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THE CANADA FARMER

VOL. I. No. 4.] TORONTO, UPPER CANADA, MARCH 1, 1864. [POSTAGE FREE.

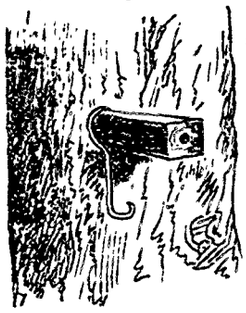
Maple Sugar Making.

THE time is now at hand when bounteous nature will afford the farmers of Canada their annual opportunity of manufacturing for themselves what our American neighbours are wont to call their "family sweetening." We propose, therefore, to give some practical hints and suggestions in reference to Maple Sugar making. In so doing we wish to bear in mind that we have to write for more than one class of readers. There is the new settler in the bush, who with limited means, and few resources except his own labour, skill, and perseverance, must provide most of the requisites for Sugar making within himself, and is unable to obtain those improvements and conveniences by the help of which Maple Sugar can be made more easily and of the best quality. Then there is the somewhat "before-handed" Canadian farmer, who has passed the earlier stages of struggling in the backwoods, and is beginning to feel easy and comfortable. There is also the wealthy yeoman, whose farm is clear of debt, supplied with suitable buildings, well-stocked, in prime working order, and to whom a little outlay is no object, if it be money well invested. We desire to make THE CANADA FARMER a welcome, useful, and indispensable counsellor to all classes of our agricultural population, and to none do we more earnestly wish to be helpful than to those who are tasting the hardships of pioneer life in the backwoods. The great majority of farmers in this country have sugar bushes, and it is very desirable on various accounts, that as many as possibly can should manufacture their own sugar Every pound that is made adds to the material wealth of the country, increases the profits of agriculture, and promotes our independence. It is not only good individual management, but wise national policy to produce what we want within ourselves as largely as we can. Why should we send abroad for sugar, and allow the secretions of innumerable maple groves to "waste their sweetness on the desert air?" The season for Sugar-making is one of comparative leisure, there is no mystery about the art, it is a rather pleasant, social employment, and one that may be engaged in at but very trifling cost, if circumstances require.

The scene which our artist has depicted in the accompanying beautiful engraving, illustrates maple sugar-making in its most simple and primitive style, except in a single particular,—the substitution of wooden pails for troughs. It suggests two or three other points which it may be well at the outset to urge upon all who propose to engage in sugar-making. Let the sugar bush be cleared of logs, brush and other obstructions to the passage of a team in collecting sap. It will greatly lighten the labour if a team can be used for this purpose. Locate the shanty or boiling-house at the lower side of the bush, that the sap may be drawn down hill, and fix the sugar-camp, if possible, close to a stream of water, to facilitate the cleansing of the vessels used in the boiling process.

We will suppose that a new settler in the woods has resolved to make sugar the present season. His first business will be to provide something in which to catch the sap. For this purpose let him take his axe and proceed to the bush, to make a sufficient quantity of troughs. He should choose trees of about a foot in diameter of some description of soft timber that will split freely and work easily, such as poplar, bass, or cherry. On felling a tree of this kind, let him cut it into lengths of from two and a half to three feet. These must be split through the centre, and the blocks thus formed dug out with the axe and made of sufficient capacity to hold from one to two pails of sap. The troughs provided, spouts are wanted to conduct the sap from the tree to the trough To make these, take some timber that splits well and saw or chop it into blocks about a foot in length. These must be split into thin narrow staves. This is best done with a crooked "frow," but our new settler may be obliged to use his axe. If so, a shallow groove must be cut on one side for the sap to run in, and one end of the spout must be sharpened to fit the incision to be made in the tree by the tapping iron This tool is about a foot long and made of iron tipped with steel, somewhat in the shape of a gouge the sharp end being about two inches wide. A place must now be prepared to boil the sap. Choose the location as already directed, and build a shanty according to taste and materials at hand: log sides and slab roof will do if nothing better can be had. Fell a large hardwood tree, cut two logs from the butt end, the length to be governed by the number of kettles to be used. If there are only two kettles, the logs may be about six feet long. Place these logs parallel with each other, with a space between wide enough to hang the kettles. When these are burned up in the process of sap-boiling, others may be cut from the same tree and rolled in to fill their places. At each end of the logs set a crotched stick into the ground, lay a pole across these, and suspend the kettles from the pole. The ordinary sugar kettles are of cast iron, and hold from twelve to fifteen gallons A large cauldron kettle is often used, and is hung on the short end of a long pole resting on a single crotched stick set in the ground. This pole is so balanced, that when the kettle is full of sap, the other end of the pole will rise up, and let the kettle down to the fire; but when the sap boils low, the kettle will rise out of the way of the fire, and escape the danger of burning the syrup. This is a safeguard, if the person who is attending to the boiling should be absent for some time collecting sap or otherwise engaged. A large barrel or capacious trough must be provided for the purpose of storing the sap when gathered. A good supply of firewood, (dry if possible,) should be on the spot, before operations are commenced. All being ready, when the sap will run, the trees must be

tapped, the spouts fixed, and the troughs set. The common method of tapping is by making two gashes in the body of the tree, near the ground, in the form of the letter V. Just below the angle formed by these cuts, the tapping iron is driven in to make an entrance for the sharpened end of the spout before described, and the trough is placed so as to catch the sap as it flows from the spout. A simple open barrel on an ox-sled, answers well for collecting the sap. A circular board, an inch or two less in diameter than the inside of the barrel will be useful to float on the sap, and prevent it from splashing out. Before proceeding to describe the boiling and sugaring off processes, it will be well to point out some of the improved methods of performing the work already referred to. We have described the simplest and most primitive arrangements—such as any beginner in the bush may make with scarcely any outlay except for the kettles. That a good article of sugar may be made even with such rude and imperfect facilities, there can be no doubt; but the best quality cannot be produced without better conveniences. Sugar-making, like everything else, must be pursued under difficulties by the new settler, and it is only by unremitting care and attention in the way of regulating troughs, straining sap, skimming and clarifying syrup, &c., that good sugar can be made with such rough and ready contrivances as we have been describing. Pails of wood or sheet tin are greatly preferable to troughs. Troughs are clumsy things, heavy to lift, liable to get out of place and waste the sap, and are very much exposed to leaves, dirt, and rubbish. Wooden pails are the cheapest, tin ones the best. If made of wood the pails should be rather smallest at top to prevent the hoops falling off. It is a great improvement to paint them both outside and inside. They will cost from $10 to $15 per 100, according to size and finish. Tin pails are easily kept clean and are less likely to impart sourness. They should be made largest at top so as to pack away in nests when not in use. They will cost from $20 to $30 per 100, according to size, make, and quality of tin. There is also a better mode of tapping the trees, than the common one to which reference has been made. The V shaped cut inflicts a serious and unnecessary wound upon the tree. It has been found by repeated experiments that a small auger hole will yield as much sap as a large gash, the flow being in all cases in proportion to the depth of the hole. It does not take many years to girdle and destroy a maple tree on the old plan, whereas the auger hole will grow over, and leave the tree uninjured. Spouts may be made as already described only shorter, or of tinned sheet-iron, which are considered better. Some adopt the plan of hanging the pail on the tree by an iron spike or old horse-shoe nail, the tin pails having a hole just below the wire rim and the wooden ones a small wire loop for this purpose. The nails are however objectionable especially if the tree should ultimately be chopped into firewood or sawn into lumber. Altogether, the best arrangement of spout and pail that we have met with, is that represented below.



On this plan a single auger-hole say seven-eighths of an inch, is bored into the tree to the distance of about three-quarters of an inch. The spouts are made out of thick inch board about four inches long. They are shaved at one end just large enough to fit the auger-hole in the tree. To get them the right size, bore a hole in a board and shave each until it will exactly fit it. A hole is bored lengthwise through the spouts for the passage of the sap. The hook for the pail is made of very stout iron wire, and is of the shape figured in the accompanying cut. The small end of the spout is passed through the loop of the hook before it is driven into the tree. The lower part of the hook passes through a hole near the top of the pail and the curve secures its hold. The hook is held against the tree by the slight shoulder of the spout, and is capable of sustaining a heavy weight. The subjoined cut represents the arrangement complete.

Kettles are not good boilers for maple sugar-making. From their shape they become unevenly heated, and a portion of their contents is liable to become burnt. Shallow sheet-iron pans are much better. They may be kept cleaner, they evaporate more rapidly, make finer sugar and economize heat. A good form for them is described by a correspondent of the *Country Gentleman*. A convenient size is 3 by 6 feet. The following is his description:—

"Having bought your iron, get it cut the proper size by the tinsmith, or if you have shears large enough to cut it, you can do it yourself. Turn over three-quarters of an inch of each inside edge, and lock them closely together with a hammer. Place it on

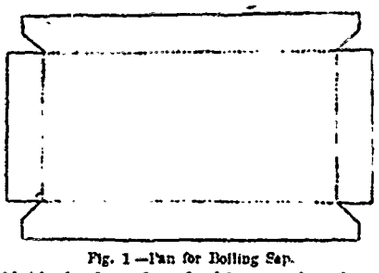


Fig. 1.—Pan for Boiling Sap.

a solid block of wood, and with a punch make a row of holes, half an inch apart, the whole length of the seam. Then put in your rivets, and clinch them tight'y. Now with a straight edge mark off 7 inches all around the edge of your iron, then cut it in the shape shown in fig. 1.

"Turn up the ends first, next the sides, which will project beyond the ends; these must be bent over and riveted with two rows of rivets to the ends. Scrape the inside lower corners with a file till they are bright—then apply with a brush a few drops of muriatic acid, diluted with as much zinc as it will dissolve. It can then be soldered the same as tin. The bale should be an iron rod ¼ inch in diameter. Get the blacksmith to bend the corners and weld it. To put it on, cut down each corner one inch and bend the iron round the bale. The last thing is the handles, four in number, which the blacksmith will also make, and you have a finished pan, warranted not to leak, at a cost of say:

30 lbs. iron, at 7 cents	$2 10
Punch	12
Rivets, acid, solder, etc	25
Iron for bale and handles, and making same	75—$3 22

"Such a pan, he says, will last 12 to 16 years, and be large enough for 200 trees, without much night work. The rivets may be bought at hardware stores for 25 cents per 1,000. It should have ears or handles riveted on at the corners, for convenience in lifting.

"Pans may be likewise made as follows, of a single piece of Russia sheet iron, at considerably less expense, but they will be less durable. Make the sides of plank, six inches wide and about two inches thick, about a foot shorter than the sheet iron, so that the latter may turn up at the ends. The wood should be some tough sort, not easily split. The sheet-iron is secured to the plank by double rows of closely driven, broad-headed nails. The fireplace should be a few inches narrower than the pans, and a good draught secured, by means of a chimney of sufficient height.

"The same correspondent, already mentioned, describes the following good way for arranging the fireplace and pans:—

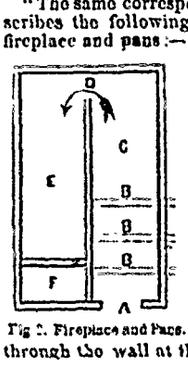


Fig 2. Fireplace and Pans.

"The annexed cut (fig. 2) illustrates an improved form of arch for boiling sap, which is very highly spoken of by every one who has used it. It is very simple, and any mason of ordinary ingenuity can easily make one.

"It consists of a double arch for two sheet-iron pans placed side by side. It is made wholly of brick, or can be built on the outside with flat stones.

"A is door for wood—B B B three hollow cast-iron tubes to lay the wood upon, extending through the wall at the right hand side. By having them cast hollow, the heat passes out into the open air, making them much more durable. They are three inches in diameter, and placed about six inches from the floor of the arch—C pan—D flue for passage of the fire—E pan—F chimney, or a wide stove-pipe will answer as well. The space under pan E need not be more than 12 inches deep, as no wood is placed under it. It should be raised about four inches higher, so that the sap, after it becomes heated, can be carried into the other pan by a syphon rigged with a faucet, so that the flow can be regulated.

"The pan C can be made longer than the other, but should not come quite out to the end of the arch, as the sap would be burned on the pan. A better way is to have the pans of the same size, so that they can be changed at the end of each boiling season, as the pan over the hottest fire will burn out much the soonest.

"The operation of boiling sap in one of these arches, rigged as I have described it, is as follows:—In the morning fill both pans, and then build the fire. The sap in the pan C will be boiling before that in the other; when it is, put your syphon in its place and guage it so that it will just keep the pan C full; then start the cold sap from the holder, (also fixed with a faucet,) so as to keep the pan E full also."

Along with these improvements it is desirable to have a comfortable boiling-house, entirely closed in from the weather, and covering in the fire-place and boilers. It must be well lighted, so that dirt and impurity may be readily seen. It is well to fix the sap reservoir in such a manner that the bottom of it will be a little higher than the boilers, so that the sap may easily run into them with a faucet.

A few brief hints about boiling and sugaring off will complete what we have to say on this subject. Cleanliness at every step of the process is the prime thing to be secured. Boil the sap as fresh as possible. It should never stand twenty-four hours if it can be avoided. Sap varies in quality and requires reducing by boiling to from one-twentieth to one-thirtieth of its bulk to make good syrup. Whatever dirt and scum arise on the surface of the sap while boiling, should be removed with a skimmer. On taking the syrup from the fire, it should be strained through one thickness of home-made flannel into a clean tub or barrel, and left to cool and settle from twelve to twenty-four hours. Sugaring off may be done either in one of the pans, or in a separate brass kettle. Pour off the portion of syrup that is clear into the pan or kettle, leaving the sediment in the tub. In sugaring off, the fire requires to be under control either by a damper in the flue, or by means of a crane for the kettle to hang upon. If it is thought needful to clarify the syrup, add a beaten egg and a gill of milk to every gallon, keeping it hot but not boiling until the scum has risen and been skimmed off. Some good sugar-makers think the milk and eggs unnecessary, and contend that if every vessel is kept clean, and the syrup is thoroughly strained and settled, it will be free from all impurities. The final boiling must be carefully and rapidly performed. There are various ways of telling when the sugar is boiled enough. If it is to be put into tubs and trained, it requires less boiling than if it is intended to be put up in cakes. When snow can be obtained, a good plan is to take a dishful, and when some of the hot sugar is put on the snow, if it cools in the form of wax on the surface of the snow, it is done enough to put in tubs to drain. But when it is to be caked, it should be boiled until, when it is cooled on the snow, it will break like ice or glass. On this point the *Register of Rural Affairs*, says.—

"When the bubbles rising to the surface burst with a slight, or just perceptible explosion, from the tenacity of the thickening liquid; or if a drop hot from the kettle into an inch of water forms a distinct solid globule slightly flattened when it strikes the bottom; or if a drop between the thumb and finger will draw out into a fine thread half an inch long, the process has gone far enough." Another mode is thus described by a correspondent of the *Country Gentleman*: "Take a short twig, dip it by dipping its end into the boiling sugar, and then form a loop with a hole half an inch in diameter. Dip the loop into the sugar, bring it up quickly and blow through the loop-hole. When it will go off into a ribbon eight or ten feet long, it is done. It will ribbon a few feet before it is done, but wait a few moments and try again till it will perform according to order."

When sufficiently boiled, it is poured into vessels to cake. It must not be allowed to cool too much

before being put into the moulds as it hardens fast at this stage. If fine sugar is desired, it should be stirred moderately while cooling. The mould should be wet with water to prevent the sugar from sticking to it. To obtain dry sugar, place it in a tub, barrel, or hopper-shaped box, with holes for draining off the molasses. The sugar may be whitened by laying a few thicknesses of flannel on the top of it while draining, the flannels to be daily washed in cold water. They will absorb and wash out the colouring matter.

Grasses Worthy of Culture.

Foremost among these is Timothy, or Herd's Grass. Its merits are well and widely known. As a hay-crop it is unsurpassed. It is somewhat coarse and hard if allowed to ripen its seed, but cut in the blossom or immediately after, it is greatly relished by all kinds of stock and is especially suited to horses. It contains a large amount of nutritive matter, and is altogether a most valuable forage plant. Timothy is often sown with clover, but this is hardly to be recommended beca se the two grasses do not blossom at the same time. Timothy is later in blossoming than clover, and hence must either be cut too green when there is considerable shrinkage, and loss of nutritive quality, or the clover must stand too long and be thereby injured. Moist, peaty or loamy soils of medium tenacity are best adapted to Timothy. On suitable land it yields very large crops.

Red Clover is popularly ranked among the grasses, though strictly speaking, it belongs to the pulse family. This plant plays a part so important in modern agriculture. that we may well wonder how our forefathers got on without it. It is valuable for hay and pasture, but its chief utility is as a renovator of the soil. In this character it is indeed an agricultural boon. To restore worn out land, there is nothing equal to ploughing under one or two crops of it in full bloom. The effect of thus putting into the top soil the large amount of fertilizing matter clover contains in a green state, is little short of magical. The long tap roots of clover extend deeply into the soil, loosening it and admitting the air, while its luxuriant foliage imbibes a great deal of food from the atmosphere, and so completely shades the ground as to act in the double capacity of a valuable mulch, and an effectual smotherer of weeds.

There are some other grasses not so well known or so generally used as Timothy and Clover, which are nevertheless well worthy of culture. Among these may be named Red-top, Orchard-grass and Kentucky Blue-grass. Red-top, or as it is called in England, "Bent grass," when sown with Timothy, makes a better meadow or pasture than when Timothy is sown by itself. Timothy is very apt in certain seasons and situations to grow in tufts, while Red-top makes a very smooth, close sward. After three or four mowings, Timothy meadows begin to fall short, but with a mixture of Red-top they will hold out much longer. This is an important consideration in a new country like Canada, where land is seeded down after the first crop, and it is not desirable to use the plough until the stumps have rotted. On strong ground, Timothy and Red-top grown together, make a finer and better quality of hay than can be gathered of Timothy alone, which will grow up coarse and stalky when the soil is rich. Red-top is also said to shrink less than any other kind of grass after being put into the barn. To all which may be added, that it is an excellent improver of soils,—its compact sward killing out weeds and foul grasses, and protecting the soil from the hot sun and washing rains.

Orchard grass, or Cock'sfoot, so called from the supposed resemblance of its clusters to the foot of a barn yard fowl, is very highly esteemed for its rapidity of growth, the luxuriance of its after-math, and its endurance of repeated croppings by cattle. It blossoms about the same time as Red Clover, and therefore makes a good mixture with that plant. It bears shade well, and is on that account well adapted to open woods, pastures, and to orchards. As a pasture grass, it requires to be fed closely, to prevent its becoming tufty, and going to seed, when it becomes hard and wiry. Judge Buel said of it:—"It is one of the most abiding grasses we have. It grows remarkably quick when cropped by cattle. All agree that it should be closely cropped, as otherwise it becomes coarse and harsh. Sheep will pass over every other grass to feed upon it. It is suited to all arable soils." Orchard-grass is less exhausting to the soil than Timothy.

Blue-grass is valuable for pasture lands, mainly from its tough fibre, which renders it less liable to injury from the action of frost and the trampling of the hoofs of stock in fall and spring. It is of course well to avoid turning live stock into the fields very early or very late in the season, but the fluctuations of our climate are such as to render it extremely difficult so to time things as to avoid having cattle in the fields when they would injure the tender stalks and rootlets of the grass. Hence a forage plant which makes a tight, strong sward, and is little liable to injury from frost and cattle hoofs, is a good one to cultivate. This grass may be sown to advantage in an uncultivated, open wood field, where the soil has never been loosened by the plough. It flourishes most luxuriantly in what are known as the blue grass regions of Kentucky. In more northern latitudes it becomes dwarfed and takes rank among the finer meadow grasses, valuable for their tight, compact sward.

For lawns, or private grounds where a covering of grass is wanted as soon as possible, and a close, firm, enduring sward is desirable, Red-top, White Clover, and Blue grass are said to make a good mixture.

A Visit to Mr. Snell's Farm.

To the Editor of The Canada Farmer.

Sir,—Having seen in the first number of The Canada Farmer, a sketch of Mr. John Snell's herd of Durham cattle, I was induced to pay a visit to that gentleman's premises and have a look for myself; and permit me to suggest that it might possibly prove a stimulus to some of my fellow farmers in the better management of their own stock, to go and see for themselves.

Mr. Snell's farm consists of four hundred acres; three hundred and forty of which are under cultivation. Some years since he cultivated a larger quantity of land than he does at present. Then his attention was chiefly devoted to raising wheat, one hundred acres being the average quantity cultivated by him annually. Although he still continues to raise pretty large crops of wheat, yet it only occupies a secondary place now, while that of breeding, feeding, and raising stock holds a primary place in his economy of farming.

One of the principal things noticeable to a person visiting Mr. Snell s farmstead, is the large quantities of turnips stored up in commodious cellars, and turnip houses close to his sheep and cattle sheds. For several years past he has cultivated over twenty-five acres of turnips, producing an average yield of from eighteen to twenty thousand bushels annually.

The time will not be thrown away by farmers living at a distance, should they visit Mr. Snell's premises and examine his stock. They will be kindly treated, and will doubtless leave with the impression, that there is such a thing as improving stock in Canada.

A FARMER.

County of Peel, Feb. 13, 1864.

More about Canada Thistles.

To the Editor of The Canada Farmer.

Sir, In the second number of The Canada Farmer, I noticed an article on Canada Thistles. Now, although agreeing with the writer on the whole, yet I think that for small patches I can show an improved method, at least it is so considered round here. It is simply to pour about a half tablespoonful of lye on each root as it is cut, and I will warrant it a cure in every root to which it is applied. All that is necessary is to look over them occasionally to see that none have been missed the first time.

HYNDEHOPE.

North Dumfries, Feb. 16, 1864.

The Potatoe.

To the Editor of The Canada Farmer.

Sir,—I have read with interest the remarks in your second number from Col. O'Brien on this subject. Perhaps a little more of them would have saved me the trouble of writing these lines, and the risk of exposing my ignorance on some points; but you will not have many correspondents if they will not take that risk for the sake of being set right.

1. The Colonel speaks of the cause of the disease as being "ascertained." So far as an altered state of the tissues, combined with certain atmospheric conditions, constitututes the immediate *occasion* of disease, the cause may be considered as ascertained; but this cause has itself a cause—and whatever it be, it should be as long and as broad as the effect—it should be such as can be shown to have a real existence—and a real existence, over all the extent of country affected, it would scarcely be possible that any cause should have that is not deeply rooted in human nature.

2. Such a cause, I think, existed in Ireland in the farmer's anxiety for as large a crop as possible. To gain quantity, he risked or even altogether neglected, quality. He relied on manure—he planted closely—and forgot that in proportion to the extra supply of *manure*, there was needed an extra supply of *light* and air. These were sacrificed—and thus an unhealthy state of the tissues was produced, which the peculiar atmospheric condition of 1847 ripened into actual and ruinous disease.

Col. O'Brien's recommendations one to five are, I have no doubt, sound and valuable; but I demur to the sixth, and beg leave to inquire,—

1. Can any Canadian farmer state his experience respecting the quality of potatoes grown in *hillocks*? These would have a much better allowance of light and air all round them than such as have been grown in drills. Canadian gardeners, too, may have evidence to give on this point.

2. Can any Canadian farmer state whether there has been any difference of quality between the potatoes in a field where the drills ran east and west, and in another where they ran north and south? The former, from the slope of the drill facing the south, would have for a considerable period an advantge as to sunshine.

If these questions can be answered from past experience or future observation, Col. O'Brien will not refuse to the necessary conclusions an authority somewhat more than theoretical.

ERIGENA.

Guelph, Feb. 10, 1864.

Flax-Growing in Canada.

To the Editor of The Canada Farmer.

Sir,- In the first number of your new and valuable journal you furnish a lengthy article on Flax Culture, a subject well worthy the attention of our Canadian farmers, as cotton is at war prices and not likely to be much cheaper for many years to come. It is fully acknowledged on all sides that in many of our front townships Wheat will not average more than 10 bushels to an acre, while from 12 to 16 bushels of flax-seed may be depended on, 4 lbs. in weight less to the bushel and half a dollar more in the price. The seed however is not to be the only consideration. Every acre of flax that produces this quantity of seed will, if properly handled, produce 300 lbs. of fibre prepared for the market worth from 8 to 10 cents per lb., making in all at the lowest calculation from $40 to $50 per acre in place of only $10 or $12 at present prices for Wheat.

One of Sandford & Mallory's Scutching Mills has been recently imported by Mr. Moody, a gentleman near Montreal. I accompanied Mr. Henry Lyman to see it at work a few days ago, and am pleased to say the brake for preparing the straw for scutching is the best that has come under my notice. The beaters or handles for scutching are the same in principle as those now in use in Ireland, and in the several mills in Canada. The price is only some $300, duty free. An improvement has been made in the mills of Rowan s manufacture imported by the Canadian Government, that will remedy the defect pointed out by Mr. Perine, and mentioned in your editorial. The straw is introduced vertically instead of horizontally, the action of the beaters coming at once on the centre of the handful of flax, consequently the ends are not carried away as formerly. No brakes are required for this mill. Its cost is only £24 Stg., and it is duty free, so that it is within the reach of any farmer who is desirous of going into the business. No doubt, sir, other improvements will be made in machinery for flax manufacture to meet the wants of the country. It is to be regretted that our capitalists as well as our farmers do not turn their attention more in this direction where there are so many fine water privileges idle, where saw mills have been built and the timber has become exhausted. With ample buildings to put in machinery at such a trifling cost how easy it would be to multiply flax mills. I was informed by a gen-

tleman in Montreal who had visited one establishment in Warrington, State of New York, that a Company with a moderate outlay in buildings and machinery were clearing $150 per day. But we need not go beyond the mills of the Messrs. Perine, Bro. & Co for proof of the success of this new undertaking. Much praise is due to them for the enterprise they have shown.

It appears by the papers that the Linen Trade in Ireland never was in a more prosperous condition than now, and prices of flax are quoted from £70 to £100 per ton During the last year from £30 to £40 sterling per acre has been paid on foot, before pulling.

Farmers need not be so frightened at the expense of pulling, (which seems to be a prominent obstacle in their way,) as they can cut it with their cradle as easily as they do wheat, *provided* they will only take the necessary pains in preparing the land when sowing. Care must be taken to have the surface well rolled, both before and after the seed is sown, and to pick off the stones that none may be left to interfere with the scythe In all other respects I agree with the various hints given in your article

The question is often asked, "where is our market" To this I say most distinctly CANADA is the proper market, and if capitalists will only put up machinery such as the Messrs. Perine have done at Doon, &c., we will be able to manufacture all the farmers will grow, consume it at *our own door*, and save the enormous duties we are paying for such articles as shoe-threads, twines, ropes, cordage, coarse linen and brown Hollands, all staple articles and much wanted I also maintain we can produce as fine an article of flax as they do in Ireland, and whatever is too fine for the manufacture of such coarse goods as I have just mentioned will meet a ready sale in either England, Ireland or Scotland.

JOHN A DONALDSON

Spring Mount, Weston, Feb 17, 1864

Change of Seed Grain.

To the Editor of The Canada Farmer.

Sir —In your valuable paper of the 15th inst., I observe an article written by Mr. Keefer, of London, desiring to ascertain the cause of so great a failure of the Spring Wheat crops. The aphis or plant louse unquestionably has done a great deal of damage throughout Canada. A too constant cultivation of wheat has also proved a great injury. But where is the farmer who will not agree with me in affirming that we need a change of seed? The want of this no doubt is the greatest cause of the failure in our crops, not only of wheat, but also of barley and other grains.

We need only look back a very few years and we find about half a dozen kinds of Fall wheat run out, and the same is true of Spring wheat. Some kinds of Fall wheat have come round the second time partially renewed. The same cannot be said of the Spring wheat, (in this part of the country at least). When it ran out there was something new, lastly came the Fife wheat, and that has been sown one year too often

There was little or no barley grown in this part of the country till within the last four or five years, and as there has been no change of seed, we can now depend on little more than half a crop. The midge no doubt injured it considerably. Yet if we compare the heads while harvesting with those of former years, we find it lacking about one-third in length, and looking, as Mr. Keefer states respecting the wheat, as though it were blighted.

Our oats too are fast decreasing—they have been an average crop this season -yet the yield is not what was anticipated while harvesting

Being impressed with the idea that we must have an importation of seeds, I resolved last winter to try it on a small scale. By the first steamer for Montreal I had wheat, barley and oats on the way from Scotland, three kinds of each, one peck of each kind. The invoice and bill of lading getting lost I did not receive them till this winter. Being aware of the fact that grains imported from foreign parts take a year or two before they become naturalized; what plan would you recommend to protect the Spring grains from the excessive droughts, also, the Fall wheat from our severe winters? Would you advise giving the ground a thin coat of half rotted manure after sowing, then go over it with a roller?

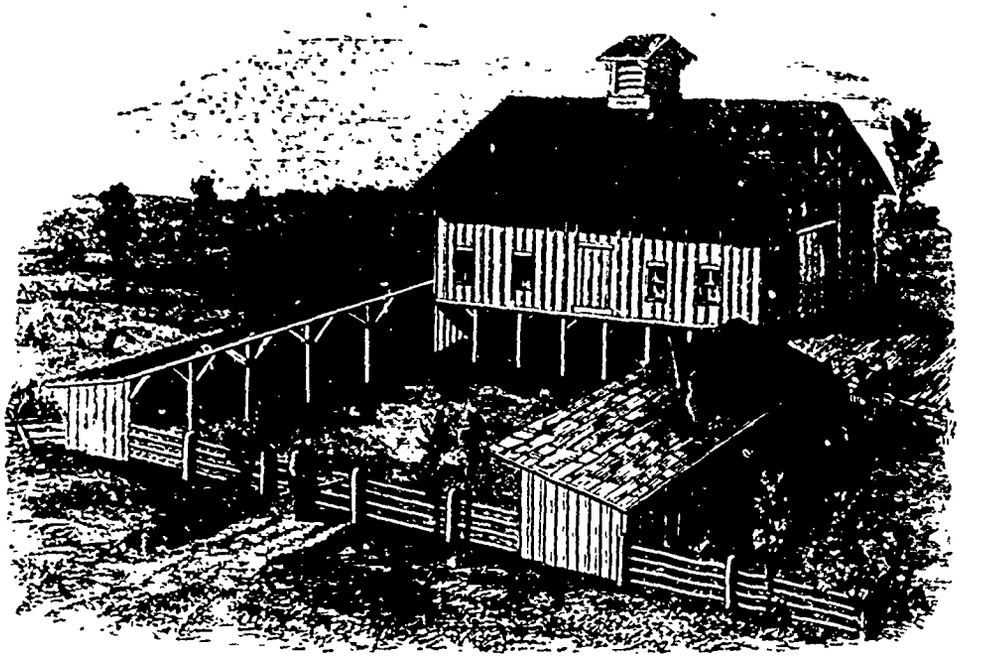
WILLIAM RENNIE.

Markham, Feb. 22, 1864.

Note by Ed C. F —We should prefer *well rotted* manure. The roller would be useful; and better than anything else, would be thorough drainage and deep ploughing of the land

Rural Architecture.

There is not only scope for the exhibition of neatness and good order in the erection of the farmer's dwelling-house, but similar qualities may be displayed to advantage in the buildings that girt the farm-yard. These should be spacious, convenient and substantial Judgment is needed in the selection of the site and the arrangements both external and internal We hope to be of service to our readers in this department of farm management, by publishing, from time to time, plans of barns and other structures, adding thereto such descriptions, hints and suggestions, as may help in the actual business of building. In the accompanying illustration, we give a design for a barn-yard of moderate size, and of simple arrangement. It is intended as a general outline merely, the details being left very much to the option of the proprietor. The barn has a stone-walled basement on three sides, which may be used for stabling or



cellarage. Twelve feet from the front of the building is a wall with doors and windows in it, and in front of the wall is a shelter for stock. Two sheds in the form of wings are run out to any desired length on either side. The body of the barn is built of wood above the basement, and is supposed to be 60 x 46 feet; the posts 18 feet above the sills; the sides covered with boards laid vertically, and battened with narrow strips 3 inches wide. The roof spreads 3 to 4 feet over the body of the barn; a ventilator crowns the ridge and is at once useful and ornamental; a circular-slatted blind window is in each gable; there are double large doors in each end, to admit the passage of a team and waggon, and there is a single door on the yard side. The interior arrangements can be modified according to taste. A main floor about 12 feet wide should run through the centre of the barn, and at suitable places in it there may be a couple of traps for letting hay, straw, or roots down into the basement. A bay for hay storage may occupy the greater part or all of one side of the building, a grain mow, granary, and storage-room the other. An ample passage should be left leading to the side-door, to throw out litter. If horse stabling is desired on the main floor, a portion of the space can be devoted to that purpose. Movable sleepers or poles may be laid across the floor 10 feet above on a line of girts framed into the main posts for that purpose, over which, when the sides of the barn are full, hay or grain may be stacked up to the roof. Similar accommodation may also be provided over the granary, storage-room, or stable. If the demands of the crops require it, after the rest of the barn is filled, a portion of the floor itself may be used for packing away hay or grain, a plan which, though it involves some trouble in getting a waggon in and out, is better than stacking out. In the basement much room for cattle, calves, &c., may be had, or if underground stabling is deemed objectionable, the basement can be chiefly devoted to roots, and a portion in a convenient place partitioned off as a manure cellar. The ample shedding will furnish space for a line of racks or mangers for outside cattle or sheep, as well as protection for the waggons, and other implements which ought never to be left exposed to the weather. The sheds may be carried higher than in our plan, and floored overhead, so that hay or other food may be stored in them for stock. A driving way is built up to the barn-doors at the ends. This need not be expensive, especially if the barn be located, as it is desirable it should be, if possible, on a shelving piece of ground, or a slope, which will admit of a basement without much excavation, and a roadway without a high embankment. Of course as it respects size, arrangement, and all the details, the proprietor can use his own judgment and taste. Our aim is simply to give a general idea, which can be altered and improved upon as circumstances may seem to require, and means permit.

First-Class Maple Sugar.—A hundred good sugar maple trees will usually make in a season from two to three hundred pounds of sugar, if well managed; and if every precaution is observed to ensure cleanliness, prevent souring, boil speedily and without burning, and to clarify properly, a larger quantity of sugar will be made; it will be more saleable, and command a higher price; or if intended for home use, the smiles of the farmer's kind wife, when she sees such a beautiful article make its appearance, will more than repay him for all the pains to secure such excellent success. The addition of a teaspoonful of salt to each 100 pounds of sugar improves the taste of the sugar. It gives it a fuller taste. Salt is also good when used in syrup.—*Pensylvania Farmer and Gardener.*

Cottonized Flax.—Some beautiful specimens of cottonized flax have been sent to the Agricultural Department at Washington, by manufacturers in different parts of the country. It is stated that the samples have a fine gloss, that its texture is stronger than ordinary cotton, and that mixed with wool, it can be wrought into elegant and durable fabrics for ladies' dresses, men's wear, and the various uses to which cotton is applied. It can be manufactured and sold at ten cents per pound and yield a fair profit, and some manufacturers are even sanguine that it can be sold at eight cents per pound Cottonized flax now bids fair to become an important branch of national industry.—*Michigan Farmer.*

The Dairy.

The Cheese Trade.

We have already expressed the opinion that the Dairy interest deserves to be widely cultivated in Canada, and our hope is that it will ere long attract more general attention than it does at present. It is our conviction that just now the two most inviting channels for agricultural enterprise are cheese making and sheep-rearing. Of these, the former is probably the more eligible and profitable. Such, at least, is the opinion of some who have had long experience both of cheese-dairying and sheep-husbandry. And if this be the case at the present high price of wool, we may confidently reckon on cheese-making continuing to be a remunerative business. Present indications, in our judgment, fully warrant the belief that the extensive introduction of this branch of productive industry among the farmers of Canada, would be a great public blessing.

We might argue for a resort to dairying where it is practicable, from the frequent failure, comparative uncertainty, and low average yield of the wheat crop of late years, and the necessity of our finding substitutes to some extent for that great staple. Another argument might be derived from the importance of more fully recognizing and acting upon the principle of rotation of crops. But the case may safely be left to stand or fall on the answer to the enquiry, "Will it *pay* to manufacture cheese?" In looking at this question, we may gain some help by comparing the cost and profits of cheese-dairying with some other branch of farm industry. For example, it is doubtful if the amount of food which will produce when fed to a good milch cow, one gallon of milk, will secure a return of more than *four cents*, as used by farmers generally in raising young stock for the market. This is not mere conjecture. Calculations have been made very carefully on this subject, and while some set down the return at only *three* cents, a few of the most sanguine stock-raisers put it at *five*. Now a gallon of good milk will make a pound of cheese, and cheese commands nine cents per lb. wholesale, and at least twelve retail. The cost of manufacture is less than two cents a pound,—with good facilities it need scarcely exceed one cent, so that it is easy to see that dairying is a more profitable business than stock-farming.

But the enquiry will naturally arise, if the farmers of Canada go *en masse* into the manufacture of cheese, who will buy all they make? To this it may be replied, *Firstly*—All will not go into cheese-making. Many are pursuing an established and remunerative system of husbandry, which they will not care materially to alter. Besides dairying is not adapted to every locality, and to all descriptions of farms. There is a great deal of land better suited to other purposes. But where good pasturage can readily be had, springs of water abound, where forage and root crops can be raised to advantage, and where there is easy access to market, these are facilities for dairying which ought not to be disregarded. *Secondly*—Even should there be, which we do not anticipate, a general rush into the dairy business, there is a very extensive demand to be supplied. Our towns and cities consume great quantities of cheese. Even country store-keepers in many localities, find ready sale for a considerable amount of it. To meet the demand for home consumption alone, would require a very large expansion of the dairy interest. The one town of Guelph, as we stated in our second issue, has purchased nearly all the cheese manufactured by the Messrs. Ranney, of Dereham, during the past season. It would have been more strictly correct to have said that one *firm* in that town had done so, while others in the same line of business were doubtless large purchasers elsewhere. We make immense importations of cheese every year, chiefly from the United States; and as a measure of self-protection in view of the probable termination of the Reciprocity Treaty, we require to manufacture a great deal more cheese than we do at present. In 1862 we imported 2,109,408 lbs. of cheese, costing $193,612. Of this amount, $18,590 went to Britain, while $174,456 went to the United States. But we are by no means limited to the home demand. Were we producing a surplus however large, Great Britain furnishes an ample outlet for it. John Bull is a great cheese-eater. "Bread and cheese" form both the rich man's lunch and the poor man's meal to a very great extent. Now the Canadian farmer can produce cheese far more cheaply than the English farmer can possibly do. The price of land and the standard of rents are such that it costs the English farmer six-pence sterling to produce a gallon of milk. The large demand for meat, and the higher price it commands there, take away all inducements to manufacture cheese in preference to raising stock for the butcher. The cost of transporting Canadian cheese to England is not high, Probably a cent a pound would cover all expenses. Our American neighbours are supplying the English market very largely with the article of cheese. In 1861 they sent 40,000,000 lbs. to England, and the probability is that they sent vastly more in 1862 and 1863. In 1859 they sent 9,000,000 lbs. thither, in 1860, 23,000,000. It is quite safe, therefore, to infer that the figure for 1861 has been greatly exceeded during the past two years. Now what prevents our having a large share of this cheese-trade with the old country? Non-production simply. We have only to make as good an article as our American neighbours, to secure to ourselves a very respectable proportion of this vast and increasing trade. We shall return to this subject ere long, and give our readers some details respecting Cheese Factories,—establishments which are doing much to promote the dairy interest in the United States, and would, we believe, be found equally advantageous in Canada.

Colouring Cheese, &c.—One of the means employed to give cheese a *rich cream colour*, is to expose the curd before and after salting to the air, instead of hurrying it into the hoop or press, as is usual with the majority of dairymen. Every cheesemaker must have observed the fine golden colour acquired by particles of curd that have accidentally remained out of the hoop and exposed during the day to the atmosphere. This is the precise colour desired by the dealers, and in warm weather an exposure long enough for the desired colour is practicable, and the appearance of the curd can be materially changed for the better, by letting it remain in the vat or tub until it has acquired the proper temperature for the press. It is always preferable to cool curd in this way, instead of using water or cold whey on the curd as is sometimes done for this purpose, as these last have a tendency to impoverish the cheese, by washing out a portion of its richness, besides injuring somewhat its flavour. Fine flavour, quality, and the proper texture in cheese are important requisites to ready sales and good prices, but all these may be present, and yet the cheese sell low in market from its bad appearance. The *eye* must be suited as well as the *taste*, and it is difficult to make the consumer believe that pale, white cheese is as rich as that which has a fine cream colour. Again, many dairymen are troubled more or less in preserving a smooth, elastic rind; the rind checks and deep cracks are found here and there in the cheese. This results often, and for the most part, from the air being allowed to blow on the young cheese. Cheese, when it comes from the press, and for several days after, or until the rind has a firm consistency, should be kept where the air may not blow directly upon it; and washing the cheese twice a week with hot sweet whey, will add much to its outward appearance. Annatto is in general use during spring and fall, for colouring milk for cheese-making, but as much of it is adulterated with poisonous materials, its use should be avoided in summer, when the desired colour to the cheese can be obtained as above described.—*Trans. N. Y. State Ag. Society.*

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

Cracks in Cows Teats.—These are easily cured, by rubbing molasses on the teats for a few days after milking.

☞ Cows coming in should be kept in wide stalls or loose boxes, well littered, fed some roots, if possible, and closely watched and perhaps assisted at calving.

Caked Bag in Cows.—Dr. Geo. H. Dadd says, in the *Prairie Farmer*, that he has known a case of caked udder of long standing to be cured in the following manner: Rub the udder for about a quarter of an hour every night with a portion of cod liver oil, and give the animal twenty-five grains of Iodide of Potassium, in half a pint of water, every morning before feeding.

Treatment of Kicking Cows.—J. C., of Norfolk, Ct., says in a letter to the *Agriculturist*:—"The following treatment, which I have tried for some years, has never failed to stop the evil. Put a strap round the cow, just in front of the bag, and buckle it rather tight. If the cow tries to kick, draw the strap a little tighter. She will never get used to it, and it never does any injury. She will keep on eating as usual, but has no inclination to lift her feet, even to walk about." This may answer the purpose; the experiment is easily tried.

In witness whereof, we hereby testify to having tried the above, successfully, years ago, upon a three-year-old heifer. It is a sure "pop" every time.
Ed. N. H. Journal of Agriculture.

We tried it this fall upon a two-year-old heifer, and it worked like a charm.—*Ed. of Plowman.*

Product of Ten Cows.—Mr. J. W. Greenleaf, of Charlestown, in this county, has kept a dairy of ten cows this season, and foots up the result of his operations at six hundred and eighteen dollars and fifty-three cents, thus:—

Cheese made, 5,190 lbs., sold for	- -	$491 60
Butter " 330¾ "	- - -	63 63
Hogs kept on whey, valued at	- - -	52 55
Calves valued at	- - - - - - - -	10 75
Total	- - - - - - - - - - - -	$618 53

There is a table o figures that reveals a story of a good summer's work. Other dairymen are invited to "compare notes" with the foregoing. We incline to the opinion, however, that the number who will foot up similar proceeds from the same number of cows will not be very large—but let us hav the figures.—*Portage County Democrat.*

The Ayrshires.—For purely dairy purposes, the Ayr-shire cow deserves the first place. They may not afford so large a quantity of milk as many other breeds, but for the amount of food consumed it is generally conceded that they will give a larger return of milk than a cow of any other breed. In remarking upon the characteristics of the Ayrshires for dairy purposes, Sandford Howard, of the Boston *Cultivator*, says: "Whether the Ayrshires are judged by their actual produce or by the external points which by experience and observation are acknowledged to denote dairy qualities, it must be admitted that they take a high rank. From a fair consideration of their merits, it is believed that their adoption for the dairy would secure the following advantages over the stock commonly kept to that purpose in this country:—

"1st. A greater quantity of milk, butter and cheese for the food consumed.

"2nd. Greater uniformity in the general character of the stock from its inherent or hereditary qualities.

"3rd. Better symmetry and constitution, and greater tendency to gain flesh when not giving milk."

In consequence of her small, symmetrical and compact body, combined with a well-formed chest and a capacious stomach, there is little waste, comparatively speaking, through the respiratory system, while at the same time there is very complete assimilation of the food, and thus she converts a large proportion of her food into milk.—*Ex.*

☞ The Doctor said he had a cow last year that beat her. He keeps but one cow. He buys a new milch cow every spring, and sells the old one for beef the day he gets the new one. He milks her up to the day he sells her to the butcher. It is a mistake, he says, to suppose that you can not fat a cow while she is giving milk. The cow he referred to gave nine quarts of milk the day she was butchered. She dressed over 1100 pounds of beef, and had 161 pounds of rough tallow in her! The butcher paid him $49 for her, but told him afterwards that he would give $60 for another just like her. The Doctor is a great friend to dumb creatures of all kinds. He believes thoroughly in comfortable stables, succulent roots and warm corn meal pudding.—*Genesee Farmer.*

The Breeder and Grazier.

Oxen versus Horses for Farming Purposes.

To the Editor of The Canada Farmer.

Sir,—Some experience and considerable observation among the farmers of Canada, lead me to offer a few suggestions on the comparative merits, viewed in various lights, of oxen and horses as working teams for farm purposes. I will, if you please, foreshadow my opinion by a quotation from the book of all books, and from the wisest of all the wise men of old—"Where the ox is there is increase in the stall." That oxen do not receive the attention they deserve as farm workers is very evident to my mind, but I may not be able to make it as apparent to others. I admit that for many kinds of work, horses are preferable, such for instance as mowing and reaping—raking hay—working among field crops, &c: but for a majority of purposes, oxen are not only quite as good but far preferable. For hauling wood and lumber, moving stone and manure, and the like where great strength but not rapid motion is required no team equals an ox team. But says an objector, "I could never *plough* with oxen—this opinion arises more from prejudice than from honest comparison. A well bred and well-trained ox team are more than a match for an *ordinary* pair of horses and with the same keeping and care we bestow upon our favourites of the stable, no farmer need blush for his oxen. I have frequently, in the New England States, where oxen are more generally used than anywhere else on the continent to my knowledge, seen oxen and horses ploughing in the same furrow, the oxen taking their turn without missing all day. I will not deny that oxen move more slowly than horses. But treat your horses as you do your oxen, and they could hardly move at all. You turn your oxen loose into the yard, give them coarse fodder, an open shed or no shelter at all, while your working horses are stabled, groomed, and fed on the choicest hay with abundance of grain—which care and feed add much to their spirit and action. Give oxen the same treatment and you will have an active, energetic, resolute team for the plough or waggon.

Oxen are far more economical and hence more profitable than horses. A yoke of medium sized working oxen can be kept at hard work as cheaply as you can keep one horse, counting the wear and tear of harnessing and the extra feed the horse runs you in debt for. The ox feels the stimulus of extra feeding of esculents and grain quite as readily as the horse, and every pound of tallow you pack upon him adds just so much to your income. He is much less liable to disease of any kind and especially to affections of the joints and bones—and even were he subject to thoroughpin, windgalls, ringbone, splints, or all combined, his net value is not thereby greatly depreciated—as is the case with these diseases in the horse. Your proud stepping charger becomes real estate by a spavin, and when old age creeps upon him and he is incapacitated for labour, he is worse than a dead loss to his owners. Not so of our favourite the ox—no blemish ruins *him*, in an economic point of view. Give him a few months rest in a good pasture, with a little extra feeding of turnips in the fall, and your ox is nearly as valuable as ever. His beef and tallow will always sell him.

While neat cattle enrich the ground on which they pasture, horses are a constant leech. Observe how rank and verdant the grass grows about the excrement of the ox, and notice also the reverse to be true with that of the horse. I would not argue that the horse could well be displaced altogether—but I do submit that where there is occasion for more than one team, that a team of horses and one of oxen would be far more profitable than two horse teams. This parallel might be carried to much greater length and the more the subject is examined the more apparent will it become that the rearing and working of so many horses instead of enriching the farmers who follow it, is yearly robbing them of the handsome profits incident to the rearing of neat cattle and sheep.

Oxen are not generally used in this country from some notions of pride neither commendable nor profitable. The ox is not fashionable and why? Simply from custom and because no care is bestowed in getting good stock and in matching the teams. I have seen many really beautiful ox teams—so nicely matched were they that their owner would have to put a private mark on the near one that he might know to which side he belonged. So well handled were they that the ploughman could run a furrow any distance as straight as an arrow without a driver. Throw away all prejudice against the ox, and give him a fair trial, and my word for it you will not again be without him on your farms.

X.

Prescott, Feb. 12, 1864.

Shelter for Cattle.

To the Editor of The Canada Farmer.

Sir,—How many dollars are wasted annually in this country through the want of proper shelter for the live stock?

This is a question of great moment to the farmers, although very few seem to be aware of its importance. It is a question too, that any one aided by the light of science can answer with as much certainty as a school-boy can tell that 3 times 3 make 9.

In order to render this plain, it is only necessary to point out a few facts connected with Animal Chemistry, or the assimilation of food in the body. The food consumed by an animal has several great functions to perform. Those we have at present to deal with are the support of respiration, and the keeping up a supply of heat in the body. Every time an animal draws breath a certain definite quantity of atmospheric air is inhaled, the capacity of the lungs being a constant quantity. At every inspiration therefore an animal inhales a certain amount of oxygen which combines with the carbon of the blood, and is exhaled in the form of carbonic acid gas. As long as life continues this process must go on in the body, and if a sufficiency of carbon be not supplied by food to replace the waste in the blood the oxygen inhaled will combine with the carbon of the body, and incipient starvation will ensue.

In whatever manner carbon combines with oxygen heat is evolved. If we burn a piece of charcoal (which is the most common form of carbon) in the open air heat will be produced, and exactly the same amount of heat will be produced, if the same weight of carbon be consumed in the body of an animal, by the oxygen inhaled through the lungs. The animal body therefore is a heated mass and bears the same relation to the surrounding temperature as any other heated body giving out heat when the surrounding medium is colder. Consequently in winter any animal exposed to a temperature of 16 degrees below zero will require a far greater quantity of carbonaceous food than one living in a house where the temperature is as high as 40 degrees! Science demonstrates that a milch cow consumes daily about 4½ lbs. of carbon to sustain respiration, and this when kept in a warm house, but when allowed to run in a yard, as the majority do in this country, the consumption will be from 5 to 6 lbs., say 5½ lbs., and we have therefore 1 lb. daily carried out of the animal body in the shape of carbonic acid gas which ought to go to increase the weight of the body. Here then is a daily waste of one pound for say five months of the year amounting to say 150 lbs. which at 5 cents per pound is $7.50 wasted on every cow or ox left without proper shelter during winter. Should any farmer think the estimated loss too high let him try the experiment on two animals, say of 600 lbs. each. Let him keep one in a comfortable house, and the other exposed to the inclemency of the weather, and give them both the same quantity of food, and he will doubtless find in spring that the former has gained fully the above figure more than the latter. From the above data any one by looking at the statistical returns of the cattle kept in the country can form some idea of the waste per annum.

J W M

Woodstock, Feb 25, 1864.

Merits of the Hereford Breed of Cattle.

A pamphlet has recently issued from the British press which contains the substance of lectures before the Royal Agricultural College, on the history, progress, and comparative merits of the Hereford breed of cattle, by Mr. T. Duckham, Baysham Court, Ross. In the concluding paragraph, the author sums up the whole matter as follows:—

"That the Herefords, although an acknowledged aboriginal race of cattle indigenous to the soil of the county from whence they take their name, readily become acclimatized, and retain their general character, not only throughout the United Kingdom, but wherever they have been fairly tried in distant parts of the world; also, that they continue fully to retain their reputation, which has for ages past been accorded to them, for aptitude to fatten; that the quality of their meat is unsurpassed, if equalled; that it is duly appreciated wherever they have been tried; that, by proper management, their milking properties are good, that for early maturity and hardiness of constitution, they are equal, if not superior, to any known breed; that they are a most valuable race of animals for their working powers when required; and that whenever they have been fairly tried, the quantity of meat they make, in proportion to the food consumed, is such that they can justly claim to rank amongst the most valuable class of animals known for the production of animal food, and therefore the most profitable breed of cattle for the grazier."

The only point here specified which will not command general assent, is that relating to the milking properties of the breed; but several of the witnesses whose evidence he collects, attest the high dairy quality of their herds.

Housing of Cattle.

On this subject, Mr. Archibald Macdonald thus writes to the *Morning Post*:—

"The constitution of cattle is often ruined by their being kept out in the fields during the inclement months of winter. A cow should never be caught in a cold night, for a certain consequence is an immediate depreciation of the quality of the milk, and an injury to the cow, and if suckling the calf, to that also. But, I may be asked, is it not their nature to be out at night? It was; but by the improvements in breeding (which have made them less hardy), and the artificial grasses they eat, it is no longer so. A Highland cow eats the natural herbage of the hills, and knows for hours before a storm is coming, and will feed on for a considerable distance, till it reaches a place of shelter from the cold. Bring that same cow from its natural grass, feed it on ours, confine it in a field where it cannot obtain shelter, and it will soon be in a worse condition than when brought here. It must be housed at night, in a building completely enclosed and properly ventilated.

"I have noticed in many parts of the country that fattening bullocks (those stall-fed excepted) are never housed at night. This is a most improper plan. There should be a covered shed for those erected at one side of the field, closed at the back and ends, but open in front, and divided into compartments for each bullock. Give at night to each a few handfuls of hay, and two ordinary sized turnips, sliced just previous to being given. I adopted this method with the worst half of some Highland bullocks, allowing the better half to lie out all night. At the end of five months those housed were pronounced by competent judges to be worth £3 per head more than the others. A steward to a noble lord writes to me:—'I adopted your plan with a part of my bullocks, and now, at the end of one month, I consider those housed are worth £1 more than the others. In future I shall take care to house all my cattle.'

If the above remarks are true in reference to winter exposure in the climate of Great Britain, how much more applicable must they be to the more rigorous climate of Canada.

Salt for Swine

To the Editor of The Canada Farmer.

Sir,—In the first number of The Canada Farmer I noticed an article on *Salt for Swine*. It stated that the writer "selected two pairs of barrow hogs weighing 200 lbs. each, one pair received salt with their food the other none. In a short time, the salted pair *had a much stronger appetite* than the others." When killed the result was in favour of the salted pair. There is no doubt but the salt stimulated the functions of the stomach and helped digestion; but whether the salted hogs increased in weight faster than the unsalted in proportion to the amount of food they consumed, is a query the writer has left to some other experimenter. If he had weighed the food as well as the hogs themselves, it would have been more satisfactory. What we want is *the greatest amount of meat for the food consumed*, and it behooves farmers carefully to consider what ingredients will help to economise the food given to animals so as to bring them to maturity as quickly as possible.

A SUBSCRIBER.

Hibbert, Feb. 16, 1864.

Stallion's Boxes.

Boxes suitable for Stallions, though requiring but little novelty of arrangement, should receive some attention, regarding the design of the elevation, in order to render the building a more prominent and pleasing feature in view of the Stud Farm. Each box should have a separate yard, in order to allow the horse to exercise himself at times. The walls and gates of the yard should be at least ten feet in height, and the materials of the box strong, well seasoned and substantial, to avoid constant repairs. The boxes must be well ventilated, that the atmosphere may be even, pure and mild, sufficient to prevent the walls being tainted by the slightest closeness or damp They should be lined inside with elm boarding, (or a proper substitute), about five feet high. No racks should be used, but the corn, hay, and water should be given side by side. The corn and water in separate iron mangers, or troughs, and the hay in a boarded wel between them. The small doors communicating with the fodder house should be protected inside by strong half-doors of the above material The large doors opening into the yard should be made to slide into the wall, as otherwise the horse, when left alone, and at liberty, is apt to play with or to gnaw them. All the fastening should be of the strongest description, and in every instance where it is possible, worked flush inside.

Fourteen feet square is a good size for a stallion's box, and twenty-five feet by twenty a good dimension for the yards. The yard doors of the boxes should be provided with side-rollers, to prevent any accident, or "hipping" in galloping in or out suddenly. Each yard should be provided with a water-manger, fixed in the corner, made of cast iron, with a hole in the bottom, stopped with an ordinary wooden plug. The boxes should be paved with brick, laid on edge in sand, upon a concrete foundation, formed of five parts of coarse gravel to one of unslacked lime, having a fall from each corner to a center perforated drain stone. The drains should be carried to a cesspool outside, as far removed as possible from the building. Everything—windows, doors, locks and fastenings, should be made flush *inside*—and all protected as far as possible from the gnawing propensities. Let all be perfect and appropriate, and remember, "that whatever is at all worth doing, is worth doing well."

Breaking Oxen.—The editor of the *Massachusetts Farmer* recommends the following method of breaking oxen: When you first put a yoke on your two-year old steers, coax them with an apple or an ear of soft corn, (soft corn is allowable in this case). Then they will hold up their heads and be glad to follow you. No whip will be needed at the first yoking. Let the yoke and the soft corn be associated in their minds, and they will never be shy of the yoke; but if you make use of force alone they will hold down their heads to keep them from the blows. After you have taught them to follow you around in the yoke, and that it will not injure them to carry it, you can hitch them on before the older oxen and make them take the lead. The driver should go beside them occasionally, with a switch, stick or a light and short whip, but he will not have any need to beat them, except in extreme cases,

Devon Cattle.—The *Valley Farmer* for January has the following paragraph respecting Devon Cattle. The demand for this breed of cattle is considerably on the increase. We have frequent inquiries from our subscribers, where pure bred Devons can be obtained, and whether we can recommend the breed. Some of the best cows for milk that we are acquainted with, are of this breed. This breed can be recommended for their milking qualities. It is a breed that is easily kept. The Devons will thrive well where some of our breeds will grow poor. It is an exceedingly hardy breed—the hardiest that is known. Attended to as many of our Western farmers, attend to their stock, they surpass any other breed—we mean, by giving them no shelter during winter but the lee side of the fence, and expose them to storms of rain and snow, with little or no food except such as they gather by browsing in the forest. But we don't wish to be understood as recommending such treatment, even for the hardy Devon. They make remarkably excellent working cattle, on account of their active gait and excellent bottom, enduring more work and greater heat, without fatigue than any other breed with which we are acquainted.

A Big Thing on Feet!—The week before Christmas some of our city readers were surprised by seeing a splendid specimen of an enormous ox led around the streets, decorated with ribbons. A few of them no doubt fancied it to be a sort of bovine "Turveydrop" giving a lesson in "deportment," as it walked so soberly; but although San Francisco is a very go-ahead gentleman, he paused in his money-making for the fraction of a second to look at it, and to make eulogistic remarks about it—a compliment which he does not pay to every big thing on feet, stalk it never so majestically. Well, it proved to be an ox of the pure Durham "persuasion," raised in Canada West, imported by Mr. Emerson, fattened by Mr. Henry Miller, in Santa Clara County, and purchased and slaughtered by Messrs. Weller & Fisher, 12 Washington Market. His oxship weighed 2,480 pounds, and was cut up and sold for Christmas dinners, and as we were the recipients of a nice roasting piece, we can bear testimony to its being "first chop."—*California Wine, Wool and Stock Journal.*

Feeding Working Cattle in Spring.—"Jonathan," in a back number of the *American Agriculturist*, thus discourses on feeding cattle in spring, and it appears to us that his remarks thereon are quite reasonable and natural: "I have a way of feeding cattle when they first begin to work in the spring, which seems to agree with them, and so of course it suits me. They need grain when they are put to hard work, as much as a farmer needs pork or beef, and if they don't get it, then you don't get the work they might do if they were treated reasonably. But I find my cattle appear to feel a good deal as I do when warm weather comes on. Meat and hearty food don't seem to relish without something green along with it. Pork and potatoes will do as a "stand-by," but I'm always in a great hurry for spinnage or some garden "sass" to help along with, and if I can't get it, my food makes me dumpish and stupid. I think it is a great deal so with the cattle. They'll eat the corn or meal, but it don't seem to be exactly the thing for warm weather, and I've noticed that after eating plenty of it, they acted in the afternoon just as I felt when I had nothing but hearty food for dinner. So I have, for some years past, given them a good mess of potatoes, cut up small, to eat with their meal. They appear to relish it well, and I think it keeps their blood cool, and makes them more cheerful and active before the plough."

Pig Proprietors.—The baby pigs will be along soon, and the careful swineherd will have his hospital pens in order for their accommodation. A maternal swine is generally a very affectionate animal, and takes just as good care of her children as she knows how: but with a large family on her hands—or somewhere else—she is liable to make mistakes, and if a baby pig should get into the straw on the side of its mother, opposite to where it gets its dinner, a little upward roll of her dinner side, to accommodate the hungry family, would bring the other side down upon the luckless pig and straightway make a flat of him To guard against such mishaps, various little arrangements of the pig nursery have been resorted to. One good way is to fix a shelf along the side of the pen some eight or ten inches from the floor, so that any little pig which chances to get on the back side of its mother, could take refuge under this shelf, and avoid being rolled out flat while the mother was asleep. We have seen another contrivance for the same purpose, being a triangular shelf across the corners of the pen, as it is in the corners of the nest that pigs are most likely to be overlaid, where there is no chance of retreat. Whatever is to be done in preparing for the safety of the pigs, should be done some time before the sow is put up for the occasion, so she may become entirely accustomed to all the arrangements, and not be irritated by hammerings and strange noises, when she requires to be perfectly quiet.—*Ohio Farmer.*

Feeding Swine.—Different experiments have been made in fattening hogs, but the one most deserving notice was in the State of Maryland. The Agricultural Society of that State instituted an inquiry into the relative merits of two modes of feeding, and the following is one of the results: On the first day of December, four shoats of the same breed nearly of a size, and as much alike in every respect as could be selected from a herd, were made choice of, each being carefully weighed, and placed in a single stye where their food could be exactly regulated. Two of them weighed together one hundred and eighty-five pounds. These were fed on one gallon each of shelled Indian corn, the gallon weighing seven pounds. This was the allowance for twenty-four hours, and as much water as they needed. The other two were fed on half as much by weight, of Indian meal made into hasty pudding, with a little salt. The seven pounds of meal when cooked weighed thirty pounds, and measured three gallons. Before the experiment had progressed a fortnight, it was perceived that the two fed on hasty pudding were outstripping the two fed on whole corn, and on the thirty-fourth day they were again weighed, the corn-fed ones together weighing twenty-five pounds more than they did on the first of December; while the two fed on mush—half the quantity—had gained forty-four pounds.

Sheep Husbandry

Breeding and Rearing of Sheep.

The *Mark Lane Express*, of Jan. 11, devotes a large amount of space to the report of a discussion on the above subject, which took place at Watton, under the auspices of the Wayland Agricultural Association. The discussion was opened by an able and interesting address from Mr Woods, out of which we cull a few extracts on various points connected with sheep husbandry:—

Selection of Ewes for Breeding.

There is not sufficient attention paid by those gentlemen who breed your flock ewes; they pay little attention to the shape and make of the animals they breed, or to the quality of their wool, because many persons, I am sorry to say, make a point of getting a sheep because it is a cheap one. I think that is very poor economy, because I hold that sheep to be the cheapest which will produce you the lamb that shall pay you the most money, whether you sell it, or whether you graze it. Now, I hold that the production of a better class of flock sheep depends very much upon the farmers themselves. If they were to say, "We will have none of your bare-polled ewes, with little or no wool on the belly and neck, and no wool under their tails; but we will have those that possess wool, and of a quality of flesh which shall produce us good mutton; if not, we will not have them at all," breeders would produce them because they would know that they could not sell bad ones

Points of a Good Ram.

He ought to possess merits peculiar to himself, that is to say, he ought to have a good masculine countenance, he ought to have his neck neither too long nor too short, and placed upon his body as though it formed part and parcel of him. His breast ought to be well thrown out in front, and wide and expansive between his fore legs. There is one thing which is being lost sight of in many pure breeds of sheep,—that is, the important point of the shoulders: because I hold that all male animals ought to be so constructed as to have the right power of locomotion. Now, what I do say of many of the pure breeds of sheep, and alas! of many others, is that the shoulders are placed upon their bodies as though they were pieces of waxwork—as if the body had been made first, and the shoulders had been a second thought, and had been stuck on after the body had got cold. Well, if we could get their shoulders right, I should like to have wide and expanded loins. I should like his tail well placed upon his rump, and well surrounded with mutton; his backbone should be straight, but better a little arched than the other way. I should like to see what I call "legs of mutton," deep, full, and weighty. Then I do not want to see them too long upon the legs, because if they are too long upon the legs they cannot travel. Another great and important point is to see that the wool is of the right character, and plenty of it, and that you get a skin not blue, but of that nice cherry hue that every farmer acquainted with breeding knows must propagate good stock, and stock which will graze.

How to have plenty of Lambs.

My experience tells me that if we want to produce plenty of lambs, and if we desire the single ones to come strong and healthy, it is very much within our own control. Flush your ewes two or three weeks before the rams go to them, and continue that for two or three weeks afterwards: I will answer for the result. Now I will give you my own experience last year. We were rather deficient in early turnips. I tupped some upon layers, some upon the park, and gave them a certain quantity of cake, and one lot upon turnips and no cake at all. We had 25 per cent. more twins from those on turnips than from those on the new layer, or with cake besides.

Lambing.

Through the over anxiety of our shepherds, many ewes and lambs perish. Generally, unless the man is experienced and well up to his work, he causes the deaths of many lambs and ewes by injudicious haste. There can be no question whatever that nature is the grandest nurse and the surest doctor, therefore my opinion is that you should let nature do its own work. When the ewes are lambing, do not be in too much haste. Watch them; but give them time, and they will right themselves; and never have recourse to the use of the hand until you see that the ewe has given up using her own efforts, and she appears exhausted.

INFLAMMATION AFTER LAMBING.

After about three days some of the ewes will begin to strain and droop, showing that a violent inflammation of the uterus is going on. Now our practice has been—and you are able to judge for yourselves how far our practice is worthy of being followed by the figures I have given you—we have immediately bathed the ewe frequently with warm water, and afterwards we often have used injections made from poppy heads, as well as a copious supply of Day's Extract of Driffield Oils, which I believe to be one of the most valuable farmers' friends yet brought out. After that we give three ounces of salts, two teaspoonfuls of sweet spirits of nitre, and two teaspoonfuls of laudanum. In many cases that has been successful in saving the life of an ewe.

TREATMENT OF GARGET.

We all know that this is produced by cold. Now our practice has been a very successful one, because we have got a most intelligent shepherd—a man whom I hold to be second to none in the kingdom in the management of a flock. If it is the black garget, he lances the udder very freely, applies common salt very copiously, and rubs it well all over the udder. After doing that, he turns the ewe, and bleeds her from the large vein running up the centre of the belly, and very freely. He closes the orifice by a pin and a little tow (the same as you would in the case of a horse), and gives at once half an ounce of jalap and half an ounce of alum in half a pint of beer. In most cases he is successful, not only in restoring the ewe, but in rare cases of retaining the value and perfection of the udder also. You know other gargets are often shown you by the hardness of the udder. Now in that case we do not scarify the surface of the udder; it is not necessary. We give it medicine and we bleed, but think it would be highly improper, and without any good effect, to scarify the udder.

MANAGEMENT OF LAMBS

believe that the first and most important thing to do is to feed the ewes well, so that they can do their duty to the lambs: for nothing can be worse, nothing can propagate more disease and more weakness in lambs, than to keep the ewes well at a time when they ought to feed their lambs. We have frequently found after about the third day, the lambs of some mothers more than others are troubled with a certain kind of diarrhœa. A kind of whitish excrement comes from them, which has a very disagreeable smell. This is clearly produced by undigested milk, which, if not soon removed from the bowels, will produce an amount of irritation that will end in death. We give at once two teaspoonfuls of castor-oil, a teaspoonful of ginger and one of magnesia, the object being to carry off the irritation, but at the same time to cool and quiet the stomach. If that does not act in the way we desire in staying the diarrhœa, we give ten grains of powdered chalk, half a drachm of tincture of rhubarb, and ten drops of laudanum, which rarely fails to produce the desired result. The way to grow good lambs is to take good care of your ewes; give them mangold and cake, and let the lambs run out. Of course the more cake you give the ewes, the more grateful both the ewes and the lambs will be for it. Then another simple thing is the tailing of the lambs. It is a simple operation, but if performed at an improper season often produces very unfavourable results. If it happens to be an unfortunate night, with the wind in the north or the east, the lambs are liable to suffer. Our experience has told us that the best time for cutting and tailing is when the lamb is about two or three weeks old. We of course select a nice warm day, with a south wind if we are fortunate enough to get it, and we watch them very carefully at night. If we find any getting stiff or lying about more than they ought to do we take every means to make their blood circulate freely and consequently that generally sets them right.

FEEDING OF HOGGETS

Among other things, a frequent change of pasture is desirable. We have always found that to give bran with cake has done more towards the growing our hoggets successfully up to the time when we wish them to be put on to the turnips, than anything else; in fact, it keeps them healthy. In other things we have bought experience once or twice. By too suddenly flushing our hoggets with too much highly stimulating food, we have produced a great amount of fever; but when we have done so, we have been fortunate enough to hit upon a remedy, which has very much corrected it. If we find we have been unfortunate enough to get into that dilemma, we give to each the decoction of half an ounce of senna leaves and an ounce of salts, frequently followed by a second dose in the course of a fortnight. We have rarely failed to carry off the fever, and our hoggets go on satisfactorily afterwards.

There is another thing in the feeding of hoggets which I have found during the last two or three years to be of the greatest possible importance, and that is always to give a little chaff with the cake, because we have found that it has done as much as anything possibly can do, towards staying everything like diarrhœa or running out. I know it was the practice of the late Mr Jonas Webb to do so. He used to say, "How would you, sir, like to be fed on a piece of roast beef day after day, and no vegetables or bread with it?" He held that the chaff was the bread or vegetables to the cake, and consequently the animal not only ate it with a relish, but that it acted upon the bowels in staying somewhat the laxative effect of the turnips.

How to Raise Large Sheep.

To the Editor of THE CANADA FARMER.

SIR,—The answer to S. E. C.'s communication from Dublin's Creek can be made very short. To bring sheep to perfection, and of great size, requires simple good judgment in selecting the ewes and particularly the tup which should be changed every two years, regular attention, and good feeding from the time the lambs are dropped till you want to sell. Let S. E. C. pick ten good, strong common ewes—seeing he has some size—as soon as the lambs are dropped, take the ewes that have ewe lambs and feed them well till there is plenty of grass, put them in a field where he can feed the ewes a pint of grain each daily: as soon as the lambs begin to eat the grain feed more very early, and then continue the grain to the lambs till there is plenty of grass the following spring; in fact, never let them be poor. I will guarantee in six years, by picking out the best shearlings to breed from, S. E. C. can have ewes equal in size to those he speaks of, if not quite so pure in the breed: but then his ten ewes would not cost what he would pay for two if bought of those breeders. But by all means go to them, and get the best tup lamb they have every second year. What makes small sheep is letting them run in the fields till after the snow has fallen, half feeding them, and using any common tup, because he is cheap. Can you then expect good sheep?

To show what feeding will do in England, I went to see two yearling Devon heifers which were then being fed to show at the Royal Agricultural Society's Exhibition, at which one obtained the first prize. Those heifers had not only the new milk from their mothers but each had the new milk of an Alderney cow, besides plenty of meal oil-cake, and hay. Could they do otherwise but grow? The same with sheep.

ONE WHO HAS SEEN THE TROUGH IN THE FENCE CORNER.

Delaware.

Beans for Sheep, etc.

To the Editor of THE CANADA FARMER:

SIR,—During the last six years I have raised at the rate of from 60 to 80 bushels of beans per acre, and found them very profitable feed for sheep, especially breeding ewes and lambs. When I sow turnips about the middle of June, I reserve a portion of the ground for beans, and drill and cultivate them in the same way as turnips. I commence feeding my ewes two months before lambing, half a pint per head a day, and I very seldom lose a lamb through weakness. I am confident that the quantity of wool and muscle is increased much more than by feeding the same quantity of either oats or peas. The early varieties of beans I find most profitable. When ripe I stack them around stakes driven into the ground, and cap with a little wheat straw. In this state they will become thoroughly cured.

GRAIN AGAINST TURNIPS.

I have frequently heard such remarks as the following among farmers:—"Turnips are so uncertain a crop, and attended with so much labour in cultivating, and feeding out during winter, that I have been storing induced to sow oats and peas mixed, half and half, in lieu of them, and I am of opinion that I obtain as much solid nutriment, if not more, than from the same quantity of land sown with turnips, and with much less expense. On an average I cannot raise more than six hundred bushels per acre, and at best they are cold feed in winter, and composed of water mostly." Will some of our practical farmers draw a comparison and decide this very important question? If it really be possible to raise as much nutriment from the same quantity of ground in the form of straw and grain, and with half the labor, I should say at once leave turnips to be raised in a milder climate than Canada where they may be fed off on the land

C. GOODWIN.

Dereham, Co. Oxford, Feb. 13, 1861.

☞ The usual estimate of the gross and nett weight of sheep is that the dead carcass will weigh one half the gross weight. If the butcher should sell the carcass at about what the sheep cost him he would have the pelt, rough fat and head for profit.

Profit of Sheep Keeping.—The Waterville *Mail* says Messrs. Doolittle & Hirton, at their excellent farm on Sandy River, keep a flock of four hundred very choice Merino sheep. We saw them last winter, and thought them the best-managed flock we have seen in the State. We are told that $1,600 worth of wool, and $600 of sheep and lambs, have been sold the past season—$2,200—while the flock has been kept good in number and quality. This is farming that pays.—*Me. Farmer.*

The Profits of Sheep Husbandry.—In sheep growing there are three distinct sources of profit sought, viz.: Increase of number by actual propagation, growth of increase in size and in weight, and the annual product of wool. The ewes used in breeding should possess, as nearly as possible, the points of excellence desired in the offspring; they should at least be two years old, of good strong constitution, well fed and well sheltered. Such ewes, with such management, will generally realize the fond hopes of the shepherd for increase. Growth afterward is natural, easy and rapid. The product of wool depends much upon the health of the sheep, both for strength and beauty of fibre, and weight of fleeces.—*Valley Farmer.*

Sore Mouth and Eyes in Sheep.—One of our subscribers enquires for a remedy for sore eyes in sheep, and thinking it probable that others of our readers may have flocks afflicted in the same manner, or with sore mouth, we give the following remedies which are recommended for these diseases:—In case of sore mouth the parts affected should be well smeared with an ointment composed of tallow, one-quarter of a pound, fresh butter, one quarter of a pound, tar a half-teacupful, sulphur one tablespoonful. Melt the tallow, butter and tar, and stir until well mixed; when nearly cold add the sulphur; or simple sulphur and hog's lard would probably be effectual. Sore eyes result from various causes: as exposure to strong odours in a tight barn, drinking impure water, catarrhal inflammation, &c. For a cure bathe the eyes in tepid water for several days, or dissolve an ounce of white vitriol in a pint of warm water and apply thoroughly to the eyes after washing them clean. Repeat till a cure is effected.—*Maine Farmer*

Troughs for Feeding Grain to Sheep.—In whatever shape the troughs are made, the farmer finds that during the storms of winter they are liable to be filled with snow or slush, or foul stuff, the refuse of the food. To obviate this many feeders go around after the sheep have eaten, and turn the troughs over on the ground, leaving them in this way until they go to feed again. We saw last season, a plan, by which the troughs were pivoted at the ends to upright board stakes, driven in the ground. The troughs were made about six inches wide on the bottom, the sides slightly flaring, three or four inches high; the end pieces were boards coming five or six inches below the bottom of the trough; through these end pieces, just below the bottom of the trough was bored a three-quarter or inch hole to match a like hole in the upright board stakes, a foot from the ground, these uprights being driven in the ground so as to stand at the ends of the troughs—a wooden pin to fit the holes was put through the stakes and end pieces of the troughs, thus suspending the latter, and allowing them to turn over face downward, without touching the ground. The stakes came up higher than the top of the troughs, and to hold the troughs face up while the sheep were feeding, another wooden pin was put in one end near the top of the end piece, going through the stake also. By this simple contrivance, when the sheep were done feeding for the time, the attendant had only to take out the upper pin and the trough revolved on the lower pin and hung dry until wanted again. When the winter feeding was over, the whole was taken up and put away in the shed.—*Exchange.*

Correspondence.

White-Fish of Canada.

To the Editor of THE CANADA FARMER:

SIR,—I am very desirious, on the part of the Acclimatization Society of Great Britain, to get some information about the habits, spawning grounds, food, &c., &c., of our famous white-fish. The sum and substance of my personal enquiries, so far, is that they are "very good to eat." I want something beyond this, and am told that probably I can obtain it from that most neglected class of our fellow creatures and subjects—the Indians. Will any of your correspondents help me? H. P. H.

6 Ritchey's Terrace, Toronto.
February 23, 1864.

Forest Management.

To the Editor of THE CANADA FARMER.

SIR,—Geologists have divided the earth's crust into layers or strata, like so many leaves of a book, and as Sir Wm. Logan tells us that we are deficient in the carboniferous formation, it becomes the possessors of the soil to look into the future, and see what they are going to do for domestic fuel. Coal we have not, wood we have; but how to preserve it is the great desideratum, so as to have it in perpetuity. The plan adopted by the early settlers is a most ruinous one. By thinning out all the thrifty trees, by allowing the cattle to run at large, nipping every young twig lately sprung from the germ, and leaving it to be over-run with weeds and wild grass, the patch of woods quickly goes to destruction, and it remains only a question of time when the last tree will be exterminated The plan that I would recommend, is that every farm ought to have a wood reserve of at least twenty acres. Fence the same, let the proprietor pass a *Medo-Persian* law, which altereth not, that no cattle shall enter therein to destroy the young growth that will spring up. Commence cutting your firewood on the east side, taking all the large trees, and leaving only those which you wish to be the progenitors of the future growth. In autumn, the north-west winds, which are prevalent at that period of the year, would scatter the seed with a liberal hand. Falling amongst the brush and chips of the previous year's operation—having a good seed-bed prepared by nature—they would come up spontaneously in spring, and in the course of five or six years they would be so thick that it would require no little skill in thinning and pruning them so that when they come to maturity they would resemble our primeval forests. A wise selection should be made of young wood to be left for fuel and mechanical purposes; say that a quarter of an acre would furnish any farm-house in fuel for one year; so, upon that calculation, it would take eighty years going over the wood reserve. Then you might commence and go through the same process, for the timber will be large enough. By adopting some such method, Canada would have wood in perpetuity.

FORESTER.

Georgina, Feb., 1864.

Threshing Machines.

To the Editor of THE CANADA FARMER.

SIR,—The only available threshing machines that I know of in Lower Canada are the portable ones driven by two horses on a sloping platform, on the endless-chain principle. Although the makers profess them to do more, experience proves them to average about seventy-five bushels of wheat per day, during a week's threshing of fair grain, in the winter months. The only economy over the flail is in time, the cost per bushel being about the same They require a man as feeder, a second to hand up the sheaves, a third to forward them from the mow, a fourth to fill the bags and mind the mill, and a fifth to clear the mill of straw. None of these men can be dispensed with, and yet they could do double the work if the mill was equal to it. Will some one kindly describe in THE CANADA FARMER the machines in use in Upper Canada, how driven, what they will average per day throughout the week's threshing in winter, the space they occupy, the cost and where to be obtained, and the number of men required to work them, independent of those employed on the straw stack as it is thrown back from the mill? and oblige,

Your obedient servant,

JOHN BULL.

CLARIFYING MAPLE SUGAR.—"C. G." enquires, "How can Maple Sugar be more effectually cleansed than by the ordinary method of incorporating milk with eggs?"

[ANS.—See the article on Maple Sugar making in our present issue.]

PEACH BLOW POTATOES.—A correspondent writes us to the effect that he has thoroughly tested this variety of pot toes, finds them rot-proof, and considers them an excellent sort well worthy of cultivation.

TIMELY NOTICE OF FAIRS, &c.—A Toronto "Subscriber" enquires, "Do you not think an advance notice of the time and place of holding all approaching Fairs and Exhibitions would be of great use to many of your readers?"

[ANS.—Undoubtedly. Will those whose duty it is to give such notices, please take the hint.]

DURHAMS GOING OUT OF FASHION.—A correspondent wishes us to add to the account of the Smithfield Club Show given in our last, the following extract from an English paper, which he says "may lead to a little paper war that will not hurt the combatants, and certainly not THE CANADA FARMER":—

"The Durhams, although looking very fat, very square, and very solid, both in figure and in expression of countenance, must this year be content with a respectable mediocrity. There is a fashion in cattle as well as everything else, and it seems that Durhams are less in favour, and the strife now lies between the beauty of the Devons, and the size and figure of the Herefords, *as to which shall be the cattle feeders' future favourite.*"

SULPHUR FOR SHEEP-TICKS.—Daniel Tye, of Walmot, says in reference to one of the remedies for sheep-ticks recommended in our last issue:—"Mix salt with one-fifth of sulphur, letting the sheep have always access to it. I have tried this for the last four years, and when my sheep have been shorn, I have been asked if Down sheep never have ticks? Another thing, I formerly used to lose a number of ewes before lambing; in 1858 I lost 20 out of 100;—since I have used sulphur, I have not lost one from the same complaint."

The Canada Farmer.

TORONTO, UPPER CANADA, MARCH 1, 1864.

An Item of War News!

WE desire to call the attention of the farmers of Canada to the fact, that a War Order from the Government of the United States is now in force prohibiting the export of live hogs from the adjacent Republic into this Province. The effect of this measure, dictated, as is alleged, by military necessity, is to cut off three-fourths of the supplies depended on by the large houses in this country that cure and pack pork for the English market. For some time past a large amount of money has been flowing out of this country for the purchase of what might have been home-produced. From the low price of pork, and the high price of the grain needed for fattening hogs, our farmers have looked upon this as an uninviting branch of agricultural enterprise, and it has been somewhat neglected of late years. Now, however, there is every prospect of an increased demand, a higher price, and a steady market for hogs. Pork is quoted at high prices in the United States, and is not likely to come down at present. The extensive failure of last year's corn crop, and the continuance of the war, will operate to keep the price up, and will lessen the surplus our neighbours have been accustomed to ship to England. Our pork-curers begin to feel the necessity of encouraging home-production, so that they may have the hogs they require to keep their establishments going. We are inclined to think the opportunity of doing a large business in England will increase the number of pork-curing houses in this country, provided they can be supplied to the desired extent. Another favourable circumstance is the reputation Canadian pea-fed pork has acquired in the old country. It is much preferred to the corn-fed pork sent from the United States. On this account, our pork-curers would rather have Canadian hogs, if they could be obtained. On these grounds, we feel warranted in advising our readers to go more largely into the raising and fattening of swine. It may not be generally known that means have been adopted by which curing and packing pork can be carried on in summer as well as in winter. The difficulty of doing this is obviated by the erection of a cooling-house lined with double walls, in which ice is packed, very much on the principle of the refrigerators, with which all house-keepers are familiar. This is advantageous, not only to the curer, who is thus enabled to carry on operations all the year round, but also to the farmer. Hogs fatten most easily in warm weather, and if they can be sold for cash in summer as well as in winter, there is the more encouragement to raise them. This new feature in the trade is brought out prominently in an advertisement which appears in the present issue of THE CANADA FARMER. We understand that 30,000 hogs were slaughtered and cured at the Ontario Packing-house, in Hamilton, last summer, so that the plan above-mentioned is not a mere experiment, but an undoubted success. The farmers of Canada will do well to take this matter into serious consideration. Now is the time to lay plans in reference to it. The spring litters of pigs will soon be dropped, and seed time is at hand. By bestowing special care on the young porkers in the way of nursing and feeding, sowing a piece of land with coarse grain for hog feeding; improving and multiplying their stock, they will be in a position to improve the opportunity now presenting itself. It is our intention to resume this subject in our next, and to illustrate some of the more valuable breeds of hogs, with a view to awaking more interest in this now promising branch of stock farming. Though the majority of Canadian farmers are too ready to content themselves with the common, coarse-bred animals which are usually called "natives," we have many intelligent and enterprising agriculturists among us, who, believing the pig to be as capable of improvement, and as worthy of it, as any other farming animal, have spared neither pains nor cost to procure the most approved kinds. We are thoroughly satisfied that for appearance, ready fattening properties, and consequent profits, the finer breeds of swine deserve more general appreciation. There are many points connected with the rearing, fattening, butchering, and marketing of hogs, on which we purpose to dilate in future issues, so as to bring this subject fully before public attention

Board of Agriculture.

A MEETING of the Board of Agriculture was held on the 11th ult., at the Agricultural Hall, Toronto, at one p. m. Under the Agricultural statute, the members of the Board of Agriculture together with the President and Vice-Presidents of the Board of Arts and Manufactures, form the Council of the Agricultural Association, for the transaction of all business affecting the latter between the Annual Meetings. The members of the Board of Agriculture proper, transact the business coming within their province and not specially relating to the Provincial Exhibition or the Agricultural Association. On this occasion, from unavoidable causes, there were no members of the Board of Arts present. The Board commenced business as

THE COUNCIL OF THE AGRICULTURAL ASSOCIATION.

Present:—Colonel Thomson (President), Hon. D. Christie, Hon. Geo. Alexander, Hon. Asa A. Burnham, R. L. Denison, Esq., Dr. Richmond, James Johnson, Esq., President of the Agricultural Association, and Professor Buckland.

The minutes of the last meeting were read and approved.

The Secretary submitted a number of reports and communications. Among the latter, special mention may be made of the following:—

From Mr. D. W. Beadle, St. Catharines, renewing

the offer of Dr. Beadle's Prize for 1864, on the same conditions as formerly open to the whole Province, except Provincial Nurserymen.

From Mr. Joseph Hall, Oshawa, offering to give one of his Combined Ohio Reaping and Mowing Machines, with all the latest improvements, valued at $150, as a prize for the best ploughing at a ploughing match to be held in connection with the Provincial Exhibition at Hamilton the coming autumn.

From Hon A. J. Ferguson Blair, proposing to continue the "Fergus Cup" as a prize for the year 1864 on the same conditions as formerly.

From Mr. D. W. Beadle, Secretary of the Fruit Growers' Association, suggesting certain changes in the Prize List for fruit at the next Provincial Exhibition

From Mr G. Leclerc, Secretary Lower Canada Board of Agriculture, stating that there would be no Provincial Exhibition in that section of the Province for the year 1864.

It was then

Resolved,—That the Exhibition of the present year shall be held on the 26th to 30th September next.

Resolved,—That the list of names submitted from Hamilton to form the Local Committee be approved of.

An account for work at Kingston was referred to the Local Committee at that place.

Sundry letters proposing alterations in the premiums offered, &c., referred to the Prize List Committee to be appointed for the current year.

In connection with these letters the Secretary submitted certain additional rules which he suggested should be added to the Rules and Regulations published along with the Prize List for the Exhibition, two of which were adopted and the third was as follows:—

"Every article entered for exhibition, except live stock, must have been grown, produced or manufactured since the previous exhibition, and no article except live stock shall be allowed to be entered which has been *shown* at any previous Provincial Exhibition.

Some discussion took place on this point, and Mr. Johnson moved the following as an amendment:—

"Any article manufactured previous to the last Exhibition, shall not be entered in competition for any money prize named in the Prize List for this year, but may be awarded a diploma if in the opinion of the Judges such article is superior to any other of the kind exhibited, and is deemed worthy of the same" The amendment was adopted.

The special prizes offered were accepted, and the following resolution was passed:—*Resolved*—That the thanks of this Board be given to the Hon. A. J. Fergusson Blair, Mr. D. W. Beadle, and Mr. Joseph Hall, for their very liberal offer of prizes.

The communication from the Fruit Growers Association was referred to the Committee on the Prize List.

Mr. Cooley's Report as General Superintendent of last year's Exhibition, was considered and adopted, and the recommendations therein concurred in.

Mr. Hall's communication was then considered and it was *Resolved*—That a Ploughing Match be held at or near Hamilton, on Saturday of the Show Week, that the first prize for such ploughing be Mr. Hall's reaping machine, that the second prize be the iron plough which shall take the first prize at the Exhibition, that the third prize be the wooden plough which shall take the first prize at the Exhibition, and the fourth prize be a good set of harrows.

Resolved,—That the President of the Association, the President of the Board of Agriculture, Professor Buckland, and R. L. Denison, Esq., together with the President, Vice-President and Secretary of the Board of Arts and Manufactures, be a committee to revise the Prize List for the current year.

Resolved,—That there be a separate class for Angus Cattle at the Exhibition, and that there be 12 prizes given in that class.

Resolved,—That there be a separate class for Shropshire Down Sheep, and that 6 prizes be given in that class.

Resolved,—That the prizes given for Cheviot Sheep be limited to six.

Resolved,—That the uniform charge to non-members be twenty-five cents for each admission for the four days of the show.

Resolved,—That notice be given in the Canada Farmer, and in the *Journal of the Board of Arts and Manufactures* that the Council will propose to the Association at its next Annual Meeting the amending of Clause 15 of the By-Laws, so as to give a fixed number of single admission tickets to members instead of season tickets.

Resolved,—That for the future this Council will not be responsible for the payment of any account or liability incurred by any Local Committee unless the previous authority of this Council be first obtained for the incurring of such account.

Resolved,—That sheep, in future, must be really and fairly shorn bare after the 1st of April, and the date of shearing shall form part of the entry certificate Two inspectors will be appointed to report any cases in which the shearing rule has not been properly complied with, and sheep so reported will be excluded from competition

Resolved,—That in future, judges of stock be instructed to exclude from competition breeding animals which have been overfed for exhibition purposes.

Resolved—That in future the names of competitors at the Provincial Show be written in full, with their residence, on the entry cards.

Resolved,—That the accounts of the Association be audited before the 1st day of July in each year, and that the following gentlemen be the auditors for the current year, viz, the President of the Board, Professor Buckland, and G. P. Ridout, Esq.

The Council then adjourned.

THE BOARD OF AGRICULTURE.

The Board then entered upon the business proper to the Board of Agriculture, the same members being present except Messrs. Alexander and Richmond.

Several communications were submitted, and the Secretary stated that he had replied to them as the circumstances of the case required. The Board concurred in such replies.

The Secretary submitted a report of the Committee on Printing and Publication in reference to the *Canadian Agriculturist*. The Honourable George Brown having, in the autumn stated his intention of publishing a new agricultural journal which should be conducted so as to make it a first-class paper of the kind, exclusively with a view to the wants of the Canadian farmer it appeared to the Committee that under these circumstances it would not be desirable for the Board to continue the publication of the *Agriculturist*, but rather that it should be merged in the new paper, if suitable arrangements could be made with the proprietor. Accordingly, having consulted the members of the Board, after some negotiation with Mr. Brown, the good-will of the *Agriculturist* had been disposed of to that gentleman, and arrangements made by which the publicity desired for the proceedings of the Board and of the Association would be afforded by The Canada Farmer.

A letter was read from Mr. W. Wagner, of Montreal, acknowledging receipt of an assortment of specimens of Canadian grains, which he desired to forward to the Prussian Society of Acclimatization, in return for which he hoped to obtain for the Board samples of valuable foreign seeds.

Also, a letter from Mr. Joseph Bullock, of West Flamboro, desiring to be informed if the Board would afford any assistance in distributing flax seed for cultivation

Several other communications were also submitted on routine and minor matters.

The Secretary stated that in accordance with a resolution adopted at a previous meeting of the Board he had issued circulars to all the Societies, in reference to the proposed publication of a Canada Short Horn Herd Book, and that he had already received a considerable number of orders for the work It was then *Resolved*—That the Board of Agriculture do publish a Canadian Herd Book, which shall form a complete record of Short Horn Cattle in the country, independently of the English and American Herd Books, that the edition consist of 500 copies, and that the following gentlemen be a committee to prepare the work and superintend its publication, viz: the President, Vice-President, Col. Denison, and the Secretary.

The Report on the subject of the *Agriculturist* was considered and concurred in.

Resolved—That the thanks of the Board be given to Mr. Grinnell, of the Washington Agricultural Department, for copies of the Report received from him.

The Board then adjourned.

Lack of Implements.—We notice in several of the reports, published by Agricultural Societies, a complaint that but few implements are shown at the Annual Exhibitions. Is this from want of enterprise among the manufacturers, or from the dullness of the implement trade with the farmers? Supply and demand usually keep pace with one another, and we fear, therefore, that too many are not sufficiently alive to the advantages of working with tools of the best description, to be willing to be at the cost of buying them

Drain Tiles and Manure.—The report of the County of Kent Agricultural Society contains the following paragraph:—"Your Directors were much pleased to learn that for the first time in this County, a lot of drain tiles were manufactured last year. They trust the manufacture will be followed up, as the importance of under-draining is so great that there is scarcely any one thing that would more conduce to the agricultural improvement of the County than this. It would be well if the proper manuring of the land was likewise more attended to In some other countries, they pay great attention to the use of manure, both solid and liquid; but your Directors are sorry that very little attention is paid to the use of either in this County.

Sheep, Hoos, and Root Crops.—The South Wellington and Guelph Township Agricultural Society, say in their recent annual report that "The breeding of sheep, from the high price of wool, is very remunerative. During the past two years a very considerable breadth of land has been sown in rape, on which sheep have been very profitably fatted, and the land left in fine condition for spring wheat. Hogs are not raised to the same extent as formerly, the price of pork having ruled low of late years. The small breeds, such as the Suffolks and Berkshires, are fast coming into favor. In the general system of farming, your Directors believe, that within the last few years, there is a marked improvement. With the intelligent farmer the root crop has taken the place of the naked summer fallow. A mixed system of husbandry has been introduced, the result of which "is highly satisfactory."

Book Notices

First Lessons in Scientific Agriculture. By J. W. Dawson, L.L. D., F. R. S., Principal of McGill University. Montreal: John Lovell. Toronto: Adam Miller.

This is a manual of 208 pages, intended for schools and private instruction, and is one of Lovell's series of school books, We hail its appearance with much pleasure, and though we have not been able to examine it thoroughly, yet from the known ability of its author, we have little doubt it is a most valuable treatise, and we therefore lose no time in bringing it under the notice of our readers. We hope to review it more at length before long; meantime, we give the headings of the various chapters, that some idea of its contents may be obtained. The volume treats of the science of agriculture and its uses; the best modes of teaching scientific agriculture in schools; chemical composition and decomposition; the simple substances of which plants consist; sources of the organic food of plants; structure of plants; organic compounds produced by plants; the ashes of plants: the soil; exhaustion of the soil; improvement of the soil; manures; crops; suggestions as to practical applications. The whole is concluded with an appendix containing articles on the application of meteorology to agriculture, directions for forming experiments, and rotation of crops for Canada.

The Cultivator's Guide and Descriptive Catalogue of Garden, Agricultural and Flower Seeds.

This is a pamphlet of 72 pages, issued by Mr. J. A. Simmers, seedsman of this city, and contains full directions for raising culinary vegetables, farm roots, and flowers from seed; together with a large amount of useful information respecting gardening in general. It will be found a very useful book of reference, especially to beginners in the art of horticulture.

A High Compliment.—We continue to receive very flattering notices from the Canadian press, which we duly appreciate, and some of which we may hereafter publish. Various Agricultural journals in the United States have also given us a very cordial welcome. We cannot resist the temptation to insert an extract, from perhaps the ablest periodical of its class, the *Country Gentleman*, in which The Canada Farmer is referred to in the most flattering terms. By way of introduction to a number of items condensed from our columns, our valued contemporary says:—

"The Canada Farmer is the title of a new agricultural journal published at Toronto, Canada West—the successor of the *Agriculturist*, formerly issued by the Provincial Agricultural Society, but in different style, and promising to take a high rank among periodicals of its class on this side of the Atlantic. Judging from the three numbers thus far received, it promises to be one of the very few journals on our exchange list which really add much to our resources of agricultural intelligence."

Veterinary Department.

Resuming the subject of hereditary diseases, there is another common disease of the osseous system in horses known as Bone Spavin. This affection, like Ring Bone, in many cases descends from the parent to the offspring. There are two kinds of Bone Spavin, —the first arises from inflammation of the fibrous covering of bone, the second where the inflammatory process extends to the internal structures of the hock joint, causing ulceration of the bones. The former is seldom attended with much lameness, while in the latter the lameness is very severe. That form of spavin arising from inflammation of the periosteum, is chiefly due to mechanical injury as over-work, &c, and if occurring in a well formed hock, and situated well back, seldom does much harm, but if it take place in a narrow hock from before to behind, and the enlargement is located far forward, it will greatly interfere with the integrity of the joint.

Specific Ophthalmia.

An affection of the eye of the horse well known as Specific Ophthalmia is frequently met with in this country, and many of the cases which present themselves can be distinctly traced to a hereditary predisposition, the dam or sire being affected by what is termed "weak eyes." Specific Ophthalmia was at one time very prevalent in Britain, and to the present day it is not uncommon amongst the horses of Ireland, in fact in that country "it is the bane of good horse flesh." This disease is now gradually on the decrease, as greater attention than formerly is bestowed on the selection of stock, and breeders are careful not to use animals affected with, or predisposed to it. It is the most virulent disease which attacks the eye of the horse, and its treatment is often unsatisfactory. More can be done with medicaments than formerly in alleviating and palliating the more aggravated symptoms of Ophthalmia, but still we are not able to prevent its sure return and fatal termination so that the eye is either partially or totally destroyed by it. As this affection may be said to be incurable it is our duty to prevent its spread, and this can be done most effectually by selecting animals for breeding purposes free from any defects of the eyes, which are a sequel of specific Ophthalmia. We do not mean to say that every horse with a predisposition to this disease will become affected by it, but it is always liable to break out in all its virulence when an animal is exposed to some exciting causes. Among these are injuries, confinement in badly ventilated stables; also, standing in too dark stables, and then being suddenly exposed to the sun's glare. In the summer months, especially, if stables are not kept clean and well ventilated, the gases generated are very injurious to the horse, and particularly to the eyes, from their being irritated by the ammonia, which arises from the decomposition of the urine.

It is advisable to guard against these exciting causes, and attend to the cleanliness and proper ventilation of our stables; also, to allow plenty of light (a precaution too often neglected) in the construction of stables.

Among the first symptoms of Specific Ophthalmia there will be a watery discharge from the eye, and on being exposed to the sun's light, the animal exhibits a peculiar uneasiness with a partial closure of the eye affected. In this stage, a common expression is, "He has got a cold in the eye." As the disease advances, the eyelids become swollen, and the discharge increases. If the eyelid is turned up, the conjunctional membrane appears reddened, and altogether the symptoms are very like those of simple Ophthalmia, often misleading to the supposition that the eye has received a blow. These symptoms become more and more aggravated, and the patient, in many cases, is affected constitutionally, the circulation being increased, the mouth hot, and the appetite impaired. These symptoms may continue for several days, and then gradually disappear, or the eye may be prolonged for weeks, and end only with the destruction of the eye. Often we find the disease disappearing, so that the eye looks quite well. The patient is lively, in good spirits, and the eye seems to have entirely recovered. The improvement in many cases is not of long duration, as all at once the disease returns with increased severity, and perhaps both eyes are attacked. A peculiarity of this disease is its shifting from one eye to the other in some cases. The one eye is no sooner better than the other becomes affected. These relapses occur until the eye is deprived of its functions altogether.

The parts principally involved in Specific Opthalmia are the internal structures of the eye, and the changes which take place vary in proportion to the severity of the attack. A first attack of a mild character, and not of long duration, will leave the eye to all appearance little the worse. Commonly, after the first or second attack, there remains a little haziness of the cornea, and the pupil assumes a glassy, greenish hue, the forerunner of cataract—the sure termination. Sooner or later of Specific Ophthalmia. What is understood as cataract is an effusion of lymph, either in the crystalline lens or its capsule, which may vary in size from a pin's head to the extent of covering the whole lens. After the formation of a cataract, inflammation seldom returns with any degree of severity.

Typhoid Fever in Horses.

To the Editor of The Canada Farmer.

Sir,—A peculiar and deadly form of horse disease has within the last few years been observed in different parts of Scotland and England, characterized principally by the low typhoid form of fever. It appears to belong to the epidemic class of disease, and is mainly attributable to exposure to those influences which interfere with the general health and vigour, among which stand pre-eminent, overcrowding, improper ventilation, confinement in damp filthy stables; together with what may be termed generally, atmospheric causes. A disease similar in most respects has been noticed in horses in this Province during the last two years. Typhoid Fever as a primary disease, until very recently was of rare occurrence in the lower animals, or at all events it was not diagnosed as such, though it doubtless did occur. As an accompaniment of all epidemic diseases, Influenza, Pleuro-pneumonia of cattle, &c., we were familiar with it in all its forms, but now it takes a place in professional nomenclature as a distinct disease. During the last two months occasional cases have occurred in this neighbourhood, and a few horses have been carried away by it. Last week it assumed a more formidable character, four horses being cut off in as many days in one stable in town. They had been attended by first one and then another of that class of empirics which are to found in all Canadian towns. Two had already died before I was called in, a third was just dying, and a fourth was in an advanced stage of the disease.

The first noticeable symptom is dullness and langour; the animal stands hanging his head, is listless and stupid. The pulse, at first, soon becomes quick and weak, the mouth hot and dry, in some cases a watery discharge trickles down the nos wil which is palid or of a yellow tinge. The animal seems thirsty but is unable to swallow either food or water, and yet the throat does not seem very tender on pressure, nor is any external swelling to be seen. This is the symptom that generally causes the first alarm to the attendants. He has a painful cough which however is not very frequent. The bowels are inactive, and what is passed is covered with slimy mucus. The secretions are altogether sluggish. The ears and legs are sometimes hot and sometimes cold. The great predominent symptom is the extreme prostration which from the first characterizes the complaint. In from twenty-four to forty-eight hours the weakness has so much increased that he is unable to stand. He gets down, colicky pains set in, he throws his legs about, turns his head towards the flank and evinces considerable suffering. The pulse increases in frequency, becomes weaker and weaker till it is altogether imperceptible, The breathing becomes quick and short, the breath smells badly. The weakness increases and about the third day death closes the scene. After death the body emits the foulest odours,

The causes of Typhoid Fever, or at least those which act more immediately on its production, are like all other diseases of the same class not definitely understood, however, one thing is evident, viz., that they are generally found occurring in foul, ill-ventilated stables where horses are overcrowded and improperly attended to. Bad water, holding in solution decomposed organic matters, in insufficient flourishment and undue exposure at this season of the year when the system is unusually susceptible to disease consequent on the changing of the coat may also be mentioned. Such causes, if not the immediate agents in its production, at least act by favouring or engendering this form of disease. In the cases above mentioned, the causes were evident—the stable situated in a low, damp place, and a large dung-heap occupying the square enclosed by the buildings One of the houses in which four were kept, had been a hog-pen, and the dung had not been removed for months, being several feet deep and covered with some wet straw. Here the poor horses were pent up, and the owner himself being sick, they were very indifferently cared for.

This is a disease which is capable of prevention, though I am sorry to say it is in many cases beyond our science to cure it. When it does occur, the first thing to be done is to separate the rest of the horses from the patient. Have him provided with a comfortable loose box, airy but no draughts through it, clothe him warmly and bandage his legs. Give a slight laxitive with occasional emolient clysters. Bleeding and physicing are almost certain death. From the first, stimulants must be freely given, for it is only by counteracting and overcoming the prostration that we can have any prospect of saving the animal.

To prevent this disease the stable must be kept clean, dry, and well ventilated. Have no cess-pools or dung heaps near the door. See that the horses are regularly fed, watered and exercised,—never allow them to be unduly exposed and attend to their general comfort in and out of the stable. As the blood in these cases is generally found dark coloured and deficient in fibrine, it will be found that placing saline matters within their reach will tend to preserve the vital fluid in its integrity. For this purpose it is advisable to place lumps of rock salt in the manger and keep it constantly before them.

Such preventives as are often proposed in all epidemics and contagious diseases, as for instance, anointing the bit with Assafœtida, Camphor, &c. are, merely fanciful.

D. McEACHREN, M.R.C.V.S
Veterinary Surgeon.

Woodstock, Feb. 18, 1864.

☞ To prevent horses from over-reaching in travelling, a writer in the *Rural New Yorker* says, let the blacksmith make the heel corks of the fore shoes high and the toe corks low; and the toe corks of the hind shoes high and the heel corks low.

Warts on Horses. Mr. J. S. Bailey, of Whitefield, recommends the use of blue vitrol for the cure of warts on horses. Dissolve a piece of vitrol of the size of a walnut in a half pint of water and apply the solution to the diseased parts with a brush or sponge. He has tried the remedy with entire success.

Horses extricated from Fire.—Horses are often so intimidated by fire that they have perished before they could be removed from the spot; but if a bridle or a halter be put upon them, they might be led out of the stable as easily as on common occasions. Or if the harness be thrown over a draught horse or the saddle placed on the back of a saddle horse, the same object may be accomplished.

The Bar Horse-Shoe.—Though it is not advisable to adopt this shoe often, or long at a time, there are occasions when it is very useful. By continuing such a shoe around the heels, the pressure is taken off from one part and is equally diffused over the whole. Obviously, such a contrivance is beneficial when the hoof is cracked, when corns appear, and in cases of thrush. After it has been worn three or four weeks, or as soon as the disease abates, it should be dispensed with. If not taken off, the frog of the foot will suffer under the continued pressure of the bar. Whenever this shoe is used, care should be taken in driving to avoid slipping. Neither heavy draft nor great speed should then be required of the horse.—*Ibid.*

Coughing Horses—Cause and Cure.—It is well known that feeding horses on clover hay often makes them cough, but the why and wherefore may not be so generally known. From observation I have become fully satisfied that the manner of feeding hay to horses is the cause. The usual custom is to let them draw it through a rack, thus stripping off the fine dust which adheres to the stalk, which being drawn into the lungs in respiration produces the cough. The cure consists in removing *the cause*—that is, the racks—and allowing the animals to take their food in the natural way. I have removed all of mine, and now feed my horses on the barn floor having a breastwork sufficiently high for them to eat over. In this way they can be fed on hay without raising a dust, they get none under their feet, and the labour of cleaning out mangers is saved. Whatever is left is easily pushed out with a rake into the yard for the cattle. The dust on the hay will do the horses no harm if taken into the stomach. Since making the improvement above mentioned in my feeding apparatus, I am not troubled with coughing horses. There is no patent on my invention; my brethren can use it freely if the editor thinks proper to publish it.—*J. C. B. in the Rural New-Yorker.*

Horticulture.

The Profits of an Apple Orchard.

To the Editor of The Canada Farmer.

Sir,—In your article of the 15th January, you have taken a purely commercial view of Orchard Planting and Fruit Growing, and have, I think, established your case on good data. My own experience may cause me to make a slightly different estimate. For instance, the rent is higher than any necessity for. Five dollars would be a fair rent for an acre, including repairs on fences. For the cultivation I would say one ploughing two dollars per acre, six times cultivating during the summer, six dollars per acre. making for the year's expense, rent, one hundred dollars, cultivation one hundred and sixty dollars. on twenty acres. The expense can, for a few years, be reduced by growing among the trees such crops as carrots, potatoes, or beans, leaving a space on each side of the trees sufficiently wide to admit of a free and clean cultivation. I do not think such crops as have been mentioned injure the trees for the first four or five years, and as they require an application of *well rotted manure*, the young trees get the benefit of the same.

You need not expect returns of any amount in five or six years. If you get any it is at the expense of the growth of the trees and of no ultimate benefit, for if the trees do not bear young it indicates a luxuriant growth, which is of more benefit to the trees than the apples would be to the grower. From seven to twelve years you may expect a gradual increase until at that age the yield will be about two barrels and a half per tree. It is true that trees of that age will bear perhaps twice that amount, if allowed to ripen all the apples that set on the tree. But some varieties have such a strong propensity to bear alternate years that it can only be counteracted by a judicious thinning when the trees begin to fruit. This is an object of the highest importance, as it is far better both for the trees and the grower that the trees should bear a moderate crop every year.

In making an estimate of the profits of Fruit growing on an Orchard of twenty acres, I would say, rent $100 per year, for cultivation, if no crop is grown between the rows, $160, for trees to plant, $120, for planting, $10; making for the first year, $420, for each subsequent year for six years, $260, making in all before the Orchard comes in bearing, $1,980. To this ought to be added, $120 for subsoiling the twenty acres before planting, which is necessary if the highest ends are desired This will make the total investment $2,100. The returns of the Orchard may now be reasonably expected to reduce this sum very rapidly. Allowing that from seven to twelve years inclusive, the yield to be one and a half barrels per annum, the return from six hundred trees would be nine hundred barrels. And as the fruit on young apple trees is always fine and showy, it will command the highest price—so that seventy-five cents may be put as the lowest average per barrel. This gives a yield of $675 for the year, or $4,050 for the term of six years, from seven to twelve inclusive. At this time the total expense of the twenty acres stands as follows:—for the first six years as already stated $2,100; and for each subsequent year $260, making $1,300 more, or a total of $3,400, thus leaving a balance in favor of the Orchard of $650, with a prospective return after this at the moderate estimate of two dollars each tree or twelve hundred dollars per annum.

It is, however, absolutely necessary that only the best varieties of market apples be planted and such as succeed well in the locality. There are many kinds of apples that are good, and almost every one has a favourite of his own, but the proper test is how will it pay? It is not always the apple that yields the most nor yet the apple that brings the highest price, but the kind that on an average brings the most money But as this properly belongs to another subject it may be taken up at a future time.

R. N. B.

Niagara, January 20, 1864.

Note by the Editor.—We are much obliged to R N. B. for his experience. Being one of the most extensive orchardists in Canada he knows whereof he affirms, and our readers will wait impatiently for his opinion of the kinds most profitable.

THE JAPAN LILY.

We are wholly unable to give our readers any just idea of the beauty of this charming flower Our engraving, while it well represents the form and markings, cannot show the beautiful crimson shading on that pure white ground, nor the brilliancy of those deep crimson dots; and were it coloured, could not exhale the delicious perfume. That it blooms in autumn is one of its chief excellencies, and the idea that it is tender and needs to be taken up every fall and re planted in spring has been found to be erroneous, though we would recommend throwing some coarse manure or leaves over the ground as a protection against sudden changes. We have known them to pass the winter safely in the ground without even the slightest covering, but fancy that they grow better the next summer for being covered The bulbs should be procured in the fall, and planted in good, rich, mellow, well drained soil six inches deep and a foot apart. It is very important that the soil be well drained.

Pears on Sandy Soils.

The varieties that we have found to succeed best on light soils are the Bartlett, Belle Lucrative, Buffam and Flemish Beauty. The Bartlett is a large sized fruit, of a rich yellow when ripe and sometimes shewing a brownish red cheek on the side next the sun. It ripens about the middle of September and sells readily in the city markets at prices ranging from eight to twelve dollars per barrel, according to size and quality of fruit. The tree is a moderately vigorous grower, bears very young and most abundantly.

The Belle Lucrative is rounder in form and not so perfectly pear shaped as the Bartlett, and when ripe is not of as bright a yellow. In richness and delicious sweetness it cannot be surpassed. It has not yet found its way to market in sufficient quantities to be quoted in the market reports. The tree is also a moderate grower and bears very full crops. Ripe about the end of September.

The Buffam is not as large as either of the others. In form it much resembles the White Doyenne, of which it is supposed to be a seedling, but smaller, being hardly medium in size. The flavor is more constant on sandy than on clay soils, though even there it is sometimes variable. When in perfection it is a rich, sweet, and delicious fruit, having a very near resemblance to the peculiar flavor of the Seckle. It ripens early in October. The tree is a very straight, upright grower, in form much like a Lombardy Poplar, and bears large crops. We have seen it stated that the fruit is very saleable, but cannot remember having seen it quoted in any market list, and do not feel prepared to recommend it as a variety to be planted largely for market.

The Flemish Beauty is a most admirable fruit. The size is large, averaging a little larger than the Bartlett, and handsomely shaded with a reddish brown cheek on the sunny side. In flavor it is rich, sweet, and delicious, and sells at about the same price as the Bartlett. The tree is a strong, vigorous grower and one of the most hardy of all the pear trees. In the Counties of York, Durham, Prince Edward, and Carlton, this pear is found to stand at the head of the most hardy varieties.

The Pear naturally prefers a strong soil, and but few varieties yield their fruit in perfection on sandy or gravelly land, but as many of our readers, having only a light soil, are inquiring what varieties to plant we have named these, which have been found to succeed well in both light and heavy soils, and feel confident they will give abundant satisfaction. The Bartlett, unfortunately, has proved to be too tender in some of the colder sections, and the Belle Lucrative and Buffam have not been sufficiently tried to enable us to say how well they will endure the cold. We know that the Belle Lucrative succeeds well in the Counties of York, Wentworth, and Middlesex, and the Buffam is considered one of the most hardy in Brant and near Toronto.

Gardening in Canada.

To the Editor of The Canada Farmer.

Sir,—All must confess, that in ornamental gardening, we in Canada are far behind the age. Seldom do we see a really handsome, or well regulated lawn or garden, even in the oldest towns and cities. The age is truly utilitarian, and the great and engrossing strife for wealth seems to absorb the minds of the majority. This passion is a great mistake, and the neglect of all that is true and beautiful in nature will be regretted in after years. The mind as well as the body needs relaxation; and where can leisure hours be more delightfully or profitably spent than in the garden? Would that the aim of all was not to accumulate wealth, but to dispense to the profit of themselves and their fellow men the means placed at their disposal.

It is a singular fact, that those brought up and living in populous towns are the persons who exhibit most taste for and love of gardening. They feel the refreshing influence produced by the sight of a few flowers, amid the monotony of brick and mortar. I have seen a most charming collection on the deck of a coal barge on the Thames; and in the poorest and most densely populated parts of London, florists' flowers are grown to great perfection.

On the other hand, with the denizens of the country, where pure air abounds, and where nature luxuriates, the love of gardening and a taste for flowers does not seem to exist, or at all events is not developed.

How much more attractive might many homesteads be made by the addition of a few well-kept flower beds, and a neatly-gravelled walk; or the rough ground nicely levelled and graded, and converted.

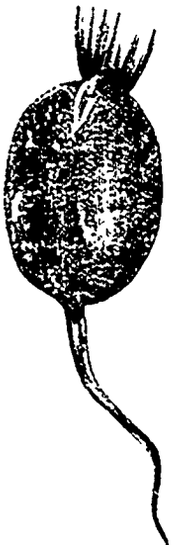
into a snug little lawn, with a few ornamental trees and shrubs here and there. Instead of this, we see places either utterly neglected, or perhaps cabbages or potatoes grown by way of adornment, where the fragrant Heliotrope or the flaunting Geranium should flourish; or perhaps a few ragged Hollyhocks and a matted and tangled rosebush exhibit the taste and culture of the proprietor. One of the most infallible indications of the want of refinement is the neglect of the garden. The absence of it betokens a certain amount of idleness. Those most busy either in the field or the counting-house, will be those whose gardens are most flourishing, where weeds do not grow, and where neatness and order reign supreme. Thus, it is the home of the wealthy gentleman or farmer which proves generally most attractive. Not because the owners can better afford it than their poorer neighbours, but because the industry and natural talent, which lie at the root of their prosperity, beget in them the love of *improvement*, and the garden affords the widest scope for it. The poor man's establishment may be small, but it will be well filled, and the pleasure he derives from it will, perhaps, be keener than that felt by the proprietor of a large and handsome place. It is also a stepping-stone to something better, for no *true* horticulturist allows himself to fall back. "Onward" will be his motto, and for this reason the day of small things must not be despised.

Let us hope that the end of the present year will show a marked improvement, and that the taste for gardening will be extended and developed throughout the country. Let horticultural exhibitions be encouraged, and an honest rivalry maintained. Dig up your old, neglected flower beds, and re-plant and re-arrange them. Plant more trees and shrubs, and take better care of those already out. Clean and trim up the neglected paths and walks. Keep your spades and rakes busy enough to wear the rust off them; and "last but not least," extend as much as possible the circulation of THE CANADA FARMER.

W. T. G.

The Best Early Radish.

The Radish delights in a warm, mellow soil, and cannot be grown in cold, damp ground; especially is this the case if sown early. To be worth eating, the radish must make a quick growth. The best variety we know of is the *Rose Olive-Shaped*, sometimes called *Early Oval Rose*. It bears forcing well, will stand more heat in the hot-bed than most other sorts, and is tender and excellent if tolerably well grown. We give an engraving showing the form of this radish; it is dark rose coloured.



For culture in the open ground, make a bed of fresh, mellow earth, from the woods, if possible, and if this cannot be obtained, mix with sandy soil a quantity of leached wood or coal ashes; charcoal dust is better if it can be had. Sow the seed about the 1st of May, and as soon as the young plants appear, sprinkle them with ashes, or dust of any kind, every morning until the rough leaf appears, when they are safe from the attack of insects. For a later crop, sow a few seeds in the hills of cucumbers and melons. Here they will grow well, and may be pulled before the vines need the room.

The *White Naples* is a good variety, and with the red sorts, makes a fine appearance on the table, as does the *White Turnip*. Many of our gardeners mix the seeds of three or four kinds together before sowing, and in this way they secure a great variety of colour and form with little trouble.—*Rural New Yorker.*

Relations of Science to Horticulture.

At the annual meeting of the Toronto Gardener's Improvement Society, Prof. Buckland delivered a very able and interesting address on the relations of Science to Horticulture. We have space only for a very brief abstract. The Professor commenced by showing that an *art* is simply a particular manner of performing a thing *science* explains the reasons for doing it. History shows that in all pursuits art has preceded science. Tillage of the earth is an art of the greatest antiquity; but the science of these indispensable operations, that which gives us the reasons or principles, belongs almost entirely to modern times. Of late years, the labours of the chemist and vegetable physiologist have elevated these primitive pursuits to the rank of a science. It was a great mistake to suppose that Horticulture is so simple as to require little or no special instruction other than can be obtained from the ordinary routine of the garden. Horticulture, like its sister art—Agriculture—demands the work of the brains as well as of the hands to carry it towards perfection. It is a complicated art, and much of its *rationale* remains yet to be discovered. Only think how much is implied in what is termed earth, or soil;—its origin and distribution, chemical composition and physical condition, its density and relations to heat and moisture, comprising an almost endless variety, and yet each condition having a special adaptation to some particular class of plants and mode of culture. Heat and light, air and water, had their indispensable functions in relation to vegetation. A seed is deposited in the ground, by the influence of warmth and moisture it germinates, sending downwards a root and upwards a stem, which soon expands into branches and leaves, obtaining food from the earth by means of roots, and from the air chiefly by its leaves. It is in this way, from the earth and air, that the substance of all cultivated plants and fruits, and even the gigantic monarchs of the forest, is alone derived. Upon the facts involved in these truly marvellous changes in their relation to practice, the success both of the farmer and gardener materially depends. It will be evident, on reflection, how intimately chemistry and vegetable physiology are related to horticulture. The choice of a site for a garden or an orchard should be determined by those various physical conditions which observation and experience, aided by science, can properly decide—a remark that will apply to the whole practical routine of the garden. After giving several illustrations of the application of scientific principles to vegetable, floral, and fruit productions, the Professor went on to remark the refining influences which horticulture exerts on the taste and tone of feeling of a people. He knew instances of this in many a lovely village in England, when by the erection of comfortable cottages, covered by the rose, jessamine, ivy, &c., with gardens, tastefully laid out and well stocked with fruit, vegetables and flowers, at rents not exceeding five or six pounds a year, the physical, domestic, and moral condition of the working classes had been greatly improved, and vice, in its grossest forms at least, absolutely banished. The pursuits of horticulture, with its varied, delicious, and beautiful products, must powerfully tend to refine and elevate the taste, and lead the mind accustomed to the contemplation of nature up to Him who is Nature's source. In a new country like Canada, there is indeed much to do in this direction. Our people are getting substantial and comfortable homesteads in many parts of the country, but very little has yet been done by way of ornamental planting and tasteful arrangements, that need not necessarily involve a heavy or inconvenient expenditure. It was gratifying, however, to observe in some places signs of improvement in this respect, and in Toronto, Hamilton, and other localities, not only had ordinary kitchen-gardening advanced, but also fruit culture, and the higher branches of the art.

CABBAGE STALKS.—Here is something new for the lovers of cabbage, extracted from the London *Spectator*:—Take the stalks, scrape them, leave them in water all night, and the next day cook them like vegetable marrow. It will be found delicious.

Poultry Yard.

Experience of a Young Poultry-Keeper.

To the Editor of THE CANADA FARMER:

SIR,—I am rather shy of contributing any experience of mine in poultry-keeping, but as you would have no correspondents at all if this feeling prevailed generally, I answer your enquiry for statistics, as follows:—I have for upwards of five years kept game fowls, not for sporting purposes, but because after trying every shape of long-legged Shanghaes and Bramah Pootras, I am satisfied my favourites will compare with any others.

I have had for some time past two cocks and twenty-three hens. The cocks are Black Reds, not very large, but well-bred, handsome birds. The hens are some black, some fawn colour, some bronze, but are all purely bred without cross, and are now, this year, entirely of my own rearing, and I can speak confidently of each. They are excellent mothers, and very fierce when surrounded by a brood of chicks.

In January, 1863, they gave me 26 eggs; in Feb., 14; in March, 237; in April, 255; in May, 237; in June, 191; In July, 272; in August, 267; in September, 208; in October, 210; in November, 84; in December, 28. Total, 2,029.

This is equal to 169 dozen, and as I may fairly estimate the value of all the year round at about a York shilling a dozen, I call this $21 12½c.

From Eggs - - - - -	$21 12½
Then we killed 10 or 12 pair of fowls and chickens, and I price them at three York shillings a pair, say - -	5 00
	$26 12½

I feed my poultry upon wheat screenings, about two quarts every morning, and upon kitchen scrapings every afternoon. The wheat screenings cost about 20 cents a week, or say $10 a year, and I therefore believe I am justly entitled to a profit of $16 a year.

In summer my poultry have a good yard, and grass, and all the garden pickings; in winter, a warm stable and dunghill, with lots of bones and meat scraps from the kitchen. Without this latter, I am certain I should not have an egg; neither can it be said to injure the hens by forcing them to lay, as one of your correspondents hath it. My hens are fat and in good order, and a young game cock hung for a fortnight or three weeks is as good, if not better, than any prairie chicken. "GAME COCK."

London, 16th Feb., 1864.

NOTE BY EDITOR CANADA FARMER.—The author of the above letter is only a youth, yet he has "upwards of five years" experience in poultry-keeping to narrate. We are much obliged to him for his business-like, straightforward communication. Game fowls have many points of excellence. They are very beautiful birds. No one can observe without admiration the bold, stately, majestic step and carriage of the cock. Independently of their beauty, they are valuable for the goodness of their flesh, their hardiness, and the long continuance of their vigour. Game hens are good layers, careful sitters, and excellent mothers. The one objection to this breed is its pugnacity. Even broods of chickens will sometimes fight fiercely and use each other most cruelly. The black-breasted Reds are considered the purest game birds. Our young friend will bear with us if we venture to criticise his accounts a little. But for the kitchen scrapings, garden pickings, and table waste, we fear he would have a very small margin of profit to show. It is, of course, an important item in favour of fowls that they are such excellent scavengers, consuming what would otherwise not only be wasted, but become a nuisance. But so large a number of hens ought to have produced more than an average of 88 eggs each per annum. Double that number would have been nearer the standard yield. Occasional change in the grain fed, extra care in providing plenty of lime, water, comfortable and secret nests, &c., would probably increase the egg-yield, and improve the balance sheet.

Barley for Hens.—There is no one grain so well adapted as barley for food for hens. Barley, when fed with oats and corn, will often be gathered first by the fowls, and hens fed with more or less barley are said to lay more freely. We have used barley and peas mixed, and our return of eggs is evidence of the suitableness of the food.—*Ex*

Lice on Fowls.—The *Field and Fireside* gives the following remedy from a correspondent. He had tried everything he could hear of, with indifferent success, and was about despairing, when he heard accidentally, that clay would not harbor them as much as sandy soil. He says: "I soon had my poultry houses dug down three or four feet, filled up with clay, a layer of beaten brick on the surface, and the partitions of the nests made of brick. This was two years ago, since which time I have neither seen, felt or heard of the insect, and therefore think I have got entirely rid of them."

To Make Hens Lay All Winter.—Keep no roosters; give the hens fresh meat, chopped up like sausage meat, once a day, a very small portion, say one-half an ounce a day to each hen during the winter, or from the time insects disappear in the Fall till they appear again in the spring. Never allow any eggs to remain in the nest, for what are called nest-eggs. When the roosters do not run with the hens, and no nest-eggs are left in the nest, the hens will not cease laying after the production of twelve or fifteen eggs, as they always do when roosters and nest-eggs are allowed, but continue laying perpetually. We have known hens lay all winter, and each from 70 to 100 eggs in succession. The only reason why hens do not lay in winter as freely as in summer, is the want of animal food, which they get in the summer in abundance in the form of insects. This theory has for several winters been reduced to practice by the writer, and its entire correctness proved.—*California Stock Journal*

To Fatten Poultry.—Poultry should be fattened in coops, and kept very clean. They should be furnished with gravel, but with no water. Their only food—barley meal mixed so thin with water as to serve them for drink. Their thirst makes them eat more than they would in order to extract the water that is among the food. This should not be put in troughs, but laid upon a board, which should be clean-washed every time fresh food is put upon it. It is foul and heated water that is the sole cause of the pip.

Hen Manure.—If properly saved, the manure of fowls is more valuable than Peruvian guano, which costs $100 per ton. It should be composted with charcoal dust, dry muck, mould from the woods, or ditch and road scrapings, these may be spread over the floor of the poultry house, immediately under the roosts, and occasionally the floor should be sprinkled with slaked lime, which will absorb all bad odors, and together with frequent whitewashings of the premises, prevent the accumulation of vermin, so destructive to the health of fowls. The house ought to be frequently cleaned, the manure put into barrels, and fresh compost added. Thus managed, the hen-house becomes the farmers' laboratory, where guano of the best quality may be annually manufactured, sufficient where such poultry is kept, for all the wants of the farm.—*Michigan Farmer.*

Fattening Poultry.—A correspondent in the *Boston Cultivator* thus criticizes an article on "fattening poultry," published in the *Country Gentleman*:—"I noticed the article recommending 'putting up' fowls for fattening, and the 'cramming' of turkeys. I think the advice should not be followed, unless unhealthy fowls are preferred to healthy ones for the table. I admit that geese confined in a pen of large size, may fatten faster than when allowed to ramble. Yet my experience with other fowls has been the reverse of this. There is no difficulty in fattening fowls when allowed their freedom, if they are properly fed. Turkeys feed far better when allowed their freedom, than when confined in a pen. I once had an old cock which fattened to 40 lbs., live weight, without cramming or cooping, and a friend of mine fattened a flock of ten young ones, which weighed when dressed for market 200 pounds, averaging 20 pounds each. Now if any one has made finer turkeys by cooping and cramming, I should like to hear from him. The practice of cramming turkeys is, to say the least, barbarous. If we wish to have fowls free from disease, pure and healthy, let them be fattened in freedom; if it is wished to hasten the fattening of fowls, give them a variety of food. When they are growing I prefer buckwheat as feed, but when I wish to fit them for market, I prefer corn, and corn meal cooked, with a little pulverized charcoal, once a day, mixed with their meal. This gives the greatest weight and finest flesh. Fowls thus fed will become fat without cramming."

The Household.

A Boiled Dinner.

As boiled dinner is *the* dinner at the farmer's table, how important it is that the farmer's wife should know how to prepare it nicely, and as the season is at hand when it is beginning to take an important place in the culinary department, a few hints upon its skilful preparation may not come amiss.

The farmer himself knows, or ought to know, that beets, turnips, and carrots, should, when carried into the cellar, be buried in dry sand. Some do not dig parsnips until spring, but they are nicer to dig them in the Fall, and put them into a barrel of sand in the cellar. They are not fit to boil until the middle of winter. Potatoes should, if kept in barrels, bins or boxes, always be covered to exclude the light; if dumped upon the ground, choose the darkest corner if you want nice potatoes along toward spring.

So much for the boiled dinner uncooked, now for the cooking.

First, be in season; I heard a lady say a week or two ago, that "being late about her dinner tired her more than all her work." To get dinner ready at twelve o'clock, the general hour for dinner at the farm-house, corned beef should be put on by eight, or half-past eight, in hot water; beets washed clean, but not cut, by nine, cabbage by half-past; pork about ten; pease, parsnips and turnips by half-past, squash by eleven, and potatoes by half-past. By making this your rule, your dinner will be nicely done, so that you can take out your squash and butter it, adding pepper, salt, and a spoonful of sugar, if it is not nice and sweet; mash your turnips smooth, adding pepper and salt—don't forget the pepper; peel the parsnips and beets, cutting the beets into quarters if large, having peeled by dropping them hot into a pan of cold water, and slipping the outside off with the hand, using no fork or knife, and have your dinner nicely dished, without confusion, at the proper time.

Put your beef and pork upon a large platter in the centre of the table near the foot, where the husband can carve it to advantage. Lay the parsnips, pease, beets and cabbage, cut and drained, each upon separate plates, putting the turnips, squash and potatoes into deep covered dishes, not pile two-thirds of the mass of meat and vegetables "helter-skelter" upon a big platter, and the rest upon a smaller one, and think it just as well. It is not. A boiled dinner relishes better when neatly dressed up. Try it, and you will be pleased to see what a nice looking dinner the "boiled dinner" is.—Sarah, *in the N. E. Farmer.*

White vs. Brown Bread.

Strange as it may be thought, the belief that whiteness is a proof of superior quality is a popular error; and the unwise preference almost universally given to it has led to the pernicious practice of mixing alum with the flour. The use of this is very general, if not universal, the most honest baker employs it, since all bread not whitened by its means is rejected as of base quality. The proportion of alum used is said to be from twenty-two grains in the quartern loaf to three times that amount. It is well known to men of science that the entire meal will sustain life, while bread made of the finest flour will not. It has been stated on authority that if a man be kept on the unfermented brown bread and water he will live and enjoy good health, and if you give him fermented white bread and water only he will sicken gradually and die. The meal of which the first is made contains all the ingredients essential to the nourishment of the various structures of which our bodies are composed. Some of these ingredients are removed, or much reduced in quantity, by the miller, in his efforts to please the public taste; and others are destroyed by fermentation, through the application of yeast or leaven. Fine white bread is found to be not only less nourishing, but also more difficult of digestion. The passion for it, as regards the mass of the population, is almost peculiar to England. In making it, the purpose of lightening the dough by the admission of air is generally effected by the means of fermentation, which is carried out by the introduction of leaven (sour dough), or yeast, into the mass of dough; but science informs us (and the practice has been long adopted in my own family) that, instead of resorting to the destructive process of fermentation, the lightening of the dough may be effected by applying hydrochloric (muriatic) acid to carbonate of soda. The carbonic acid expelled from the carbonate by virtue of the superior attraction of the hydrochloric acid to the soda, escapes in the form of effervescence from its connection with the soda, forming carbonic acid gas, by which the mass of dough is sufficiently blown out and distended. It simply acts mechanically, without creating any chemical change, whereas, fermentation acts by converting some portion of the dough itself into alcohol and gas; and the portion so converted is lost. It is found, in consequence, that a sack of fine flour, of 280 lbs., which makes 360 lbs. of white bread by fermentation, gives 420 lbs. by effervescence; and it is also found that 280 lbs. of wheat-meal will give 464 lbs. of a more wholesome bread by effervescence. The total loss by fermentation and refining taken together is therefore underrated at 25 per cent., a loss exceeding the annual value and amount of breadstuffs imported annually from abroad. —*Thoughts on Population and Supply of Food*

Ink Stains.—The moment the ink is spilled, take a little milk and saturate the stain; soak it up with a rag, and apply a little more milk, rubbing it well in. In a few minutes the ink will be completely removed.

To Dye Cochineal.—Boil 3 lbs. of yarn 10 minutes, in a liquor made of 3 ozs. cochineal dissolved in 3 gallons of water; then add 2 ozs. cream of tartar, 3 ozs. muriate of tin, and boil ten minuter longer, after which wring out and rinse in soap suds.

To prevent a Felon.—When a soreness is felt immerse the finger in a basin of ashes and cold water, set in the stove while cold, and stir it continually, without taking it out, till the lye is so hot it cannot be borne any longer. If the soreness is not gone in half an hour, repeat it.

Chickens Boiled.—The wings and legs of fowls should be fastened to the body by a cord tied around to keep them in place, instead of skewers. When thus prepared, let them lie in skim-milk two hours. Then put them in cold water, cover them, and boil over a slow fire. Skim the water clean. Serve with white sauce or drawn butter.

Pictures Preserved from Flies.—The following simple way of preventing flies sfrom sitting on pictures, or any other furniture, is well experienced, and if generally used, would prevent much trouble and damage:—Let a large bunch of leeks soak five or six days in a pail of water, and wash your pictures or any other piece of furniture with it. The flies will never come near anything so washed.

Cement for Stopping Leaks.—A good and cheap preparation for stopping leaks around chimneys, in roofs, in wooden cave troughs, where the water is not used, and of filling up all kinds of breaks and cracks which are exposed to the weather, may be made by mixing lime with coal tar until it is like putty. Apply it with a large knife, and fill up the chinks where Jack Frost will be getting into the buildings.

Gum Arabic Starch.—Take two ounces of gum arabic powder, put it into a pitcher, and pour on it a pint or more of boiling water (according to the degree of strength you desire), and then having covered it, let it set all night. In the morning pour it carefully from the dregs into a clean bottle, cork it, and keep it for use. A table spoonful of gum water stirred into a pint of starch, that has been made in the usual manner, will give always (white, black, or printed) a look of newness, when nothing else can restore them after washing. It is also good, much diluted, for thin white muslin and bobinet.—*Scientific Am.*

To Dye Black.—Dissolve 1 lb. extract of logwood in five gallons soft water, boiling it for a few minutes in an iron vessel, and add a tablespoonful of copperas. Dissolve one 1 oz. of blue vitriol in five gallons of soft water. Scald the materials to be colored, first in the vitriol water, then boil them for two hours in the logwood, stirring often. To set the color, wash in a strong lather of home made soap and dip in salt water. Sweet skimmed milk is also good to set the colour. To give a lustre to old silk, or that just coloured as above, strain some cold coffee, and add a little gum arabic, into which, when dissolved, dip the silk; wring out and iron on the wrong side.

Smoky Chimneys.—The cure of smoky chimneys may be effected at a very trifling expense. Put on the top of the chimney a box having a door on each of its sides which is kept open by a thin iron rod, running from one to the other, and fastened by a ring in each end to a staple. When there is no wind, the doors will remain half open, but if the wind be strong, the door opposed to it will be closed, while the opposite one is thrown wide open. If the wind meets the corner of the box it shuts two doors, and opens their opposites. By this simple means the chimney is guarded from the wind, and effectually prevented from smoking.

"Plum Muss."—Under this euphonious title the London *Grocer* describes a new article of merchandize. It says:—"Plum muss or *lekwar* consists simply of pure native plums boiled into a mass, no ingredient whatever being added to it; the plums being so sweet in themselves, they require no sugar. In Hungary it is used in both the cottage and mansion, and is a common article of sale in every provision shop. The poor eat it with their bread, all classes use it for the several purposes in which our more expensive preserves are found useful. It is of a more solid nature than our manufactured jams, but if found too firm for cooking purposes, it may be thinned with a little lukewarm water as it is required for use, without losing flavour. We are assured that it will keep good for two or three years if carefully stored, it might therefore form an important and economical article of export to our colonies, and for ships' stores it would no doubt prove invaluable. It possesses, as the reader may judge, a very pleasant flavour, is undoubtedly very wholesome, and, in the event of its being properly introduced by a good house, must become a very favourite article with housekeepers. It is certainly a novelty, and as it can be obtained in the mass at a very moderate rate indeed, it might be retailed at a price to suit the million."

Our Hair.—God covered the skull with hair. Some people shave it off. Mischievous practice. It exposes the brain. It exposes the throat and lungs—the eyes, likewise, say wise physiologists. Men become bald. Why? Because they wear close hats and caps. Women are never bald except by disease. They do not wear close hats and caps. Men never lose a hair below where the hat touches the head, not if they have been bald twenty years. The close hat holds the heat and perspiration. Thereby the hair glands become weak; the hair falls out. What will restore it? Nothing after the scalp becomes shiny. But in process of falling out, or recently lost, the following is best:—Wash the head freely with cold water once or twice a day. Wear a thoroughly ventilated hat. This is the best means to arrest the loss and restore what is susceptible of restoration. What will beautify a woman's hair? Whatever will invigorate the hair glands. Oils and most other applications debilitate the hair gland. Cold water is best. At first the head looks like a witch, but after a few weeks it makes the hair luxuriant. By the persistent use of cold water I have seen thin, poor hair become rich and curly. Only the part of the hair next the scalp should be wet. It must be thoroughly dried.—*Dio Lewis, M. D.*

How to Polish Shirt Bosoms.—A correspondent of the *American Agriculturist* gives the following directions in reply to the complaint of "Mrs. Pry," who cannot make her husband's shirt bosoms and collars look nice, for polishing linen as it is done in the shops.—"The first thing is to wash them clean, then starch them thoroughly with the best of starch. A little pure spermaceti or dissolved gum arabic in the starch will improve it, but have the starch thick, and work it into the linen thoroughly. When in a proper condition, use the common sad iron to smooth them and get them into proper shape, the same as though they were not to be polished. I would say you cannot polish linen on a soft cloth. Take a piece of hard wood (I use birch) say ten by fourteen inches or size of a shirt bosom, and plane it even and smooth. When you use the polishing iron lay the linen on the board, without any cloth underneath; a liberal supply of elbow grease is indispensable to make the thing look first rate. Now for the polishing iron. We use McCoy's patent. I have seen several kinds, but I like this the best. You cannot polish with an iron with a flat face; the one I use is made something like a small shoe, with a round heel on both ends, nicely polished, and care should be had to keep it so, if you wish to have your linen look well. The linen we buy at the stores is polished by men or machinery, which gives it a finer polish than can usually be given by females. But if Mrs. Pry will get a good polishing iron, and follow the directions as given, she will not feel ashamed of her husband's bosoms and collars."

The Apiary.

An Old Bee Keeper's Experience.

To the Editor of The Canada Farmer.

Sir,—For thirty years I have kept Bees. They have paid my doctor's bill, my taxes, and my shoemaker's bill for eleven children; and they have given us all the honey we wanted for table use twice a day for at least six months in the year. Honey is a very wholesome thing. Did you ever know anybody die of consumption that had plenty of honey to eat? Every farmer should keep bees. There are tons of honey lost every year in every township for want of Bees to gather it. Every tree in the wood yields something for them, and multitudes of blooming flowers, and every head of white clover furnishes sweets for them, and it is not much trouble to manage them when you know how.

There are many matters connected with Bee-keeping, on which I should like to write, and as you promise to put things in ship-shape for us, if you think the information I offer would be of use, I am willing to try.

DEACON C. READ.

Burford, Feb. 16, 1864.

Note by Ed. C. F.—We shall be glad to receive practical hints from our correspondent, on any of the topics connected with Bee-keeping to which he refers.

☞Bee-Stings may be quickly cured by applying repeatedly a soft paste made of saleratus and water,—the potash neutralises the acid poison.

Care of Bees.—Bees should be examined once a week all winter to see if all is right. This is much easier than to attend to sheep, pigs, and cattle three times a day, which no good farmer complains of. What is termed *luck* with bees, is another name for careful and skilful management.

Miscellaneous.

A Essa on the Mule.

The mule is all hoss and half jackass, and then comes to a full stop, natur discovering her mistake. Tha weigh more according to their heft than enny other kreetur, except a crowbar. They cant't hear any quicker nor further than the hoss, yet their ears are big enough for snow-shoes. You can trust them with enny one whose life isn't worth more'n the mules. The only way to keep them inter a paster is to turn them inter a medder jinen, and let them jump out. Tha are redy for use just as they will du to abuse. Tha hain't got enny more friends than a Chatham-street Jew, and will live on huckleberry brush, with an occasional chase after kanada thissels. Tha are a modern invenshun; I don't think tha Bible deludes to them at all. Tha sell for more munney than enny other domestic animule. Yu kan't tell their age by looking into their mouths, enny more than yu could a Mexican cannon's. Tha never had no diseases that a club wadn't heal. If they ever die, tha must come right to life agin, for I never heard nobody say "ded mule." Tha are like sum men, verra korrupt at hart; I've known them to be good for six months jist to git a chance to kick somebody. I never owned one, and never mean to, unless there is a law requirin it. The only reason why they are pashunet, is because they are ashamed of theirselfs. I have seen eddicated mules in a sirkus—tha kould kick and bite tremenjis. I would not say what I am forced to say agin the mule if his birth wan't an out rage, and he ain't to blame for it. Enny man who is willing to drive a mule, ought to be exempt by law from runnin for the Legislatur. Tha are the strongest kreeters on airth, and the hevyist accordin to their size. I heerd tell of one who fell oph from the kanawl, and sunk as soon as he teched the bottum, but he kept rite on towin the boat to the next stashun, breathin' thru his ears, which was out of the water about 2 feet 6 inches. I didn't see this, but an auctioneer told me of it, and I never knew an auctioneer to lie, unless he kould make sumthing out of it.

Progress of Agriculture in Britain.—I have collected a number of testimonials and opinions from practical farmers and land agents of long and large experience in various parts of the country, all concurrent to the effect that the agricultural produce of this country is now much larger than it ever has been before, that the fertility of the land is increasing, and that both in bread and meat of home produce we are really better off than formerly, notwithstanding that our imports of food have also largely increased, in order to supply our better fed and larger population. —*J. Chalmers Morton.*

Gas Light Produced.—Fill the bowl of a tobacco pipe with small coals, stop up the mouth of it with pipe-clay or sand and beer, and place the bowl in a fire between the bars of the grate, so that the pipe may stand perpendicular. If the bowl has been sufficiently closed, the gas will soon begin to fume out of the end of the pipe: and if a lighted candle or paper be applied, it will take fire and burn with considerable brightness.

Sold.—One of our New York daily exchanges, which has acquired a reputation for correctness not wholly undeserved, was recently handsomely sold by some wag of a paragraphist. In its "personal" column, the other day, appeared the following:—

"*Horrible Circumstance.*—Timothy Hay was literally eaten up by a horse in Sullivan, last week. The horse was a viscious one, and young Hay, having occasion to go before him in the stable, was seized, and before assistance could reach him was totally devoured."

Now we can assure our city cotemporary that Timothy Hay, especially Young Timothy Hay, when it goes before a horse, or is put before him, is invariably eaten. It may be "horrible," but it is nevertheless a fact.—*Rural Intelligencer.*

Markets.

Toronto Markets.

"Canada Farmer" Office, March 1, 1864.

Fall Wheat is not so active, but in good request. Spring Wheat much asked for and firm. Barley in small demand. Flour is firmer, with a slight advance.

Flour—Superfine at $3 80 for shipment, per barrel; $4 to 4 50 for home consumption; Extra, $4 25 to 4 65; Fancy, $4 10 to $4 20; Superior, $4 75 to 5 10; Bag Flour, $4 10 per 200 lbs.

Fall Wheat, 85c to 98c for common to choice, per bushel; $1 00 to 1 03 for good to choice; $1 05 to 1 06 for Extra. The latter prices, however, are seldom given; $1 01 is generally the highest price given.

Spring Wheat in good demand at 75c to 83c per bushel for good; 85c to 86c for extra; occasionally a load brings 87c.

Barley at 70c to 89c per bushel

Oats at 38c to 48c per bushel.

Peas 45c to 60c per bushel.

Hay $9 50 to 10 50 per ton.

Straw $5 to 6 per ton.

Bran $10 a ton at the mill.

Shorts $13 to 15 per ton.

Hides (green) at 4½c to 5c per lb., the latter price for extra.

Calf-skins at 7c to 9c per lb.

Sheep-skins at $1 25 to 1 75.

Lamb-skins at $1 25 to 1 70.

Coal $7 25 to 9 per ton.

Wood $4 25 to 5 50 per cord.

Provisions—Hams, $9 50 to 10 per 100 lbs; Bacon, $6 50 to 7 per 100 lbs; Cheese, $9 50 to 10 per 100 lbs, wholesale; 12½c to 15c per lb retail.

Beef, by the quarter, from farmers, 3½c to 3¾c for fore quarters; 4½c to 5c for hind quarters. In the market, inferior 3½c per lb.; second quality, 4c to 4½c per lb.; extra 5c per lb. wholesale; 3½c to 6½c per lb. for ordinary; 6½c to 7c for superior, retail.

Calves scarce at $4 and upwards.

Sheep at 4 50 to $5 50 each, according to size and quality.

Pork—Dressed $5 to 5 50 for common to good, $5 60 to 6 for good to choice; occasionally some extra choice heavy hogs bring $6 40 and upwards.

Butter—Fresh, wholesale, at 11c to 1 c per lb. retail, 15c to 20c per lb. Tub butter, dairy packed, 16c to 18c, according to quality. Tub butter, common, 11c to 15c per lb.

Eggs—16c to 25c per dozen, wholesale.

Chickens—plentiful at 25c to 40c per pair.
Ducks—30c to 45c each.
Geese—30c to 55c each.
Turkeys—55c to $1 50 each.
Salt—$1 75 to 2 per brl.
Water Lime —$1 50 to 1 60 per brl.
Potatoes—25c to 40c per bushel, wholesale 50c to 62½c per bushel, retail.
Fresh Fish—17c and upwards each.
Apples—Common to good, $2 to 2 75 per barrel, extra, $3 per barrel.
Coal Oil—29c to 35c for Canada; 45c to 55c for Pennsylvania.
Wool—scarce at 35c to 37½r per lb.

London Markets—Feb. 27.—Prices remain stationary, and we have no changes to record. *Pork* easier, top price $5 75. Grain in limited supply at yesterday's rates. *Fall Wheat*, per bushel, 95c. to $1. *Spring Wheat*, per bushel, 75c. to 80c. *Barley*, per per bushel, 80c. to 85c. *Oats*, per bushel, 37c. to 40c. *Pease*, per bushel, 45c. to 50c. *Corn*, per bushel, 52c. to 56c. *Hay*, per ton, $7 to 9. *Pork* $5 66 to $5 75. *Beef* $3 to 4 50. *Oat Straw*, per load, $2 to 3. *Butter*, fresh, per lb., 17c. to 20c.; keg, per lb., 12c *Apples* 50c. to 75c. *Potatoes* 60c. to 80c. *Flour* $2 50 to 2 75. *Eggs*, per dozen, 15c. to 20c. *Wool*, per lb., 40c. to 42c. *Hides*, dry, per lb., 9c. to 10c.; green 4c. to 5c. *Sheepskins* $1 25 to 2 25. *Clover Seed*, per bushel, $5 to 5 12. *Timothy Seed*, per bushel, $2 25 to 3.

Guelph Markets.—*Fall Wheat* per bushel, 85c. to $1. *Spring Wheat* 70c. to 80c. *Oats* 40c. to 42c. *Pease* 45c. to 52c. *Barley* 75c. to 85c. *Pork* $5 50 to 6 05. *Hay*, per ton, $6 to 8. *Straw* $2 to 3. *Beef* $2 50 to $5 50. *Potatoes*, per bushel, 25c. to 37c. *Butter* 12½c. to 15c. *Eggs*, per dozen, 12c. to 15c. *Wool* 37c. to 40c. *Apples* 30c. to 50c.—*Herald.*

Montreal Cattle Market—*First quality cattle* $6 to 6 50; second and third $5 50 to 4 50 *Milch cows* $20 to 25; extra $30 to 35. *Sheep*, in lots, $3 50 to 5; extra $6 to 8. *Lambs* $2 50 to 4 *Hogs*, live weight, $4 75 to 5: dressed $6 to 6 25 *Hides* $5 25. *Pelts* $1 40 to 1 80. *Tallow*, rough, 5c. to 5½c.—*Witness.*

Albany Markets—Feb. 26—*Flour and Meal.*—The snow storm tended to restrict all out-door business, and but little was done in flour to-day. *Corn meal* quiet. Grain—*Wheat* quiet and unchanged. *Rye* dull. *Corn* steady, with sales of 800 bushels round yellow at $1 20, delivered. *Barley* steady, but slow of sale. Sales 2,800 bushels Jefferson County at $1 28, delivered. *Oats* quiet, but steady.

Albany Live Stock Market—*Beeves*—The market just closing has been one of the most excited that we ever witnessed, and higher prices were paid than were ever before realized in this city. The average quality of the beeves was poor, and there were only a few droves of prime extra in any of the yards, yet common stock brought 6c, and for choice extra fat Illinois steers 8c per lb live weight was offered and refused. This week:—Premium, $7 75 to 8 25; Extra, $7 to 7 50; First quality, $6 to 6 75; Second quality, $5 25 to 5 75; Third quality, $4 25 to $4 75. *Sheep*—Sheep, too, are higher, ranging in price from 6½c to 7c for light common coarse-wooled; at 7½c to 8c for light to fair weight fine-wooled. The inquiry is brisk. *Hogs*—Hogs are in light receipt and good demand at 8c to 8¼c per lb for light ordinary to prime fat corn-fed. Receipts at East Albany, about 5,000. *Dressed Hogs*—The market on Friday and Saturday was at higher rates. The range for State was at $10 80 to 11 for fresh receipts, and $10 31½ to 10 50 for old do. The week's sales were about 900 head.—*Journal*

Chicago Markets—Feb. 26.—The receipts of *Hogs* to-day were 2,750 live and, 821 dressed. The market for Live Hogs ruled acuve and firm, and we note sales of about 3,500 head at $5 75 to 7 65—chiefly at $6 90 to 7 05—the market closing firm. The market for *Beef Cattle* was very dull, and prices show a further decline of 15c. to 20c. per 100 lbs., with sales of only 854 head at $3 25 to 6 72—chiefly at $4 50 to 5 50. At the close a large number were left over unsold, and the market was very dull. *Dressed Hogs* were in better demand to-day, and the market ruled more active and a shade higher, with sales at a range of $7 to 8—chiefly at $8 for Hogs over 200 lbs., and $7 60 to 7 75 for those under 200 lbs. The Provision market remains inactive. There is still some enquiry for Mess Pork, and we note sales of 550 brls. at $20 Prime Mess in good demand at $17 50, with sales of 130 brls. at that price—sellers generally holding at $18 There was an active demand for pickled Hams, and the market has an upward tendency, with sales to-day of 240 tcs. at 11c. to 11½c.—*Tribune.*

Milwaukee Markets.—Feb. 26. — The *Wheat* market was again quite active yesterday, and under the influences of the foreign news prices declined ¼c to ½c, but before the close partially recovered, the report of the New York market turning out more favorable than had been expected. During the early part of the forenoon No. 1 Spring ruled steady at $1 18 in store, declined to $1 17½ on 'change, with large sales, and closed firm at $1 17½. No. 2 Spring opened at $1 11, declined to $1 10½, and closed with offers to buy at $1 10½, sellers asking $1 11. In the evening the market was unchanged and quiet. There was a fair speculative inquiry for No. 1 Spring at $1 17½, but holders were not disposed to sell, and scarcely anything was done at the Newhall. There was but little inquiry for *Flour*, and the market closed nominally 5c to 10c lower. *Dressed Hogs* were firm, and but few in the market. A few sales of small lots were reported at $7 60 to 8 25, and $7 75 to 8 25, dividing on 200 lbs. About 143,000 hogs have been packed to date. Provisions continue firm at constantly advancing prices. Sales yesterday of 200 barrels of *Mess Pork* at $20; 300 barrels *Extra Prime Pork* at $15 25 to 16.—*Milwaukee Sentinel.*

New York Markets—Feb. 29.—*Flour*—Receipts 6,391 barrels; market dull and drooping; sales 6,500 barrels at $6 15 to 6 30 for superfine State; $6 50 to 6 70 for extra State; $6 75 to 7 for choice do; $6 20 to 6 50 for superfine Western; $6 65 to 7 10 for common to medium extra Western; $7 15 to 7 25 for common to good shipping brands extra round hoop Ohio. *Canada flour* dull and drooping; sales 400 barrels, at $6 60 to 6 85 for common; $6 90 to 8 50 for good to choice extra. *Rye flour* steady at $5 50 to 6 50. Grain.—*Wheat*—Receipts 117 bushels; market without decided change in price; sales 4,000 bushels at $1 57 for Chicago spring; $1 57 to 1 58 for Milwaukee club; $1 59 to 1 60 for amber Milwaukee; $1 64 to 1 67 for Winter Red Western; $1 70 to 1 71 for amber Michigan; $1 90 for White Michigan; $2 for White Kentucky; $1 67 for amber Jersey. *Rye* quiet and unchanged. *Barley* quiet. *Corn*—Receipts, 1,909 bushels; market excited, and 2c to 3c better; sales 60,000 bushels at $1 34 to 1 38 for shipping mixed Western in store and delivered. *Oats* dull and drooping at 90c to 91½c for Canada and State; 91c to 92c for Western. Provisions—*Pork* firm and quiet. *Beef* steady.