence."

"O yes—sir's, of course I will; I always pay my notes, mum, I do!"

"Take this to the Bank to-morrow morning, Madam, and you can get the money for it," he said, hurriedly.

The lady acted accordingly, and found no difficulty in obtaining cash for it at sight.

A week before that month's termination, Mr. John Smith received a notice to the following effect:

BANK OF WASHINGTON.—1832.

Sir,—Your note is due on the 27th inst., at this Bank, and you are requested to call and pay the same.

Cashier.

"Ha, ha!" screamed John, upon reading this brief note. "A capital joke, that!—Can't come to man—can't no how! Scarecrow—left for collection—I understand—won't do—no go!" and John very soon forgot it.

But "pay day" come round again—and John took his monthly stipend once more \$100, from the Cashier of the department as usual. As he passed down the avenue the unpaid board bill suddenly entered his head.

"Who the duce has been fool enough to help the old 'oman, in this business, I wonder?" said John to himself. "Gad! I'll go and see. It's all a hum, I know; but I'll like to know if she has really fooled anybody with that bit of paper;" and entering the Bank he asked for the note, "left there for collection against him."

"Discounted! why who in the world will discount my note?" said John, amazed.

"Anybody, with such a backer as you've got on this."

"Backer! Me—backer, who?"

"Here's the note; you can see," said the Teller, handing him the document—on which John instantly recognized the bold signature of the then President of the United States!

"Sold—by Moses!" exclaimed John, drawing forth the money, with a hysteric grasp—for he saw through the management at a glance.

The note was paid, of course, and justice was awarded to the spendthrift, at once.

On the next morning, he found upon his desk a note which contained the following entertaining bit of personal intelligence.

To JOHN SMITH, Esq.,

Sir,—A change having been made in your office, I am directed by the President to inform you that your services will not be required by this Department.

Yours, &c.,

Secretary.

John Smith retired to private life at once, and thenceforward found it convenient to live on a much smaller allowance, than twelve hundred a year!

"MUMMERIES" OF THE ESTABLISHED ROMAN CATHOLIC CHURCH OF ENGLAND.

Perhaps, after reading the following article from the *Morning Herald* of Tuesday the 27th inst., you will not be much surprised at the "presumption" and "blunder" of the Roman Pontiff.—

The engrossing question at the present moment is what the bishops mean to do?—The people look to them for some practical measures in aid of the Reformation. But what do we see no signs of activity in this direction. On Sunday morning, the popular impatience showed itself at St. Barnabas Church, Pimlico, in a manner which was so alarming as to lead to a closing of the church in the evening. The bishop, stated, in his recent charge, that he had given many admonitions but that these were unheeded. Is there no remedy, then? If it shall really appear that the bishop has no power in this case, the people will soon begin to exclaim, "What then, is Episcopacy, and why contend for it?"

If the Bishop of London, were to visit some of the Tractarian churches, and to gain a personal knowledge of the practices there carried on, he would observe such things as these:—The service, not read, but intoned—a sort of singing—reading, which is unintelligible to the hearers. And this frequently with the minister's back turned to the people, as if purposely to prevent their hearing. The service is often carried on in a deep sometimes an enclosed chancel—as so to be away from the people and so to be little likely as possible to reach their ears. Instead of one distinct reader of the service, the duty is often divided among three or four, who march about now here, now there, so as to puzzle the spectators as to what they are all doing.—In some churches the Lord's supper, called by them "The Blessed Sacrament," is offered up every morning; exactly agreeable with the mass in the Romish Church. In administering in it the officiating clergy closely imitate the Romish forms. They kneel, two or three at a time with their backs to the altar, and their faces to the altar, while a great deal of music is performed. The sign of the cross is often made.—After administering the sacrament they drain out the cup, like the Romish priest, by throwing it quite up reversed; and then pour their fingers round the chalice, and such like! The Book of common Prayer furnishes two or three collects, to be used with the Lord's Prayer, by the preacher, immediately before the sermon. Our readers have doubtless often heard the Bishop of London so preface his sermon. Any other mode was regarded as an innovation, an irregularity. But now through these gentlemen are great sticklers for the rubric, when it suits them, they have altogether deserted it in this matter. They enter the pulpit, and after a short private prayer, they open with the Romish form—"In the name of the Father, and of the Son, and of the Holy Ghost," and then at once begin their sermon. Preparatory to the reception of the Communion, they intonate the necessity of confession. A considerable number of young females are now in the habit of going to the principal Tractarian ministers, to confess and receive absolution. Sometimes these confessions have been known to last for hours, and the poor young women have exhausted by the long process of exami-

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