

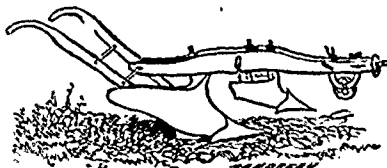
THE RURAL REGISTER

Ploughs and the Work they Do.

Ploughing is the most important operation carried on upon the farm. In order that land may be fit for the reception of seed, and brought into a state in which it will yield to the fullest extent, it must be thoroughly mellowed and pulverized. In its usual hard and consolidated condition, nothing will grow upon it to any advantage. In countries where land is dear and labour cheap, spade husbandry is practised, but it is only in such circumstances that this mode of loosening the soil and preparing it for a crop can be adopted. The plough is the implement usually employed in breaking up land, and it is the most economical tool that can be used for the purpose. Without it, successful farming would be impossible in a country like this, where hand-labour is costly and difficult to obtain. We propose in the present article to refer briefly to some of the different styles of ploughs now in use, and describe the mode in which they operate upon the soil; introducing a few illustrations, in order to give a clear idea of the various points that seem to require attention. We shall suppose that the implements about to be described are set to work in an old meadow or pasture, where a stiff sod is to be thrown under, and the sur-

face made loose and mellow. The first illustration represents a common plough, fully rigged with coulter and wheel. The coulter cuts through the sod in advance of the share, and the wheel regulates the depth and steadies the implement. In passing through the soil the plough cuts off and turns over a slice of earth, cutting it both vertically and horizontally. The furrow made should be deep, straight, and of such a width as admits of being either turned completely over or left on its edge, as may be

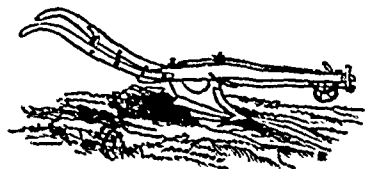
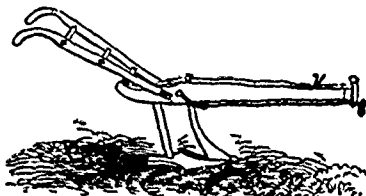
safely affirmed that no plant grown on the farm will develop itself in perfection without more room to strike root downwards, and there is little doubt that shallow ploughing is one of the worst defects in our present system of agriculture. A most effective implement for deepening the soil is represented in our next engraving. It is known as the Michigan or



double-mould board plough. The smaller share cuts off a thin slice of the greensward and turns it into the last furrow, where it is completely covered with finely pulverized soil, thrown up by the second and principal share. This plough is usually made of two sizes, small and large. The smaller size requires three horses to work it, and will run a furrow nine inches deep. The larger size requires nearly double the force, and will cut a furrow twelve inches deep. It is said to work well with three yoke of oxen. The operation performed by this plough will be better understood by the help of the subjoined cut. On the



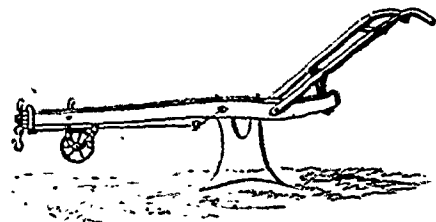
left, the dark and light portions of earth represent the top and subsoils, which are shown reversed on the right. Nothing is equal to this implement for turning sward under deeply, or effectually burying any vegetable growth in the top soil. It is obvious, however, that this plough can only be used with immediate advantage where the subsoil is of a fertile nature. Where the subsoil is sterile, it is best either to deepen the seed-bed gradually by ploughing about half an inch or an inch deeper each time, till it is worked deep enough; or, adopting a totally different mode of procedure, the desired result may be brought about by the use of the subsoil plough, two styles of which are given in our next illustration. If too much of a



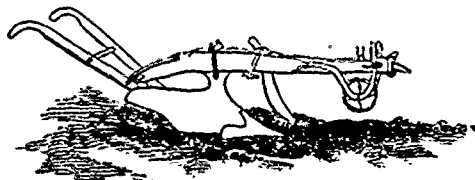
poor subsoil be brought to the surface at once, the farmer will have to wait from two to four years before he will be able, by means of manure and the action of atmospheric influence, to bring it into a fertile state, though in the end he would thus secure the benefits of deep tillage. The subsoil plough merely loosens the earth, but does not turn it up to the surface. It follows in the furrow made by the common plough. The mode in which it operates will be understood by a glance at the subjoined cut:—



The surface or sod is here shown lying high up on the loosened subsoil, as the result of the work done by the common plough followed up by the subsoil plough. The advantages of subsoiling are very great. It deepens the seed-bed and enables the roots of plants not only to obtain scope for growth, but to come in contact with nitrogen and other fertilizing substances, which are known to exist far below the surface. It has, to some extent, the same effect as draining, though its most beneficial action takes place where land is well drained prior to its being subsoiled. Gradually, by this means, even a barren subsoil may be rendered fertile, the manure put into the top soil being brought into contact with it by admixture and filtration. Another style of subsoil plough is shown in the next and last engraving illus-



trating this subject. This implement is so constructed that when the cast blade and point become worn they may both be reversed, and so made to wear much longer. This implement is said to work exceedingly well, except where the land is stony. The *Rural Register* commends it strongly. The editor says:—"We have used it in the bottom of a nine-inch furrow, ploughed by three horses, the subsoiler being drawn by two horses, and running down seven inches more, making sixteen inches in all, or over twenty inches, if measured from the top of the inverted sod." Deeper cultivation is, perhaps, the improvement most of all needed in our present system of farming, and we cannot too earnestly press upon our readers the importance of their giving early attention to this matter. "A little farm well tilled," will yield more profitable returns than a large one merely skimmed over, to say nothing of the satisfaction that is always felt in connection with work thoroughly and skillfully done.



face made loose and mellow. The first illustration represents a common plough, fully rigged with coulter and wheel. The coulter cuts through the sod in advance of the share, and the wheel regulates the depth and steadies the implement. In passing through the soil the plough cuts off and turns over a slice of earth, cutting it both vertically and horizontally. The furrow made should be deep, straight, and of such a width as admits of being either turned completely over or left on its edge, as may be



sired. Our second engraving shows the manner in which sod ground is usually operated upon by the common plough. The darker portion of the cut represents the top soil—to the left unbroken, and to the right laid in ridges by the plough. The horizontal lines show the subsoil. A common plough drawn by an ordinary team of oxen or horses, will loosen the soil to a depth of about five or six inches. But it is desirable to have, if possible, a deeper seed-bed than this. Five or six inches forms but a thin crust in which to grow all manner of crops. It may be

Seeds and how to Sow them.

It is quite useless, indeed it is grossly absurd, to prepare land to incur trouble and expense, without duly and even very carefully attending to the Seed we are going to sow. The Sort, the genuineness, the soundness, are all matters to be attended to if we mean to avoid mortification and loss. —Cobbett

The season is opportune for a few observations on Seeds and how to sow them. Whoever wishes to raise good crops of any kind, must not only be very careful that he perform his own part of the work properly, but that he also propagate the right sort of plants: these are all most important points. Nature does very much, but she will not do all, and, therefore, nothing should be left to chance. It has been well said, "He who trusts to chance for a crop deserves none, and he generally gets what he deserves." Propagation presents a wide field of investigation. Nearly every plant may be multiplied by means of suckers, offsets, layers, and cuttings. At present however, we purpose limiting our enquiries to SEEDS, and it is notorious that nearly all plants, from a simple radish, up to the oak itself, can be propagated by Seed. Should the soil be cold and wet, it probably wants draining; and if a paying crop is desired, it must be drained accordingly. It wants in every case deep plowing or digging, and thorough pulverising; and without ample manuring, unless the soil be naturally very rich and the land new, it is quite useless to attempt almost any kind of crop, with a prospect of complete success. Then again before a crop is realized there must be thorough cultivation. Weeds must, at any expense of labour, be eradicated and the soil stirred, otherwise they will absorb the best portion of its fertility. Care and labour, and skill are thus all equally indispensable, and without all these, the best seed ever grown may be worse than wasted.

When all these preliminaries have been attended to, the Sower must not only ascertain that he gets good Seed, fresh and sound, but he must put it in the ground in a proper manner, and at the proper time. He must not sow too early, when the ground is wet and cold, when it may be frost-killed, or when the moist seed will either rot, or never germinate at all. Neither must he be too late when the soil wants moisture, and when the seed is apt to shrivel up and die,—in equal danger from just the opposite extreme.

The sort of seed is first to be considered. With regard to beans, peas, and some others, there cannot be much mistake, the eye is here a pretty sure guide. But as to cabbages, onions, turnips, cauliflower and many more the eye is no guide whatever. Then come next in order the kinds, and their genuineness. It may be rape in place of cabbage, mustard in place of swedish turnips and more than one half of it too old to germinate, or it may be degenerate, mixed or hybrid, true to no sort whatever, or it may be late in place of early cabbage; or vice versa and so forth. You may thus have plants of a kind but not what you want, or what will pay to raise. It is, therefore, necessary that the utmost circumspection be used in the purchase of seeds.

The seed business is a peculiar one. No dealer can grow, even if he grows at all more than a very small portion of the immense variety he sells. Seed growing is a specialty requiring great care and skill. Even with the finest selected stocks it is a very precarious operation to raise seeds at once properly ripened and true to sort. The danger of hybridizing is always great, indeed so much so that we would hardly advise amateurs or others, not thoroughly conversant with the proper methods to attempt raising even their own supplies. They incur more risk than in purchasing from a respectable dealer, and possibly even more cost.

In this part of the Province, at least, the seed business is in reliable hands, that is to say—as far as known integrity and long experience can insure proper results—they may be relied on. For, it is obvious, the dealers' interests are quite as much concerned in vending a good article, as the customers' in getting it; and no one in his senses would sell seeds knowing the article to be bad—hardly even if doubtful. But the seed-man must buy from others, these again have to purchase from a variety of different sources; and thus with all possible care and vigilance the dealer may be deceived himself. Mere speculators, however, who have no local habitation or name, and even parties who advertise at very low rates, should be given a wide berth. The best article cannot be sold at a low figure.

But altogether irrespective of the sources of supplies, there are certain means of verifying their utility; so far at least as the soundness is concerned there is an unfailing test: of the sorts—the genuine-

ness to name; none whatever. Here purchasers must test, first having faith in those with whom they deal. Every kind of really fresh well-ripened sound seed will sink in water. Unripeness, mouldiness, blight, age is what have to be guarded against. The vitality of such is of course gone, but all these will float in water, and no seed that floats in water should ever be sown.

In testing seeds use tepid water, putting a small quantity into a glass tumbler, where top and bottom can both be seen, turnips, cabbages, onion, radish and many others will, if good, sink at once. Lettuce, melon, cucumber, &c., require a few minutes. The winged seeds such as parsnips and carrot require a little working with the hand before they sink. Beets and mangolds are in shells, each containing four or five seeds and with them the water test is perhaps not quite so conclusive, but even here, if really good, the shells will sink in about an hour. If a hundred seeds are counted, fifty sink, and fifty swim, of course half are bad if twenty swim, and eighty sink twenty per cent. are bad and so on.

Last season we subjected several pounds of onion seed to the water test. It was very good and only a small portion floated. We, however, rejected this portion, and we found this good result; that we had scarcely any thick necks or scallions. In all previous seasons before adopting this method of purifying the seed, we had an abundant crop of scallions.

There are various other tests, but we believe none so simple and certain as water. If carefully preserved from air, damp, and frost, many kinds of garden and farm seeds will keep good for several years. Beans, peas, carrots, parsnips, lose vitality after one year; and a good many including the onion, after two years. We should, however, always prefer seeds of the previous season's growth.

In sowing then—after the light or bad is thus separated from the good—it will be useful to allow moist seeds to be well soaked in tepid water before sowing. It very much hastens their germination. They will dry in the sun sufficiently to handle in an hour or two, but if mixed with a few handfuls of plaster, dry ashes, or fine bone dust, even this is unnecessary.

The general rule is to sow to a depth proportioned to the size and habit of the seed. Carrots, beets, peas, beans, &c., require to be covered from one to half an inch in depth; and the very small, such as a few sorts of sweet herbs and flower seeds, that the surface be raked very smooth, then sown thereon and covered by the smaller portion of the fine mould from asiere. All seeds should be afterwards rolled, many of the more delicate also require that the hand be shaded for a few days from the noon-day sun. Valuable hints are given in most of the seedmen's lists, and it is an excellent plan to affix printed instructions upon each kind. These instructions of course vary somewhat, but in substance amount to this: properly prepare the soil, drain, dig deep, use abundance of suitable manures, sow properly, at the proper season, and afterwards thoroughly cultivate.

New Farm Products.

It is well that farmers should subject to actual experiment such products as they find attracting attention and giving good results elsewhere. At first it would not be wise to embark largely in such things, but cautiously, feeling the way, as circumstances warrant. The Kohl Rabi or turnip cabbage is a comparatively new crop that merits notice. It is hardy and nutritious well suited to milch cows, sheep, and stock in general. The same cultivation as for turnips is suited to it, but it requires to be sown earlier. Sorghum or Chinese Sugar Cane has been pretty thoroughly tested in the Northern States, and should have a full and fair trial in Canada. There is no doubt it can be raised here profitably as a provender crop for cattle both for summer and winter use. It is also next to certain that it would pay to sow it for molasses, but whether the juice produced so far north, will make good granulated sugar, remains to be decided by actual experiment. It is very desirable that this crop should have a thorough trial, as if successful, it would be a valuable acquisition. Flax, though not a new product by any means, has been so little tried in this country that its culture here may be regarded as a novelty. The present high price of cotton fabrics, the upward tendency of wool, the excellent market for flax of which there is every prospect and the success of such experiments as have been made, should encourage our farmers to embark in the cultivation of this useful product. Turnip

culture is still too much of a novelty in many parts of the country. It is remarkable how ignorant many Canadian farmers are of what has come to be deservedly regarded as "the sweet anchor of British husbandry." Mangolds too, though common and much prized in the Old World, are but little known in the New. Yet they are very valuable as a late winter feed for cattle, and especially for milch cows. Carrots are common enough as a garden vegetable, but very few of our farmers are acquainted with them as a field crop, and as a winter food for horses. They deserve to be far more widely grown as a farm product. Hungarian Grass yields largely, and is much esteemed by many who have used it for horse fodder, though some think the seeds injurious. It is worthy of a fuller trial, to say the least of it. Indian Corn as a forage crop is but little cultivated, yet it produces more weight of feed per acre, than any other plant used for mowing purposes. For milch cows, when the pastures are bare in the summer and fall, it is unequalled. Vetches, Lucerne, and Rape, merit culture as green crops to be repeatedly mowed, or fed off by sheep, penned with movable hurdles. If our readers will grow some of these crops on our recommendation, we are sure they will not repent of it.

Culture of Lucerne in France.

To the Editor of THE CANADA FARMER:

SIR.—I have read the articles on Lucerne, published in your papers of the 1st and 15th of March, and having had great experience in the culture of this valuable plant in France, I venture to offer a few remarks on the way it is grown in that country. The soil suitable for lucerne is a deep rich sand or sandy loam. It is useless to sow it on clay; it will never come to anything on such soil, even a rich sand with clay subsoil is not suited to it, unless well underdrained. Its roots penetrate very deep and as soon as they reach an impervious subsoil and consequently water, the plant will become sickly, and its yield diminish. Lucerne should always follow a well manured and well cleaned root crop, and for which deep ploughing has not been spared; it is generally sown with a crop of spring grain (barley is the best.) I used to put in about 10 pounds of seed to the acre. Some farmers sow as much as 15 pounds to the acre, and are well pleased with the result. When it is sown too thin the stocks are apt to be very large and had—at any rate 9 to 10 pounds should be the minimum. The field crop is never heavy, even on the best soils, and some farmers add 4 or 5 pounds of clover seed to the acre, with a view to increase the crop of the first year, but the lucerne will thrive better without this addition.

The lucerne fields are well harrowed in spring, (the more the heads are torn and divided by the harrow the better,) then plastered at the rate of 200 to 250 pounds to the acre. In France lucerne is generally ready to cut for the first time about the 20th of May, and twice again in the course of the summer, after which it affords a good pasture until winter sets in. These three cuttings will average on good land 4 to 5 tons to the acre, of most excellent hay. Farm horses do better on this than on any other hay I know of. The hay of the third cutting is fine and green and commonly kept for sheep and young cattle. On my arrival in this country, two years ago, it struck me that lucerne ought to do well on some farms which are clover sick, from this plant having been grown at too short intervals and without a proper rotation of crops. I got some seed from France and sowed some for a trial, on a patch which had not been suitably prepared; it came up well enough, but was nearly all burned up by the very dry summer of 1862. Last year I sowed another little patch after carrots and with buckwheat; it has done very well, except that a few of the smallest plants have been frozen, for which reason I believe it is better to sow it early in spring, that it may have a better chance of standing the first winter. Lucerne is in its prime the 3rd 4th and 5th years; I used to break it up the 7th or 8th year, but have known a field last 19 years. It is a pity this excellent plant is not better known in Canada. It would, I am convinced, soon be appreciated, and grown extensively.

It is fit to cut as soon as the flower appears, and this is two or three weeks before clover is ready. This alone is an immense advantage and the drought of summer affects it very little.

H BEAUMONT DE LA BARTHE,

Late member of the *Chambre Consultative d'Agriculture*, and of the *Agricultural Society of Chignon, France*
 Simcoe, Woodhouse,
 Co. of Norfolk, C. W., April 21, 1864. }

Partitioning Farms, &c.

To the Editor of THE CANADA FARMER :

SIR.—May I trouble you with a few lines, in respect to the size of the fields on different sized farms. First, a farm of fifty acres, for convenience of working should be divided into ten fields of 5 acres each. You must have as many fields on a fifty acre lot, as you have on a one hundred acre lot, only when a farm of 100 acres, has perhaps 20 acres of bush land, that would be eighty acres, clear land. I would have 10 fields of 8 acres each. For a 200 acre lot, 12 acre fields is quite large enough. When you have a farm laid out in this way you can work it to advantage. You can make manure enough on the farm, to manure thoroughly two of those fields each year, and thereby keep your farm as rich as a garden. It would also do away with the bad practice of a great many farmers in having too large fields. They will put the whole of their stock into one field, and have no other pasture to change them to. Change of pasture is excellent economy in feeding stock during the summer months. You can change them once a week, from one pasture to another, and allow the previous one to grow a week. On turning them back into the first one again, it will be almost as good as when you first turned your cattle into it. By adopting this plan you can keep more cattle, on 10 acres of ground, than you could on 20 acres, if it was all in one field. By dividing the farm as proposed, you can put the whole of one field in with one kind of grain: say one with fall wheat, one with barley, one with oats, one with peas, one with grass, one with potatoes, one with roots, one corn, one pasture, and one fallow. The fallow I would plough and sow with rape, and after it got fit for the stock to eat, I would ease my pasture and turn my stock on the rape. Stock will eat it greedily. Put them into it two hours at once, for two or three days. They should then be taken out and put into the barn yard two hours, and then put back into the rape again. They will get accustomed to it in two or three days. The stock trampling and manuring the land will make it very rich. It is very convenient and beneficial to have one half-acre of tares or vetches close to the barn to feed your horses when you have them in the stable; and if you wish to grow a little flax-seed you can put an acre in the barley field, as it will ripen the same time as the barley.

A LAND OWNER.

Co. Wentworth, April 8, 1864.

More about Growing Potatoes.

To the Editor of THE CANADA FARMER :

SIR.—I have been very successful in raising sound potatoes, when my neighbours all around have suffered more or less with the rot, so much so that some of them had scarcely grown enough for their own family.

My method is as follows:—

In the first place I select a dry piece of ground, (my land is sandy loam,) draw out the manure in the autumn, and plough it in as soon as spread, the manure having been kept under cover all summer. In the spring when the other seeding is done, I cross plough and harrow the piece until the manure is thoroughly mixed, and the soil well pulverised. From the 20th to the 25th of May, I drill the land in the usual way, making each drill 3 feet wide. I then drop whole good-sized potatoes, blue, or white pink eyes, about 3 feet apart, then take a hoe and draw down enough of soil to cover the seed an inch or two deep. When the sprouts begin to peep through the covering, I take a light harrow and harrow the drills lengthways until the land is level. If any weeds have started, this harrowing will check their growth. When the plants are about 6 or 8 inches high, I ridge them up in the ordinary way, and afterwards take a hoe and cut the drills across so as to form a hill level on the top. From what has been stated it will be seen that the seed is deep in the ground, and this, in my opinion is one reason why they escape the rot, for it is invariably the case that all the diseased potatoes are near the outside, or top of the drills. I do not know how many of these rules might be changed or omitted and still a sound crop be raised, but I believe in letting well enough alone, and am content to leave others to try other experiments.

JAMES PETERS.

Speedside, Eramosa, April 15th, 1864.

The Potatoe Disease.

A correspondent sends us the following letter, which appeared recently in the *Yorkshire Gazette*, and which will, no doubt, be read with interest:—

SIR.—In the year 1848 and '49 my attention was directed to the cure of the potatoe disease, and my mode is this. Procure as many potatoe apples as you can get; dry them in the sun a few minutes, cast out all the bruised ones, place the rest in a strong earthen jar or box, bury them deep in the earth secure from frost, &c. In the spring have ready a plot of ground the same as you would prepare for onions; sow the potatoe apples thinly on the ground, just covering them with fine, rich soil. Prepare a second plot of ground, and when the plants are strong enough to pull up without breaking, transplant them into your prepared ground, as they spring up in myriads, and are liable to become entangled. Have your ground ready in rows in the usual way, and when the plants are strong, dibble them in, not too deep, taking care they get at the manure at once. When they have begun to grow a top-dressing of diluted liquid manure is the best that can be applied.

The result is curious and very gratifying. The plants grow strong and vigorous; they produce flowers, apples and potatoes; are ready for taking up quite as soon as those produced in the usual way. You will have three or four distinct specimens of new varieties, a better crop, one-fifth heavier in weight, a fine, clean skin and shapely appearance, and, in fact, quite a new and regenerated vegetable. To increase the varieties, take the apples grown on the first year's seedlings, and proceed as before. You will have three or four kinds—two of kidneys, and one or two white, blue and red. You can choose and cultivate such as suit you best. When my plan has been tried, it being of such immense benefit to the agricultural interest, I feel certain I shall not go unrewarded.

JOHN WARD.

York, March, 1864.

When to Sow Timothy Seed.

To the Editor of THE CANADA FARMER :

SIR.—The usual plan is to sow timothy seed with other crops, where the half-smothered grass is expected to eke out a miserable existence for the first season. The next year it has the stubble and coarser weeds to deal with; and so has the mower as he learns to his cost. If you wish to cut Timothy next year, where you have wheat, barley, peas or oats; this year, you have only to turn over your land after the crop is harvested, pulverize the ground properly, and sow some of your seed about the first of September. The grass comes up, forms a coating and like fall wheat produces its crop the next year. When land is rough or too wet to produce other crops with advantage, a summer fallowing will be an admirable preparation. Lowland meadows may be made to produce perpetually, by turning over the soil every three or four years after mowing; harrowing it down and seeding as before. Fall seeding upon a dry soil, in a very dry autumn, is of course liable to failure, but not so much so as spring seeding usually is. It certainly smotheres the weeds more thoroughly, produces heavier crops of hay, and gives a better mowing surface. Fall seeding is no new idea, but with all its advantages is seldom adopted in this country. Clover sown in the fall is I think more liable to winter kill, than when sown earlier. Will some of our farmers give their experience upon this point?

TIMOTHY HAY.

Selecting Seeds.

To the Editor of THE CANADA FARMER :

SIR.—No part of the farmer's labours require greater care and attention than the selection of seeds. Frequent change is necessary to ensure good crops, but there is always danger of introducing noxious weeds, when purchased from an unknown farmer and farm. The large seeds can be thoroughly cleaned before sowing, but in Hungarian grass, timothy, clover, carrot, &c., it is difficult to discover the "pests," and still more difficult to separate them. A friend of mine purchased Hungarian grass seed and sowed it on a clean orchard soil, in 1862; now he has a fair chance for a permanent crop of Canada thistles on the same. This is a plant that ripens about the same time as the thistle, therefore it is not safe to purchase seed from stores. Is it desirable to sow at all?

R. W. S.

Woodstock, April 2, 1864.

Subsoil Ploughs, &c.

To the Editor of THE CANADA FARMER :

SIR.—"G. Y." of Ormstown, C. E., enquires in your issue of 15th March where a good subsoil plough, to be drawn by two or three horses, can be bought. Though not a manufacturer, I would inform him that Atkinson & Brother, of Lambton, eight miles west of Toronto, manufacture a subsoil plough at once cheap, light and strong. I think their price is \$11. I have used one of the same pattern for several years, which gives me full satisfaction. Their post address is Etobicoke, C. W. Peter Malaby, of Weston, manufactures a very substantial subsoil plough of wrought iron. It is very heavy, and I prefer the former. Having said thus much for the information of "G. Y.," I wish to enquire if you can give me a good and convenient plan of a cow-house, for say eight or ten cows? I wish to have a good sized hay-loft above; and can you give me the name of the best book on Rural Architecture?

Etobicoke, April 9, 1864.

W. A. W.

NOTE BY ED. C. F.—We will try to furnish a plan such as our correspondent desires in a future illustrated article on Farm Architecture. There are several good works on Rural Architecture: Downing's Country Houses, Allen's Rural Architecture, and the complete volumes of the Rural Register, may all of them be safely recommended. Which is best depends upon our correspondent's means and wants.

Best Way of Making Drills for Root Crops.

To the Editor of THE CANADA FARMER :

SIR.—This being the month for preparing the land and planting root crops, it is a matter worthy of consideration, when the ground is prepared for Swedish turnips, mangold wurtzel, &c., what is the best way to make drills, whether in the ridge or on the flat. Probably drawing the drills on the flat will less expose the young plants to the drouth of our hot sun, thereby giving the roots a better chance of growing quickly, which is the main object in the successful culture of these crops. It has been recommended that the drills should be drawn East and West of the land. This plan, during the hot summer months, would assist the crop, by one shading another, in the middle of the day; whereas, when the rows are not so drawn, the mid-day sun shines directly over all the land between the drills. Some intelligent farmers may think this hint worth a trial, as no extra expense is created in the culture, and if the crop by this mode should increase even one ton per acre, the benefit is clear.

J. B. M.

Cramah, April 19, 1864.

Raising Turnip Seed.

To the Editor of THE CANADA FARMER :

SIR. Spring is now coming in, and as I have been in the habit of growing my own turnip-seed for a number of years, I will give you my experience. In the fall of the year I select all the very best turnips I can get, with small tops, of round shape and thin skin; I then cut the loose top off, being careful not to cut the heart-leaves out. Last season I planted a patch 13 feet square; I raised from that 8 lbs. of clean seed. I preserve my turnips in the cellar all winter. As soon as the frost is out I plant them a foot apart, and then put a quantity of straw over them to keep them from the frost, they being tender. As soon as they commence to grow I take the straw off, put on a small quantity of plaster, and keep them free from weeds.

J. L.

Spring Tares.

To the Editor of THE CANADA FARMER :

SIR.—Unfortunately, our climate is not suitable for the growth of winter tares; but this should not prevent farmers from growing spring tares more generally. On some soils they can be cut for soiling purposes as early as the 10th of June, and from that time till the last of August one acre will feed more cattle or horses than five acres of ordinary pasture; or, if it be a dry season, will produce twice or thrice as much hay as the same amount of grass land. If cut when the early pods are brown, a farmer can obtain as much seed as he requires with very little loss in the feeding qualities of the hay. If left for seed, twenty bushels would be about the average yield.

R. W. S.

Woodstock, April 2, 1864.



The Breeder and Grazier.

The Suffolk Punch.

Among the several valuable breeds of farm horses in the British Islands, the Suffolk has for a long time occupied a distinguished position. He is descended from the Norman stallion and the Suffolk Cartman, and from his compact, punchy appearance has been commonly designated the Suffolk Punch. This breed, like most others, has undergone considerable changes, particularly during the present century. Animals, it is well known, are much affected as to size, form, power of endurance, &c., not only by the crossing of different breeds, but also by climate, pasture, and modes of feeding and general management. The horse of the hills, however active and hardy, is never so bulky as those of the plains, and this holds true, in a great measure, irrespective of differences in breeds. Warmth and shelter, together with a constant and abundant supply of rich, succulent food, are essential means of producing early maturity and a maximum development of the different races of domesticated animals.

An able writer (Culley) of the latter part of the past century, remarks in reference to the Suffolk horses of that period:—"Their merit probably consists more in constitutional hardiness than fine shape, being in general a very plain horse. The color is mostly yellowish or sorrel, with a white ratch or blaze on their faces. The head large, ears wide, muzzle coarse, fore end low, back long but very straight, sides flat, shoulders too far forward, hind quarters middling, but rather high about the hips, legs round, and short in the pastern, deep barrelled, and full in the flank. Here, perhaps, lies much in the merit of these horses, for we know from observation and experience that all deep-bellied horses carry their food long, and consequently are able to stand a longer and harder day's work." This old type of the Suffolk was of moderate size, standing from 15 to 16 hands high, threw its whole weight into the collar, had firm action and step, an excellent traveller on the road before a heavy load, and possessed great powers of patient endurance. Youatt, in his valuable work on the horse, observes:—"The excellence, and a rare one, of the old Suffolk—and the new breed has not entirely lost it—consisted in nimbleness of action and the honesty and continuance with which he would exert himself at a dead pull. Many a good draught horse knows well what he can effect, and after he has attempted it and failed, no torture of the whip will induce him to strain his powers beyond their natural extent. The Suffolk, however, would tag at a dead pull until he dropped. It was beautiful to see a team of true Suffolks, at a signal from the

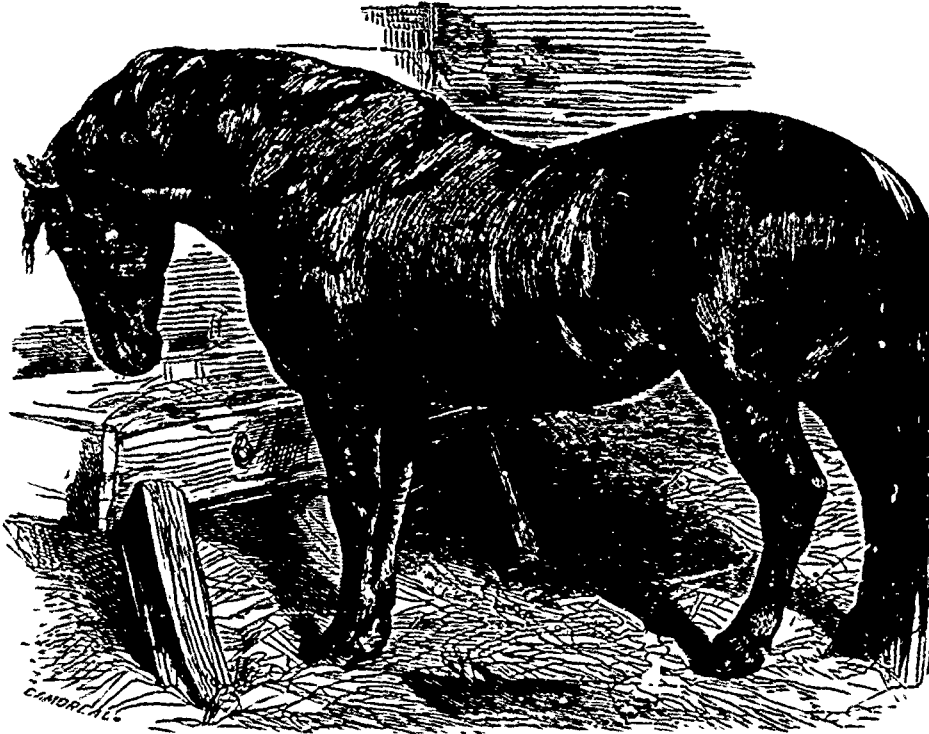
driver, and without the whip, down on their knees in a moment, and drag everything before them. Brutal wagers were frequently laid as to their power in this respect, and many a good team was injured and ruined. The immense power of the Suffolk is accounted for by the low position of the shoulder which enables him to throw so much of his weight into the collar.

The modern or improved Suffolk Punch differs materially both in appearance and action from his progenitors: and what he has lost in hardihood has been fully compensated by superior symmetry, lighter and quicker step, cleaner and more wiry legs, with a low, powerful shoulder, that admirably adapts him to the purpose of heavy draught. These changes have been very gradually brought about during the present century by crosses with other varieties, more particularly those of Yorkshire and Durham. By this mixture individuals have been improved in figure and action; but that uniformity of the breed, which enabled the breeder to reproduce with certainty the characters of the parents in the progeny, has been to a certain degree taken away, with something, too, of the hardiness and peculiar temperament of the older family. Fashion and taste have had, perhaps, more to do with this change than considerations of utility. The dun color

stallions have been imported, and their stock, we believe has given general satisfaction. The Oxford Agricultural Society at Woodstock, had, a few years ago, a fine stallion of this breed, and the results are said to have been very encouraging, and from a communication which appears in another column, it will be seen that an animal of this breed possessing a good pedigree, *Royal Prince of Wales*, is owned by the Messrs. Underwood, of Cobourg. We think sufficient experience has already been had to show the desirableness of paying more attention to the extension of this valuable breed of horses in Canada. We require for farm purposes, strength, agility and power of endurance. The large British breeds are generally too heavy and slow for our purposes; the renowned Clyde is often objected to on this account, though it must certainly be acknowledged that the Clydesdale constitutes a race possessing, in a high degree, many excellent properties. It is often found that short-legged, firm compact horses, do their work better, and last longer than larger ones, particularly if they have a clean flat bone and plenty of muscle. It is well known that cart horses of great height and weight generally have round bones; but round boned horses of any breed, are often gummy, and are apt to get

greasy; besides which, it induces softness, frequently accompanied by a want of hardihood and power of protracted endurance. It would not perhaps, be saying too much for the Suffolk Punch, that for compactness and strength of muscle, a willingness and ability to labour, docility of temper, and the power of endurance upon ordinary food and treatment, he stands unrivalled.

The illustration accompanying this article, is taken from an engraving drawn by that well known artist, Mr. Harrison Weir, and represents a Suffolk horse that won the highest prizes at several of the principal shows in England, in 1859. It will afford the reader a correct idea of the present general appearance of this improved and very useful breed, the characteristic points being well exhibited.



is in less request than the darker brown or bay, although the former is characteristic of the hardiest breeds of horses in Europe. Of recent years a considerable demand has arisen for Suffolk Punches, for the purposes of the dray and waggon. Many fine teams of this variety are to be seen in London, where, amid the tumult of the crowded streets the massy forms and bright manes and tails of the horses present a striking appearance. "The modern Suffolk Punch is certainly superior to the Black Horse in activity and endurance, and it is at least equally well suited to the continued services of the dray; but the demand for large horses has the effect, as in the case of the black horses, of inducing attention to size rather than the useful properties. Sometimes the Suffolk Punch has been crossed with horses of high breeding. In this way good horses may occasionally be produced adapted to the chariot and the coach; but unless a breed were found as in Cleveland, by profemic intermixture, no permanent supply of superior horses could be calculated upon from this source."

The Suffolk Punch is not so generally known in Canada as it ought to be; a few good specimens of

Dogs.

To the Editor of THE CANADA FARMER:

Sir.—Your correspondent "Rover" has reminded me that I had intended to write you concerning dogs. While I am a great friend to the dog, I have too much evidence that very many dogs are fond of sheep. So much damage is done by dogs among sheep, that many suffer severely by their havoc, and some have abandoned this branch of agricultural industry. It would be interesting to know how many sheep are destroyed by dogs annually in this Province. Farmers should have the power to destroy any dog trespassing on his premises, if not within call of his master. Or a tax might be levied by statute for purposes of revenue of the Province upon every dog, say one dollar yearly. This, perhaps, would have the effect of preventing the raising of worthless dogs, while the valuable breeds, such as "Rover" refers to, would be taken care of
 Wolford, April, 1864. C.

NOTE BY ED. C. F.—Very sensible suggestion.

The Suffolk Punch.

To the Editor of THE CANADA FARMER

In the second number of THE CANADA FARMER a short sketch of the most desirable breeds of horses for crossing, to obtain such a class of horses as will best suit the farmers in Canada. We have had experience enough with most of the different kinds raised among ourselves and some of those brought over from the States. The colts got by them are generally of such a nondescript kind that they are entirely useless as farm horses and if used for carriage horses are generally of an inferior description.

Having found this to be the case, I think it is high time to try some other method, and to put our mares to such horses only as will turn out the much-required article. One of the horses noticed in your sketch, the Suffolk Punch, a horse that has been long famous in some of the Eastern Counties of England particularly in Norfolk and Suffolk, seems to be well adapted to our purpose. A horse of this breed is owned by the Messrs. Underwood, of Cobourg. He is called the Royal Prince of Wales, and was raised by Mr. Joseph Johnson of Burford, C. W. importer of the Old Sovereign. His color is dark dapple bay, he is six years old and stands 17 hands high. He was got by the celebrated imported horse Suffolk Punch, his Dam by the well known horse Old Sovereign, Grand Dam by Prince Alfred, out of a Meaux Mare by the imported horse John Long sired by Norfolk Hero, whose Dam was a celebrated mare owned by Lord Berners. Judges say he has all the points to constitute a first rate farm horse. He is distinguished for his roundness of body and compactness of form, with a very considerable share of activity and great endurance. He has gained prizes at the Provincial Fair at Hamilton and at several other places where he has been shown. He travelled in the Townships of Hamilton and Haldimand last year and the stock got by him is superior to anything we have seen in this part of the country. A colt got by him and owned by P. R. Wright Esq. of Cobourg, took the second prize at the Provincial Show at Kingston, and the first at the County and Township. His colts partake largely of his qualities, having the clean flat bone and freedom from any excess of hair on the legs and without that coarseness of head which generally belongs to the larger breeds of horses. The gentlemen owning the horse deserve to be encouraged for the enterprise they have shown in securing to the farmers of this vicinity the use of such an animal. My reason for troubling you with these lines, is, that having been benefited myself I am anxious that my brother farmers should share in the advantage which, if they doubt, a trial I hope will prove to their entire satisfaction.

A SUBSCRIBER.

Haldimand, April 13, 1864.

Hog Killed by too much Salt.

To the Editor of THE CANADA FARMER:

SIR,—I read in your first number an account of salt being beneficial to fattening swine, now there is a possibility of giving them too much. A case of that kind happened this winter. My brother had a hog up fattening, and the weather being cold, the pump froze up. He used salt to thaw the ice out, and gave the hog a drink of the salt water one night, the next morning the hog was dead. As the animal was apparently well when he gave it a drink, he concluded that the salt had killed it.

PLOUGHBOY.

Pickering, March 29, 1864.

TO CURE LOSS OF CUD.—The *Rural New Yorker* says: A piece or two of salt pork cut into a narrow shape three or four inches long, thrust down the animal's throat is a remedy for loss of cud.

INJURIES TO A HORSE AND RECOVERY OF DAMAGES.—The owner of the English race horse Shillelagh, lately recovered five thousand dollars damages of the Midland Counties Railroad Company, for negligence, by which the horse was injured. In walking to the van, the horse started by a sudden noise, and struck his leg against an iron girder, by which his fetlock was badly out. He never recovered from the hurt. The Judge in charging the jury said: "The company invited the public to bring their horses there, and they were bound to exercise due care and caution in providing a proper way for them. Allowance ought to be made for the tempers of this kind of horses."



The Dairy.

Bulls for Dairy Purposes.

Among our Agricultural Society debates on Stock Breeding, I never find a word said on the question—When does a bull, as a general thing, show what good or what bad points he may possess? This is an important query, and one which cannot be cast aside effectually by the reply that the animal has come from the very best stock, for we all know that like will not always produce like, no matter what care may be taken to have it otherwise.

Having over twenty years personal association with the most eminent breeders of a popular description, (not bred be it noticed,) of milch cattle, and having individual knowledge of their theories, I have found the following to be a universal rule among them, viz: *Never use a bull for breeding purposes until he is three years old, and never after he is five years old.*

Now the reason for the first article in the rule is, that bulls for dairy purposes never attain to anything like the maturity, which resolves the character of every point in their physical construction until three years old—and then only after being carefully and well treated. For other purposes the grosser qualities desired, can almost be described at any time.

The reason for the second particular in the rule is, that after seven years of age bulls become *sloppy* when unexcited, or over-irritable when excitement comes: that is, they are never placid, or in a condition to infuse a healthy nervous system into their progeny. Besides they grow too heavy and clumsy, and if this is artificially prevented, it is done at the risk of the loss of their requisite stamina; for obesity at seven years of age is, or ought to be the result of their healthy nature.

Some may think the latter branch of the rule nonsensical; but men who have made great names as breeders, have acted, as I have stated above, as if these apparently trifling things were very safe, good sense.—A FARMER, in *Mass. Ploughman*.

Good Dairy Cattle.

Of late years the experience of dairymen has led them to advocate strongly the claims of some of the smaller varieties of cattle as milkers, such as the Ayrshires, Alderneys and Kerrys. These small cattle will not probably, as individuals, yield as great a quantity of milk as the larger kinds; but in quality, and in proportion to the amount of food consumed, are believed to be decidedly superior to both Durhams and Herefords. The Ayrshires originated in the south-west part of Scotland. The original breed was very small, mostly black, with more or less stripes of white.

The improved breed of Ayrshires have attained their position as superior milkers within the present century, judicious breeding having increased their milking properties, as also their size. Experience of their qualities in this country, shows that if they do not fully sustain their European reputation they come as near to it as the difference in our drier climate allows, one of these cows have having produced for many weeks twenty-five to thirty quarts per day.

The small Kerry cow is considered one of the very best both for milk and butter, giving a very large quantity of milk and butter for the food consumed. The cattle are extremely hardy, and will thrive almost anywhere, and would be just the breed for such parts of this country as are rough, mountainous and deficient in the cultivated grasses. The milk is very rich, so much so that repeated experiments have established the fact that a gallon of milk will produce a pound of butter. The average yield of milk of a number of these cows is ascertained to be upwards of five quarts per day for each individual the year through, which is fully equal to the yield of the large cows which supply the London milk markets,

On the score of economy in food, these small cattle are vastly superior to the large breeds, repeated experiments having shown that cattle consume food in proportion to size—the average quantity of provender necessary to keep cattle in good condition being three per cent. of their actual weight. That is, a bullock weighing a thousand pounds would require thirty pounds of hay every twenty-four hours, and if in process of fattening an additional allowance of grain or meal. So of cows giving milk freely, they would also require an increase of nutritious food to correspond with the exhausting drain on their lacteal organization.—*Exchange*.

WARTS on the udder and teats of cows may be easily removed simply by washing them in a solution of alum and water.

QUICK CREAM-CHEESE.—Take a quart of cream, or if not desired very rich, add one pint of new milk, warm it in hot water (if necessary) until it is the temperature of milk from the cow. Add a table-spoonful of rennet, let it stand till thick, then break it slightly with a spoon and place it in a frame eight inches square and four inches deep, in which a fine canvas cloth has been placed. Press it slightly with a weight, let it stand twelve hours, then put a finer cloth in the frame—a little powdered salt should be put over the cloth; it will be fit for use in a day or two.—*Exchange*.

THE OHIO CHEESE MANUFACTURERS.—This association recommends the adoption of the practice of weighing milk, as received by manufacturers. It also recommends the adoption of 10½ pounds as the weight of a gallon of milk, of 282 cubic inches, during the season of 1864, requesting, at the same time, the members, by actual test, to ascertain the weight of a gallon of milk of 282 cubic inches.

The systematic mode of management which will naturally grow out of the associated dairy system cannot fail to give us a mass of new and valuable facts and data upon which to base calculations and operations in this branch of husbandry.—*Rural New Yorker*.

A SECRET TO FARMERS.—It is worth knowing that every keeper of cows may cause them to calve during the day time, instead of night or day, as it may happen, causing much watching and want of sleep. The simple method is this: When the cow is with calf, and the milk beginning to fail, till she is "yelled" let no milk be taken from her during the day, or at night, but milk her any time in the morning, and let none be taken but in the morning; and when her time to calve has come she will drop her young in the day time. Two of our friends have tried this simple method, and have found it correct in every case. One who has eighteen cows has tried it these two years, and now never thinks of sitting up at night.—*Rural American*.

CARE OF DAIRY COWS.—A writer comments as follows on one point of this subject:—Dairy cows should receive their food at regular intervals; their milk should be drawn at stated hours, and by quiet gentle milkers; and they should be treated at all times with the greatest kindness. In short, every means in the power of dairy farmers should be used to insure their tranquillity. Harsh treatment also exerts a very injurious action on the milk, rendering it less buttery and more liable to acidity. Respiration is a species of combustion. At every breath we inhale oxygen of the atmosphere, which unites with and consumes the fatty matter of the food. When cows are worried or driven too rapidly, they breathe more frequently, inhale more oxygen, and more of the buttery portion of their food is consumed, leaving less to be converted into milk. It is well known to all experienced dairymen that their cows yield more on pleasant days, or when they have the run of warm, well sheltered pastures, than on cold, bleak pastures.

FEEDING CALVES.—A friend of ours, says the *Genessee Farmer*, who has great success in raising calves on skimmed milk and "corn pudding," adopts the following method: He never lets a calf suck the cow but teaches it to drink out of a pail.—When the calf is three or four days old he takes a teacupful of corn meal and pours a pint of hot water over it, stirs it up and lets it scald for a few minutes. He then pours on three or four quarts of skimmed milk, or as much as the calf can drink. In the mean time he has had a piece of iron heating in the stove. When red hot he stirs the milk with it. This "scorching the milk" he considers of the greatest importance, when calves are fed on skimmed milk. It prevents it from scouring the calves. As the calf grows older he increases the quantity of corn meal. When three weeks old, he gives a pint, at least, at each meal. The milk at first, is only twelve hours from milking, but as the calf grows older, the milk may be allowed to stand 24 or 36 hours before skimming.

Sheep Husbandry.

Spring Management of Sheep.

TURNING OUT TO GRASS.—In northern regions where sheep are yarded and fed only on dry feed in winter they should be put upon their grass feed in the spring gradually. It is better to turn them out before the new grass has started much and only during a portion of each day for the first few days, returning them to their yards at night, and feeding them with dry hay. If this course be pursued, they make the change without that purging and sudden debility which ensues when they are kept up later, and abruptly changed from entire dry to entire green feed. This last is always a very perilous procedure in the case of poor weak sheep, particularly if they are yearlings of pregnant ewes.

TAGGING.—After the fresh grass starts vigorously in the spring, sheep are apt to purge or scour notwithstanding the preceding precautions. The wool about and below the vent becomes covered with dung which dries into hard knobs if the scouring ceases; otherwise it accumulates in a filthy mass, which is unsightly, unhealthy, and to a certain degree dangerous—for maggots are not unfrequently generated under it. In the case of an ewe, it is a great annoyance and sometimes damage to her lamb, for the filth trickles down the udder and teats so that it mingles with the milk drawn by the lamb, and often miserably besmears its face. I have seen the lamb thus prevented from attempting to suck at all. Whether the dung is wet or dry, it cannot be washed out by brook washing, it must sooner or later be cut from the fleece, and at the waste of considerable wool.

Tagging sheep before they are let out to grass prevents this. This is cutting away the wool around the inside of the thigh, in a strip wide enough so that the dung will fall to the ground without touching any wool. Wool on or about the udder, which is liable to impede the lamb in sucking, should always be cut away—but not to an unnecessary degree during cold weather, so as to denude this delicate part of adequate protection. Tagging is sometimes performed by an attendant holding the sheep on its rump with its legs drawn apart for the convenience of the shearer. But it is best done by the attendant holding the sheep on its side on a table, or on a large box covered, except at one end, and the breech of the sheep is placed at the opening so that the tags will drop into it as they are cut away. This is the only safe position in which to place a breeding ewe for the operation, when near to lambing, unless it be on her feet—and tagging on the feet is excessively inconvenient. If a ewe is handled with violence, there is danger of so changing the position of the fetus in the womb as to render its presentation at birth more or less irregular and dangerous, but if the operation is performed as last described, and the catching and handling are done with proper care there is no danger whatever.

LAMBING.—It used to be the aim of flock-masters in the Northern States, to have their lambs yeanned from about the 1st to the 15th of May—particularly when Saxon and grade Saxon sheep were in vogue. Small flocks with abundant range would grow up their lambs, born even at this season, large and strong enough to winter well; but in the case of large flocks they were not sure or very likely to do so, except under very highly favourable circumstances. The least scarcity of good fall feed told very destructively on them—and if there were those which were dropped as late as June, they generally perished before the close of winter.

From the 15th of April to the 15th of May is now the preferred yeanning season among a majority of Northern flock-masters. Some, however, have it commence as early as the 1st of April, and those who breed rams for sale as early as the 10th or 15th of March. These very early lambs, if properly fed and kept growing, are about as much matured at their first, as late dropped ones are at their second shearing.

We have seen that Mr Chamberlain, the importer and leading breeder of the Silesian Merino in this country, has his lambs dropped from November to February. Under the admirable arrangement of Mr. C., and under the admirable handling of his German shepherd, this works well, and a lamb is rarely lost, and being early taught to eat roots, &c., separate from their dams, they attain a remarkable earliness of maturity. Such a system would not, of course succeed with ordinary arrangements and handling nor would it be profitable for ordinary purposes.

It is understood of course, that lambs yeanned earlier than May in the Northern States, must, as a general

thing, be yeanned in stables. But this in reality diminishes instead of increasing the labors of the shepherd. The yeanning flock is thus kept together, and no time is spent traversing pastures to see if any ewe or lamb requires assistance, or in getting a weak lamb and its dam to shelter, in driving in the flock at night and before storms. And the yeanning season may thus be got through with before it is time for the farmer to commence his summer work in the fields.

PROPER PLACE FOR LAMBING.—Stable yeanning, too is safest, (though I once thought otherwise,) even in quite pleasant weather, provided the stables are roomy, properly littered down and ventilated, and provided the sheep are sufficiently docile to allow themselves to be handled and their keeper to pass round among them, without crowding from side to side and running over their lambs. While the stables should not be kept hot and tight, they should be capable of being closed all round; and they should be so close that in a cold night the heat of the sheep will preserve a moderate temperature. On the other hand, they should be provided with movable windows, or ventilators, so that excess of heat or impure air can always be avoided.

Excessive care is not requisite with hardy sheep in lambing, and too much interference is not beneficial. It is well to look into the sheep house at night, the last thing before going to bed, to see that all is well, then if all is well, many even of the best Merino shepherds leave their flocks undisturbed until morning, holding that the lamb which cannot get up, suck, and take care of itself until morning in a clean well-strawed, comfortable stable, is not worth raising. Our English shepherds, who have charge of choice breeding flocks, usually go round once in two hours through the night during the height of the lambing season. This may be rather more necessary among breeds which are accustomed to bring forth twins—for one of a pair is less likely to be missed and cared for by the mother, if it accidentally gets separated from her. But unless the sheep are extremely tame, more harm than good, even in this particular, would result from disturbing them in the night. —RANDALL'S *Practical Shepherd*.

Ewes Disowning their Lambs.

To the Editor of THE CANADA FARMER.

SIR—As you kindly invite boys to ask questions through the columns of your useful paper, perhaps you or some of your many agricultural readers will be good enough to answer this one.—How can a ewe refusing to own or care for her lambs, be made to do so?

JOHN L. HARCOURT.

York, April 19th, 1861.

NOTE BY ED. C. F.—A very good plan is to separate the ewe and her disowned lamb from the rest of the flock and place them in a small, dark enclosure together, out of hearing, if possible, of the other sheep. The ewe should be held five or six times a day while the lamb sucks. In most cases, the mother will soon take to her offspring. When she does, they may be let out, but at first they should not be allowed to mix with the other sheep, lest the ewe's indifference return. In obstinate cases of this kind, fear is sometimes appealed to as a means of awaking the natural instinct. A strange dog, a child wearing a bright-coloured mantle or the like, shewn to the ewe, will often rouse her to protect and care for her lamb. If a ewe shows indifference toward her lamb when it is first born, it is better to place a pen around them at once. Small pens, light and portable, are very useful conveniences to have about a flock of sheep.

How to Wash Sheep for Exhibition.

To the Editor of THE CANADA FARMER.

SIR.—The way that I have seen it done in England is to keep them in a nice, warm house three or four weeks prior to the time of the exhibition, washing them once a week with water only, until the last two times, when they put on a little soft soap, and at both of which times they curl every lock with curling irons. Mind and not let the irons be too hot so as to singe the wool. They also removed all the rough wool from off the head and face. Two that I saw prepared in the above manner were also fed on all the new milk they could drink, oil cake, oats and peas, and a little hay every morning, with salt once a week. One, an aged ram, took the first prize at three of the large agricultural shows in England, the other the first at the same, three among the shearings' rams.

Malton, C. W.

R. G. T.

Washing Sheep.

To the Editor of THE CANADA FARMER:

SIR.—The usual barbarous method of washing sheep by immersion is easily avoidable in any locality, where there is a small running stream. Select a proper place and build a dam 3 or 4 feet high, within 2½ or 3 feet of the bottom, place a spout 2½ feet wide and 1½ inches thick so that a broad thin stream may be secured, let this stream fall upon a small board floor with a railing to prevent sheep from getting above or below, make a small inclosure immediately contiguous to the side of your floor. When washing time comes, one person can hand the sheep from the enclosure to two men who hold them, beneath the spout. By turning them once over, the water will carry off all the filth without much wetting the men, 30 or 40 sheep per hour may be washed with ease. Let your dam fill a few days previous to washing time, in order to have the water as warm as may be. An escape spout above your wide spout to prevent the overflow of the water, and another at the bottom of the dam to drain it off altogether, are necessary precautions. If your stream is small, select a day following a shower, when you can secure a sufficient head of water, and have your sheep in the best condition for washing easily. If your sheep are not moistened by rain it would be an advantage to pass them beneath the spout, some hours previous to their final washing. If your dam is in a pasture field and there is a friendly tree to shade your enclosure and spout, so much the better.

SIDNEY.

Worms in the Heads of Sheep.

To the Editor of THE CANADA FARMER:

SIR.—In the space of two or three weeks I have lost three of the best of my sheep and all apparently from the same cause. I observed after feeding my flock a few days in succession, that two or three of them did not feed heartily as the rest, and after a day or two they refused food altogether. They appeared stupid, noticed nothing around them, and were apparently blind. There was a continued flow of mucus from the nose, and after four or five days they died. I then proceeded to examine their heads, and found two worms in the first, about half an inch in length; in the second, there were eight varying in size, from one eighth to half an inch in length; the third refused food three days, and appeared affected the same manner as the rest. In the head of this one I found six worms of the same description.

THOMAS CULLIS.

Township of Hamilton, April 12, 1861.

Tobacco-smoke for Grub in the Heads of Sheep.

To the Editor of THE CANADA FARMER:

SIR.—I noticed one day last week a ewe running a good deal at the nose, and suspecting she had grubs in the head, I tried the tobacco smoking up the nostrils; one grub half an inch long came down, but notwithstanding all I could do she died, just three days after first showing the symptoms. She was in excellent condition, and to make the loss more unfortunate was in lamb with twins by a pure Leicester ram. We found on opening the head upwards of ten grubs differing in size. Several of my neighbours have lost, this year and last, many sheep and in my case the tobacco has proved ineffectual.

P.

King, April 20, 1861.

NOTE BY ED. C. F.—We shall be glad to have the experience of our readers in reference to the above, and other remedies suggested for grub in the head. In view of cases like that mentioned by our correspondent, it is very desirable that if there be any effectual cure for this ailment, it should be made public, for the benefit of flock masters in general.

LAMBS.—It is necessary for wool growers to know how to manage lambs, when ewes having lambs are weak. The best plan is to dig a hole in moist manure, and put the lamb in, cover it up all but the head, and leave it in that situation for half an hour, when the lamb will be able to run after the rest of the flock. I have never known this remedy to fail. —J. H. A. in *Rural American*.

Entomology.

A Bird's-eye View of the Insect World.

The insect world constitutes a very important and interesting department of animated nature. Its population is immense, there being more than a hundred thousand different species in existence. You find members of this vast family everywhere. Some people the air: others the water: some live in the ground; while others find a home on plants, or on the bodies of animals. Most of them are subject in the course of their lives to wondrous changes or metamorphoses, so that the same insect, at different ages, might be mistaken for as many different insects. They possess the faculty called *instinct*, many of them in a very high degree. Indeed, some of them, under certain circumstances, display it so remarkably, that it approaches the exercise of the reasoning power in man. Many of the insect tribes perform the most useful functions, while others are noxious and mischievous, but there is scarcely one whose habits are not deserving of attention, while some read lessons of wisdom fit even for the ear and heart of the lord of creation—man—himself. Our object in the present article, will be to give a general view of the insect races according to the classification usually adopted. Linnaeus, the great Swedish naturalist, divided insects into *seven orders*—distinguished more especially by peculiarities connected with their wings. This ingenious arrangement is considered the simplest and best ever adopted.

I. The first order is called *COLEOPTERA*, from two Greek words meaning *sheath-winged*. They have two pairs of wings, the first, or outer pair, serving as a sheath or protection to the second or inner pair, which are much the larger. This insect family is commonly known by the name of *beetles*. Like all insects, they are egg-produced, and undergo curious changes. The egg hatches into a soft-bodied grub or maggot, that in turn changes into a cocoon, (or pupa,) covered with a thin, transparent skin, and out of the cocoon (or pupa) at length comes forth the perfect beetle, its entire body covered with a horny skin, furnished with nippers to masticate its food, feelers, or *antennae*, supposed to be organs of hearing, and having under-wings so sheathed by the upper ones, that they seem to form one solid mass with the body. Beetles have been subdivided into three natural families, according to the food on which they subsist.

1. *Carnivorous Beetles*, which like lions and tigers among beasts, prey upon other living beings. The *Coccinella*, or *Lady-bird*, belongs to this class; so also does the *Tiger-beetle*, the *Caterpillar-Hunter*, &c. These insect hunters make great havoc among smaller insects, and prevent our being overrun with plagues like those of Egypt.

2. *Scavenger Beetles*, which live on putrid matter, carrion, decayed wood and plants. This is a numerous family. To it belong the *Hercules* of South America, an insect-giant; the *Brown Dung Beetle*, which may be seen in horse and cow dung on the roads and in the meadows; the *Pellet Beetle*, which spends its time in making pills like an apothecary; the *Stag Beetle*, or *pincer-bob*, the *Indian Cetonia*, the *Fungus Eater*, &c. The *Carrion Beetles* are curious and useful members of this family. It is their business to dispose of dead carcasses: the most remarkable of them is the *Big Grave Digger*, so called from the singular manner in which it diligently buries dead frogs, birds, mice, or other small animals.

3. *Herbivorous Beetles*, which feed on vegetable substances, and are many of them sad pests to the farmer and gardener. Some attack the green branches of trees, others burrow into the ground and gnaw the roots, others show a fondness for fruit and seeds; whilst others devour the leaves of plants. The *Snout Beetle*—so called because their head is prolonged into a bill-like pointed snout—belongs to this class. They are very destructive little creatures. The *Wheat Weevil* is one of this species. So also is the *Pea Weevil*.

II. We now come to the second order of insects, called *HEMIPTERA*, from two Greek words, signifying *half-winged*. They are so named from their wings being half coriaceous or leathery, and half membranous. Their chief peculiarities are, first, the possession of *suctorial organs*, consisting of a long horny proboscis with two pairs of bristles, which they insert into the animal or vegetable bodies on

which they live for the purpose of extracting their juices; and secondly, the nearly perfect condition in which they commence life. They pass through no changes like the beetle family, make no cocoon or chrysalis, and have, when they burst from the egg, six legs and a proboscis, but no wings. The Cicadas constitute an exception to this general rule, and are supposed to live in a larva state two years or more in the ground. These insects feed mostly on the juices of plants, but some of them pump out the circulating fluid of insects, and even the life-current of warm-blooded animals: on account of which they become very annoying and troublesome to man. The Aphides, or *Plant Lice*, belong to this family, and are very destructive to vegetation. The *Red-eyed Cicada*, or *Seventeen Years' Locust*—so called from its being supposed to appear once in seventeen years—also belongs to this second order. So does the *louse*, that—

Ugly, creeping, blasting wouser,
Detested, shunned, saunt and sinner

the *Bed-bug* the *Squash-bug*, the *Tree-hopper*, the *Bark louse* take rank here also. The *bark-louse* is very injurious to fruit orchards. The *Cochineal* insect, used for dyeing the most brilliant red and purple, and the *Coccus Lacca*, which produces the *gum-shellac* of commerce, likewise belong to the *Hemiptera*.

III. The third order of insects is named *ORTHOPTERA*, or *Straight-winged*,—so called because their wings are folded in a straight or longitudinal manner. The insects of this order have transversely moveable jaws, membranous wings, (a few have no wings,) six legs, and undergo no metamorphosis. The *Grasshopper* family belongs to this order. These are sometimes very mischievous even in this country, it being no rare thing to hear of the hay crop having failed because of their depredations. In European and Oriental countries they are sometimes an awful scourge. The *Katydid*, *Cricket*, *Cockroach*, *Spectrum* or *Walking-stick*, are orthopterous insects.

IV. We now come to the fairy region of the insect world,—the order of *Moths* and *Butterflies*,—styled *LEPIDOPTERA*, or *Scale-winged*,—so called from their wings being covered with what seems to be fine dust, but is in reality *minute scales*. They are also distinguished from other insects by having four expanded wings, with few exceptions, and hairy bodies. They are oviparous, and lay their eggs on the plants which form the food of their progeny. From these eggs proceed caterpillars, which, on attaining their full growth, cast their skins, and become chrysalides or cocoons. Some of these cocoons are suspended from the branches of trees, others are buried in the ground and remain torpid through the winter. In due time the chrysalis bursts its skin, and becomes a perfect butterfly or moth,—a gay inhabitant of the upper air. The *Silk-worm* Moth belongs to this order. It is a tender, delicate, short-lived little creature; yet how much it accomplishes! The richest garb in which youth, beauty, nobility, and even royalty can be arrayed is the product of its skill. There are about 1,200 species of *Lepidoptera* in North America. This order has two grand divisions, the *Nocturnal Lepidoptera*, such as *moths*, *millers*, &c., which are recognized by their having antennae without a knob at the end, and *Diurnal Lepidoptera*, or *Butterflies*, which are known by their having a knob at the end of each antennae. Some of this order, in the caterpillar state, are very injurious to vegetation, e.g., the *Tent Caterpillar*, *Grain Moth*, &c., but when perfectly developed they are harmless, with few exceptions, among which may be named the *Bee Moth*, the pest and dread of Aparians.

V. The fifth order is called *NEUROPTERA*, which signifies *net-winged*. They are principally characterized by their delicate wings, which resemble the finest net-work. The Germans call them, very expressively, "*gauze-flies*." Their bodies are long, thin and soft; their wings long, narrow, and almost transparent. They generally deposit their eggs in ponds, in which the grubs or larvae which issue from them live one or two years, subsisting on water plants, and partly on other aquatic insects, until they change into perfect-winged insects, when they abandon the water and take to the air. The different genera of this order are quite numerous. Conspicuous among them is *Libellula*, the *Dragon-Fly*, sometimes vulgarly known as the *devil's darning needle*. This insect was regarded by Linnaeus as the typical genus of the order *Neuroptera*. The *Water Moth*, *Horned Corydalis*, and *Day Fly*, or, as it is frequently called, the *May Fly*, belong to this order. The latter is an interesting insect, on account of the suddenness of its transformation from the grub to the winged state, and the short duration of its aerial life.

VI. The sixth order of insects are styled *HYMENOPTERA*, or *membrane-winged*. They have four membranous wing, and the tail of the female is usually armed with a sting. The whole tribe has since been called *Aculeata*, stingers, or piercers. Wasps and

bees are familiar members of this family. All the insects of this order are more or less useful to man. They collect honey and wax, beautify our flower gardens and render our orchards fruitful by distribution of pollen, or they rid us of noxious caterpillars and other troublesome insects. Though when provoked they take revenge upon us with dagger and venom, yet, like our irritable fellow creatures of the *genus homo*, we have only to mind our own business, and give them a good letting alone, to escape all harm. The *Gall Wasp*, the *Ichneumon Wasp*, the *Hornet*, *Honey Bee*, and the *Ant*, are Hymenopterous insects.

VII. Only one order now remains to be noticed: it is named *DIPTERA*, or *two-winged*. Little need be said respecting a class of insects so well known as *flies*. The number of genera of this order is immense. The leading members of the *diptera* family in North America are—the *Gad Fly*, the *Bot Fly*, the *Horse Fly*, the *House Fly*, the *Meat Fly*, the *Hessian Fly*, the *Cheese Fly*, the *Flea*, and the *Mosquito*. The *Hessian Fly* is a very small insect, but capable of doing immense mischief to the wheat crop. It has occasioned the loss of uncounted millions of dollars to the farmers of this continent. The *Flea* takes rank among dipterous insects, though destitute of wings, from the fact that its characteristics are more like those of the *fly* tribe than those of any other order of insects. They undergo very much the same changes as two-winged insects in their progress from the egg state to the fully developed condition.

This very brief sketch of the outlines of Entomology will, we trust, be of service to our readers, in enabling them better to understand and arrange in their own minds the facts respecting insects injurious to vegetation on the farm and in the garden, to which we shall hereafter call their attention.

Birds and their Uses.

THE following facts, derived from correct sources of information, of the question how to get rid of the worms.—Baron Von Tschudi, the well known Swiss Naturalist says:—"Without birds, successful agriculture is impossible." They annihilate in a few months a greater number of destructive insects than human hands can accomplish in the same number of years. Amongst the most useful birds for this purpose may be classed the *Swallow*, *Wren*, *Robin* redbreast, *Titmouse*, *Sparrow* and *Finch*. Tschudi tested a *Titmouse* upon rose bushes of his neighbor, and rid the same in a few hours of innumerable lice. A *Robin* redbreast killed in the neighborhood 200 flies in an hour. A pair of *Night Swallows* destroyed in fifteen minutes an immense swarm of gnats. A pair of *Wrens* flew thirty-six times in an hour with insects in their bills to their nests. He considers the *Sparrow* very important; a pair of them carrying in a single day 300 worms or caterpillars to their nests—certainly a good compensation for the few cherries which they pluck from the trees. The generality of small birds carry to their young ones, during the feeding period, nothing but insects, worms, snails, spiders, &c. Sufficient interest should be manifested by all to prevent the discharge of fire arms in the vicinity of orchards, vineyards and flower gardens, as thereby the useful birds become frightened.

A HINT TO FARMERS.—The correspondent of the *London Star*, in Schleswig, says: "A pleasing phenomenon, which I had before remarked in every part of the duchies I had hitherto visited met my eye again on the drive to Christiansfeld. On the outside of every cottage and farmhouse we passed—even, indeed, on many of the trees by the roadside—hung several little square wooden boxes, rather bigger than a London quarter loaf. In the centre was a small round aperture, large enough for any bird from a wren to a thrush to go in and out. On inquiry I found that these little contrivances were, what they appeared to be, homes for any little pair of warblers which pleased to build their nests in them. Some years back the farmers were justly punished for the devastation which, under the influence of false ideas, they had made amongst the feathered tribe, by the vast increase of insects which played havoc with their crops. Like sensible men, they were no sooner convinced of their error than they did their best to remedy it. Societies for the preservation of birds were soon formed; the farmers everywhere did their best to forward the objects of the association, and bird-murder became a misdemeanor. As the consequence of these measures the country is now plentifully stocked with numerous classes of birds. Flocks of crows, ravens, larks, fieldfares, linnets, and yellow-hammers, as well as other kinds, are to be seen wherever one drives, and appear to have lost much of their natural timidity under the good treatment they have received of late years."



The Apiary.

Bee-keeping in Scotland.

During a recent visit to Glasgow, I was attracted by a magnificent display of top boxes of virgin honey in the window of Mr. Walker of Buchanan Street. On entering the shop I saw about sixty octagonal boxes each containing from 14 lbs. to 30 lbs. of the finest virgin honey comb I had ever seen. There was not a single cell of pollen or bee-bread visible in any one of the boxes; and in excellence of color and regularity of comb I never saw the boxes equalled. They all came from the Ayrshire district, and were worked on octagonal hives made of half-inch pine. These hives are made in separate boxes for the purpose of being storified over one another. Each box contains about 800 cubic inches; two constitutes a hive in winter, but in the spring in order to prevent swarming, another box is added below, and sometimes even four are superposed. When the white clover comes into bloom, the top for receiving the virgin honey is put on, and Mr. Walker's exhibition shows with what effect. I was shown two top boxes taken successively from one hive, a third being partially filled. It must be borne in mind that the Ayrshire bee-masters are about the most skilled practical workers in the kingdom. They have no foolish prejudice for the old-fashioned moth-breeding straw skep; they know from experience that hives made of wood only half an inch thick, will enable their bees to stand the winter, if they have plenty of food stored for their support. Nor must the genial and equable character of the district be overlooked. Ayrshire, as shown by recent meteorological returns, is more free from wet, and of a more uniform summer temperature, than any other part of Scotland, circumstances that would tell strongly on the honey harvest. *W. B. Teape in London Field.*

Defects in Bee Management.

To the Editor of THE CANADA FARMER:

SIR.—Having for some time devoted much attention to the nature, habits and wants, of the honey bee, I find the present system of bee-keeping, in Canada, very defective so far as I have been able to learn. Not only is there great ignorance with regard to the nature and habits of the bee, but the present system of management, especially winter management, and the use of defective and awkward hives has led many persons to conclude that bee-keeping is an unprofitable business,—a certain failure.—True, some have met with comparative success but it has been attended with considerable labour and attention; more than many are able to devote thereto. That a better system of bee-keeping be adopted, it is necessary first, that the people become educated in regard to the nature and habits of the bee; secondly that better hives be obtained, hives such as give the apiarian perfect control of the bees, bee-comb, &c.; and thirdly that a winter management be adopted, one which will enable the apiarian to overcome the difficulties which are experienced in this cold climate. As to the education of the people, the CANADA FARMER offers a medium through which it may easily be done. As regards the hives, none will ensure the end desired, but those containing movable-comb-frames, of which several are already introduced into Canada. As regards winter management the plan spoken of on page 87, CANADA FARMER for April 1st, 1861, involves the correct principle; but then, every bee-keeper has not an "old house" in which he does not himself live, and if he has, it requires that the hives be all removed from their stands in the fall, and replaced again in the spring. Yet the principle is correct. Keeping bees too warm, as in a cellar, creates uneasiness, causing them to consume honey, to the loss of the apiarian, and often to their own destruction by generating disease; also, the comb is liable to mould and become worthless. While on the other hand if kept too cold as when exposed unprotected from the sudden changes and extreme cold of our Canadian win-

ters, they are obliged to consume more honey in order to keep up animal heat, and even then often perish from cold and from ice collecting in the combs from the congealing of the breath of the bees, which cannot escape, especially in most of the hives now in use. To meet these difficulties something is needed; and I have as I think succeeded in overcoming them, by means of a Combined Movable-comb Bee Palace and Bee Hive; for which Letters Patent have been applied for, and which will shortly be introduced to the public.

I here subjoin an answer to "Question for Bee-keepers," on page 88 of the CANADA FARMER, viz: "Why is it that bees will not always work and fill the boxes placed on the top of beehives?" The question is hardly definite enough to admit of an exact reply, since the reason why bees will not work in some boxes on one hive may not be reason why bees will not work in others. I will therefore give several reasons why bees will not work in boxes. There may be sufficient room for all the honey in the body of the hive, and there are various causes for this. There may be a lack of heat in the boxes. Sometimes the passage to the boxes is too small, and the workers are unwilling to enter when loaded. If allowed to finish work in a box, and cap over the cells before it is removed they will seldom enter another, thinking their work has ended above.

I. H. THOMAS

Brooklin, C. W. April 12, 1861

Old-fashioned Bee Management.

To the Editor of THE CANADA FARMER.

SIR.—Of all the topics so ably treated in your valuable journal, the subject of practical bee-keeping is the one most congenial to my taste, and I think that no country is better fitted than Canada to bring bee-keeping to the greatest perfection, and to obtain a large return for the time and money invested. I have studied the habits of bees and experimented in order to find out the best mode of making them profitable for the last forty years, so that my views are founded upon actual practice. I am altogether, in favour of the swarming system, that is, putting swarms into proper-sized hives adapted to their number, the season of the year, and other considerations, and my mode of getting the honey is by killing the bees. I know that there are many who think this utterly absurd, and liken it to killing the goose that lays the golden egg, but in my opinion it is not so. There are plenty of hives that are not worth killing, but are excellent for keeping; others again are too good and heavy, and unfit for keeping, and with the latter there are often other reasons for killing, such as having too old a queen, &c. This system is nothing new, but is the oldest, and as far as I have ever seen, the most profitable. Protecting the bees by bee-houses, patent hives, and other plans of recent origin, are all very fine to look upon but are they as conducive to honey-making as the simple and cheaper mode? I say no! Take, for example, a bee-house or patent hive, in which we will suppose the bees to have been wintered over; they will get strong and amass a large amount of honey. If some of this is taken away, you may be actually robbing the hive of what it will require. If in a patent hive, whilst the boxes are full of honey, the other main part of the hive is full of young hatch, which prevents the bees putting any store there, and before they are all out the season is over. You have taken away the honey, and they have nothing but empty cells. I don't say this is the case always, but it requires a great deal more judgment to know how to take or withhold than in the other way, and even if it may succeed, as only one queen can be in any hive, the whole is dependent on her living. You have no change of queens in the latter method, unless she dies, and if this takes place in winter the whole colony will dwindle away. Of course, the small hives are subject to some casualties, but by carefully keeping hives that have young queens, they are not so liable, and even if some die you are almost certain of average success. You will have one to kill and two to keep over. The second year you commence with two to one of the bee-house keepers or on the patent hive plan.

Hamilton, March 11th, 1861.

J. F.

NOTE BY ED. CANADA FARMER.—Our correspondent is rather sweeping in his condemnation of patent hives and modern plans of bee-keeping. No doubt there have been many worthless hives which, by ample advertising and other means, have been made to sell, but have not fulfilled the promises of the sellers or the expectations of the buyers. But it is hardly just to condemn them all. We know no good reason why there is to be no advance in practical bee-

keeping, and why the old methods are to be always pursued. We certainly regard the movable-comb principle of making hives as a great improvement, nor do we think our friend has made out a very strong case against the boxes. We are inclined to think that if we were to give a really good modern hive a fair trial he would not argue for the obsolete practice of killing the bees for their honey.

How the Bees have Wintered.

To the Editor of THE CANADA FARMER.

SIR.—The past winter has been unusually severe for bees. Spells of warm weather have been succeeded by periods of intense cold. The consequence has been that of twenty or thirty apiaries which I have visited in South Oxford and Norfolk during the past fortnight, only two or three have escaped without loss. Most unfortunate have been the patrons of a "patent" hive which was vended through this part of the Province some two or three years since. Of these, some who had last fall a stock of 20 to 40 families, find themselves this spring almost without any. The notably bad success of this hive causes it to merit description, as an illustration of what a hive should not be. Three boxes—each containing about 1,000 cubic inches or one half of what Quinby says a hive should contain in lat. 42°—are arranged upon one stand, with a space between them of say 2 inches, small tubes of wood or tin communicating between them for the passage of the bees. The consequence of this arrangement is, that while in warm weather, when the bees are lively, they can make their way to any part of the hive, and will probably fill two or three of the boxes, as soon as cold weather approaches, they follow their natural instinct and cluster into one of them for warmth, and after devouring its contents, die of starvation, with an abundance of honey frost-locked in the other apartments.

The only person using these hives that I have visited who escaped without loss, is Mr. R. Williams, just south of Mount Elgin, and his bees were in a *tear-dry cellar*, only being brought out once during some fine day about midwinter, to allow a discharge of accumulated feces. Mr. Schell of this place has wintered some 30 or 40 stock successfully in the open air, but his hive is compact in its form, and thus economizes heat, and places food within reach at all times.

Ingersoll, April 8, 1861.

Correspondence.

DEVON CATTLE.—John Laing, of Puslinch, wishes those who have had experience with Devons, to give their opinion of them through our columns, and particularly to state their dairy qualities.

PERENNIAL HYBRID CLOVER.—H. C. T. A. enquires, "could you inform me where Perennial Hybrid Clover is to be had, and at what price?"

ANS.—J. Fleming & Co., of this city, have it for sale at 20 cents per pound.

RULES OF MEASUREMENT ENQUIRED FOR.—A correspondent asks: "How is hay in the bay or stack measured?" Also, "The length, breadth, and depth of wheat in a granary being given, how do you calculate the number of bushels?"

WEIGHING CATTLE BY MEASURE.—We have received a number of communications on this subject, discussing the methods which have already appeared in our columns, and propounding new ones. It is impossible for all to appear just now, and in the meantime, we must "adjourn the debate."

AGRICULTURAL PAPERS IN NOVA SCOTIA AND NEW BRUNSWICK.—"George Young," of Ormstown, C. E., is informed that the *Colonial Farmer*, published at Fredericton, N. B., is the only Agricultural paper in existence, so far as we know, in the Eastern Provinces mentioned by him. It is an excellent periodical of its class.

HOW TO LAY DRAINS IN QUICKSAND.—A correspondent asks, "What sort of drain will suit best in quicksand, where it will run in as fast as you dig it out? The stream of water running from it would fill a three-inch drain tile. There is a good fall. Will those who have had experience in making such drains, please give the results in THE CANADA FARMER?"

GERMAN HOTBEDS.—A correspondent says, "Your extract from the *Scientific American* on page 34, about hotbeds in Germany, will only disappoint those who try the plan recommended. I have done so and failed. Others have had a like experience. The seed came up well, but air the plants as much as you may, they sprindle up for want of light and become practically useless."

HOW TO RECLAIM A MARSH.—Isaac Taylor, of Colchester, asks, "can any one tell me what is the best way to work about 10 acres of marsh land, with about two feet light turf, and a sandy bottom? If any one can advise me how to work it, so that it will bear cropping, and what crop is best to put on so as to make it pay, he will greatly oblige a subscriber to the CANADA FARMER."

ENTRIES OF PEDIGREE.—"W. W. N." enquires how long the forthcoming Short-Horn Herd Book will be open for entries of pedigree, and to whom such entries must be sent?

ANS.—Pedigrees will be received up to the first of July. They should be sent to H. C. Thomson, Esq., Secretary Board of Agriculture, who wishes us to say that it is desirable entries should be forwarded with as little delay as possible. The charge for insertion of pedigree is half-a-dollar for each animal.

SALT FOR SHEEP.—"M. L. F." wishes to know whether sheep in this country require salt or saltpetre in the spring of the year?

ANS.—Salt is necessary for the health of sheep all the year round. Weekly salting is practised and recommended by the best flock-masters, because it is often enough, while it keeps the sheep tame and ready to come when called, and enables the owner or shepherd to count the flock and observe the condition of each. We are not aware of any need for saltpetre being given in the spring.

TRANSPORT OF FLAX.—"H. L." of Maidstone Cross, says:—"Being a long distance from a flax establishment, I would like to know through THE CANADA FARMER, if flax can be safely shipped by railroad a distance of from 100 to 200 miles in its raw state."

ANS.—Flax might be sent any distance by railroad safely enough, but it is so bulky in its raw state that the freight would consume all the profit of the crop. After scutching, it can be compressed into small compass and made into bales without difficulty.

WASHING SHEEP.—"J. W.," of Bruce, asks, "My Leicester's shorn 9 lbs. of unwashed wool last year. How much might I expect to lose in weight by washing them?"

ANS.—The general rule on this subject is, that unwashed wools shall be subject to a deduction of one-third their weight. In actual practice, however, it is found that this rule is not invariably correct, the amount of yolk in sheep varying very much. Our correspondent could get an exact answer to his question only by actual experiment.

LIME AS A MANURE.—A correspondent in Nichol wishes to know what quantity of lime to apply per acre, and the best manner of putting it on the land?

ANS.—There is much difference of opinion among agricultural authorities as to the quantity of lime per acre that may be beneficially applied at once; the majority, however, agree in thinking that small doses of from 60 to 100 bushels per acre, frequently repeated, are better than a larger application at one time. It should be in a state of powder before it is scattered on the soil. The best way of preparing quick lime for use is to place it in a heap and carefully cover it up with earth till slaked. An excellent way of using lime is to compost it with vegetable and other matter.

HORSE PITCHFORKS.—A. B. C., of Howard, wishes to know if these answer a good purpose—whether they can be attached to a driving barn so that there is no need to drive in, the hay being pitched through a hole in the wall—and further, he wants to be told "all about them?"

ANS.—We believe the horse pitchfork or hay elevator is considered to be a decided success by practical men, but whether it would work in the position described, we do not positively know. We have doubts on that point. Never having seen the "machina" at work, however, and not being fully posted as to its peculiarities, we cannot tell our correspondent "all about it" just now, but think we may safely promise him fuller information in a future number of THE CANADA FARMER.

BREAKING IN YOUNG CATTLE.—"P. Musselman," of Concord, writes as follows.—"One reason why ox-teams are not more generally used for farming purposes, is because it is a very difficult job to break them. I have found out a method by which I can break almost any yoke of steers in a few hours, with out abusing them." Our correspondent encloses a certificate from Mr. Dalziel, a former President of the Vaughan Agricultural Society, to the effect that in about two hours Mr. Musselman broke in a yoke of steers for him, so that they were quite tractable and handy. The steers were not yoked up again for three months, and even then they had not forgotten what they had learned in one short lesson so long previously.

BROOM CORN.—"Allen Bond," of Inverary, wishes to be informed through our columns whether broom corn can be profitably cultivated in Central Canada, what is the yield per acre, and the mode of culture; also, where good seed can be procured?

ANS.—We should think broom corn might be grown to advantage in Central Canada, but cannot speak from actual knowledge on the subject. Of course our correspondent does not regard Inverary as in Central Canada. The mode of culture is very similar to that of ordinary Indian corn. The ground must be rich and well pulverized, and the seed sown in rows 3 1/2 feet apart, and hills 1 1/2 feet apart, about 10 seeds in a hill, covered an inch deep. When the young plants appear, a top-dressing of ashes, plaster and salt, mixed in the proportion of ten bushels of ashes—one of plaster and one of salt—is considered beneficial. The crop must be cultivated and hoed thoroughly. When the seed is out of the milk, the stacks are "tabled," as it is called, by breaking two rows across each other from 1 1/2 to 2 feet from the ground. On the tables thus formed, the brush is laid to dry. Four or five days will dry it sufficiently if the weather be good. The brush is then tied up in bundles, hauled to the barn, and the seed removed, when the brush is then ready for the broom-maker. Five hundred pounds per acre is a medium crop, a thousand pounds a first-rate crop. A thousand pounds is estimated to make about 500 brooms. Broom corn seed can be had of J. Fleming & Co., of this city, at 13 cents per quart, or \$1 per bushel.

The Canada Farmer.

TORONTO, UPPER CANADA, MAY 2, 1864.

Linseed Oil and Oil Cake.

THE impulse given of late to the cultivation of flax, is very naturally drawing attention to the manufacture of oil and cake. A very large quantity of linseed oil is consumed in Canada, and at present the demand is chiefly supplied from Great Britain and the United States. There are, indeed, manufacturing establishments at Quebec and Montreal, in Lower Canada, and at Bridgeport, in Upper Canada, but they only supply an insignificant proportion of what is required. In the Trade Returns, oils are not classified, but out of \$235,621 sent out of the Province for this item of imports in 1862, a very large share was doubtless for linseed oil. In the same year we paid for oil cake \$8,705 to the United States. In addition to freight, linseed oil is subject to a duty of twenty per cent., all which is in favour of the Canadian manufacturer. With a large and increasing demand, there is everything to encourage the direction of capital and enterprise into this channel. Not only is there a ready market for the oil, but the cake manufactured from the refuse may be expected to sell readily, at a remunerative price, from its well known fattening properties, and its adaptation especially for milch cows, there being no doubt that it increases the quantity and improves the quality of both butter and milk. Heretofore the limited cultivation of flax in this country, and the uncertainty of being able to procure a sufficient supply of the seed, have operated against the multiplication of oil mills, but now that there is a better prospect in connection with this too much-neglected crop, we may expect to hear of mills being projected and got into operation in various parts of the Province. A company is now in process of formation in Toronto, for the purpose of establishing an

oil mill in that city. A better point could not be wished, and we have little doubt the enterprise will shortly go into effect, and be quickly followed by others of a like character elsewhere. In the prospectus which has been issued, the business is spoken of as highly remunerative, and confidence is expressed that, "allowing liberally for all contingencies, twenty-five per cent may be confidently expected." The *Journal of the Board of Arts and Manufactures for U. C.*, referring to this subject, gives the following estimate of the first cost, working expenses, capacity and profits of an oil mill:—

"The cost of machinery for an oil mill, with one double hydraulic press, steam engine, bed-stones, tanks, weighing machines, and all other machinery and fittings necessary to complete such an establishment, is estimated to be under \$5,000. Such a press and machinery would work 400 bushels of flax seed per week, which, estimated at \$1.50 per bushel, and with wages of the various hands necessary to work it, cost of fuel, casks, rent, freight and sundries, would amount to a total weekly outlay of about \$700. The return for this expenditure is estimated at 400 gallons of boiled oil, 300 gallons of raw oil, and 168 cwt. of linseed cake, which, at present market rates, would realize the sum of \$1,007; or a profit of \$247 on the week's operations, towards wear and tear of machinery and dividends to stockholders.

"The quantity of oil produced by this machinery could be largely increased, if necessary, by working night and day, as is usual in English oil mills; but on the lowest estimate as here given, there would be a consumption of at least 20,800 bushels of seed per annum, at a total cost of \$31,200; producing 36,400 gallons of boiled and raw oils, and 8,736 cwt. of cake, representing at present prices a total value of \$52,361; or a saving to the country of upwards of \$21,000 per annum on the working of a single one-press mill, by manufacturing the seed at home instead of sending it to a foreign country, and importing the oil therefrom for our own consumption."

In view of the immense advantage that must accrue to the Province from such manufactures, it is earnestly to be hoped that every means by which they can be encouraged may be used by private individuals, Agricultural Associations and the Government. Our farmers especially should be induced by every movement of this kind to turn their attention to the growth of flax. It is a more reliable and remunerative crop than wheat, while the market is quite as accessible and certain.

Discussion of the Anti-Canada Thistle Bill.

To the Editor of THE CANADA FARMER:

SIR.—Mr. Stirton's Bill is perhaps a move in the right direction to rid the country of the Canada Thistle, but I am inclined to think if it is not found to be difficult of administration, or the means of creating many feuds between neighbours, it may prove a great hardship to very many owners of poor land, as well as many tenants who make their arrangements before this bill comes into force. I would suggest that the different Township and County Agricultural Societies should call special meetings of their members and discuss the subject. At all events, I think it would be better that it should not take effect for some time after its passage into law, say one or two years.

Wolford, April, 1864.

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TORONTO GARDENERS IMPROVEMENT SOCIETY.—This Society held its monthly meeting at the rooms of the Board of Agriculture, on the 21st March, at which there was a good attendance of members, and an exhibition of some choice flowers.

An interesting paper was read by Mr. Geo. Vair, in which he spoke of the great room for improvement in the appearance of our village, town and city residences, of the pleasure to be derived by a person, of even the most limited means, from a little attention to the garden, and of the improved and cheerful appearance a more general diffusion of horticultural taste would give to the whole Province.

A paper on the Strawberry was read by Mr. A. Pontry, an extract from which we give in another column.

THE young State of Kansas has laid the foundation for the establishment of an Agricultural College.

A flax mill is about to be erected in Maitland, county of Grenville, by Messrs. F. M. Holmes and R. Hervey, and a number of farmers in the neighbourhood are to enter at once on the cultivation of flax. Messrs. Holmes & Co., offer premiums as follows—For the best five acres, \$20; best three acres \$15; best two acres, \$10; best acre \$5.

SINGULAR CASE OF DEATH TO A BULL.—The *Mark Lane Express* gives an account of the death of a valuable Durham bull the Second Duke of Thornedale, bought by Mr. Robinson from Mr. Thorne, of Duchess County, N. Y., three years ago and shipped by the purchaser to England. On the voyage the bull swallowed a bag of nails, which occasioned internal injuries that at length resulted in his death. He had got plenty of calves, and there are no less than twenty of them in the Clifton Pasture Catalogue, but he had never been thoroughly well since, and on examination the causes of the mischief were found—some of them quite sharp and polished by the gastric acids, and fairly piercing his bowels.

SPRING SHOW AT MITCHELL.—The annual spring show of the Fullarton, Logan and Hibbert Agricultural Society took place on Wednesday in this village. Owing to the fine day and the much improved state of the roads, most of our farmers who take an interest in stock breeding were present. The show was considered to be the best that has been held in Mitchell, especially in horses. The first prize for the best stallion for agricultural purposes was awarded to Hugh Armstrong, \$15; 2nd, George Carruthers, \$8. The first prize for roadsters was carried off by the horse exhibited by D. B. McDonald, of Stratford, and the second prize by the horse shown by Benjamin Pile. Best thoroughbred bull, three years old and upwards, \$10, George Graham; 2nd do \$6, George Hamilton. Best grade bull, three years old and upwards, \$3, James Gorrill. Best grade bull under three years old, James Jackson. There was a horse shown by Mr. Wm. Baker, named "Black Warrior," which seemed to draw the attention of the many farmers present.—*Stratford Beacon, April 22*

REPORT OF TORONTO HORTICULTURAL SOCIETY FOR 1863.—This Report laments a falling off in the number of subscribers to the Gardens as compared with the previous three years but nevertheless announces the encouraging fact that the receipts for the year from all sources have been \$2,038 99, a sum in excess of the expenditure by about \$80. Only two Exhibitions were held during the last season, one in May under the sole auspices of the Toronto Society, and one in October at the Crystal Palace, in which the Toronto Electoral, the West Riding of York, and the York Township Societies united with the Toronto Horticultural Society. To this united Exhibition the Corporation of Toronto contributed \$300. Three Exhibitions are announced for the present year. They are to be held on the 24th of May, the 21st of July, and the 15th of September.

GALT SPRING SEED FAIR.—The Annual Spring Seed Fair was held in the Market Square, Galt, on Wednesday, but owing to a most unfavorable state of the weather there was but a small attendance of farmers. A fair quantity of grain was sold and exchanged in the market. The principal enquiry was for seed barley, which seemed to sell freely from 90c to \$1. Oats sold from 40c to 45c, and in some instances 50c. Pease from 50c to 60c. Potatoes 50c. for good varieties.

There was very little enquiry for spring wheat, farmers seem to have given up the idea in a great measure, of raising spring wheat, as they find barley or oats are a much better paying crop.

The following prizes were awarded:—

SPRING WHEAT.—First prize, Alex. Morrow; second ditto, Wm. Rutherford. 8 entries.

OATS.—First prize, Alexander Cranston; second ditto, Jas. Weir. 6 entries.

PEASE.—First prize, Thomas Kerr; second ditto, Robert Cranston. 3 entries.

POTATOES.—First prize, Alexander Cranston; second ditto, Robert Cranston. 4 entries.

No prizes were awarded for Horses.—*Galt Reporter.*

Book Notices.

THE PRACTICAL SHEPHERD.—A complete treatise on the Breeding, Management and Diseases of Sheep. By Henry S. Randall, L.L.D. This book is all that it professes to be, viz: "a complete treatise" on the important subject to which it relates. Experienced flock-masters will find much valuable information, and many new suggestions in it, while to beginners in sheep-husbandry, it cannot fail to prove a treasure. Its author is one of the best practical sheep farmers on this continent, and prior to the appearance of this work published two volumes entitled, respectively, "Sheep Husbandry at the South," and "Fine Wool Sheep Husbandry." He is also Editor of the Sheep Department of the *Rural New Yorker*. To all who know Dr. Randall's reputation, recommendation of this work is needless. It has had a very large sale in the United States, having rapidly run through fourteen editions. We hope it will find many purchasers in Canada. Every man who owns a sheep, or ever expects to do so, ought to get a copy. We extract a valuable chapter on "Spring management," which will be found under its proper head in another part of this paper. This will give our readers a taste of the quality of the book, and we doubt not will make them eager to get it. We believe it is only for sale by agents. Mr. P. R. Randall of this city, advertises it in another column, and wishes to employ sub-agents in various parts of the country, to sell this excellent manual of Sheep farming.

JOURNAL OF THE DISCOVERY OF THE SOURCE OF THE NILE.—By John Hanning Speke, Captain, H.M. Indian Army. This is a very interesting volume, got up in good style by Harper and Brothers of New York, with a map, portraits, and numerous illustrations. The author goes perhaps a little too much into details about his own everyday affairs, but even this little drawback, if such it be, is counterbalanced by the sense it gives you of living and acting with him in his exciting and, sometimes, perilous adventures. Capt. Speke, in addition to the discovery which will render his name immortal, has furnished a large amount of additional light, as to the geography and customs of a country hitherto known but little, except here and there along the coast. Missionary exploration has done much toward furnishing knowledge of the interior of Africa, and of late years, scientific expeditions have been vigorously and successfully promoted. The gallant captain furnishes a curious illustration of the fattening properties of milk, in the case of an African beauty whom he managed to measure, and whose shape was more that of a round ball of flesh, than of a human being. Obesity, it appears, is the chief desideratum of female beauty in Abyssinia, and this point is secured, by keeping the royal fair ones sucking at milk pots from childhood. The work is for sale by A. S. Irving of this city, and other booksellers.

PLEURO-PNEUMONIA.—By Charles L. Flint pp. 15. This pamphlet consists of a letter by the able Secretary of the Massachusetts Board of Agriculture, to His Excellency John A. Andrew, Governor of the State. Its object is to show the virulent character of the disease of which it treats, to demonstrate that it is infectious and in view of these facts, and the immense losses among cattle it has occasioned, to rouse the people, and especially the legislature of the Commonwealth, to take such steps as will effectually stay the plague. The pamphlet contains much startling and useful information concerning a disorder whose very name has come to be a terror to all breeders of neat stock.

JOURNAL OF THE BOARD OF ARTS AND MANUFACTURES OF U. C.—The April number of this magazine contains articles on the Provincial Exhibition for 1864, Flax and Linen Manufactures, Linsed Oil and Oil Cake, Machine Stretched Belting, Mechanics' Institute Reunions. Notation, with numerous and well arranged selections on a large variety of subjects. The usual subscription price is 75 cents a year, but to members of Mechanics' Institutes, Literary, Scientific and Agricultural Societies, it is only 50 cents. It is free of postage.

BRITISH AMERICAN MAGAZINE.—The April number of this serial completes the second volume, and is as usual, well filled with a variety of reading, such as ought to furnish something adapted to every peculiarity of literary taste. The review department of the number before us is taken up with notices of the *British Quarterly* and *Monthly*, and copious extracts from them.

Rural Architecture.

Hints on Country Houses.

WHAT A COUNTRY HOUSE OUGHT TO BE.

We take it for granted that the object of building a country house is not simply for the purpose of affording some sort of shelter to the family that is to inhabit it, but that the intention of the owner is in reality to promote domestic comfort in the highest possible degree within the limits of his means. We are sorry to say, nevertheless, that this praiseworthy idea is very rarely carried out. Utility is but too often sacrificed to cheapness, and instead of a structure which shall last through many generations, and which shall, at the same time, be not only an ornament to the neighborhood but a graceful feature in the landscape, we have a frail clapboarded thing, with great, staring windows, frequently without blinds or shutters, and quite as frequently without any protecting porches or verandahs, with the exception of a small pent-house over the front door. Now all such dwellings, whether they be cottage or farm house, possess one of the very grave defects which it is possible for them to have in our variable climate. They are intolerably hot in summer, and they are intolerably cold in winter. They cannot be cooled by any imaginable device, when coolness is the first of essentials, nor can they be heated to a cheerful and uniform heat in winter, with all the expenditure of wood and coal that men in ordinary circumstances are either willing or able to disburse. In structures composed of rough stones drawn from the surrounding fields, or from quarries in the vicinity, these evils are at least partially removed, so far as protection from variations of temperature is concerned. But such buildings are frequently damp, and therefore, and to that extent, unhealthy, from the fact that stone absorbs moisture by capillary attraction, and that no care is taken to obviate the defect by setting the lower courses in cement and continuing them to about two feet above the surface of the soil, and also by nailing strips vertically on the interior walls, and lathing and plastering over these instead of on the surface of the stone itself. If this were done, and the roof were made to project over the eaves about two feet, and simply but sturdily constructed porches were thrown across the front to afford additional shade in summer, and protection from driving storms in winter, a stone-house would be preferable in the country to almost any other. A similar, though not so effective or so permanent a result, may be obtained by filling in with brick such houses as are constructed of wood—the difference in cost being more than compensated by the increased economy thereby effected in warming such a house in winter, and its great coolness in summer. It should, moreover, be borne in mind that a house built in the manner we have suggested, while it is refreshingly cool at the season when coolness is most desirable, is also, by virtue of its mode of construction, capable of retaining warmth and of repelling cold in winter; and thus it is that it meets the two-fold exigencies of a climate that is semi-tropical in July and August and semi-arctic from December to February.

We now turn to another point. The great majority of houses in the country are not only clumsily contrived, but are simply plain oblong or square boxes, that are as unsightly to the eye, as they are uncomfortable in their interior arrangements. It is very easy, in many instances, to change the first-mentioned defect by a simple modification of their exterior form, by drawing over the roof and bracketing it; by placing hoods over the windows wherever inside shutters are preferred, and above all, by the liberal adoption of verandahs and porches. When the latter are trellised and covered with running vines and climbing roses, they constitute the *beau ideal* of what a country house should be. Alterations in the interior of a house of this kind are usually much more difficult to effect; but there are cases which will admit even of this improvement.—*Maryland Farmer and Mechanic.*

BEST TIME TO PAINT HOUSES.—Experiments have indicated that paint on surfaces exposed to the sun will be much more durable if applied in autumn or spring, than if put on during hot weather. In cool weather it dries slowly, forms a hard, glossy coat, tough like glass, while if applied in warm weather, the oil strikes into the wood, leaving the paint so dry that it is rapidly beaten off by rains.

Veterinary Department.

Hints on Horse-Shoeing.

MR. JOHNSON JIX, shoeing smith and farrier of Brantford, has sent us the following remarks on horse-shoeing, and commends them as eminently judicious. They are from the pen of C. Spooner, M. R. C. V. S., author of "The Foot and Leg of the Horse:"—

"There is no subject relating to the horse which amateurs profess to know so much about as that connected with shoeing. One gentleman requires the sole and other parts of the foot to be pared extremely thin, and the toe very much shortened, no matter what sort of foot the animal may have; another forbids the use of the drawing knife, wishes the sole to remain unpared, and views with horror the slightest attempt to remove any ragged portion of the frog; the one is a blind worshipping of art, the other a zealous votary of nature; each prides himself on his superior knowledge of the foot, and regards the slightest opposition to his opinions as the vapouring of ignorance and prejudice. Similar contrarieties prevail with regard to the sort and shape of the shoe. One insists on having a shoe with a very broad web, no matter what sort of foot the animal may have, or work he may have to perform, another, with an equal indifference to circumstances, demands an extremely narrow shoe; one requires very thick heels, another the heels of the shoe to be as thin as a shilling, or he would work his horse with tips, whether on a sandy or a stony road. Then one will require the shoe to be kept considerably wider than the foot, under the absurd idea that it will prevent or relieve concussion; and will not hesitate, as the writer has frequently known, to condemn the smith who presumes to pay some little attention to nature in the matter. As well might the wearer purchase a hat much larger than his head, with the expectation that his brains will enlarge so as to fill it. Some amateurs will allow the heels to remain untouched, but order the shoe to be shortened considerably at every shoeing, and then anathematize the unfortunate smith when he finds that his horse goes tender in consequence.

"Then, with regard to the nailing on, some require the nails to be driven as low down, and others as high up, as possible; some will have the shoe fastened on with abundance of nails; others, inspired with some novel ideas or new-fashioned doctrines, propagated, perhaps, by "Miles' boy," as the saying is in some countries, will eschew one-half the nails, and scarcely believe the other half essential for the security of the shoe.

"Amidst such a chaos of opinions, who can wonder at the perplexity of the unfortunate operator, who yet, with all its difficulties, regards the fitting of the shoe to the foot as a far easier task than that of fitting it to the ideas of the master. Far be it, however, from our wish to discourage the interference of the owner in the matter of shoeing, if he will but seek his information from proper sources, and when he puts it in practice, pay some little attention to the rules of nature and the endless diversity of horses' feet. By so doing, he will be able to put a wholesome restraint on the conceit of the groom or the coachman, who often regard themselves as unerring judges on all matters connected with the subject. The great error amongst amateurs is not making due allowance for the great variety in horses' feet, which differ so greatly that it would be a gross absurdity to shoe all alike. Some horses have so strong a development of the horny structure of the foot, that a considerable portion requires to be removed at each shoeing; whilst others require, if it were possible, horn to be added, for in them the wear is greater than the growth. Some horses have a tendency to high heels; others to low ones; some require the toe of the foot to be reduced every month, in others there is not a particle to spare. In some horses the frog is so large and gross that it requires considerable paring; in others it requires to be carefully removed. We find the sole in some horses so thin and flat, that the shoe must be seated considerably to prevent its pressing on the sole; whilst in others the sole is so strong and concave, that it is a matter of indifference whether the shoe be seated at all, except for the purpose of rendering it lighter.

"With this endless diversity in horses' feet, how is it possible to lay down any fixed plan for shoeing all horses alike? All that can be done is to take an average foot, and consider what sort of shoe is best suited for it, and so to alter or modify such shoe as to adapt it to other feet according to their peculiarities.

"There is no better shoe for a saddle or light harness horse on the road than one of moderate weight, rather less than an inch in breadth, seated on the foot surface, with five nails on the outside quarter and

too, and two or three on the inside—and near the toe. A clip at the toe and another at the outer quarter will be a useful addition; and if the shoe is required to be light, then one, or even two, nails may be dispensed with. By means of such a shoe the foot will be secured from contraction, and the inside heels in great measure from corns.

"The shoe should be of equal thickness at the heel as at the toe, and the web should be narrower at the former than at the latter situation. If the heel of the foot is very low, it will be prudent to make the heels of the shoe somewhat thicker than the toe, and vice versa. If the sole is inclined to be flat, it will be desirable to make the shoe somewhat broader in the web, unless a leather sole is used, which, for such feet, is extremely useful; indeed, a leather sole is at all times desirable during the summer season. It secures the sole from injury from stones, and saves many a fall and broken knee; it materially lessens concussion, diminishes both the wear of the horn and of the shoe, and keeps applied to the sole a stopping of grease and tar spread on tow, which preserves the horn in a moist and healthy state. It is objectionable for hunters, by rendering the shoes more liable to cast; and if required on account of lameness, for horses going on the soft ground, it should be merely a narrow rim of leather between the bearing part of the shoe and the foot."

Teething in Horses.

THERE is no doubt that many young colts suffer as much pain in cutting their teeth as in the case of children; and the pain does not always arise, as some people suppose, from irritation of the mucous membrane of the mouth, occasioned by the point of the tooth, but frequently from pressure on, and irritation of the dental nerve. The remedy (instead of tormenting the suffering creature with a red hot iron for the purpose of burning out the "lammas," as some persons profess to do,) is a common thumb lancet. Make an incision through the gum, or mucous membrane of the mouth, in the region of the tusks or incisors, whatever the difficulty may be, and relief is almost immediate. This is a sure remedy to relieve local distension of the mucous membrane of the mouth if it exists, and at the same time prevents the fang of the tooth from irritating the dental nerve.

Sharp and projecting Teeth.—Owing to the unequal wear of some of the horse's teeth, they become sharp on the outside margin, and are then apt to irritate and perhaps lacerate the buccal membrane of the cheeks. Should this be the case, we generally find that the salivary secretion is augmented, mastication is imperfect, and the subject generally loses flesh, and appears unthrifty; the remedy is a moth rasp.—By means of this instrument the sharp or projecting edges may be smoothed.

Inflamed and Tender Mouth.—Inflammation, tenderness and tumefaction of the horse's mouth, arising from whatever cause it may, generally indicates the application of cooling and astringent lotions, and light diet of bran mashes; cool lotion, composed of solution of hydrochlorate of ammonia, or chlorate of potassa, are indicated when the mouth is hot or inflamed. A tender mouth, accompanied by corrugation and relaxation of the soft palate, known as "lammas," requires a few applications of some astringent lotion, made of alum, gum catechu, raspberry leaves, white oak bark, or diluted tincture of iron.

Use of Arnica for Animals.

ARNICA montana is a perennial plant, growing in meadows throughout the cooler parts of Europe, with a hairy stem reaching about one foot high, composite yellow flowers, ovate leaves, and a cylindrical brown root. All parts of the plant have a peculiar aromatic odor, an acrid nauseous taste, and contain a resinous matter, a volatile oil, and a bitter alkaloidal principle called arnica. Viborg gave a horse six drachms of the infusion of the flowers, and noticed a quickening of the pulse and diuresis. In the human subject it is stated by Pereira "to exert a specific influence over the nervous system, causing headache, giddiness, and disturbed sleep." In infinitesimal doses it was a favourite homeopathic remedy before it was much used in ordinary veterinary practice. It appears to act as an alterative and stimulant, and amongst the lower animals has proved serviceable in rheumatism, the secondary stages of pleurisy, weakness of the loins, and muscular strains. Mr. Dollar,

V.S., of New Bond Street, London, uses it successfully in rheumatism in horses, and gives the particulars of the following interesting case:

A four year old half-bred horse was last spring affected with rheumatism, which caused constant lameness, which was severe but frequently shifted from limb to limb. Being in good condition he was treated for weeks with calomel and opium, and for double that time with small doses of nitre, iodine of potassium and aloes, but without any appreciable improvement. Half drachm dose of the tincture of arnica, which is the only preparation used, were then given night and morning in half a pint of water; amendment was obvious in a few days, and in less than a month the horse was perfectly cured and at work. Drachm doses, repeated twice or thrice daily afford considerable relief in cases of rheumatic fever in cattle, and arnica deserves in such cases a more extended trial.

In the various forms of rheumatic kennel lameness in dogs, and stiffness produced from over-exertion, it is also usefully employed both externally and internally in doses of two or three drops. Its external uses are numerous and varied. It appears to allay local irritability, and forms one of the best healing and soothing remedies. In all animals it is useful in cases of strains, bruises and wounds, and is specially commendable in expediting the healing of broken knees and sore shoulders. For such purposes the tincture may be dissolved in five or six ounces of cold water, but a still better lotion is made with a drachm each of tincture of arnica, and Goulard's extract diluted with ten or twelve ounces of water. The Messrs. Dollar use the following prescription:

Tincture of arnica..... 1 drachm.
Sulphate of zinc..... 2 drachms.
Water..... 10 ounces.

Along with liberal feeding and tonic treatment a drop of the tincture placed daily within the eyelids is one of the best remedies in those troublesome ulcerations of the cornea which affect weakly dogs recovering from distemper.—*North British Agriculturist.*

Horses should be Exercised Daily.

Horses require daily exercise in the open air, and can no more be expected to exist without it than their owners. Exercise is an essential feature in stable management, and, like well-opportuned food, tends alike to preserve the health of horses.

Daily exercise is necessary for all horses, unless they are sick; it assists and promotes a free circulation of the blood, determines morbid matter to the surface, develops the muscular structure, creates an appetite, improves the wind, and finally invigorates the whole system. We cannot expect much of a horse that has not been habituated to sufficient daily exercise; while such as have been daily exercised and well managed, are capable of great exertion and fatigue, and are ready and willing to do our bidding at any season. When an animal is over-worked, it renders the system very susceptible to whatever morbid influences may be present, and imparts to the disease they may labor under, an unusual degree of severity. The exhaustion produced by want of rest is equally dangerous: such horses are always among the first victims of disease, and when attacked their treatment is embarrassing and unsatisfactory.—*Horse Owners' Book.*

WIND-GALL AND HOW TO CURE IT.—A gall is a swelling that appears on each side of the back sinew above the fetlock, and injures the sale of many fine horses. Many people puncture them, which is a wrong thing, as it often produces an incurable lameness. I had a very fine horse, which was injured by the same thing. I tried many remedies which I saw recommended in the papers and never found one that cured him. In fact, found more that injured him than there were that did him good. I at last thought kerosene oil might do good, so I made the trial. I had used the oil but a few times, and the gall entirely disappeared. Procure the best kerosene oil possible, and bathe the spot two or three times a day, until you see the gall has diminished. Dip the end of your finger in the oil, and rub it in well. Then put a tight bandage of cloth around the gall. Be careful and not let the oil spread more than is necessary, for if allowed to run down in the fetlocks, it will cause a bad sore. If the gall be a bad one, and the oil should cause a sore, heal with Green Ointment, made as follows:—Two ounces of beeswax, two ounces of rosin—when that is melted, put in half a pound of lard, and four ounces of turpentine, and to this add one ounce of powdered verdigris—strain through a clean cloth.—*Cor. Country Gentleman.*



The Vegetable Garden.

There is a great deal of comfort to be derived from a well stocked and well kept vegetable garden, and the variety which is thus furnished for the table, is not only agreeable but healthful. Those who have been accustomed to gather their daily supply from their own garden, would hardly credit the statement that should give the number of families in Canada, living on farms of many acres without a garden, whose only vegetable is the potato, with such "greens" as the children may gather along the roadside, or in the corners of the fences. There is so much to be done on the farm that the garden is forgotten or neglected. Besides this, the farmer is so accustomed to the help of the horse in all his operations, that he seems to feel, when he goes into the garden to weed and hoe, that he is losing during that time the labor of his horse. But there is no necessity for keeping the garden in such a very little space that the horse cannot work there too. By proper management, the work of the garden, can be made part of the work of the farm. A little more ground devoted to this purpose will enable the surface and sub-soil plow to do the work of the spade, and by so arranging the ground that the cultivator can be used, a very large part of the work can be performed much in the same way as the cultivation of a field of turnips, potatoes, or corn. The vegetable seeds could be sown so that the cultivator might pass in every other space, the two rows being eight or twelve inches apart according to the growth of the vegetable, and then a space of thirty inches, for the cultivator, to be followed by two more rows and then another wider space. In this way the labor of the garden might be great measure performed by horse power.

In selecting a site for a garden, it is very desirable to secure a piece of ground that is thoroughly drained and has a warm sunny exposure. The chief value of vegetables consists in their making a quick, succulent growth. Then they are tender, sweet, and delicious. If the soil be loose, warm, moist and rich, there will be no difficulty in obtaining the very choicest productions. If the soil be wet, it will be cold, and no amount of fertilizing material will compensate for injury done by the surplus water. In such a cold bed the seeds often die, and when they do vegetate, the growth of the plant is slow, and instead of a tender juicy vegetable, it becomes woody and full of tough fibre. And when a wet soil does at length dry out under the influence of the summer's sun, it bakes hard, and becomes very dry, and quite unfitted for sustaining rapid vegetable growth. Let the garden then be well drained, the soil well pulverized and enriched, and the plants well cultivated and it will be a source of comfort and continued gratification.

One of the first things that can be done in our gardens, is the sowing of peas, and of these there are many choice and truly delicious varieties, far exceeding for table use any of our farm field peas, that are sometimes used for want of a better. These flourish best in a rich loam, and are usually sown in double drills some four inches wide, thus giving room between the rows for the rods or brush to be placed, upon which the vines are to run. The branches of our beech trees make excellent bushing and can be easily saved, when cutting wood in the winter, of proper size for this purpose. It is recommended to cover the peas to the depth of four inches, and bush them at the time of sowing, that the support may be ready when needed. When the plants are about two inches

high, the earth should be drawn up to them and during the season of growth be frequently stirred. If the peas are soaked in warm water for five or six hours before planting, they will make their appearance above ground much sooner than when planted dry.

Of the many varieties now cultivated we may mention the Tom Thumb, it being an excellent dwarf variety, growing to the height of only eight or ten inches, and on that account not requiring any bushing: it also matures very early. Daniel O'Rourke is a much esteemed early kind, it grows about two and a half feet high and is very prolific. Bishop's Long Pod is but a little later, grows a foot and a half high and is of fine quality. Succeeding these in time of maturity is the Champion of England, a universal favourite, growing to the height of four feet, a great bearer and very fine flavoured. For a late variety the Large White Marrowfat is generally grown, and much esteemed. With these sorts planted all at one time there will be a continual supply of this delicious vegetable for a long time.

Beets can also be sown as early as the ground can be worked. A deep and rich sandy loam is the best suited to their culture. The seed is usually sown in rows, eighteen inches apart and covered to the depth of two inches. After the plants make their appearance it will be necessary to thin them out, so that they will stand about six or eight inches apart in the row. The seed will vegetate much more freely if soaked in warm water for twenty-four hours before planting. The ground should be kept loose and well stirred during the summer. The best early variety is the Basano or Turnip Beet, which has proved to be always sweet and tender. The young plants that are pulled up in thinning out, make excellent greens when cooked "tops and all." The Basano will keep well all winter, and with some is the only variety grown, but the one usually cultivated for winter use, is the long blood red, a fine smooth sort, quite sweet and tender. Henderson's pine apple is a new, deep crimson, compact topped variety, very highly commended by those who have given it a trial.

Carrots and parsnips may be sown early, and both thrive best in a deep, sandy loam. The seed is sown in drills, and thinned out to four or six inches apart.

The best early variety of carrots is the Early French Shorthorn, very tender and fine flavoured. It does not grow as large as the Long Orange, nor is it of the same spindle like form, but terminates more abruptly. The long orange is the kind usually sown for a general crop, and is cultivated as a field crop for the purpose of feeding to horses and milch cows for which uses it is very profitable.

The Hollow-crown Parsnip is generally esteemed as the best variety, for both the garden and farm. There is a new aspirant for public favor called the Student, said to be the result of ten years of selection and cultivation by Professor Buckman, of the Royal Agricultural College, and of a particularly sweet and delicious flavor.

Tomatoes require to be sown in a hot-bed or in a box in the house, in order to get them forward sufficiently early. When all danger of frost is past they can be transplanted into the open ground. They flourish best in some sunny spot, sheltered from the north and west winds, and do not require a very rich soil, for in such soil they grow too luxuriantly, making too much vine to mature fruit early. The Early smooth Red Tomato is the best early kind, and the large smooth red is the best for a general crop. These seem after all to be the best, though there are many other kinds, some of which produce very large irregularly shapen fruit, very inconvenient for culinary use. The upright tomato has been much commended as being self supporting, the other sorts requiring to be kept from the ground by a support of bush or a frame work of lath; but we have found it to require the support of a strong stake, and that the fruit has not matured sufficiently early to make it anything of an acquisition in this climate. Lester's Perfected is of a light red or pink color, very solid and containing less seeds than the other sorts, and is much esteemed by many.

The Strawberry.

READ BEFORE THE TORONTO GARDENERS' IMPROVEMENT SOCIETY, MAY 1861.

The strawberry is not only the most wholesome and delicious of all our small fruits, but is more easily, and on that account more universally grown than any other.

It belongs properly to northern latitudes, and though very little known in the southern hemispheres is found in the temperate latitudes of both Europe, Asia, and America.

The soil best adapted for growing fine strawberries is a deep rich loam rather approaching to clay than otherwise, thoroughly and deeply worked and enriched with plenty of strong manure. Sun and light should also have free access to wherever strawberries are grown for whenever under the influence of shade, whether occasioned by surrounding objects, or by being too closely crowded together themselves, it will be found, that the fruit is much more acid than it would be if grown under more favorable circumstances.

The finest, both plant and fruit, as a whole I think that I ever saw, were grown on a very stiff piece of land, deeply trenched and thrown up into ridges in the fall, allowed to remain so all winter subject to the action of the frost, then levelled down in spring and a coating of manure dug in: nothing could be finer than their appearance when I saw them the following summer.

The strawberry is best and most easily cultivated in rows two feet apart, and from 18 inches to two feet apart in the rows, thus allowing plenty of space for the roots to feed in, and also, a sufficiency of light and air for the leaves and fruit. A crop of early york cabbages which do not occupy much space might be grown the first year after planting between the rows—that is of course only necessary where it is an object to make the most of the ground. The runners should be kept off by chopping them out, three or four times a year, and every fall dig in some short manure between the rows, and until the plants get thoroughly established, cover every winter with a slight covering of either leaves or litter. The object of this covering is principally to prevent the plants being heaved out of the ground in the spring, when the frost is leaving. Preparations ought to be made every four years, at the furthest, for removing the bed or field, which ever it may be, and that could be done by allowing the plants the last year to throw out some runners, and cutting off all except those immediately up the centre of the space between the rows; then the following spring thin them out to the proper distance, and dig or plough the old plants under. Cleanliness and thorough cultivation of the soil are the most essential requisites to ensure success in growing strawberries. By keeping these ends in view, and by having a due regard to the kinds planted, no one can well fail of being amply repaid for any labour they may bestow on this grateful and luscious fruit. It would be folly for me to attempt to enumerate the many kinds of strawberries grown, their name is legion, and each one of them has its advocates. Were I planting, I should confine myself to two or three kinds—perhaps the following, *Triomphe de Gaud*, *Wilson's Albany*, and *Elton* or *Frogmore late Pine* for a late kind. I have placed them here as they rank in my opinion in reputation. *Triomphe de Gaud* first, then *Wilson's Albany*, afterwards the *Elton* or *Frogmore late Pine*.

It is pretty generally conceded I believe, that the American seedlings are better adapted to our climate than the varieties which originate in Europe. Much has been said about the *Sir Harry*, and *Wizard* of the North, both I believe perfect mammoths in size, but I have never yet seen either of them doing much good here. In short the *Triomphe de Gaud* is as good a berry both for size and flavor as the most fastidious need require.

They are all of course propagated by runners, except the bush *Alpines*, which are increased by division of the roots.

Strawberries.

To the Editor of THE CANADA FARMER.

SIR, I planted in 1861 seven rows of strawberry plants, of 11 in each row, making in all 98. The rows were 18 inches apart, and the plants were 12 inches apart in each row, making the plot about 10 1/2 x 14 feet. Last season we picked from this plot 40 quarts of strawberries. The plants were *Wilson's Albany* Seedlings. Can any of your readers beat this?
Yours, &c.,
C. L.

Wolford, April, 1861.

Buying Cheap Fruit Trees.

We can not do a better service to our readers than to call their attention to the following article taken from the *Country Gentleman*. The Province was never before so flooded with irresponsible tree dealers, who buy up the cheapest articles they can obtain in the States, at auction or otherwise, and try to make Canadians believe they are getting great bargains because they get their trees cheap:

No man can obtain anything valuable without paying its full price. If he makes a purchase of a fine horse for a small sum, he will probably find that the horse has some hidden disease. If he attempts to build a house at a lower contract price than the builder can afford it, he will ultimately discover that a good deal of bad material has been used, or that he has a long string of "extras," which, by dexterous contrivance have been thrust in. It is so in buying fruit trees. If the purchaser finds "a lot" offered at low retail prices, he will probably discover that they have been badly grown, neglected, stunted, moss-covered or have been badly dug up with chopped roots—or consist of some unsaleable varieties, or have been poorly packed, or the roots left exposed till they have become dry and good for nothing. There are various other ways of rendering trees of no value, which need not be enumerated.

Now, suppose a purchase is made of one of these trees at five cents below the regular market price among the best nurserymen. The owner congratulates himself on having effected a saving of the sum of five cents. Now let us see how much he is likely to lose. If the tree is stunted, it will be at least three years before it can attain the vigor of its thrifty competitor. In other words, he sells three years of growth, three years of attention (if it gets any), three years of occupancy of the ground, and three years of delayed expectation—for the sum of five cents. Or, suppose that he buys a tree, and saves five cents as aforesaid, because the quality of the sort, or the honesty of the dealer, as to its genuineness, may be questionable. After several years of labour and waiting, it turns out to be a poor sort, and the tree, being left unchanged, continues to bear this poor fruit for thirty years to come. The fruit being unsaleable, will in no case bring more than ten cents per bushel. In thirty years the average annual crop will be about three bushels, or ninety bushels in all—equal to nine dollars total value. Now, suppose instead of this miserable specimen, the purchaser procures at full price at tree of one of the most productive and marketable varieties, such, for instance, as the Rhode Island Greening or Baldwin. The crop will always sell in market for at least twenty-five cents, and sometimes for fifty cents a bushel; and for the whole thirty years, will average at least eight bushels annually—sixty dollars for the thirty years at the lowest computation. Deduct nine from sixty (or the products of the first tree from those of the second), and we have fifty-one dollars, the difference in the profits of the two trees, being the amount lost by the purchaser of the first in his attempt to save five cents.

We wish to be distinctly understood, it is not the largest or finest looking trees that are the best. In fact, the eagerness to procure big trees at the expense of a full proportion of roots, which it is impracticable to take up with such trees, often results not only in the loss of the trees themselves by death, but it frequently requires years for them to recover and regain their thrifty state. Neither is it necessary that the tree be as straight as a candle, for a few years' growth fills up the crooks in a trunk, and makes it as straight, or nearly so, as any other. The three great points are: To have healthy trees—to take them up with as perfect roots as possible—and to keep them moist and uninjured till they are set out again. These three requisites cannot be easily secured by taking large trees, while those of moderate or rather small size will readily furnish them all. Small trees are easily dug without mutilating the roots: they are packed for transportation safely and with facility; the labour of digging and packing and the cost of transportation are much less than with large trees; and they commence growing immediately, with little check in their vigour; and, if well cultivated, make the largest as well as the best trees at the end of five years.

To sum up—procure small, healthy, well-dug and well-packed trees of the best proved sorts only from reliable nurserymen; let them be well set out and well cultivated for successive years, and they will afford a profitable as well as satisfactory result.

ASTERS.



Quilled Asters. These were very great favourites, but they were destined to be superseded by a yet higher advancement, and the past twelve years have wrought an almost entire change in the character of this flower. It would seem hardly possible that anything now remained to be achieved, for we have them as large, as double, and as perfect in form as the finest Dahlia. Truffant has made his name a household word with every lover of autumn flowers by the perfect PEONY FLOWERED ASTERS to which it has been linked. These bear very large flowers, of many colors, with long reflexed petals, and grow to the height of two feet. The ISNIQUE POMPONE is one of the newer sorts, having the petals beautifully imbricated or overlapping each other, and sufficiently recurved to give the flower a fine globular form. It grows about eighteen inches high. The COCARDEAU or NEW CROWN is very double, having the central petals pure white surrounded by broader petals of some other color, crimson or violet or red, &c. The NEW CHRYSANTHEMUM FLOWERED DWARF grows only about a foot high, with very large perfect flowers of nearly every color. The NEW GIANT EMPEROR well deserves its name. Its flowers are enormous, nearly all perfectly double and of all colors.

All these varieties of the Aster delight in a deep rich soil and can be grown very easily. The seed may be sown in a hot-bed or in the open ground, and when the plants have attained the size of a young cabbage plant they can be transplanted as easily. The large growing sorts should be set about ten inches apart each way and the dwarf kinds six. It will be well, particularly in exposed situations to support the tall growing kinds by tying them to small stakes thrust into the ground near each plant. If these stakes are a few inches shorter than the plant they will not be conspicuous.

A bed of Asters in full bloom is a most lovely and attractive sight, amply repaying all the cost and care bestowed upon it. A few cents will purchase the seed and a very little labor in sowing, planting and weeding will furnish such a display in the autumn that no one who has once enjoyed it will ever be willing to forget the pleasure.

Curculio Remedy.

The subjoined receipt was taken from some American magazine, now forgotten by me, or else I would feel pleasure in acknowledging the author. The same proportion may be used for any larger quantity of the following receipts:—

To one lb. of whale oil soap, add 4 oz. of sulphur; mix thoroughly and dissolve in 12 gallons water. Take one-half peck quick lime, and when well slaked, add 4 gallons water, and stir well together; when settled and clear, pour off the transparent part, and add to the soap and sulphur mixture. To this mixture add 4 gallons strong tobacco water. Apply, when thus incorporated, with a garden syringe, to your plum or other fruit trees, so as to drench all parts of the foliage; if no rain succeed for three or four weeks, one application will be sufficient.

In offering my acknowledgment for the good received from this remedy, I do no more than "render unto Caesar that which belongs to Caesar." To remain quiet and not speak unto others would scarcely be making a suitable return for having perfectly and effectually saved my crop of plums for the last three years by means of the above receipt. But I have this remark to make, that it proved successful, not so much in its noxious compound as upon one single ingredient thereof. After several trials of the samples alone, the lime-water only defeated the "little Turk." Slake one peck of fresh quick-lime in a 32-gallon barrel, and as soon as thoroughly pulverized, pour in rain-water till full, and stir it rapidly, until the strength of the lime is taken up by the water; allow it to settle until it becomes quite clear, draw it off, and early in the morning or evening apply it as directed in the above receipt. It has several advantages, namely, in not discolouring the foliage. It is cheaper, more easily made, and much more agreeably applied, and can be oftener applied.

The refuse lime sediment can be thinly spread over the ground about the plum trees. The natural instinct of the insect prevents it depositing its eggs over a white or bright surface, either of water, boards, lime, or pavement.

Hamilton.

W. H. M

Fruit Growing near Dresden, in the County of Kent.

To the Editor of THE CANADA FARMER:

SIR.—My orchard has been in bearing for nine years, during which time it has not failed to yield a crop of fruit, with the exception of one season, when the June frost destroyed it. I have the Early Harvest, Sweet Bough, Fall Pippin, Gravenstein, Rambo's, Baldwin, Golden Russet, Northern Spy, R. J. Greening, Roxbury Russet, Talman Sweet, and a number of other sorts, all of which grow well and yield most abundantly. The Twenty-ounce apple is the sweetest bearer, and quality splendid. I have no doubt but that all the varieties usually recommended in the catalogues will grow well in all this county. It is not the apple trees nor the climate, but the people, that are to blame. They seem to expect that an orchard stuck in the ground any way, and never attended to after, will grow and bear fruit. This is a great mistake: the trees must be pruned and dug around every year. My neighbours think there is something wonderful about my orchard, but it is all in the way it is managed. I keep my trees as low as possible, and yet admit of the land being cultivated. When the trees were three years old I cut out the centre stem, which caused them to spread.

J. McD.

P. S.—Can any one tell what will keep the blue jays away from the fruit? Shooting them injures the tree worse than the birds do the apples.

The Household.

Woollen Clothing.

The healthful clothing for our climate, the year round is that made of wool. If worn next the skin by all classes, in summer as well as in winter, an incalculable amount of coughs, colds, diarrheas, dysenteries, and fever would be prevented by the ability of a woollen garment to keep the natural heat about the body more perfectly, instead of conveying it away as fast as generated, as linen and flaxen garments do; as also cotton and silk, although these are less cooling than Irish linen, as any one can prove by noticing the different degrees of coldness on the application of a surface six inches square of cotton flannel and linen to the skin, the moment the clothing is removed. The occasion is, that wool is a bad conductor of heat, and linen is a good conductor.

It is more healthful to wear woollen next to the skin in summer, because it absorbs the moisture or perspiration so rapidly as to keep the skin measurably dry all the time. It is curious to notice that the water is conveyed by a woollen garment from the surface of the body to the outer side of the garment where the microscope shows it condensed into millions of pearly drops; while it is the experience of the observer that if a linen shirt becomes damp by perspiration, it remains cold and clammy for a long time afterwards; and unless removed will certainly cause some bodily ailment.

In the night-sweats of consumption or of any debilitated condition of the system, a woollen flannel night-dress is immeasurably more comfortable than cotton or linen, because it prevents that sepulchral dampness and chilliness of feeling, which is otherwise inevitable.

The British government make it imperative that every sailor in the navy shall wear woollen flannel shirts in the hottest climate.—*Dr. Hall's Journal of Health.*

Dandelion.

To the Editor of THE CANADA FARMER:

SIR.—As a medicinal remedy in diseases of the kidneys, liver, stomach, &c., the dandelion is admitted to be excellent, and being found on almost every cleared plot of land, it is within the reach of all. As a beverage it is equal in flavour to the best coffee, and few who use it for a month will be willing to give it up; it requires less sugar and half the quantity of the coffee. It is made by just washing the roots thoroughly, cut fine, dry near the stove for a while, then finish in the oven, add a little butter, and roast till brown, then grind in a coffee-mill. It is but little trouble, and you are sure the article is genuine. When bought from the shop it is likely to be four-fifths pea or rye meal. R. W. S.

Woodstock, April 2, 1864.

THE three rules given by the celebrated John Hunter for the rearing of healthy children were, "Plenty of milk, plenty of sleep, and plenty of flannel."

A WATER-PROOF GLUE.—Melt common glue in the smallest possible quantity of water, and add by drops linseed oil that has been rendered drying by having a small quantity of litharge boiled in it—the glue being briskly stirred when the oil is added.

OFFENSIVE SMELLS.—One of the best and most pleasant disinfectants is coffee; the simplest way to use it is to pound the well-dried raw beans in a mortar, and strew the powder over a moderately-heated iron plate. The simple traversing of the house with a roaster, containing freshly-roasted coffee, will clear it of offensive smells.

CORNS.—The shape of a corn is exactly similar to that of a carpenter's nail, having a crown or head, and pointing downwards, which, piercing through the true under skin, irritates the nervous fibres in its vicinity. To cut off the head of the corn is only a temporary relief—a cure can only be accomplished by cautiously digging out the stem, which may be thus done by a steady hand.—Steep it in hot water and rub it with a coarse towel, or the finger nail will not remove it; place a small quantity of oil on the corn, and let it soak well in. Then, with a fine pen-knife, or, what is better, a sharp bodkin, work it out of its bed as you would a thorn. Not a drop of blood should be shed during the operation, and its success may be tested by finding pressure unaccompanied by pain. A small piece of diachylon plaster, with a cessation of pressure, will complete the cure. Should inflammation have been excited—which may be known by the redness prevailing around it—rest and emollient applications, such as linseed poultice, or a fig, will be found beneficial.



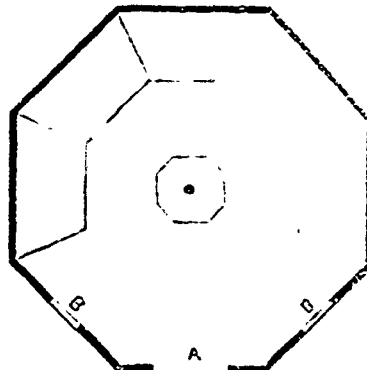
Poultry Yard.



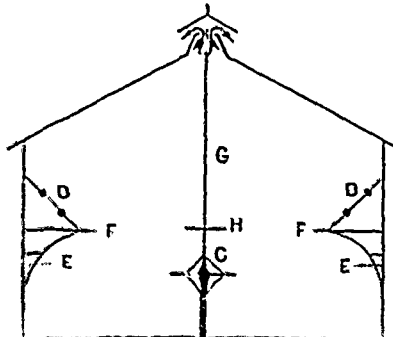
Model Poultry House.

To the Editor of THE CANADA FARMER:

SIR.—In accordance with the request of your correspondent (page 88) for a cut and description of a good hen-house, I send you a design of what, in my opinion, may be called a small "model poultry-house." In designing farm buildings as well as



everything else, it is my usual practice to combine in a plan or design those parts of all other designs of a similar character within reach that would be, in my opinion, conducive to its improvement. This, together with some additions of my own, has been attempted in this design; as to how I have succeeded I leave your readers to judge.



DESCRIPTION.—Figs. 2 and 3, ground plan and vertical section, showing internal arrangement; a, entrance door; b, latticed windows, with entrance doors for fowls beneath; c, feeding-box, the roof of which should be formed of laths, with interstices between, for convenience in feeding; one side should

be movable, for the purpose of filling, &c.; d, d. roosts; e, e, nests; f, f, board floor. The house is surmounted with a glazed cupola, with a small opening above, on each side, for ventilation, which is regulated by a small door working on a pivot, by means of the rod, g, and handles, h. A poultry-house nearly similar was lately erected on our farm at Milwood, and has given good satisfaction.

The "Octagon" has several qualities to recommend it; its form being such, as geometry demonstrates to be capable of enclosing a greater amount of space, by a given quantity of wall, than most other forms; and consequently, its cost is less in proportion than that of other forms. I might also add its picturesqueness. This design should be built of brick or stone, with a cement floor; if of wood, it should be set on piers (one each corner) of wood or stone, at least two feet in height. The almost universal construction of farm buildings in this country of wood is to be regretted; in the newer parts this is admissible, and, indeed, unavoidable, but for the older portions of this Province, is absolutely inexcusable. L'Original, C. W., April 11th, 1864. J. F. C.

Killing Fowls for Table Use.

A LATE number of the *London Poultry Chronicle* has an article on this subject, from which we extract the following:

If the fowls are to be eaten on Thursday, let them be caught on Monday evening, and then shut up in a basket, absolutely without food or water, until the next morning. Being quite empty, they must be killed, not by cutting the throat, but by breaking their necks. Take hold of the tips of the end, or flight-feather of the wings, and the lower part of the thighs and knees with the left hand. Take hold of the head of the fowl in the right hand, turn it (the head) upward in the hand, but simultaneously pull up with the left hand and press down with the right. Izaak Walton said, "Impale the frog as if you loved him," and Talleyrand said, "No zeal in anything—it is always getting into trouble." No zeal, no strength, and very little effort is required. Press downward with the right hand until there is a trifling jerk—it is the dislocation of the neck. Death ensues in a few minutes. If there is any doubt, it can be easily solved by feeling the back of the bird's head—there will be found an "ugly gap" between the head and the neck. When a fowl is bled to death, it is very white, but is often dry; when it is killed by dislocation of the neck it is juicy. As soon as the bird is dead—indeed I should say, *directly* it is dead—it should be picked. The large feathers, the wings, and tail, should be pulled first. The reason why they should be picked is that the fowl then gets cold; it is for the same cause essential that they should be killed early in the morning, or in the evening; the latter is preferable. Even in hot weather the fowl is spoiled five times out of ten by the fermentation of the food, or the decomposition of the water that was in the body at time of death. The bird fasted and killed as we have described may be drawn and trussed for the spit some hours before it is wanted, and, spite of the hot weather, it will be sweet, tender and juicy.

Poultry-Keeping in the City.

To the Editor of THE CANADA FARMER.

SIR.—I have a neighbour whose last year's experience with her fowls may serve as an example to others. The number of hens she has kept has varied from ten to fifteen. She has a small yard, and raises but few chickens, devoting her attention principally to the production of eggs. Her family being but small, the kitchen scraps are of very little consequence. During the year the grain, of various kinds, she has bought for her fowls has cost her ten dollars all but two pence. The eggs obtained have been as follows: In Jan., 29; in Feb., 74; in March, 114; in April, 196; in May, 172; in June, 180; in July, 148; in Aug., 116; in Sept., 68; in Oct., 45; in Nov., none; in Dec., 30. Total 1,173, or 97 doz. and 11. She never sells her eggs for less than 10d. cy. per dozen; and while they are plentiful in market, she puts them down in a way that keeps them so perfectly nice, that they bring 15d. cy. per dozen in winter; while she gets 18d. per dozen at this season for new-laid ones. She keeps several kinds of hens, Golden and Silver Pheasant, Black Spanish, and common ones. They are well supplied with bone-dust, gravel and ashes, in their quarters along with their food, and in cold weather are kept in their house. By these means, poultry-keeping on a small scale is made profitable by

DAME PARTLETT IN TOWN.

Toronto.

Game-Cook Outdone.

To the Editor of THE CANADA FARMER.

SIR,—In your number of the first of March, I see an article alluding to the profits of game fowl. Now I think I can beat "Game-Cook." I have twenty-five hens of mixed breeds, and I received from them in January, 1863, 10 eggs; in February, 303; in March, 483; in April, 493; in May, 453; in June, 115; in July, 313; in August, 317; in September, 250; in October, 110; in November, 59; in December, 31; making a total of 3,297; an average of 131 and 12 over. My hens had neither meat scraps nor bones to pick; but the light wheat that I could not sell. Now if my hens had had picking of bones and meat scraps and lime water to drink, I believe they would have laid a great many more eggs; but as I have been so busy on the farm, I paid but little attention to the fowls.

Blanshard.

A SUBSCRIBER.

POLITRY pick feathers off each other's necks for the purpose of getting the blood contained in the end of the quill. Plenty of chopped fresh meat fed to them will stop it at once. *Country Gentleman.*

FATTENING POULTRY. The *Irish Farmer's Gazette* says, to fatten turkeys, feed with barley meal mixed with water, adding a turnip with the leaves on, or fresh cabbage for them to pick at. Geese and ducks are well fattened by giving them ground buckwheat or oats mixed with well boiled potatoes, given warm, but not hot. Indian corn, well boiled and bruised, is also an excellent food for the purpose.

Miscellaneous.

Dickering.

THE following amusing but truthful chapter on this subject, is from Mr. MITCHELL'S "My Farm of Edgewood," from which we have already made some extracts:—

Sometime or other, if a man enter upon farm life—and it holds true in almost every kind of life—there will come to him a necessity for bargaining. It is a part of the curse, I think, entailed upon mankind, at the expulsion from Eden,—that they should sweat at a bargain. When a Frenchwoman with her hand full of gloves,—behind her dainty counter,—asks the double of what her goods are worth, you are no-way surprised. You accept the enormity, as a symptom of the depravity of her race,—which is balanced by the snavity of her manner.

But when a ha-d-faced, upright, sabbath-keeping New England bank-officer or select-man, asks you the double, or offers you the half, of what a thing is really worth, there is a revulsion of feeling, which no charm in his manner can drive away. Unlike the case of the French shop-woman, I feel like passing *em*—on the other side of the street.

And yet all this is to be met (and conquered I suppose) by whoever has butte — or eggs, or hay, or fat cattle to sell. I ventured once to express my surprise to a shrewd foreman who had charge of this business—for I manage it by proxy as much as I can—that a staid gentleman with his ten thousand a year of income, should have insisted upon a deduction of two cents a bushel in the price of his potatoes, in view of a quart of small ones, that had innuendated themselves in the interstices; I think I hear his horse-laugh now, as he replied,—“Why, sir, it's the way he grew rich.”

The idea struck me as novel; but upon reflection I am inclined to think it was well based. As I said,—often as possible, I accomplish this business by proxy; and, in consequence, have made some bad debts by proxy. But proxy is not always available. There are customers who insist upon chaffering with the “boss.” Such an one has dropped in, on a morning in which you happen to be deeply engaged. He wishes to “take a look” at a horse, which he has seen advertised for sale. The stable is free to his observation, and the attentive Pat is at hand; but the customer wants a talk with the “Squire.”

It is a r—unch Canadian horse, for which you have no further use. You paid for him, six months gone, a hundred and fifty dollars, and you now name a hundred as his price. I never yet met a man who sold a horse for as much as he gave—unless he were a jockey; I never expect to.

“Mornin', Squire.”
 “Good morning.”
 “Bin a lookin' at y'er hoss.”
 “Ah!”
 “Middlin' lump of a hoss.”
 “Yes, a nice horse.”

“D'n know as you know it, but sich hosses an't so saleable as they was a spell back.”

“Ah!”
 “They're gittin' a fancy for bigger hosses.”
 Silence.

“Put that pony to a heavy cart, and he would't do nothin'.”

“You are mistaken; he's a capital cart-horse.”
 “Well, I don't say but what he'd be handy with a lightish load. Don't call him spavined, do ye?”

“No, perfectly sound.”
 “That looks kinder like a spavin'—rubbin' his off hind leg.”

“An't much of a boss doctor, be ye?”
 “Not much.”
 “Don't kick, dooz he?”
 “No.”

“Them little Kamucks is apt to kick.”
 Silence, and an impatient movement, which I work off by pulling out my watch.

“What time o' day 's got to be?”
 “Eleven.”

“Thunder! I must be a goin';—should like to trade, Squire, but I guess we can't agree. I s'pose you'd be askin' as much as—sixty—or—seventy dollars for that are hoss?”

“A hundred dollars is the price, and I gave fifty more.”
 “Don't say! Gave a'thunder'ng-ight too much, Squire.”

“Pat, you may put up the horse; I don't think the gentleman wants him.”

“Look o' here, Squire;—if you was to say—something—like—seventy, or—seventy-five dollars, now—there might be some use in talkin'.”

“Not one bit of use.” (impatiently)—turning on my heel.

“— Say, Squire,—ever had him to a plow?”

“Yes.”
 “Work well?”

“Perfectly well.”
 “Fracious any? Them Kamucks is contrary critters when they've a mind to be.”

“He is quite gentle.”

“That's a good pint; but them that's worked till they git quite kinder gits the spirit lost out on 'em— an't so brisk when you put 'em to a waggin. Don't you find it so, Squire?”

“Not at all.”

“How old, Squire, did ye say he was?” (looking in his mouth again.)

“Seven.”

“Well—I guess he is; a good many figgets nigher that, than he is to tew—any way.”

“Patrick you had better put this horse up.”

“Hold on, Squire, and taking out his purse, he counts out— seventy—eighty,—and a five,—and two,—and a fifty—there, Squire, tant worth talkin' about; I'll split the difference with ye, and take the hoss.”

“Patrick, put him up.”

At which the customer is puzzled, hesitates, and the horse is entering the stable again, when he breaks out explosively—

“— Well, Squire, here's your money; but you're the most thunderin' oneasy man for a dicker that I ever traded with—I'll say that for ye.”

And the horse is transferred to his keeping.

“S'pose you throw in the halter and blanket, Squire, don't ye?”

“Give him the halter and blanket, Patrick.”

“And, Patrick, you ant nary old curry-comb you don't use, you could let me have?”

“Give him a curry-comb, Pat.”

“Squire, you're a clever man. Got most through y'r hayin'?”

“Nearly.”

“Well, I'm glad on't. Had kinder ketchin' weather up our way.”

And with this return to general and polite conversation, the bargaining is over. It may be amusing, but it is not inspiring or elevating. Yet very much of the country trade is full of this miserable chaffering. If I have a few acres of woodland to sell, the purchaser spends an hour in impressing upon me his “idea”—that it is scattered and mangy, and has been pirated upon, and that wood is “dull,” with no prospect of its rising; if it is a cow that I venture in the market, the proposed purchaser is equally voluble in descriptive epithets, far from complimentary: she is “pooty well on in years,” rather scrawny, “not much for a bag,”—and this, although she may be the identical Devon of my Short-Horn friend. If it is a pig that I would convert into greenbacks—he is “flabby,” “scruffy,”—his “pork will waste in bilin.” In short if I were to take the opinions of my excellent friends the purchasers—for truth, I should be painfully conscious of having possessed the most mangy hogs, the most aged cows, the scrubbiest veal, and the most diseased and stunted growth of chestnuts and oaks, with which a country-liver was ever afflicted.

For a time, in the early period of my novitiate, I was not a little disturbed by these damaging statements; but have been relieved on learning, by farther experience, that the urgency of such lively falsehoods is only an ingenious mercenary device for the sharpening of a bargain. But while this knowledge puts me in good temper again with my own possessions, it sadly weakens my respect for humanity.

Amateur farmers are fine subjects for these chaffers; they yield to them without serious struggle. The extent and the manner of their losses, under the engineering abilities of these wiry old gentlemen who drive sharp bargains, is something quite beyond their comprehension. It would be well if harm stopped here. But this huckstering spirit is very leprous to character. It bestializes;—it breaks down the trader's own respect for himself, as much as ours. The man who will school himself into the adoption of all manner of disguisements about the cow he has to sell, will adopt the same artifices and quibbles about the opinions he wishes to enforce upon your acceptance. Let him mend by showing all the sparvins in the next horse he has for sale, (there will be some, or he would never sell;) and his reformation is not altogether hopeless.

Ploughing Match in Markham.

To the Editor of THE CANADA FARMER:

SIR.—A ploughing match came off on Wednesday the 20th of April, in a field in the occupation of Mr. Thos. Weatherill, lot No. 7, rear of 2nd con. Markham, confined to ploughmen residing between lots No. 10 and 20 in the 2nd and 3rd concessions. It was a purely local affair, got up by a few enterprising individuals in the neighbourhood, and was a decided success. The morning was beautiful and at an early hour the neighbourhood was quite in a state of excitement, large numbers of ploughmen and spectators wending their way to the field where the contest was to be decided. The ground having been carefully measured and divided, each ploughman drew his lot by ticket, and the healthful and manly contest commenced; at a given signal 14 ploughs started, 11 in the first class with iron ploughs, and 3 in the second class for boys under 20 years of age with ploughs manufactured by the enterprising firm of Patterson, Bros., Richmond Hill. There was a very keen competition between several of the ploughmen, and the judges Messrs. Rennie, Hood, Robinson, and Clark, themselves first rate ploughmen, had considerable difficulty in awarding the prizes. The ploughing as a whole was very creditable to all concerned, and would compare favourably with some of our large county matches. The following prizes were awarded to the successful competitors in the first class, 1st prize, \$6, Mr. John Helmky; 2nd prize \$5, Hugh McKinnon; 3rd prize, \$1, Wm. Coxworth; 4th prize, \$3, Geo. Phillips; 5th prize, \$2, Francis Helmky. The prizes in the second class were awarded as follows:—1st prize, \$3, Reuben Phillips; 2nd prize, \$2, Alexander Brown; 3rd, prize, \$1, Joseph Lambie. There was a large number of spectators on the ground and the day's proceedings passed off very pleasantly. Hoping that this may be the first of a series of annual ploughing matches in this section.

I remain yours &c., A CONSTANT READER.

SORE EYES.—A little alum boiled in a teacupful of milk, and the curd used as a poultice, is excellent for inflammation of the eyes.

It is mentioned by Mrs. Hannah More that in her time it was the fashion for ladies to ornament their hats not only with flowers but with fruit; and Garrick, to ridicule this fashion, had a hat made for a scene in a comedy, with turnips and carrots by way of ornament. We are coming to that, again.

AGRICULTURE feeds us; to a great degree it clothes us; without it we could not have manufactures, and we should not have commerce.—These all stand together, but they stand together like pillars in a cluster, the largest in the center, and that largest is agriculture.—*David Webster.*

A FACETIOUS gentleman, travelling in the country, on arriving at a road-side inn in the evening, was met by the ostler, whom he thus addressed:—“Boy, extricate that quadruped from the vehicle, stabulate him, devote him an adequate supply of nutritious aliment; and when the Aurora of morn shall again illuminate the oriental horizon I will reward you with a pecuniary compensation for your amiable hospitality.” The boy, not understanding a word, ran into the house, saying, “Master, here's a Frenchman wants to see you.”

Markets.

Toronto Markets.

"CANADA FARMER" Office, April 30, 1864.

Flour—Superfine at \$3 70 for shipment per barrel; \$3 80 to \$4 00 for home consumption; Extra \$4 40 to \$4 50; Fancy \$4 10 to \$4 20; Superior \$4 75 to \$5 10. Bag Flour \$4 00 per 200 lbs. Full Wheat, \$5c to 90c for common to good per bushel; 93c to 96c for good to choice; 95c to \$1 03 for Extra. Spring Wheat 75c to 80c and 82c per bushel; occasionally a load of extra brings 88c to 55c. Barley at 70c to 50c, and in one or two cases, as high as 53c per bushel. Oats in good supply at 35c to 38c per bushel, for common to good; 40c to 41c for good to extra, occasionally a load brings 42c to 45c. Peas 45c to 60c per bushel for common to good, 52c to 55c for good to extra. Hay \$5 00 to \$10 50 per ton. Clover Seed \$4 00 to \$5 25. Timothy Seed \$1 50 to \$2 50. Straw \$5 to \$6 per ton. Hides (green) at 4 1/2c to 5c per lb., the latter price for extra, trimmed 5c to 6c per lb. Calf skins at 5c to 10c per lb. Sheep skins at \$1 25 to \$1 50; the latter for extra. Lamb skins at \$1 25 to \$1 70, the latter for extra. Wool nominal—10c to 41c. Coal \$7 25 to \$9 per ton. Wood \$1 25 to \$5 50 per cord. Provisions—Hams 11c to 12 1/2c per lb. wholesale. Fitch Bacon 7 1/2c to 8c per lb. wholesale, 5 1/2c to 10c retail. Cheese, wholesale 11c to 12 1/2c per lb.; retail 20c to 25c per lb. Beef—Inferior \$5 to \$6 per cwt., extra, \$6 00 to \$6 50 per cwt. wholesale; 5c to 8c per lb. for ordinary; 9c to 10c for superior, retail. Calves scarce at \$2 to \$6 each. Sheep at \$5 to \$7 each, according to size and quality. Lambs \$2 to \$4 00 each. Butter—Fresh, wholesale, at 15c to 20c per lb., retail 20c to 25c per lb. Tub butter, dairy packed, 15c to 20c according to quality, wholesale, retail, 20c to 24c. Eggs—15c per dozen, wholesale, retail 15c to 17c per doz. Salt—\$1 75 to \$2 per barrel. Water Lime—\$1 50 per barrel. Potatoes—25c to 40c per bushel, wholesale, 45c to 50c per bushel, retail. Apples—Common to good, \$1 50 to \$2 25 per barrel, extra \$2 50 per barrel. Coal Oil—29c to 37c for Canada, 40c to 58c for Pennsylvania.

London Markets—April 25. The small supplies offering, and the usual demand at this period of the season for seed grain, have given firmness to prices, and occasionally a few cents rise upon extra samples, farmers who can will do well to take advantage of the opportunity. The depressing advices from Europe are too unfavorable to sustain rates after seed time is over. Fall Wheat, 85c to 90c for ordinary; 95c to \$1 for good to extra. Spring Wheat—good average samples at 75c to 80c, extra, 81c to 82c. Oats at 42c to 44c. Peas, 45c to 54c. Barley—none offering to quote. Seed Barley re-bags at \$1 per bushel. Grass Seeds—None offer on the market, but there is a fine supply in the stores. Clover \$5 to \$5 25. Timothy, \$2 to \$2 50. Tares, \$1 75. Milled and Hungarian, \$1. Flax—Canadian, \$1 75. Hay has been poorly supplied all the week, prime Timothy bringing \$11 per ton, inferior, and Clover, and Red top, \$6 to \$8. Straw very scarce, and wanted for bedding. Eggs plentiful at 7 1/2c to 8c per doz. Butter in fair supply, at 14c to 16c per lb., by the basket. Potatoes plentiful, large quantities coming in by rail, cups and coarse kinds at 50c per bushel; finer kinds at 75c to 80c.—Free Press.

Czech Markets—April 25th—Fall Wheat, 80c to 95c; Spring Wheat, 70c to 80c; Oats, 35c to 40c; Peas, 50c to 55c; Barley, 70c to 85c. Hay, \$6 to \$9; Straw, \$2 to \$2 50; Pork, \$5 to \$6; Beef, \$3 50 to \$5. Butter, 15c to 17c; Eggs, 10c to 12c.—Advertiser.

New York Markets—April 29—Flour—Receipts 10,000 bbls.; market dull and unsettled, 5c to 10c lower, sales 5,000 bbls. at \$7 20 to \$7 35 for superfine State, \$7 40 to \$7 55 for extra State; \$7 60 to \$7 80 for choice do., \$7 20 to \$7 45 for superfine Western; \$7 80 to \$7 90 for common to medium extra Western. \$7 70 to \$7 85 for common to good shipping brands extra round hoop Ohio. Canada Flour dull, at 5c to 10c lower, sales 300 bbls., at \$7 55 to \$7 75 for common, \$7 80 to \$9 for good to choice extra. GRAIN—Wheat—Receipts 225 bushels, market very dull and nominally lower, \$1 70 to \$1 74 for Chicago spring, \$1 71 to \$1 74 for Milwaukee Club; \$1 74 to \$1 78 for amber Milwaukee, \$1 78 to \$1 82 for winter red Western; \$1 83 to \$1 88 for amber Michigan. Rye firm at \$1 53 to \$1 58. Barley nominal. Corn—receipts, none, market dull and dropping, sales 14,000 bushels at \$1 38 to \$1 39 for mixed Western. Oats dull at 85 1/2c to 87 for Canada; 86c to 88 1/2c for State; and 80c to 87c for Western. Provisions—Pork firmer. Beef steady. Wool in New York—April 28—There was considerable excitement yesterday, and advanced prices, but the markets closed rather flat, in sympathy with trade matters generally. Quotations some what nominal. The following transactions were previous to today: Domestic Fleeces at 75c to 80c, including small parcels selected at 82 1/2c to 54c. Pulled, 75c to 80c for super and extra. California, 26c, 45c to 48c for Fall Clip, and 51c for fine Spring do., Mesuzza, 40c to 50c, Cordova, about 52c, Cape, 56c, and a small parcel do., 50c.

Oswego Markets—April 27th—Flour—With a good local, interior and western demand, the market is firm and better, but the supply is exceedingly light, and but little can be obtained at the quotations. We quote brands from No. 1 spring at \$7 50 to \$7 75, from red winter at \$8, from white at \$8 60 to \$8 75, and double extra from prime white at \$9 25 to \$9 50. GRAIN—The Wheat market continues quiet under the unsettled state of gold, and the demand is confined to the immediate wants of millers. No transactions this morning—yesterday p. m. white Canada sold at \$1 85. Corn unchanged; sales at \$1 25, which leaves the market pretty much bare. Oats held at 71c to 50c for State and Canadian, without sales. Barley quiet. Rye and Tares scarce, and quotations nominal. Indian Meal selling at \$1 30 to \$1 35 per 50 lb paper and cloth sacks. Mustard is selling at \$1 35 per bbl. Water Lime steady at \$1 60 per bbl. Salt—Market steady at \$2 for fine and coarse, \$2 10 for ground salt, and \$2 08 for factory milled. Sacks of 14 lbs. 15c. Fine and coarse for the Canada market, \$1 25 per bbl., and 14 lbs. casks 11 1/2c in gold.—Oswego Times.

Boston Cattle Market, at Cambridge and Brighton.—April 27th—Prices for 100 lbs. on the total weight of hide, tallow, and dressed beef. Beves—first quality, \$11 25 to \$12, second do., \$10 to \$11, third do., \$9 50c to \$10. Ewes and Pigs, \$12 50 to \$13. Working Oxen—\$100 to \$200, or according to their value as beef. Wethers—\$38 to \$50; extra, \$55 to \$75; ordinary, \$25 to \$35. Sheep and Lambs—\$8 1/2 to \$9 1/2 per lb.; extra fat and heavy, 9 1/2c

to 10c; sheared, 5c to 6 1/2c. Swine—Sheats, wholesale, 8 1/2c to 10c; retail, 10c to 12 1/2c per lb. Feat Calves \$4 to \$7 per head. Hides 10c to 10 1/2c. Calf Skins 20c to 25c. Tallow 9c to 9 1/2c. Pigs \$3 50 to \$4.

Boston Markets.—April 27th—Flour—The receipts since yesterday have been 5,083 bbls. The market is rather firmer. Moderate sales of Western superfine at \$7 75; common extra, \$7 87 1/2 to \$8 25; medium do., \$8 50 to \$9 25; good and choice do., \$9 50 to \$12 50 per bbl. GRAIN—The receipts since yesterday have been 650 bushels Oats, 4,000 do. Shorts. Corn is firm, with a moderate demand. Sales of new Southern yellow at \$1 45 to \$1 49, old Western mixed and yellow, \$1 48 to \$1 49 per bushel. Oats are in steady demand. Sales of Northern and Canada at 86c to 88c per bushel. Rye is selling at \$1 50 to \$1 55 per bushel. Shorts are scarce at \$48. Fine Feed and Middlings \$48 to \$52 per ton. Provisions—Pork is firm, with a fair demand. Sales of prime at \$22 to \$24, mess, \$27 to \$27 60, clear, \$29 to \$30 per bbl., cash. Beef is in steady demand. Sales of Eastern and Western mess and extra mess at \$16 to \$20 per bbl., cash. Lard is dull. Sales in bbls. at 14 1/2c to 15c per lb., cash. Hams are selling at 17c to 20c per lb., cash.

Albany Markets.—April 27—Flour and Meal—After the close of our report last week, the market became settled, but the demand gradually subsided and the business of the succeeding three days was confined to the immediate wants of the trade. On Monday a rain storm set in, which has continued up to the present moment, causing a freshet in the river and an inundation of the docks and pier. Canada \$7 75 to \$8 25. Canada extra, \$8 50 to \$9 50. Greats—There is a steady but moderate milling enquiry for Wheat, and with fair receipts the market rules firm. White Canada, Michigan and Kentucky \$1 95 to \$2. Rye has further advanced in value, and is held at \$1 45, at which sales were made yesterday. The demand for Corn exceeds the supply, and the market rules buoyant. The last sales of Round Yellow was at \$1 40 at the Central Depot, and \$1 39 to \$1 40 for old Western Mixed. Barley is without material change, and in rather limited supply. We quote ten rowed State at \$1 25 to \$1 35, four rowed do \$1 35 to \$1 45. Canada East \$1 35 to \$1 38, and do. West \$1 50. Provisions—Pork has further improved in value with a good demand. Sales new Mess at \$27 50, Clear \$29 50, and Boneless \$31. Beef has also improved in value. Sales State Mess at \$10 to \$12; do. Prime \$6 25 to \$7; Western Mess \$15; and extra do. \$17 20. Calf Meats have still an advancing tendency, with a good demand. Sales Shoulder at 14c, and do. Hams 7c. Smoked Beef is selling at 17c. Butter has declined, and the best in market now commands 25c to 30c. Lard firm and saleable at 15 1/2c to 16 1/2c in bbls and kegs. Cheese firm and in request at 18c to 18c. Dried Apples are higher and command 10c to 11c per lb. Wool.—The market continues to rule firm with an improving demand. The sales of the week foot up 38,500 lbs. including 13,000 lbs. No 1 Pulled at 70c, 21,000 lbs. new Flax at 75c, 2,000 do. at 70c, 500 very fine do. at 77c, and 2,000 Bln 4 at 63c.

Advertisements.



AGENTS WANTED, TO sell "THE PRACTICAL SHEPHERD," by HENRY S. RAY, D.D., LL.D., &c. P. R. RANDALL, Manager, Hall, Toronto.

IMPORTANT TO FARMERS.

COE'S SUPER-PHOSPHATE OF LIME, A STANDARD MANURE FOR ALL CROPS OF THE GARDEN AND FIELD.

It matures crops from ten to twenty days earlier, and wonderfully increases the yield. Price—\$50 per ton, or \$2 50 per 100 lbs., put up in barrels of about 225 lbs. each. Parties requiring small quantities can purchase it in boxes at \$1 and \$1 50 each. For sale by JAMES FLEMING & CO., Agent for the Manufacturers, Toronto.

THRESHING MACHINES.

I OFFER FOR SALE, on reasonable terms, NINE of the best THRESHING MACHINES ever made in Canada. They will be sold singly or together, and at prices lower than similar Machines have hitherto brought. Apply immediately to J. G. HARPER, London, C. W.

FOR SALE.

A NAYR-HIRE BULL, two years old, bred by J. P. Wheeler, Esq. Scarborough. —also— A PAIR OF HEAVY DRAUGHT HORSES. Apply to THOMAS A. MILNE, Markham Mills, May 2, 1864.

YORKSHIRE PIGS.

I HAVE a few for sale, full blood, large breed, sow selected in pig from the pen of C. A. Jordison, of Sidney. Pigs dropped 22nd instant. Address—P. W. MERRITT, Belleville, C. W. May 2, 1864.

1864. NOTICE. 1864. IMMIGRANT LABOR!

FARMERS, Manufacturers and others, requiring Mechanical Laborers, Farm or Domestic Servants, are requested to apply to any of the undermentioned Government Immigration Agents, stating the description of labor required, rates of wages, &c., when every exertion will be used to supply their wants. Toronto... A. B. Hawke, Chief Agent for C. W. Hamilton... R. H. Rao. Kingston... James Macpherson. Ottawa... W. J. Walls. Montreal... J. H. Buly. Quebec... A. C. Buchanan, Chief Agent. Proprietors or Agents having improved Farms or Lands for sale or lease, are invited to forward printed descriptions of the same, for the free inspection of Immigrants, and, in sufficient quantities, for general distribution. A. C. BUCHANAN, Chief Agent. Gov. Immigration Office, Quebec, April, 1864. 83t

SPRING PLANTING. TORONTO NURSERIES.

AS the season for planting is approaching, the proprietor of the Toronto Nurseries would call attention to the excellent stock which he has to dispose of this spring. It consists largely of the following—Standard and Dwarf Apples, Peas, Plums, Cherries, Peaches, Hardy and Foreign Grapes, Currants, Gooseberries, Strawberries, Esculent Roots, &c. In the Ornamental department will be found Deciduous and Evergreen Trees, Flowering Shrubs, Roses, Herbaceous Flowering Plants, &c. Especial attention is invited to the following articles, the stock of which is particularly large—Grape Vines, comprising all the new and hardy kinds; Roses, Hybrid Perpetual, in very great variety and quantity; Hedge Plants, viz., Buckthorn, Berberry, White Cedar, and Privet. The demand for Hedge Plants is steadily increasing, that for Buckthorn more especially, which is beyond doubt the best plant grown for fencing purposes. Spect men hedges to be seen at the Nurseries. Parties near town about to plant are invited to inspect the stock on the ground. Descriptive catalogues furnished upon the receipt of two cent stamps. Address—GEORGE LESLIE, Leslie P. O., near Toronto, 63t. April 1, 1864.

MOVABLE COMB-OBSERVING BEE-HIVES.

THESE Hives, combining every known improvement, are on exhibition and for sale at Agricultural Hall, corner of Yonge and Queen Streets, Toronto, and at the Shop of the Maker, on Charles Street. Price, \$7, \$10, and \$12, according to size.—Orders by post may be addressed to the manufacturer, P. A. SCOTT, Yorkville P.O. April 15, 1864. 72t

LANDS FOR SALE.

TWENTY THOUSAND ACRES OF LAND, both wild and improved, and at all prices, for sale in various townships throughout Upper Canada, cheap and on easy terms. For lists and particulars, apply to the proprietor, T. D. LEDYARD, Barrister, &c., South-west cor. of King and Yonge-sts., Toronto. Toronto, March 15, 1864. 54f

THOROUGH BRED STOCK FOR SALE.

I have for sale Six Durham and Four Galloway Bulls, from 9 to 23 months old, and a few Females of the above Breeds. Cotswold and Leicester Sheep, male and female. JOHN SNELL, Edmonton, C. W. 14f

FLOWER SEEDS.

JUST imported, including many novelties. Twenty packets, free by mail, for One Dollar. Warranted fresh and genuine. Parcels up to 1 pound in weight can be sent by post for 25 cents. Send for a list. W. T. GOLDSMITH, St. Catharines, C. W. March 15, 1864. 54f

THE CANADA FARMER is printed and published on the 1st and 15th of each month, by GEORGE BROWN, Proprietor, at his Office, No. 25 King Street West, Toronto, U. C. where all communications for the paper must be addressed.

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