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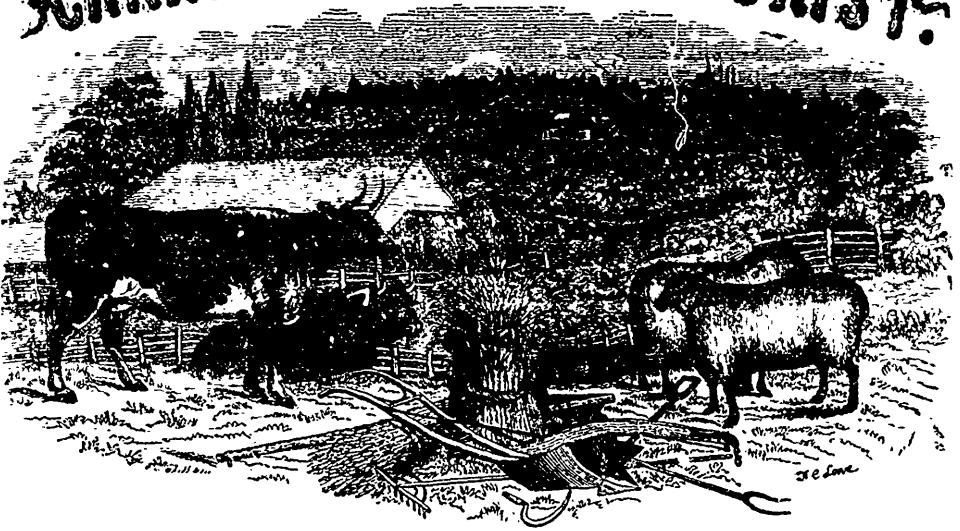
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CANADIAN AGRICULTURIST.



"The profit of the earth is for all; the King himself is served by the field."—ECCLES. v. 9.

GEORGE BUCKLAND,
WILLIAM McDUGALL,

EDITOR,
ASSISTANT EDITOR.

VOL. II.

TORONTO, JUNE 1850.

No. 6.

The Canadian Agriculturist.

Published Monthly, at Toronto, C. W.

TERMS:

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MEANS FOR PROMOTING THE AGRICULTURAL INTERESTS OF CANADA.

We beg to call the earnest attention of our readers to several important documents and papers, having reference to the advancement of Canadian Agriculture, which are to be found in our present number.

The draft of a new Agricultural Bill, which has already been submitted to the Government, and which will be brought before Parliament without delay, cannot fail, we think, to receive

that attention by the legislature, which the magnitude and obvious utility of its-objects demand. The great difficulty that has hitherto been felt, in the efficient application of the Parliamentary Agricultural grant, and the considerable sums of money raised by the various Agricultural Societies, has in great measure arisen, from the defective condition of the existing statutes, under which those matters have been regulated; and the absence of a simple and uniform machinery, for arranging the transactions and proceedings of the various Societies in the Province; and combining them into a systematic annual report. This might easily be done in some such way as the Bill provides for the establishment of one Central Board of Agriculture. It was precisely in this way that a powerful impetus and higher status were given to the Agriculture of Britain more than half a century ago, by the Board then formed, and for several years supported, by the government. In England it was this Board which commenced the collection and arrangement of Agricultural facts, publishing elaborate county reports; and it is to the efforts of such men as the late Sir Joseph Banks, Sir John Sinclair, and Arthur Young, that Agriculture, both in England and Scotland, has been brought to its present advanced condition. France, and several other

European Countries have followed the example, although with inferior success; and the United States are now beginning to follow with an earnestness of purpose, and the advantages of accumulated knowledge, which bid fair, at no distant day, to place them in the van of the march of agricultural improvement.—Will Canada content herself with slowly jogging on, while the rest of the world is progressing with daily increasing speed? We trow not. Our progress hitherto, in several important departments of human industry, at least, is not to be despised; and by concentrating our efforts, in the spirit of an enlightened patriotism, on objects of undoubted utility, this country may be brought to a high state of cultivation, wealth and happiness.

Every effort, we are informed, will be made by the Directors and Local Committee of the Provincial Association, towards increasing the attractiveness and utility of the next exhibition. We trust their exertions will be liberally supported by the public. Apart from a hearty co-operation on the part of the people, it is impossible that any movements of this sort can prove successful. Government ought, and no doubt will, do something; but it should never be forgotten, that the people only can render efforts of this nature of great and permanent value to the country. We have heard complaints that several of the premiums of the Provincial Association are too small, and that sufficient inducement is not held out to ingenuity and enterprise. There is without doubt some justice in these complaints; several productions that we could name, both of our soil and of our mechanics' skill, should have higher awards granted them. Now this defect admits of but one remedy, which the public has in its own keeping, viz., a more general and liberal support of the Society from all classes of the community. The Provincial Association, it should be borne in mind, is not a sectional or class institution; it is by no means limited even to agriculture, unquestionably by far the largest interest in the country; but it seeks to encourage and receives within its wide embrace, every art and industrial pursuit—the ornamental with the more obviously useful—that ministers to the necessities or refinement of mankind. A Society, therefore, having such high and comprehensive aims, has an undoubted claim on the liberal and hearty support of all true friends of their country.

ON PRACTICAL FARMING.

[Concluded from page 101.]

TO IMPROVE SANDY SOILS.

Draw on clay in the autumn, and spread it on the land, so that the frost will pulverize and make it firm. The quantity depends on the soil. If very sandy, more will be required: I think about forty to fifty good loads per acre will be enough. One hundred bushels of lime ought to be put to the acre once in fifteen years. Under this process, and with proper manure, I will warrant a good crop of wheat, or any other crop you please.

CLAY LOAM SOILS; OR FIRST RATE LAND.

If the land is in a rough state, full of stones, &c.,—I do not mean new land, stumpy—but full of thistles, and weeds and trash, as farms in general are, the same plan must be followed, the stones being taken off, and the land brought into a proper state to stock with wheat, as noticed before. Stock with eight or ten pounds of clover seed, so as to provide a ley.

TO COMMENCE A ROTATION OF CROPS.

Sow, first year, peas, corn, potatoes, or any other roots. On land treated in this way with long fresh manure, I have this year obtained the first premium on peas and potatoes. It will stand the drought better than any other way that I have tried. Second year, spring wheat, barley, and oats. Stock with eight or ten pounds of clover seed. Third and fourth years in clover: one year cut for hay; two crops in the second year. Let it grow until in blossom: turn your swine and cattle in, to tramp down, but do not feed too close. Then, about the end of August, plough all under together. The manure that falls from the cattle, with the clover, will make a good coat of manure for fall wheat, to follow immediately. Ridge from sixteen to twenty feet. In this way you will get four crops in five years by one coat of manure from the barn—two of wheat, if you prefer it, or barley and peas, which are valuable crops. Sow plaster on your clover.

Thus far the extracts—to which I would add this suggestion. As the culture of root crops is progressing amongst us, and as the winter wheat crop is becoming so precarious, as to render a resort to spring wheat advisable, the following course would be better adapted to our husbandry than the one recommended above.

First year.—On clover ley and long manure sow peas, corn, potatoes, and roots.

Second year.—Spring wheat, with clover seed.

Third year.—Clover, cut, and followed by turnip, or, if you prefer, let your clover grow after cutting, and pasture.

Fourth year.—Barley or oats, with grass seed and clover seed.

Fifth year.—Cut for hay.

Sixth year.—Pasture.

In this way seven crops would be obtained in six years: three of them would be decidedly ameliorating, and two particularly exhausting; while four of the six years would yield pasture in autumn.

Two objections may be started to this course:

First, that clover cannot be cut in time to get in the rutabaga in the third year. Clover, however, (cut by the 20th or 25th of June), and white turnips four weeks later than this, will do.

Second, that sowing clover and grass seed twice in the course, or rotation, is too expensive. To this I answer, that I have found the sowing of clover seed with all small grains profitable for pasture, paying for the seed besides providing clover ley for the land.

The other qualities of land described above I have upon my own farm.

STOCK AND MANAGEMENT.

Different opinions are entertained as to the most eligible kind of stock. If I should undertake to determine which is the best, I might get into a question which it would require great ability to discuss. Ayrshire breeds are good milkers, but the best that I have ever read of are the Durham, or Short Horns. It matters little, however, which you select: take deep milkers from both sides, and you are sure of success for dairy purposes.

In rearing calves, take them from the cows when from four to six days old, and feed with milk until cheese making comes on, which will be between 20th and 25th May. Then feed whey with a little shorts, or, what is better if it can be obtained, flax-seed boiled, and put a small quantity in the whey. Rear only the best calves. It is the practice in this country to sell the best to the butchers for a few shillings, and keep the poor ones; and this is the way that our stock deteriorates, and becomes almost worthless.

Cows, horses, and sheep should not be put together in one field, because the horses and sheep bite closer than the cow, and select the sweetest grasses. It is supposed by some, and gravely argued too, that letting stock run out in winter is the best way. But good sheds to lie under, and plenty of litter to lie upon, is far better. It has been maintained that wages are too high to admit of housing or stalling in this country or province. But on fair trial it is proved to a demonstration that housing or stalling is a far superior practice to that of letting the big and the little run together; because the stronger gets the best of the food, while the weaker are driven from place to place by the strong; the consequence being that when spring comes, the small are too poor to live, and indeed as often die as live. By more judicious management, by feeding with cut straw and roots, in stalls, this difficulty is obviated, and the plan is every way superior to that followed in general by feeding hay and straw whole.

The cow should be fed somewhat extra before calving. For a week or so bran mashes should be given, with roots and hay.

Sheep should engage more attention than is in general given them. Most people feed with hay and straw only, and when spring comes the flock is so poor that the fleece is almost worthless, as well as deficient in quantity; whereas, if fed with roots and kept better, the fleece would be almost double in weight and treble in quality.

The horse, the noblest of all our animals, and most useful, is too often poorly fed; not that they are generally kept on insufficient food, but that they get it so irregularly, and that the hay is fed to them whole. It should be cut to chaff by machine, mixed with the provender, and measured or weighed to them. The horse will then act in half of the time, and rest adequately to perform the duties assigned him.

A FARMER OF ELIZABETHTOWN.

WHEAT AND CHESS!—TRANSMUTATION.

MR. EDITOR,

In your Prospectus you invite farmers to subscribe and write for the *Agriculturist*. The former I have done (and induced several others to "do likewise"). The latter I find a more difficult task.

The paper written by your Elizabethtown friend in your last number, shows that he is a practical farmer and writes from experience—the best authority—except in one case, where he infers that wheat does not turn to chess. Now, sir, you will probably laugh at me, as I have done at others for advocating the transmutation of wheat to chess, but facts are stubborn things, and I will give you one.

There was a straw found when harvesting in our neighborhood on which grew some fifty or sixty grains of wheat (I have forgot the number), and thirty-six grains of chess. For a better description I would refer you to the editor of the St. Catharine's Journal, who himself saw it, and noticed it in his paper. Like one of old, I had to feel it before I could believe, and I am satisfied there was no deception. It was kept for some time for the inspection of the curious, and I believe is still to be seen in the finder's "old curiosity shop." It necessarily follows that wheat must produce chess or chess wheat, when one straw produced both.

Since seeing the above oddity, I have been experimenting on wheat and chess. But like produces like in spite of all the ill treatment I can give them. If the cause of its turning could be discovered, no doubt the ingenuity of the age could find a cure; so that we need no longer say erroneously that wheat turns to chess.

Yours, &c. P. GREGORY.

Vine Cottage, Louth, May 14, 1850.

[We are obliged to our correspondent for the interest he takes in our paper, and shall be happy to receive further communications from him. In the *transmutation theory* we confess ourselves unbelievers. The support which it derives from the observation of facts, when searchingly made, will be found to be only apparent; while the principle, which the theory involves, is altogether incompatible with the analogies and harmony of nature. Oats, as well as Chess, have been found embedded in an ear of wheat, which to a cursory observer, would seem to imply the transmutation of the latter into the former; while the naturalist by a rigid examination is enabled to detect the accidental manner of the connexion. We have no doubt that a scientific botanist, could satisfactorily explain the case, which our correspondent adduces. Editor, *Agriculturist*.]

FARMERS' POSITION AND REQUIREMENTS.

MESSRS. EDITORS,

While acknowledging the receipt of the last year's volume of the *Agriculturist*, and also the first three numbers of the present volume, I cannot forego expressing the pleasure and profit I derived from perusing your useful paper. Every man, as he is tied down to a little spot of earth, must remain absolutely ignorant, without a medium through which he can obtain information suited to his circumstances in the vocations of life. This sentiment applies to every department in life, but to some departments more than others; and, as a matter of course, it applies to those departments which have the largest field of operation. On looking around, then, upon the pursuits of men, and taking necessity as our guide, what field of operation are we pointed to but that which may *emphatically* be said to sustain life? It has been truly said, that a knowledge of the sciences alone will not help a man to live. No, I answer, nor yet a knowledge of the arts alone, but a knowledge of both, combined with physical power, will help a man to live, and thrive too. Speaking of agriculture, which produces the staff of life, the mind is led to ask, what does it embrace? I answer, both art and science. Some men who are trying to climb to the temple of Fame, with no better foundation than a few musty manuals, and supposing that they have monopolised the whole circle of the sciences, may perhaps look down from their proud eminence, with surprise and disdain, at such an idea; but tarry a moment before you proceed.

The earth with all its productions exist, and are governed by well directed laws, both absolute and relative; the earth and its products are connected with agriculture, therefore it embraces natural philosophy. The influence good and bad exerted upon agriculture, by the conformation of various strata and soils, embraces geology. The matter of the earth, which contains the essential principles of vegetation, embraces chemistry. The calculations, computations, &c. necessary in well organized agriculture, embrace mathematics. The working of the various implements used in husbandry to keep them in proper order, and to work them to advantage, requires some knowledge of mechanics. The management of stock, which is indispensable in farming pursuits, demands at least some knowledge of anatomy and physic. We might also say, there is full scope for the florist, the horticulturist, and the botanist. But how foolish am I to stop here enumerating one thing at a time in full detail, while agriculture embraces every thing under the sun!

But a question has often sought—nay demanded a direct answer. Although agriculture embraces all the above branches, and more, are they all absolutely essential to its prosperity? I answer, I know not how to dispense with any of them. Well, then, for the medium. Your efforts, gentlemen, are praiseworthy, and long may those efforts continue to bless community! but will those efforts suffice to furnish the medium? No doubt

they will, if agriculturists by means of these can be taught one thing, and that is, their *proper position in society*. Why, I ask, is the farmer to be called a mere creature of toil, any more than the mechanic? Why less capable of filling important and responsible offices in the state, or in trade, than the merchant and the lawyer? Why are the farmers' sons or daughters to be put off with the mere skin and bones of education, any more than the children of a prince?

It is necessary that farmers should cultivate a feeling of self-reliance, and bring to their aid the various means of extended knowledge in bringing out the great resources of the soil. A suitable education would prevent their being subjected to impositions from other classes, and consequently promote their own interests and those of the country.

D. G. FLETCHER.

THE HIGHLAND AND AGRICULTURAL SOCIETY OF SCOTLAND.

The Directors of this national society, to which the agriculture of the civilized world is deeply indebted, have decided that *Tenant farmers* shall be admitted members thereof at the reduced charge of 10s. per annum. This will no doubt contribute materially to the already great influence and usefulness of the Society,—“Of the benefits of which (as the *Scottish Farmer* observes) to the agricultural industry of Scotland, it is unnecessary to speak. Its district shows and competitions,—its valuable publications—its premiums and prizes; and, we may add with reference to later times, its Veterinary College—its Chemical Department—and the speeches and discussions at its periodical meetings,—have had a powerful influence in stimulating improvement; and in fostering and encouraging that spirit of enterprise by which so great and such rapid advances have been made in every department of rural economy in this country during the last fifty years. It set the example for, and gave rise to, our various local clubs and associations, and it is acknowledged also, to have given origin to the Agricultural Society of the sister kingdom—a society which, in many respects, speedily surpassed its parent, and which has already been of essential service to the Agricultural industry of Britain.

ROYAL AGRICULTURAL SOCIETY OF ENGLAND.—The annual exhibition of this important national society will take place this year at Exeter, about the middle of July. In 1851 the exhibition will be held in London, forming a part of the proposed display of the industrial production of the whole civilized world. The meeting for 1852 will be holden in the South Eastern district, comprising the counties of Kent, Surrey, and Sussex. Already the principal towns in those counties have begun to vie with each other to obtain the show, and large sums of money have been subscribed. This society we are glad to observe is in every respect in a most healthy condition, maintaining a state of constant progression.

THE GREAT PLOUGHING MATCH.

This celebrated trial of skill, in one of the most ancient and valuable departments of human industry, took place on Friday, May 3rd, on Mr. John Walsh's farm, near the pleasant and flourishing village of Thornhill. The weather was, fortunately, most propitious; and it was evident, early in the morning, from all parts of the surrounding country, that a great turn-out was about to take place. The contest was between twenty ploughmen of each of the townships of Scarborough and Vaughan, for a purse of £100. Our readers will remember that a similar match took place last spring, between Whitby and Scarborough, for the same amount, the latter coming off victorious. The first getting-up of the thing originated, we believe, in Whitby, with Peter Perry, Esq., M.P.P., who cannot fail to derive much satisfaction from the conviction of having given rise to a popular impulse, which cannot, in its results, be otherwise than highly beneficial to the country. From the above sum, £50 were to be set apart by the winner, for the purpose of accepting a challenge that any other township might offer. Vaughan took up the gauntlet. Hence originated the sharp and honorable contest which we are about briefly to describe.

When we arrived on the ground, about eleven o'clock, the work had commenced, and there could not have been less than three thousand persons present, and the number kept gradually increasing.

The names of the ploughmen from each township are as follows:—

SCARBORO.

J. Patton,
John Cash,
John Patterson,
Thomas Crone,
James McCowan,
Joshua Sialy,
Robert Gilchrist,
William Weir,
William Wakefield,
John Crone,
P. Flemming,
G. Burke,
Walter Hood,
William Hood,
James Weir,
John Crawford,
George Evans,
A. Thompson,
John Wakefield,
John Weir.

VAUGHAN.

John Torrance,
Duncan McLean,
Samuel Musselman,
Archibald Campbell,
John Campbell,
David Jeffrey,
James Somerville,
Duncan Campbell,
Joseph Frank,
James McNair,
William McNair,
Robert Thompson,
Allan McLean,
Peter Frank,
Henry White,
David Smelie,
Walter Dalziel,
John Lawrie,
George Charlton,
John Cumbleton,

JUDGES.

For Scarborough.—J. Gibson, Robert Ral, John Weir.

For Vaughan.—George Harrison, Robert Blair, Robert Beath.

UJREIRES.

Archibald Cameron, Toronto; Benjamin Jennings, George Anderson, Whitby.

The field selected might, upon the whole, be considered well suited to the purpose. The surface was

pretty level, the soil a heavy loam, tolerably uniform and free from either stumps or stones. The principal drawback consisted in the thinness and weakness of the sod; the field, we understood, having been down in timothy and clover only one year, and in many places the surface was almost bare. The competitors were distributed alternately, in groups of three each, belonging to the same township; so that the effects of any supposed or real differences, of a mere local character in the field, would be balanced equally. The field was in lands, or ridges, of the ordinary width, and nearly flat. About half an acre was allotted to each ploughman. The whole forty ploughs were of iron, on the principle of the Scotch swing: several of them were imported from Gray's celebrated manufactory in Scotland, and the rest were made in the Province. As to the high value and great capability of this variety of plough, when directed by competent hands, there can be no difference of opinion among persons qualified to judge. The work made upon this occasion fully attested the efficiency of the implement, as well as the skillfulness of the operator. Believing, as we do, that the principle upon which the Scotch swing plough is constructed, is that which at present approaches, in practice, the nearest to abstract perfection; yet we are aware, what every practical farmer must be fully conscious of, that to suit the varying soils, seasons, and other changing circumstances of operative husbandry, the plough, in its construction, must receive modifications adapted thereto; and that, after all, experience must decide which variety is best suited to any special case.

Our limits forbid minute criticisms on the work performed. It was soon obvious that the Vaughan ploughmen had acquired that peculiarity of style—if we may so speak—which so distinguished the Scarborough ploughing in the competition with Whitby last year, and which gives to the work, as a whole, a character of graceful uniformity. A straight furrow, with strict observance of the true proportion between depth and width—a matter which most of the ploughmen, in the present instance, evidently understood—gives to the work that precise uniformity of inclination and appearance which renders exact ploughing so captivating to the eye. In this important respect, the late match was a decided improvement upon its predecessor. If we were disposed to find fault, it would be, that the ploughing was scarcely deep enough; since it is now generally acknowledged that, upon stale soils at least, deep cultivation is one essential condition of increased crops. We should think that the average of this ploughing would not exceed six inches. The judges, of course, in forming their decisions, would have respect to depth. Long before the completion of the work, it was evident the competition would be a keen one, and this feeling

seemed to gain strength as the ploughing advanced.—The judges, after much investigation and deliberation, declared in favour of Scarborough; but this adjudication was couched in such terms as to pay the highest possible compliment to Vaughan.

The mode of procedure adopted by the judges was to classify the ploughing, and to award the palm of victory to those having the largest number of lands *first-rate*. On counting up, Scarborough was found to have a majority of one over their competitors. It was, we believe, universally admitted that the best work was performed by a Vaughan ploughman, Mr. Walter Dalziel. A considerable number of the competitors were young men, native-born Canadians.

Soon after twelve o'clock, the Governor-General, accompanied by Colonel Bruce, F. Jackes, Esq. (Warden of the County), E. W. Thomson, Esq., R. L. Denison, Esq., &c., &c., arrived on the ground, and His Excellency was received with loud and hearty cheers from the immense concourse of spectators then assembled. His Lordship proceeded to inspect the work, going round the field on foot. The shrewd and practical remarks upon the ploughing made by His Excellency, showed a minute acquaintance with practical as well as scientific Agriculture.

In this instance, we shall break through the rules which our restricted limits compel us to observe in regard to the usual festivities of our agricultural gatherings, and present our readers with an account of the Dinner, copied from a city cotemporary:—

THE DINNER,

announced for three o'clock, did not commence till nearly half-past four. A long temporary building had been erected for the purpose, on the premises of Mr. Shephardson, Thornhill. Walls, roof, and the three rows of temporary tables were made of the one material—inch boards—the table boards, however, were thicker. Three hundred and fifty-two persons sat down at first and there was a tremendous rush of spectators outside, pressing up against the fragile tenement in a way that threatened to move it out of its place. In addition to this, divers juveniles perched themselves on the slab-like roof, and the pressure of their bodies, by the law of gravitation, ever and anon, caused a very alarming inflection of the inch boards, which threatened to give way to the force and let down the anxious youngsters upon the heads of eaters, speakers, and auditors. But fortunately no calamity resulted from this somewhat alarming state of things. E. W. Thomson, Esq., president, supported on the right by His Excellency Lord Elgin, F. Jacques, Esq., Warden, and two aides of the Governor General; and on the left by Col. Bruce, the Hon. J. H. Price, Hon. F. Hincks, Capt. Æ. Irving, J. W. Gamble, Esq., and G. Buckland, Esq. The following toasts were given from the Chair:—

The Queen.

Prince Albert and all the Royal Family.

In rising to propose the health of His Excellency the Governor General, the President offered some well-timed remarks upon the judicious munificence of His Excellency in giving prizes to the pupils who had at-

tained the highest proficiency in Agricultural Chemistry at the Normal School—prizes which he has given on two several occasions. He then gave

His Excellency the Governor General.

The toast having been received with great enthusiasm, His Excellency rose to reply;—

His Excellency said he was truly grateful for the manner in which this toast had been received. He was truly happy to witness the specimen of excellent ploughing, and he was very much surprised to witness the excellent quality of the cattle. He was highly gratified to have an opportunity of meeting this large and respectable assemblage of the yeomanry of the country. Wherever he had been he had always been favourable to re-unions of this kind, and there was one point in particular that ought to be attended to, and that was, they should always terminate with a dinner. (Laughter.) When the worthy President gave him the invitation he said nothing about the dinner; but he had soon found it out. He saw their placard, and he there discovered three inducements to attend this meeting. He knew he should find good company, good cheer and he should find no politics. (Cheers and laughter.) It was most important that the agriculturists, whose occupation does not, like those of some others, throw them together, should have opportunities of this kind to meet together to compare notes, and talk over the results of their experience, and they can never do this so well as after a good dinner. Every man's heart was cheered by a good dinner, in this he did not except teetotallers.—(Laughter.) Agriculture, when properly pursued, was one of the most generous and interesting occupations. In most other occupations, when a man makes a discovery he bottles it up, takes out a patent to secure the benefits of the discovery to himself; he did not blame him; but the man who makes a discovery in Agriculture, who causes two blades of grass to grow where but one grew before, had justly been called a benefactor; he has no objection to call his friends around him and tell them his discovery, that they may go and do likewise. (Great cheering.) There was never a time when so much was being done for the improvement of agriculture. In England, he believed, there was not a County in which persons of wealth were not engaged in making experiments, spending their money in testing results for promoting the improvements of Agriculture, for the benefit of others,—that others may pluck the flowers without scratching their fingers with the thorns. A great work had been commenced, from which he argued the best results; that Leviathan of the press, the *London Times*, had appointed two gentlemen to go through the country and report upon the state of Agriculture. He did not know their names but they were evidently thoroughly acquainted with Agriculture.—He had been much struck by reading one of these recent reports describing the farm of Mr. Huxtable, a distinguished agriculturist. His stables, where he had stalls in which he keeps his stock, from the day of their birth till they are ready for the shambles—his tanks for collecting and preserving liquid manure—his engines and machinery by which with the power of one man he was enabled to cut and prepare food for his numerous stock, were all described with accuracy. He did not mean to say we could follow this example in all its details; or that it would be prudent to do so, for the conditions of economy differ in a country where land is cheap and labour dear. But we ought to keep our eyes open and avail ourselves of all the improvements that might be profitably applied here. He would not detain them, but he had a toast to propose. It would be admitted

that a straight clean furrow was the basis of all good husbandry. In a country like this it was important to our well-being. He should propose a toast, "the men who drew these fine furrows." (great cheers.) He was thankful that he was not judge, he had to propose the health of them all, successful and unsuccessful. As he was going round the field some one remarked to him that the ploughmen were all Scotchmen, but another replied they were the sons of Scotchmen, and in this country the sons always beat their fathers. He was pleased with that remark, and he would tell them why, he too had a son born in this country, and if he did nothing better, he hoped he would beat his father. His Excellency then gave

The Ploughmen.

The President said he had been requested to state that the judges, after great difficulty, had come to a decision; he believed they had found it far more difficult to decide, than the judges did last year at the Whitby match. The Scarborough men have nearly been beaten! The President said he wished he could say they had been beaten for one reason—because he thought it would prove that we have better ploughmen in Canada than any where else in the world. Scarborough had done remarkably well at Whitby last year, and if Vaughan had beaten now, it would show that great improvement had been made during the year. Scarborough has won the day; only just won, they came very near been beaten.

The Army and Navy.

Col. Bruce returned thanks on behalf of the army. No naval officers being present, Capt. Irving was called upon to reply on behalf of the navy. He was glad the President had made an excuse for calling one for himself. He had never held a commission in the navy, but he had known many jolly fellows who belonged to the navy. He then complimented the ploughmen for the excellence of their workmanship, and Lord Elgin for his condescension for appearing there amongst the farmers. He warned the farmers of the lawyers, and to keep out of the storekeeper's debt; to leave disputes to arbitration, and they would become richer and better neighbors.

The Successful Competitors.

The President in giving this toast said the successful competitors had shown a great deal of skill; but they had been very closely matched.

The Unsuccessful Competitors.

The President then read the following letter from Mr. Perry excusing his absence on the ground of sickness.

Whitby, 3d of May, 1850.

To the President, Directors, Contributors to the Respective purses, and Ploughmen of the Townships of Scarborough and Vaughan, assembled at the great Ploughing Match to come off this day in Markham. Gentlemen:—

I am extremely sorry that severe indisposition compels me to forego the anticipated pleasure I had promised myself, on meeting and joining heart and hand with you, in the interesting proceedings of the day. Firmly believing that such exhibitions and displays, are calculated to serve and promote the great—I may say paramount interests of Agriculture, they have (like all other hopes of the kind) and continue to receive my best wishes, and my motto and sentiment is, "May the best Ploughman never tire."

I have the honour, Gentlemen.

To be your obedient servant,

PETER PERRY.

He then proposed the health of

Peter Perry.

F. Jacques, Esq., replied on behalf of Mr. Perry. He said Mr. Perry was the originator of these ploughing matches. He looked upon Mr. Perry as a benefactor of his country, and as such he felt he would be hereafter regarded. Mr. Perry had looked for the great sources of Canadian wealth; and seeing that Canada had no gold mines, that her soil was her richest mine, he had discovered that to improve her agriculture was the way to make her wealthy; and the means he had taken of doing so was in originating these ploughing matches. He (Mr. J.) begged to return thanks on Mr. Perry's behalf for the toast that had been drunk.

The Manufacturing interests of Canada.

Mr. G. W. Gamble replied. He spoke of a corresponding population as necessary for the permanent prosperity of Agriculture; and the means of obtaining it "encouragement of the manufacturing arts." England he said was determined to be the workshop of the world; and to make us grow wheat to feed her population at the same rate as that grown by the serfs of Russia.

The Mercantile interests of Canada.

Hon. Francis Hinks replied. He said he was almost afraid to rise on behalf of the Commercial interests of Canada after one of the speakers had warned them to beware of the store-keepers. Still he held that the Commercial interests conferred great advantage on the Agricultural. They obtain for you what you want, and also provide the best market for your products, and find out the cheapest mode of getting them to that market. Manufactories were springing up in Canada and he rejoiced to see them. A commercial class were absolutely necessary in every country, for there was always a great many articles it was absolutely necessary to import. You have got to pay for these articles in some way, and it must be done either by Agricultural productions or manufactures. As Canada cannot hope to compete with England where labour is cheap and machinery in great perfection, we must pay for our imports in Agricultural productions. If we established a system of protection, the farmer would have to pay a great deal more for the articles he required. He had lately had a conversation with one of the largest manufacturers in Canada, Mr. McKechnie of Cobourg, who told him (Mr. Hinks) that he (Mr. McKechnie) wanted no protection. The honourable gentleman then referred to the great improvements that have taken place in the communications of the country, that vessels now take flour from the port of Toronto to Halifax direct. The worthy President had referred to the prizes given by His Excellency to the students of the Normal School; he would mention another instance of the judicious liberality of His Excellency; he referred to the offer of His Excellency for the best essay on the influence of the Canals on the Agriculture of the Province. These essays would have a great effect in diffusing correct information respecting our internal communications. We should soon be able to carry flour to England for the same rates it cost a few months ago to carry it to Montreal.

The Press of Canada.

The President said they owed a great debt of gratitude to the press; not to the agricultural press particularly, but to the general press which brings the intelligence of the state of the markets, and all other information respecting events that transpire in all parts of the world. He hoped every farmer would patronize the press by becoming a subscriber for a public journal.

Mr. McDougall had not expected to be called upon for a speech to this toast as he observed Mr. Buckland, who was also connected with the agricultural press, on the platform. At this late hour, and after so many excellent speeches, and especially after the able manner in which the President had set forth the merits and capabilities of the Press, he thought a speech in reply might be very well excused. One of the benefits of the press however was this—that on occasions of this kind when interesting and instructive speeches were made exciting the admiration of all, such as they had just heard, but would probably in a little time forget, the Press gathered up and preserved, to be read and studied at leisure, the best and choicest portions. This its representatives would endeavour to do to-day. He concluded by thanking them for the kindness with which they had received the toast.

The Agricultural Association of Upper Canada.

Mr. Buckland replied. He said it would ill become him, at that stage of the proceedings, to make any lengthened remarks. He believed here was not one here who was not fully acquainted with the object and nature of the institution. Owing to the liberality of the Government last year, the Association was now free from debt; and he hoped a grant would be voted by the Legislature this year, which would enable it to go on in its course of usefulness free from debt. He had great pleasure in witnessing the excellent ploughing, and was enabled to bear witness that an obvious improvement had taken place since the Whitby match last year. We might go in a kindly and generous spirit of rivalry, till this province would become, if it is not already, one of the brightest jewels in the British Crown.

The Judges.

The Township that gives the next Challenge.

Mr. McNair then announced that Vaughan would again take up Scarboro,—if no other township does so—the match to come off some time between the 1st of April and the 15th of May of next year.

The announcement was received with great applause.

Lady Elgin and the Fair of Canada.

The President remarked that they should not forget those whom they had left at home—at their fire-sides.

His Excellency the Governor-General returned thanks. He thought the President had made the only mistake he had made during the evening, just now. A friend of his had given his son this advice—not to go into good company, as the danger was not of getting into bad company—he was too much of a gentleman for that—but of getting into good company. He thought Lady Elgin would think that they were getting into good company. His Excellency begged to propose the health of the President, Mr. Thomson. The President had alluded to his (Lord Elgin's) prizes. If any good resulted from these prizes, it was in always having had Mr. Thomson for judge. He would rather give a prize than have to judge between the merits of the competitors. His Excellency concluded by proposing the health of the President.

The President said he certainly never rose to respond to a toast with such a sense of gratitude as on this occasion. His Excellency had taken a most flattering notice of his (Mr. T.'s) poor exertions in the cause of agriculture. He begged to return his most sincere thanks for the honor done him. He hoped they would continue not to benefit themselves only, but also posterity. The list of toasts, which had been long, was now got through; and he hoped they would separate

with the same good feeling that brought them together.

Three cheers were then given for the Queen.

Three cheers for Lord Elgin.

Three cheers for the infant Bruce.

Lord Elgin.—May he (the infant Bruce) always be worthy of his name.

The company then separated.

ANNUAL EXHIBITION OF THE PROVINCIAL AGRICULTURAL ASSOCIATION.

The Executive Committee appointed by the Agricultural Association of Upper Canada to manage the Annual Exhibition, held at Kingston, on the 18th, 19th, 20th, and 21st September, 1849, in making up and closing the Accounts of the said Exhibition, beg leave to

REPORT:

That having carefully examined the Treasurer's accounts—both as regards the money received and the expenditure thereof, as set forth in his detailed account of disbursements—and being satisfied of the correctness of the same, the abstract recapitulation sent herewith will show that the amount of receipts from all sources was£1,325 7 10
and the sum expended£1,235 16 5½

leaving a balance of£88 11 4½ to be carried to the general funds of the Association. This sum, with the money said to have been promised by other Districts, and not paid, for the year 1849, viz. Simcoe District, £10; Malden and Anderson, £5, Bytown, £10; Niagara District, £25; Johnstown District, £40—will make together, if recovered, the sum of £178 11s. 4½d., forming the nucleus of a reserved fund for the Association, which we recommend should be increased from time to time, until it shall amount to a sum not less than £500, supposing that bad weather, or other unforeseen accidents, may sometimes occur to prevent the income from the sale of tickets at the Show gates being sufficient to cover the contingent expenses.

Much of the expenditure stated in this Report may be hereafter saved by establishing a code of instructions for the guidance of the Executive Committee appointed in the counties wherein Exhibitions are held, and thereby give means for awarding higher premiums to every branch of our Provincial products.

Great consideration should be had in laying out the Show Ground, and erecting the necessary buildings and sheds to the full dimensions required. Although we, at Kingston, did enlarge upon the scale of grounds and buildings put up in former years, yet we are of opinion that, in future, if the area of the ground (ten acres last year) be not enlarged, the size of the buildings and offices should be made at least one-third larger than the accompanying plan.

Entrance gates, heretofore, have been too few to admit foot passengers. Instead of one gate, there should be at least two, with a ticket office about the centre.—In addition to the doorkeepers, the entrance doors should be superintended by some persons of superior authority, to keep order and prevent confusion.

A separate entrance should be made for carriages and horses, at a greater distance than heretofore from the foot passengers' gate, with a ticket office attached; and no carriage tickets should be sold at the foot passengers' office. We also think it would add to the profits of the Association, as well as be more satisfactory to the public, if the Show Grounds were opened from eight o'clock in the morning until sunset each day.

All entrances of animals or articles intended to be shown for prizes, should be made at least seven days previous to the first day of the Show, at a charge of sevenpence halfpenny each, free of postage; afterwards the charge of entrance to be increased, to prevent late entries. The entrance books should be closed at sunset on the day previous to the Show. A distinct badge should also be provided for persons bringing property to the Exhibition; said badges to be given at the time of making the entry. If the entrance be requested by letter, the badge should be then put up, with the owner's name attached, ready for delivery when called for.

Labels should be carefully attached to all animals and articles exhibited, duly numbered in their respective classes. If for sale, the price should be marked thereon, particularly on implemenis of husbandry. No objection can be made to the owner's or maker's name appearing on the label.

To make it convenient for the judges, a person should be placed in charge of each class of animals and articles upon the ground, who shall, from the tickets, make a complete list of the class in his charge; from which list the judges can proceed to examine, and enter upon their book accordingly; and nothing can be adjudged that is not given to the judges by the person in charge. One book will thus agree with another, and of course the whole of said books will exactly correspond with the Secretary's general entry book.

We recommend that the premium list, with rules and regulations for conducting the Exhibition, shall be prepared and printed at the Head Quarter Board, and made ready for delivery in the month of June, and that the Secretary be directed to send them forth to the several Districts immediately afterwards, with such further instructions to the Executive Committee where the Show is to be held, as may be required for making all necessary preparations for holding the Annual Exhibition.

Our public Dinner did not succeed in anything near the number expected; owing, probably, to the great communications of travelling being by steamboats, and persons visiting the Show coming and returning home on the same day. Therefore, the Executive Committee where the Exhibitions are held must manage the Dinner according to circumstances, and to the best of their judgment, without its being connected with the expenses of the Exhibition.

From what is herein before remarked, relating to the travelling community moving quickly from place to place in the numerous daily steamboats, and in the absence of the facility of travelling on railroads in the winter season, the Committee strongly recommend that the Annual Meeting of the Head Board of the Association should be held in the month of June, at which season of the year a greater number of members would be enabled to attend without much loss of time.

We recommend that an application be made to the Government for an annual grant of £500, for the purpose of carrying forward this great National Institution, and that the money be paid in the month of August in each year, to the Institution, as well as the agricultural grant to the counties. This would give time for the respective counties to make their subscriptions to the Provincial Association before the Show; thereby enabling the officers of the Association to ascertain the full amount of their funds, and to cause the premiums to be made accordingly and paid on the spot; always supposing that the tickets sold at the entrance gates will exceed the expenses for inclosing the Show Ground, erecting the buildings, and all other contingent expenses.

Diplomas have, probably, been rather too profusely distributed to give them that high distinction intended

in the public mind. Such should only be granted for some rare specimen of great ingenuity,—new inventions, or something very superior. Better give a small donation in money for unforeseen occurrences, than issue diplomas on trifling occasions.

The following books and papers are forwarded herewith, for the purpose of being lodged with the records of the Association, viz:—

1. Local Treasurer's Account Current.
2. Minute Book of Executive Committee.
3. Plan and Specification of Show Ground.
4. Book of Entries of Animals and Articles for Exhibition.
5. Judges' Books of Awards of Premiums, (22 in number.)

That the Secretary of the Provincial Agricultural Association should be instructed to complete the best record of the Institution he can collect from such documents as can be procured, and the best information to be had in the localities in which Exhibitions have been held up to the present year; and that this record be put into the hands of the Executive Committee for the time being, for reference; and that from the proceedings of such Executive Committees, the Secretary of the Association shall make the annual addition to such record.

The Committee further recommend to members of County Societies, Judges, Delegates, and others entitled to free entrance to the Exhibition, to introduce themselves on their arrival at the Show, by delivering their personal cards of address to the Secretary, who will enter their names in his book, and furnish them with badges accordingly.

Ploughing Matches have not hitherto succeeded or proved advantageous at the Provincial Cattle Shows in the month of September. The weather in that month is invariably too dry for ploughing sod land—consequently the Farmer's skill cannot be fairly tested. Moreover, the withdrawing so many useful Farmers to attend the Ploughing Matches, deprives the Directors of their valuable assistance upon the ground; therefore, it would probably be best for the encouragement of the useful art of Ploughing, to leave the Ploughing Matches entirely in the hands of the County Societies, who should endeavor to create an emulation for good Ploughing, by bringing forward the Ploughmen of one County to compete with the Ploughmen of another County, or one Township against another Township, in the fall of the year, after the first October rains, at which time the work can be well executed with dexterity, science, skill, and satisfaction to all concerned.

All which is respectfully submitted.

J. MARKS,
Chairman.

EXECUTIVE COMMITTEE ROOM,
Kingston, Canada West,
April 24th, 1850.

AGRICULTURAL ASSOCIATION OF UPPER CANADA.

A Meeting of the Directors and Members of this Society was held pursuant to public notice, on May 20th, at Elgie's Hotel, in this city. J. B. Marks, Esq., of Kingston, Vice President, in the Chair. The Secretary having read the report of the local Committee for the past year, the following resolutions were carried unanimously.

1. Moved by Mr. E. W. Thomson, and seconded by Mr. R. L. Denison,

That the very satisfactory report of the Kingston Executive Committee now read, be received and entered on the minutes of proceedings, and that the warmest thanks of the Association be given to that Committee, for the efficient and satisfactory manner in which they discharged the important duties entrusted to them at the last Exhibition.

2. Moved by Mr. W. McDougall, and seconded by Mr. J. Fitzgerald,

That the thanks of this Meeting be given to Messrs. E. W. Thomson, R. L. Denison and George Dupont Wells, the Finance Committee appointed for settling the outstanding liabilities against the Association, for the valuable services which they have rendered.

3. Moved by Mr. R. L. Denison, and seconded by Mr. Jas. Fitzgerald,

That the thanks of this Meeting be given to the Committee appointed to draft the Bill now read for establishing a Board of Agriculture, and the better management of Agricultural Societies in Upper Canada; and that the said Draft be approved, together with the Memorial accompanying it, and that fair copies of the same be made and submitted through the proper channels, to the several branches of the legislature.

It was also resolved, That E. W. Thomson, Esq., be requested to submit the said Bill and Petition to Her Majesty's Provincial Government, for the purpose of having the measure brought immediately before Parliament.

Mr. Fitzgerald, a member of this Association, having laid before the Meeting a scheme for colonization.

It was resolved, That this Meeting highly approve of the plan, and most cordially recommend it to the attention of the Government, considering it to be exceedingly comprehensive and a very efficient mode of settling the waste lands of the Crown; and when carried into effect in the way proposed, will prove highly beneficial to the country, by filling up the waste lands with a hardy and useful race of people, that will long remain faithful and loyal subjects of the British Crown.

The Directors then adjourned, to meet again at Niagara, on Tuesday, June the 4th, for the purpose of completing the Local Committee and making arrangements for the Exhibition in September next.

DRAFT OF AN ACT

To establish a Board of Agriculture, and to provide for the better organization of Agricultural Societies in Upper Canada.

WHEREAS the improvement of Agriculture is an object of the first importance to the people of this Province, and whereas the establishment, by law, of a Board of Agriculture in Upper Canada, to collect and disseminate statistical and other useful information con-

cerning the agricultural interests and resources of the country, and the making provision for the better organization of Agricultural Societies in that part of the Province, would greatly promote such improvement, it is expedient to repeal the laws now in force in Upper Canada, relating to Agricultural Societies, and to consolidate such provisions thereof as may have been found effective, with the amendments which the establishment of the said Board will render necessary:—

Be it therefore enacted, &c., That the Act of the Legislature passed in the eighth year of Her Majesty's reign, entitled "An Act for the encouragement of Agricultural Societies and Agriculture in Upper Canada," and such parts of the Act of the Legislature passed in the 10th and 11th years of Her Majesty's reign, entitled "An Act for the incorporation of the Agricultural Association of Upper Canada," as are inconsistent with this Act be, and the same are hereby repealed.

BOARD OF AGRICULTURE.

I. *Be it enacted,* That a Board of Agriculture may be established in Upper Canada, to consist of ten members, of whom five shall be a quorum.

II. *And be it enacted,* That the Inspector-General of the Province, and the Professor of Agriculture in the University of Toronto, shall be *ex-officio* members of the said Board.

III. *And be it enacted,* That the Chairman of the said Board shall be appointed by the Governor in Council, from among the members of the Legislative Council or Legislative Assembly; and if appointed from the members of the latter body, he shall not, by accepting the said appointment, vacate his seat in Parliament; and the person so appointed shall also be a member of the Board of Registration and Statistics.

IV. *And be it enacted,* That the other seven members of the Board shall be chosen as follows: the Directors of each County Agricultural Society in Upper Canada, organized according to the provisions of this Act shall, at their first regular meeting, next after the Annual Meeting of the Society, elect Seven persons residing in the vicinity of, or at convenient distances from the City of Toronto, to be members of the said Board of Agriculture, and their names shall be entered in the Journal of the Society; and the Secretary of the Society shall, within one week thereafter, transmit to the Provincial Secretary, a list of the said names, certified by the President of the Society, or in his absence, by one of the Vice Presidents, and also by the Secretary, to be a correct list of the names of the persons so elected to be members of the Board; and the Provincial Secretary shall, in the month of June next, after he shall have received six County lists, cause to be made a full list, to be called the "Board List," of all the names upon the several County lists, setting opposite each name the number of County lists on which the same shall be found, and placing those receiving a higher number of votes above those receiving a lower number of votes, and the seven persons who shall have received the greatest number of County votes, shall be members of the said Board of Agriculture; and if it shall be necessary, in order to fill up the Board, to choose between persons having an equality of votes, the Provincial Secretary shall make such choice, and shall immediately notify the several members of their election, and name the day for their first meeting. And the said Board list and County lists shall, after the election of the first Board, be transferred to the Secretary of the Board of Agriculture, and together with all future lists shall at all times, during office hours, be open to inspection.

V. *And be it enacted*, That any person elected to be a member of the said Board, shall be liable to serve during his term, unless he shall signify his refusal to act, by written notice, to the person who shall have notified him of his election, within ten days after receiving such notice of election; and in case of any such refusal to act, the person next highest on the Board list shall fill the vacancy caused thereby: provided that if, at the first, or any future election, so many refuse to act that a full Board cannot be had from the persons nominated by the County Societies, it shall be lawful for the Governor in Council to fill up the Board.

VI. *And be it enacted*, That the retiring Officers and Directors of the County Societies, at the next Annual Meeting but one of the said Societies, after the election of the first Board, and at each Annual Meeting thereafter, shall elect two persons, in the same manner as is herein-before provided for the election of the first members, and shall transmit a list of their names, properly certified, to the Secretary of the Board of Agriculture; and the two persons who shall have received the greatest number of county votes (or, in case of an equality of votes for more than two persons, the two whose surnames begin with letters standing highest in the alphabet), shall be members of the said Board, and their names be placed at the top of the Board list; and the two members of the Board standing lowest on the Board list shall thereupon retire, unless re-elected.

VII. *And be it enacted*, That if any member of the Board, elected as aforesaid, and who shall not, within ten days after notice of his election, have refused to act, as herein-before mentioned, shall neglect to attend the regular meetings of the Board twice in succession, without reasonable excuse, of which the Board shall judge, he shall, for every such neglect, forfeit and pay to the funds of the Board, the sum of Five Pounds currency.

VIII. *And be it enacted*, That it shall be lawful for the said Board, at any meeting from which the Chairman shall be absent, to appoint one of their number Chairman *pro tempore*; and the said Board may also appoint a Secretary, who need not be a member of the Board, and he shall be, *ex officio*, Secretary of the Provincial Agricultural Association, and shall have an office in the public buildings at Toronto; or, if the Board shall think some other office more convenient, the same shall be provided at the public expense; and the said Secretary shall have charge of the books and papers of the Board, and shall perform such duties as the Board may direct, and shall receive for his services a sum not exceeding per annum.

IX. *And be it enacted*, That the regular meetings of the Board shall be held pursuant to adjournment, or be called by the Secretary, upon the advice of the Chairman, or upon the written request of any three members of the Board—in which latter case, the special object of the meeting shall be stated by the members requesting a meeting; and in all cases, besides a written notice to each member of the Board, a notice of each meeting shall be published in some public newspaper in Toronto, at least ten days before the day of such meeting; and the Chairman and members elected as aforesaid shall be entitled to be repaid, out of any funds at the disposal of the Board, their necessary expenses actually incurred in coming to, attending at, and returning from the regular meetings of the said Board; provided that the amount paid to any member, on account of such expenses, shall not exceed the sum of in any one year.

X. *And be it enacted*, That the members of the Board elected as aforesaid, and the Presidents of the several County Societies, shall be the Directors of the Provincial

Agricultural Association; and the said Board shall be the Council of the Association, and may have and exercise all the powers of the Directors thereof in the interval between the Annual Meetings of the said Directors.

XI. *And be it enacted*, That it shall be the duty of the said Board to examine into, and collect information upon, such questions as concern the Agricultural interests of the Province, and to take such means as they may think best to promote those interests: and they shall prepare, yearly, a report of their transactions, together with such extracts from the reports of the County and Township Agricultural Societies, and such of the proceedings of the Provincial Agricultural Association, as the Board may deem interesting and useful to the public; and the said report, with the suggestions and recommendations of the Board, shall at the session then next ensuing, be laid before Parliament, and published in such manner as the Legislature may direct.

XII. *And be it enacted*, That it shall be the duty of the said Board to prepare, as soon as practicable, and present to the Legislature, a plan for establishing an experimental or illustrative farm, in connection with the Chair of Agriculture, in the University of Toronto, or in connection with the Normal School, or otherwise, as they may deem best; and to make any recommendations they may think expedient for extending agricultural education throughout the Province.

XIII. *And be it enacted*, That it shall be lawful for the Governor of this Province, upon the application of the Chairman of the said Board, to issue his warrant in favour of the said Board, for the payment, out of any appropriated monies in the hands of the Receiver-General, of such sum or sums as may, from time to time, by resolution of the said Board, be declared necessary for effecting the lawful objects thereof: provided that the sums so authorized to be paid as aforesaid shall not, in the whole, exceed the sum of per annum: and provided, also, that a detailed account of the expenditure of any sum so granted shall be stated in the Annual Report of the said Board.

COUNTY SOCIETIES.

XIV. *And be it enacted*, That a County Agricultural Society may be organized in each of the counties of Upper Canada, whenever fifty persons shall become members thereof, by signing a declaration in the form of the Schedule A, to this Act annexed, and subscribing each not less than Five Shillings, annually, to the funds of the said Society.

XV. *And be it enacted*, That the object of the said Societies, and of the Township or Branch Societies in connection therewith, shall be to encourage improvement in Agriculture, by holding meetings for discussion, and for hearing lectures on subjects connected with the theory and practice of Improved Husbandry; by promoting the circulation of the agricultural periodicals, published in the Province; by importing seeds, plants and animals of new and valuable kinds; by offering prizes for essays on questions of scientific inquiry relating to Agriculture; and by awarding premiums for excellence in the raising or introduction of stock, the invention or improvement of agricultural implements and machines, the production of grain and all kinds of vegetables, and generally for excellence in any agricultural production or operation. And it shall not be lawful to expend the funds of the Societies, derived from subscriptions of membership, or the public grant, for any object inconsistent with those above mentioned.

XVI. *And be it enacted*, That the said Society shall hold its Annual Meeting in the month of February in

each year; and shall, at such meeting, elect a President, two Vice-Presidents, a Secretary and Treasurer, and five Directors.

XVII. And be it enacted, That the Presidents of the several Township Agricultural Societies shall be *ex officio* Directors of the County Society; and the said Officers and Directors shall and may, for the year next following the Annual Meeting, exercise all the powers vested in the County Society by this Act.

XVIII. And be it enacted, That the Meetings of the Officers and Directors shall be held pursuant to adjournment, or called by written notice to each, at least one week before the day appointed; and, at any such meeting, five shall be a quorum.

XIX. And be it enacted, That the said Officers and Directors shall, in addition to the ordinary duties of management, cause to be prepared, and shall present, at the Annual Meeting, a report of their proceedings during the year, in which shall be stated the names of all the members of the Society, and the amount paid by each set opposite his name, the names of all persons to whom premiums were awarded, the amount of such premiums respectively, and the name of the animal, article, or thing in respect of which the same was granted, together with such remarks upon the agriculture of the county, the improvements which have been or may be made therein, as the Directors shall be enabled to offer. There shall also be presented to the said Annual Meeting, a detailed statement of the receipts and disbursements of the Society during the year; which report and statement, if approved by the meeting, shall be entered in the Society's journal to be kept for such purposes, and signed by the President, or a Vice-President, as being a correct entry; and a true copy thereof, certified by the President or Secretary for the time being, shall be sent to the Secretary of the Board of Agriculture, on or before the first day of June following.

XX. And be it enacted, That the County Society shall receive the reports of the Township or Branch Societies, and shall transmit them, along with its own report, to the Secretary of the Board of Agriculture, with such remarks thereon as may enable the said Board to obtain a correct knowledge of the progress of agricultural improvement in the said county.

XXI. And be it enacted, That it shall be the duty of the said Officers and Directors to answer such queries, and give such information, as the Board of Agriculture may, from time to time, by circular letter, or otherwise, require, touching the interests or condition of agriculture in their county; and generally to act, as far as practicable, upon the recommendations of the said Board.

TOWNSHIP SOCIETIES.

XXII. And be it enacted, That a Township or Branch Agricultural Society may be organized in each township of any county, or in any two townships united, whenever twenty-five persons shall become members, by signing a declaration in the form of the Schedule A, to this Act annexed, and subscribing, each, not less than Five-Shillings annually to the funds thereof.

XXIII. And be it enacted, That the said society shall hold its Annual Meeting in the month of January in each year, and shall elect a President, Vice-President, Secretary and Treasurer, and three or more Directors.

XXIV. And be it enacted, That the said Officers and Directors shall prepare, and present to the Annual Meeting of the Society, a report of their proceedings during the year, in the same manner as is herein-before directed for County Societies, and containing the same particulars; and shall transmit a true copy thereof, certified by the President or Vice-President, to the Secre-

tary of the County Society, in time for the Annual Meeting thereof in the month of February.

GENERAL PROVISIONS.

XXV. And be it enacted, That when a County Society and Township Societies are organized in any county, it shall be lawful for the Directors of the County Society, if they think proper, to appoint the Exhibition of the County Society to be held in any township of the said county; and the Society of the said township, (or, if two townships be united to form a society, the society of the said two townships) shall not hold a show for that year, but the same shall merge in the exhibition of the County Society, and the funds of the Township or Branch Society, for that year's exhibition, shall be paid over to the Treasurer of the County Society; provided that the said Township or Branch Society shall not forfeit any right to a share of the public grant for not making a full report for such year.

XXVI. And be it enacted, That when the Chairman and Secretary of the Board of Agriculture shall certify to the Governor of this Province, that any County Society has sent to the said Board reports and statements as required by this Act, for the year then last previous, and shall also certify that the Treasurer, or other officer of the said Society, has transmitted to the said Board an affidavit (which may be in the form of the Schedule B, to this Act attached, and may be sworn to before any Justice of the Peace, who is hereby authorized to take the same,) stating the amount subscribed for that year, and paid to the Treasurer of the County Society by the members thereof, and by the several Township Societies of the said county, it shall be lawful for the Governor to issue his warrant in favor of such County Society, for a sum to be taken out of any unappropriated monies in the hands of the Receiver General, equal to three times the amount appearing by the said affidavit to be then in the hands of the Treasurer: provided that no grant shall be made unless £25 be first subscribed and paid to the said Treasurer; and provided that the whole amount granted to any County Society shall not exceed £250 a year.

XXVII. And be it enacted, That every Township or Branch Society, organized according to this act, and sending a report of its proceedings to the County Society, as hereinbefore required, shall be entitled to a share of the grant to the County Society, in proportion to the amount which shall have been subscribed by the members of such Township or Branch Society, and deposited with the Treasurer of the County Society, on or before the first day of July in each year; and the sum so deposited by any Township or Branch Society, shall be repaid, along with its share of the public grant, so soon as the said grant shall have been received by the County Society; Provided always, that not more than three-fifths of the sum granted to any County Society; shall be subject to division among Township or Branch Societies.

XXVIII. And be it enacted, That the Treasurer, or other officer of any County, Township, or Branch Society, who shall certify that a subscription, or any sum of money, has been paid to him, for the Society, when it has not been so paid, or who shall pay back any such subscription, shall forfeit and pay to Her Majesty, the sum of £10 for every such offence, and shall be guilty of a misdemeanor.

XXIX. And be it enacted, That whenever a warrant shall be issued by the Governor of the Province, in favor of any County Society, as hereinbefore provided, it shall and may be lawful for the said Governor to issue his warrant in like manner, in favor of the Treasurer of

the Agricultural Association of Upper Canada, for a sum equal to one-tenth of the sum so granted to the County Society.

FAIRS OR MARKETS.

XXX. *And be it enacted*, that it shall be lawful for the officers and directors of any County, Township, or Branch Agricultural Society, organized according to this act, to appoint a fair or market to be held, not oftener than once a month, at some specified place within their County, Township or Townships, respectively, for the sale of stock, agricultural produce, and all other commodities whatsoever; Provided that at least one month's notice of time and place of such fair or market, shall be given in some public newspaper published in the said County; or if no such paper be published therein, then in the newspaper which shall be published nearest to the said County.

XXXI. *And be it enacted*, That such Fair or Market shall be, as respects any thing that may be sold lawfully thereat, and which shall be sold in a public manner, between the hours of ten in the forenoon, and five in the afternoon, a market overt, and the usual common law incidents shall attach to such sales; Provided always, that the property in any animal, article or thing, proved to have been feloniously taken from the owner, shall not be altered by any such sale.

XXXII. *And be it enacted*, That it shall be lawful for the Officers and Directors of such Society, if they shall think proper, to fix a moderate toll to be paid by the seller of any article at such Fair or Market, for the purpose of defraying the necessary expenses of holding the same; Provided that the amount of such toll shall be specified in the public notice hereinbefore required to be given; and any Justice of the Peace, on proof of a sale at such Fair or Market, and refusal to pay the said toll, may issue his warrant against the seller, and levy the amount thereof by distress and sale of the seller's goods and chattels, as in ordinary cases of distress.

SCHEDULE A.

We whose names are subscribed hereto, agree to form ourselves into a Society, under the provisions of the Act of the Legislature, 13 and 14 Victoria, cap. to be called the "County [Township or Branch, as the case may be] Agricultural Society of the County of " [or Township of], and we hereby severally agree to pay to the Treasurer, yearly, while we continue members of the said Society (any member being at liberty to retire therefrom upon giving notice in writing, at any time before the Annual Meeting, to the Secretary thereof, of his wish so to do) the sums set opposite our respective names; and we further agree to conform to the rules and by-laws of the said Society:—

| NAME. | RESIDENCE. | £ | s. | d. |
|-------|------------|---|----|----|
| | | | | |
| | | | | |

SCHEDULE I.

COUNTY OF _____, } I, A. B., of the Township of _____
 TO WIT: _____, Treasurer of the
 County Agricultural Society of the County of _____
 make oath and say, that the sum of _____ pounds
 shillings and _____ pence has been paid into my
 hands since the first day of February last, by the Town-

ship Agricultural Societies of the said County, and for members' subscriptions for this year; and that the sum of _____ pounds, &c., has been paid into my hands as subscriptions for this year, by members of the said County Society; and that the said sums, making in the whole the sum of _____ pounds, &c., now remain in my hands ready to be disposed of according to law.

Sworn to before me this _____ day of _____
 A. D., 185 _____, A. B.

Justice of the Peace for the County of _____

DRAFT OF PETITION.

To the Honourable the Legislative Assembly, in Parliament assembled.

The Petition of the Agricultural Association of Upper Canada, humbly sheweth—

That four-fifths of the people of Canada are engaged in agricultural pursuits, and that the advancement of this great interest, by the introduction of improved systems of practice, aided by the discoveries and suggestions of modern science, is an object of paramount importance to the welfare and progress of this country.— That the present condition of agriculture in Canada, is susceptible of immense improvement, and, therefore, all available means should be promptly brought into operation for the promotion of so valuable a purpose.

Your Petitioners understand that a Chair of Agriculture was recently established in King's College, but they are not aware that any means have been adopted to procure a Professor to fill such chair. Your Petitioners perceive that by the 49th clause of the New University Act, it is provided,—“That the Commissioners shall be further directed by the said Commission of Visitation to consider and report upon the “the best means of making the Chair of Agriculture recently established in the said University more efficient “and useful, and to consider and report generally upon “the best means of making the said University, as far “as its funds will permit, the instrument of drawing “forth and stimulating the latent talent of the youth of “Upper Canada.”

The recommendation is good, but your Petitioners conceive that it is not the prompt mode of action the circumstances of the case require; as, in their opinion, the Chair of Agriculture should be one of the first to be filled, and that it should be sufficiently endowed to secure the services of a competent Professor, whose time might be occupied in part, in visiting and lecturing in the several counties of the Province, for the purpose of diffusing Agricultural knowledge, collecting facts and making observations in reference to the practical improvement of this important art, and otherwise “drawing forth and stimulating the latent talent of the youth of Upper Canada.”

Your Petitioners beg also to call the attention of your Honourable House, to the importance of establishing a Board of Agriculture, for that portion of the united Province, called Upper Canada, and that this Board should be empowered to take such other measures as may seem to it best calculated to advance the most important of all the interests of Canada, the improvement of her agriculture. For this purpose your Petitioners beg to call the attention of your Honourable House to the provisions of a Bill introduced herewith, for promoting an improved management of Agricultural Societies, and they pray that it may be passed into a law, with such alterations and amendments as your

Honourable House may in its wisdom deem necessary.

Your Petitioners, in conclusion, beg to state explicitly their firm conviction, that it is to the practical development, by the aids of science and enlightened systems of practice, of the immense natural resources with which Providence has favoured this land, that we must mainly look amidst the constantly increasing competition of the world, for increase of wealth and progressive advancement as a people.

And your Petitioners, as in duty bound, will ever pray.

(Signed) J. B. MARKS,
1st Vice-President.
T. CLARK STREET,
2nd Vice-President.

(Signed) GEO. BUCKLAND,
Secretary.

TORONTO, May 20, 1850.

MEETING OF DIRECTORS AT NIAGARA.

A meeting of Directors of the Agricultural Association, was held, pursuant to adjournment, in the town of Niagara, on Tuesday, June 4th, for the purpose of filling up the Local Committee, and commencing the necessary arrangements for the next exhibition in September. Present—J. B. Marks, and T. C. Street, Vice Presidents; E. W. Thomson, ex-President; R. L. Derison, Treasurer; Geo. Buckland, Sec'y; J. Lemon, Wm. McMicking &c. &c. The Officers of the Society were met by a number of gentlemen of the town and neighborhood of Niagara, and a strong and unanimous feeling was evinced towards the carrying out of the objects of the Society at the next exhibition, with a zeal and spirit proportionate to the magnitude of those objects. The Secretary read a letter from Mr. H. K. Boomer, of St. Catharines, stating that the grant of £25, made by the Niagara District Agricultural Society, towards the funds of the last Exhibition, will shortly be placed to the credit of the Association. It was determined that the space to be inclosed, with the buildings, offices, &c., should be of greater dimensions than they were at Kingston. The Local Committee will shortly advertise for tenders. The spacious common, adjoining the noble river and steamboat landing, will afford every thing that could be desired for the convenience and comfort of visitors and exhibitors. We give below the names of the gentlemen composing the Local Committee, who will meet, for the transaction of business, every Saturday afternoon, at two o'clock, at the office of the Secretary in Niagara.

LOCAL COMMITTEE.

ANDREW HERON, *Chairman.*

R. WAGSTAFF, *Treasurer.* | JOHN SIMPSON, *Secretary.*

Sheriff Kingsmill,

Judge Campbell,

W. H. Dickson, M.P.P.

Dr. Melville,

John Lemon,

George Boomer,

William McMicking,

Richard Hesseott,

William Woodruff,

John Gibson,

Gilbert McMicken,

Dilly Coleman.

COUNTY OF YORK (LATE HOME DISTRICT) AGRICULTURAL SOCIETY.

The Spring Exhibition of this Society was held in this city on the 8th ultimo. The principal characteristic was the Horses, which were numerous, several possessing very high merits. In horn cattle the Show was rather scanty, but we observed some good specimens of improved and native breeds. Of sheep and implements the stock was small, which was the case with dairy produce, sugar, &c.

The number of visitors was very large, the greater part being citizens. A pressure of work, increased by the peculiarity of the season, prevented the attendance of many from the country. His Excellency the Governor General, attended by Colonel Bruce, &c., came on the ground about two o'clock. We were glad to hear, that, by the zealous exertions of several individuals, the members of this society have of late been much increased, and a considerably larger sum than has been the case for some time past, was awarded on this occasion for premiums. The citizens of Toronto cannot do better than extend to this valuable society a liberal support, by which they will secure one Show at least during the year being held in the city. The removing of the Show into the country, last fall, has been found, in more ways than one, to work well for the funds and usefulness of the Society.

A good, substantial dinner was got up at Elgie's Hotel, Yonge-street, and was well attended. The President of the Society, E. W. Thomson, Esq., discharged the duties of the chair with his wonted good feeling and ability. After the usual loyal toasts were given—including the Governor-General, as Patron of the Society—(all of which, it is unnecessary to say, were warmly received,) the meeting was addressed by Messrs. Robertson and Hind, of the Normal School, who made a strong impression in favor of the improvement and extension of popular education. The Hon. Malcolm Cameron followed with an effective address, on the connection between agriculture and commerce. Col. Thompson, Mr. Buckland, Mr. Atkinson (the Society's Treasurer), and others, severally addressed the meeting; and upon the healths of the two indefatigable Secretaries being given, in highly complimentary terms, Messrs. Wells and Crew returned thanks in a suitable manner. We are restricted, by our limits, to this brief notice.

TOWNSHIP OF YORK AGRICULTURAL SOCIETY.

The Spring Show of this Society took place at Mr. James Nightingale's, on Yonge Street, on the 7th ult. The show of Horses was good, both in point of number and quality, but in the other departments neat cattle, sheep, dairy produce &c., the entries little exceeded former years, either in number or excellence. This Society has lately more than doubled its numbers; a result so desirable has been mainly accomplished by

some extra exertion on the part of a few individuals, among whom stands conspicuous Mr. Joseph Ashford, the proprietor of the well known stud-horses *Young King Alfred* and *Grand Turk*.

The proceedings of the day terminated with a dinner, which was profusely got up by Mr. Nightingale. The President, Franklin Jakes, Esq., occupied the chair, and after the disposal of the routine toasts, a number of observations were made, by several speakers, interesting to farmers.

THE FARMER'S GUIDE TO SCIENTIFIC AND PRACTICAL AGRICULTURE.

We noticed in our last, the appearance, from the American press, of this most valuable publication, and we have since received the third number, which fully sustains the high and useful character of the work, as regards both literary and mechanical execution. It is the joint production of two eminent men, whose qualifications for such a task are well understood and appreciated on both sides of the Atlantic. Mr. Henry Stephens, of Edinburgh, the author of the celebrated *Book of the Farm*, and Editor of the *Journal of the Highland Agricultural Society*; and Mr. John P. Norton, Professor of Scientific Agriculture in Yale College, New Haven, a pupil of Professor Johnston, and well known to the Scientific and Agricultural world, for his elaborate analysis of the oat, for which he received the Fifty Pounds Premium offered by the Highland Society. Mr. Norton has also just issued, under the patronage of the New York State Agricultural Society, an admirable little treatise on the Scientific Principles of Agriculture, adapted to the use of farmers and common schools. From the knowledge and experience of two such men, the public may confidently look for an original and first-rate production; Mr. Norton's contributions adapting it to the climate and peculiar wants of this continent. This arrangement appears to us peculiarly happy; since the American cultivator will possess a work which, in its main features, will be found to be his practical wants, and which will give him, at the same time, a clear and comprehensive view of the agricultural practices of the best cultivated portions of the British Islands. We have no doubt but this American edition will be read with both pleasure and profit, by many of the enterprising cultivators of our father-land.

The Farmer's Guide to Scientific and Practical Agriculture, embraces a wide and most important field of enquiry, and judging from what is already published, and the high standing of its authors, we have perfect confidence that the work, when completed, will fully sustain the very comprehensive character of its title.—The practical details of the farmer's business, in the natural order of their sequence through each season of the agricultural year, together with the scientific principles on which their successful issue must depend, are

so fully and simply explained, as to be brought fairly within the reach of the most ordinary intellect. The work will be completed in twenty-two numbers of sixty-four octavo pages each, handsomely printed, with upwards of six hundred steel and wood engravings, executed in the best style of British art, for the very moderate price of a quarter of a dollar each number. Such of our readers as desire to have within their reach a carefully digested and systematic treatise on the theory and practice of agriculture, brought down to the latest moment, and specially adapted to the wants of this continent, should at once order the publication. Mr. Rowsell, and Mr. McClear, of this city, can supply it in parts as they are published, and, we presume, all other booksellers throughout the British Provinces.

THE AGRICULTURAL CAPABILITIES OF NEW-BRUNSWICK.

The fourteenth, fifteenth and sixteenth chapters of Professor Johnston's Report contain a great variety of recommendations, which are nearly all condensed into a summary form in the succeeding chapter, which summary we now lay before our readers, in the hope that the suggestions of this eminent scientific Agriculturist will have the weight to which they are justly entitled.

I. Points to which the attention of the Legislature may be beneficially directed—

1st. Arterial drainage of wet lands, swamps and marshes.

2d. Register of information for Emigrants, under the direction of each local Society or in each town or district. This Register to contain information regarding both the public lands and private farms which are for sale.

3d. The introduction of a certain amount of Agricultural instruction into the Elementary and Grammar Schools.

4th. Into the Normal Schools of Fredericton and Saint John.

5th. Into the Academy of Sackville and the College at Fredericton.

6th. An Educational Farm at Sackville, in connection with the Academy and the agricultural instruction given there.

7th. An Agricultural High School or College at Fredericton, connected with a School Farm. In this High School a full course of agricultural instruction should be provided, and it may or may not be connected with the existing College at Fredericton.

8th. The establishment of District Corn and Cattle Markets to be held in stated places at stated periods, for the convenience of buyers and sellers, and the fixing of prices.

9th. To tax all granted and unimproved lands above a certain number of acres, the proceeds to form a fund for the arterial drainage and other general improvements of the surface in the Parish, Township, District, or County.

10. The establishment of a Central Agricultur-

al Society, to whom the grants of money to local Societies should be entrusted.

11th. To open up some of the new roads through or into the ungranted lands of superior quality which are coloured red in Maps II. III. attached to this Report.

12th. A removal of the difficulties which at present stand in the way of the selection, survey and purchase of land. These difficulties are a great hindrance to the emigrant, and have no doubt greatly diminished the inducements to settle in the Province.

13th. To lessen if possible the causes for litigation which at present arise so often out of the unsettled boundaries of farms.

14th. By township or district surveys to make it more easy for an emigrant to settle himself, and so to define the boundaries of farms as to leave no cause for such litigation among future settlers.

15th. By small special grants of money to aid in the formation of Agricultural Libraries.

16th. The employment of a peripatetic practical Agriculturist to visit the different settlements at the application and under the direction of the local Societies, to instruct the settlers in the husbandry of manure, turnips, and other practical branches.

17th. To obtain an economical and practical Survey of the Coal Field of New Brunswick, with the view of setting at rest the question as to the supply of fossil fuel in the Province.

18th. As less urgent than this, a continuation of the Geological Survey.

19th. An analysis of the various limestones found in the Province, in reference to their fitness for agricultural and other purposes.

20th. An analysis of the iron ores of the Province, and an *economical* Survey and Report as to their extent, would also be an important work for the Colony.

II. Points to which *Agricultural Societies* are recommended to direct their attention:---

1st. Encouragement of thorough drainage by premiums, and by the introducing of machines for the home manufacture of draining-tiles at a cheap rate.

2d. Of deeper and sub-soil ploughing by premiums, and by the purchase of sub-soil ploughs for the use of the locality.

3d. Of the establishment of Agricultural factorships at each of the principal market towns, and local or district fairs or markets.

4th. Of the improvement of native breeds of Stock by judicious selection, or by the importation of adjoining districts, or from abroad, of better or purer breeds.

5th. The opening up of roads through ungranted lands of good quality.

6th. Providing local registers of wild lands to sell—their quality, locality, price, &c.:—of partly improved farms which an emigrant may buy; their localities, extent, qualities and prices; and of farmers who are in want of servants; the wages they offer, &c., &c.

7th. To discourage the system of selling off

hay from the farm, and of otherwise robbing it, without laying something upon it which shall be equivalent to what it has lost.

8th. A trial of the use of lime, judiciously applied to land in rich vegetable matter, naturally poor in lime, or on which crops grow too rank.

9th. The formation of Agricultural Libraries in each limited district, within which the books will be readily accessible, and the circulation of Agricultural Periodicals.

10th. To encourage trials in growing flax generally, hemp, where the soil is specially adapted to it; broom-corn, in warm and early situations; hops for home use and exportation; the sunflower and poppy, for the manufacture of oil.

11th. The establishment of one or more Agricultural Implement manufactories, and to encourage the use of home made tools.

12th. The more general preparation and use of composts of all kinds, and of green manures as a means of restoring worn out land.

13th. The erection of warmer, well ventilated cow houses for the cattle in winter.

14th. The adoption of a more generous and careful mode of rearing young stock.

15th. A better feeding of the whole cattle during winter.

16th. The use of linseed or linseed-cake, and of prepared food in the feeding of cattle.

17th. The growth and use of turnips and cabbage as additions to the usual winter's food of the cattle; and as a means of raising food for a larger number of stock from the same extent of land.

18th. A more generous feeding of milch cows in winter and spring, with the use of oil-cake, linseed-jelly, and the whey of their own milk, as additions to their ordinary food.

19th. The introduction of chaff cutters, linseed and bean crushers, cob cleaners, horse rakes, &c.

20th. Attention to the curing of beef, pork and butter.

21st. Collection of waste bones, the erection of bone mills, and the use of crushed bones as a manure.

22d. Experiments with gypsum, wood ashes, sulphate of ammonia, &c., as manures.

23d. More extended fall ploughing.

24th. Encourage the growth and consumption of oats as an article of ordinary diet among the people.

25th. The importation of changes of seed, and the sale of it in the district at reasonable prices.

26th. The encouragement of the home growth of grass, turnip, clover and other small seeds, of a pure and unmixed quality.

27th. The covering of manure heaps, so as to protect them from the great heats of summer, and from washing of the rains and melting snows of spring.

28th. Attention to the growth of wool, either as an article of export or as a means of employment for the members of the farmers' family in winter.

29th. A more frequent use of marsh, swamp, sea and mussel mud, as a means of fertilizing the land.

30th. It would be important also to promote the keeping of Meteorological Registers in each County, by which the fall of rain, the temperature, the prevailing winds, &c., in different localities, may be accurately ascertained.

As one way of promoting the objects above alluded to; Agricultural Societies may recommend, encourage, and offer premiums for or on such subjects as the following:—

1st. On the draining of land without burning.

2d. On the drainage of swampy places by leading cuts or outfalls.

3d. On the thorough drainage of clays, of soils resting on clay sub-soils, and of land liable to be baked or burned up in summer, or on which crops are *winter-killed* by the frosts of spring.

4th. For rolling and draining grass lands liable to be winter-killed.

5th. For experiments on deep and sub-soil ploughing.

6th. For the growth of winter grain.

7th. For wheat grown on old land.

8th. For the earlier cutting down of oats and other grain.

9th. For the best or most skilful rotation of crops.

10th. Experiments with other kinds of grasses besides clover and Timothy, commonly used. Native grasses might probably be found that would be equally *nutritive, productive, hardy and lasting* in the ground, as these, or *more so*. *Rye grass* does not suit the land or climate, as it is usually thrown out or *winter-killed*. After the Timothy dies out, other native grasses come up which are almost always poorer than the Timothy, but if a good selection of native grasses were sown, and allowed to get hold of the land while it is in *good heart*, they might form a thick sole of grass, which if properly pastured would not for many years become poor or mossy.

11th. For the raising of grass-seeds, and on the best way of laying down to grass.

12th. On the growth of flax, hemp, poppy and sun-flower.

13th. On the use of bones as a manure generally.

14th. For special trials with dissolved bones and ammoniacal salts in promoting the growth of wheat.

15th. On the saving of liquid manure by tanks or otherwise.

16th. With lime, and with gypsum, or gypsum and salt, or lime and salt.

17th. On the use of nitrate of soda, common salt, ashes leached and unleached, ammoniacal salts, and other similar fertilizing substances.

18th. With swamp, sea, mussel, and other varieties of mud, either alone or in the form of compost.

19th. In ploughing in manure in autumn.

20th. On top dressing the young clovers with earthy compost in autumn as a preservative against being *winter-killed*.

21st. For the leaving or planting of trees for the purpose of shelter from cold, injurious, or prevailing winds.

22d. For the planting of maple groves and manufacture of sugar.

23d. For the best samples of home made flour and oatmeal.

24th. In improving stock from native as well as from imported animals.

25th. For cattle which give the richest milk.

26th. For the largest produce of milk, cheese and butter from a single cow, or from a dairy of cows.

27th. For the best arranged and most comfortable cow houses.

28th. On the superior profit of warm well ventilated stables in saving food.

29th. On the comparative profit of sparing and plentiful feeding in winter.

30th. On the use of the straw of Indian-corn in feeding cattle.

31st. For the manufacture, importation, and use of oil cake in feeding.

32d. On the feeding of milch cows with the whey of their own milk.

33d. On the curing of beef, pork and butter.

34th. On the comparative profit of horses and cattle in the cultivation of arable farms—especially in reference to the shortness of the season.

35th. For the introduction and use of any implements which save labour profitably.

36th. For the introduction of any new and profitable employment for winter.

37th. For the cleanest and best fenced farm—the best cultivated on the whole—the largest crops on the whole, the largest and finest crops of particular kinds, the finest and best treated stock of cattle, or pigs, or sheep—the largest best managed or most productive dairy, the most profitably managed, &c., &c.

III. Points to which *individual farmers* are recommended to direct their attention:—

1st. Through drainage of clay soils, wet slopes and bottoms, and marsh or dyked lands, where the fall is sufficient to admit of a ready outlet, and a sufficient depth of drain.

2d. For cleaning and deeper ploughing of the soil.

3d. More care in saving, collecting and applying manures of all kinds—liquid and solid.

4th. An abandonment of the system of cutting repeated crops of hay off the same land, till it is exhausted.

5th. An abandonment also of the custom of taking repeated successive crops of corn off the same land, without alternation with other crops and without manure.

6th. Cutting down grain of all kinds before it is fully ripe, and grass before it runs to seed.

7th. Cutting down Indian corn with a knife as is done in New York, and use of the stalks in feeding milch cows and other stock.

8th. Sowing buckwheat or rye to plough in green, and use of bone dust to renovate exhausted and worn out lands.

9th. Ploughing deeper in all cases than has hitherto been usual, but especially such land as has ceased to be productive as formerly.

10th. Taking advantage of every open day in the fall to plough and prepare the land for the spring sowing.

11th. Selecting good stock of cattle, pigs and sheep for keeping through the winter.

12th. Providing warm but well ventilated housing for them.

13th. Feeding them plentifully, that they may be in good condition when spring arrives.

14th. Growing turnips and linseed with the view of adding to the quantity and enriching the quality of the food he has at his disposal.

15th. Collecting carefully and preserving under cover all the manure made by his stock during

the winter, that he may have it abundantly and in good condition for his potatoe and green crops when the time of planting or sowing comes.

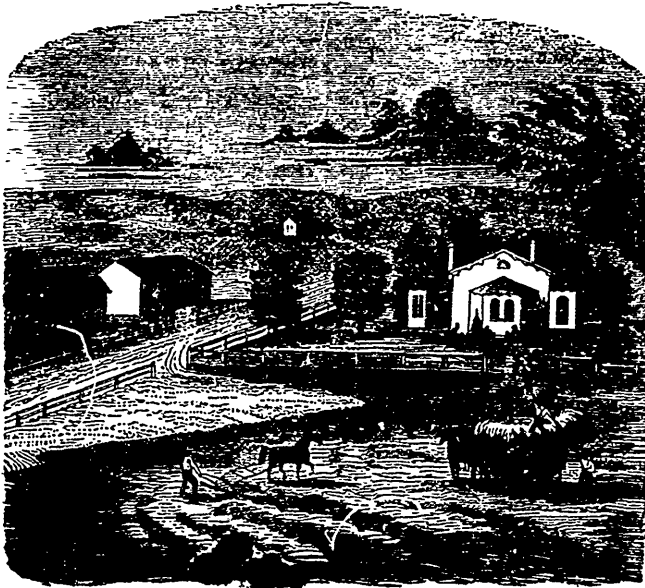
16th. Manuring annually, by top dressing, his worn out hay lands, when the land is not stumped and therefore cannot be ploughed up.

17th. Collecting carefully all waste bones, breaking and applying them to the land; especially the use of bones is to be recommended upon land which has been worn out by over cropping with corn.

18th. Sowing down always with artificial grasses, when land, after a corn crop, is to be left with the view of its producing hay.

19th. To provide shelter, by fences or plantations, for his fields and stock.

THRIFTY vs. UNTHRIFTY.



There is no difficulty in determining the character and intelligence of the farmer by the appearance and condition of the farm. When you see good fences, well cleared fields, a neat farm house, and comfortable outhouses, you will seldom err in concluding that industry, intelligence, sobriety, and "good luck," as it is often improperly called, are practised and understood by the proprietor. Where, on the other hand, you meet with broken-down fences, ill cleared and badly cultivated fields, a miserable dilapidated dwelling, a crazy, shattered barn, &c., &c. your will

never be wrong in saying there lives a man who is ignorant, drunken, idle, or, it may sometimes happen, the victim of lingering disease and poverty! There is a middle class between these two, and, we regret to say, a rather numerous class, in Canada, who are neither thrifty nor unthrifty, neither industrious and tidy, nor dissolute and idle, but who are wholly indifferent to appearances, and whose farms, are liable to be mistaken for the residence of Mr. Unthrifty. Such are more frequently met with in new settlements, where the chief object is to clear as much land

and raise as much wheat as possible. The advantages, nevertheless, even here are greatly in favor of taste and neatness. Many a field of grain has been destroyed in one night for want of a good, well fitted gate, instead of a *lazy* pair of bars, or mere "gap." Many a good horse has been foundered for want of a well secured bin, or a door with proper fastenings.

A mere habit of carelessness which grows up with the bush farmer, almost necessarily, and which nothing but a good early training or a peculiar bent of mind, which some people have naturally, can overcome, is a fruitful cause of many losses, misrepresents the farmer to the passer-by, reproduces itself in his sons, and thus not only deforms the face of the country while the old man lives, but makes it look ugly after he is dead. Such being the effect of mere carelessness,

we need give very little space to illustrate the evils, the wretched consequences of absolute idleness and dissipation, to the farmer. We have presented two cuts in this number in opposite pages which convey the lesson to the mind more forcibly than our pen can do. We leave the reader to his own reflections.

It is a great mistake to consider husbandry too narrow and mean an employment for a man of taste and education. Is it possible to propose a nobler entertainment for the mind of man than he would find in the inquiries he must make into the operations of nature? The subject is so vast that it can never be exhausted; for, could he live for ages, he might still go forward in his researches, and still make fresh discoveries, that would excite afresh his admiration of the riches of Divine Wisdom.



ON THE DIGNITY OF LABOR.

(From a Speech of the Bishop of Oxford, at the Westminster Meeting in aid of the Exhibition of the Works of Industry of all Nations, to be held in 1851.)

I believe that the tendency of this exhibition is to benefit the working classes. I am not one of those who have any secret misgivings as to there existing any intestine warfare between Christianity and science or manufactures. I know that there are men upon whose excellence it would be needless for me to enlarge who do entertain such apprehensions. In the quiet of their learned study, conversing with times that are gone by, they are startled by the din of the busy

age, as it rises through their windows. They listen with apprehension and dislike to the voice of the age in which their lot has been cast, and they call it a mechanical age, and find with it other such like faults. Now, I do not sympathise with their opinions. I deny, and hold it as unworthy of Christianity to suppose, that there can be any opposition whatever between the fullest development of those faculties with which Almighty God has furnished man, and that Christian faith which is to train those faculties to their highest ends. When from these abstract considerations I turn to the actual world around me and survey these mechanical inventions, I see in many instances beneficence marking these very mechanical improvements, and they have a

direct tendency to ameliorate the condition of the lower classes of the people, and to bring within their reach advantages which were before restricted to the richer grades of society. And then, moreover, whether we regard the results of mechanical science or the products of art, I think we shall be convinced that there is a connexion between perfection in these and the faith of Christianity. As an historical fact, it is plain that there never was a country or a time which could long maintain pre-eminence in art or science divorced from Christianity. I believe that the history of all countries will show this.

Look for a moment at the Chinese. We find that nation, so eminently gifted with those special faculties which would naturally make them superior in all the mimetic arts, in a state of perpetual stagnation, having lost even the power of using the inventions of former ages. And this is so because they want the spring which Christianity alone can give to set all their faculties in exercise, and to develop them to their highest standard of perfection. I think it, therefore, my part, holding the place which I do hold in the Christian Church, to come forward, not with any secret misgivings; not with any cold, injurious doubts or hesitations, but heartily, and I may say, rejoicingly; not in spite of my Christianity, to aid according to my powers in the development of science, and the mechanical arts. This, it is my firm belief that it is my duty to do, and I feel that I am on my right ground when I stand here and address these observations to you. But I feel, moreover, that it is possible a nation may be too much occupied with the works of art, and with the triumphs of science; and that in attending too exclusively to these, it may lose that eternal flow of life, without which all external developments are worse than useless. I see, or I think I see, that the proper attribute of Christianity, and of a Christian teacher, is that they should mingle in works like these; and that in doing so, they should try to call attention to the wants and the necessities of the producers of these works, and to remind the nation that, after all, man is greater than his works, and the workman superior to his fabric. So this exhibition calls attention to the dignity of labor; it sets forth in its true light the dignity of the working classes; and it tends to make the other people feel the dignity which attaches to the producers of these things.

In more than one way some such happy results may follow. For instance, it is one special part of our duty to ameliorate the disadvantages which must almost of necessity attend upon the workers of these results. And here I might first speak of their physical disadvantages: for we have lately seen the operations of science specially applied to the alleviation of some of these disadvantages; such as the invention of the magnetic gauze which is placed over the mouth of the worker in steel filings, to prevent him from inhaling those particles which would be injurious to his health. Now, I think that when science is thus brought to bear upon the amelioration of the phy-

sical condition of the producers of those results of industry, it may be even seen as pointing to its noblest aim, and then by it God is served while it blesses man. By all such well-directed labor, indeed, we are re-conquering in the domain of nature the rights of man. Man was meant to reign over the elements, to replenish the earth, and to subdue it: and as we have come to the days of its mighty replenishment, so the Almighty hand of the Great Designer has guided us to the approach of that day when we shall see the subjugation of the elements. What are all those discoveries of science? What are all those mighty engines which almost annihilate space, and connect together the most distant places? What are they but a giving back to man his original birthright, a power over the elements, and a command over the material world? What is it when we turn from power to beauty? when we teach the loom to imitate the most beautiful productions of nature? what is it but following the leadings of that mysterious hand which beckons man on by labor and industry to regain his lost inheritance, and to imitate the works of his Almighty Creator? What are the most delicate fabrics of the most beautiful loom but imitations of the works of the God of Nature? And what are all the works that we are engaged in doing, but a striving to imitate, by dint of hard labor, what the Almighty Will did with a word, when out of the dumb forces of the struggling and confused chaos, he called forth by his fiat the harmonious voice of Nature; when out of the boiling and seething mass in that chaotic cauldron he called forth order and beauty, decked the earth with trees brightened it with flowers, gladdened it with his sun, and finally set man in the midst of it to achieve new triumphs, and to attain new conquests by yielding gladly to that primeval curse which God turned into a perpetual blessing, when he made that labor, which is the instrument of man's victory, to be at the same time the discipline of his spirit.

VARIETIES OF THE OAT.

At one of the recent monthly meetings of the *Highland Society*, Mr. Lawson, the celebrated seedsman of Edinburgh, read a very elaborate and interesting paper on the various kinds of oats cultivated in the different districts of Scotland and the adjacent islands. The oat may be said to be the staple agricultural production of that country, whose soil and climate are so well adapted to its growth. Although in Canada we cannot hope to equal either Scotland or Ireland in the production of this valuable cereal, yet much may be done even here to improve the quality of the oat; and the following facts, gleaned from the before mentioned article, will doubtless be read with interest by many of our readers.—It is worthy of particular remark, that according to the most approved authorities the meal obtained from the oat holds a foremost rank among the various grains used for human food. The most healthy and muscular people are those who

make a free and constant use of it:—such for example as the laboring classes of Scotland and Ireland, and the north of England.

There are upwards of 60 varieties of Oats known to botanists, of which about 30 are grown in Scotland. Of these, however, only a dozen are in general cultivation; viz., Potato, Hoptoun, Sandy, Early Angus, Late Angus, Grey Angus, Blainslie, Berlin, Dun, Friesland, Black Tartarian, and Barbachlaw. These are enumerated in the order of their general cultivation, and nearly to that of their economical value, as well as their fitness for soil and situation, in regard to shelter, ranging from the best to the worst. Several other varieties are cultivated in certain districts according to soil, elevation &c. :—some of them being merely experimental and limited to scientific farmers.

To obtain new varieties possessing qualities specially adapted to particular soils, altitudes, and climate, is a task of great difficulty, requiring correct knowledge and the exercise of great patience and perseverance. By such means much that is truly valuable has been, and may yet be accomplished.

The quantity and quality even of the Potato Oat may be advanced much nearer perfection, by selecting from the panicle, as the progenitor of an improved variety. Early ripening may be induced by selecting such grain for seed as comes earliest to maturity. By careful observation and experiment much yet remains to be accomplished in the improvement of our cereals as well as domestic animals.

“Agriculture is confessedly but yet in its infancy. Its exaltation to the class of science is comparatively recent. We should all, therefore, cheerfully lend a helping hand in solving this great problem which science has propounded, and by *experiment alone* can this be done. Experiments, as Von Thaer tells us, are not easy; still they are in the power of every thinking man. He who accomplishes but one, of however limited application, and takes care to report it faithfully, advances the science and consequently the practice of agriculture, and acquires thereby a right to the gratitude of his fellows, and of those who come after.”

INDIVIDUAL ENTERPRISE.—*Lewis G. Morris, Esq.*, of Mount Fordham, Westchester Co., N. Y., is gone to England to attend the sale of short horned stock of that celebrated breeder, the late Thos. Bates, Esq., of Yorkshire. Mr. Morris's importations—if he makes any—may be seen at the second annual sale at Mount Fordham, in October next.

THE SEASON IN SCOTLAND.

Perhaps no season ever beamed more smilingly on our happy land than that which is now coming to a close; for assuredly the weather has throughout maintained a character so mild and so well fitted in every respect for the progress of spring operations in the garden, that a season

like this must be looked upon as a perfect wonder in this cloudy, rainy country. The bulk of garden seed crops have now been committed to the soil, and the dry and warm seed-beds in which they have been enfolded give every hope of a good return for spring labors. Let every one who has put his hand to the spade and plough now breathe the poet's prayer:

“Be gracious, Heaven! for now laborious man
Has done his part. Ye softening breezes, blow!
Ye softening dews, ye leader showers, descend!
And temper all, thou world-reviving sun,
Into the perfect year!”

Scottish Agricultural Journal.

THE FARM AND THE DESK.

The *New York Sun* truly remarks, That the young man who leaves the farm-field for the merchant's desk, or the lawyer's or doctor's office, thinking to dignify or ennoble his toil, makes a sad mistake. He passes, by that step, from independence into vassalage. He barter a natural for an artificial profession, and he must be the slave of the caprice of customers and the chicanery of trade, either to support himself or to acquire a fortune. The more artificial a man's pursuit, the more debasing is it morally and physically. To test it, contrast the merchant's clerk with the plough boy. The former may have the most external polish, but the latter, under his rough outside, possesses the truer stamina. He is a freer, franker, happier and nobler man. Would that young men might judge of the dignity of labour more by its usefulness and manliness, than by the superficial glosses it wears. Therefore, we never see a man's nobility in his kid gloves, nor in his toilet adornments, but rather in that sinewy arm, whose outlines, browned by the sun, betoken a hardy and honest toiler, under whose farmer's or mechanic's vest a kingly heart may beat.

THE FARMER—A BEAUTIFUL PICTURE.

The man who stands upon his own soil, who feels that by the laws of the land in which he lives—by the law of civilized nations—he is the rightful and exclusive owner of the land which he tills, is, by the constitution of our nature, under a wholesome influence, not easily imbibed from any other source. He feels—other things being equal—more strongly than another the character of a man as the lord of the inanimate world. Of this great and wonderful sphere, which, fashioned by the hand of God, and upheld by his power, is rolling through the heavens, a portion is his; his from the centre to the sky. It is the space on which the generation before him moved in its round of duties; and he feels himself connected, by a visible link, with those who preceded him, as he is, also, with those to whom he is to transmit a home. Perhaps his farm has come down to him from his fathers. They have gone to their last home; but he can trace their footsteps over the scenes of their daily labours. The roof which shelters him was reared by those to whom he owes his being. Some interesting domestic tradition is connected with every enclosure. The favourite fruit tree was planted by his father's hand. He sported in his boyhood beside the brook, which still winds through the meadow. Through that field lies the path to the village school of earliest days. He still hears from his window the voice of the Sabbath bell, which called his fathers and forefathers to the house of God, and near at hand is the spot where his parents laid down to

rest, and where, when his time is come, he shall be laid by his children. These are the feelings of the owner of the soil. Words cannot paint them—gold cannot buy them—they flow out of the deepest fountains of the heart; they are the life spring of the fresh, healthy, and generous national character.—*E. Everett.*

General Science and Miscellany.

THE SILK-WORM'S WILL.

BY MISS H. F. GOULD.

On a plain rush hurdle a silk-worm lay,
When a proud young princess came that way;
The haughty child of a human king
Threw a sidelong glance at the humble thing,
That took, with a silent gratitude,
From the mulberry leaf her simple food,
And shrunk, half scorn and half disgust,
Away from her sister child of dust;
Declaring she could never see
Why a reptile form like this should be,
And that she was not made of nerves so firm,
As calmly to stand by a "crawling worm."
With mute forbearance the silk-worm took
The taunting words and the spurning look,
Alike a stranger to self and pride,
She'd no disquiet from aught beside,
And lived of a meekness and peace possessed,
Which these debar from the human breast.
She only wished for the harsh abuse
To find some way to become of use
To the haughty daughter of lordly man;
And thus did she lay a noble plan
To teach her wisdom, and make it plain
That the humble worm was not made in vain—
A plan so generous, deep, and high,
That to carry it out she must even die.
"No more," said she, "will I drink or eat!
I'll spin and weave me a winding-sheet,
To wrap me up from the sun's clear light,
And hide my form from her wounded sight.
In secret then till my end draws nigh,
I'll toil for her; and when I die,
I'll leave behind a farewell boon,
To the proud young princess, my whole cocoon,
To be reeled and wove to a shining lace,
And hung in a veil o'er her scornful face!
And when she can calmly draw her breath
Thro' the very threads that have caused my death,
When she finds at length she has nerves so firm
As to wear the shroud of a crawling worm,
May she bear in mind, that she walks with pride
In the winding-sheet where the silk-worm died!"

LIME AND SALT MIXTURE.

In a former article on this subject, we stated that, for the purpose of making the chloride of lime, and carbonate of soda, as the resultants from the admixture of lime and salt, three bushels of shell lime should be slaked with one bushel of salt dissolved in water. Since writing the article above referred to, we have received a letter from a practical friend, stating that he could not use so large a quantity of the solution of salt with the lime, and that he had therefore been compelled to mix part of the salt in an undissolved state with the lime. He suggests, also, that we should further explain, to prevent similar difficulties arising with others. If the three bushels of lime be hot from the kiln, it

will take up as much water as is necessary to dissolve one bushel of salt; but if it be long exposed to the action of the atmosphere, it will not readily receive so large a quantity. In such case, we should advise that after the mass has been turned over, new portions of the solution of salt should be added each day, until the necessary quantity is combined. We have often met with the same difficulty, but have continued daily to add the solution of salt until the necessary quantity is combined. The undissolved salt which our friend has added, he will find combined after the mass has been several times turned over; but it will require more time to complete the combination.—*Working Farmer.*

NATURAL PHILOSOPHY.

No. V.

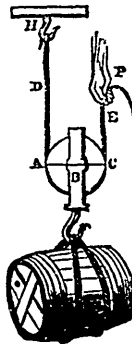
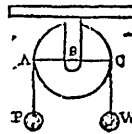
ON THE MECHANICAL POWERS.

THE PULLEY.

The *pulley*, which is the second mechanical power we are to examine, is a circular flat piece of wood or metal, with a string running in a groove round it, by means of which a weight may be pulled up. Thus pulleys are used for drawing up curtains, the sails of a ship, &c.—

When the pulley is fixed, it gives no mechanical advantage. If P represent the power to raise the weight w , it is evident that the power must be something greater than the weight in order to move it. A fixed pulley is useful, therefore, only in altering the direction of the power, and its most frequent practical application is to enable us to draw up a weight by drawing down the string, connected with the pulley. But a moveable pulley affords mechanical assistance. The hand which sustains the cask by means of the cord DE , passing round the moveable pulley A , does it more easily than if it held the cask suspended to a cord without a pulley; for the fixed hook H , to which one end of the cord is fastened, bearing one half of the weight of the cask, the hand has only the other half to sustain.

Now, it is evident, that the hook affords the same assistance in raising, as in sustaining the cask, so that the hand will have only one half of the weight to raise.— But observe, that the velocity of the hand must be double that of the cask; for in order to raise the latter one inch, the hand must draw the two strings (or rather the two parts, D and E , into which the string is divided by the pulley,) one shortened two inches, while the cask is raised only one. Thus the advantage of a moveable pulley consists in dividing the difficulty. Twice the length of string, it is true, must be drawn, but one-half the strength is required which would be necessary to raise the weight without such assistance; so that the difficulty is overcome in the same manner as it would be by dividing the weight into two equal parts, and raising them successively. The pulley, therefore, acts on the same principle as the lever, the deficiency of strength of the power being compensated by superior velocity; and it is on this principle that all mechanical power is founded. In the fixed pulley, [p. 281.] the line A C may be con-



sidered as a lever, and b the fulcrum: then the two arms a b and b c being equal, the lever will afford no aid as a mechanical power; since the power must be equal to the weight in order to balance it, and superior to the weight in order to raise it. In the moveable pulley you must consider the point A as the fulcrum; A b , or half the diameter of the pulley, as the shorter arm; and A c , or the whole diameter, as the longer arm. It may, perhaps, be objected to pulleys, that a longer time is required to raise a weight with their aid than without it. That is true, for it is a fundamental law in mechanics, that what is gained in power is lost in time; this applies not only to the pulley, but to the lever and all the other mechanical powers. It would be wrong, however, to suppose that the loss was equivalent to the gain, and that we derived no advantage from the mechanical powers; for since we are incapable of augmenting our strength, that science is of wonderful utility which enables us to reduce the resistance or weight of any body to the level of our strength. This we accomplish, by dividing the resistance of a body into parts, which we can successively overcome; and if it require a sacrifice of time to attain this end, you must be sensible how very advantageously it is exchanged for power. The greater the number of pulleys connected by a string, the more easily the weight is raised; as the difficulty is divided amongst the number of strings, or rather of parts, into which the string is divided by the pulleys. Several pulleys, thus connected, form what is called a system, or tackle of pulleys. You may have seen them suspended from cranes to raise goods into warehouses, and in ships to draw up sails. Here both the advantages of an increase of power and change of direction are united; for the sails are raised up the masts by the sailors on deck, from the change of direction which the pulleys effect; and the labour is facilitated by the mechanical power of a combination of pulleys. Pulleys are frequently connected, as described, both for nautical and a variety of other purposes; but, in whatever manner pulleys are connected by a single string, the mechanical power is the same in its



principle. When there are two, three, &c., strings, the effect is greater; but the apparatus is more complicated, and its applicability is more limited.

A HUNDRED YEARS HENCE.

It strikes me as the most impressive of all sentiments, that "It will be all the same a hundred years after this!" It is often used in the form of a proverb, and with the levity of a mind that is not aware of its importance. A hundred years after this! Good Heavens! with what speed and with what certainty will those hundred years come to their termination! This day will draw to a close, and a number of days make one revolution of the season. Year follows year, and a number of years make a century. These little intervals of time accumulate and fill up that mighty space which appears to the fancy so big and so immeasurable. The hundred years will see the wreck of whole generations. Every living thing that moves on the face of the earth, will disappear from it. The infant that now hangs on its mother's bosom, will only live in the remembrance of his grand-children. The scene of life and of intelligence that is now before me, will be changed into the

dark and loathsome form of corruption—The people who now hear me, they will cease to be spoken of; their memory will perish from the face of the country; their flesh will be devoured by worms; the dark and creeping things that live in the holes of the earth will feed upon their bodies; their coffins will have mouldered away, and their bones be thrown up in the new made grave. And is this the consummation of all things? Is this the final end and issue of man? Is this the upshot of his busy history? Is there nothing beyond time and the grave to alleviate the gloomy picture?—to chase away these dismal images?—Must we sleep forever in the dust, and bid adieu to the light of Heaven?—*Dr. Chalmers' Sermons and Posthumous Works.*

THE APPLES OF THE DEAD SEA.

"We made a somewhat singular discovery when travelling among the mountains to the east of the Dead Sea, where the ruins of Ammon, Jerash, and Adjeloun well repay the labour and fatigue encountered in visiting them. It was a remarkable hot and sultry day; we were scrambling up the mountain through a thick jungle of bushes and low trees when I saw before me a fine plum-tree, loaded with fresh blooming plums. I cried out to my fellow traveller, 'Now, then, who will arrive first at the plum-tree?' and as he caught a glimpse of so refreshing an object both pressed our we horses into a gallop to see which would get the first plum from the branches. We both arrived at the same moment, and, each snatching at a fine ripe plum, put it at once into our mouths, when, on biting it, instead of the cool, delicious, juicy fruit which we expected, our mouths were filled with a dry bitter dust, and we sat under the trees with our horses sputtering and hemming, and doing all we could to be relieved of the nauseous taste of this strange fruit. We then perceived, and to my great delight, that we had discovered the famous apple of the Dead Sea, the existence of which has been doubted and canvassed since the days of Strabo and Pliny, who first described it. Many travellers have given descriptions of other vegetable productions which bear some analogy to the one described by Pliny; but up to this time no one had met with the thing itself, either upon the spot mentioned by the ancient authors or elsewhere. I brought several of them to England. They are a kind of gall-nut. I found others afterwards upon the plains of Troy, but there can be no doubt whatever that this is the apple of Sodom to which Strabo and Pliny referred. Some of those which I brought to England were given to the Linnæan Society, who published an engraving of them and a description of their vegetable peculiarities in their *Transactions*; but, as they omitted to explain the peculiar interest attached to them in consequence of their having been sought for unsuccessfully for above 1,600 years, they excited little attention; though, as the evidence of the truth of what has so long been considered as a vulgar fable, they are fairly to be classed among the most curious productions which have been brought from the Holy Land." —*Curzon's Monasteries of the Levant.*

GREAT SALE OF SHORTHORNS.

We call attention to the following sale of Shorthorn stock. We believe this stock will be found to be of a very superior character. The well known reputation of the advertiser as a good judge, and an opponent of humbug, assures us that those gentlemen in Canada who wish to infuse new blood into their herd of improved cattle, have an excellent opportunity in the offer for sale of the splendid stock described below. New Hamburg is within 2 hours by Railroad of New York:

The subscriber will offer for sale, without reserve, at public auction, on Thursday, the 29th of August next, at 1 o'clock, P. M., on the farm of J. F. Sheafe, Esq., at New Hamburg, Dutchess Co., New York, about 35 head of Shorthorn cattle, including cows, heifers, and calves.

This herd was mostly bred by Mr. Sheafe, and I do not hesitate to say, that I think it one of the very best in the United States; and I have seen and particularly examined nearly all of them. Great attention was paid in the commencement of this herd, to the milking properties of the animals forming it; and this, together with fine points and good growth and constitution, have steadily been kept in view in its breeding. There is but one cow in the herd which gives less than 20 quarts per day, in the best of the milking season, while one has given over 29 quarts per day and made 15 lbs. 3 oz. of butter per week, and two others have given respectively, 31 and 36 quarts per day. Their color is of the most fashionable and desirable kind—red, red-and-white and a rich strawberry roan—only one white cow in the lot. They are of good size and fine style, and all in calf to the superb imported bull Exeter, who will also be offered for sale at the same time.

Pedigree of Exeter.—Exeter is of the Princess tribe of Shorthorns—was calved in June, 1848, and bred by Mr. John Stephenson, of Wolviston, Durham, England. He was got by Napier, (6,238,)—out of Jesamine, by Commodore, (3,452)—Flora, by Belvidere, (1,706,)—Jessy, by Belvidere, (1,706,)—Cherry by Waterloo, (2,816,) &c. See English Herd Book, Vol. V., for full pedigree.

Exeter was selected for Mr. Sheafe, by a first rate judge of Shorthorn stock, and was considered one of the very best bulls in England.

Mr. Stephenson, the breeder of Exeter, now stands at the head of his class in England, and his stock is of the highest repute. It is entirely of the Princess tribe, and traces its pedigree without any alloy or Galloway blood, back to pure Shorthorns, for upwards of two hundred years; a matter of no small consideration to those who wish a superior fresh cross.

A. B. ALLEN,
189, Water st., New York.

YORK TOWNSHIP SOCIETY.

During the last month several members of this Society have called at our office, to complain of not receiving the "Agriculturist." We have supplied the Secretary with the number of copies ordered, the names of the members not having been sent to us. The fault, therefore, if any there be, is not with us. The Secretary has promised to send us a list of the names and the places at which the paper is to be left. It appears that the number of members has increased much beyond what was expected, and that more papers are required than was ordered. We may state that we have plenty of back numbers on hand and will be happy to supply any that may be wanting.

Published, the Annual Report of the Central Board of Agriculture of Nova Scotia, for 1849, which shall be noticed in our next.

PROFESSOR NORTON'S ELEMENTS OF SCIENTIFIC AGRICULTURE.—We have received a copy of this work from the publisher. We hope to have sufficient time to peruse it before our next issue give our readers a correct idea of its merits.

J. P. will probably find a full answer to his enquiry in the posed notice we intend taking of Professor Norton's new work.

C. P. T., L'ORIGINAL.—Your communication came too late for the present number.

INQUIRE.—As we are not acquainted with the nature of the soil, we can not give an opinion on the propriety of your cultivating "Sainfoin." Indeed whether the climate of this country will be favourable to the plant, we cannot say apart from experiment. In England, Sainfoin is a valuable farm product as given for stock, and it makes excellent hay. But its profitable culture confined to dry, rocky, "calcareous" soils. It is sown with rye grain, at the rate of 3 bushels of seed per acre; and with proper manuring, on suitable soils, this plant will continue productive five or six years. Generally it is not allowed to remain so long. Any of our readers have had experience in cultivating this plant in Canada, we should feel obliged by their communicating the result of their practice. We should fear the effects of our winters.

WEATHER, MARKETS, &C.

The weather continued excessively dry, with cold frosty nights up to the beginning of the present month; vegetation accordingly made but little progress, and the seasonal operations of the farm such as sowing, &c., have been kept in a backward state. In this section of the country a change was ushered in by thin and heavy rains on the 7th instant, which have come just in time to save the hay and spring crops, which were suffering extremely. The season has been unusually late and difficult for the farmer but live stock has been pretty well supplied on account of abundant produce of hay and roots of last year. We have, however, dismal reports from some of the eastern parts of Lower Canada New Brunswick, Nova Scotia, &c., where owing to the lateness of the season and the severe drought experienced last summer in the districts the hay and spring crops in a great manner failed, a great number of cattle this spring have actually died of starvation. In some parts of the country no want of rain has been felt, but the temperature has everywhere been low, and the reversing season of Spring may be considered from two to three weeks later than usual. Wheat has gone through the ordeal better than could have been anticipated. The plant is of course short and backward, but generally it is healthy and of a good colour. With genial weather will come rapidly into ear; the quickness of growth and the very limited period that remains for its maturity, must have an unfavorable influence on the plumpness and weight of the grain. Through out the wheat growing districts of the United States, the reports the growing crops are highly satisfactory.

In the British Islands, we learn that the season for sowing spring grain had been propitious. The cultivation of the potato in Ireland will be much extended this year. The weather became cold and ungenial the latter end of April, and through the greater part of May, which checked the growing crops; and the prevalence of strong easterly winds prevented vessels loaded with grain from abroad coming in, a rise of four or five shillings a quarter on wheat was the consequence. Our last advices, however, up to May 2 indicate a favourable change in the weather and larger importation with prices again retreating. The accounts of the state of the crops on the Continent of Europe are generally favourable, although the spring appears to have been backward and severe. The average price of wheat in England having reached as low as 36s. per quart and other kinds of grain in proportion. This occasioned much alarm and distress throughout the agricultural districts. Protectionist meetings have been held without number, and Scotland has a long list thrown herself into the movement. Higher prices by means of duties on importation, or reduction of rents and taxation, have become the watchwords of the farmers. A low import duty on foreign grain and other productions for revenue; with a diminution and readjustment of taxation, and an improved relationship between landlord and tenant, appears to be the principal means of meeting effectually the present distressed condition of the British farmer. The Free Traders and Protectionists will yet have to come to a compromise.

In Toronto, the market has become quiet; considerable business has been done of late at improving prices. Flour 23s a 24s 6d per barrel. Wheat 5s a 5s 4d per bushel of 60 lbs.; Spring wheat 4s 4d a 4s 8d per bushel; Rye 3s a 3d 3d per bushel of 60 lbs. Barley 1s 10d a 2s per bushel 48 lbs.; Oats 1s 6d a 1s 8d per bushel 34 lbs. Potatoes 1s 8d a 2s per bush. Hay 60s a 70c per ton; Beef and Mutton scarce 5d a 6d per lb. Butter 7s 2d a 9d per lb. June 30