

[From the Scientific American.]  
**EDUCATED FARMERS.**

If we were asked to point out any special fact as denoting beyond all others our rapid progress in knowledge and in civilization, we should select the strong tendency everywhere manifest to abolish empiricism in all pursuits of life. It is not very long ago that the physician administered his remedies blindly, and knew less of the functions of the heart than does his modern descendant of the spleen and gall bladder. Meteorology, most fickle of all sciences, based as it is on the most changeable of all things, the weather, has within a very few years made marvellous strides; and we are certainly advancing to a point where it will be as easy to foretell the rain and storm of tomorrow as to remember the fine weather of yesterday. Even cookery is no longer to be the science in which unscrupulously compounded ingredients, under constant varying conditions, are supposed by some pleasant fiction to yield invariable results, for has not a college been endowed, to educate our future chefs de cuisine? Thumb rules in every trade are now sought by intelligent workmen. The world has shaped itself into a gigantic point of interrogation: "why" is the question of the hour, and faith in things earthly is confined only to those who, like the deluded partisans of Keely and others of his ilk, mistake ignorance of that which is possible for belief in that which is not.

Of all the sciences, none within recent years has so quickly emancipated itself from the fogs of empirical conjecture as that of agriculture. Up to the end of the last century even, people believed that air, water, oil, and salts were the sources of plant nutrition. Wallace, Berzoni, Paley, Davy, De Saussure, and Sprengel contributed discovery after discovery, investigation after investigation, but their work was scattered and little known outside their laboratories. It was reserved for the genius of Liebig to unite all these fragments of truth; but it was not until 1840 that he produced his great work "Chemistry in its Application to Agriculture and Physiology," and thus gathered in concrete form the materials which are the basis of a new great and rapidly growing science. It is hard to realize that agricultural chemistry has found its application for but 25 years, so clearly are its benefits before us in tangible form. But on the other hand, this only serves to indicate to us how vast must be the results yet to come, when agriculture through the instrumentality of its knowledge, shall have become in its turn as exact as its sister sciences, and as susceptible of being taught and learnt in the same manner as they. And to attain this much desired end, our schools and colleges, under the guidance of far-seeing men, are doing splendid work.

The youngest of our universities, Cornell, established an agricultural department three years ago, under the charge of Professor Roberts, the farm consisting of 150 acres, in not over good condition. Upon this tract of land the whole science of raising crops, as well as the business of managing a farm, is taught with a thoroughness which we doubt has ever been exceeded. Eighteen square rods of clover, for instance, are set apart for eighteen different modes of treatment with fertilizers. In the experiments with corn, three rows of each kind, or of each mode of manuring, or of the different modes of management in other respects, extend across the field. There are also experimental strips of oats and wheat; and thus every method of cultivation of all the farm products incident to our climate is practised directly before the student, who is required personally to perform the labor necessary in connection therewith. The results of the experiments are carefully recorded and stored away until sufficient shall have been gathered, over a number of seasons, to justify the determination of accurate averages.

Besides this, the students are taught a complete system of accounts. Every hour of labor hired, every product of farm sold, is minutely registered. The food which live stock consumes is recorded on one side and balanced yearly by the market value estimated by a skilled butcher. So that, in this way, the gains or losses, not only of the farm as a whole, but of every branch, are known with the utmost accuracy. Every student is required to become proficient in this account keeping. Each keeps his books separately, and determines estimated values; and as he may sell his own labor to the farm, outside the time required of him, which is but two hours and a half for two days of the week, he is directly interested in the task. Besides the farm, there is a garden of six acres conducted under the same admirable system; and in addition, lectures on practical agriculture are given four times weekly by Professor Roberts. The Country Gentleman, to which we are indebted for these facts, states that the number of agricultural students is still too small, so that there seems to be abundant opportunity for all who may desire to acquire a thorough and most valuable education. Certain it is that such instruction is most urgently needed in this country. It has become too much the fashion for young men to crowd into the great cities, and there to eke out lives behind desks and counters which should be spent in developing the vast resources of the thousands of square miles where, in the richest soil on earth awaits the plowshare. In the Centennial Exposition are exhibited actual glass-enclosed sections of prairie soil with the black uncultivated loam extending downwards far below the reach of the deepest

furrow. Go look at the superb exhibit in Agricultural Hall, and think of the possibilities which educated farmers cultivating such land might accomplish. Think of it, stalwart young men, who meditate coming into the city after the present harvest is garnered, to find work where there is none to be had. Expend your labor and means at Cornell, Amherst, Dartmouth, and other like colleges, and obtain such an education as we have described; then, "go West," pre-empt your land, and start on the high road to independence and ultimate fortune.

**SAINT ANDREWS, SEPT. 27, 1876.**

**The News in Brief.**

The Eastern question is still unsettled. The Porte is throwing difficulties in the way of an armistice; the great Powers however demand the conclusion of the armistice. In the meantime large public meetings are being held in England for the purpose of compelling the Government to insist upon the punishment of bloodthirsty Turks who committed such barbarous and inhuman treatment of the Bulgarians.

The great explosion at Hell Gate, New York took place on Sunday afternoon, and was successful. No damage was done to any building or person. It is supposed that the obstacle to navigation has been removed. The operation was witnessed by 20,000 people, and the results from soundings are to be made this week. The next operation will be the removal of the loose rock by dredging.

Lord Carnarvon has transmitted a despatch to the Governor General, in which he states that the Queen will not be advised to disallow the Supreme Court and Court of Exchequer Act. This leaves the Act in force.

The Drinking Prohibitory Act is being carried in several counties in Ontario. Prohibition appears to be the order of the day.

The Bank of Montreal has given notice that it will issue Letters of Credit to travellers going to any place on the globe.

C. H. Pozier has been gazetted to the Senate. He formerly represented Beauce.

Crime of every description, appears to be on the increase in Ontario and Quebec.

Cattle and Poultry are being shipped in large quantities to Great Britain; the trade is on the increase.

**INDUSTRIAL CANADA.**

is the title of a pamphlet received, written by A. Baumgarten, Ph. D., of Montreal. Its main object is to show how Canadian Resources may be developed. From a cursory glance at its contents it appears that it is strongly impregnated with a "protective" policy, and as this is to some extent a debatable subject, we leave the matter in the hands of Parliament. From recent political speeches in Ontario, we are inclined to the belief, that a "protective tariff" will be one of the main questions during the next Parliamentary elections, and it is to be hoped the happy medium will be reached.

The Hon. Mr. Macdonald and Sir John A. Macdonald have dealt with the question in their late real political speeches from different stand points. Sir John favors a moderate protection, while Mr. Macdonald, whose constituents are protectionists to some extent, cannot adopt an ultra protectionist policy, simply because it is not adapted to this new country. England's Free Trade has prospered the parent country, while the high protective tariff of the United States is being denounced by the principal interests of that country; of this there is no question a strong protective tariff begets monopolies, of which there are an abundance at present. Before there is general prosperity, there must be a liberality commensurate with the aspirations of the people—extreme measures are of the past, more liberal and enlightened policy is what is required for the advancement of the Dominion.

The proceedings at By Side for the foundation of a Farmers' League, have called forth some comments from one or two exchanges. The Farmer which approves of the movement comes down in heavy terms on the *Telegraph*. Indeed our brethren of the Press, have been rather combative recently, about printing and other matters; unkindly expressions have been used, and uncalled for personalities introduced. The good old rule of "who can best work and best agree" has become obsolete. We would like to see papers get all the advertising they can, and have just as large a circulation as possible, and discuss questions on their merits, without resorting to scurrilous and imputing unworthy motives to their contemporaries. Let us have peace.

FOR THE CENTENNIAL.—Mr. and Mrs.

Bradford left on Thursday last, by steamer to visit the centennial; others are to follow early in October.

**AS OTHERS SEE US.**

Our friend, Mr. Rymond, (who by the way is a young man of excellent abilities and parts, and calculated to make his mark,) has written a capital letter to the *Bradford Ont. Advocate*, in which he gives a glowing description of St. Andrews, its scenery, climate, and surroundings, from which it appears he was favorably impressed with the people and town. We agree with his views and criticisms, and the justness of his conclusions. There can be no doubt that his letters will be of essential benefit to the place, in making it known to the Ontario people, as a "delightful summer resort," and is worth more than articles written in local papers, commingled with other intelligent and disinterested writers. It is to be presumed that his favorable description of St. Andrews, will be the means of inducing many from Ontario, to spend their summer vacation here, where they have a pure invigorating climate, healthful sea bathing, pleasant drives, a diversity of amusements in fishing, shooting, sailing, and hospitality. On the part of our townsmen we tender their acknowledgments to our young friend, for his kindly reference to the Shiretown of Charlotte County, the birth place of his maternal relations, many of whom still reside here. Mr. Rymond, his sister, and Mr. Wood, left here a week ago for their homes, in Ontario and Manitoba.

OFF TO AFRICA.—One of St. Andrews best young men, and an able machinist, Mr. HENRY LAMB, left this morning by train to catch the Mail Steamship at Boston, for England. He has received an appointment with the African Diamond Company of London and will proceed with the Engineers and workmen for the Diamond fields, Africa, about 12th October.

While regretting the loss of our St. Andrews son, we congratulate him on the lucrative and responsible position to which he has been appointed. Mr. Lamb was a universal favorite, and deservedly so; and will undoubtedly be as popular in his new field of labor as he was in his native town. Mr. J. W. JAMES is Engineer to the Diamond Company, and has been for some months in England obtaining the necessary machinery for the prosecution of the work. Mr. JAMES is very highly known, where he spent his early boyhood. Mr. Lamb cherishes with him the best wishes for the success of his fellow townsmen. Thus it is our young man are leaving the Province almost daily.

Telegrams state that Lord Dufferin addressed reception committees of Victoria, who were invited to meet him; he said "he had come to British Columbia, not to make official announcements, but to learn and report," he assured them that Canada considered the Treaty entered into upon Confederation binding, and was anxious to fulfill her engagements under it as soon as possible.

The Rev. Wm. Ross is to be inducted to the charge of the Presbyterian Church in Prince William, York Co. This gentleman preached here for a few Sabbaths last year, while a Divinity Student, with much acceptance. The congregation at Prince William are to be congratulated on obtaining such an excellent clergyman.

At the late meeting of Presbytery at St. John the following notice was given which reference to Mr. JOHN HOLT; from which it appears he applied for admission to the Presbytery, and after trial was rejected; he cannot lawfully perform the duties of a minister in any capacity, not being recognized by any church.

Notice was given that Mr. John Home, formerly on trial as a Preacher by the late Presbytery of St. John, of the Presbyterian Church of the Lower Provinces, and afterwards settled at St. John, had been preaching and dispensing the ordinance of Baptism within the bounds of this Presbytery. It was agreed that public notice be given that Mr. Home is not a minister in connection with this Church.

DEATH OF REV. MR. DUNPHY.—The death of the Rev. Edward J. Dunphy, P. P. of Carleton, St. John, took place, on Sunday last at his residence, in the 54th year of his age. The Rev. gentleman was formerly stationed at Milltown, and was beloved by all who knew him. He was a native of Waterford, Ireland, but left there when but three years of age, and came with his parents to New York. He was educated at Montreal and New York.

**FARMERS' LEAGUE.**

The organization of a Farmers' League for Charlotte County, was effected at a meeting held at the school house, Bay Side, Parish of St. Croix, on Saturday evening last, by the election of the following officers:

James Russell, Esq., President;  
Henry Hutchings, Esq., Vice Pres.,  
Charles E. Mowatt, Esq., Secy.,  
John Curry, Treasurer;  
Messrs. Joseph H. Mears, John C. Wren and David Johnston, Committee.

An additional number of persons came forward during the evening and signed the roll of membership.

Public meeting were appointed to be held, on Thursday evening next, the 28th inst., at seven o'clock in the school house, lower district of the Parish; and on Wednesday evening, October 11th, at the school house, Waverley, upper district of the Parish, in order to lay before the resident of these districts the aims and objects of the League.

The regular meetings of the League are to be held fortnightly; the next regular meeting will therefore be held on Saturday evening October 14th, when the following topic will be discussed, viz:—

"How Farmers shall produce more, and buy less."

The thanks of the meeting was by a unanimous vote tendered to John S. Magee Esq., for kindness in acting as Secretary to this and previous meetings.

THE SHORE LINE.—Work on the Shore Line is to be commenced at once. Had Calais voted her proportion of aid it would have been commenced at this end. As it is the first work to be done at Ellsworth, and the laborers of Calais will be out in the cold. Proper action before November 1st will set the matter straight, in which event the general manager, promises that we shall ride to Machias by railroad in a year from this fall.—*Calais Times*.

UNIVERSITY MATRICULATION.—The Matriculation Examinations at the University were held on Friday last, and fourteen students were admitted to the Freshman Class. Mr. Leonard and Mr. Roberts, from the Collegiate School, led the class, the first with a standing of 820 and the second with a standing of 720. Mr. Leonard therefore takes the beautiful prize of books (value upwards of \$40) given by the old pupils of the school to the student from the school who enters highest on the Matriculation.

The example thus set might be worthily followed in other schools. At least one and probably more at St. Andrews will yet join in the Freshman Class, but, strange to say, not a single one out of the whole number comes from Saint John. This certainly does not tell well for the intellectual aspirations of the youth of such a large and wealthy city, nor is it likely to elevate the standard of learning therein.—*Nova*.

Messrs. Coleman, O'Brien, Balkam, McLeod and Horseman take the Scholarships from the following Counties respectively, namely, Sunbury, Gloucester, Charlotte, Kent and Albert.

**A Large Bear Killed.**

Upper Musquodoboit has been afflicted by the depredations of a wild beast, which kindly reared itself at last in the shape of a formidable bear with a full set of teeth, huge claws, and a terribly keen appetite. Brain got into a way of helping himself to whatever he wanted; he walked into a man's barn and, selecting a nice fat sheep, had a delicious meal. Then a day or two after he fancied a change—beef tempted him, so he assaulted and slew a cow. All this, of course, was highly unpleasant and Musquodoboit vowed death to the bear but between making the vow and fulfilling it there was quite enough room for many slips. However, last Sunday morning Mr. John Butcher, of Upper Musquodoboit, sallied forth after the robber and murderer accompanied by his dog, which possesses the reputation of being "a lion in its own den." The canine justified his reputation by leading his master straight to the spot where the bear lay, and he gave up of it himself, common sense by gently walking round in a circle, mutely declining to enter into the thicket and face the music, but suggesting that his master, being armed, might proceed to the interview alone. Mr. Butcher struck right in and was fortunate enough to score first in the little game, sending a bullet into the bear's brain. When he came up to the fallen brute he was not unreasonably astonished at its size; it was a mighty bear, in fact, the following figures give a fair idea of its dimensions and weight:—Length, 6 feet 2 inches; girth of neck 2 feet 7 inches; girth of arm, 1 foot 7 inches; depth of fur on back 5 1/2 inches; weight of hide 35 lbs. total weight, 492 lbs. And now Musquodoboit sheep and cows rejoice over the fall of their enemy.—*Halifax Chronicle*.

DR. WALLACE'S LETTER TO THE PRESBYTERY.—At a meeting of the Edinburgh held September 2, a letter was read from Dr. Wallace resigning the pastoral charge of Greyfriars' Parish, and admitting his "orders" and functions as a minister of the Church, having, as he said, resolved to devote himself to a calling in life to which he believed he might be better suited. It was resolved to allow the letter to lie on the table, and in the meantime to cite the congregation of Greyfriars to appear in their own interests at a special meeting of the Presbytery to be held on 4th October next. A committee was appointed to confer with Dr. Wallace, particularly in re-

gard to his resolution to sever himself from the ministry.—*Edinburgh Ad.*

**The Equinoctial Storm.—The Boston Globe says:—**

"The equinoctial storm began early Sunday morning; and the rains descended and the flood came for twenty-four hours with but brief intervals of cessation. Though the rain-fall was very heavy—amounting to more than the whole register for August—there was but little accompanying gale. On the New England coast scarcely any damage appears to have been caused, while all along the Atlantic seaboard from Long Island to Hatteras the storm raged with great fury. The bay was rough on Sunday, but Hingham and Nantasket steamers made regular trips. Late in the evening a heavy fog settled over the waters and a schooner went ashore on George's Island yesterday, and was pulled off without much trouble. The thick fog which prevailed all along the coast prevented the arrival of many vessels."

Mr. J. H. Morrison, late of the Portland High School, went to New York on Monday last to study medicine at Bellevue College.

The Rev. Messrs. Naught, M. Lachlan and Taylor, who have been visiting here, were formally received by the established Presbytery of Glasgow, whilst in the Glasgow Free Presbytery some very severe strictures have been passed upon the action of the Glasgow Free Church Building Society in relation to the secessions. A committee was also appointed to watch over the interests of the church in the matter; and by many it was felt and said that a grave crisis is at hand.

A NEW FLYING MACHINE.—Experiments were made on the 25th ult., within the military lines at Chatham, Eng., with a flying machine invented for use in military reconnoitering, the invention of Mr. J. Simmonds, a civil engineer, and also celebrated as an aviator. The results obtained are considered to be fairly satisfactory. They have proved that a reconnoitering party may be raised to a moderate height, to watch the main forces of an hostile force.

The English Government has decided to plate the hulls of war ships with steel instead of iron, in order to attain the requisite strength with a considerable diminution in weight.

The defences of London on the Thames are fast approaching completion. The new works and extensions of old ones which have been effected within the last few years have added materially to the protection of the Thames.

The half yearly report of the North British Railway shows a revenue of £1,034,984, against an expenditure of £594,339. The net revenue available for dividend is £437,955. That is evidently a paying institution.

**MARRIED.**

On the 5th inst., at St. James Church, St. Johns, P. Q., by the Rev. H. J. Evans, Rector of Trinity Church, Christville, Arthur Christopher Evans, eldest son of the late R. W. Delmege, Esq., C. E., of Court Lodge, Lincolnton, to Amy King, eldest daughter of A. K. Lavicourt, Esq.

[Many here will remember the late Mr. Delmege, as one of the engineers connected with the Railway, during its construction.]—*Ed. Standard*.

**FOR SALE AT AUCTION.**

At the C. C. Agricultural Fair Grounds, Bay Side, on

**FRIDAY OCTOBER 13TH.**

**THE PURE BRED JERSEY BULL**

**"DAN GODFREY."**

Now at the ALMS HOUSE FARM St. Andrews

Terms and Particulars made known at Sale, or on application to L. S. Magee, Esq., Secretary of C. C. Society, St. Andrews.

**PER ORDER.**

Sept. 23, 1876.

**PROBATE COURT, COUNTY OF CHARLOTTE.**

In the matter of the Estate of John A. Benson, of the Parish of Grandmanan, in the County of Charlotte deceased.

WHEREAS W. B. McLaughlin, Administrator of all and singular the Goods, Chattels and Credits which were of the said John A. Benson deceased, at the time of his death, hath this day filed his account with the said Estate, and hath prayed that the Court may direct the said account, and all persons interested in the said Estate, may appear and attend the passing and allowance of the said account.

NOTICE thereof is therefore hereby given, to all the Creditors and next of kin of the said deceased, and to all persons interested in the said Estate, and they are hereby cited to appear before me at a Court of Probate, to be held at the Office of the Judge of Probate at St. Andrews in the said County of Charlotte, on Saturday the 28th day of October next, at a 1/2 hour of Eleven o'clock in the forenoon, to attend the passing and allowance of the Account of the said Administrator.

Given under my hand and the Seal of the said Court, this 11th day of September, A. D. 1876.

(L. S.) Judge of Probates for Charlotte County.

S. H. WHITLOCK, Registrar of Probates for Charlotte County.