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THE  
Canadian Agriculturist.

VOL. VIII.

TORONTO, APRIL, 1856.

No. 4.

THE AGRICULTURAL AND HORTICULTURAL CENTRAL CLUB.

SUBJECT—*Fencing.*

The first General Meeting of this newly organized body was held in one of the rooms of the Court House, in this City, on the 4th instant. There was a large attendance of farmers, gardeners, professional men and amateurs. G. W. Allan, Esq., (late Mayor) as President of the Club, occupied the Chair. William McDougall, Esq., Editor of the *Agriculturist*, opened the discussion. The subject was,—“The best methods of *fencing*, adapted to the wants of Canada.”

Mr. McDougall said he regretted some person better fitted for the task, had not been chosen to introduce to that intelligent assembly the important subject they had met to discuss. But as he never wished to shirk any duty that might be imposed upon him, where the interests of Agriculture are concerned, he would briefly submit a few thoughts and statements for the consideration of the meeting, in the hope that they would be supplemented by more valuable information than he was able to impart. After congratulating the Chairman and gentlemen present on the very auspicious commencement of their labors, and declaring that no questions could be more interesting, more patriotic, or more generally useful than those which would come under the notice of the Club, he said he would pass as rapidly as possible over the notes he had prepared, in order to give all the gentlemen present—and he was happy to see so large a number—an opportunity of expressing their views. The subject for present discussion is of a very practical character. It affords little scope for learned research, or scientific disquisition. It is nevertheless of great importance to the farmer, and any improvement that will lessen the expense, increase the efficiency, or render more durable, structures which in our system of mixed husbandry cannot be dispensed with, is well worthy the attention of a Farmers and Gardeners' Club. I shall submit the question for consideration under the following general heads:—

1. The necessity for fences in Canada.
2. Capital invested in them, &c.
3. Dead fences.
4. Live fences.
5. Conclusion, and attempt to answer the question.

1. That it would be impossible to do without fences in a country where each 200 acres, often each 100, or less, belong to a different proprietor, and where the soil is, with scarcely any exception, adapted to the production of grain, no one, with any show of reason, can affirm. In many parts of Europe, where large estates are owned by a single proprietor, and where only a portion,—and that perhaps a small one—is arable, the rest being pasturage, fences are “few and far between.” The *in field* and *out-field* system of

enclosure may be practicable under such circumstances. The land which adjoins the habitation of the owner, and which produces the grain and vegetables for himself and dependents, and fodder for his cattle in winter, is enclosed; but as stock are never permitted to enter the *in-field* while the crops are growing, interior division fences are not required. Fencing is there reduced to its minimum. Again, where the land is parcelled out in small quantities to different proprietors, as in the eastern parts of France, fences are seldom seen. The owners are too poor to spare the land which would be occupied by them, or the money and labour that would be required to construct and repair them. A ditch, a row of trees, a few march stones, or particular single trees, serve to mark the boundaries of these small estates, and stock, if kept at all, must be confined, and their food brought to them. It is cheaper under such circumstances, to fence in the cattle, than the crops. In some parts of the valley of Connecticut, a system of *non-fencing* has been practised for many years. The annual overflow of that river compelled its adoption, and it is said the system proved so economical, that it has extended to the uplands in the vicinity, and some American writers strongly recommend the same system for other parts of the country. To preserve the crops, all animals running at large are placed under the care of a responsible person, who gives bonds to the town, or as we would say here, the township, to make good any injury they may commit. Every owner of animals pays this person so much per week for taking care of them. "It is," says the Editor of the American *Agriculturist*, "a pleasing sight to see a large herd of cows under the superintendance of one man, a couple of boys and two dogs, quietly browsing over open fields through the day, and as they return to the village, regularly stop at the domiciles of their respective owners for the night, and again gather together the next morning to renew their feeding abroad."

I need not stop to argue that such a system would be impracticable in most parts of this country. The social habits of the people, as well as the system of husbandry universally practised, would not tolerate it. The modern improved system of agriculture, demands the presence of stock. No farm can long maintain its fertility without a fair proportion of the domestic animals. "Whenever" says Mr. Stephens, "it was perceived that grain was more productively raised by the meliorating influence of grass on the soil; that grass land supported more stock when occasionally cropped with corn, and that the exuviae of stock could manure land better than the art of man, the system of *out-field* and *in-field* was broken up. The ancient ring-fence that only surrounded the cultivated land, was then removed to the boundaries of the possession, and in its stead were constructed suitable enclosures, for the different crops raised in regular succession." As we have not yet discovered any practicable plan by which a dozen head of cattle, four or five horses and colts, fifty sheep—to say nothing of pigs, which outside of the pen, are a great nuisance and a very small profit,—can be kept upon an ordinary farm without fences, and as these animals cannot be dispensed with, it follows, that fences in this country at least, are a necessary evil.

2. We must then, direct our attention to the possibility of alleviating the burden of the evil, since we cannot remove it altogether. Now, sir, it appears to me, that we make many more fences than even our system of mixed husbandry requires. If one-fourth or even one-sixth of the fencing now considered necessary on our farms were dispensed with, it would save millions of dollars to the country. Perhaps sir, some members of this club never sat down and calculated the probable cost of the fences of Upper Canada? I have done so, and the amount is absolutely startling. Take the common rail fence as the standard. A farm of 200 acres, supposing, as the law requires, that your neighbors make half of the division fence, will take 560 rods to enclose it. I speak now of lots laid out as in the adjoining townships, 80 rods front by 400 deep. A more rectangular shape which has been adopted in the later surveys, would not require so much. If half the lot, or 100 acres, is cleared and divided into fields of, say, 10 acres, with a lane through the middle, 800 rods more must be added,—in all, 1360 rods of fence, on an ordinary 200 acre lot. A good rail fence should be nine rails high, including riders, with 2 stakes at each corner. Two lengths or panels will lay a rod. 1000 rails and stakes will make about 45 rods of fence; therefore 30,000 will be required to enclose and fence a 200 acre farm, half being woodland, in the ordinary way. A man will lay up and complete about 10 rods a day. Of course a man *can do* much more, but I speak of what usually is done.

|   |         |
|---|---------|
| Suppose the rails to cost, when delivered on the ground, \$30 per thousand, we have for rails, stakes, &c. .... | \$900   |
| Labour of putting up .....  | 136     |
| Total .....   | \$1,036 |

In this calculation nothing is allowed for clearing stumps, logs or stones from the line of fence; nor for gates, bars, &c. According to the last census there were in Upper Canada, 3,697,724 acres under cultivation. Leaving woodland out of the question, and assuming that it would cost \$800 only, to fence each 100 acres, as above, we have nearly \$30,000,000 as the cost of fences alone, in Upper Canada! It may be said that Canadian fences are not all equal to my standard, and that timber being on the spot, and of little value at the time, the rails did not cost \$30 per 1000. But many thousand rods of fence have cost much more than I assume, and if you consider the number of times these fences have been renewed since their first erection, you will find that I am under rather than over the mark, as to the amount *now* invested in the fences of Upper Canada. In 25 years, or less, they will have been replaced at a cost that will approach \$50,000,000! And thus, sir, will the process go on; every quarter of a century this enormous sum must be re-invested where it yields no interest, but is soon lost forever. If then we can introduce more durable structures; if we can reduce the number of fences on a farm, or substitute living fences for dead ones, even though they may cost a little more at the outset, what an immense benefit will be conferred upon the agriculture of Canada!

3. *Dead fences*—are universally resorted to in this country for the purpose of protection. The few instances in which live fences have been brought to a condition that they could be trusted to keep off intruders, are, except as an experiment, hardly worth notice. In a country just reclaimed from the forest, and where timber is the cheapest material, we must expect to see the fences constructed of timber. In many parts of Canada the common rail, of pine, oak, basswood or cedar, is the cheapest and best material within the farmer's reach, and the only question is, as to the best mode of placing it in the fence. On the subject of cutting and splitting rails; the season of the year; the age of the moon, &c., &c., there is extant a good deal of what would be called "learning," if it related to similar notions two thousand years old. I have known Dutch farmers, for instance, stipulate when giving leases, that basswood rails should be split in June, and the bark immediately peeled off. Experience, no doubt, has shown this to be a wise practice. Summer is also preferred for cutting other kinds of timber. It is believed to be more lasting than when cut during winter. The "snake-fence" is not a very attractive object to the eye, but when well made is, in my opinion, *the fence* "best adapted to the wants" of the man who is clearing up a new farm. Another form of rail fence is sometimes used, and though less capable of resisting lateral pressure than the worm fence, is in some situations preferable to it. The rails are laid between two posts, which should be of oak or cedar, driven into the ground, and held together at the top by a piece of plank, with two large holes through which the ends of the posts are thrust. The top rails should rest on the block. The advantages of this plan are obvious. The fence is straight, and therefore requires less timber, and occupies less ground. There is no harbor for weeds, and it is more agreeable to the eye than the crooked fence. The objections are equally obvious. Being kept upright by the stakes alone, and offering a large surface to the wind, it is very liable to be blown down. The stakes will spread when the ground is saturated with water, and let down the rails. An improvement, I think, might easily be made upon this fence, and though I have never seen it adopted, I intend to try a few rods in an exposed situation next season. I propose to make the block, which is usually laid under the end of each bottom rail, perform a double office, viz: keep the rail from the ground, and the stakes from spreading. This could be accomplished by boring two large holes through the block to receive the ends of the stakes, allowing them to pass into the ground. A third object would be attained by this arrangement. You would give your fence a lateral basis equal to the length of the block. Its power of resisting lateral pressure, whether of wind or animals, would be at least doubled, probably trebled. A cheap machine has been invented, to prepare the stakes as well as the holes, which I understand can be adjusted to any power, and operates with great expedition. I would bore two holes in the ground block for each post, mortising out the obstructing wood between, so as to leave the post as large as possible in and near the ground. By using durable wood, and a larger and longer block than is commonly employed for the purpose, I think a very neat, substantial, straight rail fence can

be constructed, that will cost but little, if any more, than a good worm fence. The "post and rail" fence is another variety worthy of notice. This has been much improved in the vicinity of Cobourg. Poles and sawed rails are used. The latter are made of a diamond shape, the ends rounded by machinery and placed in the posts in such a manner, as to present one of the acute angles to the descending rain. One advantage of this fence is, that any kind of hardwood may be used for the rails. The objection is, that like all other post-fences, it is expensive—liable to be deranged by frost—and when the rails begin to warp, they will, I fear, offer a great temptation to pigs to push through them. The common "post and board" fence is liable to similar objections, and, at the present price of lumber, is even more costly. But there is a way of avoiding the evil of winter "heaving"—a serious matter in all low soils—and, at the same time, saving one, if not two boards in the construction of the fence. The plan is as follows:—After clearing the line of fence, for a space of eight or ten feet, of stumps, stones, &c., you plant your posts from a foot to eighteen inches deep. Except in very stony soil, this can be expeditiously done with the post auger. Then, with a plough, you pass up and down each side of the posts, throwing the furrows toward them for a space of four or five feet. The process is repeated, until you have raised a bank at least eighteen inches high, and made two ditches of corresponding depth on each side of the posts. The spade is now used to level inequalities, and cut through any small ridges that may cross the line of fence. You may then nail your boards to the posts; if ten or twelve inches wide, three will be sufficient. Sow each bank with grass seed, and you will have not only a good fence, that will not be disturbed by frost, but you will also have a ditch at the side of each field, to carry off surplus water that may flow in that direction—a benefit second only to the fence itself. I consider this a cheap, durable, and efficient fence, and intend to make 100 rods of it as soon as the frost leaves the ground. This plan has been practised in the neighbourhood of Port Hope, with great success. I saw, last fall, in that vicinity, and also in the neighbourhood of Peterborough, long stretches of fence on this plan and was assured that it could be as cheaply made as any other description of post and board fence, and that frost never disturbed it. Its immunity from the effects of frost—the great enemy of all fences that penetrate the soil—depends upon an obvious principle: all the water being carried away from the posts, no sensible expansion of the soil takes place in freezing, and they are consequently not lifted from their bed.

I shall not attempt to describe those varieties of dead fence which belong to the "fancy" class. These can be constructed of any shape that the fancy of the owner may suggest, and cost any sum the length of his purse may warrant; but they are not within the purview of our present question. The wire fence belongs, in my opinion, to the fancy category. It has not yet proved itself worthy of adoption as a field-fence. The stone wall fence ought not, perhaps, to be passed over in a review of those adapted to the wants of Canada. Where stone is abundant, and timber dear, it may be advantageously employed—but even then it will be found expensive. It must have a good foundation, or the frost will soon crumble it to the ground.

4. *Live fences* must be looked to as our ultimate resort. It is in this direction that we ought to search for information, if we would confer real and lasting benefit upon our country. Feeling that facts and practical results would be more useful and more interesting than mere opinion, I took the liberty of addressing a few questions to gentlemen in different parts of the Province, who had attempted to grow hedges, and who, I was aware had had experience in the business in the old country. The time was rather limited for an extended enquiry of this sort, but I succeeded in obtaining answers from several gentlemen, whose statements are, I believe, worthy of your attention. The following copy of one of my notes will show the points to which I directed the attention of my correspondents:—

J. Beckett, Esq.

MILLBANK FARM, Feb. 28, 1856.

Dear Sir,—You were kind enough to say that you would furnish me the results of your experience in growing hedges in this country, to be read before the Farmer's and Gardener's Club, Toronto, on the 4th March.

The following are some of the questions I have submitted to several gentlemen in different parts of the Province. They may serve to classify the answers received, although any facts not indicated by these questions, which were hastily drawn up, will be thankfully accepted.—

1st. What description of fence do you prefer for ordinary farm purposes?

- 2nd. Do you approve of live fences, and what do you use as a hedge plant?  
 3rd. Be so good as to describe briefly your mode of setting out and cultivating, &c.?  
 4th. What are the accidents to which live fences are subject in your experience, and how do you guard against them?  
 5th. How many years before your hedge becomes a good protecting fence?  
 6th. Have you had any experience in growing the Osage Orange?  
 7th. What is the cost per rod of planting a hedge on your plan, and how much per rod for each year, until it becomes a protecting fence?  
 8th. How does this cost compare with that of a substantial post and board fence as you make them?  
 9th. Have you tried the native Thorn of this country, and with what success?

By enclosing to me such observations as you may be able to make on the points indicated above by Tuesday next, you will much oblige me and confer a favour on the Club.

Yours, respectfully,  
 WM. McDougall.

ARLEY LODGE, March 3, 1856.

Dear Sir,—In reply to your request of Saturday last, that I should supply you with such information as my experience warranted, on the subject of planting and training quickset hedges, I most willingly accede to your wishes, to the extent of my own individual experience, and remain,

Dear Sir,

Your very obedient servant,  
 JOSEPH BECKETT.

Wm. McDougall, Esq., Millbank Farm, Yonge Street.

To *Query No. 1.*—I have no decided preference for any description of fence yet introduced amongst us. I have adopted the post and board fence generally throughout my farm, but it is objectionable on account of the heavy expense attending its erection, its want of durability and its liability to be easily broken down by horses that are pastured in the contiguous fields. The English Quickset or Hawthorn, I have planted freely upon my farm, but with an unsatisfactory result, for reasons which I shall assign in *Query No. 4.*

The rail or zig-zag fence is still more objectionable from its unsightly appearance and great waste of land, and from encouraging the growth of every kind of noxious weed and bramble, the seeds and shoots of which are annually distributed all over the land to the great detriment of the farmers' interest.

*Query No. 2.*—I approve of Live or Quickset Fences, wherever they can be introduced by the farmer, without inordinate labour. The Hawthorn, which lends such a charm to English scenery, and proves so valuable and durable a fence, does not sustain its character or thrive well in Canada, nor is it to be depended upon as a durable fence, for the following reasons:—In the second or third year's growth after being planted, the plant is attacked by a small glutinous insect, (the one so well known for its ravages on the pear and cherry trees,) devouring the whole of the leaves, and, in some seasons, leaves nothing behind but the bare stem and branches, necessarily weakening the plant and checking its growth. It is next subject to the depredation of a smaller but more destructive insect than the one just noticed, which, I am told, is well known in the United States, and is called the American Spider. As it settles and multiplies on the stem and branches of the plant, it has exactly the appearance of hoar frost, and if allowed to remain undisturbed, will kill the plant down to the earth. I have tried all the known remedies for the cure of this evil; such as the application of plaster, lime, and fine road dust, after a shower of rain, or before the dew is off in the morning, but without avail. The sponge and water is the only effectual remedy, but time and labour preclude so costly an application upon a large scale. The plant also suffers severely some winters from the ravages of field mice in frequently cutting it down to the root. For these reasons I have abandoned the use of the English Quickset, as unsuitable for a permanent fence in this climate.

*Query No. 3.*—Those who are disposed to use the English Hawthorn, as a fence, must prepare the land, by trenching and manuring well. The plants should be set in a perfectly straight line, four inches apart. Some, I know, prefer a double line, setting one between each space of the front line, but I have a decided preference to the single line. It is difficult to weed between the double line of plants, and unless they are kept perfectly clean from the weeds and grass, they choke up and are prevented from throwing out shoots, and thickening at the bottom, and without a good thick bottom, a quickset hedge is of very little use. With attention to dubbing, the single line ultimately makes as firm and as good a resisting fence as the double one, with one half the labour. I have on my orchard a hedge raised from the single line

of young plants, (planted in the spring of 1846, which now stands six feet high, and is three feet thick, close to the ground, through which even a chicken cannot creep. This fence has been frequently gapped by field mice and the insects described in Query No. 2. From the want of previous experience, the height this hedge has been allowed to attain, is too great in proportion to the stamina of the plant, and the consequence is, it is unable to sustain the pressure of the heavy falls of snow during the winter, leaving it in a ragged condition in the spring, and much damaged in symmetrical appearance. I would strongly urge, therefore, a free use of the dubbing shears for the first years of its growth, and not allow the hedge to exceed three or four feet in height, until the plant has gained a sufficient girth to support it against any casual pressure.

*Queries Nos. 4 and 5.*—Are answered in the foregoing remarks.

*Query No. 6.*—I have had no experience in cultivating the "Osage Orange," but have heard that it is greatly prized in the West for the purpose of fences, but in England it has been tried and has failed.

*Query No. 7.*—I have never kept a strict account of the cost of planting a Quickset Hedge per rod. I have paid as high as \$12 per 1,000 for the sets and have purchased them as low as \$1 per 1,000, and in both cases have planted the sets 1 1/2 inches apart. Independent of the labor, then, in preparing the land and planting the sets, the cost in either instance can be easily ascertained by calculating the number of plants to the rod of 16 1/2 feet, and the plants to the foot. But any farmer who is desirous of raising live fences upon an extensive scale, I would advise to import the berries by the bushel after they have been pulped in England and sow them in drills in the spring, when on the spring following the sets will be above ground, and the spring after that they will be fit for transplanting into hedge rows, at the cost of 6d., or 1s. at most for 1,000 plants. But the great cost of raising hedge fences, consists in the length of time the plant takes to form a fence, and the careful watching and weeding it requires during that time, and in replacing any dead sets, and in erecting an external fence of some kind to keep off cattle and sheep until the plant has attained to a sufficient vigor to protect itself. And the farmer who is not prepared to incur the cost and trouble of performing all that faithfully, I would strongly advise not to meddle with planting hedges, as without the requirements I have mentioned, he could not succeed in raising a hedge fence of any value.

*Query No. 8.*—As regards the comparative cost of a Quickset Hedge, and a "Post-and-board" fence, I have not made it a consideration.

*Query No. 9.*—I have raised the native thorn from the seed, and have planted it alternately in hedge rows with the English quickset, but have now tried it exclusively in forming a hedge. The opportunity, however, which that mode afforded me of observing its fitness for fence purposes, leaves no doubt on my mind of its being incomparably superior to the English thorn in every respect, in this Province. It is entirely free from the ravages committed by insects on the English thorn. It is a hardier plant and has a larger and stronger stem for resisting cattle, and likely to endure, when once well-formed, for generations, and kept in order with no greater trouble than a zig-zag or any other fence, without the same decay. It is surprising that the native thorn has not been long since brought into general use as a fence, and any farmer who is desirous of fencing off his fields with quickset fences, cannot, in my opinion, do better than confine his selection to the native plant. He need not travel off his own farm to find the material. All that he has to do is to collect the ripe berries in the fall, put them in a heap in the earth during winter, that they may ferment and pulp. Take them up and sow them in drills in the spring and in two years from that date they will be fit for transplanting into hedge rows. The usual care must then be taken of them, and the only enemy to be dreaded is the field mouse. I have now given you all the information my confined experience permits, upon the distinct and relative qualities of the English and Canadian thorn, as applicable to hedge fences. When I was in England in the winter of 1854-5, I purchased 2,000 beech seedlings, at the cost of 4s. 6d. per thousand. These I brought out with me and planted them in close rows in the garden. When I have the land prepared, I purpose to plant them alternately, in hedge rows, with the native thorn, from which I anticipate a better and more permanent fence than from the thorn alone. Time will tell whether I am right.

When I was in England during the winter of 1854 and '55, I ordered one hundred iron hurdles to be made for me as an experiment, to see whether they could be introduced with advantage into this Province, to average 50 lbs. each, to be six feet long and to have connecting pins three inches long passing through a socket and fastened with a nut. All included at the price of 5s. sterling each, and made of the best malleable wrought iron.

I suppose that by a fair representation to Government of the intention of the importation, it would have permitted the entry of the hurdles at the lowest scale of duty 2 1/2 per cent.; but it appears that in that supposition I was mistaken, for after two humble

applications I was denied the privilege, and compelled to pay the highest rate, 12½ per cent. This charge, together with the freight being levied by measurement instead of weight, as it ought to have been, made it rather too costly an experiment to be repeated. But still under these untoward circumstances, the hurdles laid down at Toronto did not stand me in more than 12s. 6d. each. The importation injured not the regular merchant, for they never import hurdles, nor could they do it to sell them to the farmer at such a price as would induce him to purchase, and leave at the same time a remunerative profit to the importer. It would have been doing no wrong to the mechanic as upon inquiry, I found I could not get them in the city under 25s. each, a price which at once precluded the use of them—and even at that price probably of inferior iron. And as it affected the revenue it would have been a positive advantage, as 2½ per cent. additional would have been contributed to its resources, while at a duty of 12½ per cent. not a fraction will be added. I am firmly of opinion that iron hurdles made of the very best material, averaging 50 lbs. each and complete in all respects, can be imported and laid down upon the wharf in Toronto at a cost not exceeding 8s. each, at a duty of 2½ per cent., and the freight paid by weight instead of measurement. At that price I should consider these hurdles well worth the attention of the farmer as a convenient and durable fence. And to that end I would strongly urge the “Agricultural Society,” to memorial the Government to admit hurdles into the Province duty free.

Stanley Mills, Feb. 25.

My Dear Sir,—Yours dated 20th instant, is before me. Was I young, I might become a member of the Farmer's and Gardener's Club, could I think it would eventually prove beneficial to Canadians.

When I first joined a number of gentlemen, to commence the Agricultural Society when first it took its rise in Canada, I did it for the sole benefit of our youth. For a number of years I acted warmly and freely, &c. ; but when I so frequently saw them giving way to drinking usages, and eulogising where I thought so unworthy, I was compelled to retire, to mind my own business at home. Nevertheless, I would hope and trust it is now better. I will freely contribute my little judgment to your enquiries, if it will add to your stock, and prove beneficial to Canadians, &c.

Answers to 1 and 2.—As to the kind of fences? Living ones if they can be obtained.

3.—I am not yet satisfied the English black and white thorn will grow well here; the mildew at certain seasons will destroy part of the top. I have not yet found an antidote. I use the English thorn.

4.—I want the ground perfectly clean. I then turn up a cap sod 12 in. wide from the face of the ditch, or front 6 in. deep, then I have got double surface of earth. I plant my 2 or 4 year old plants 12 in. from the front side, and back it well up with good soil.

5.—Is answered before.

6.—I think 4 year old plants well planted, and always well protected from harm, (cattle, &c.), and kept perfectly clean, &c., will be sufficient to be pronounced a good fence, (in good ground) seven years from planting.

7.—I have not tried the Osage Orange. I should wish to try them, as I feel confident something live of the kind, is and will be much needed in Canada. I shall not yet give up the English Thorn as a failure; they require due attention I am aware, and you cannot get tenants to do as you wish yet. I have not tried any experiment as yet against the mildew.

|  |    |   |    |
|--|----|---|----|
| 8.—Cost per rod, 50 plants and labour .....  | £0 | 1 | 9  |
| For cleaning and trimming per year 3 times .....   | 0  | 0 | 10 |
| Should a ditch be required, the expense will be according to its size, one 3ft. by 18in. | 0  | 1 | 5  |
|  | £0 | 4 | 0  |

Should the ground not always be kept perfectly clean, it might take five or perhaps ten times that amount of labour.

Cost of good cedar rails laid down is worth about £8, or even £10. Rails of other timbers farmers generally have, and perhaps they will not cost them more than about £2 10s. laid down; this depends on circumstances.

J. SANDERSON.

Wm. McDougall, Esq.



Raglan, Feb. 27th, 1856.

My dear Sir,—I shall comply with your requisitions, as far as my humble abilities will permit.

You enquire first,—“What kind of a fence do I prefer?” I answer British Thorn Hedge.

Second,—“Do you approve of live fences in this country?” Answer—As I cannot see any material in our neighbourhood, such as stone, &c., rails being scarce and high priced, I see no alternative but live fences.

Third,—“What do you prefer as a hedge plant?” Answer—I am inclined to give a preference to *Thorn* either *English* or *Canadian*, and am of opinion that our *wild Plum* or our own *Beech*, or both mixed with *privet*, will make good, substantial, and permanent fences.

Fourthly,—“How do you plant and what is your mode of training?” Answer—I prefer planting on the level, to raising diko or ditch; because the *severe drought* of this country seems to say to me, plant on the level, and in a direct line, seven plants to a yard, and in training, cut down when planted to about six inches, and when one year planted cut down again, to about eight, ten, or twelve inches to cause them to thicken. The third year I would let them have a little more scope.

Fifthly,—“What are the accidents, &c.?” Have no experience, having only a small plot.

Sixthly,—“How many years before they make a good protection?” This is also a puzzler, yet I should say in about seven years *Thorns* or *Plums* may protect.

Sevently,—“What is the cost per rod to make a hedge?” Answer—The present expense will differ according to the plenty or scarcity of the material. I suppose the Canadian *Thorn* are not plenty, nor are the white or *Hawthorn*, but if we could import seed and grow the *Hawthorn* in Canada, 35 or 40 plants to a rod, it could not be considered a high price, although growers should charge 25s. per 1000.

Eighthly,—“What is the cost of rails per 1000?” Answer—I have been making enquiry, as a great quantity of rails and other fence timber passes this way at present, and I find the farmers talk of from £5 to £7 10s. per thousand, laid down in this neighbourhood; and an extensive farmer tells me that he will not furnish rails under £10 per 1000.

Yours, respectfully,  
EXPERIMENTER.

Port Hope, P. O., Hamilton Gardens, January 26, 1856.

Wm. McDougall, Esq.

Dear Sir,—A letter from you, addressed to R. Wade, Senr., was handed by him to me for reply, he supposing you had mistaken the name, he not having had any experience with the *Osage Orange* at all, and I have not had any myself as yet, only having made the attempt to raise them last spring, by sowing about a pound of seed. The plants came up and grew very thrifty during the summer; but this success will altogether depend upon what degree of hardiness they possess in winter. The simple killing down the top shoots a few inches, will not prevent them from making a good hedge plant, provided the old wood is hardy enough to stand the frost, that supplying the knife in pruning. Some years ago, I was making a straight fence on my farm, and having a small plantation of *White Mulberry* in the garden, I took them up and planted them as a hedge by the side of the fence; they are as tender as the *Osage Orange*, and kept killing down every winter the new wood formed during summer to some degree; but now they have got to be quite large and strong enough for a fence, if the plant was adapted for a hedge at all; but it is not, being altogether without thorns, and not stiff enough to resist the cattle pushing through them.

I am intending in the spring to put out my small plantation of the *Osage Orange*, and give them a trial. I have made several attempts at hedges already, but with the exception of the white *Thorn*, without much success. I have tried the *Basket willow*, and in some places where the ground was suitable, I have got quite a hedge from them. I have tried the *Apple tree*, but without much success; they grow too rambling and irregularly for the purpose. I notice in the neighbourhood some hedges of *Buck Thorn*, which seem quite hardy, and of rapid growth.

I notice in the January number of the *Albany Cultivator*, a communication signed H. Van Ostend, Rock City Mills, N. Y., speaking of the *Apple tree* for hedges—but he has only heard that they will do—but he states positively that the *Osage Orange* will not stand our northern winter sufficiently to be depended on. After another year's trial with mine, I will be better able to judge, and will let you know the result.

Yours, most respectfully,  
JOHN WADE.

W. M'Dougall, Esq.

York, February 25th, 1856.

Dear Sir,—You, the other day, asked me to give you a few hints on *Osage Orange* and other hedge plants as to their merits for fencing purposes. This I will do with pleasure as far as I

have proved the matter myself. The *Maclura Aurantiaca*, commonly called Osage Orange, is a native of North America and grows to the height of twenty feet.

1st. I have grown both the Osage and the English Thorn as hedge plants, in Hamilton. The Osage Orange thrives *well* on good ground. The English Thorn did not prove itself so thrifty as the Orange.

2nd. It requires protection from cattle during its early stages of growth, by slight temporary fences on each side, until able to stand in its own defence, but it requires no protection from the winter. I never used any myself, nor did I see any occasion for it.

3rd. The Osage Orange is not subject to blight, nor to attacks of insects, that I ever have noticed to retard its growth. I have noticed some very few plants attacked by mice during the winter. The English Thorn was every summer attacked by the green fly, the black fly, and the blight. I have seen them so thickly covered that I could scarcely tell what color the plant was, and the mice attacks the stems severely during the winter.

4th. The Osage Orange I prefer far before the Thorn for fencing. The Osage takes far less time to make a fence than the English Thorn, and is not so infected with insects. The Thorn is quite liable to all these pests which naturally exhausts the young shoots and very frequently kills the whole plant.

5th. At \$5 per thousand, I think, I could plant a hedge and cultivate it for the first year for about 3s. per rod.

6th. The second year's cultivation, allowing the hedge to be cleaned three times, 1s. 3d. per rod; the third year, 1s. 6d. per rod; the fourth year, 2s. So that a rod will cost 7s. 9d. at the end of four years, without the fencing. That I shall say nothing about the cost of, as I have but little experience in fencing.

7th. The Orange will make a good fence in five years, if in good soil. But the English Thorn will take eight or ten years, and if it is not kept clean at the bottom the mice will have killed the whole hedge by that time.

8th. There is another plant which I think is well worthy of cultivation for fencing purposes. The Honey Locust, properly called *Gleditsia Triacanthos*. This is a hardy, deciduous ornamental tree, and grows about thirty feet high. It is a native of North America. I have seen a hedge of the plant about four years planted and it promised to become a very thick substantial hedge. It grows a foot or fifteen inches in a season, and the wood is very hard. It is raised from seed sown in March after being soaked in warm water, and it grows freely on common soil.

Yours respectfully, &c.,

GEORGE READING.

[*Honey Locust* grows spontaneously in Missouri and Western States, sometimes 60 ft. high, and 1 ft. diameter. Spines three or four inches long. They grow out of the trunk and limbs in clusters.—Ed.]

Mr. McDougall exhibited specimens of the Native or Cockspar Thorn, the English Thorn, the Osage Orange, the Wild Plum, &c. He also exhibited to the Club, as connected with the subject, the plan of a new double-rolling, self-acting gate, which he thought superior in some points to any he had yet seen.—He did not claim originality in the adoption of the *rolling* principle, for a gate on that plan had been patented last year in the United States, but he claimed the improvement of the double gate, each rolling in an opposite direction. He concluded by stating, as the result of his inquiries and observation, that for the man who was engaged in the noble work of carving for himself a farm out of the wilderness, the common zig-zag rail fence was not only the cheapest and best, but the only good fence within his reach. For the older townships where timber is rapidly disappearing he thought the *banked* "post and rail," or "post and board" fence the cheapest and most durable form of dead fence adapted to the wants of the farmer. In the neighbourhood of cities, and even in some of the front townships, he believed, the time had come when serious efforts should be made to introduce *live* fences, and from all he had seen, heard or read, he had no doubt, the Native Thorn, intermixed with Wild Plum, Beech, or some other native plants, would make a good hedge, and require even less care than the Thorn hedges of England.

The President presented the thanks of the Club to Mr. McDougall for the very interesting remarks with which he had favoured them, and hoped they would be followed up by observations from other gentlemen. The subject was a most important one, and from the number of practical farmers and gardeners present, he was satisfied the facts brought out in such a meeting would be of great benefit to the country. Mr. Allen mentioned a case in his own experience, which showed the vigor of the native thorn. He had a piece of hedge of English thorn, which from want of care and other causes did not make a very

close fence. The thorn of this country had sprung up in parts of the hedge row, and grew so much more vigorously than the original plants that it took entire possession of the fence. He thought this thorn well suited for the purpose of a hedge in this country. In reference to the "post and board fence" described by Mr. McDougall, he would like to ask him if he did not think even less wooden material would answer, by making the bank considerably higher?

Mr. McDougall said the objection to that would be, that a greater breadth of ground would be necessary to give such a slope to the embankment as to prevent washing and crumbling. The additional labor, also,—for the plough would not raise the bank sufficiently—would be an item of some importance.

Mr. R. L. Dennison had made a piece of fence on this plan some years ago, and he considered it the best fence he ever made. The embankment was 2ft. high, and about 3ft. base. He used only two boards. He thought the ditch no evil, but a benefit. Nothing ever got through this fence. He intended to make the same kind of fence next season, but he should use rails instead of boards. In answer to a member he said, the entire height, from the level of the ground, was about 3½ feet.

The President asked if any member could give information in regard to the locust, mentioned by one of Mr. McDougall's correspondents.

Mr. Mundie had tried the Honey Locust in the neighbourhood of Hamilton, but thought it would not endure the winter in this vicinity. West of Hamilton it flourishes, and makes a good hedge plant. The Osage Orange is also killed down in this part of the country, but above Hamilton it stands the climate very well. He considered the native thorn better than either, for hedge purposes.

Mr. Dennison knew a hedge of the Osage Orange which had had the best of care that was badly winter-killed. It might be seen at the residence of Judge Harrison, near this city.

Mr. Fleming thought it would not be prudent to recommend the Osage Orange for this vicinity.

Professor Croft had tried the honey locust. He had planted 100 locusts, and they stood the winter remarkably well.

Rev. Mr. Schreiber was of opinion from the observation he had made, that the Native Thorn was the best suited for fence purposes. He mentioned a hedge of English Thorn at Elmsley Villa, which though it was neglected, was yet so thick and strong that it would turn anything. He believed a good Thorn Hedge the cheapest fence in the end. The English Thorn took 8 or 10 years to make a fence. He had bought the plants in England for 7s. per 1000. He had used iron hurdles heavier than those mentioned by Mr. Beckett, but they would not resist unruly animals. They were very good for sheep. They cost 7s. 6d. each.

Mr. Grey had seen a hedge of the Osage Orange near Rochester. It did very well for a few years, but if the temperature falls 20° below zero it will kill them. He also saw a hedge of Buckthorn in the same neighbourhood which made an excellent fence. He had tried it with perfect success in Canada. No insects would touch it. He admitted it was not plentifully supplied with thorns, as other kinds, but nothing would get through it. He was decidedly opposed to the English Thorn in this country. It was a complete nursery for the *blight*, and would kill the orchards in the vicinity.

Rev. Mr. Schreiber recommended *nux vomica* to destroy field mice. A little placed around the fields would soon dispose of them. He thought nothing of that difficulty.

Mr. Fleming had the charge of a hedge of English thorn, and had not observed blight upon the old trees. No doubt great care was required to avoid it.

Rev. Mr. Schreiber asked if the same objection applied to the Canadian thorn?

Mr. Fleming said not. He had seen a good rough hedge of the native thorn. It was not so ornamental as the English thorn, but it would turn cattle. It would do so in about seven years. The great point was to transplant. By transplanting and cutting the tap-roots, it would thicken and make a good fence. Failures with the native thorn would be from want of knowledge.

Colonel Thompson thought it was about sixteen years since some English farmers brought out quicks from England, and attempted to grow hedges, with great confidence, in the township of Toronto; but he believed they never succeeded in enclosing a field. No portion of their hedges would turn small animals. Whether it was because they neglected them, or because the soil and climate was unsuitable, he could not say. Probably their other labours were so great that they could not take proper care of their fences.

Some years ago Dr. Beadle, of St. Catherines, thought he could make a good hedge of the locust, but he did not know how he had succeeded. He had observed, on the occasion of a recent visit to England, that they were adopting iron fences, and rooting up the hedges. Those who adopted iron, saved land and got rid of vermin. He thought the native thorn might be used in this country. He believed the evil from frost might be obviated by the plan mentioned by Mr. McDougall. He had seen a fence on that plan, with a bank three feet high. Rails were used instead of boards. The waste of land was trifling—not more than six feet—and this made pasturage. The drains were of great advantage. He had counted the expense of our present fences, and knew it was enormous. He did not know where rails were to be got in a few years. He thought the remedy must be stone or thorn. It would take ten or eleven years to make thorn fences, if we begin now. What is to be done in the meantime?

Mr. Arnold had seen several hundred rods of hedge of native thorn, near Woodstock. It did well, and satisfied the owner. He thought if Mr. McDougall would write to Mr. Cottle, the gentleman he referred to, he could give him some valuable information on the subject.

Mr. R. Davis defended the English thorn. It had, like the flag that "braved the battle and the breeze" so many years, braved bulls and cows for centuries—and he regarded it with great respect. The specimen before the Club was not a fair representative. He had a small piece of native hedge on his farm, and he preferred it, because the plant was indigenous to the country.

Mr. Gordon had seen hedges of English Thorn, near Kingston that nothing could beat. He had been allowed to cut them down by the owner Mr. Harper, to thicken them, and they did well. They were an ornament to Kingston. No insect troubled them there.

Mr. Walton mentioned that he had heard a very flattering account of the success of Hemlock as a Hedge plant, near Philadelphia.

Mr. Gordon planted the Hemlock hedge that might now be seen at the Toronto Nurseries.—Mr. Leslie dug the young plants in the bush.—They made a beautiful fence. No cattle could get through them.

Col. Marks had seen the hedges referred to near Kingston. They were very good fences.—He had himself tried the Native Thorn. It did remarkably well. He thought Agricultural Societies should offer premiums for the best fences. He had seen picket fences with a block at the bottom of the posts, and fastened with wire at the top. They were straight and stood well.—It was these crooked fences that made the farm foul.

Rev. Mr. Schreiber thought premiums unnecessary. To grow a hedge was the simplest of all simple things. The subject of fencing had been very ably introduced by Mr. McDougall; he had treated it with great clearness, and he thought the Club would do much to arouse public attention to the importance of the subject by publishing his remarks and the papers read, in pamphlet form. He would move a resolution to that effect.

Mr. Fleming had much pleasure in seconding the motion.

The Chairman suggested that the Club had not the necessary funds to publish at its own expense, but he had no doubt the *Agriculturist*, as well as other public journals, would gladly insert matter of this kind for public information. It was understood, Mr. McDougall, giving his assent, that his papers, and a brief report of the discussion, would appear in the *Agriculturist*.

A communication from Mr. Leslie on hedges was read. The President said, that so far as he could gather from the discussion, the native thorn was the best suited for hedges in this country. The Buckthorn seemed also well adapted for the purpose.

Some further conversation took place, when Mr. McDougall, seconded by Rev. Mr. Schreiber, moved the following resolution, which was unanimously adopted:—

*Resolved*,—That the Board of Agriculture be requested to undertake a series of experiments at the Experimental Farm near this city, for the purpose of testing the comparative merits of the various Hedge-plants recommended for fencing purposes in this country, and to publish the results as soon as they can be ascertained, for general information.

The next meeting takes place two weeks from the last, at which Mr. Mundie will read a paper on the importance of the Kitchen Garden.

## ON HEDGES.—BY GEORGE LESSLIE, TORONTO.

Hedges, or live fences being the subject for discussion at the first meeting of this club, I beg leave to give you an idea how hedges are managed in the old country; being brought up in a country where there was little else used for fences, but hedges, and being practically engaged in planting, trimming, and managing some of the very finest hedges in Scotland.

*Beech and Thorn* mixed, were the only plants used for outside fences. Our mode of preparing the ground was as follows:—We dug a ditch 3 feet wide, and threw it all up on one side, and levelled thoroughly from one end of the line to the other, we then set our line, and planted our Quicks in the face of the bank, half slope; then took the shears or hedge bill and cut them all to one length out of the ground: a breadth of 2 feet inside was dug once a year—these hoed and kept clean.

On large estates there is a scientific man kept, and goes by the name of hedger. He takes great pride in cutting and trimming his hedges, and tries with all his might to excel his neighbour. It requires a good deal of practice and taste to switch hedges neatly. In Canada, I have had but little to do with hedges; I am satisfied, however, that the time has arrived in the old settlements of this country, to look out for a plant that will make a permanent, substantial fence. The thorn has been tried in many parts of America, and abandoned. I have given it a fair trial myself, and gave it up, at least for the present, on account of its diseases and attacks of insects, yet I would recommend further trial of the thorn, as I believe that the disease has not been as bad as it was three or four years ago.

*Osage Orange*, the best hedge plant I know, I have tried in my nursery several times, and find that it is altogether too tender, for this part of Canada at least.

*Rhamnus Catharticus*, *Buckthorn*, so much recommended by the late Mr. Downing, is a strong, quick, growing plant, and is perfectly hardy; makes a very good close hedge when properly cut, and looks well; it has this advantage too,—insects will not touch it, and cattle will not brouse on it at any season of the year. Very easily grown on any kind of soil, on account of its fibrous roots. I have been selling plants of it for three or four years past, and in every instance it has given great satisfaction; a specimen hedge may be seen at the nursery, 4 feet high. I have reason to believe, and say with Mr. Downing, that the Buckthorn will be the great hedge plant of America.

*Privet*, makes a beautiful ornamental hedge, grows rapid in good soil, and almost an evergreen; good specimen of this may be seen in some of the gardens about Toronto.

*Honey Locust*, or Three Thorn Acacia, has long been recommended by the Americans for a farm hedge; but I have not seen a good specimen of it in all my travels. I have tried to make a hedge of it in the nursery, and find that it gets a good deal winter killed, and does not stand cutting; however I would advise a fair trial of it on dry, sandy land.

*Japan Quince*, makes a fine ornamental hedge for pleasure grounds; it is quite hardy, and when in flower, is magnificent in appearance.

*Beech*, is much used for hedges in the old country, but is too hard to transplant, and don't stand evenly. It is better mixed with thorn—makes good shelter on account of retaining its foliage all winter.

*American Cedar*, for an evergreen ornamental hedge, is very valuable, or for a screen to protect gardens and orchards, &c., there is no plant so suitable. It makes a superb hedge, and is of rapid growth—stands any amount of cutting; altogether the best evergreen hedge plant I know. There is a specimen to be seen in the nursery.

*Hemlock*.—Of all the ornamental plants for an evergreen hedge, the hemlock has no rival; the only thing against it is, that it is too tedious to start evenly, and hard to transplant even out of the nursery bed. I may here remark, and take the credit to myself, that I was the first in America to try the Hemlock as a hedge plant. I had succeeded so well after a few years trimming, that Mr. Barry of Rochester took notice of it, and wrote to Mr. Downing and other horticultural writers in the States, about the hemlock as a hedge plant, and the beautiful specimen of it to be seen at the Toronto Nursery; the result is, that now thousands of yards are planted every year by gentlemen in the States, and nurserymen are growing it from seed for that purpose.

*Red Cedar*.—Treated as a hedge plant, makes a beautiful evergreen hedge, equal I think to the hemlock; but I have not had much experience with it as yet. On Long Island, near New York, I have seen splendid Red Cedar hedges. I intend to experiment on it this spring. I have some thousands of fine plants for sale.

There are several plants that might be used for low ornamental hedges, such as Barberry Tree, Honey-suckle, Euanimus, or Strawberry tree, Dwarf Golden Willow, American Holly, &c.

At some future meeting, I purpose to give a short chapter on planting, trimming, and general management of hedges.

Any one wishing to see a well trained hedge, should visit the Normal School grounds, and there you will see them trimmed and managed as they should be, under the superintendence of Mr. Mundie.

#### SHORTENING-IN PEACH TREES.

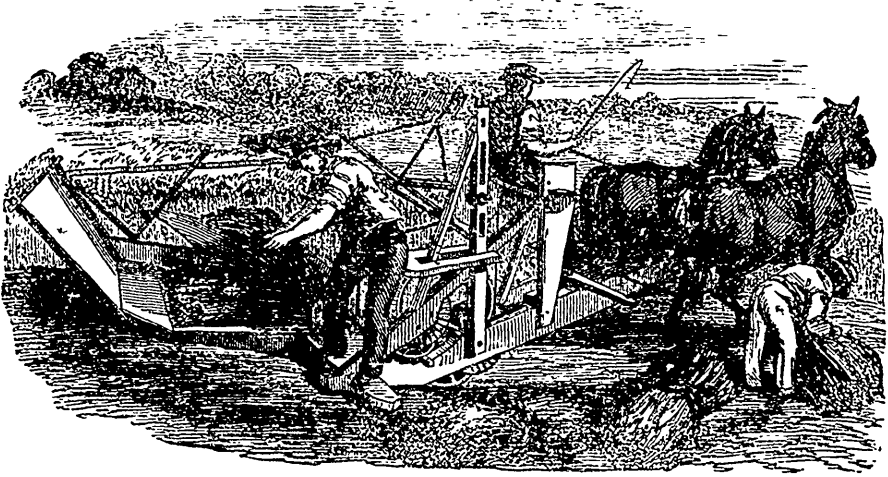
We have for many years favored the shortening of the peach tree. There appears to be everything for it, and nothing against it except the labor. The following reasons favor the operation:

1. Preserving the tree in a handsome, compact form.
2. Limiting the space occupied, so that more trees may be planted on an acre.
3. Increasing the thriftiness of the tree and its shoots, and, as a consequence, increasing the size and flavor of the fruit, like that on young trees.
4. Thinning the fruit by the most convenient and economical process.

It is not uncommon to see old neglected, and unpruned trees extending their long and nearly leafless branches to a distance of 10 feet on each side of the tree, the fruit being borne on the extreme ends of these poles, and being much less in quantity, smaller in size, and incomparably poorer in quality than crops on young and much smaller trees, or on those kept in proper form by pruning. Good cultivators find thinning necessary for attaining a high flavor in their fruit; crowded crops cannot become perfect. But to go over the tree and pick off the surplus peaches is a slow and laborious process, while, by pruning, it may be accomplished in about one-tenth of the time, and at the leisure season of winter.

We have, however, discarded the mode at first recommended, of cutting back each individual one year's shoot; this is too slow and minute. The substitute adopted is to cut off and *thin back* two or three years growth, or more, if the form of the tree requires it, always cutting where another limb branches off, so as not to leave a stump. Care is taken to avoid the error, sometimes committed, of cutting all back of an equal length, like shearing a hedge, which causes a thick outside growth, excluding the light from the interior of the tree. It will be understood, that in connection with the pruning here recommended, the trees should receive good cultivation at all times, or the success will be imperfect.

We have been induced to offer these hints at the present time, in consequence of having recently seen, in a work of some pretensions, an attempt to discourage the practice.—*Country Gentleman*.



### M'CORMICK'S REAPER AND MOWER.

M'Cormick's Reaper—the original, or first successful Machine introduced into the United States—has lately been altered and improved and adapted to mowing as well as reaping. This Machine took the highest prize at both the London and Paris Exhibitions, though in some points Manny's Machine was considered superior to it, as remarked in our last number. We did not mean to say, as some of our readers seem to have understood, that Manny's Machine, as a whole, is superior to M'Cormick's, or that such was the opinion or award of the Paris jury. We have used Manny's; we have not used M'Cormick's. We consider the *adjustible* principle, which, we believe, is the *peculiar* feature of the former, an important improvement. The machines sold in this vicinity last year, were defective in construction, but it does not follow that the principle is defective.

We have been asked by two correspondents who wish to purchase, which is the best Combined Machine now before the public? This is a question we cannot undertake to answer; nor, indeed, do we feel able to offer an opinion on the point, whatever that opinion might be worth. So many alterations and improvements have been made from year to year, that it would require a person to be in *several places at once* to witness the operation of these *improved* machines, and to collect reliable data for an opinion. The question, in fact, is not susceptible of a direct, unqualified answer. You might as well ask, "which is the best plough?" without stating the soil or purpose for which it is intended. On the level prairies and large fields of the West a Reaping Machine is required, and will be pronounced the *best*, that could not be used on some of our small farms, amidst stumps, stones, and "cradle-knolls." A gentleman, in the neighborhood of the writer, who farms about 50 acres in a very superior style, purchased, last season, one of Seymour and Morgan's Machines, and when it was put together in his barn-yard, he could not get it out without taking down his fences. These being post and board, made it a question of some difficulty. The same difficulty would be encountered at every field, and he resolved to sell it, which he did at the first opportunity. A small machine like Manny's would have suited him much better.

We refer our readers to Mr. M'Cormick's advertisement on our outside sheet, and hope

his Machine may be introduced into Canada this season and prove itself worthy of its great reputation. As we have no interest in any particular Machine, and only wish to aid the farmer in his desire to obtain the best for his purpose, we should be very willing to spend a day in witnessing the operation of Mr. M'Cormick's in this vicinity, or even to take charge of it if he should choose to forward one for the purpose of examination and trial. It is but just to say, that in all these machines except, perhaps, that of Mr. Hussey, the essential points of the M'Cormick Reaper are copied, substantially.

As remarked in our last number, we do not accept the award of either the London or Paris juries as "final and conclusive," in favor of any implement or machine, which may be adapted to use on our soil. Opinions from such a source, however, are entitled to much respect, and we, therefore, subjoin the following, which is stated to be copied from the official awards:—

"In agriculture, the sole Grand Medal of Honor was awarded to C. H. M'Cormick, of Chicago, Illinois, United States of America, inventor of the Reaping Machine, that has operated the best at every trial, and is the type after which all other Reapers have been made, with different modifications, that have not changed the principle of the discovery." The following also appears in the *Scientific American* of Jan. 12th, 1856: '*La Presse*, the most extensively circulated newspaper in France, has devoted no less than four columns to a historical sketch and minute description of M'Cormick's Reaping machine, with an account of the extraordinary results obtained in all the recent trials before the international jury; and it bestows great praise on American inventions generally.'

#### RECEIPES AND GOOD THINGS.

A "farmer's wife" sent the following list of good things to the *R. New Yorker*, from which journal we copy them:—

**CRACKERS.**—Three quarts flour, 1 cup of butter, 1 pint water, 1 tablespoon salt. Pound until the dough snaps.

**ANOTHER.**—One pint of cold water, 1 teacup of lard, a little salt, 2 teaspoons of soda (or saleratus)—dissolved in a little vinegar; work in flour with your hands until quite hard; bake in a quick oven.

**DOUGHNUTS.**—Take 7 coffee cups of bread dough when light, mix into one and a half cups of melted lard, with one of sugar, and a teaspoonful of saleratus; when it has again become light, roll it out, cut into what shape you please, and boil in hot lard. To succeed well, the dough should be mixed with milk.

**A VERY NICE FRUIT CAKE.**—One pound sugar, half a pound of butter, 4 eggs, 1 teacup of sweet milk, 3½ cups of flour, 1 teaspoon of saleratus, nutmeg, cinnamon and cloves—as many raisins as you can afford.

**CUP CAKE.**—Five cups of sifted flour, 2½ cups of white sugar, 6 eggs, 1 cup of butter, 1 of sour cream, 1 teaspoon of soda, nutmeg. If sweet milk is used instead of sour cream, put in two teaspoons of cream of tartar.

**HARD GINGERBREAD.**—Two cups of molasses, 1 of buttermilk, 8 tablespoons of melted lard or butter, 4 teaspoons of saleratus, 6 of ginger, a little salt, flour enough to roll (not very hard.)

**CINNAMON CAKES.**—One cup of sugar, 1 of molasses, 1 of butter, 1 tablespoon of ginger, 1 of cinnamon, 1 of saleratus, dissolved in half a cup water—flour enough to roll; to be rolled very thin and cut in round cakes.

**COOKIES.**—Two cups of butter, 2½ of sugar, 4 eggs, half a teaspoonful of saleratus, caraway seed, flour enough to roll—made very thin.

**CREAM COOKIES.**—Two eggs, 2 cups of sugar, half a cup of butter, half a cup of sour cream, 1 teaspoon of saleratus, caraway seed, 2 teaspoon cream of tartar—flour enough to roll.

These receipes I have used for some time, and find none better. If persons who try them do not succeed, they must blame themselves alone, if they have good material.



## PROVINCIAL EXHIBITION AT KINGSTON.

Our readers are probably aware that the next Show of the Provincial Association will take place at Kingston, C.W. The citizens of that city held a meeting a few weeks since, to take steps to raise funds and otherwise aid the Board of Agriculture in making preparations for the Show. The Mayor presided, and there seems to have been a determination on the part of those present to make the Show of 1856 creditable to the locality and to the Province. A local journal informs us that—

A series of Resolutions were passed, without a single dissentient remark, pledging the Citizens to aid the Board in carrying out the objects in the best possible manner, and we hold this unanimity to be a good augury for the success of the Exhibition. Addresses were delivered by Colonel Marks, the Baron de Longueil, John R. Forsyth, Esq., Mr. Sheriff Corbett, Mr. Kirkpatrick, Q.C., Mr. Alexander Campbell, Colonel Cameron, and other gentlemen, and were well received by the meeting. Dr. Litchfield read a letter from Mr. Hopkirk, Collector of Customs, assuring the meeting that the department would afford every facility to the admission of Foreign Goods and Produce for Exhibition, and that no duties would be charged, except in the event of sale.

The N. Y. State Exhibition, for 1856, takes place at Watertown, or some other locality in the immediate neighbourhood of Kingston, and if the Exhibitions be held simultaneously, or if one Exhibition immediately follows the other, it would enhance the interests of both. The free admission of Produce for Exhibition in Canada should be known to the United States farmers and manufacturers, and we pray our exchanges to pass the declaration of the Canadian Collector of Customs round and to procure us Reciprocity.

## ARTIFICIAL FISH-BREEDING.

The New York State Agricultural Society offers the following :

A premium of \$100 (Gold Medal or Money) for an approved work of about 100 pages, duodecimo Long Primer, for the Transactions of the Society, on the Edible Fishes of the State, which are susceptible of *domestication and cultivation*, comprehending,

- 1st. The fishes (including shell) of our salt and tide waters.
- 2nd. The migratory fishes, inhabiting both salt and fresh water.
- 3rd. The fishes inhabiting our great lakes and the connecting straits and outlets.
- 4th. The fishes of the smaller fresh water streams, lakes and ponds of the interior.
- 5th. The valuable varieties, not native to our waters, which may be successfully introduced and cultivated, either for edible or ornamental purposes.
- 6th. The artificial production of fish, in rivers, lakes and streams, as practiced in France and Great Britain, and in this country.

Together with the natural habits, food, haunts and feeding grounds; the method of taking them, and the means of their cultivation, increase and preservation; their value as an article of food, or for the purpose of enriching our lands to the farmer; with such other matter as may appertain, generally, to these several subjects (copy right of the work to be for the benefit of the author, after publication in Transactions.)

**WATER MELON MOLASSES.**—An article has been going the rounds of the papers about the practicability of making molasses from water melons. We felt incredulous on the subject, but have recently been presented with a bottle of it by our friend, Philip A. Mason, of Woodbury, New Jersey, who is well known in this market as a successful grower of the mountain sweet water melon. It was really a nice article, clear, sweet, and of a very pleasant flavor. He informed us the only process was to boil down the pulp to about one-half. The boiling was continued for several hours. Whether it will pay to manufacture molasses in this way is another question, and a matter of very great doubt.

—*Pennsylvania Farmer.*

## BRINE A POISON—FAT HOGS—AN OLD HORSE.

To the Editor of the *Agriculturist*.

SIR,—This day I received three numbers, January, February and March, of the *Agriculturist*. I opened the March No., and the first sentence I saw was, "Brine a Poison," on page 74. I thought all the world knew that; if not, it is time they did. Pork brine, especially with salt-petre in it, is death to all that eat it. A tenant on a farm of mine killed a pen-full of fat hogs, nearly ready for the butcher, by giving them some ground-feed with pork brine. I have known other similar cases. As to beef brine, only one case occurs to my mind, and that turned out favourably. A man emptied some beef brine into the road, an old horse came and eat up both brine and dirt, and as good luck would have it, he went off and died, which saved his wintering. Whether he got too much dirt for easy digestion, or whether the brine killed him, I will leave to scientific men to decide.

You stated that, "as brine is sometimes used a second time for pickling and other purposes, these facts should be remembered." Please to recollect that *old brine* will not *kill* pork; it is made to save it, only don't feed it to animals. It will destroy life, but save the bacon.

I do not know the age of my pork brine,—I will say at least 10, perhaps 15 years old. I hope to live to see it 40. I never scald brine; it makes meat dry, tough and tasteless. In packing pork, the head and all bloody pieces, should be put into weak brine a day or two to draw out the blood; then salt down. Always have salt left in the bottom of the barrel, and the brine will keep good for perpetual use—no fear of poison.

When I have time to read the other numbers, I will write again.—I subscribe myself a Farmer, who has grown gray by long experience,

H. C. P.

Back Woods, Canada West, 12 March, 1856.

REMARKS.—Our correspondent, who is an intelligent and successful farmer west of Hamilton, has our thanks for his comments. We shall be glad to receive observations in the same style upon other articles in our journal, which may seem to warrant them. It is by comparing facts, and combining the results of a diversified experience, that we arrive at truth in agricultural science. We do not see through the philosophy of our correspondent's "old brine." In the article to which H. C. P. refers, and which by the way is merely a statement of the results of certain experiments made by a distinguished French medico, the suggestion is thrown out, without any expression of opinion as to the fact, that if "old brine" be a *poison*, it should be remembered when using it for pickle. We are glad to learn from H. C. P., that it will not kill the *dead*. He admits it will kill "animals," and as men, women and children are *animals*, and, in eating pork, might perchance eat some of this "old brine," it would seem to follow as a logical consequence, that men, women and children are in danger of being poisoned, as well as living "fat hogs" and "old horses." We, however, in the mean time submit to the correction of our correspondent, and trust other friends will add their experience. We are still a little obfuscated.

## ROOT-GRAFTED TREES.

It would appear from discussions reported recently in American Journals that the common method of root-grafting, which we believe is practised by Canadian as well as American nurserymen, is not free from grave objections. Root-grafting has not been practised on a large scale, if we are correctly informed, more than 15 or 20 years, and, therefore, the *durability* of such trees, as compared with seedlings, or those grafted in other modes, can hardly yet have been determined.

The question is a very important one, and we should be glad to hear the opinions of some of our readers who have had experience in the matter. We know a great many cases in which root-grafted trees have certainly not done well, but we had supposed the failure was owing to *bad treatment*.

The remarks of the gentlemen who took part in the discussion reported below, suggest another cause which may help to explain these unfavorable results. At a meeting of Farmers in Augusta (the Capital of Maine) Mr. Goodale said :

“One question of importance to us is root-grafting, such as cultivating apple seedlings a year or two in very rich soil, and thus getting a long tape root. This root is cut into pieces, and scions put into them, then set in the ground. It amounts to raising trees from cuttings,—the root merely keeping the scion moist and until it roots. If such trees grown in this way, are really of value, he would like to know it ; if not, we ought certainly to know it. Hundreds and thousands of such trees are brought into this State from the West. If they are found to be good by anybody who has tried them, he would like to know it.”

Mr. Fairbanks has seen and examined such trees. In a bundle of twenty-five trees he found there were not roots enough on the whole for one tree. He would not set them out to have them. A good root is absolutely necessary to make a good tree.

Mr. Crane said 18,000 of such trees were landed last spring in Bangor. An agent had canvassed the whole country round, and very many were “gulled.” The people have been dissatisfied, and as many as seven lawsuits have grown up from the swindling operation. He knew of a man who had bought 300 of these last spring, and set them out carefully, and they are all dead now.

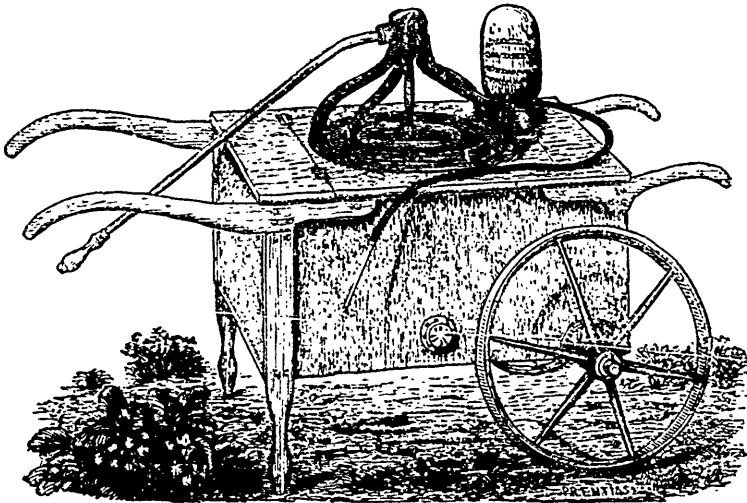
Col. Simmons had tried the experiment of raising trees on grafted pieces of roots. They would grow well a little while, but soon died. He would not have them on his farm, if he could get good trees for one dollar apiece.

Mr. Dana had raised trees from layers. Some twenty-five years ago, when he first commenced farming, he bought 100 trees raised in that way ; six or seven are now alive. A few of them had fruited a little. The largest of them is not more than six inches in diameter. He knows an orchard from the same kind of layers. The largest one of the trees is not over eight inches in diameter, and they are now dying. Trees raised from seed in the same orchard are now thrifty, and larger than the others.”

KEEPING APPLES.—A close chamber is a better place to keep apples than a cellar. Apples bear freezing once without injury, if they are not handled till thawed. Linen cloth laid on or around apples prevents injury from freezing. Apples have been found in good order in the spring, that have lain in barrels under the trees all winter. Roxbury Russets are considered the longest keepers.—*N. E. Farmer*.

Gathering fruit from the apple and currant trees, when green, or before they are fully ripe, makes them more prolific the following year.—*N. E. Farmer*.

Trees designed for clayey soils do best when transplanted in the spring.



GARDEN AND FIRE ENGINE.

The figure represents a useful engine that every farmer whose buildings are extensive and exposed to danger, and who cultivates a garden, should supply himself with. It is what is called a combination pump, mounted as seen in the cut. It may be used for extinguishing fires, showering fruit trees with medicated washes, washing windows, &c. &c. The cost is about \$30 for a medium size.

NOTES ON ASHES.

To the Editor of the *Agriculturist*.

SIR,—Ashes are the earthy and saline matters contained in any substance subjected to combustion. They vary in their properties according to the material used in producing; consequently, they vary in efficacy.

|  | Soluble Salts. | Earthy Phosphates. | Carbonates. | Silica. | Oxides. | Loss.   |
|--|----------------|--------------------|-------------|---------|---------|---------|
| 100 lbs. of oak ashes give.....          | 38 lbs.        | 4 lbs.             | 32 lbs.     | 2 lbs.  | 2 lbs.  | 22 lbs. |
| From 100 lbs. straw of wheat we get..... | 22             | 6                  | 1           | 61      | 1       | 9       |

The soluble salts are potash. The phosphates are lime and magnesia. The carbonates are lime and magnesia. These are essential vegetable ingredients. It is evident, therefore, that our manure heaps are benefited by the addition of ashes.

They are an excellent means for ameliorating the soil, and are especially useful in strong clay and moist land. They will remove moss and poor grass. They do not, however, produce their greatest effect unless they find vegetable matter or manure where-with to combine. On poor land they are nearly useless.

A free use of ashes has often doubled a crop of grass.

Fresh ashes when used should be mixed with pulverized or slacked lime, and then slightly moistened.

As a top dressing for meadows sow ashes in April or May. If grass seed is sown at the same time and the meadow harrowed, the benefit will be great.

As food for Corn with gypsum, they are very efficacious.

Fresh ashes ought, however, to be used sparingly, say not over ten bushels per acre, as they are caustic, and will contribute to exhaust the soil by too great action.

*Leached Ashes.*—Notwithstanding the care of those who make potash, the refuse ashes always contain a portion of this valuable salt generally combined with silica. They contain also lime, magnesia and phosphoric acid.

These ashes may be applied in proportion of two tons to the acre, and their effects will continue for many (say 10) years.

The following mixture may be considered as equivalent to one ton of fresh wood ashes

|                        |          |
|------------------------|----------|
| Potash.....            | 60 lbs.  |
| Carbonate of Soda..... | 60 "     |
| Sulphate of Soda.....  | 20 "     |
| Common Salt.....       | 20 "     |
|                        | 160 lbs. |

I have applied 30 to 40 bushels of ashes to the acre upon ground which before did not fully develop the wheat plant. The product was much improved and gave a full crop. I would advise three to four waggon loads of ashes per acre as we obtain them from the asheries.

AGRICOLA.

Toronto, 15th March, 1856.

#### FENCES AND SNOW DRIFTS.

Although snow-drifts are disposed of for this year, yet the season for fence-making is at hand, and we therefore insert the following hints for the benefit of those whom it may concern :—

*To the Editor of the Agriculturist.*

Seymour, Feb. 26, 1856.

MY DEAR SIR,—During this drifting weather, I often hear the question asked, "what means can be adopted to prevent the filling of roads with snow?" therefore, I suppose it is not generally known that erecting a *close fence*, one that will prevent the wind passing through it, parallel with the road, about 5 feet high and thirty feet from the centre of the road, will obviate it. Any person who takes the trouble of enquiring into the business will readily perceive that directly the drift passes over a close fence it falls to the ground on the lee side, and, instead of creeping on as in the case of an open fence, stops suddenly, and thus forms a perpendicular bank; the drift must therefore continue an indefinite period before it fills the road.

Persons having the care of Railroads and common highways, would do well to work on this plan. From my own experience it has the desired effect. You are welcome to publish the above, if you think the hint worthy of notice.

I remain, my dear sir, your's truly,

H. ROWED.

**CATCHING ELEPHANTS.**—The manner of catching them is simple enough, and with the stealthy, cat-like peculiarities of the Moormen of Ceylon, is attended with little danger. When a herd has been discovered, in which there are young ones, they watch them till mid-day, when they are either drowsy or asleep, and then creeping up behind with ropes, fasten their hind legs together; they then set up loud yells to frighten away the old ones. The course of education afterward pursued is very simple, but speedy and effective; they are left tied, with no water or food, for three or four days, when these requisites are administered as sparingly as possible; in a week they become so tractable as to kneel down at the word of command.

The British Quarterly has the following, to show the value of mechanical skill and labor on raw material. A bar of iron valued at \$6, worked into horse shoes, is worth \$10,50; needless, \$355; penknife blades, \$3,285; shirt buttons, \$29,480; balance springs of watches, \$250,000. Thirty-one pounds of iron have been made into wire upwards of one hundred and eleven miles in length, and so fine was the fabric, that a part of it was converted, in lieu of horse hair, into a barrister's wig.

**FACTS WORTH KNOWING.**—The whole number of languages spoken in the world amounts to 2,523, viz., 587 in Europe, 395 in Asia, 276 in Africa, and 1,264 in America. The inhabitants of the globe profess more than 1,000 different religions. The number of men is about equal to the number of women. The average of human life is about 33 years. One-quarter die previous to the age of seven years, one-half before reaching 17. Of every 1,000 persons, one reaches 100 years of life; of every 100 only six reach the age of 65, and not more than one in 500 lives to 80 years of age. There are on the earth 1,000,000, 000 inhabitants. Of these, 33,333,333 die every year, 3,800 every hour, and 60 every minute, or one every second. These losses are about balanced by an equal number of births. The married are longer lived than the single; and above all, those who observe a sober, industrious conduct. Tall men live longer than short ones. Women have more chances of life in their favour previous to being fifty years age than men have, but fewer afterwards. Those born in spring are generally more robust than others. Births and deaths are more frequent by night than by day.

**A NICE DISH FOR BREAKFAST.**—Take one egg and beat it up, add a teaspoonful of salt, pour into about two-thirds of a pint of water, then slice some bread, dip it in, and fry in a little butter. Serve warm, and you will find it an excellent dish.

**CRACKERS.**—One tea-cup of lard; one teaspoonful of saleratus; one of burnt alum; mix hard. Knead and roll into small crackers without a cutter. Bake in a quick oven.—P., *Somerset, N. Y.*

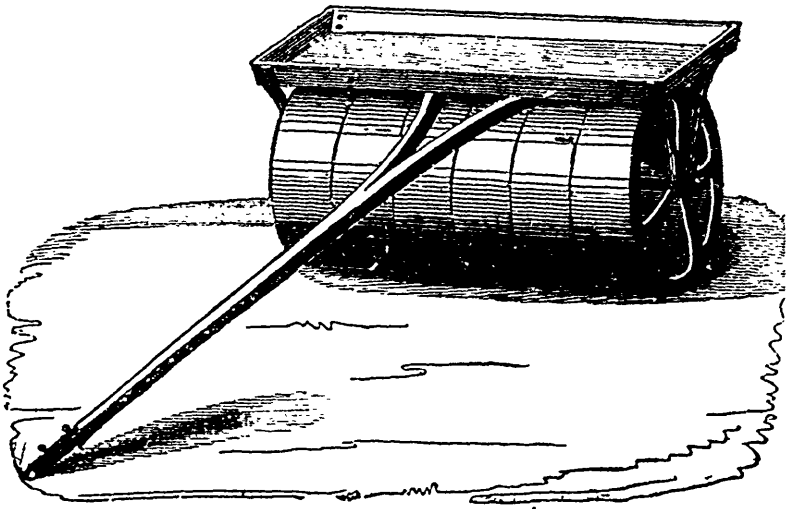
**FRUIT IN CANS—PIE-PLANT, &c.**—Putting up fruits, &c., in sealed cans is not always successful, as many know from experience. Green corn has often been tried, and generally without success. The *Ohio Cultivator* says, "Others have a more sad experience in canning rhubarb and pie-plant, which contains so much oxalic acid, that on being used from the cans has nearly been the death of whole families. Keeping in this way seems to give more virulence to its poisonous qualities, which are comparatively harmless when the plant is used fresh from the garden." Sealed glass bottles are much better than metallic cans for this purpose.

**FRUIT TREES IN ILLINOIS.**—The *Prarie Farmer* of Feb. 21st, says:—"There is no longer any doubt in regard to the partial or the entire destruction of the current year's growth of many young orchard trees in this part of northern Illinois. The apple alone seems to have escaped. The pear, where the growth was good, shows the effects of the severe weather even more than the peach, in our grounds."

Currants bear in three years from cuttings.

**FOR KICKING COWS.**—Take a short strap and fasten the ends together. Next prepare a pin of some soft wood, about 6 or 8 inches long,  $1\frac{1}{2}$  inches in diameter. Take the cow by the off fore-leg, and double it at the knee joint close; pass the strap or loop over the knee, pressing it back until you can insert the pin between that and the knee joint, and she cannot kick.—J. B. T.

The following method for remedying smoky chimneys is recommended in the *London Critic*: "A revolving fan is placed vertically in the opening of a small, compact, moving cowl, fixed on the chimney-top. The gentlest current of air sets this fan in motion, creating an upward draught in the chimney, preventing the return of smoke, gaseous vapours, etc., into the apartment, and also the falling of soot and rain.



THE ROLLER.

These are now made of Iron, in sections one foot long and embracing any number from three to six, as may be desired. The sections are placed on a wrought iron arbor or axle-tree, on which they each revolve independently, so that in turning the roller at the ends of the field the ground is not left uneven. If not more than four sections are required, hills or shafts may be substituted for the tongue, and the implement may be easily drawn by one horse; as both tongue and shafts may be had, and one or two horses used, as occasion may require. The box is attached to receive stones, &c., picked up on the field rolled, and for giving extra weight to the roller when the same may be needed. For distant transportation, the iron sections, and standards to which the woodwork is attached, are furnished to order, either with or without wrought iron arbor, by weight and the wood parts can be furnished and attached by any wheelwright or carpenter in the district where the roller may go.

#### PRUNING APPLE TREES.

Now, don't, kind reader turn up your nose, because your theory differs from mine. What does the doctor do when he amputates a leg? O, he *dresses* it carefully as possible. Very well. So do I dress a limb of a tree after it is sawed off, and common sense requires it as much in one case as in the other. But I find it pleasant, as well as convenient, on a leisure day to go out and trim off the shoots and dead branches, and when a warm day comes in spring, I go all over the orchard with a ball of grafting wax, or some shellac dissolved in alcohol, and cover every wound. If you are not willing to do this, then don't prune till the leaves are set, or, which is, perhaps better, till September or October, which with me is a very busy season. I see where I have practised pruning and dressing in years past, as I have described, that the bark is lively, and the healing process is going on all around the wound, a point of the greatest importance. My theory on this subject, is to take care and dress your wounds, make them when you will.—*Cor. N. E. Farmer.*

## ADAPTATION OF WHEELS TO THE PLOUGH.

A farmer in the neighbourhood of Bridge of Allan (Scotland), invented, about a couple of years ago, a piece of ingenious yet simple mechanism, whereby wheels may be attached to the common plough, which may be wrought without any exertion on the part of the ploughman. One of the wheels goes in the furrow and the other on the higher or level ground, and the plough can by a simple contrivance by means of screws and a directing rod, at once be regulated at pleasure to any depth or breadth of furrow while the horses and plough are in full working motion. It is thus adapted to uneven or rocky surfaces, as well as to land free from stones.

At a recent trial of this wheel plough, near Stirling, its merits were universally admitted by a large concourse of farmers; the work it made being superior to that of the ordinary plough, and it is very easy to manage. The wheels, which may readily be attached to the common plough in the course of half an hour, weigh about 1 cwt. and cost from £2 to £2 10s.

**POTTED CHEESE.**—An “old dairy woman” sends the following receipt to one of our exchange journals, for the benefit of those who keep but a cow or two:—

Prepare your curd as you would for the press, then put it in a bag secure from flies, and hang it in an open room until thoroughly drained, then chop fine and pack in a brown earthen crock, (stone is not as good,) put in a layer of cheese, a very little salt-petre, and sprinkle in a little good brandy, say  $\frac{1}{2}$  pint to 20 lbs. When your crock is full press down with the hand; cover your crock with two or three thicknesses of writing paper, pasted to the crock to secure from flies, over the paper tie a cloth to prevent bugs from gnawing through, and set in a dry place not too warm. In one month it will be good, but in six it will be “cheese that is cheese.”

**LONG SERMONS.**—There is nothing which a preacher should be more guarded against than length. “Nothing,” says Lamont, “can justify a long sermon. If it be a good one, it need not be long; and if it be a bad one, it ought not to be too long.” Luther, in the enumeration of nine qualities of a good preacher, gives as the sixth, “That he should know when to stop.” Boyle has an essay on patience under long preaching. This was never more wanted since the Commonwealth than now, in our own day; especially among our young divines and academics, who seem to think that, their performance can never be too much attended to. I never err in this way myself, but my conviction always laments it; and for many years after I began preaching, I *never* offended in this way. I never exceeded three quarters of an hour at *most*. I saw one excellency was within my reach—it was brevity; and I determined to obtain it.—*Rev. W. Jay.*

**JOHN FLAVEL ON DIVINE PROVIDENCE.**—Labour to get as full and thorough recognitions of the providence of God about you, from first to last, as you are able. Fill your hearts with the thoughts of him and his ways. If a single act of Providence be so ravishing and transporting, what would many such be, if they were presented together in the view of the soul? If one star be so beautiful to behold, what is a constellation? Let your reflection, therefore, upon the acts and workings of Providence for you be full, extensively and intensively. Search backward into all the performances of Providence throughout your lives, for so did Asaph: “I will remember the works of the Lord: surely I will remember thy wonders of old; I will meditate also of all thy work, and talk of thy doings.” He laboured to recover and revive the ancient providences of God’s mercies many years past, and such a fresh sweetness out of them by new reviews of them. Ah! Sirs, let me tell you, there is not such a pleasant history for you to read in all the world, as the history of your own lives, if you would but sit down and record to yourselves, from the beginning hitherto, what God hath been to you, and done for you; what signal manifestations and outbreaks of his mercy, faithfulness, and love, there have been in all the conditions you have passed through; if your hearts do not melt before you have gone half through that history, they are hard hearts indeed. “My Father, the guide of my youth.”



## MEETING OF THE BOARD OF AGRICULTURE.

A Meeting of the Board of Agriculture of Upper Canada, was held in this city, on the 27th, 28th, and 29th February, pursuant to notice from the Secretary. The following is a brief summary of the proceedings:—

Wednesday, February 27.

Present:—The President, (E. W. Thomson, Esq.,) Hon. A. Fergusson, Messrs. John Harland, R. L. Denison, David Christie, M.P.P., A. A. Burnham, J. B. Marks, Sheriff Ruttan, and Professor Buckland.

The minutes of last meeting were read and confirmed.

## COMMUNICATIONS.

A communication was received from Mr. William Evans, Secretary of the Lower Canada Board of Agriculture, stating that the next Annual Provincial Agricultural Exhibition for that section of the Province had been appointed to be held on the 17th, 18th, and 19th of September next.

A communication was also received from Mr. B. P. Johnson, Secretary of the New York State Agricultural Society, stating that the next Annual Exhibition for that State would be held at Watertown, on September 30th, and October 1st, 2nd, and 3rd next.

Two communications were received from Mr. Charnock, of Hamilton, representing the advantages of obtaining from the Legislature a General Drainage Act, and requesting the co-operation of the Board to secure that object.

Several other communications on various subjects were likewise received.

On motion it was resolved, That the next Exhibition of the Agricultural Association of Upper Canada, should be held at Kingston, on the 23rd, 24th, 25th, and 26th September next, being during the week between the Exhibition for Lower Canada, and that for the State of New York.

Mr. Marks laid upon the table a list of names to compose the Local Committee at Kingston, as follows:—A. S. Gildersleeve, Esq., Mayor of Kingston, D. Roblin, Warden of the United Counties of Frontenac, Lennox, and Addington, the President of the County of Lennox Agricultural Society, do., County of Frontenac, do., County of Addington, Colonel Cameron, Thomas Briggs, Judge MacKenzie, James O'Reilly, Dr. Litchfield, Dr. Barker, John Flanagan, Sheriff Dickson, Sheriff Corbett, M. W. Strange.

On motion it was resolved, That this list be adopted by the Board.

Certain newspaper reports in reference to the proposed erection of edifices of a permanent character at Kingston, and which would be available for the exhibition, were read, and some conversation took place thereupon; and after some detail business, the Board adjourned till next day.

Thursday, February 28.

Board met at 10 A.M.

Same members present as on preceding day, except Mr. Harland, whom sudden business had called away.

The Prize List for the next Exhibition was discussed, and a Committee appointed to revise it thoroughly, and report to the next meeting of the Board.

Professor Buckland presented a report of a tour made by him, in the autumn of the past year, to the Western part of the Province, during which he had delivered several agricultural lectures, and had found several agricultural improvements in that quarter of the Province advancing rapidly. The report refers more particularly to the Annual Exhibitions of the Counties of Kent, Essex, and Lambton, which indicated steady progress.

The subject of localities where the Provincial Exhibitions may be held, obtaining grounds and erecting buildings for exhibition purposes, being again discussed, it was resolved that, whereas the several localities at which the Annual Exhibitions of the Agricultural Association may be held in future, may, by their permanent structures, contribute to the accommodation of such exhibitions—*Resolved*—That the Association will contribute towards such expenses in proportion to the facilities afforded.

Mr. Charnock's communications were then considered, and it was resolved, That the Board, though fully concurring in the importance of the subject, was of opinion that in the present state of the country, drainage improvements would have to be carried out by private enterprise.

A communication from Mr. Moyle of Brantford, in reference to the promotion of immi-

gration from Europe of a desirable class of persons for farm servants and settlers was read, together with a letter to that gentleman from the Bureau of Agriculture, and after discussion, the Board feeling that the funds of the Association would be wholly inadequate to undertake any such immigration scheme as proposed by Mr. Moyle, the Secretary was instructed to convey to Mr. Moyle, the thanks of the Board of Agriculture for his communication on the subject of immigration, and to express the hope that he may continue to urge the matter on the attention of the Minister of Agriculture.

The subject of the publication of the Transactions of the Board was then considered, and it was resolved, That an application be made to the Minister of Agriculture for a grant in aid of that undertaking.

On motion of Mr. Denison it was resolved, That the future entrance at the gates during the exhibitions, should be 1s. 3d. instead of 7½d. as formerly; children under 14 to be admitted at half-price.

The subject of the encouragement of the importation of stock being discussed, it was resolved, That the Prizes for stock imported since last exhibition should be the same as last year.

Mr. Denison gave notice, that at the next meeting of the Board, he would move that in future no refreshment tickets be issued at the exhibition, and that the sum of £1 should be paid to each of the judges on the conclusion of his duties.

The Counties, eligible to compete for prizes for Agricultural Reports this year, were then balloted for, according to a previous regulation, and the selection fell upon the Counties of Addington, Haldimand, and Huron.

It was resolved, That an efficient instrument for testing the draft of Ploughs at the exhibitions be procured for the use of the Association.

The Board adjourned till next day.

Friday, February 29th.

Board met at 10 A.M. Same members present as on previous day.

In reference to certain produce grown upon the Experimental Farm from imported seeds, it was resolved, That the barley so grown, be placed in the hands of the Seedsman of the Association, Mr. Fleming, to be disposed of by him at 5s. per bushel, in limited quantities.

The subject of the Chinese potatoe (*Dioscorea batatas*) being discussed, the Secretary was authorised to order a quantity of the seed from New York, to be cultivated upon the Experimental Farm.

On motion of Mr. Marks, it was resolved to offer a premium of £15, at the Kingston Exhibition, for a Portable Steam Machine for breaking stones for roads.

In reference to the choosing of Judges for the Exhibition, it was resolved, That each of the County Societies be requested to furnish the names of six competent Judges, on or before the 1st July; and that the Board take the responsibility of selecting from those names, the judges required.

After some further business the Board adjourned.

### THE KITCHEN GARDEN.

We regret that the space at our disposal prevents us from inserting the very interesting and instructive paper read before the A. & H. Central Club by Mr. Mundie on the importance and management of the Kitchen Garden. It would have been peculiarly appropriate in the present number, and may not be too late in the next, if we should have a backward Spring. The most important result of the discussion, however, was the preparation of a list of vegetables and varieties suitable for cultivation in this climate, in the farmer's garden.

The numerous varieties offered for sale by gardeners and seedsmen, sometimes perplex the purchaser, and it often happens that the best are not chosen. The committee appointed to make the following list was composed of gentlemen well qualified for the

purpose. Their names are Professors Croft and Buckland, and Messrs. Fleming, Mundie, Leslie and Gordon, practical gardeners:—

## REPORT.

The Committee appointed at the meeting of the Club, to make out a list of the most useful and best kinds of vegetable seeds, roots, and small fruits, (with their proper names), to be appended to Mr. Mundie's paper, have recommended the following varieties as being the most suitable for the purpose. They are all of the best kinds that are now in cultivation for general crops (taking their qualities and productiveness into account).

They are placed in the order of their earliness, and also of their merit, and can be obtained from any regular seedsman or nurseryman by the names given in this list.

## VEGETABLES.

| Name   | Sort |
|--|------|
| <i>Asparagus</i> —Giant                      |      |
| <i>Kidney Bean</i> —Yellow Six Weeks.        |      |
| “ Red Specked.                               |      |
| “ Scarlet Runners.                           |      |
| <i>Beet Root</i> —Early Turnip rooted.       |      |
| “ Long Blood.                                |      |
| <i>Cauliflower</i> —Early London.            |      |
| “ Late French.                               |      |
| <i>Carrot</i> —Early Horn.                   |      |
| “ Red Atringham.                             |      |
| “ Long Orange.                               |      |
| <i>Cabbage (summer)</i> —Early York (small.) |      |
| “ “ Endfield Market.                         |      |
| “ (autumn)—Shilling's Queen.                 |      |
| “ “ Large York.                              |      |
| “ (winter)—Quintal.                          |      |
| “ “ Flat Dutch.                              |      |
| “ “ Savoy Dwarf Curled.                      |      |
| “ “ Red Dutch (pickling.)                    |      |
| <i>Celery</i> —Red Solid.                    |      |
| “ White Solid.                               |      |
| <i>Cucumber</i> —Short Green.                |      |
| “ Long Green.                                |      |
| <i>Lettuce</i> —Maltese.                     |      |
| “ Victoria Cabbage.                          |      |
| <i>Musk Melon</i> —Scarlet Fled Cantelup.    |      |
| “ Green “ Nutmeg.                            |      |
| <i>Water Melon</i> —Long Island.             |      |
| <i>Onion</i> —Large Yellow.                  |      |
| “ “ Red.                                     |      |
| <i>Capsicums</i> —Large Yellow.              |      |
| <i>Parsley</i> —Double Curled.               |      |
| <i>Parsnip</i> —Dutch Hollow Crowned.        |      |
| <i>Peas</i> —Early Kent.                     |      |
| “ Blue Imperial.                             |      |
| “ White Marrowfat.                           |      |
| <i>Radishes</i> —Scarlet Short Top.          |      |
| “ Long Salmon.                               |      |
| “ Red Turnip Rooted.                         |      |
| “ White “ “                                  |      |
| “ Black Spanish (for winter.)                |      |
| <i>Rhubarb</i> —Myatt's Victoria.            |      |
| “ “ Albert.                                  |      |

|                                       |
|---------------------------------------|
| <i>Squash</i> —Scolloped Bush Squash. |
| “ Boston Summer.                      |
| <i>Potatoes</i> —Early June.          |
| “ Gold Finder.                        |
| “ Shaw's Seedling.                    |
| <i>Spinach</i> —Round Leafed.         |
| “ Prickly Seeded.                     |
| <i>Tomato</i> —Large Red.             |
| <i>Turnip</i> —Early White Stone,     |
| “ Golden Ball.                        |
| <i>Herbs</i> —Sage.                   |
| “ Thyme.                              |
| “ Summer Savory.                      |
| “ Sweet Basil.                        |
| “ Sweet Majoram.                      |

## SMALL FRUITS.

|                                     |
|-------------------------------------|
| <i>Currants</i> —Black English.     |
| “ “ Naples.                         |
| “ Red Dutch.                        |
| “ “ Grape.                          |
| “ “ Victoria.                       |
| “ White Grape.                      |
| <i>Raspberries</i> —Red Fastolf.    |
| “ “ Antwerp.                        |
| “ Yellow “                          |
| <i>Gooseberries</i> —Red Ashton.    |
| “ “ Warrington.                     |
| “ “ Ironmonger.                     |
| “ “ Crown Bob.                      |
| “ White Whitesmith.                 |
| “ “ Eagle.                          |
| “ “ Caloline.                       |
| “ Yellow Golden drop.               |
| “ “ Lyon.                           |
| “ Green Ocean.                      |
| “ “ Langleys.                       |
| “ “ Gascoigne.                      |
| “ “ Willow.                         |
| “ “ Laurel.                         |
| <i>Strawberries</i> —Early Scarlet. |
| “ Scotch Pine.                      |
| “ Hovey's Seedling.                 |
| “ Boston Pine.                      |
| <i>Grape Vine</i> —Isabella (black) |
| “ Sweet Water (white).              |

NOTE.—Asparagus and Rhubarb, when it is possible, should be purchased in roots; seeds may be used when roots cannot be had, only it should be borne in mind, that as regards rhubarb, seeds will seldom produce the same variety from which they were taken, the plants so raised being almost always a hybrid sort, and that by using two year old asparagus plants, just so much time will be gained, unless where there may be the convenience of a hot-bed or frame. It will generally be found best to purchase celery in plants instead of seeds.

Round Spinach for summer may be sown soon as possible in Spring; one or two successive crops may be sown at from three to four weeks intervals afterwards.

Prickly Spinach, to stand the winter, should be sown about the middle or during the latter half of September. It will come into use with the first growth in Spring, and will last until the spring sowing comes in.

Peas should be sown at different times, to produce a succession of crops, say the first early sort as soon as the frost breaks up in spring, the second sort about three weeks later, and the third sort from three to four

weeks later still; always proportioning the quantities to the probable wants of the family during the time that each sort may be in season.

In dry weather, such seeds as peas, beans, radishes, turnips, carrots, parsnips, &c., should be soaked in soft water from 12 to 20 hours before being sown; this will ensure their coming up. In the case of turnips a good plan is to soak half the seed and sow mixed with the other half unsoaked. This will give two distinct brairds, and consequently two chances against the fly. The seed must not be kept over after having been soaked.

### ECONOMICAL MODE OF SETTING OUT FRUIT TREES.

If we could persuade every reader who owns a farm to plant out this spring two or three acres of fruit trees, we should consider that we had done more for our country than Parliament with its long speeches and enormous expenditure will be likely to accomplish for the next ten years. The *cost* of the trees is something, but to most of our readers who till their own soil, *that* is a small item. The labour of preparing the ground, setting out and cultivating an orchard, is a bugbear to many. So many have set out trees, and so many trees have died! But if farmers treated their wheat-fields as too many treat their young orchards, would they expect to find a crop at harvest time? We shall have something to say in a future number on the care and management of fruit trees. Our present purpose is to point out a cheap and convenient plan for preparing the ground and planting out trees. The season for this operation is close at hand, and we hope the hint may prove useful.

"After the land is prepared as for common farm crops, by such manuring as may be afforded conveniently, and by as deep a plowing as a single team will give with a common plow, proceed to measure off the distances of each row, and mark the places by stakes. Then begin by plowing a small "*land*" about six feet wide, so as to leave the dead furrow where each row of trees is to stand. Repeat the plowing on the same piece of ground several times, until the earth is thrown out down into the subsoil to a depth of about two feet. Then mark the places, by stakes, where each row *crosses* these at right angles, or in other words where each tree is to be placed. Deposit near each crossing, half a cubic yard of compost or old manure, throwing a portion of it about the place where the tree is to stand. Then proceed to plow the earth back again, one man being employed at the same time to pass along the row and to scatter the compost gradually and successively over a space of six by eight feet about the place for each tree, while the plowing is going on. In this way, a bed of rich, deep, mellow earth, formed of thoroughly intermixed soil and compost, over a space six feet by eight, is made at the place for every tree. An excavation large enough for the reception of the roots, is quickly made in this mellow bed of soil, and the tree planted by placing the unmanured and adjacent top soil next the roots. This mode of planting will be decidedly better than in holes dug by hand, for these strips of land being down the natural slope of the land, as they always should be, form a channel in the subsoil through which any surplus water, (which would otherwise stagnate in the dug hole,) may easily sink away, and not remain about the roots to injure the growth, as all stagnant water does in a most serious degree. This is especially the case with holes dug in hard clay subsoils, which hold water like a tub."

The *Country Gentleman*, a leading American journal, informs us that this plan has been found very advantageous for large orchards. We think it will be equally useful in the case of one, two, or three acres, with less than which no farmer should be content.

**RAILROADS.**—The total number of miles of railroad now open for traffic in Canada, is 1, 032, as follows: Grand Trunk, 404 miles; St. Lawrence and Champlain, 45; Montreal and New York, 28; Prescott and Ottawa City, 50; Cobourg and Peterboro, 28; Ontario, Simcoe and Huron, 95; Buffalo, Brantford and Goderich, 80; Great Western and branches, 285; Erie and Ontario, 17.

## NOTES FROM AN OLD COMMON PLACE BOOK.

BY HON. ADAM FERGUSON, WOODHILL, C. W.

"O fortunatos, mimium sua si bona norint Agricolas."

"THE OLDEN TIME."

Dear Sir,—While you and other true-hearted Canadians enjoy the increasing prosperity of our noble Province, and firmly advocate unanimity and mutual forbearance, as the only pledges of eventual success, it may not be uninteresting to revert for a little to Agricultural matters in Britain during the earlier years of the present century, especially to features, then prominent, but which are not likely to appear amongst us.

I may premise, that in the following reminiscences, I shall probably not adhere over rigidly to the rules of composition, as regards *past and present*, but will be found sometimes quoting from my old notes, as matters actually passing, and again giving my recollections more as a narrative of things past.

About thirty years ago, I was domiciled in the County of Northumberland, Great Britain, where I enjoyed the benefit of living upon terms of cordial intimacy with the late Mr. Bates, and a large circle of distinguished agriculturists and breeders. It was a period of much agricultural prosperity (1813, 1814, and 1815) when an East Lothian farmer could point to stacks in his yard worth three or four hundred pounds a-piece, and butcher's meat readily fetched 1s. per lb. In 1022 it would take five stacks, same size, to reach that sum.

The sheep-shearing gatherings of Wobourn, Holkham, &c., shone in all their glory, bringing together thousands of the most enterprising, intelligent farmers of the land, and dispensing knowledge and zeal everywhere in copious streams.

Among the spirited landholders, who at an incredible expenditure of time, talent, and wealth, laboured in their praiseworthy vocation, no mean place was occupied by J. C. Curwen, Esq., of Workington Hall, long an active representative of the County of Cumberland in the British Parliament. My first visit to this patron of the plough, or perhaps I should, with greater propriety, say to his farm, was at his annual festival, held at Workington, in July, 1814. I had then no personal acquaintance with Mr. Curwen, nor did I bear any other introduction, beyond a mutual love of rural improvement.

My own residence was in Northumberland, in the vicinity of Hexham. I travelled by coach, *via* Carlisle, having sent on a saddle horse a day before. The weather was brilliant, but sultry, and the Cumberland farmers were in full progress with their hay. The grass is in general meadow, and the common system seemed to be, to get it, as fast as possible, into very diminutive cocks, not unlike inverted basins, and extremely liable (I should think) to take damage from rain, a visitation rather too frequent in the Western counties.

On the evening of my arrival, I sauntered up to the *Schoose*, Mr. Curwen's own farm, upon which he has erected an extensive and most commodious range of farm buildings. I found there Mr. Glover, a smart intelligent man, having a general charge of the live-stock department, and more especially of the milk cows, at present thirty-four in number, giving milk. These are all soiled, and never leave the stable.

Water is conveyed by pipes into their troughs. They were all healthy and hearty. Cases of twins were not unfrequent, and Glover thinks, that on such occasions, nature provides, an extra flush of milk. He makes a rule of separating immediately any cow which may cast her calf, considering it to be *catching* or infectious. From the byre, we took a stroll over part of the farm. The soil, in general, is heavy clay, rather coarse. Uncongenial as this is, for green crops, the potatoes looked remarkably well. They are grown upon broad drills, somewhat resembling "*lazy beds*," having two rows of plants in each drill. These are highly covered or earthed up by the plough, each drill being fourteen inches apart of each set, planted twelve inches from its neighbour. This mode of culture, in the clay soil, is said to answer well. Mr. Curwen is a strong advocate for soiling. He proposes, henceforth, to rear all his young stock in that way, calculating upon having them ripe for the butcher at twenty-five or thirty months old. His bull is thorough-bred improved Durham. The one at present in use, is a very handsome three-years old, bred upon Tyne-side, by Mr. Donkin. The accumulation of manure from soiling is quite astonishing. Urine from the tank is occasionally pumped over the dung-hill, by means of canvass pipes. At this date (25th of July) there is a whole year's dung in the yard, and this after supplying the large application to the green crops of the season. Mangel Wurtzel looks well. It was sown in April. The tops will be cut in August, for soiling. Glover considers this root to be of a somewhat aromatic nature, and with a portion of turnips has proved of great service, in attacks of red water. The roots are stored in November, and are found in excellent condition, after the Ruta Bagga is consumed. Mr. Curwen employs several ox teams. They are chiefly Hereford and Devons, all very superior animals. In the heavy soil here, it requires *three* yokes to plough *two* acres per day.

On the following morning, I rode up to some newly enclosed common land, now under improvement. Here I found Mr. Curwen, and, upon my own introduction, received a most cordial welcome. He sent for his horse; and insisted upon accompanying me himself over some of his improvements. It has been said that the man who makes two blades of grass to grow where only one existed before, has done well, in his generation. What then may he claim, who can exhibit as his own doing, what was now before us? Three hundred and fifty acres of noble wheat, where, two or three years ago, nought was to be found but heath and swamp and rushes. Upon Lily Hall farm, I found a man engaged in burning kilns or pics of rough sods. This may be done by the paring plough or spade. This latter implement has a wing on one side turned up which greatly facilitates the work. The kilns are kindled at the bottom, are closely covered up and the air carefully excluded. Occasionally the kilns are formed with layers of lime and turf alternately, yielding very valuable ashes. It is an Irish practice. Mr. Curwen has lately adopted a new method. He applies the lime *unslaked* and by pouring on water ignition follows and excellent ashes are produced, without live coal at all. He estimates his ashes to cost him 3d. per single horse cart, and with 60 of these, probably about a ton weight, he has had a better crop of Ruta Bagga that from 25 carts of well prepared farm yard dung. Mr. C. is partial to Cocksfoot grass for sheep pasture, and is this year laying down 100 acres for that purpose. He will allow this to lie for four years in pasture and then expects a luxuriant crop of wheat. Mr. Curwen does not approve of Wheat from Clover leg and has abandoned it in his rotation. After a most agreeable, and to me, instructive ride, we found ourselves where we had started, and a substantial lunch awaiting us, to which we did ample justice, aided by a score or two of smart boys and girls employed on the farm. In the evening I took tea at the Hall, accompanied by Crawford Mudie and several fresh arrivals. In the course of the evening we visited some well-formed water meadow. For irrigation, Mr. Curwen gives the preference to water from springs, as maintaining a more equal tem-

perature, than from other sources, always, of course, excepting stream or tide water, depositing a fertilizing sediment. From the meadows we adjourned to the potatoe store and steaming house. Mr. Curwen steams upon a large scale, frequently consuming a ton per day. He thinks it would be an improvement to introduce the steam pipe at the centre in preference to the bottom of the vats. The potatoe storehouse, is provided with ventilators, like a brew house, and very little damage ensues, even when the crop is stored rather clammy and wet.

Next morning, (24th) after a public breakfast at the Hall, we proceeded in formidable equestrian array, to inspect various farms, upon the estate. Soiling becomes very general. We saw some heavy crops of tares, intended to fill the gap between the first and second cuttings of clover. Tares are generally sown upon oat stubble, having a few oats and beans mixed, as props. A crop of tares upon Mr. Salkeld's farm was uncommonly luxuriant, and Mr. Mewson's second cutting of clover excited much admiration. Mr. Curwen had upon his own farm some remarkably fine second clover. He guessed it to be six tons per acre, but a portion being accurately measured and weighed, it proved to be over ten tons per acre. A single horse cart of this weighed thirty-seven stones. The cart itself weighed fifty stones. Mr. Curwen sows all his grain crops by drill, and for this purpose he has in use a great variety of implements. These were all set to work for our edification. One machine for sowing clover, drawn by one horse, is much approved. Mr. Gray of Kimmerston, near Wooler, Northumberland, described a smaller one, drawn by a man, which is much liked in his neighborhood. It was mentioned to-day that Mr. Curwen paid above £5,000 last year for labour, upon the Schoose farm. He sold £7,000 worth of wheat. His wheat is all red chaffed and regularly pickled to prevent smut.

In soiling cattle, he enjoins a strict watch against *hoving* and always likes to give a portion of common grass before allowing the stock to gorge upon the heavy clover. He states his potatoe crop to average in general 2,000 stones per acre. There is at the farm a very complete weighing machine. It cost Mr. Curwen about eighty guineas, but his bailiff, Mr. Thompson, says it ought to have been set up for about £20.

We closed a most agreeable day by a large dinner party at the Hall, where Mr. Curwen had provided a fine turtle, from Liverpool, for our entertainment.

July 28th.—We resumed, this morning, our inspection of various farms on the estate, and found, in general, the crops and management highly meriting commendation. Mr. Curwen is zealous in the extirpation of weeds. A sturdy thistle was found flourishing on the bank of a ditch. It was forthwith cut and sent with a bantering message to the occupier of the farm, and which would, no doubt, explain some future rallying upon the subject. Mr. Kessock, a farmer from Galloway, spoke highly in favour of steaming chaff, both for horses and cattle. Mr. Curwen is particular in keeping his dung hills *quite close*, excluding air by heaping on earth and sods and never turning it over. He finds the dung come out quite black and moist. We found by the register, kept upon a slate, in the milkhouse, that the cows, thirty in number, gave yesterday, 90 gallons, which is fair, but not remarkable milking. The milk is delivered (unskimmed) morning and evening to families in Workington. In the course of our ride to-day, we were struck by observing in a very rich field of clover one spot entirely bare, occasioned by a portion of a drain having become choked. The mischief was very palpable.

Mr. Benson, High Sheriff of Cumberland, rode to-day a flea bitten gelding, a beautiful nag, bred by himself. He was gay and sprightly, although 26 years old. Mr. B. had hunted him fifteen successive seasons, without accident or blemish.

We concluded our evening most agreeably at the Hall.

29th.—After a continued inspection of more farms, we attended a ploughing match, and a competition of live stock, for premiums provided by the Lord of the

Manor. Both exhibitions were highly creditable. The 1st premium for a two year old heifer was adjudged to Mr. Sredding. She was of the Kyloe blood by a short horned bull. Mr. Sibson an extensive farmer, mentioned that his neighbours and he having suffered great loss by *quarterill*, had greatly diminished their loss of calves by inserting a root or clove of garlic in the flank of the animal, in November. Mr. Bates considers that it would probably act as a seton, a remedy which he himself adopts for a preventative or cure.

Dinner was served to-day in the Conservatory, and with 350 guests, the coup d'oeil was truly splendid. Mr. Blamire, M. P. for Carlisle, and I were nominated English and Scotch Stewards for the following season.

After dinner we visited a Lancasterian school, consisting of 400 boys, established and supported by Mr. Curwen. In the evening we mustered at Workington Town Hall, where Mr. C. delivered a most eloquent and suitable address to an overflowing audience, and thereafter presented the prizes awarded. These consisted of fifteen or sixteen very handsome silver cups all donations from Mr. Curwen.

## EDITORIAL MISCELLANY.

**TESTING PLOUGHS.**—We thought we should have been able to state in this number the day when the Bingham, Howard, and other Ploughs would be tested at the writer's residence, Yonge Street; but the uncertainty of an early Spring—the snow being yet (29th March) *two feet deep* under the window at which we write—renders it hazardous to name the day at present. Mr. Modeland, of Brampton, whose plough took the first prize at the Provincial Show, has sent it for trial at the same time. We have no doubt the occasion will be one of considerable interest, and hope, by announcing the day in the City papers, to give all our friends who wish, an opportunity of being present.

**SHORT HORN STOCK.**—A gentleman in the State of New York wishes to purchase some of the "best blooded stock" in this country to improve his herd, and asks us for Breeder's names, prices, &c. We have sent him the *Agriculturist*, but as many breeders do not think proper to advertise their stock, or state prices, we are unable to give such enquirers much information.

**FENCING.**—We have received several communications, making suggestions and enquiries on fencing since the discussion of that subject which appeared in the *Globe* and *Colonist*, and will also be found in the present

number. The Revd. Thos. Schreiber, who has had much experience in the old country in growing Hedges &c., has sent us a statement of the cost (referring to the price of labour and materials in this country) of fencing a 200 acre farm, in ten acre fields, with the native thorn, and of protecting it for ten years, when, it is presumed, the fence will "stand alone," and turn cattle, &c. The sum, according to this estimate, will amount to £517. He sends also a sketch of the fence, with its side protections, of which we regret we cannot present an engraving at present. The estimate, and the remarks accompanying it, we hope to be able to give in our next.

**CANADIAN NATURALIST AND GEOLOGIST.**—E. Billings Esq. Ottawa, 1856.—We have received the first number of a Magazine devoted to the above subject, and from a hasty examination of its contents, we think it will prove a valuable contribution to the yet scanty collection of scientific observations, attested facts, and well digested conclusions on the important subjects to which the editor of this work has devoted much time, and no ordinary talent.

We trust that Sir W. E. Logan, our provincial Geologist, who has justly earned high honors abroad, will take measures to give *Canadians* some better text-book than the miserably



printed pamphlets, called Reports, which have been published from time to time by the Legislature. Why should we not, by this time, have a volume or two, with diagrams, maps, &c. illustrating and explaining the Geological structure of our country as far as the survey has developed it? If a young Canadian wishes to study the formations of his own country, he must pick up his knowledge from stray pamphlets and musty Reports. The State of New York has published several splendid volumes, which exhibit, in the light of modern science, all its underground mysteries to its own people and to the world.

In the absence of such a work as we have referred to, the Geological student cannot do better than take in the Magazine of Mr. Billings. Even with a well-digested, well-illustrated publication of the materials collected by the Geological survey, such a periodical as that before us will prove interesting and useful.

ILLUSTRATED ANNUAL REGISTER OF RURAL AFFAIRS.—Albany: L. Tucker. Toronto: A. H. Armour & Co.

This excellent little work has already had a notice in our columns. It would be out of place to do more than again recommend our readers to purchase a copy for their perusal.

FRUIT.—We beg to direct the attention of those who desire to obtain good Fruit Trees, to the advertisement of L. Crosby & Co., Markham, whose assortment is large and well grown.

DEFERRED.—We are under the necessity of deferring, until our next issue, the publication of an interesting discussion on Galloway Cattle, held by the Hamilton Township Farmers' Club. This, with other interesting deferred matter, shall certainly appear in the May number.

*For the Agriculturist.*

SUCCESS TO THE FARMER.

Success attend the farmer bold:  
I love to hear his name;  
His eye so bright, his heart so light,  
So honest is his fame.

I love to hear him talk of cows,  
Of oxen and of grain;  
His soul so free, so full of glee,  
In sunshine and in rain.

I love to see him turn the sod:  
I love to hear him sing  
Of olden times, in golden rhymes,  
Of winter and of spring.

I love to see his waving corn,  
His horses, and his sheep;  
Their fleeces white, their lambkins bright,  
To see them skip and leap.

I love to see his harvest ripe,  
And see his cradle swing,  
His arm so strong, his strokes so long;  
He's happier than a king.

I love to see his harvest home;  
His wheat, his oats, his hay;  
All safe and sound, laid close around,  
In his capacious bay.

I love to see his thrifty wife,  
So busy and so kind;  
She takes due care his toil to share  
Of body and of mind.

I love to taste her new milk cheese,  
So good, so rich, so mellow;  
I love to eat her bread and meat;  
Her butter clean and yellow.

I love to see his children grow;  
Their parents joy and pride;  
His girls so neat, his boys complete,  
In union side by side.

Who would not wish the farmer well?  
The soul of all the rest,  
In peace and health, in joy and wealth,  
Who would not wish him bless'd?

WILLIAM PETHERICK.

Sparta, March 10th, 1856.

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