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# THE CANADA FARMER;

A FORTNIGHTLY JOURNAL

OR

AGRICULTURE, HORTICULTURE, AND RURAL AFFAIRS.

This Journal has now entered, under the most favourable auspices, on the third year of its existence. It has amply fulfilled the hopes of its well-wishers. It is now universally acknowledged to rank among the best agricultural papers of America, and to supply just what was needed for the improvement and development of Canadian agriculture.

During the past year a department for BRITISH GLEANINGS has been introduced. Special attention has also been given to ENTOMOLOGY, a subject of great importance, in view of the losses occasioned of late by the farmer's insect enemies. These features will be continued, and in addition to them the following new ones:—1. A series of articles on the philosophy of farming, to be entitled: FAMILIAR TALKS ON THE PRINCIPLES OF AGRICULTURE. These will explain in a simple and practical manner the why and the wherefore of agricultural operations, and will form, when completed, a valuable farmer's manual. 2. A natural history department, consisting of descriptions of Canadian animals, birds, reptiles, and fishes. Life-like illustrations will accompany these articles. 3. Under the head of THE HOUSEHOLD, a series of articles on farm and garden management, with a special view of interesting the boys and girls in rural pursuits. 4. In compliance with the wish of a large number of subscribers, a table of contents will be furnished in each issue.

A very large sum has been spent on illustrations—larger than in any other similar publication—and this feature of the paper has been exceedingly attractive to all classes. Efforts will be made, during the coming year, to secure as much variety as possible in this department, and no expense will be spared where the labour of the artist and engraver can aid in making clear any agricultural and horticultural subject.

THE CANADA FARMER remains under the same editorial management as heretofore, and the utmost pains will be taken to add to its corps of contributors and correspondents.

In the conduct of THE CANADA FARMER, the following ends have been, and will be, zealously laboured for:—

- |  |   |
|--|---|
| <p>1.—To arouse public attention, by frank and temperate discussion, to all questions scientific, commercial, legislative or otherwise, specially affecting the farming interest.</p> <p>2.—To stimulate the agriculturists of our country to adopt an improved system of husbandry, by blending the lessons of modern science with the practical experience of the Canadian Farmer.</p> <p>3.—To bring under the attention of our farmers all improvements at home and abroad worthy of adoption, affecting the management of FINE CROPS—the BARN-YARD—the STABLE—the DAIRY—the ORCHARD—the POULTRY-YARD—the APIARY—the KITCHEN GARDEN—and the FLOWER GARDEN; and to excite an interest in the progress of Rural Architecture and Landscape Gardening, and all that concerns the Domestic Economy of the Farm-house.</p> <p>4.—To mark and report all improvements in Agricultural Machinery, foster new inventions, and promote the adoption of all labour-saving machines in the work of the farm and garden.</p> <p>5.—To keep prominently under attention all that specially concerns the Dairy-farmer and the Grazier—the best breeds of cattle—the best systems of feeding—the most approved processes of cheese and butter making—the best mode of packing—and the best market to sell in.</p> | <p>6.—To keep prominently in view whatever is specially interesting to the Sheep-raiser and Wool-grower—the breeds best adapted to our climate—the best systems of winter and summer management—and the varying prospects of the wool-market.</p> <p>7.—To afford the Farmers of Canada an ever-open medium for addressing their brother Agriculturists throughout the Province, suggesting matters of common interest and advantage, and eliciting information or advice on practical questions of difficulty or doubt.</p> <p>8.—To report concisely the Proceedings at Agricultural Shows, Fairs, and Sales throughout the Province—note the condition and progress of the Herds and Flocks of prominent Stock-breeders; record the importation of Thorough-bred Stock from abroad, and publish engravings of First-class Prize Animals.</p> <p>9.—To watch and report carefully and promptly the actual state and probable prospects of the Produce Markets at home and abroad; and specially promote all movements designed to secure the best prices in the best market for Canadian Farm Produce.</p> <p>10.—To afford the farmers of Canada a common medium where all who have for sale Live Stock, or Seed Grain, or Land, or who may wish to buy such, can make their desires known directly to the whole farming population of Canada.</p> |
|--|---|

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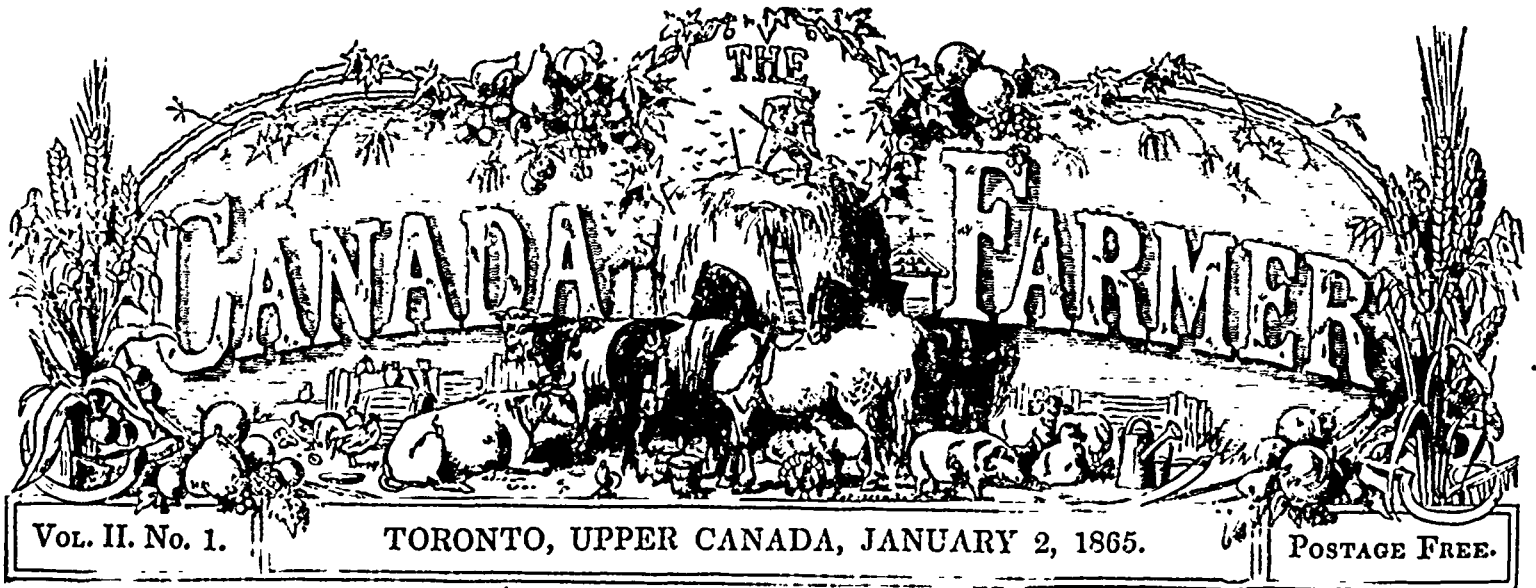
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Communications on agricultural subjects are invited, addressed to "The Editor of the Canada Farmer," and all orders for the paper are to be sent to

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## The Field.

### History of the Plough.

THE first plough is supposed to have been the rude branch of a tree, cut so as to have a cleft end, the point of which, dragged along the surface of the ground, scraped a furrow, into which the seeds were thrown. It soon occurred to the husbandman that he might relieve his own labour by yoking an animal to the long arm of this primitive instrument; then arose the necessity for a handle, affixed to the back, so that the plough might be guided. The strength of the animal soon wore away or broke the cleft of the branch, and this necessarily gave rise to the invention of means to attaching a moveable share, first of wood, next of stone, copper or iron, worked to a shape adapted to the cutting of furrows, so as to avoid the excessive labour from the ploughman's having to lean upon the plough with his weight to press it into the earth. Just such an implement as these conjectures indicate was used by the Saxons. Some of the facts connected with the plough are almost incredible. In Ireland there once prevailed a custom of "ploughing by the horse's tail." The draught-pole was lashed to the tail of the horse, and as no harness was employed, two men were necessary, one to guide and press the plough, the other to direct the horse, which he did by walking backwards before the miserable animal, and beating it on the head on either side, according to the direction required. This custom prevailed for a considerable time, in spite of a law which was passed in the early part of the seventeenth century, imposing severe penalties upon persons found guilty of "ploughing by the horse's tail," as in the act mentioned and described. From "Rev. Caesar Otway's sketches in Erris and Tyrawley" it appears that that barbarous practice lingered in the remote west of Ireland as late as the year 1740. And from a paper "On the breed of horses in Scotland in the Ancient Times," printed in the first volume of the Transactions of the Society of Antiquaries of Scotland, we find it in that country as late as the year 1792.

### The Extension of Flax Culture.

To the Editor of THE CANADA FARMER:

SIR,—It was with much pleasure I read the letter of your correspondent from the County of Grey, on this subject in your second issue of October. His suggestions are of great value, and worthy of general consideration with a view to their adoption. Flax culture can be generally extended in Canada by forming local associations or companies, under the Joint Stock Company Act, whose functions would be to distribute seed to the farmers, erect Scutching

Mills, and engage to purchase the crop from them at remunerative prices—the subsequent conversion of the crop being entirely managed by the companies.

I have heard that it is in contemplation to form a company in Toronto upon this plan; but there is no reason why other companies should not be formed in counties and even townships. There is room enough for all; and no fear of over-growing flax. England is now paying seven millions sterling to foreign countries for the raw material, and would pay as much more if it could be had. There is no practical limit to the linen trade, except the supply of the raw material. There need be no apprehension that cotton will displace flax. Linen is being cheapened by manufactured processes and mechanical improvements, and cotton can never be purchased at the low prices to which the slave labor of the Southern States reduced it in the British market. The war in the United States will never terminate except by the extinction of slavery. Now is the opportunity for the Canadian farmer, and all others, interested in promoting the welfare of the country, to push forward the flax interest. There is no mystery in flax growing; but to those seeking information, either in the culture or with a view to the formation of local associations, assistance will be readily furnished on application to Box 143, Toronto.

FLAXMAN.

Toronto, 29th Nov., 1864.

### Why Hedges are Scarce in Canada.

To the Editor of THE CANADA FARMER:

SIR,—In your issue of Nov. 1st, your correspondent "H.P.H.," in his zeal for "Hedge Plants," and anxiety to see the farms of Canada divided by "Hedge Rows" with some kind of shrub of which, I think, he himself has but very imperfect conceptions, denounces the whole class of farmers as being "too lazy and too short-sighted to give the subject attention." To pronounce such an opprobrious opinion on the farmers of Canada is, I think, going a little too far, and is what they do not as a class deserve.

Although numerous experiments have been made with different plants, there has not been one found yet, that I am aware of, that has been considered worthy of general cultivation for that purpose. What the *White Willow* may do as yet, we are unable to say. The *Osage Orange*, about which there was such a cry a few years ago, has proved to be too tender. Even "the hedge-row thorn plant of the old country," as "H. P. H." denominates it, and which he says is "above all others" for that purpose, though it has been cultivated in several places in Canada by "competent hands" has been cut down by wholesale in some situations by the inclemency of a single winter. Any person may have a demonstrative proof of this fact by visiting some farms in the neighbourhood of Newmarket. Whenever there is a plant introduced into Canada that will make a good hedge and with-

stand the asperities of the climate, I have no doubt it will receive the attention and careful cultivation of a large portion of the farming community. If your readers will take the trouble to turn over the pages of THE FARMER and read a statistical report of the Agricultural productions of Upper Canada as given by Col. Johnston in his excellent address at the close of the late Provincial Fair at Hamilton, I think they will acknowledge that the "sons of the soil," as a class, are far from being a "lazy" set of men.

A FARMER.

Port Oshawa, Dec. 20, 1864.

SAWED VERSUS CHOPPED WOOD.—As the value of wood is increasing, it becomes important to prepare it for market in the most economical manner. There is much waste of chips in chopping cord-wood, and besides that, a cord of wood is worth more and will go further, cut with a saw, than if cut with an axe. In chopping a tree two feet through, there is a waste of more than six out of every forty feet in reducing it to four feet lengths. Were the same tree cut by a saw, the waste would be only some two and a-half inches. Wood-sawing machines can now be had at no great cost, adapted to the same horse-power as drives the threshing-machine; and farmers who already own such horse-powers, would find it to their interest, if they have timber to spare, and a wood market near, to supply themselves with a saw-mill. The saving in the wood is surely an item worthy consideration, but in addition to that, machine labor is cheaper than hand labor. In the winter season, there are many spare days when the teams might be advantageously employed in wood-cutting for the market, as well as for the family supply.

WOOD SPLITTING.—A little common-sense philosophy would facilitate this operation very frequently. Everybody knows or ought to know, that trees increase in size by the deposit of a layer of sap between the bark and body of the tree, which sap changes to wood. One such concentric layer or ring is formed every year. Now it is easier to separate these layers than it is to split across them. The former method is called "splitting slab-fashion," the latter "splitting through the heart." Although there is no perceptible difference in splitting some kinds of wood, yet every one can see that in harmony with the law of wood growth, splitting "slab-fashion" will, as a general rule, be the easier way.

ROOTS AND THEIR MOUTHS.—A correspondent of the *Valley Farmer* very well observes, that roots, even the finest of them, have mouths, intended to eat and drink, and therefore they ought to be abundantly supplied with food and moisture. These mouths cannot talk; if they could, how often they would complain that they are left without appropriate supply. The soil should be enriched, so as to be a well-filled storehouse whence the roots of plants can draw what they need.

## Experience in Flax Growing.

To the Editor of THE CANADA FARMER:

Sir,—Various communications having appeared in your columns, uniformly showing that Flax was a very profitable crop, I do not think it right to withhold my experience, which is of an opposite character. By way of trial, I last spring sowed a small plot which parties interested in a flax mill told me was peculiarly suited to its growth. The soil was a soft, black muck, spiced with sand, and it produced what, judging by various other plots, would be called an average crop.

Something over two day's work sufficed to pull it. It was taken to the mill and sold at \$14 per ton (the usual price here) and I pocketed the proceeds amounting to 95 cents. After making due allowance for land rent, seed, and labour, it seems to me that the margin for profit is rather small. While I can get at least an equal weight of hay per acre, and have it cut for 60 cents, I most respectfully decline to pull flax in handfulls at the same price per ton.

It is very easy to show great profits in flax culture, by quoting its manufactured value. It would be equally fair to reckon the value of an iron mine by the price per ton of watchsprings. To compare the labour of harvesting wheat, with that of harvesting flax, will appear absurd to any practical man. I find this to be the uniform testimony of those who have experience, though they are not very apt to chronicle their discomfitures. E. M.

Sidney, Hastings Co., C. W.

NOTE BY ED. C. F.—Our correspondent has not stated his "flax experience" very clearly. More minute details as to the quantity of land, mode of preparation, cost of labour, nature of the season, &c., would have made his communication of more value. We insert the letter, though it is vague and meagre in some respects, because the writer intimates that we have thus far only given the bright side of flax culture, and we desire to show a readiness to give a dark side also, if there be one.

## "Topping" Trees.

TREES which originally grew in the forest, and have been left standing when the forest was cut, are ill calculated to endure the exposure. They are generally tall and slim, with a small development of root in proportion to the top. This makes them liable to be blown down by high winds. Deprived of the shelter of the neighbouring trees, and of the natural mulching of leaves which every Autumn gave them, they are quite apt to become diseased. A good remedy for these evils is *topping*—cutting off a good portion of the top. This removes the danger from winds, and in most cases will give vigor and long life to diseased trees. It impairs their beauty for a time, but will eventually result in improving them, for new branches will be sent out, and a good top formed. We have seen Oaks, Maples, Elms and Beeches so treated, and know that they are saved from decay, and improved in appearance. Autumn is the best time for performing the work. Large trees may have from twelve to twenty-five feet of the main trunk cut off, and the ends of the lower side branches cut to correspond. Smaller trees should be cut less severely.—*Western Rural*.

THE corn crop of Minnesota the present season is an unprecedented success. We question whether a State in the Union can boast of as fine a crop of corn as Minnesota can the present year. A much larger number of acres of this valuable grain seem to have been planted this year, and from every quarter we learn there is a most wonderful yield. Not an ear has been touched with frost, and the fodder, so much prized for stock, is generally saved in excellent order. Let us be thankful.—*Chatfield Democrat*.

APPLYING MANURE.—Mr. Patten, of Hightstown, N. Y., informs the *Country Gentleman* that one-third of a field in strips received an autumn dressing of manure at the rate of about 12 or 13 loads per acre. A second portion was manured in the spring with an equal quantity, and a third was dressed with guano, at the rate of 300 pounds per acre. The crop on the fall manured part was about three times as good as on that manured in the spring. The guano gave an intermediate result. The second year guano was applied over the whole, and the third year the growth on the autumn manured portion was decidedly the best; the second best was on that which was guanoed the first year; and the poorest of all was on the spring manured portion.

ILLINOIS COTTON.—The editor of the *Peru Herald* was presented, a few days since, with a sample of this season's cotton, raised in Illinois. The fibre, he says, is as fine as that raised further South. The owner of the plantation from which this sample was taken, has 250 acres under cultivation, which will average nearly one bale per acre, and at the present price per pound, he will make clear of all expenses, one hundred thousand dollars. From this experiment, who will not say that eventually the southern part of Illinois will yield large quantities of this indispensable agricultural product, and at a profit equalling any other crop? It is found by experiment, this season, that the cost of the cultivation of cotton does not exceed that of corn or other staple agricultural products.

SEEDING MARSH LAND.—I have had some experience during the last five years in reclaiming Michigan marsh land—on a small scale,—and am willing that others should be benefited by my experience. I have tried a variety of experiments, and have now good timothy growing on muck five feet thick, where five years ago nothing grew but the rankest, coarsest kind of sickle grass. The subsoil is clay. A part of it has been mowed two years, yielding a very heavy crop of the best kind of hay. If farmers will exercise a little common sense, and a great deal of perseverance, I think they will succeed. If I had another marsh to subdue I should proceed as follows: First—Draw off the surface water, but nothing more. Deep draining leaves the land too dry. Second—If it could be ploughed I should mow it in August, take off the grass and then turn it over with a sharp plough; harrow well and put on the seed—pure timothy. If it could not be ploughed, or if I had not time to do it, I would sow any kind of grass seed that I could get most easily, each spring and fall mowing and renovating the grass and weeds each year until I got something better than sickle grass. Stock of all kinds should be kept off.—*L. M. Rose, of Hillsdale County*.

SOW MORE RYE.—Farmers would find it greatly to their interest to sow more rye. For winter and early spring pasturage, it is very valuable. All kinds of stock like to get a green nibble whenever it can be obtained in winter—and in spring it will furnish good pasturage before it can be obtained elsewhere. It is not only as food for stock that we urge its cultivation, but it is of great value to the soil as a preparation for some other crop. It is almost equal to a coat of manure if the green crop is ploughed in, in the spring. The soil is full of the roots of the plant, and there is also the coat which covers the surface, and if these are well turned in by the plough, they ferment and decay, and consequently enrich the land. The coating will also prevent, to a considerable extent, the washing of the land by the severe rains of winter. The crop, if not ploughed in, is a paying one. If our readers will put in a few acres of rye, they will not fail to sow it every fall hereafter. It should be sown at the same time and in like manner as fall sown wheat. It is not necessary to bestow the same preparation of the soil as for wheat, unless one feels disposed to do so.—*Valley Farmer*.

COMSTOCK'S ROFARY SPADER.—The accounts published during the past season of the success of this implement at the West attracted considerable inquiry as to where it could be procured. From our advertising columns it will be perceived that Mr. Bidwell, of Pittsburgh, Pa., has undertaken its manufacture on a large scale. A *Pittsburg* paper says:—"We will not attempt a mechanical description, but will simply add that the spader is a pair of wheels with a series of steel forks pivoted at equal distances around their circumference, and which are so governed by stationary cans on the axle outside the wheels as to produce the same entrance in the soil and lift as the spade fork in the hands of a man. It has the appearance of a small wagon drawn by horses, mules, or oxen (the forks being attached to the hind wheels), and throws up the dirt behind as it advances, somewhat as water is lifted and thrown by the paddle-wheel of a steamboat, and is thrown in and out of gear at the option of the driver. The entire machine is as simple as a common seed-drill, and fully as easily understood and managed. It is built principally of steel and iron, and there is nothing about it to get out of order. It is capable of spading at least three times as much as one plough, besides one man or boy doing what would require three or four. The work is also better done, and with more ease. Mr. Bidwell is known as one of our most extensive plough manufacturers, and has facilities equal to any in the United States. He will leave no effort or expence undone to make the spader both a durable and profitable improvement to farmers."—*Country Gentleman*.

BEAT THIS WHO CAN.—On the farm of Mr. Robert Wilson, lot 20, 11th concession of Wawanosh, in a seven acre field of turnips, hundreds can be found weighing from 20 to 25 lbs., and one white globe that weighed 31 lbs.

## Experiment with Bone-dust.

RESPECTED FRIEND—In thy last thee reminds me of my promise to report the effect of bone-dust upon my farm crops. I had not forgotten the promise, but want of time must plead my excuse for delay. So far I can report its actual effect upon oats, corn, potatoes, and broom corn; and as it was mainly applied to, but not for the oats, I will begin with that crop.

The field had been through the usual rotation of hay and pasture, followed by corn, of which it yielded about 50 bushels per acre without any manure. It contained exactly 9 acres, 1 rood and 23 perches, by actual survey, and was about one-half ploughed during the fall of 1863, and the remainder during the spring of 1864. Upon each half I laid off one acre for potatoes, and, after sowing and harrowing in the bone-dust, drilled in the seed at the rate of 2 bushels and 1 peck per acre. The amount of bone-dust averaged about 600 lbs per acre, varying from 800 lbs. on one side, to 400 on the other. Some of my friends had led me to suppose that the dust would exhibit little or no effect during the first year, and hence I applied it more with reference to the wheat crop than to the crop which immediately succeeded the application. The result will show the fallacy of this idea; but I must not anticipate matters.

In my account I have the crop charged with work done and material furnished as follows:—

Fall ploughing	\$9 75
Spring ploughing	10 60
3,000 pounds bone-dust	63 75
Sowing bone-dust	6 50
Harrowing	5 25
Drilling	4 75
Seed	12 75
Harvesting	21 25
Threshing and marketing	23 50
Interest on cost of land	15 60
	\$172 60

To counterbalance this, I have the field credited with:—

257 bushels of oats, at 82 cents	\$235 34
260 do do 81 do	210 60
12 tons straw (estimated) at \$3	36 00
Chaff	6 00
	\$546 94

A comparison of these two sides of the account shows a profit of \$372 44.

This will answer thy first question, "Will the application of bone-dust to a rented place pay?"

The second question, "Will heavy applications of bone-dust pay as well in proportion to the expenditure as light ones?" I would answer in the affirmative, and will next spring practice what I preach by using it upon corn and oats at the rate of from 800 to 1,000 lbs. per acre.

As before stated, that portion ploughed in the fall was top-dressed with bone at the rate of 600 to 800 lbs. per acre. This was harvested threshed and marketed separately from the other and showed a yield of exactly 81.1 bushels per acre, and weighed 32½ lbs. per bushel. The remainder of the field, owing more to its situation than anything else, (being a dry hill-side) did not yield so well, reducing the average of the whole field to 75½ bushels per acre.

Some of my neighbours predicted a crop badly "laid," but I noticed that although in some parts of the field the straw was five feet long, it was not "laid" near as much as some other fields in the neighbourhood to which no stimulant was applied. What might have been the effect of a storm I cannot say, but the straw was much stiffer than common for oat straw, and seemed to partake more of the nature of that of wheat.

The potatoes, in addition to the bone-dust, had a dressing of barn-yard manure at the rate of 10 loads per acre, spread and ploughed in; and in spite of a bad season produced a very good crop, which has not yet been measured.

There asks more particularly "for its effect upon corn." Last spring I put in with corn a field containing about seven acres. One-half had been in with corn in 1863, and produced a medium crop only; consequently the corn of this year on this part of the field was "second crop," a term which very nearly corresponds with "half a crop." A trial of half an acre showed a yield of 62 bushels of ears and 10 of nubbins. This corn was dressed with a mixture of 300 lbs. of bone-dust, 200 of phosphate, and 2 bushels of plaster per acre, and in addition to the corn the plot has now growing on it a heavy crop of turnips from seed sown just before the last hoe-harrowing, which, in spite of the past bad root season, has made a fair to good crop.

The remainder of the field was clover sod of two years' standing, and after a good fall ploughing was top-dressed with dust at the rate of about 400 lbs. per acre, and put in with corn, broom-corn and sweet potatoes. A trial acre of the corn yielded 162 bushels of good ears, and 5 of nubbins or soft corn; in fact, upon the whole acre there were but about one dozen

ears which would not have kept well in the crib. A repeated trial of the basket used shows that 10 baskets will shell 5½ bushels of corn.

Of the broom-corn there was one-half acre, which produced a good crop of corn, and also a moderate one of ruta bagas from seed hoe-barrowed in as with the second crop of corn.

I cannot too strongly recommend this plan of sowing turnip or ruta baga seed, and covering it with the last hoe-barrowing. Should the season be at all favourable it will produce a fair crop of roots, and in all cases a good piece of late pasture. But more of this hereafter.

Hoping that these will find an answer to all thy questions in the above, I will subscribe myself—Thos. J. EDGE, in *Germantown Telegraph*.

It is said that a German chemist in Buffalo has discovered a process by which molasses can be profitably manufactured from Indian Corn.

**FEMINE FARMING.**—A Mrs. Harrington, of Dayton, Newaygo County, in this State, aged about 61 years, has raised, doing all the work with her own hands during the past season, 30 bushels of potatoes, 100 bushels of corn, 1½ bushels of peas, 10 bushels of onions, 5 bushels of beans, 4 bushels of beets, 5 bushels of carrots, 100 heads of cabbage, pickled one-half barrel of cucumbers, and earned nearly \$100 by washing, since the 1st of March last. The result of this woman's labours was quite good enough for the hardest working man.—*Western Rural*, (Detroit, Mich.)

**DITCHING WITH A PLOUGH.**—A correspondent of the *New Hampshire Journal of Agriculture* says: In the first place, I plough two furrows, and throw them out; this makes the ditch wide enough at the top. I then plough two more, and throw them out. The ditch is then twelve or fifteen inches deep, and one ox can no longer walk in it with the other on the surface. I then take a stout piece of timber, five or six inches square, (a round stick would do as well), and twelve or fifteen feet long. I lay this across the ditch, and hitch a yoke of oxen to each end, so that the timber serves as a long whiffletree, with the plough chained in the middle; and as the ditch grows deeper, the chain is let out longer. In this way, there would be no trouble in ploughing six feet deep. The only difficulty is in keeping the oxen nearly abreast, as it is new work for them. But by taking light furrows at first, they soon learn. After running the plough through two or three times, throw out the loose earth and plough again.

**SOAR SUDS.**—A writer in the *Germantown (Pa.) Telegraph* says:—The value of this article as a stimulant of vegetable life cannot be too highly appreciated. It contains the aliment of plants in a state of ready solution, and when applied, acts not only with immediate and obvious effect, but with a sustained energy which pertains to few even of the most concentrated manures. When it is not convenient to apply it in irrigation—the most economical method, perhaps, of using it—it should be absorbed by some material which may be used as an ingredient in the compost heap. Soda, muck, and other similar articles, should be deposited where the suds from the sink and laundry may find its way to them, and be absorbed, for the benefit of crops. In this way several loads of manure, suitable for the support and sustenance of any crop, may be made at comparatively small expense. The highly putrescent character of this fermentable liquid qualify it admirably for the irrigation of compost heaps of whatever material composed. Being a potent fertilizer, it must, of necessity, impart additional richness to almost any material to which it may be added. Try it, and mark the results.

**A NEW SUGGESTION IN REFERENCE TO CLOVER PASTURES.**—We have seen a statement recently put forth that cattle pastured mostly on clover breed poorly, and that luxuriant clover pastures are a fruitful source of the trouble that is often had in herds, of the cows "coming in" late. The fact—if it is a fact—is new to us; but if there is any truth in the statement, some one in this great dairy district will be able to confirm it, and we should be glad to receive communications touching the matter from any one who has reasonable grounds for suspecting any such influence from clover pastures. Clover is one of the most valuable of all our forage plants for promoting a flow of milk, and cows that run in luxuriant clover feed are likely to put on flesh. Animals in high flesh, it is well understood, are not so good breeders as those in fair condition. Apart from this, we see no reason why clover should operate differently in the matter than other grasses. The statement needs confirmation, and if there are any facts that can be brought forward that will go to show any such bad influences to be the result of feeding on rich clover pastures, we should be glad to print them for the benefit of the dairy public.

## Sheep Husbandry.

### Expedients in Sheep-feeding.

THE flockmasters of Great Britain are racking their brains for expedients to make up for the failure of the root crops the present season. A *Practical Farmer* writes the following communication to the *Farmers' Magazine*, and some of the suggestions in it may not come amiss to our sheep-keeping readers.—

The winter management of sheep is a subject of high importance for any time, and for any winter; but how much more so for the winter now so near at hand—the winter of 1865—a winter which we have to face and struggle through without the usual supply of succulent ("green food") for our flocks! We are not particularly apprehensive for our herds and horses. We have plenty of good, well-got straw, and a small quantity of hay; these, with the usual artificial and ordinary foods, will suffice to bring them safely through, if not to greatly improve them. It is the all-important question, How are the sheep to be wintered without their natural food? with which we have to do I am by no means wiser than my brethren, nor can I offer, I fear, any positive or valuable suggestions; but the recurrence to the subject in the *Mark Lane Express* cannot fail to do good.

Solomon said, "In the multitude of counsellors there is wisdom." In looking over the columns of the *M. L. E.*, and that of a contemporary, the other day, I was greatly interested, and I think instructed, by the hints and suggestions of the various correspondents relative to the best modes of carrying the sheep flock through the ensuing winter. Some of them are quite unique, others somewhat fanciful; but the bulk of them are of a decidedly useful and businesslike character. I am old enough to remember the exceedingly dry summer of 1818, but not with sufficient accuracy to adduce anything from it beyond this, that we were then almost without a knowledge of artificial foods, and their use and management. We grew but small quantities of Swedes, not many turnips, and no mangolds; consequently, in these respects the present season would be comparable to it. One thing, however, should be named—we now produce a far larger number of animals to be provided for. How, then, is this to be done in the forthcoming season, being in the like predicament of our forefathers of 1818? Now for some of the modern suggestions, which I may be excused for quoting, and that briefly. One who may be depended upon says: "We always kept the ewes, until lambing, on peastraw and a little corn; this year they must have a double portion of the latter instead of Swedes." Another writing from a district where folding is practised, says: "They must walk over the field, stopping a night in each fold, and eat a small quantity of clover hay there cut into half and mixed with corn and linseed-cake." Another says: "We have one great advantage over 1818—the pulper and chaff-cutter must be brought into extensive use.... Steaming straw makes it more palatable; but watering the chaff and allowing it to stand a few hours will answer the same purpose.... I have been giving my lambs a pint of crushed oats daily.... I am making enquiries as to the price of low quality of sugar.... Brewers' grains, malt dust, bran, and pollards, I shall have to mix with cut chaff." Another says: "Linseed-cake, at £12 per ton, is an extravagant food. Bran, at 5 gs. a ton, is far more economical. Lentils and Indian corn, both at present to be bought at 3s. to 3½s. per qr., are cheap food. Wheat, again, is a cheap article to mix with Indian corn.... Twelve pounds of Swedes, thoroughly mixed with chaff, will be found sufficient for a sheep.... We use only the best green rape-cake, subjected to solution at a temperature not less than 212° (boiling heat)." Another says: "I have used a considerable quantity of wheat these last three years, mixed with peas or beans, barley or oats, ground together, with a very little linseed-cake.... The thing is not to give too much of one thing." Another says: "Beans in the straw are good for foddering on grass; the lambs will pick up every bean leaf and pod." Our old friend, Samuel Jonas, says: "I use straw-chaff largely. I have seven barns which used to be filled with corn, which I now use entirely for straw-chaff; they now contain at least the straw produce of 200 acres of wheat and oats cut into chaff last spring. I mix with the chaff, when cut, some green tares or rye cut into chaff, and salt also; and have a gang of six boys treading the chaff into the barn as it is carried in, so as to fill it as solid as possible; this causes a fermentation, and the chaff so expands from the heat that we are obliged to strengthen the outer walls by bars and iron rods across the buildings, and the chaff is as sweet as hay.... It is astonishing the value of old chaff so made

as compared with new fresh cut." (We know our friend loves a joke; surely his barns are safe?) "Molasses (treacle)," says another, "has been strongly recommended to me." Another advises mixing up the chaff with cold water, and let it be twenty-four hours before using; "another, 'of cutting a mixture of straw and hay with chaff, damping it with boiled linseed,' afterwards adding meal, &c. Another says: 'We put our lambs on coiled till the end of the year, and then into yards to eat mangolds.' Our old friend and useful pioneer Mechi, says: 'For our ewes, malt combs, bran, a little cake, and pea straw will carry them through the winter, especially with a pint or half a pint of Indian corn.'

Well, after all, there appears to be no sufficient substitute for a lost root-crop, and the question recurs as strongly as ever, What is to be done? The great facts are still the same. Sheep cannot thrive upon less than from 10 lbs. to 1½ lbs. of succulent food daily, and we can scarcely believe that they can be wintered in this country on dry fodder of any kind. The latter hypothesis we have yet to prove. The recommendations for the winter's management most of course be very general. We have been blessed with fine harvest weather, and every crop of hay and straw has been got in most satisfactorily. These will of course form our chief dependence. We have also a good potato crop, which may be made useful for cattle food, and set more of the little stocks of mangolds, turnips, &c., at liberty for the flock; and they may also, upon a very pressing emergency, be given to sheep with good results.

One of the hints I would give is in relation to cost. Every farmer has his chaff-cutter, nearly all have their turnip-cutters, many have pulpers, some have steaming apparatus, and a few have mills and crushers, &c. I want farmers to use, as far as compatible with economy, the means they have. It is the easiest thing in the world to spend money upon inadequate machinery and apparatus. It is equally easy to spend or throw away money upon artificial foods. The arable produce of a farm, as a main feature, should this year be sold to the stock. What is cheaper than wheat at £8 or £9 per ton, or beans, peas, barley, or oats at proportionate cost? taking care to administer all properly. The chaff-cutters must for this season be continually at work. Every particle of hay or straw designed for food should be cut into chaff, and if given out sparingly, and without waste, will form the chief dependence of the winter. If damped a little, and meal is strewn or scattered over it, the food is excellent for any stock. Those who have steaming apparatus would do well to steam a portion, and then to mix. Dry chaff, however, is very palatable, and in wet seasons soon gets damp enough in our field troughs. Unless great care is observed in steaming or damping chaff, it is as well to be used dry; but for the retention of the scattered meal, it is better to be damped. The meal may be made from any of our cereals, also Indian corn; but wheat-meal should not be given alone to any extent. A slight sprinkling of salt on the chaff would, however, correct any deleterious effects of the astringent wheat-meal. The flock should never be supplied with stale food, and the troughs must be kept clean and sweet. If the farmer is fortunate enough to possess a stock of mangolds, turnips, &c., however small, he should eke it out daily to his sheep, but more particularly to his lambs. All should pass through the pulper, but, failing that, use the turnip-cutter. I of course assume that the lamb flock at least must this winter be fed wholly with what is termed here *trough meal*. The aim, then, must be to make it as wholesome and nutritive as possible. The various additions of linseed-cake, cotton-cake, locust-beans, lentils, &c., and also coarse sugar, treacle, salt, &c., will all aid greatly in promoting safe progress in the sheep; the chief care being in their administration. And here, as in all other cases, the best judgment of the farmer must be his guide. The separation of the lamb flock should be adopted. The weaker lambs should be separated from the stronger ones, and placed upon advantageous ground. Great attention should also be given to ascertain that each animal does freely eat; if not, it must be removed, and by some means or other be tempted to take the food provided. Warmth will be a great desideratum this season. There are so few turnip fields to stock, that each flockmaster may choose the layer for his flock. It would, therefore, be folly to oblige them to lay on cold unhealthy lairage, particularly whilst living on scanty rations.

**WILLOW LEAVES AMONG FODDER.**—A distinguished agriculturist, of England, recommends the mixture of willow leaves in all kinds of fodder. Osier peelings may also be added with advantage. The mixture of the leaves and peelings above mentioned will be particularly useful in preventing the rot, a disease so prevalent among sheep in winter, from making its appearance.

The Breeder and Grazier.

THE CANADIAN HORSE.

The splendid engraving on this page, exhibits in the foreground, an excellent portrait of the celebrated prize horse "Anglo-Saxon," and shows in the background, the residence and surroundings of the proprietor of this fine animal, Mr. William Weld, of Delaware. This gentleman, who modestly styles himself a "backwoods farmer," has shown a great deal of judgment and enterprise in the improvement of his farm-stock, and having, at considerable outlay, ably the best thing of the kind ever got up in Canada. It was drawn on wood by Mr. Ferris, and engraved by Mr. Damoreau, the artists who have been employed upon the illustrations of THE CANADA FARMER, since its commencement. The original wood-cut is a wide and beautiful border, and in order to reduce the price to one size or one of our papers, we have, with Mr. Weld's permission, had an electrotype taken of the horse and scenery, minus the ornamental appendage. The full sized engraving, printed on fine paper, and mounted on card-board, may be had of Mr. Weld for a small sum.



"ANGLO-SAXON."

possesses a number of "Anglo-Saxon," and being justly proud of the horse, has had a large and expensive engraving of him executed, which is unquestionably the best thing of the kind ever got up in Canada. It was drawn on wood by Mr. Ferris, and engraved by Mr. Damoreau, the artists who have been employed upon the illustrations of THE CANADA FARMER, since its commencement. The original wood-cut is a wide and beautiful border, and in order to reduce the price to one size or one of our papers, we have, with Mr. Weld's permission, had an electrotype taken of the horse and scenery, minus the ornamental appendage. The full sized engraving, printed on fine paper, and mounted on card-board, may be had of Mr. Weld for a small sum.

"Anglo-Saxon" is a Cleveland Bay, a valuable breed of horses, a full account of which will be found elsewhere in our present issue. He was raised in Trafalgar, was sired by Anglo-American, Anglo-American by King Alfred. Anglo-American's dam was sired by Bond Eclipse; Anglo-Saxon's dam was by Forester, grand-dam by Wellington. When two years old, "Anglo-Saxon" was purchased by Mr. Jas. Armstrong, of Yarmouth, from whom his present owner bought him at a very high figure. He took the first prize at the Provincial Exhibition in 1860, as the best three-year old colt. In 1861, '62 and '63, he took the first prizes as the best roadster and carriage horse. In the same years, he took the two Prince of Wales' prizes, the Gold Medal and Diplomas, showing against any horse of any age or breed. Mr. Weld informs us that he is a sure stock getter, that his colts have taken prizes at every place where shown; and though he was not shown at the last Exhibition, the judges admitted that there was no horse there that could compete with him. Mr. Weld is an energetic, experienced farmer, and keeps pure bred Cotswold, and Cheviot Sheep, Ayrshire and Durham cattle, and improved Berkshire swine.

### The Cleveland Bay.

THERE has been much controversy whether the Yorkshire, or as they are now more generally termed, Cleveland Bays, should be recognised as a pure and distinct breed, some regarding them as a mixed race, having been formerly employed as pack horses when many of the roads in England were impassible for carriages during a portion of the year. Whatever may have been the origin of this variety of the horse, we are now disposed to regard it as a distinct breed from all others. The colour of these animals, and the general uniformity of their points, warrant the conclusion that the breed is not now a mixed one. The Cleveland Bays owe some of their most valuable properties to crosses with the race horse; hence they have long been distinguished as hunters, roadsters, and for the various purposes of draught. As strong, active carriage horses they stand, perhaps, unrivalled, and where combined action and strength are required, they are well suited for the work of the farm. It is stated when the roads of England were much inferior to what they are at present, that three of these horses would draw a ton and a half of coals, and sometimes more, travelling sixty miles in 24 hours, without any other rest but two or three baits upon the road; and they would frequently perform this labour four times a week; a circumstance clearly indicating good action and power of endurance. In the county of Cumberland, where considerable numbers of the lighter description of horses have always been bred, Cleveland stallions have been much used. These of late years have somewhat given way to thorough-breeds, the produce between which and the Clydesdale mares, well selected, not unfrequently turn out valuable carriage horses. The broad, and, as the dealers say, "rather too useful" characteristics of the dam, are, however, apt to manifest themselves here and there unduly, to the prejudice of style and uniformity. A safer plan appears to be to select a Cleveland mare, a cross between that and Clydesdale, or between the latter and blood, to put to the thorough-bred horse. Stallions of the right qualities are not easily to be met with, the present system of breeding too exclusively for speed, having materially deteriorated the form of common thorough-breeds for country use, which are now too commonly seen as weedy, low shouldered, narrow made animals, approximating in some degree to the shape of grey hounds.

The old English coach horse has now become entirely an animal of the past; he was long and heavy, usually of a black colour, round shouldered, a prancing action, his pace a slow trot, seldom exceeding four or five miles an hour. The modern

coach horse is a very different animal, adapted to the modifications that have since taken place in the state of the roads and social intercourse. He is a large high bred animal, with a large infusion of blood accompanied by sufficient muscle and bone required for draught. The general tendency of late has been to breed horses of lighter form and quicker action, both for the saddle and the carriage; adapted to the less bulky vehicles and improved roads of the present day. In this way a more suitable animal for the saddle and lighter carriage was obtained, and also to some extent, at least, for farm labour, and the blood of the race horse has thus been insensibly but most beneficially diffused through the general mass.

"Of the varieties of coach horses," observes Professor Low, "one in general estimation for private carriages is the *Cleveland Bay*. It is termed Bay, from the prevailing colour, derived from approximation to the superior races, and Cleveland, from the fertile district of that name situated in the North Riding of Yorkshire on the Tees. About the middle of last century this district became known for the breeding of a superior class of powerful horses, which, with the gradual disuse of the heavy old coach horse, became in request for coaches, chariots, and similar carriages. The breed, however, is not now confined to the district of Cleveland, but is cultivated through all the great breeding districts of this part of England, although Cleveland yet preserves its preeminence, and supplies with stallions the parts of the kingdom where superior coach horses are raised.

"The true Cleveland Bay may be termed a breed, from the similitude of characters presented by the individuals of the stock. It has been formed by the same means as the hunter, namely, by the progressive mixture of the blood of the race horse with the original breeds of the country. But a larger kind of horse has been used as the basis, and a larger standard adopted by the breeder. By coupling a race horse with a draught mare, an animal will be produced partaking of the properties of both parents and which may be employed as a coach horse. But the results, as was before observed, of such a mixture are uncertain, and the progeny will probably be wanting in just proportion of parts. Many carriage horses are doubtless produced in this manner, but many of them, if their history were told, have been found to be worthless. To rear this class of horses the same principles of breeding should be applied as to the rearing of the race horse himself. A class of mares, as well as of stallions, should be used having the properties sought for. It is in this way only that we can form and perpetuate a true breed in which the properties of the parents shall be reproduced in their descendants. The district of Cleveland doubtless owed the superiority which it continued to maintain in the production of this beautiful race of horses, to the possession of a definite breed, formed not by accidental mixture, but by continued cultivation.

"The demand for these horses has long been very great in London and all the more opulent towns of the kingdom, and the number carried abroad is large. The English purchasers generally require the bay stock; but the foreign dealers do not reject what are called the vulgar colours, and therefore carry away many horses which could not be sold in England but at a low price.

"Although the Cleveland Bay appears to unite the blood of the finer with that of the larger horses of the country, in the degree sufficient to combine action with strength, yet modern taste has been continually refining upon this form of coach horse by adopting a lighter standard. The Cleveland Bay, having arrived at a certain degree of breeding, can receive, without the violence of too extreme a mixture, a still further infusion of the blood of horses nearer to the race horse. Many of them are accordingly crossed by hunters and even thorough-bred horses, and thus another variety of coach horse is produced of lighter form and higher breeding; and, in truth, many of

our superior carriage and four-in-hand horses are now nearly thorough-bred."

Youatt in his treatise on the horse, in reference to the Cleveland breed observes:—"From less height and more substance we have the hunter and better sort of hackney, and from the half bred, we derive the machineer, the poster, and the common carriage horse; indeed, Cleveland and the vale of Pickering in the East Riding of Yorkshire, may be considered as the most decided breeding countries in England for coach horses, hunters and hackneys. The coach horse is nothing more than a tall, strong, over-sized hunter. The hackney has many of the qualities of the hunter on a small scale.

"Whether we are carrying supposed improvement too far, and sacrificing strength and usefulness to speed, is a question not difficult to resolve. The rage for rapid travelling was introduced by the improvement in the speed of the racer, and for a while it became the bane of the postmaster, the destruction of the horse, and a disgrace to the English character."

Before the commencement of the railway system in England, the average rate of mail coaches on the principal roads was ten miles an hour, including stoppages, which, however, were very short—the changing of horses occupied only three or four minutes, and the length of the stage or drive would seldom exceed half a dozen miles. It should always be borne in mind that it is the pace that breaks down the horse more than the mere weight which he is required to draw and the duration of his labour. The general diffusion of railways in England and other countries, has produced a great change in relation to the horse, and must have mitigated his sufferings to a degree difficult to conceive. Short stage coaches, it is true, have been consequently much increased, and it is doubtful whether the number of carriage horses has been diminished by the railway system; but the fast and cruel driving that characterized the period immediately preceding the introduction of that system, has in a great measure given way to the superior force of the iron horse, and to the inexpressible relief of the living one.

The Cleveland Bay is but very little known in Canada, or indeed on this continent. It is most desirable that a fair trial should be given him, for he promises to be a useful animal among us. As most of our farmers require a horse of good size and action that can draw a plough or waggon on the week day, and a light carriage on a Sunday or holiday, the Cleveland appears to be an animal well suited to their wants; and we shall be glad to be informed of the opinions of those who have tested these matters by practical experience.

### Killing Hogs.

KILLING hogs is a business in which the whole community is interested, and perhaps a small proportion acquainted with. It is termed "butcher'ing," and is often carried on in butchering style, while it is a business worthy of being conducted in a decent and scientific way. I do not propose going into a long programme of telling how to catch a hog, and how to hold him, etc., but to throw out a few hints.

Do not suffer the hog to be run and worried by men, boys and dogs, getting his blood and flesh heated just before he is killed. I believe this is one cause of meat spoiling. Sometimes we drive a hog or two to a neighbor's, so as to "kill together," as it is termed, making use of the same force, same fire, and other fixings; and we have known the hams and shoulders of hogs thus driven to come out a little "short" before the next summer was over.

Let the hog be killed with as little noise, worryment and excitement as possible. A Jerseyman has one man to go to the pen, selects his first victim, and shoots him, or with a brood-faced hammer (like a shoemaker's hammer) knocks down the hog, when other men come immediately and stick, others drag

out, and go to scalding; and so on, with a large number of hogs.

Scalding machines have become very common, and are a good institution; but everybody has not got one, and will use tubs. I like the tub and want nothing better for ordinary times; but I want a rope and tackle and one or two hands to help to work the hog. I would not allow a hog put into hot water, while there is a sign of life in him; but when dead make an opening to the gambrel strings and hook in, hoist the hog and dip him head and shoulders into the scald; do not let him remain more than a second or two, lest his hair "set;" hoist him and air him, and if needful, dip him again and again till done; then hook into the lower jaw, and scald the hinder parts. I like slow scalds the best, as less likely to "set the hair." While the hind parts are getting scalded the face may be cleaned. Too little attention is generally given to cleaning the head, as also the feet, leaving them for the women to worry over by the hour in some cold out-kitchen. As soon as the hog is hung up and washed off, let the head be taken off, and set upon a barrel or block, and regularly shaved and cleaned.

And now, while speaking of the head, I want to say how I cut up a head. I lay it on its side and take off the jaw (or lower jaw.) I then saw down across the face, just above the eyes, but careful to run into the eye sockets, and on through, leaving the eyeballs with the snout end, so that there is no further trouble with gouging the eyes out of the face-piece; then without further separating of the parts, starting between the ears, saw up and downwise, not caring to extend further down towards the snout than to the saw-mark across the face, but clean through at the other end. Now, having done with the ears for handles I cut them off, then take out the brains for pickling—skin the snout, and take off the flesh for scrapple, and throw the nasal organs away. The faces are to be corned. I use a saw but never an axe in cutting up a hog, consequently the meat is clear of splinters and chips of bones. In "clining a hog" to cool, I saw down the ribs instead of hacking them with a hatchet. A small-sized hog hook flattened answers very well for taking the hoofs and too nails off a porker; or you may use a pair of pinchers.—*Cor. Ger. Telegraph.*

### To make Cattle Eat Straw.

I TAKE this method of informing the many farmers who have stock to feed that if they try the way suggested below, I venture to say, it will give better satisfaction than any other.

In the first place, we never thresh our grain until the corn fodder is all fed. The fresher straw is fed after threshing, the better cattle will eat it. When threshing, all the straw that can be is crowded back into the barn before it gets wet; besides a good share need not go out at all, as it can be thrown on the mow from the separator. I separate all the chaff from the straw that we possibly can, as chaff is considered as good as hay. As soon as the separator leaves the barn floor you have room for the chaff, which we feed the first thing after stalks.

Now comes the feeding of straw, by mixing it thoroughly with hay, say about one-half of each. It may be thought a great deal of work, but after trying it you will find it easy enough, especially when you see how nicely your cattle will devour it. The way I do it is this: I throw down upon the barn floor, at night feeding, as much hay as will feed the stock night and morning. I then spread the hay first on the floor, shaking it well, so that it will readily mix when you come to apply the straw. Now spread the straw as evenly as possible over the hay; then commence at one end with a fork and shake the whole until it is thoroughly mixed. The best way is to go over it twice. When it is thus prepared feed it out. The balance is all ready to feed in the morning.

Another benefit is derived from shaking the hay—the dust is all removed which is known to be injurious to all domestic animals. The grass seed that can be collected by sweeping the floor once a week and running through the fanning mill, is quite an item. We always have grass seed enough for our own use and to sell by managing in the above manner. The straw that is refused (there always will be some if the cattle are fed as they should be) in the manger can be used for bedding, as it will be all the better for its being quite short. My father, an old Swiss farmer, says this is the method practiced in his country, and, you know they boast of having sleek cattle in Switzerland.—*Cor. Wis. Farmer.*

THE *Country Gentleman* says that scraping the horns of oxen on the inside will make them curve outward or vice versa.

**CATTLE** of all descriptions, horses, calves, and sheep, may be led by making a slipping noose and fastening it to the lower jaw, passing the rope (which must be small) around the neck and through the noose on the jaw. It is a very easy way of leading a sheep, one not being obliged to go behind and "push." After once pulling, the sheep will follow right along with no trouble. It costs nothing extra. Try it.

**HORNLESS CATTLE.**—It is the practice of some farmers, to cut off the horns of heifer calves, and sear the wound with a hot iron, to make them fitter companions for sheep. The result is, that the horns either do not grow at all, or but very slightly and irregularly. We are informed also, that cows thus made hornless, have repeatedly borne calves upon which no horns ever grew.

**LARGE SOW.**—H. M. Carty, near Shepherdsville, Ky. has a black sow—a cross between the Berkshire and Neapolitan—which measures 6 feet 4 inches from tip of nose to root of tail, and 5 feet 10 inches around the girth; and she is not "fat," having run at large and subsisting mostly on mast for the last two months. She is black, with very little hair on her body. Her present owner gave \$30 for her in Nashville last summer, and paid \$10 more for transportation.—*Country Gentleman.*

**"DIRT FLOORS" FOR STABLES.**—In summer the feet of horses which are little used, or those used only upon hard pavements or dry roads, often become very dry, hard, and hot, especially if they stand upon wood or stone floors. The wood floors are not only dry but they absorb urine, which decomposes, evolves ammonia, and promotes this effect. An improved remedy for this is to take up the wood and lay a stone floor of small cobble-stones in cement, slanting slightly to the rear; then to fill in the stall 6 inches deep at the rear, with sand or sandy loam, leaving it slanting to the front. Enough of this should be removed and renewed daily to give the horse a bed of clean, dry, but not drying, sand. Little bedding will be needed, and the feet will soon gain a natural moistness.—*American Agriculturist.*

**CHEAP MODE OF FEEDING HORSES.**—J. Fish, of Baldwinville, N. Y., writes to the *Rural New Yorker* that he has a horse, five years old, used as a family carriage horse, which is frequently let to his neighbours. His labour is considerable. In the morning he feeds a bushel basket of cut out straw; moistens it with water; throws in four quarts of shorts, mixes thoroughly, and feeds. At noon, gives straw again, and two or four quarts of shorts clear. At night, mixes hay and straw—equal parts of each—cuts a basketful and mixes shorts again as in the morning. Feeds also all the potato and apple parings, cabbage leaves, etc., to him. His horse is free from cough, lively, healthy, and fat; and this practice he is confident saves him 50 per cent. the cost of keeping a horse the usual way—cost about three minutes' time per day. This is an important item in these days of high feed.

**CROSS OF THE MOOSE WITH COMMON CATTLE.**—A writer in the *N. Y. Observer*, in answering a Nova Scotia correspondent who asked if "any one is known to have successfully attempted the crossing of the moose with domestic horned cattle," says:—"I have to state that about thirty years ago I saw in a stable in the Bowery, New York, a large animal of such a cross. It was a noble one, and of fine proportions, standing over six feet in height. It was sent to England as a curiosity. Its mother was an ordinary domestic cow which fed on a farm, I think, in Canada or near Lake Champlain, in New York, where she made the acquaintance of the male elk or moose, roaming wild in the forest." Another correspondent writes:—"Theoretically, we should not expect animals of so entirely distinct families to cross, and practically I have found this so with the elk and common cattle."

**WHY ANIMALS TO BE EATEN MUST BE KILLED.**—It is universally understood that animals which die from disease are not fitted for our markets. It is also understood that when cattle have been overdriven, their meat is notably inferior to that of healthy animals, unless they are permitted to recover their exhausted energies before being slaughtered. Why is this? The first and most natural supposition respecting those which die from disease is that their flesh is tainted; but it has been found that prolonged agony or exhaustion is quite as injurious, though in these cases there is no taint of disease. M. Claude Bernard propounds the following explanation:—In all healthy animals, no matter to what class they belong, or on what food they subsist, he finds a peculiar substance analogous to vegetable starch existing in their tissues, and especially in their liver. This substance, *glycogene* or liver-sugar, is abundant in proportion to the vigor and youth of the animal, and disappears entirely under the prolonged suffering of pain or disease. This disappearance is singularly rapid in fish, and is always observed in the spontaneous death of animals.

But when the death is sudden none of it disappears. In a rabbit, killed after suffering pain for five or six hours, no trace was found of the sugar-forming principle, and its flesh has marked difference in flavour. The same remark applies to exhausted, over-driven animals; their muscles are nearly deficient in *glycogene*, and yield a decidedly larger percentage of water than muscle in normal condition. M. Bernard likewise finds that animals which are suffocated lose more of this sugar-forming substance than similar animals killed in the slaughter-house. To this let us add the fact, that the blood of over-driven animals will not coagulate, or coagulates very slowly and imperfectly, and we shall see good reason for exercising some circumspection over the practices of our meat-markets.—*Animal Scientific Discovery.*

**CASHMERE GOATS.**—The *Country Gentleman* says:—A correspondent in Alleghany county sends us a beautiful sample of the fleeces of these animals. It is from a flock owned by Mr. JAMES H. McNALL, of North Star, who imported eleven head of Cashmere goats in the autumn of 1863. The correspondent says:—

"These goats have passed triumphantly through one of the hardest winters we have ever seen and stood it as well, if not better than sheep that were sheltered under the same roof, and received the same attention in every respect. They not only stood their long and tedious journey last summer, endured the piercing storms of winter, but have also raised their kids, (some of which were dropped in extremely cold weather in March,) and yielded each between three and four pounds of beautiful glossy silk-like fibre, a sample of which I enclose. On the different animals the fibre varies in length from 10 to 15 inches. From appearance here now, I think the goat enterprise will be a success, and Mr. McNall will not only be well repaid in this branch of his stock-growing, (he is also a Spanish and Texel sheep-breeder,) but will have the thanks of the community for introducing animals of this kind in these cotton scarce times. He has ordered 20 head more, to be here October next."

**PIG LOVE FOR A KITTEN.**—A New York paper says:—"One of those singular cases of attachment which we hear of between animals of the most dissimilar natures, exists between a pig belonging to Mr. John Grover, of this city, and a half-grown cat. Shortly after purchasing the pig and placing him in his new quarters, a kitten less than two weeks old accidentally fell into the porker's premises. The pig, instead of eating the puny intruder, as most of his relatives would have done, seem pleased with her company, and showed her every attention consistent with his hoggish nature. How she was sustained during the first few weeks, when she needed a mother's care, no one knows; but kitty soon made herself at home, and was always to be found stretched upon the pig's back, or, in what appears to be her favourite position, on the top of his head, between his ears, when he lies down to rest. He rises with great care so as not to displace her. When he walks about, she sits quite at ease upon his back, and when he takes his food she walks slowly down to the tub and eats slowly with him, sharing, as it would appear, his 'bod and board.' He seems to take pleasure in caressing her with his snout, and when she gets in his way, gently removes her with the same hoggish member. He appears to watch over her with a jealous care, attacking any one who may enter the sty to molest her. The case is as well authenticated as it is remarkable."

**CLEANING ROOTS BEFORE FEEDING.**—Roots are usually fed to harned cattle without cleaning, and although we cannot now point directly to any case of disease as the result of such feeding, yet it must be evident that the dirt consumed is of no benefit, but on the contrary, is more or less injurious. We should always prefer that the roots be cleaned before feeding, and this can be easily effected by a root cleaner, which any farmer can construct in a few hours. The most simple device for this purpose is an octagon box revolving on gudgeons and turned with a crank, similar to machines for cleaning castings used at the foundries. It may be made to hold two or three bushels, and is constructed by taking two pieces of plank for the ends, and sawing them into octagons two feet four inches in diameter. On these sides, strips of boards two and a-half feet long and ten inches wide, are nailed, leaving a space or opening at the corners of an inch or so wide, for the dirt to drop out. One of the sides is on hinges, and is used as a place for introducing the roots. It is then hung upon gudgeons, on one of which is fitted a crank. Two bushels of roots may be thrown in at a time, where they are cleaned by slowly revolving the box, a few turns being sufficient to wear off the dirt, leaving the roots clean as if they had been washed. It is a simple affair, which any farmer can make in a few hours, and to those who grow roots for stock feeding, will save many days of disagreeable work, while the health of stock must be promoted by its use.—*Utica Herald.*

## The Dairy.

### Cottage Cheese.

MANY of our readers who have had to purchase cheese at the rate of twenty-five cents per pound, or what amounts to about the same thing financially, have had it for sale at this price, would doubtless be glad to know the best way of making a cheaper substitute—and one which, by the way of variety, would be preferred to common cheese. A family which has the milk of one cow in summer, may enjoy a plentiful supply; and occasionally during the warm weather of winter, if the room where the milk is kept favours coagulation, a pleasant treat may be sometimes obtained.

A skilful house-keeper, at whose table we have frequently enjoyed well made cottage cheese, furnishes us with the following directions for making the two best kinds. There are worse modes, which we prefer to omit. The ball cheese is made as follows:—Mix the curdled or lopped milk with an equal quantity of buttermilk, and place them over the fire in an iron vessel. The mixture should remain till it becomes hot, but not scalding, for if it is boiled, the cheese is spoiled, and the work is foiled. It must be "severely" watched at this time, and as soon as it begins to curdle, and the whey appear, take it from the fire. Put it in a bag and let it drain until the next day. Then mix enough salt with it to give it a proper flavour, and add either cream or butter to give it a proper consistency to work into balls—the cream to render it softer, or the butter to harden it, as the case may be. This is a good kind of cheese, but the following is better:

Pour boiling water from a tea kettle spout into the pan containing the lopped milk, beating it all the time with a spoon, until it begins to granulate and the whey separates. About one-fourth of the quantity in hot water is usually sufficient. Then empty it into a collander, and let it drain about ten minutes. Pour on a quart or two of cold water, and as soon as this drains off, apply salt enough to give it an agreeable taste. Put it in a dish for the table. Some persons prefer the addition of sweet cream when served. This kind of cheese is quite sweet—the first described has some acidity from the presence of the buttermilk, and on this account is frequently preferred by the sick.—*Country Gentleman.*

### Milking Qualities.

Mr. DENT, M. P., who is now Steward of Stock at the Shows of the Royal Agricultural Society, in his report of the Newcastle Exhibition, calls attention to the importance of extending greater encouragement to milking cattle, instead of making the meat-producing qualities supreme. He says:

It may be no easy matter for the Society to offer prizes which shall encourage the milking properties of cattle, but I think that both breeders and judges have too much lost sight of this quality in their desire to produce the utmost symmetry of form with early maturity. We may, indeed, go further, and ask how many of our high-bred cows can rear their own calves. Beautiful as were the classes of female Short-Horns at Newcastle, there was not one amongst them that we could expect to fill a pail with milk. And yet if we return to the early history of their race, we find Mr. Bates describing one of his early cows as yielding for some months, on grass alone, butter and milk to the value of £2 2s. per week; and of others he speaks as having the same property to a less extent. I cannot, therefore, but think that if our great breeders had applied their energy and skill to improve the families in which these good qualities were united, we might have had Short-horns, not perhaps so perfect in symmetry, but of a more useful character, capable of producing plenty of milk and butter, and likewise of breeding calves—which would, in duo time, fill the feeder's stall to his satisfaction.

**COWS LEAKING MILK.**—A cow may be cured of leaking milk by bathing her teats, previous to her making bag, with melted tallow, every three or four days till she calves. It can be done after milking as well, when the bag is empty. There is an article called Collodion or Liquid Cúicle, which may be obtained of druggists. Apply this to the end of the teats after milking the cow. It at once forms a thin, tough skin, and closes the orifice. At the next milking, this skin can be broken through, and after milking, the Collodion then applied. After a few applications in this way, the defect will be cured, and no more need be applied.

## The Manufacture of Swiss Cheese.

WE are indebted to the *Utica Herald* for the following:

"To the dairy public Vienna may perhaps be somewhat noted for having erected within its limits a factory for the manufacture of Swiss Cheese. The factory stands just on the edge of the town below Taberg station, near the junction of the two branches of Fish creek, and is owned by the Blossvale Cheese Association. The building is 84 feet by 31 feet, and has a stone basement or cellar under the entire structure 7½ feet high, where the cheese are kept cured. This factory receives the milk from 155 cows, the average daily delivery being some 2,900 pounds, which makes three cheeses per day, each weighing about 100 pounds. The cheeses are pressed two sizes, 32 inches and 28 inches in diameter, but uniformly 5½ inches high, and the cheese must be at least three months in curing before they are fit for use.—The milk is made up night and morning, and is put in a copper kettle holding 160 gallons, and rennet added when the temperature of the milk indicates 81 degrees. This copper kettle hangs upon a rudo crane, and swings over the fire place or back into the room as is desired. After the milk is coagulated, a circular wire cutter, attached to a long handle, is introduced, and the curd broken up, and the whole mass is stirred like pudding until sufficiently cooked. The kettle in the meanwhile is swung over the fire and heat applied until the mass indicates 125 degrees, when the crane moves the kettle back into the room and the stirring is kept up for half to three quarters of an hour, or until the curd is cooked down about like that for ordinary cheese. A strainer is then introduced under the curd and the ends brought together, when the whole mass is removed from the kettle, leaving the whey behind, and immediately put to press. It remains in press about two hours when it is removed and plunged in cold water for two hours or until cold enough, when it is again put to press and kept pressing some four hours or more. In pressing, light adjustable hoops, made of thin strips of elm, are used, with cords arranged on the ends so that the size may be contracted or expanded. These hoops are kept on the cheese during the process of curing, and serve in lieu of bandage. No salt is used in the curd, but when the cheese is taken to the cellar, dry salt is sprinkled daily over the cheese for three months, and after that every other day. These are the leading features in the manufacture of this kind of cheese.

"At the time of our visit there were in the cellar 160 cheese, as uniform and as handsome as any cheese could be made, not a crack or blemish of any kind to be seen. Every two or three days the cheese are washed with brine, and this removes any mould that may be inclined to form or adhere to the rinds. One and one-half cents per pound are charged for manufacturing, the patron furnishing all materials used. Samuel Cribbs and brother are the manufacturers, and the manner of making the cheese, as well as all the apparatus in use, such as presses, hoops, kettle, etc., are after the same pattern as in Switzerland, of which the Messrs. Cribbs are natives, and where they formerly made this style of cheese. Mr. Cribbs thinks the milk furnished at the factory is richer than the milk in Switzerland, and that the quality of his cheese is superior to any of his manufacture in that country. He thought vats and heaters with presses, &c., after the American fashion, could be got up that would be more convenient than those in use at the factory, and seemed to regret that they had not been adopted in the first instance. This kind of cheese we are informed is considered a great delicacy by those who have acquired a taste for it, and that it usually brings a slightly advanced price over cheese manufactured after the ordinary manner. No sales for the season had yet been made. Mr. Cribbs says a very palatable butter can be made from the cream of the whey, after the following manner, which is generally adopted in Switzerland: The whey while sweet is highly salted, and then put over the fire and boiled, when the cream rises and is taken off and put in a tub until it cools. After a sufficient quantity is obtained it is churned in the ordinary way, and makes a kind of butter which is palatable and very much liked by those who are in the habit of using it. At this factory it takes about 10½ lbs. of milk for one of cheese. The milk is mostly furnished from farms on 'The Forks,' and on the bottom lands of Fish creek."

**A GOOD COW.**—The New Hampshire Journal of Agriculture states that a cow, (claimed to be "native,") belonging to Mr. B. Gray, produced with no extraordinary feeding, 143 pounds of butter from April to July 1—three months—"in addition to a supply of milk and butter for his small family, which must have equalled a pound or two a week."—*Country Gentleman.*

## Veterinary Department.

### Internal Structure of the Horse's Foot.

THE internal or sensitive structure of the foot consists of bones, ligaments, tendons, cartilages, nerves, blood-vessels, sensitive laminae, sensitive sole and frog, and the coronary substance or ligament. The last three were briefly described in a recent number. The bones of the foot are the coffin, navicular, and the coronet or small pastern bone; the latter is only partly within the hoof. The coffin bone is exceedingly hard and porous, and is divided into the wall, the sole, tendonous surface, articulation surface, and wings. The wall is the part in front, and in shape is similar to the wall of the hoof. It presents a number of perforations; the largest ones are for the transmission of blood-vessels and nerves, the smaller openings are for the attachment of the sensitive laminae. The sole is slightly excavated, and to it is attached the sensitive sole. The sole also presents a roughened portion for the insertion of the perferans tendon, on each side of which is a groove called the plantar groove. The wings consist of two protuberances, projecting from the posterior part of the wall. The wings are divided by a notch into two portions; the upper one of the two receives the name of the basilar process, to which is attached the lateral cartilages.

The navicular or shuttle bone is very small, and is situated under the wings of the coffin bone. Its superior surface is smooth, the lower surface is rough and covered by fibro-cartilage, forming a bearer over which passes the tendon. The cartilages of the foot receive the name of lateral cartilages, and are two broad cartilaginous plates, situated upon the wings and sides of the coffin bone, and extending upwards; the superior half extends as high as the pastern joint, and is perceptible to the feel.

The sensitive laminae are situated upon the wall of the coffin bone, and appear to be a continuation of the coronary substance. The laminae number about five hundred, each consisting of a plait or duplication of substance. The superior extremity springs from the coronary substance, and the lower extremity disappears in the sensitive sole. The inward sides of each plait are inseparably united, and to its outward side is attached the horny or insensitive laminae. The laminae are not so highly organized as either the sensitive sole or sensitive frog. The tendons forming part of the foot are the inferior extremities of the extensor pedis and flexor pedis perferans tendon. Only a small portion of the former is within the hoof. The latter passes into the hoof behind the lateral cartilages, and passes over the navicular bone, becoming inserted into the sole of the coffin bone. The foot is liberally supplied with blood, which is derived from the plantar arteries, which pass down the lateral sides of the pastern bones, giving off branches on their passage. They descend through the sensitive frog until they reach the wing of the coffin bone, and are then continued along the groove on the inner side of the wing, entering the foramen at each side of the tendon, and terminating in the circular arteries, from which spring two sets of arteries—the anterior laminal and the inferior communicating arteries. The former pass out of the first row of openings on the wall of the coffin bone, and are distributed amongst the sensitive laminae. The latter descend through the lower row of openings on the wall, and above its edge they unite to form the circumflex artery running around the toe. The blood leaves the foot by a set of blood-vessels called veins; these are numerous and arranged in plexuses, which are superficial and deep-seated. The superficial plexuses are the solar, the laminal, and the coronary. The solar plexus is on the solar surface of the foot, and are remarkable for the great equality of their diameter. The branches of this plexus terminate mostly in a large vein called the circumflex vein, which accom-



panes the circumflex artery. The lamina plexa are situated on the laminal surface of the wall of the coffin bone, some of the branches passing into the circumflex and others joining the coronary. The superficial and deep-seated unite to form the plantar veins, which ascend in front of the plantar arteries; above the fetlock they unite and form an arch from which spring the metacarpal veins. The nerves of the foot are distributed similar to the arteries, but are not so numerous. Having now completed our account of the anatomy of the horse's foot, we shall in our next have something to say of the diseases to which it is liable.

## Rural Architecture.

### Convenient Buildings Needed.

To the Editor of THE CANADA FARMER :

SIR,—Having been raised on a farm, and being a practical farmer still, I beg leave through the medium of your very useful paper, THE CANADA FARMER, to make a few remarks on farm establishments and rural affairs in Canada. In most cases the family mansion seems to be comfortable, and is often somewhat gaudy; but there seems almost an utter want of out-houses. A big barn like a church perhaps is built, but where is the byre, or if that is not a classical word, a house to bind up, feed, and milk cattle in, the boiler house for boiling the roots, chaff, &c.? Such houses are necessary about every farming establishment worthy of the name, not only as a means of preparing succulent food for stock during the winter months, but as a sure way of destroying the vitality of the seed of all weeds that have grown among the crops the preceding season. Every one acquainted with agriculture in other countries must have observed that weeds grow more plentifully both in the United States and Canada, than in Europe. And how can it be otherwise when all the weed seed is drawn out with the manure, or blown from the threshing machine in every direction by the wind. Another want your correspondent has observed in many cases, and that is a cart-house, to put under cover, waggons, carts, barrels, harrows, and other farm implements. For want of such a house, more farm tools are wasted by the weather than are worn out by wear. Moreover, no farming establishment can make any pretension to completeness without a milk-house, with proper fixtures: for of all modes of farming, your correspondent thinks we of Canada are farthest behind in the management and attention we pay to the dairy. Without live-stock housed and attended to in winter, we cannot have manure, and without manure we cannot continue to raise good crops; so that both stock and crops must be looked after in order to make farming profitable in any country. Some will say that all these erections on a farm are too expensive for most farmers to put up; but utility is the first thing to be thought of in farming as in other pursuits, so that your correspondent is one who would endeavour rather to have these fixtures on his farm, than to have a carriage standing at the house-end, or a carpet on the floor within.

I.

Willow Bank, Sandwich.

### Plan of a Barn.

To the Editor of THE CANADA FARMER :

SIR,—In planning a barn it is desirable to get the most possible room adapted to a great variety of purposes, according to circumstances, at the least possible expense. Such was the aim in the planning of a barn recently erected by me, a description of which I propose to give to your readers. It is only suited to a side hill situation where the altitude is fifteen or more feet. The barn is 60 x 36 on the ground, and 33 feet high to the plate. It consists of basement seven feet high, first story twelve feet high, and second story fourteen feet high. Each of these three flats is divided into three spaces. The middle ones 36 x 24 feet, and two side spaces 36 x 18 ft. in each story. The middle space in the upper story is the driving floor. It is entered from a bridge by two doors, so that loads may be driven beside each of the mows. These mows extend downwards twelve feet below the floor when required. They may even be extended to the ground, thus making a total depth from the peak of 45 feet. The middle space of the first story consists of a floor 24 x 24, used principally for chaff storage, and

a granary 24 x 12, in front. The granary has six bins, 4 x 8, extending upwards to the next story; three being on each side of a passage 8 feet wide, extending from rear to front. The bins are usually filled from the floor above, and have spouts from which the bags are filled. The bags are slid down into the wagon or sleigh which stands on a level with the basement below. The middle space of the basement accommodates two rows of cattle, with their heads towards a passage five feet wide. In the rear of this passage is the well. The side spaces furnish room for horse stables, cow stables, sheds, root cellars, manure cellar, mow, &c., as may be required. They cannot, of course, serve for all these purposes at one time, but they serve for several of them.

The basement is of stone on three sides, and wood in front. The dividing partitions have posts six feet apart. Each story was framed separately. The building is furnished with side ventilators, and doors opposite the mows. The roof is steep, projects about two feet all around, and has wooden eave troughs to carry the water from the building. There is a driveway under the bridge to the uppermost floor, and on a level with the first story. Half of the upper floor may be used for mow purposes. Thirty or more tons of hay may be unloaded by simply rolling it off into the deep bays. From these bays it passes to the lower floor and through trap doors to the feeding places below. It will be perceived that in every movement of straw, chaff, or grain, gravity lends its aid; hence a great saving of labor at every step. Threshing will usually be done upon the upper floor, but the lower floor is also available, either for stails, horses, or machine. Cost, complete, \$600.

As my cow shed is not permanently finished, I should be glad to get the best specifications which your readers can furnish.

The present scarcity of fodder has given a great impetus to the construction of stables, and no doubt many others would be much benefited by having full directions

Hastings Co., C. W.

E. R. M.

## The Apiary.

### Burying Bees in Winter.

To the Editor of THE CANADA FARMER :

SIR,—I NOTICE in your issue of the 15th inst. an article on the wintering of Bees, giving the mode adopted by the writer, viz: burying them in a piece of dry ground. From observation for many years past, I am convinced that this mode is attended with an amount of risk, arising from various causes, sufficient to satisfy ordinary observers that it is not the best mode of wintering bees. A dry atmosphere and perfect ventilation are indispensable in winter as well as in the summer season. Every Apiarian is, or ought to be, aware of the importance of giving his bees a sufficient amount of air. There is not the slightest difficulty in the matter. If the bees have not sufficient ventilation, it will be observed that the vapor which ought to have escaped from the hive has condensed, and water is running out from the bottom of the hive. Where bees are exposed to the weather, this condensed air will freeze. The consequence is, the bees are destroyed, and the unfortunate parties who keep them are at a loss to understand the real cause of their misfortune.

The mode we have adopted with success is as follows:—We provide the hive with ample ventilation, and at the same time close the door, as well as the openings for ventilation, with a fine wire screen, this prevents the bees escaping from the hive, and at the same time, gives a free circulation of air. Hives made for the purpose of taking off the surplus honey in small boxes are most convenient in case it be found necessary to feed the bees. If the boxes be made uniform in size, you have but to place one of the boxes of honey in the hive you desire to feed. By adopting this course we have wintered some of our late swarms which otherwise would have been worthless.

Hives thus prepared we pack away in a room having double windows—where the temperature is a shade above freezing point. By this arrangement, you can have access to your bees at all times during winter, and thus be in a position to make any change in the arrangement which may be thought advisable. I may add, that notwithstanding the severity of our Canadian winters, by adopting the system to which I refer, bees can be wintered as safely in this as in any other part of the world.

AMOS WRIGHT

Richmond Hill, Nov. 30, 1864.



SHOVEL PLOUGH WANTED.—“A. G. Alport,” of Maple Grove, Muskoka, asks: “Can you inform me where I can get a Shovel Plough? It is used in stumpy land and is exceedingly serviceable for the purpose.”

ANS.—Parties having this implement for sale, will do well either to advertise, or address our correspondent by letter.

FAT HOGS IN MONTAGUE.—“David Wood,” of Montague, writes: “The common weight of hogs in this neighbourhood, when killed and dressed fit for market, is from 400 to 450 lbs. One of mine, this year, weighed 440 lbs., another 498 lbs.; their age was about eighteen months. A pig of mine six months old, weighed 215 lbs., and these, I think, are small to what might be raised by good feeding and care.”

LARGE BEET.—“John McDermott,” of Berne, writes: “As you are always willing to insert in your valuable paper, anything wonderful in the vegetable world, I beg to call your notice to what I think is quite worthy of your attention, viz: a gigantic blood beet which grew in my garden. Its dimensions are as follows: Length, 2 feet 7 inches; circumference, 16 inches; weight, 9½ lbs. Can any of your correspondents beat that?”

“ANONYMOUS.”—A correspondent signing himself thus, finds great fault with the awards made at the Markham Ploughing Match, and reflects upon the fairness of the judges. Of course, on these occasions, all are not likely to be satisfied, as it is not possible for all to have prizes awarded them. We cannot, however, give publicity to strictures unaccompanied by a responsible name. We have no doubt the judges tried to do their work impartially, but to please everybody on such occasions, is out of the question.

GRAFTING WAX.—“J. Simms” furnishes the following rule for making grafting wax of a superior quality:—“Take one pound of mutton tallow, one pound of beeswax, and four pounds of resin, or a smaller quantity in proportion. Put the tallow into a kettle, and when melted put in the beeswax and resin; let all simmer two hours, stirring well together every ten or fifteen minutes. Set the kettle off the fire, and when nearly cool, pour the wax into cold water. With hands well greased, pull and work the wax until quite white, when it is fit for use and will keep for years.

“The great fault in making grafting wax is that it is not well simmered and mixed together, consequently it is brittle.”

MILLET.—A correspondent makes certain enquiries about millet, some of which are met on page 131, Vol. I of this journal. The remainder we will now endeavour to answer. There are several varieties of millet. Of these the Chinese is on the whole, preferable. It is a plant of easy culture, but requires good soil, and is rather an exhaustive crop. Both hay and seed are valuable. It is impatient of cold, and must not be sown until all danger of frost is past. About twelve pounds per acre may be named as an average quantity of seed. The richer the land, the thicker it should be seeded, in order to get the hay as fine as possible. J. Fleming, & Co., have the seed for sale at \$2 25 per bushel.

GRINDING FLAXSEED.—On this subject, “A Farmer” writes from Lefroy: “I believe Linseed is ground in a Drug Mill, consisting of two large stones set on edge and turning round an upright shaft by means of an axle through their centres; or crushed by falling in a small stream between two metal rollers, (such as are used in breaking malt) only with the addition of a circular iron plate, placed edgewise between them, and revolving rapidly along with them.

The mucilage is contained in the outside shell, and may be extracted by steeping in warm water; the oil is contained in the kernel, and may be partly extracted by boiling. If the seed were ground it would be easy to obtain the full benefit of both. Perhaps it might be ground in an ordinary mill, if mixed with bran or grain, to absorb the oil and prevent clogging.”

**PRIZE FOR BEST KEPT FARM DIARY.**—"D. W." of Morpeth, says: "I beg to suggest that you recommend in No. 1 of Vol. 2, Township or County Societies, or both, to offer liberal prizes for the best conducted Diary of every day's operations throughout the year. Much information would be gained, showing the dates throughout the entire province, of commencing work—ploughing, sowing, planting, mowing, reaping, eradicating bad weeds, and housing crops, also management of stock, &c. &c."

**ORNAMENTAL DESIGNS FOR LAWNS AND GARDENS.**—"E. D. J.," of St. Catharines, says: "I would like to see in THE CANADA FARMER, some few designs of vases for lawns. I find that verbenas and other bedding plants, do far better in vases than in the natural ground. I think a vase made a little tasty and strong, and lined inside with zinc, and large enough to hold from one to two dozen plants of different varieties, would look far better than a border or bed cut out in the sod, and would receive more attention. I should like to see in THE CANADA FARMER, likewise, some plans of flower borders and pleasure grounds. I think that many of your readers, as well as myself, would be well pleased with an ornamental plan now and then, and a few designs of baskets and vases."

**ANS.**—We will keep the above requests in mind and endeavour to fulfil them.

**COCKSFOOT.**—"S. H." makes a number of enquiries about this forage plant, known also as "Orchard Grass." Some of these enquiries he will find answered on page 51, Vol. 1, of THE CANADA FARMER, in an article headed "Grasses Worthy of Culture." In reference to the other questions, we reply very briefly. It may be sown as and with Red Clover. It is not well to sow it alone unless the object be to raise seed. Two bushels of seed are requisite for an acre when sown alone, or half that quantity when sown with clover. The seed is very light, only weighing 12 or 14 lbs. to the bushel. Mixed with red clover, and cut early, it makes an excellent hay. It is worthy of more extended cultivation. The soil best adapted for it is a deep, dark, warm, rather moist upland, though it will succeed on all arable soils, provided they are in good tilth. J. Fleming & Co., of this city, supply it at \$2 50 per bushel.

**EXCLUDED LEICESTERS AT THE LATE PROVINCIAL EXHIBITION.**—"Exhibitor" says: "In looking over the prize list I perceive a note appended by the Judges of Leicester Sheep, at Hamilton, stating that they excluded a number of the sheep shown in that class on account of their not being shorn according to the rules of the Association. Permit me to ask what right the said judges had to exclude any sheep on that account, provided they were eligible for a premium in other respects? According to a resolution passed by the Board of Agriculture, in February last, "two inspectors were to be appointed to report any cases in which the shearing rule had not been properly complied with, and sheep so reported were to be excluded from competition."

If the inspectors were appointed, and acted according to that resolution, what business had the judges to throw out any sheep on account of the shearing that the inspectors had not excluded? If this rule of the Association was not adhered to, and the inspectors were not appointed, I, for one, should like to know the reason."

**PRESERVING MILK.**—"H. L.," of Bond Head, enquires:—"Will you be kind enough to publish in the next issue of your valuable paper, the best mode of preserving milk for a length of time in the winter season, as a number of persons, along with myself, would wish to know, in order that we may be prepared for the season of scarcity, and by so doing you will much oblige."

**ANS.**—We cannot do better by way of replying to the above enquiry than publish the following recipe furnished by a correspondent of the *German Town Telegraph*:—"To one quart of new milk, take one pound of the best crushed sugar; let the milk boil, then stir in the sugar until all is dissolved; continue to stir until it has commenced again to boil, which must be on a gentle heat to keep from burning. When it becomes the consistency of molasses it is done for use. Put in cans or close jars and cork them tightly. This is of much value where fresh milk cannot be had, either in preparing food for the sick, or to use in tea and coffee. In hospitals this is a valuable article."

**BEST MODE OF HOG FEEDING.**—"R. McCredie," of Bristol, writes: "I herewith send you the weight of a pig I killed this fall. It was one out of a "litter" that came into existence on the 20th of March last, and was killed when eight and a half months old. It was shut up the whole time, and never tasted grass. Its whole consumption was nine bushels of pens (boiled) and about nine bushels of potatoes (also boiled) together with some "slops," and weighed 261 lbs. dressed for the market. I do not know the name of the breed, but its chief points are very small bone, short snout, short legs, and somewhat drooping ears; and to show that the feed was the main thing in producing the weight, one of that same "litter" which has run the pasture all summer and is to be "wintered over," does not, I venture to say, at this moment weigh a hundred pounds. I believe from this instance that pigs should be kept shut up from the time they are taken off the sow, fed on solid food as much as they will eat the whole time; and if thus treated, they will take on more fat meat with less cost, than pigs fattened in the ordinary way about this section which is to let them run in the pasture all summer then shut them up for one month in the fall, stuff and cram into them all they will eat, and at the expiration of said month, kill."

### Bound Volumes.

The first volume of "The Canada Farmer" is now ready, consisting of 24 numbers, and comprising 384 pages of reading matter. The binding will be charged 30 cents in addition to the subscription price, making \$1 30 in all for the volume. Parties desirous of having their numbers for the past year bound, will please send them to us, securely packed, with their name and address, together with 30 cents in stamps or otherwise, and we shall return them bound.

## The Canada Farmer.

TORONTO, UPPER CANADA, JAN. 2, 1865.

### To Our Readers.

It is with no little satisfaction that at the commencement of this the second year of THE CANADA FARMER, we contemplate the results thus far of our endeavour to meet the wants of the agricultural population of this Province, by furnishing a first-class paper devoted to the farming interest. A year ago the undertaking was entered upon as an experiment. It is such no longer. It has been demonstrated that such a journal was needed, and can be sustained. The success of THE CANADA FARMER has been something unprecedented in the history of Canadian journalism, and may well be a source of pride and pleasure to all who take an interest in the advancement of our agriculture, and the prosperity of our country.

For much of this success, we owe a large debt of gratitude to hosts of kind friends who have assiduously laboured to extend our circulation; to our contemporaries of the Canadian press and to editors of kindred journals in the United States, who have given us from time to time commendatory notices; and to those of our readers who have enriched our columns with correspondence.

Entering now on a new volume, we have only to say that such as THE CANADA FARMER has been in the past, it will be our aim to make it in the future, with we trust a nearer approximation to the ideal of excellence and usefulness embodied in our Prospectus issued twelve months ago. We repeat the statement then made, that "no exertion or expenditure will be spared, to render this journal a worthy representative and advocate of the agricultural interests of Canada."

This number appears with a new and beautiful heading. Other improvements are in contemplation. The illustrations during the coming year, will be equal if not superior, in number and excellence, to those of the past. One Dollar per annum, payable strictly in advance, will continue to be the subscription price. For terms to clubs, see notice on last page.

### Raid on the Board of Agriculture.

A somewhat important meeting was held at Hamilton on the 20th ult., called by a Circular emanating from the South Riding Agricultural Society for the County of Wellington, and having as its object certain reforms in the working of the Provincial Board of Agriculture. Only select invitations appear to have been issued. Though purporting to be a "Convention," it was on a very limited scale. No public announcement, so far as we know, was made. Hamilton is not very remote from Toronto, yet we believe none of the leading agriculturists in or near this city were notified. For ourselves, we had no intimation of the meeting until all was over.

What reasons led to this mode of calling the meeting in question we are not aware, but considering the general interest attaching to the subjects proposed to be discussed, we cannot but think greater publicity would have been advisable. However, eleven County Agricultural Societies were represented, and the delegates, it must be confessed, were men of high standing and excellent repute, among the agriculturists of the Province.

Col. JAMES JOHNSON, of London, was appointed Chairman, and Mr. George Murton, of Guelph, Secretary. The Chairman stated the objects of the meeting to be the selection of four persons to fill up the vacancies about to occur in the Board of Agriculture; and the discussion of various improvements in the Provincial Statute relative to agriculture. The Secretary informed the meeting that those whose turn it was to retire from the Board this year were, Mr. W. Ferguson, M. P. P., Hon. David Christie, Dr. Richmond, and Hon. Asa Burnham. Col. Sanders, of Guelph, spoke strongly in favour of introducing new blood into the Board, and proposed F. W. Stone, Esq. Mr. Price, of Welland, proposed T. C. Street, Esq. Mr. Cowan, M. P. P., said: "The feeling is universal that there should be a change in the Board of Agriculture. They are practically an irresponsible body, over whom the farmers of Upper Canada have no control. The Bill referred to passed unanimously in the Lower House, but was defeated in the Upper House, through the influence, it is believed, of the Board. As we have no representatives from the eastern section of Upper Canada, I would suggest that Mr. Ferguson's name be allowed to remain, as no other would likely be so welcome as himself. I propose as a new member, Mr. Thomas Stock, of East Lamboro."

Mr. CHAPIN, of West Brant, proposed the Hon. D. Christie. Mr. Scarff, of South Oxford, remarked:

"I have heard no objection to the old members. New ones would do no better, so long as the system lasts. It is not change of men, but of system, that we want. The old members had not acted illegally; they had acted strictly in accordance with the statute, and new members would have to do the same."

Mr. STOCK, of North Wentworth, said:

"We don't mean that they have acted illegally; but they are too slow, old-fashioned, unprogressive and negligent. The institution is already very unpopular, and it required much coaxing and hard work to make the last Exhibition a success, owing to the unpopularity of the present Board."

The following ticket was at length nominated:—Dr. Richmond, Messrs. Johnson, Ferguson and Stone. A long discussion then took place in reference to the proposed Agricultural Bill, and as the result, it was resolved:

1. That the best mode of electing the Board of Agriculture would be by dividing the Province into twelve Agricultural Districts, each to elect a member of the Board, in accordance with the amendment of Mr. Cowan to the bill introduced last session by Mr. Alexander.

2. That clause 50 of the proposed bill be amended, by fixing the third Thursday instead of the third week of January, as the time for holding the annual meetings of the County Associations.

3. That in order to carry out the resolutions of this Convention, amending the Agricultural Bill submitted by the Toronto Convention of 1862, the Secretary be requested to invite the co-operation of all the Agricultural Societies in the Province, in petitioning the Legislature for that purpose; and that the following gentlemen be appointed a committee to draw up said

petition:—Col. Johnson, of London, and Col. Sanders and Mr. Murton, of Guelph.

In consequence of the above proceedings, a special meeting of the Board of Agriculture was held in this city on the 29th ult., Col. E. W. Thomson, President, in the chair. The object of the meeting having been stated, some preliminaries discussed, and explanations made by Col. Johnson as to the design and action of the Convention over which he had presided at Hamilton, the Hon. David Christie proceeded at some length to criticize and reply to the utterances then made. He thought the Board had a right to complain of the statements made by certain gentlemen present on that occasion. It was not only implied, but, he thought, directly stated, that the Board of Agriculture had thrown obstacles in the way of the passage of the Agricultural Bill agreed to by the Convention of Delegates in this city, in 1862. Now he (Mr. Christie) denied the statement *in toto*. It had no foundation in fact. The Board of Agriculture, so far as he was aware, had never thrown any obstacles in the way of the passage of that Bill. On the contrary, the members of the Board having seats in the Legislature had brought that measure before Parliament, and their efforts to carry it had been thwarted by gentlemen who did not represent the views and feelings of the majority of the agricultural community of Upper Canada. From the statements made by Mr. Cowan at the recent meeting in Hamilton, one would fancy that the Bill originated in the House of Assembly, that it passed that body unanimously, and that it was then rejected by the Legislative Council. Now what were the facts? Mr. Alexander introduced that measure in the Upper House. It passed the Upper House unanimously. It was then sent to the Lower House, and had there embodied in it amendments which were the substance of Major Campbell's Bill of 1861, and which were discussed by the Convention of 1862, and rejected by that body. It was then returned with the amendments to the Upper House. He (Mr. Christie) was not in the country at the time, but had he been present in the Legislative Council when the Bill was returned to them, he should have taken precisely the course which was taken by Mr. Burnham, and he was quite willing to share with that gentleman, and with the other members of the Board who had a seat in the Legislative Council, the responsibility of the course they took. They could not have done otherwise. The measure brought in by Mr. Alexander was the Bill agreed upon by the Convention of 1862. Nay more, at the annual meeting of the Agricultural Association held at Kingston in 1863, he stated that, as the Government had not made a Government measure of the question, he thought, if the agricultural community still desired the legislation proposed, it was the duty of the members of the Board having seats in the Legislature to bring in the Bill, and he asked the delegates if they still adhered to the amendments adopted at the Convention in 1862. The result was that Mr. Stock, of Flamboro', seconded by Mr. Tilt, of Peel, moved a resolution expressing the adherence of the Association to those amendments. The resolution passed unanimously.

The matter was again brought up and fully discussed at the last annual meeting of the Association in Hamilton, this year. A resolution was moved by Mr. Barker, to the effect that the delegates approved of the Bill passed in the Upper House, carrying out the amendments proposed at the Convention of 1862, and requested the Hon. Messrs. Alexander, Christie, and Burnham, in the Upper House, and Mr. Ferguson and other members specially interested in agriculture, in the Lower House, to look after and endeavour to have the bill then introduced passed into law. An amendment was moved by Mr. Cowan, M. P., to the effect that in the opinion of the meeting, the best mode of electing the Board of Agriculture would be by dividing the Province into sections, each section to elect a member of the Board. Mr. Christie read from the minutes the motion and amendment, followed by the statement that Mr. Cowan's amendment was put and lost, and the original motion carried. He believed some 60 delegates were present on that occasion. The Secretary could state if that was the fact.

Mr. HUGH THOMSON said there were about 80 in the room at the beginning of the meeting, but some had left before that particular stage of the proceedings.

Mr. CHRISTIE then proceeded to reflect in very strong terms on the course pursued at the so-called Convention held a few days since, disclaimed for himself and the other members of the Board all interested motives, and insisted that the Board should take effectual measures to set itself right before the public.

Col. JOHNSON replied at some length to Mr. Christie's address, urging that there was a very general conviction that a more popular method of electing the Board of Agriculture ought to be adopted; that there had been no design to cast aspersions on the present Board, or in any way to interfere with its legitimate functions; and stated that he and those who had acted with him would be satisfied if a Bill, similar to that which had been before the Legislature, were to be carried. They hoped, also, that the proposed petitions, added to the influence of the members of the Board who were in the two Houses of Parliament, would bring about the desired result.

Mr. CHRISTIE rejoined that it was quite correct that the present mode of electing the Board was not popular. He admitted that most fully, they had tried to correct it, but had been prevented from doing so by the action of the members for the Lower House, who tried to introduce into the Bill a mode of election which was negated by the Convention that met at Toronto in 1862, and which was negated again at the very last meeting of the Association in Hamilton. There could be no question about the fact that the majority of the properly accredited representatives of the County Societies of Upper Canada had affirmed that the mode of election proposed in the Bill, as introduced by Mr. Alexander, was that which they preferred. That was the mode which the members of the Board had tried to carry out. They had not sought to adhere to the present mode, as one might infer from listening to Col. Johnson's statement.

Hon. Mr. BURNHAM then gave a narrative of facts, respecting the bill introduced by Hon. Mr. Alexander, substantially the same as had already been given by Mr. Christie. Conversational discussion then ensued respecting some incidental matters, and ultimately the following Resolutions were passed, Col. Johnson alone dissenting:

1. "That, in consequence of statements having been made at a meeting held in Hamilton, on the 20th inst., the tendency of which was to create the impression that the Board of Agriculture had been the cause of the rejection of the Agricultural Bill agreed to at the Convention of 1862—statements entirely at variance with the fact—the Board of Agriculture feel that in duty to themselves and to the public they are bound to make public the facts of the case."

2. "That the President, Vice-President, Col. Denison, and Hon. Mr. Burnham be a committee to draft a circular setting forth the facts of the case, for the purpose of being sent to the various County Societies in Upper Canada."

The proposed circular will doubtless embody in brief, the statements made by the Hon. D. Christie, so that our readers have the entire case fully before them. Both the gentlemen lately convened at Hamilton, and the members of the Board, appear to be aiming at very much the same objects; at least we fail to see any very serious difference of opinion or aim. All agree as to the necessity of a more popular election of the Board, and the desirableness of an improved Agricultural statute. The discussion of the subject will do good, and now that all seem to be thoroughly roused, we may hope that the reforms universally wished for, will be obtained at the next sitting of the Provincial Legislature.

### Birmingham Cattle and Poultry Show, and Exhibition of Dogs.

The sixteenth annual exhibition above mentioned came off during the last week of November, and was by far the largest and most successful of the series. There were 346 entries of cattle, sheep and pigs, in place of 284, the average of the past four years; and 168 lots of roots and grain against 156, the last four years' average, while there was a still higher increase in the feathered portion of the show.

The first animal this year was Mr. Joseph Phillips's Hereford ox; a grand beast, of splendid quality and great substance, girthing 9 feet 2 inches. This took the first prize in its class, an extra prize of £25 as the best Hereford, the £20 gold medal for being the best ox or steer of any breed or age, and then the highest honour, a 25 guinea ornamental plate, given by the hotel and inn keepers of Birmingham to the best animal, whether male or female, in all the cattle classes. The gold medal for the best cow and heifer of any breed or age was won by Mr. Wil-

liam Stedman's Hereford cow, which, of course, takes also the first prize in her class.

The Herefords have thus carried off the chief honours; a breed "noted for its beauty and good beef."

The Short-horns were in their usual force, a red and white steer owned by Sir W. de Capell Brooko taking the first prize. A larger, but less handsome animal, which girthed 9 feet 7 inches, took the second prize. Only a small number of Devons were shown. The Long-horns and Scotch cattle were numerous and of great merit. A grade animal, as near Short-horn as might be, was an object of much attention, being of large size, good substance, girthing 10 feet, and evenly loaded with meat of excellent touch. Of sheep, the Leicesters, Cotswolds, Shropshires, Lincolns and Oxfordshire Downs are highly spoken of. Of pigs, no fewer than 130 Berkshires were shown, against 35 last year. Among the roots, were cabbages weighing 31 lbs. each; long mangolds, 21 lbs. each; globe mangolds, 28 lbs. each; Swedes, 15½ lbs. each; and ox-cabbages, 58 lbs., denuded of roots and outer leaves, or 72 lbs. as taken out of the ground. These weights are considered good in view of the dry character of the past season. No less than 1,677 pens of poultry, and 290 cages of pigeons were exhibited! The poultry judges must have had a trying time of it. Turkeys of 23 lbs., and geese of 26 lbs., live weight; a trio of Aylesbury ducks, weighing 27 lbs., and a trio of Rouen ducks, 25 lbs., were among the lots exhibited. The Dog Show was also remarkably fine. £700 were distributed in premiums among blood-hounds, fox-hounds, deer-hounds, grey-hounds, barriers, beagles, pointers, setters, terriers, retrievers, mastiffs, Newfoundlands, spaniels, sheep-dogs, bull-dogs, Skyes, Pomeranians, Blenheims, Maltese, King Charles', Italian greyhounds, toy-terriers, and pugs.

### The Glasnevin Training School.

This institution, designed for teaching young men how to farm, is located near Dublin, and a brief reference to it will suitably follow up some recent observations on agricultural training. A correspondent of the *North British Agriculturist* gives a long account of a visit made to this School, from which we cull a few particulars. There are accommodations for twenty pupils, but the number has of late been restricted to sixty, by the Government, at whose expense the students are boarded and instructed. The course extends over two years, and admissions are made either in January or July. Both literary and agricultural instruction is given. The literary classes are for spelling, grammar, composition, book-keeping, writing, mapping, &c. The agricultural classes comprise husbandry, chemistry, botany, geology, surveying and mensuration. These classes are taught by professional men, who are selected by the commissioners. The out-of-door instruction is partly in the garden and partly on the farm. In the gardens, the pupils are made to dig, to sow at the proper season, to graft trees, and rear vegetables and flowers, under the directions of an experienced practical gardener. On the farm, they not only receive explanations of the several operations, but they are made to take part and put their hand to everything going on.

Each student is estimated to cost for board and tuition from £35 to £40 sterling per annum. The farm attached to the school comprises 175 acres, and the operations carried on include dairying, stock-keeping, and grain and root-growing, botanical, fruit, vegetable, flower, and conservatory gardening. Everything is done in the most neat and orderly manner; weeds are outlawed; the highest cultivation is arrived at; and the average of the crops testifies to the excellence of the culture bestowed. The balance-sheet of 1862 showed a margin of profit of £109, after paying a rent of £4 per acre, a most satisfactory summing up of the year's work.

### Illinois State Horticultural Society.

We learn from the *Chicago Tribune* that the annual meeting of the above Society, recently held, was well attended, and the proceedings were of an interesting character. An excellent paper on orchard sites was read, the chief object of which was to show the superiority of elevated positions for fruit culture, mainly from such situations being less liable to frost. A discussion was had as to the best fruits for general

cultivation, and the following recommendations were made:—Currants—Red Dutch, White Dutch, White Grape and Victoria. Gooseberries—Houghton's Seeding and (not unanimously) Upright's Cluster, or Pale Red Raspberries—Doolittle Black Cap, Purple Cape, and Ohio Ever bearing Grapes Concord, Hartford Prolific, Delaware, Norton's Virginia, and Clinton. Cherries—Early Richmond. Pears—White Doyenne, Flemish Beauty, Seckel, Duchess d'Angouleme, Bonne de Jersey, Easter Buerre, Bartlett, Belle Luerative, Osborne Summer, and Glout Moreau. Quinces—Orango Quince. Apples—Early Harvest, Carolina Red June, Sweet June, Benoni, Keswick Codlin, Fameuse, Dyer, Red Astracan, Rawles Janet, Summer Pennoek, Winesap, Willowtwig, Domine, Jonathan, Talman Sweeting, Bailey's Sweeting, and Yellow Bellflower. Much interest was manifested in the subject of sugar-making. Several who have made it from sorghum reported their method and success. Mr. Gennert, of Chatsworth, who is largely engaged in manufacturing sugar from the beet, strongly urged the latter as preferable to sorghum for sugar-making.

### Annual Meetings of Agricultural Societies.

According to the Statute, Township or Branch Agricultural Societies must hold their Annual Meetings in the second week of January, when a President, Vice-President, Secretary, and Treasurer, and not fewer than three, nor more than nine Directors are to be elected. A Report of the Society's proceedings during the year is to be presented at the Annual Meeting, and a true copy thereof, certified by the President or Vice-President, sent to the Secretary of the County Society, in time for the Annual Meeting of the County Society.

County or Electoral Division Societies are required to hold their Annual Meetings in the third week in the month of January, when a President, two Vice-Presidents, a Secretary and Treasurer, and not more than seven Directors are to be chosen. Each such County or Electoral Division Society is further required to nominate four fit and proper persons to be members of the Board of Agriculture, and forthwith transmit the names of the persons so nominated to the Bureau of Agriculture. (See notice to this effect in our advertising columns.) A Report is also to be presented at the Annual Meeting, embracing certain particulars enumerated in the Statute, and said Report properly certified, is to be sent to the Board of Agriculture, Toronto, on or before the first day of April following.

**N. Y. STATE CHEESE MANUFACTURERS' ASSOCIATION.**—The Second Annual Meeting of this Association, will be held at the Court House, in the City of Utica, on Wednesday and Thursday, January 11th and 12th, 1865.

The Annual Address will be delivered on Wednesday Evening, January 11th, by X. A. Willard, A. M., of the *Utica Morning Herald*—one of the ablest writers on Dairy Farming in the State. The meeting will be one of great public interest, and a large attendance is expected of dairymen from all parts of the State, as well as delegations from New England, the Western States, and the Canadas. Officers are to be elected for the ensuing year, and Reports to be made from nearly one hundred Cheese Factories, giving the results of the past year's operations. The following are among the topics to be discussed:—

Improved Methods of Cheese Manufacture. Best Manner of Marketing Cheese; whether direct or through middle-men. An Uniform Rate of Cheese Manufacture for 1865. The Best Manner of Organizing Factories; whether by private enterprise, by corporations, or otherwise. Best Breed of Cows for the Dairy. Summer and Winter Management of Milch Cows, &c., &c.



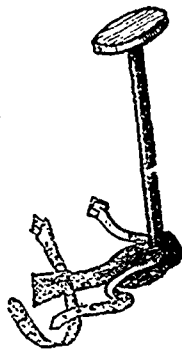
### Variogated Geraniums.

We find a suggestion in the *Florist and Pomologist* for making good use of the small plants of this year's striking, and that is to arrange them in the conservatory in squares and diamonds, in such a way as to produce a pleasing effect from the different shades and colours of their foliage. To aid in this, some of the other foliage plants can be brought into use, and at a season of the year when there are but few flowers, the man of taste can give to his green-house a novel and striking appearance.



### The "Locomotive Seat."

This is an ingenious contrivance, which we find illustrated, described, and commended in the *American Agriculturist*, *Gardeners' Monthly*, and *Gardeners' Chronicle*. The first of the above-named journals says, in substance:—It is designed to save the strain of the backs and muscles of the legs of persons whose labours require them to maintain a stooping posture, when they have frequently to move short distances, and hence cannot take an ordinary stool with them. Especially is this adapted to relieve nurserymen and gardeners in some of their labours—for instance, in grafting and budding near the ground, weeding, or setting out plants with which considerable pains have to be taken. It may also be used as a milking stool. The construction is easily seen by the engravings. An iron sole is firmly attached to the foot; upon this sole and just back of the heel is a socket into which fits a straight ash stick of convenient length, and upon the top of this is a circular disk of wood which affords a very comfortable support to the body, taking the greater part of the weight entirely off the legs. The name "locomotive" indicates that the seat walks with the user. The inventor is Rev. E. Whittlesey, of Hammondton, N. J., for many years a missionary at the Sandwich Islands.



### Large Crop of Peaches.

In 1863, I ripened on eight trees 1600 Peaches, many of immense size; and in 1864, the same trees produced and brought to perfection 2500 Peaches, not so large, partly owing to the drought. In the year 1865, about 4000 Peaches had previously been taken off; and in 1861, at least 5000 were also removed.

The eight trees are on a wall with a south-easterly aspect, have been about eighteen years planted, and have generally borne most abundant crops. In consequence of the fruit being for some years destroyed by spring frosts, I had a covering of thin canvass placed over them. In the first year, when removing the canvass, I found an abundant crop of fruit, but no leaves; these had been destroyed from keeping the covers over the trees night and day. In a short time, the leaves came out, but all the fruit gradually disappeared.

In the following year, I removed the covers every fine day and some fine nights, and the result was a splendid crop of fruit. This same result occurred several years in succession, until the sheets being weakened by age, were entirely destroyed by a heavy shower, and the trees were that year unprotected. However, the spring being mild, the crop was good. In the following spring, when the trees were in full bloom, a heavy shower completely washed away the pollen, and in that year also, I had not a Peach. Next winter, I placed a temporary coping-board about twelve inches wide over the trees and left it there until about June, when the rain would be serviceable. The result was, that in that and every succeeding year, I had splendid crops. This simple and cheap mode of protecting the trees I conceive to be far the best. I need only refer to the crops of 1863 and 1864.

An Englishman, writing in a contemporary this year, says he had 510 Peaches on three trees, whereas I had 1124 on my two largest. I hope that the publication of this note will call forth remarks from Peach-growers, and I am anxious to know whether others have exceeded what my gardener has accomplished.—T. DALY, Fair Hill, Cork.

### Raspberry Food.

Some years since, in the course of correspondence with the lamented Dr. D. W. BRINCKLE, in regard to raspberry culture, he gave us the following information in regard to the food of that plant. The high reputation of Dr. B. as a pomologist, and his entire and gratifying success in raspberry culture, entitle his opinions to great respect. We therefore commend his suggestions to those of our readers engaged in growing the raspberry:

"In my last letter to you, I promised to notice, at a future time, a kind of food to which the raspberry is particularly partial. The food to which I had reference is tan.

"In raising raspberry plants from root cuttings, I usually place about an inch of tan over the pots-herd at the bottom of the pot, which is then filled to within an inch and a half of the surface, with rich mould. In this rich portion the root is planted, after which the pot is filled up with tan.

"In out-door culture, when the raspberries are planted out, it should be spread over the ground to the depth of two or three inches. The following Spring this should be forked in, and another portion applied. But besides affording to the raspberry a kind of nourishment peculiarly adapted to its necessities, tan serves other good purposes of no inconsiderable importance. It keeps the earth about their roots in a moist and loose condition, and in this way greatly promotes the health and vigor of the plants.—*Culturist*.

NO MAN living, says Judge French, can show a good orchard of grafted fruit which was kept in grass the first ten years of its life. It is a point settled beyond controversy that orchards to be healthy and productive, must be cultivated most of the time.

**LARGE PEAR.**—The *Newark Daily* says:—Mr. James Loyce has shown us a monster pear, raised on a standard tree in his garden, weighing two and a half pounds, and measuring fifteen and a half inches in circumference and twenty inches around the length. Several other pears weighing from a half to over a pound each grew upon the same tree.

**SUCKERS.**—These should be carefully removed from fruit trees of every description. It is not sufficient merely to cut them off level with the surface of the soil, as such a mode of treatment only causes them to throw up a progeny ten times more numerous. To do the thing properly, the soil should be bared away, the suckers traced back to their origin, and carefully removed with the point of a sharp knife.

These are valuable and profitable denizens of the poultry-yard, furnishing a large amount of food for human consumption, and supplying choice feathers always a marketable article. The goose, if properly cared for, lays early, the goslings grow rapidly, and, with access to pasture, require but little feeding to make them able to fatten by Christmas-time. Their yield of feathers and down is sufficiently liberal, without resort to the usual practice of plucking the poor creatures alive, once or twice a year. There are many varieties of those Geese of the poultry-yard, most of which, however, are chiefly prized as fancy birds, possessing as they do no peculiar excellencies of size, meat, feather, or productiveness.

The wild goose of this continent, or, as it is known in Europe, the Canada goose (*Anser Canadensis*, Linnaeus) is a noble and beautiful bird. Cuvier was doubtful whether to rank this species among geese or swans. The length and curvature of its neck, are decidedly swan-like, but in its general contour it is a goose. Wild geese migrate from August to October, and may be shot at that period of the year in the vicinity of rivers and lakes in large numbers. The servants of the Hudson's Bay

Company, in favourable seasons, kill thousands of them, and preserve them in a frozen state for winter food. Occasionally a wounded bird has been made prisoner and induced to pair with the domesticated goose.

The Embden, or Bremen geese, are originally from Holland. They have several points of superiority over the common goose, such as their great size; the higher value of their down and feathers, from their being perfectly white; the excellence of their flesh; the fact that they lay earlier, and frequently rear two broods in a season; and lastly, their quiet habits, which incline them to lay on flesh rapidly. Mrs Ferguson-Hair, in her "Hen wife," briefly enumerates their characteristics to points thus: "Blissom—white plumage; bills, flesh-colour; legs and feet, orange." The same high authority says in reference to raising geese:—"I find the turkey an excellent mother for goslings." Even a large hen she thinks preferable to the natural mother. A good-sized hen will cover three eggs; a turkey seven; the period of incubation is thirty days. Goslings require high feeding; they can hardly be fed too well. They should be furnished with a dry bed, under cover, and protected from rats, which are deadly enemies to them.



COMMON GOOSE.

WILD GOOSE.

EMBDEN, OR BREMEN GEESSE.

## Poultry Yard.

### Poultry-Keeping on a Large Scale.

In No. 11, p. 174 of this journal, under the heading, "THE DE SORA POULTRY HOUSE," we stated that the *Country Gentleman* had satisfied itself, on diligent inquiry, that no such monster chicken factory existed in the vicinity of Paris, France, as had been described with much flourish of trumpets in the newspapers. Nevertheless we find the story revived, and narrated with all seriousness, in that respectable English monthly, the *Farmers' Magazine*. After stating that in France horses are used as food for poultry, it proceeds thus:—

The *Society of Arts Journal* says:

"It has been observed that poultry does not thrive best on a pure grain diet, but that, on the contrary, a mixture of animal matter has great advantages. Acting upon this hint, or rather starting from it, and proceeding to the extremity of the animal-food theory, a person commenced some years since at Belleville, an outskirts of Paris, the production of poultry out of horse-flesh. There are at present several of these hippophagous farms, which supply a considerable portion of the fowls consumed in the capital of France. The system answers well, provided the creatures are not kept too long, on an exclusively animal diet, in which case they become diseased and totally blind. Some time since an enterprising individual introduced great improvements into this system of raising poultry. This new establishment occupies nearly 30 acres of land, and is capable of accommodating about 100,000 pullets at a time. The pullets are divided into parties, according to their age, and each party has its yard and dormitory, both of which are kept with the utmost possible regard for the health and comfort of the boarders. The food consists almost entirely of horse-flesh, supplied from a slaughter-house adjoining the farm, and belonging to the same proprietor."

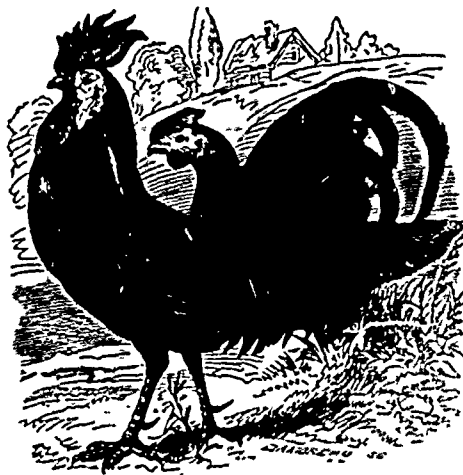
This mode of feeding, we are told, is kept as secret as possible, as the old prejudice against horse flesh still prevails; and the hippophagi are, therefore, not much benefited by this application of their principles. They have succeeded in inserting the thin edge of the wedge; but the edge is very small, and the end is very brittle. The market value of a dead horse—that great economical fact upon which the hippophagi based so much solid argument—is thus stated in the *Journal* we have just quoted:—

"Skin, weighing from 50lb. to 75lb., 13s. to 18s.; long hair, from one fifth of a penny to one halfpenny per lb.; flesh from 35s. to 45s.; blood about 250c. to 350c.; intestines, 1s.60c. to 1s.80c.; tendons, 1s.20c., grease, from 4s. to 30s.; hoofs and bones, about 2s.50c.; and shoes and nails about 2c. to 50c.; total, from 60s. to 120s. (£2 8s. to £1 16s.) The number of horses slaughtered averages about 20 a-day, and the affair is so well organized that the sales pay all expenses, leaving the flesh as clear profit. This last product is boiled in enormous coppers, chopped up as if for sausages, and conveyed to the farm, after being seasoned with a small quantity of salt and pepper, which prevents putrefaction, and also contributes to the health of the poultry."

It is not only in the form of pullets that the Parisians eat horse, but the delicate omelette is now largely flavoured with that noble animal. We are told that the production of eggs is more profitable than the sale of chickens, as under a meat diet the hens lay all the year round, and never exhibit an inclination to sit. "During last winter," says the *Journal*, "this establishment sent 40,000 dozens of eggs per week to market, at about 6d. per dozen. The hens yield on an average about 12s. per head per annum, and they lay for four years, at the end of which time they are fattened for three weeks with bruised grain, and sent to market alive. The steam-hatching apparatus of this establishment is on a grand scale, furnishing employment for fifty or sixty women. The spare cocks are sent to market, and these amounted last autumn to more than 1,000 dozen in three months."

"There is no sound reason," says the *Daily News*, "why the hippophagi—the faithful few who are left of that advanced school—should not turn their attention to England. In Paris every part of the horse now appears to be satisfactorily accounted for—the blood

of the animal is carefully saved, and fetches a good price; the hides go to the tanners, the heads and hoofs to the Prussian-blue makers, the marrow to the perfumers, the large bones to the button-makers, the refuse is converted into manure—a most important product—and the flesh, as we have seen, is given to the poultry. In London we can account for many of these parts of the noble animal in an equally satisfactory manner, but the flesh sometimes disappears a little too mysteriously. We can occasionally trace it to the copper of the cats'-meat boiler, but even then we miss the heart and tongue, which are not used in manufacture. Very little doubt exists in the minds of those who have studied the subject, that these parts of the horse are eaten by human beings—perhaps in the form of 'Westphalian delicacies.' There is much good work to be done in the removal of old prejudices about eating and drinking, the only question being how best to do it. Our Acclimatization Society has done some service in this way, though not precisely in the direction pointed out by the hippophagi. We have had many international exhibitions, large and small, but they have hardly introduced a new wine on the table, and have left the art of cookery exactly as they found it."



Black Spanish Fowls.

It is easy to describe this beautiful and noble race of fowls, as no variety of colours is admissible. These birds must be black throughout, richly shaded with a metallic green lustre. A purely white face is imperatively necessary to constitute a perfect specimen. Care must be taken not to mistake the ear-lobe for the face, as in the very worst samples of the bird the former will be found quite white. In a first-class bird this colour must be unmingled with red spots, and extend from the insertion of the comb to the gill, and from the ear-lobe to the beak. The ear-lobe must be large, pendant, thick, and quite free from any other colour.

This part of the face is more developed in the cock than the hen; in fact, he has it much larger than any other fowl. It is composed of a double skin forming a sort of bag. The cock should have a large upright comb reaching the nostril. His wattle should be very large and long, his breast round and protuberant, his tail ample, his carriage noble and very upright. The combs of the hens should fall over, and, when in good condition, be large enough to hide one side of the face. Their breasts are prominent, but not so much as in the cocks; their faces very long, thin and skinny. The points both have in common are taper blue legs, and deviating from the required line of perfection of most other fowls; they should be long. In shape, the body should slant downwards from the neck to the tail, and narrow from the shoulders till at the end it approaches a point. In walking, they carry themselves very upright.

They are invaluable layers, because, although they are only moderate feeders, their eggs are larger than those of any other fowl. I have seen them four and a-half ounces each. They are valuable for culinary purposes, three of them being equal to five of many other breeds. They do not sit. The best time to

rear them is between April and June. Although not perhaps to be considered very delicate chickens, so far as growth is concerned, yet it is certain they do not bear a check so well as many other breeds, and it is therefore well to watch them, that stimulants may be given in time. They are very naked when hatched, and are often a long time before they feather. They may be seen running about with black feathers in their wings, and scarcely any other on their bodies. At this period they require to be covered warmly every night. The great mortality among chickens of this breed is between two and four weeks old. Poultry fanciers in England strongly recommend the use of bread and ale at least twice every day, and also cooking fresh meat chopped fine.

These fowls are rather more difficult to rear than any other, but they repay for the labour. I have never known any of this breed to suffer from roup, but they are subject to a peculiar kind of swelled face, which comes first by the appearance of a small knob under the skin; it increases till it has run over one side of the face, and I know of no cure for it. The sex of a Spanish fowl is easily distinguished, as the cocks show their combs plainly at a month old. At this age we always look for growth in Spanish chickens, and all faulty cocks at about seven or eight weeks old should be killed. The greatest fault they can have, and the only one that is plainly developed at an early age, is a drooping comb.

The greatest merit a Spanish fowl can have is a perfectly white face; but if a cock had the best and most faultless ever seen, it would not excuse or palliate a drooping comb.

The chickens, and the best of them, commonly, indeed almost always, have white feathers in the flight of the wings; and if they appear when hatched with white breasts, it need cause no apprehension, as it is common thing, and they will become black.

Lovers of these fowls have called them, says Bailey, "the aristocracy of poultry." Fine specimens realize high prices in England. I have known one hundred dollars (gold) to be ineffectually offered for a cock and two hens. Our best Spanish fowl were formerly got from Holland, but the great demand for them, both here and in England, has nearly exhausted the market there.

In the habits of the Spanish fowl there is nothing peculiar to require notice. They are, it is true, not so quiet and disinclined to roaming as the Shanghai; but if well fed at home, they will not be found to stray far from their walk. To those who desire to eat eggs, but are obliged to class chickens amongst unattainable luxuries, I would advise to adopt the Spanish, as they are "everlasting layers," but non-sitters.—*Cor. Wilkes' Spirit.*

**EGGS IN PHOTOGRAPHY.**—The *Scientific American* says:—"We are informed by Prof. Seely, editor of the *American Journal of Photography*, that more than 1,200 dozen of eggs per week are used in New York and vicinity for albumenizing paper for photographs. A great deal more than this quantity of albumen is thrown away every week in the blood of the animals slaughtered for the market. Could some plan be devised for separating the albumen from the blood it would be a very valuable discovery."

**AN INDUSTRIOUS GANDER.**—At the Home Farm of Castle Grant may at present be seen a sight which, if not rare, is at least not common. Mrs. Brown with her usual economy, put the ducklings of two ducks into one flock, and gave the whole twenty-four to one duck. The gander at the farm, however, being of a generous turn, or it may be acquisitive, no sooner saw the duck with this unusual amount of maternal duty imposed on her, than (we must hope, in compassion) he determined to relieve her of her charge, and at once entered upon a course of persecution, driving off the poor mother duck, until at last he succeeded, and she gave in, by surrendering in his favour. We do not know the conditions of the surrender, but the gander may be seen any day strutting about with the twenty-four young ducks around him, and he is apparently as proud of them as if they were all from first-prize eggs, and gathers them under his wings at night as carefully as if Nature had intended him for his mate's duties.—*Elgin (Eng.) Courant.*

## The Household.

### The Fireside.

THE "fireside" and "domestic hearth" are phrases often used, and they owe their significance to an institution which is fast going out of vogue. We mean the cheerful, open fire-place, with its ruddy, enlivening blaze, and air of untold comfort. This is one of the charms of home-life in winter, but the stove is rapidly superseding it. What a stretch of imagination it requires to think and speak of the side of a hot, black-looking, iron box as a "fireside"! On the other hand, how gladdening and blithesome is the open fire-place! How pleasant to come in from the outside cold and from out-door toil to the warm welcome which a bright fire flashes into your face! It is a fine picture of rural life in winter which is drawn in the following lines:—

"Tis now the time from boarding cribs to feed  
The ox laborious, and the noble steed;  
Tis now the time to tend the bloating fold,  
To strew with litter, and to fence from cold,  
The cattle fed, the fuel piled within,  
At setting day the blissful hours begin,  
Tis then, sole owner of his little cot,  
The farmer feels his independent lot;  
Hears with the crackling blaze that lights the wall  
The voice of gladness and of Nature call;  
Beholds his children play, their mother smile,  
And tastes with them the fruit of Summer's toil."

The hot, dry atmosphere engendered by close stoves, is a poor substitute for "the crackling blaze that lights the wall," with its attendant cheerfulness and healthfulness. We quite concur in what "the Marvel" says on this subject, in that interesting book, "*My Farm at Edgewood*:"—

"The days of wood fires are not utterly gone, as long as I live they never will be gone. Coal may belong in the kitchens of water—I do not say nay to this; but I do say that a country home without some one open chimney, around which, in time of winter twilight, when snows are beating against the panes, the family may gather and watch the fire flashing and crackling, and flaming and waving until the girls clap their hands and the boys shout in a kind of exultant thankfulness, is not worthy the name."

**CRAB-APPLE CIDER.**—In response to an article on the manufacture of cider which recently appeared in these columns, Mr. H. L. Physick, of Port Deposit, Maryland, has sent to this office a specimen of cider which he made this fall from the Hewes Virginia crab-apple. It is superior to anything in the cider line we have tasted this year.—*Scientific American*.

**ITEMS WORTH COMMITTING TO MEMORY.**—A bit of glue dissolved in skim milk and water will restore old crapes.

An ink-stand was turned over a white table-cloth; a servant threw over it a mixture of salt and pepper plentifully, and all trace of it disappeared.

Picture frames and glasses are preserved from flies by painting them with a brush dipped in a mixture made by boiling three or four onions in a pint of water.

Bed-bugs are kept away by washing the crevices with strong salt water, put on with a brush.

Stings and bites are often instantaneously cured by washing them in hartshorn or turpentine.

**SORGHUM SEED FLOUR.**—Grain and flour having become scarce among the rebels, they have devised a new source of supply, which is thus described by the *Savannah Republican*:—"We have a sample of sorghum flour, made of the seed of Chinese cane, which may be seen at our office. The person who sends it to us had no means of bolting this flour, nor had he taken off the hull of the seed before grinding; the consequence is that the flour has a pinkish color. Those who have made a trial of this excellent flour represent it as an admirable substitute for buckwheat. Made into hoe-cake, it is a very savory bread. It is likely to come into very general use, if prepared, like wheat flour, by bolting. The price at which it can be offered at market may be assumed at fifteen or twenty dollars per sack. But as an acre of sorghum gives from thirty to fifty bushels, ten dollars a sack would be a remunerating price. The production of this grain the present year, in Georgia, must amount to five millions of bushels. We have this great supply of food to fall back upon in the event of a deficiency of the common cereals, wheat

and maize. The season for buckwheat cakes comes in a month, with frost. Let the lovers of this bread try the sorghum flour. It is represented as being very similar to buckwheat when prepared as the latter is. As a substitute for coffee, no parched grain vegetable ordinarily used for that purpose is at all equal to sorghum seed. And what is still more valuable to know, in the present scarcity of sugar, a small quantity of the sirup boiled with ground seed makes the coffee substitute very pleasant and palatable."

**WHY BOOTS SHOULD BE POLISHED.**—Brightly-polished boots are cooler in warm weather and warmer in cold weather than dull and dusty boots; for in warm weather they reflect the sun, which dusty and dirty boots absorb; and in cold weather the clean boot does not allow the warmth of your foot to radiate freely, whereas the unclean boot does. Clean, bright boots are consequently more comfortable, as well as respectable, both in warm weather and cold. Not only will different substances, as iron and wood, give out heat or take it in, more or less, but the same substance radiates heat more or less, actively as it is bright or dull, rough or smooth. Now, dirty boots are rough as well as dull. They have a surface of many little hills and valleys, so that in truth, there is more surface for the heat to pass through either way. As a rough surface is a larger surface, more heat from within and without always passes through dull and dirty boots than polished ones.

**THE CHEAPEST FILTER.**—*Le Moniteur Illustré des Intentions* says:—"It is known that charcoal is the most efficacious substance that can be employed for the purification of liquids; foul and stagnant waters containing decaying animal carcasses have been purified to the extent of becoming inodorous, potable and healthy. Here is a method of constructing one of these filters in the easiest manner. Take a flower-pot, or any other vase having a hole in the bottom, fill the bottom with large round pebbles, then cover with smaller pebbles, then with coarse sand or fine gravel, and finally with about four inches of pounded charcoal. The coal may be placed in a bag and broken with a mallet or hammer. It should be sifted, and the very finest dust thrown away.

Our contemporary adds that nothing is necessary above the charcoal, but we should suppose that it ought to be covered with a clean flannel, held down by stones on the corners. The charcoal should be freshly burned, and renewed occasionally. The other parts will of course last indefinitely.—*Scientific American*.

**FILLING ICE HORSES WITH SNOW.**—As the time is now approaching when the supply of ice for the ensuing year is to be secured, I beg leave to give you the experience of one of our "Clifton Farmers' Club," of Clifton, Ohio. His ice-house is situated on the side of a gravel hill, covering a pit ten feet deep and twelve feet square, and is a simple frame structure over the pit about four or five feet in height; the sides of the pit are boarded up, and the drainage is through the gravel.

Finding it expensive to haul ice from the neighboring ponds and rivers, he last winter filled his house with snow after the custom prevailing in Switzerland and California, (for my friend is a traveller,) simply rolling it up in masses, and with a wheelbarrow conveying it to the house—first lining the sides of the pit with straw, and after it was filled, covering the snow with the same material, thus filling his house without cost, and securing an abundant supply of good ice for his large family during the whole summer. The snow settled down into a compact mass, when the spring and summer heats affected it, and a portion still remains at the bottom of the pit as solid as a glacier of the Alps.—*Cor. of Country Gentleman*.

**HOW TO TREAT FROZEN LIMBS.**—The *New York Evening Post*, in an article on this subject, says that frozen limbs should never be rubbed. The juices of the fleshy tissues, when frozen in their minute sacs or cells, at once become in each of these enclosures crystals, having a large number of angles and sharp points, and hence rubbing the flesh causes them to cut or tear their way through the tissues, so that when it is thawed, the structure of the muscle is more or less destroyed. The proper mode of treatment is thus stated:

When any part of the body is frozen, it should be kept perfectly quiet till it is thawed out, which should be done promptly. As freezing takes place from the surface inwardly, so thawing should be in the reverse order, from the inside outwardly. The thawing out of a portion of flesh, without at the same time putting the blood from the heart into circulation through it, produces mortification; but by keeping the more external parts still congealed till the internal heat and the external blood gradually soften the more interior parts, and produce circulation of the blood as fast as thawing takes place, most of these dangers are obviated.

## Miscellaneous.

### A Plea for Township Fairs.

To the Editor of THE CANADA FARMER:

SIR,—An article lately appeared in THE FARMER against township fairs, which seems to invite discussion, and with all due deference to your superior judgment, I cannot help differing from your opinion of the matter.

In the first place, we must not despise the day of small things—the greatest institutions we have sprung from small ones. We had a County Agricultural Society for several years in this County before we had one in the Township, but so little interest was taken in the matter, that half—nay, more than half the people of the Township, never knew where or when the County Show was held; much less did they prepare anything for exhibition. Not the least interest was taken in agricultural improvement. We did not know but that the best kind of stock was that which would endure the greatest amount of starvation, and the best plough the one that would turn the widest furrow, and turn it flat, so that it might lie close, and so rot the better. It is true we liked a cow to give plenty of milk, but in other respects we were in precisely the same condition in which the celebrated Arthur Young found many of the British farmers in his day, viz.: that agricultural improvement was the business of gentlemen, while poor men had better pay their debts. About ten years ago we organized a Township Society, and although our first Show might be considered a poor affair, and premiums were awarded to what competent judges would call inferior animals, yet we all felt proud of having a Show, and those who got prizes felt a dignity they never felt before, while those who were beaten resolved not to be beaten next year. Thus an impetus was given to improvement, which has urged us onward to increased exertion, and now such an interest is felt in the concern that some say they would go in for having a Township Show if there were no premiums to award. A County Society, in my opinion, never would have accomplished this. Another consideration is the distance from the County Town. Our County is about the smallest in Upper Canada, and here parties living on the outskirts find great difficulty in attending the Shows, and if they wish to exhibit horned cattle, it would require more time to get them there and back than most farmers would be willing to spend over it. In the case of fat cattle and milch cows, the thing would be out of the question. If this is the case in a small County, how much greater would the difficulty be in large ones! We are not in the same position here that they are in the Old Country, where there is a railway station within a few miles of every man's door, but we are in a country where there is hardly any road at all, especially at the season of the year when Shows are held. This centralization scheme would benefit those only who occupy a central position. A few individuals would monopolize the whole thing and gobble up all the money. It is far too much so at the present time.

It is becoming quite customary to open County Shows to other Counties, and here we see a few men of capital driving round all the Fall with a sort of menagerie of domestic animals, fed up on purpose for showing, and in a majority of cases these animals are not a fair representation of the stock kept by these men; they merely show what can be done by lavish feeding, such as is beyond the power of a small farmer to accomplish. If these men wish to compete with each other, the Provincial Exhibition is a very proper place to do it, but I will ever use what little influence I may possess in behalf of those Shows where poor men may come in for a share of the spoils, believing that the man who can increase the produce of a garden of potatoes is as much entitled to consideration as the man who pretends to greater things.

One reason more and I have done. The bigger the Show the more chance for chiselling. Compare the Provincial Exhibition with Township Exhibitions on this score. I know it is difficult to obtain competent judges at all times, especially where so many are required, and for this reason we should be charitable in our criticisms, but when we see so much mismanagement at almost every Provincial Exhibition, we get disgusted. The trial of ploughs this Fall, at Hamilton, was a perfect sham.

These, then, are some of the reasons why I would like to see Township Societies continued. You say

there are too many Shows. No doubt there are more than Editors can attend, still we like to have them present when we can. The privilege is a great one. You say they do not pay. This may be true also, but I believe they are the stepping-stone to others, and if you stop them you knock the bottom out of the whole concern. J. N.

Springwood, Nassagoweya.

NOTE BY ED. C. F.—The above letter has reference to an important subject, which we should like to have thoroughly discussed. Our correspondent holds an honourable position in a County Agricultural Society, and has rendered much good service to the farming interest in his locality. His views are, therefore, entitled to respect, and though they do not altogether coincide with our own, we cheerfully give them a place in our columns. Having so recently stated our opinion in regard to the question at issue, we forbear further comment, and will only add, that, in our judgment, the management of the Provincial Exhibitions will not suffer by any fair comparison with that of Township Exhibitions. It is no easy task to manage any of these public affairs, nor is it ever possible to give entire satisfaction to all.

### Fat Cattle Show at Guelph.

THE Fat Cattle Show in connection with the County and Township of Guelph Agricultural Societies, was held on the Fair Ground on Tuesday, when over 200 fat cattle were exhibited on the Fair ground. Most of the animals were sold before being brought into town, although quite a number changed hands thereafter. The cattle entered for competition were quite equal to those exhibited last year. Mr. Evan Macdonald showed a splendid three-year old ox, which weighed 2205 lbs. Mr. John Tuck's ox was very little inferior weighing 2140 lbs. They are the heaviest oxen which have been ever brought into Guelph, and fetched high prices. There were some fine specimens of fat cows and heifers, heavy and in prime condition. The most successful exhibitors were Mr. Alex. White, who took the first prize for a splendid cow, Messrs. J. S. Armstrong and Mr. S. Hodgskin. Mr. Kenneth McKenzie showed a very fine fat heifer, which carried off the first prize in her class. Those shown by Mr. Sam. Barber and Mr. Joseph Parkinson, were also greatly admired. Among the Sheep Mr. F. W. Stone showed two very heavy fat sheep, one of them weighing 310 lbs. and the other 320 lbs. The heaviest one took the first premium. Mr. James Wright had also a lot of fine sheep. In the two shearling class Messrs. Stirton and Waters exhibited two splendid sheep, the heaviest and best for their age that have ever been brought into Guelph. Those shown by Mr. Henry Tolton were also very fine animals. Among the swine Mr. Wm. Evans showed a spring pig only seven and a half months old, which outdistanced all competitors. It was a splendid porker, and the admiration of all. Mr. T. Card had an enormous sow on exhibition, weighing some 900 lbs. It nearly filled the sleigh, and was withal pretty fat. Mr. Peter Armstrong also exhibited a very large and well fed hog, which took a prize. Mr. J. S. Armstrong and Mr. J. Card had a fine lot of spring pigs. The turkeys, geese, ducks, &c., were as usual excellent, large in size and very fat. Altogether there were seventy-one entries, and the show may be considered a very successful one.—Guelph Herald.

### How to Prepare Flax-Seed for Feeding Purposes.

SOME of our readers have desired information on the above subject. The following extract from a letter which appeared recently in a trans-Atlantic journal, may be of service to them:

"The seed must be prepared in some way before given as food, either ground into meal, or crushed, and boiled into jelly: the latter is the best.

"I have read of different parties recommending the boiling of flax-seed, and advising from 1½ to 2 gallons of water for every pound of seed. Such, in my opinion, would be only wasting fuel in the boiling of water, as four times the quantity of seed stated could be prepared in that quantity of water. It is to be supposed that all parties who propose feeding with flax-seed and preparing it by boiling it into jelly will have a large pot or boiler, in proportion to the number of stock they intend to feed. What I would recommend first is to have a vessel in which the seed could be steeped for at least twenty-four hours, putting in as much seed as would be required for a boiling, and filling the vessel with hot water—if boiling, so much the better; then to cover the vessel over with a strong cloth to keep in the heat.

The water in which the seed is steeped can be used for boiling it in. If the convenience be sufficiently large, there could be as much boiled at a time as would do for three or four days. Care must be taken to keep the material stirred up in the boiling, otherwise it will burn in the pot or boiler, and also to keep the water replenished as it reduces in the boiling. The boiler can be kept constantly full by having a bucket, and ascertaining how many quart-buckets the boiler contains, and how many buckets the boiler contains. The prepared food can be divided in quarts, and an equal portion given each beast, according to size and age, say from 1 lb. to 1½ lbs. and 2 lbs. to each animal.

"In using the jelly, it should be mixed with other food, say, chaffed hay and straw. By sprinkling the jelly over such, all descriptions of stock will use it with avidity."

### A Cheap Barometer.

EVERY farmer should carefully observe the "signs of the weather," and shape his business to suit. He may not be able to foretell the state of the weather by a barometer or by observing the movements of index pointers; but if he will commit to memory the following quaint effusion of Dr. Jenner, who was celebrated in his day for his practical sense, he will find in them a useful guide:—

The hollow winds begin to blow,  
The clouds look black, the glass is low;  
The soot falls down, the sparrows sleep,  
The spiders from their cobwebs peep.  
Last night the sun went pale to bed,  
The moon in haloes hid her head;  
The boding shepherd leaves a sigh,  
For, lo! a rainbow spans the sky.  
The walls are damp, the ditches smell,  
Closed are the pink-eyed pimpernel.  
Hark, how the clays and tables crack—  
Old Betty's bones are on the rack,  
Loud quack the ducks, the peacocks cry  
The distant hills are seeming high;  
How restless are the morning swans,  
The busy flies disturb the swans,  
Low o'er the grass the swallow wings,  
The cricket, too, how sharp he sings—  
Puss on the hearth, with velvet paws,  
Sits wiping o'er her whiskered jaws;  
Through the clear stream the fishes race,  
And nimbly catch the incautious snail;  
The glowworms, numerous and bright  
Illumed the dewy dell last night;  
At dusk the signal toad was seen  
Hopping and crawling o'er the green,  
The whirling wind the dust obeys,  
And in a rapid eddy plays;  
The frog has changed his yellow vest,  
And in a russet coat is dressed;  
Though June, the air is cold, and still,  
The mellow blackbird's voice is shrill,  
My dog, so altered in his taste,  
Quits mutton bones on grass to feast;  
And see yon rooks, how odd their flight—  
They imitate the gliding kite,  
And seem precipitate to fall,  
As if they felt the piercing ball;  
Till surely rain, I see with sorrow,  
Our joint shall be put off to-morrow.

Remember that there are three variable qualities of the atmosphere, from which result variations in the weather; these are, its weight, temperature, and moisture; and, by a careful observation of these it is possible frequently to predicate the weather we are likely to have.—N. Y. Tribune.

### The Salmon and Trout in Australia.

SIR,—I forward, for the information of your readers, the following extracts from letters just received from Australia, giving an account of the progress of the salmon and trout fry:

"Hobart Town, Tasmania, Aug. 23, 1864.

"I have had the pleasure, for some months past, of informing you of the continued satisfactory progress of our sunny charge, and, on the present occasion, I am glad to be able to give you an equally favourable report of their condition, and a considerably better one of their numbers.

"In a former communication I informed you that we had not been able to reckon the trout above 120 in number; but since they began to feel the cravings of hunger and to partake of the food supplied them, to our agreeable surprise, they have made their appearance in increasing numbers, and we estimate them at 400 instead of 120.

"In one of the tubs in which we had deposited some of the salmon ova we had never been able to count

more than ten or twelve fish; but on raising and removing the large pebbles, considerable numbers were found quietly reposing below, and we discovered that, instead of a dozen, we had nearly a hundred!

"If those in the fixed boxes increase upon us in the same ratio, their numbers will of course greatly exceed our previous anticipations. The salmon, however, are only beginning to take their food with avidity."

From another source, it is now ascertained that the number of living salmon in the breeding-ponds is not less than 6,000, and there is reason to believe may be as large as 10,000, and of trout there are quite 400.

From Melt Jurne I hear that they have 400 living salmon-fry, looking as well and healthy as their native element in England.—JAMES A. YOUL, in *The Field*.

Waratah House, Clapham Park, Oct. 21.

PLOUGHING AND PLOWING MATCHES.—In going to get a glimpse of the ploughing match at our State Fair at Rochester, we met at the border of the field a Canadian farmer just turning away with a friend in great disgust, and earnestly asking him "whether they called that ploughing in New York?" The incident is brought to mind—together with the undoubted fact that the standard of good workmanship in the performance of this operation is far too low among us—by the numerous reports of ploughing matches which come to us at this season in every issue of our Canadian exchanges. The papers are full of them. About a dozen are reported in the last number of THE CANADA FARMER, some under the auspices of county societies, others conducted by a-sociated towns, and several by single towns—all attracting considerable competition and large attendance. It is by such encouragement as this that good ploughing can be promoted here; and if our county and town societies were more awake to the means of usefulness they might command, and more active in the efforts they put forth, they would find a legitimate field of exertion in this and other similar directions which is as yet but poorly occupied, and too often, we regret to say, entirely overshadowed by far less appropriate or serviceable undertakings. We crowd everything into a few hours or a single day at the "Annual Fair," and then all interest in the Society is lost until another year comes around; indeed, we are fortunate if the "Fair" itself does not go mostly into the hands of the horse fanciers. The chief Show of the year should be strictly agricultural, and the Canadian system of ploughing matches, turnip matches, and so on, at other times, is one certainly worthy of imitation.—Country Gentleman.

### Markets.

#### Toronto Markets.

"CANADA FARMER" Office, Dec. 23, 1864.

Flour—Little offering; superfine in good demand at \$4 10 to \$4 15 per bush for No. 1, extra, \$4 20 to \$4 25; superior extra, \$4 60 to \$4 65; fancy, \$4.

Fall Wheat scarce, with a good demand, selling at 85c to 91c per bushel.

Spring Wheat dull at 75c to 82c per bushel.

Barley weak at 55c to 65c per bushel.

Oats at 35c to 40c per bushel.

Rye 60c per bushel.

Pease in better demand at 65c to 60c per bushel.

Hay—Market well supplied at \$14 to \$16 50 per ton.

Straw \$9 to \$12 per ton.

Provisions—Butter—Fresh, wholesale, per lb., 14c to 17c; retail, per lb., 18c to 25c; in tubs, wholesale, per lb., 18c to 17½c.

Eggs—Wholesale, per dozen, 14c to 15c; retail, per dozen, 19c to 20c.

Hams—Wholesale, per lb., 8c to 10c; retail, per lb., 10c to 12c.

Fresh Bacon—Wholesale, per lb., 7½c; retail, per lb., 11c.

Cheese—Wholesale, per lb., 10½c to 11c; retail, per lb., 12c to 15c.

Lard—Wholesale, 10c per lb.; retail, 12½c.

Beef in small supply at \$2 50 to \$3 per 100 lbs.; second quality plenty, at \$3 50 to \$4 00, 6c to 8c per lb., retail; first class in demand for home consumption and export, at \$4 50 to \$5 per cwt., wholesale; 5c to 10c per lb., retail.

Calves \$3 50.

Sheep, by the car load, \$3 to \$3 50.

Lambs, by the car load, \$2 25; very good bring \$2 50.

Pork \$5 50 to \$6 25 per 100 lbs.

Venison, good back, \$3 50 to \$5.

Hides (green) per 100 lbs., \$3 to \$3 25, dry hides, 6c to 8c per lb.

Tallow 6c per lb.

Wool, 30c.

Calfskins (green) 10c to 12c per lb.; dry 16c to 18c.

Sheepskins (green) \$1 to \$1 25 each; dry, 16c to 18c.

Lambskins 87c to \$1 each.

Coal, Lehigh \$10, Scranton \$8, Bituminous \$7 50 to \$8.

Wood \$2 25 to \$5 50 per cord.

Salt \$1 50 to \$2 per bbl.

Water Lime \$1 to \$1 50 per bbl.

Potatoes in better supply at 35c to 45c per bushel retail.

Apples, \$1 to \$2 00 per bbl.

Ducks, 80c each.

Chickens, 25c to 35c per pair.

Turkeys, 60c each.

Geese, 50c to 40c each.



**Montreal Markets, Dec. 27.**—Flour, per bbl. of 100 lbs.—superior extra, \$4 70 to \$4 90; extra, \$4 55 to \$4 60; fancy, \$4 37 1/2 to \$4 42 1/2; city brands of superfine, \$4 25 to \$4 35; superfine from Canada wheat, \$4 20 to \$4 30; superfine from Western wheat, \$4 15 to \$4 20; Western States flour, \$4 15; superfine No. 2, \$3 95 to \$4 05; fine, \$3 60 to \$3 75; middlings, \$3 30 to \$3 60; po lands, \$3 90 to \$3 10, bag flour, \$2 55 to \$2 65, per 112 lbs. Flour market quiet; transactions are most entirely for the supply of local wants; some extra sold at an exceptional price. A 100 barrel lot of fancy was sold at \$4 4 1/2, and \$4 1/2 superfine from Canada wheat were at \$4 27 1/2, and \$4 33 for small lots, the other two parcels of strong brands bringing \$4 37 1/2 to \$4 40; bag flour was sold at \$4 37 1/2 to \$4 40 per 112 lbs. Oatmeal, per barrel of 100 lbs., \$4 70 to \$5, according to quality. Wheat, per bushel of 60 lbs.—Receipts of U. C. spring by G. T. Railway, have increased, but continue to be mainly for city millers.—Ashes, per 100 lbs.—Few sales reported this forenoon; previous rates are repeated, viz.:—First pots, \$5 37 1/2 to \$5 40; inferiors, \$5 60 to \$5 65; pearls, \$5 40 to \$5 45; inferiors, \$5 60. Pork, per barrel of 200 lbs.—No transactions reported this forenoon. Dressed Hogs, per 100 lbs.—Heavy receipts yesterday and to-day, sales of some choice lots at \$6 50 to \$6 62 1/2. Butter, per lb.—sales of store-packed have been made at 16c, 17c, and 17 1/2c, a very choice lot bringing 18c. Cheese, per lb.—good dairy about 9c to 10c.—Witness.

**Hamilton Markets, Dec. 29.**—Flour—superfine No. 2, \$3 25 to \$3 30; superfine No. 1, \$3 75 to \$4; fancy, \$4 to \$4 25; extra superfine, \$4 25 to \$4 50; superior extra, wholesale, \$4 50 to \$4 75. Grain.—There was very little grain in. Fall Wheat, per bushel, 85c to 90c; Spring Wheat, 82c to 86c; Barley, 63c; Peas, 55c to 62c; Oats, 37c to 38c; Potatoes, per bushel, 37 1/2c to 40c. Butter, per lb., 20c to 22c; do in Urkims, 16c to 18c; Pork, \$5 75 to \$5 60; Beef, per 100 lbs., \$2 50 to \$3 53; Turkeys, 50c to \$1. Chickens, per pair, 25c to 30c; Geese, 20c to 50c. Oatmeal, per tub \$4 75 to \$5 25, Rye, 58c, Indian Corn, per bushel, 65c to 65c. Onions, per bushel, \$1; Beets, per bushel, 50c; Carrots, per bushel 37 1/2c to 50c; Eggs, per dozen, 17c to 22c; Hay, per ton, \$10 to \$13. Straw, per load, \$4 to \$5.

**London Markets, Dec. 29.**—Wholesale Market Prices.—There was a fair supply of produce on the market to-day, and prices generally made higher quotations. Grain.—Fall Wheat 8 1/2 to 8 3/4, Spring do, 7 1/2 to 7 3/4, Oats, 5 1/2, Barley, 1 1/2 to 1 3/4, Peas, 5 1/2 to 5 3/4, Dressed Hogs—small and medium 25 to 36; extra tra weights, \$6 25 to \$6 62 1/2, per 100 lbs.—Free Press.

**New York Cattle Market, Dec. 29.**—Beef.—The total offerings of beefs for the week, at all the markets, is 4,787 head. At Allerton's, on Monday and Tuesday, with 2,941 cattle on sale the market was very dull. The very limited number of prime beefs, for which alone there was an active demand, enabled sellers to advance the prices of the choicest bullocks about 1/2c per lb., but ordinary and medium sold at from 1/2c to 1/4c per lb. lower rates than last week. Sales were low at 21c to 22c per lb. for premium, 19c to 20c for prime, 17c to 18c for good fat oxen and steers; 15c to 16c for lightish fat steers and heavy oxen, 13c to 14c for medium steers and heifers, and from 10c to 12c for inferior to common grades. Sheep.—The sheep market closed dull at 10 1/2c to 11c per lb., live weight, for choice and extra, 9 1/2c to 10c for good sheep and lambs, 8c to 9c for common. Hogs sold very slowly on Tuesday at 12 1/2c to 13 1/2c per lb., alive, and 16 1/4c to 17 1/2c dead.—World.

**New York Markets, Dec. 29.**—Flour.—Receipts 530 barrels, market quiet and about 5c better. Sales 4,000 barrels at \$9 50 to \$9 75 for superfine State, \$9 75 to \$10 05 for extra State, \$10 10 to \$10 20 for choice do, \$9 50 to \$9 75 for superfine western, \$10 10 to \$10 40 for common to medium extra western, \$10 50 to \$11 05 for common to good shipping brands extra common Ohio. Canada flour quiet and 5c better; sales 300 barrels at \$9 95 to \$10 05 for common, \$10 20 to \$12 for good to choice extra. Extra Rye flour quiet at \$8 50 to \$9 50. Wheat.—Receipts 330 bushels, market quiet and about 1c better; sales 14,500 bushels No. 1 and 2 Milwaukee Club at \$2 17 in store. Rye quiet and nominal. Barley dull. Corn.—Receipts 5,805 barrels, market dull at \$1 58 to \$1 80 for mixed western. Oats a shade firmer at \$1 07, for western. Pork a sh. do lower, sales 1,200 barrels at \$39 to \$ 9 61; for one year old; mess \$49 60; new do, \$34 50 to \$35. Prime Beef dull.

**Buffalo Markets, Dec. 23.**—Flour.—Market rules firm, with a moderate demand. Sales yesterday and Monday, 150 lbs. superfine Canada at \$9 50; 50 lbs. X Canada spring at \$10, 100 lbs. XX white Illinois at \$11 70, 50 lbs. XX red and white Ohio at \$11 25; 60 lbs. X Illinois spring at \$10 25, and XX Indiana red and white at \$11 25. Grain.—Wheat dull and inactive; sales 60 bushels winter red Illinois at \$2 10; 3,500 bushels Canada Club at \$2 08; white Canada held at \$2 40 to \$2 45; white Kentucky at \$2 50; amber Michigan at \$2 30; red winter at \$2 27, new red Chicago spring at \$2, No. 2 do, at \$2 05, and No. 1 Milwaukee Club at \$2 0. Corn is dull, new held at \$1 35 on the tra, \$1 40 in store, old at \$1 60. Oats firm but quiet at 85c from store. Barley quiet, 1 1/2 sale at \$1 80 for Canada. Rye dull and neglected at \$1 50. Premium, last sale at \$1 65. Sheep.—Market firm Illinois Timo held at \$6 10; Wisconsin at \$5 50 to \$6. Clover scarce and firm at \$16 to \$18 00. Dressed Hogs.—Firm, with an active demand for packing and city trade. Sales Monday 200 Canada hogs at \$15 1/2 to \$15 50, and yesterday 75 do., averaging 250 lbs., at \$15 25—the market closing dull.

Advertisements.

To County Agricultural Societies.

THE Officers and Members of County Agricultural Societies are requested to take notice that at their approaching Annual Meetings in the third week of January next, it will be the duty of each Society to nominate four suitable persons to serve as Members of the Board of Agriculture for Upper Canada, in place of those whose term of service expires. The Members whose term of service expires at the end of the present year are the following, viz.:

- Hon. D. CHRISTIE, Bradford,
- Hon. ASA A. BURNHAM, Cobourg,
- WM. FERGUSON, Esq., M.P.P., Kingston,
- Dr. RICHMOND, Gananoque.

These gentlemen are, however, eligible for re-election.

EUGEN C. THOMSON, Secretary Board of Agriculture.

Board of Agriculture Office, Toronto, Dec. 23

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MANURE FOR FLAX.

MR. ANDREW COE, MONTREAL:—

DEAR SIR,—MR. P. A. CURTIS, OF THIS PLACE, OBTAINED OF ME last spring some of the SUPER-PHOSPHATE OF LIME I had of you, and tried it upon FLAX, using about one barrel per acre, without manure of any other kind. The field, which was rather poor land, had been in grass for several years, and was broke up in the spring. The Phosphate was sown broadcast and harrowed in with the seed. A strip of about three rods in width was left through the centre of the field without Phosphate. From the first appearance of the Flax to its maturity, the difference was so strikingly in favour of the Phosphate as to call forth inquiry and remark from all who saw the field. The Flax was of dark green colour, the growth vigorous and rapid, and the yield at least one-third more; while, without the Phosphate, it was of pale green colour—smaller, and in all respects inferior. I send you a fair average sample of each.

Another consideration—and one which is worth the attention of Flax Growers generally, is—that in enriching the soil with Phosphate no seeds of noxious weeds are deposited, as is the case with ordinary farm manure, and the Flax, in growing, covers the whole ground, without admixture of grass or weeds, which are so troublesome in the crop.

I intend to raise a large number of acres next year, and to use the Phosphate upon all of it, being satisfied that I cannot obtain so good a crop at so small a cost in any other way.

I am, respectfully yours,

SELDON LEE, Proprietor of Flax-dressing Mill.

Warden, Shefford Co., C. E., Sept. 22, 1864. v21-11

IMPROVED PREMIUM IRON CYLINDER GRAIN DRILL,

MANUFACTURED BY

JOS. HALL, OSHAWA, C.W.

THE past winter having demonstrated beyond a doubt the great advantage of sowing winter grain with Drills over broadcast sowing, and the fact being clearly established, that in dry, or otherwise unfavourable seasons, ALL grains do much better when sowed in drills, I have been induced to commence the manufacture of these valuable implements.

In our wet springs it is almost impossible to get the grain properly covered with a harrow, so as to prevent injury from dry weather hereafter. Aside from these reasons, the amount of seed sown, and the increased crops raised by reason of having the grain evenly deposited in the ground, makes the Grain Drill an indispensable requisite of every well regulated farm.

I am happy to say that I can now offer to my customers the most perfect Grain Drill in use in the United States or Canada. It will sow all grain equally well, in quantities of from one-half to four bushels per acre. It can be furnished with either eight or nine tubes, as desired.

When wanted, a GRASS SEED attachment can be furnished, which will sow any grass seed, in connection with the grain or alone, in quantities of from four quarts to half a bushel per acre.

I can also supply a GRASS attachment, which will sow Guano, Plaster, Lime, or Ashes, alone, or with the grain or grass seed, or both, in such quantities as desired.—The machine is entirely simple, and not at all liable to get out of order, and is made in the most superior style of workmanship.

ALL MY MACHINES ARE WARRANTED. For further information address—

v21-11 JOSEPH HALL, Oshawa, C. W.

A PRACTICAL FARMER, (LATELY ARRIVED FROM ENGLAND.)

IS desirous of obtaining a position as Manager of a Farm. Thoroughly understands Farming in all its branches, and the Management of Stock, particularly Sheep. Was Steward and Farm Bailiff, for a period of eleven years, for a gentleman in England, to whom reference may be made; if required, other references can be given. Address (post-paid) "W. S." care of Mr. James E. Day, Commercial College, Toronto. Toronto, Dec. 30, 1864. v21-11

AID FOR FARMERS.

\$25,000 to Loan!—Terms most Favourable.

LOANS upon Real Estate can be had through me, payable by instalments spread over from ONE to TEN YEARS, at reasonable rate of interest, with privilege of paying back a part, or the whole, before maturity, deducting interest for unexpired time.

Crown Patents taken out when required. Letters of enquiry must be pre-paid.

GEO. F. BURROWS, Dundas, C. W. 24-21\*

AGRICULTURAL AND VETERINARY INSTRUCTION.

THE ANNUAL COURSE OF FAMILIAR LECTURES in the above departments will be resumed JANUARY 18th, 1865, and continue six weeks. The Veterinary department will, as heretofore, be under the management of Professor SMITH, and Professor BUCKLAND will be assisted in the Science of Agriculture by the Professors of Chemistry, Geology, Natural History, and Meteorology, in University College.

Fee for the Veterinary Course, \$5; the others, free. For particulars, apply to Professor BUCKLAND, University College.

H. C. THOMSON, Sec'y Bd. of Agriculture, Toronto, Dec. 15, 1864. 24-34

GRAPE VINES!

CHOICE VARIETIES, by Mail, at 25 cents each. Hartford Prolific and Concord are first-class Grapes, and ripen with us in open air, in August and early in September, and sell readily at 20 to 25 cents per lb., wholesale. They are very hardy vines, and require no shelter, and with good care will bear 20 lbs. the second year after planting. Persons enclosing \$1 in registered letter to my address, before the Vines are all ordered, will receive by mail, post-paid, in the Spring of 1865, two vines of each variety, and larger quantities, if required. Write plain your name and Post Office. Direct

W. W. KITCHEN, Grape Grower and Wine Maker, Grimsby, C. W. Grape Wine (5 Gallons and over), at \$2 per Gallon. 24-14

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FARM PROPERTY AND ISOLATED DWELLINGS.

The London and Lancashire Fire Insurance Company.

CAPITAL—ONE MILLION STERLING.

THIS Company insures against Fire, Farm Property and Detached Dwellings for a period of years, on terms unusually favourable to the insured. Farmers and others will find our rates equitable, our settlements for loss or damage prompt and liberal, and our system more adapted to their wants than that of Mutual Companies. They have the security of a large deposit (over \$50,000) in the hands of the Finance Minister, besides the income and large capital of the Company. No assessments, and no uncertainty as to when or how losses will be paid.

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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. 5-4

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