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### Rotation of Crops.

In order to make a field or farm yield the greatest amount of valuable product without exhausting the soil, it is necessary to adopt a system by which different crops shall be grown in regular succession. Rotation of crops is the name by which this system is usually known, and it forms a most important feature in all really good farming. Many farmers who have not duly examined and reflected upon this subject, are inclined to regard the doctrine of rotation as a fine-spun theory, or mere superstition, begotten of book-farming. But it rests upon principles the most self-evident and immutable, as any person of ordinary intelligence must see, if he will direct his thoughts to the matter. These principles are mainly the following:—1. All arable land contains a supply of certain substances or elements on which plants feed, and by absorbing which they grow. But all plants do not require the same food, or if they crave the same food, do not consume it in like proportion. Hence a soil may be barren for one plant, and fertile for another. There may not be enough of a particular element for one kind of crop; while another may find all the food requisite to its perfect development. Thus a soil which will not give a second good crop of wheat, may, without additional manuring, yield an excellent crop of clover, of turnips, or of carrots. This is the main principle on which the doctrine of rotation is based. 2. Some plants derive their nourishment from near the surface of the soil, while others go to a greater depth for it. To alternate these crops, therefore, must obviously be of advantage. Let any one pull up a plant of the grain species and observe the horizontal tendency of the roots, and then examine a turnip, mangold, or carrot, and notice the manner in which it descends into the earth until stopped by the hard pan, and he must be convinced that in this respect, a change of crop, cannot but be beneficial. 3. Some plants depend mainly upon the soil for their supplies of food, while others draw largely from the atmosphere. The grains whose stalks and leaves are comparatively small, subsist chiefly upon the soil; while Indian corn, turnips, and the like, which have abundant foliage, absorb much nourishment from the gases floating in the air. 4. Certain kinds of plants are infested by particular insects, and these continue to multiply and become increasingly troublesome, if the same crop is put in from year to year. But when a crop intervenes on which these insects cannot live, they perish for want of their proper nourishment. 5. Weeds greatly interfere with the success of all crops. They exhaust the soil, and crowd the plants intended to fill the ground. Barn-yard manure, unless thoroughly composted and rotted, almost always carries with it the seeds of many pernicious weeds. Other seeds are light, and are carried by the winds from place to place. Hand labour is too costly to admit of its being employed in pulling out weeds from among grain crops. Hence it is of great ad-

vantage to put manure into the ground along with a hoed crop, and so to alternate such a crop with grain and grass, as to give an opportunity of extirpating noxious weeds. 6. A judicious rotation of crops renders fallowing almost wholly unnecessary. The chief objects to be secured by fallowing are the destruction of weeds, and what is called *weathering* the land, i. e., exposing it to the combined influences of air, sunshine, rain, cold, and wind. Deep ploughing, thorough tillage, and the faithful use of the cultivator and hoe, secure these results without loss of crop.

It now remains to suggest some rotations that may be advantageously adopted. It must be borne in mind that the same rotation is not suited to every kind of soil. The farmer must judge from his own experience, from his observation of the method pursued by others, and from his study of agricultural publications, what course is best adapted to the soil he has to deal with, and the object he has in view. One may prefer to make sheep husbandry his chief dependence, another may choose dairy-farming, another stock-raising, while the majority will pursue a general system of farming. Each of these modes of procedure will require a rotation of its own in some respects; while all must be regulated by such general principles as we have laid down. The shortest course considered at all admissible is that known in England, and somewhat famous as the Norfolk rotation. It is—1, turnips; 2, barley; 3, clover; 4, wheat. In some parts of Canada noted for good crops, clover and wheat are alternated—two crops of clover and then one of wheat;—the second clover crop being ploughed under as a manure-bed for fall wheat. This can hardly be commended, though the excellent crops of wheat testify strongly to the restorative properties of green clover. A longer and more varied course would be much better. On rich clayey soils in England, a course which has been much used is—1, oats; 2, rape, for oil; 3, beans; 4, wheat sown with clover; 5 and 6, clover; 7, wheat; 8, rape. On rich loams—1, oats; 2, turnips; 3, wheat or barley; 4, beans; 5, wheat; 6, fallow or turnips; 7, wheat or barley and grass seeds. A favourite rotation in France is, for the first year, winter wheat, 20 acres. Second year, beets, carrots, potatoes, 10 acres; poppy or flax, 5 acres; colza, 5 acres. Third year, oats and spring wheat, 10 acres; fall wheat, 5 acres; turnips, 5 acres. Fourth year, clover or leguminous vegetables, 20 acres. Poppies and colza are specially grown in France for the oil made from their seeds, and which is used for light and for culinary purposes. As a good rotation in this country under ordinary circumstances, we may suggest the following course:—1, Wheat; 2, turnips; 3, spring grain and grass; 4, grass; 5, grass; 6, potatoes. This gives four years of tilled crops and two years of grass. This may easily be modified, and yet the general principles that govern the farmer's management of his land be kept in view.

In the United States, corn is highly esteemed as an alternating crop. It derives much of its support from

the atmosphere, and requires a constant stirring of the soil, so that though it is a white crop is regarded as improving in its effect. We have no doubt it might be cultivated more extensively in Canada to advantage. The Massachusetts Board of Agriculture recommend the following rotation:—1, Potatoes; 2, corn; 3, carrots, turnips, or beets; 4, rye; 5, clover; 6, grass; 7, grass. This rotation is, one of five years, with grass for two years, and is, we should think, one that would work well. Manure may be put in abundantly before ploughing, and also in the hills for corn, and in the drills before sowing turnips, beets, or carrots,—from one to three applications being given during the course. Mineral as well as other manures may be used; thus plaster, bone-dust, and ashes may be applied with the potatoes; barn-yard manure with the corn; and with the roots, plaster, bone-dust, common salt, and ashes.

It is proper to remark that rotation of crops is not absolutely essential to continued fertility of the soil. It is undoubtedly on the whole the best economy of time, labour and manure. But under special circumstances, and with the abundant application of various manures judiciously chosen, the farmer may grow again and again any particular crop that may be most profitable to him, or most in demand in his vicinity.

### Use of Cultivators, &c.

To the Editor of THE CANADA FARMER.

SIR,—In your issue of Feb. 15th there are two articles on which I should like to make a few observations. The first is "cultivators vs. ploughs." In this it is stated that the cultivator is as effective as an implement for moving and loosening the soil, as the plough, and that it is not requisite to turn over the earth in cultivation, as is done with the plough. This, as a rule, I believe, to be erroneous. I think it is necessary not only to stir and loosen the soil, but to invert it, so that as much of it as possible may be exposed to the fertilizing influence of the sun and air. I well remember an observation of my father's—that the last or third ploughing of a fallow would add five bushels per acre to the crop. But actual experience is the only safe guide in such matters; and as I have tested it to my own satisfaction, I believe the cultivator cannot compete with or supersede the plough. The crops of wheat after one ploughing, and then working with the cultivator, have not been generally so large as when properly ploughed twice—better three times. I do not say the cultivator is useless; still I think a good gang-plough better even when a cultivator may be used. However, I should like to hear what has been the experience of others; but, as I said before, I am quite satisfied for myself, that in a series of years it will not answer. An old man, who has worked for us for years, said to me, referring to a cultivator, "You will get tired of those things before long."

The other article I would allude to is, "wood ashes injurious." Now, this to me is a new idea. I

had always supposed wood ashes, leached or unleached, were beneficial to the land, or perhaps I should say, to the crop growing on it; and I cannot help thinking, that there were some conditions of the soil that escaped the observation of the person who related the facts stated by your correspondent. I will just mention two instances in which the use of ashes proved highly beneficial to the crop. When we purchased the farm on which I now reside, there was at the back of the house a large heap of leached ashes, say three or four cart loads. They were carted out on a piece of grass land, perhaps about three acres. It is more than twenty-five years since, so that I cannot be very exact as to the quantities of either the land or ashes; it was an old soil, nothing except a little Timothy and June grass growing on it. Another part of the same yard was dressed with barn-yard manure. I cannot remember if plaster was sown or not. The piece that had the ashes was covered with a luxuriant growth of white clover, so thick, that it was hard to get the scythe through it; the other part on which the manure was put, was but little benefited. I do not think there was a ton on the whole of the three acres. The other case was one in which a dressing of plaster and ashes was applied on wheat. I had that season ploughed part of my summer fallow early, before it was thoroughly dry. This we could not get to the same condition as the rest of the fallow, though we gave it extra work with the drag and cultivator; and when the wheat came up, we could see all through the field the line of the early ploughing. The wheat was thin, and did not seem to grow like the rest. I had some plaster and ashes left from the spring, and told the man to sow what there was on the wheat where it looked so bad. Now for the result. In the spring the wheat began to show the effects of plaster and ashes, and at harvest we could see exactly where it had been sown. The wheat was more even in height, and the ears larger and better filled than on the other part of the field. Both these cases prove that there is some benefit from the use of ashes on the land, and I, for one, shall not hesitate to use them to the extent of my ability to procure them.

### Hydraulic Stumping Machine.

To the Editor of THE CANADA FARMER.

SIR,—The ordinary stumping machines which I have seen are, many of them, inefficient, others, again, so clumsy and unwieldy, that, as a general rule, I believe there is but little to be gained by using a machine at all. So many more hands, horses, and other et ceteras are required, the progress made is so slow, so much trouble and time are required in cleaning off the soil from roots and so forth, that a couple of stout men accustomed to this kind of work will undertake to stump, burn, and level per acre quite as cheaply as can be done by a machine. I speak of this township, where our stumps are chiefly pine. I have myself paid from \$25 up to \$40 per acre for taking them out.

I have often been surprised that some wide-awake inventor never tried the water or hydraulic power principle for this purpose. Any one who ever saw this kind of press at work could not fail to perceive the special adaptability of its principle to pulling up stumps. It is used in England for a great variety of purposes, chiefly in compressing bale goods, and in a variety of linen and other manufactures. Any given amount of pressure can be applied according to the power of the press;—five hundred, a thousand, ten thousand, or twenty thousand tons! It makes no difference. A few gallons of water does the whole business.

Without a diagram, it is not very easy to convey to persons who have never seen it a clear conception of the form of this machine. Most people, however, have seen a large cheese press. Suppose this and the pressure applied upwards—a box below for the water, and the power worked by a sort of piston something after the manner of a small pump. This principle could very easily be applied to pulling stumps. Have a brace of very large and massively-strong wheels, axle to correspond, a pair of shafts, to admit a horse and the machine or press, fixed on the axle, so that the wheels allow it to be placed over the stump to be extracted; fix the hooks and chains firmly; next apply the power, and the work is speedily accomplished; indeed, as easily and quickly as a man, in the fall, can pull up cabbage roots. A strong horse would move the machine from stump to stump, a couple of men would first apply the power—and then clear off the soil from the roots as they went along. By this means the work could be accomplished very much more expeditiously, as well as at much less cost than by any other method at present known

The next consideration would be the matter of expense. That would vary according to the power of the machine. A very powerful ordinary press can be had in England for from £50 to £80. I should say that for a matter of some \$500 a machine could be furnished complete ready for use by which two men and a horse could take out, with ease, 6 to 12 stumps per hour. The cost per acre, my impression is, would thus be reduced fully one-half. Can no one be found with ingenuity and spirit enough to construct this machine? A handsome thing might be made of it; while a great boon would be conferred upon the country.

Woburn.

W. S.

### A Flax Puller Invented.

To the Editor of THE CANADA FARMER.

SIR, This subject of flax culture is exciting some interest in this section of the Province, and during the past season 75 to 100 tons of the scutched fibre has been grown in Compton County, principally in the Township of King and vicinity, where the Commission of the B. A. Land Company has taken great pains to introduce it, by supplying the farmers with seed and agreeing to purchase the flax at the fair market price for exportation. The past season proved very unfavorable, as much of the flax lodged. In an article on this subject in your first number, you say:—"A Flax Pulling Machine which will supersede the necessarily slow hand process, is greatly needed. The inventor of such a machine would be sure to make a fortune by his patent." I have much pleasure in informing your readers that such a machine has been invented and tested by practical use. Mr. James Ward, a very intelligent farmer of King, in Compton Co., sowed two acres of flax last season, and after he had put in his crop set himself to thinking how he could manage to harvest it without resorting to the slow process of hand pulling. The result was that he has invented a machine, to be worked by hand, which will enable him to pull three to four times as much in a given time as by the ordinary process. He pulled his two acres at the rate, when it was not lodged, of an acre a day, and when lodged, of half an acre a day. This Flax Puller has been patented, and a sample will shortly be forwarded to one of the agricultural warehouses in Upper Canada. Its price will be from \$5 to \$6.

J. S. WALTON.

Sherbrooke, February, 1864.

[NOTE BY ED. C. F.—The above letter has laid over longer than it ought to have done but for the great pressure of correspondence on our columns. Our correspondent has just informed us that a sample of the Flax Puller above referred to has been sent to J. Fleming & Co., of this city. He also describes a machine in course of construction by the same party, for the purpose of preparing flax and hemp for incorporation with wool, to be manufactured into cloth. It is expected that this machine, if successful, will prepare from three to five hundred pounds of fibre per day, and make it fit to be carded with wool by the woollen manufacturer. When completed and tested we shall be glad to give a fuller account of this machine.]

### Sowing Plaster, &c.

To the Editor of THE CANADA FARMER:

SIR,—I have a quantity of plaster to sow, and it is a slow process to sow it by hand. Will you or some of your correspondents please inform me if there is any machine for sowing it more quickly?

That was a good hint in the second number of THE CANADA FARMER about farmers having a "neglected corner" which might be turned to good account. I had a "neglected corner" of two acres, that laid idle for twenty years. It was a rough, wet piece of land, sloping away from the barn. I summer fallowed and drained it well, and now it raises more than five acres of some of my land. It is so situated that I can let the liquid manure from the barn-yard flow over it in furrows, which makes it very rich.

I wish to encourage my brother farmers to raise root crops. Last year I sold \$400 worth of hay, and wintered my stock better by the help of turnips than I could have done by feeding them all the hay I sold. I could not keep half the stock I do but for the turnips. I raise about four acres every year, and for the last three years have had 1,000 bushels per acre.

I have laid out much money in draining, and I have derived great benefit from it. At first I made stone drains, but if I had had the experience ten years ago I have now, I would have put all the stones in the stone wall that are now buried in drains, and have put in wood pipes. These do well, are cheap, and I believe will last fifty years. I get lumber sawn at the mill two and four inches wide, and one inch thick, and make pipes five feet long, beveled at the ends, to fit in.

JOHN BLESARD.

Otonabee, Feb. 27, 1864.

NOTE BY ED. CANADA FARMER.—There is a machine designed to sow plaster, ashes, lime, guano, salt, or any fine fertilizer,—the invention of Mr. Pierpont Seymour, of East Bloomfield, Ontario Co., N. Y. It can be made to sow any desired quantity per acre, The Rural New Yorker, in a recent number, describes and commends it. The price is \$45, American money. Greenbacks, which are legal tender in the United States, can now be bought at rates which would greatly reduce the cost of the machine to a Canadian purchaser.

### How to Get Change of Seed.

To the Editor of THE CANADA FARMER.

SIR,—In your last issue appears a letter from a correspondent on change of seed. I believe there is hardly a farmer, either in Canada or elsewhere, but is aware of the importance of this subject. But the great question is how to obtain it. Changing with our neighbours is well, so far as it goes, but there is a limit even to this. What is wanted is an importation of fresh seeds—not a few pecks, but, say a thousand bushels—from a climate similar to this. Such a climate may be found along the shores of the Rhine and Danube.

There is an extensive plain in Lower Austria extending from the last spur of the Alps to the Carpathian Mountains; the district has a climate similar to Canada, the soil varying from a light loam, with a gravelly subsoil to clay of more or less tenacity. Great crops of very superior winter wheat are raised in this district. This I know from experience, having travelled the entire district many times, in all seasons, and on foot. What I would recommend is, that the Canadian Government should, through Her Majesty's Consul in Trieste, procure samples of grain from Lower Austria, and from any of the numerous Consuls on the Rhine, of samples from Upper Rhine or Central Germany. And while about it, I would recommend that samples should be had from Leghorn, of wheat grown in Tuscany, and from the valley of the Arno: this may be done through Wm. McBean, Esq., H. M. Consul at Leghorn. The Tuscan wheat is celebrated as containing a greater amount of starch than the wheat grown in Britain and is bought up by the English manufacturers to be made into starch.

Yours respectfully,

G. RICHARDSON.

Arva, March 16, 1864.

### Canada Thistles Again.

To the Editor of THE CANADA FARMER. ;

SIR,—I see you have received different communications on killing Canada thistles, and I thought I might as well send you my way. I plough them about six times during the summer;—five times might do if it was a dry summer. I plough them the first time about the beginning of May, and so on near the first of every month till October. I always harrow them the same, or next day after ploughing them. The harrow drags a great many of the roots out of the ground. These must die. Sometimes you must plough sooner than a month, and other times you may let them go a little longer, according to the growth of them. My rule is never to let them up. Keep the air from the main root one summer, and they will die. I assure you I have proved it. Some will say, "what an immense lot of work to kill thistles; it won't pay." Well, if it don't pay to kill them, it won't pay to grow them. It might not pay a tenant on a three years' lease, but it would on a five years' lease. At any rate, it will pay a freeholder. The land, after such a course, will grow anything and everything. I generally sow barley and seed down; wheat might pay as well, only for the midge. When there are but a few patches of thistles in a field, it is better to work them separately three times, as three ploughings are enough for the rest of the field.

York Township.

G. W. D.

## "Grasses Worthy of Culture."

To the Editor of THE CANADA FARMER.

Sir,—In the number of THE FARMER for the 1st March, under the above heading, are mentioned several grasses which are already widely cultivated, and have been thoroughly tested, such as Timothy, Orchard-grass, Kentucky Blue-grass, and Red-top, meaning by the last, I presume, *Agrostis Vulgaris*, a common and very valuable grass, spread over hills and vales, forming a soft, dense turf.

But are there not some others at least worthy of experimental culture, as *Poa Serotina*, *Meadow Red-top*, or *Fuel Meadow*, as it is called in Massachusetts, an excellent pasture and meadow grass, on low moist soils. It is somewhat surprising that reliable experiments have not been made with other indigenous grasses, as *Calamagrostis Canadensis*, or *Blue-joint*, which is much sought after in our lumbering districts. *Elymus Virginicus*, or *Wild Rye*, although a coarse-growing grass naturally, might yet be made to produce good hay. Then there is *Cinna Arundinacea*, found in shady places, and much sought after by cattle, that might, by cultivation, be made a valuable addition to our forage plants.

All these grasses should be made the subject of experiment by our young farmers, the results of which would be very interesting, and perhaps profitable, to the many readers of THE CANADA FARMER.

K.

Quebec, 14th March, 1864.

## More about Lucerne.

To the Editor of THE CANADA FARMER.

Sir,—Lucerne requires a light, warm soil; poor sands and wet clays must be avoided. Land requiring winter furrows will not answer. Sow in April five to six pounds of seed and one bushel of barley per acre, both harrowed in and rolled. The lucerne requires careful weeding the first year, and after the barley is cradled, the stubble should be removed. If the land has been cropped to carrots for three years, very little weeding will be necessary. In a favourable season, it is often cut five times. Cut when the flower forms, and always the day before you feed it. Never pasture it with sheep.

COLIN D. ANDERSON.

Eglington, 26th March, 1864.

## Manure Exempt from Toll.

To the Editor of THE CANADA FARMER.

Sir, I was lately engaged in a case before a Magistrate on behalf of a client who had been forced to pay toll on manure which he was drawing, and I noticed that the greatest astonishment prevailed amongst the farmers present that such loads were exempt. In conversation, too, I found that they were in the habit of paying in such cases, not being aware of the wise provision of the law. A hint from your paper might save the farmers of Canada many a penny during the year.

Brockville, March 10, 1864.

G. M.

## Pedigree in Plants.

The general superiority of blooded animals, that is, those whose pedigree can be traced through families possessing marked and fixed points of excellence, is now generally conceded. It is acknowledged that an equal number of the Durhams, Devons, and Herefords, among cattle, of Merinos, Southdowns, and Cotswolds, among sheep, etc., will, as a class, show superior qualities to the miscellaneous stock known as natives. But the same principle of superiority from breeding among plants, has not yet been as fully recognized. Yet there is abundant reason for supposing that the same law is equally prevalent in the vegetable as in the animal kingdom; that "like begets like," and that observances of this law may be turned to most profitable account by cultivators. To some extent this is acted upon, in saving the best seeds of grain and other products, but it is only recently that definite experiments have indicated how great improvement can be realized by proper and continued selection of seed. The experimental researches and success of Mr. F. F. Hallet, of Brighton, England, have already been noticed in the *Agriculturist*. New interest has been excited in this subject recently by a

meeting of a large number of the leading farmers of England, to inspect his farm and witness the progress of his operations. From year to year this gentleman has selected, not only the best heads of wheat, but the best kernels of the finest ears, and used them for seed. One of the visitors says, "two or three features in the appearance of the wheat fields forcibly struck us, namely, the extraordinary strength of the stems which enabled them to withstand a very severe storm occurring July 21st, and maintain their upright position; the uniform size of the ear, and the absence of 'under corn' (dwarfed wheat). We counted on one stool 42 ears, all of which were of the same size and as near as possible, of equal height." In reply to the question, "What was the average product of his wheat crop last year?" Mr. Hallet said he should keep far within the limits of truth in stating that the maximum was six quarters (48 bushels per acre), and the minimum four and-a-half quarters (36 bushels) per acre. He also gave three instances which had come to his knowledge of large productiveness of the improved wheat, which yielded respectively, 72 bushels, 62 bushels, and 60 bushels per acre.—Now what has been done in England, can be repeated here. No one can fix the limits to which productiveness may be carried by following out similar experiments. May we not hope in a few years to find improved "breeds" of wheat, of corn, and other cereals in this country, as well marked, as are the established strains of horses and cattle?—*American Agriculturist*.

## Mode of Cultivating Beans.

THE ALBANY CULTIVATOR recommends the following plan of cultivation:—

"Many suppose that poor land is necessary to raise white beans—only because they will grow better on poor land than other crops. Manuring the land for them has doubled the crop. Nothing is better for them than good rich corn land. If the soil is rather heavy, an excellent way is to turn over clover-sod in spring, roll and harrow it, and plant the beans. There will be less hoeing needed, as fresh inverted sod is usually clean soil. When the soil is free from weeds, the best way is to drill in the beans, so that the drills may be about 2½ or 3 feet apart, and the seeds about 2 inches apart in the drills. If a drill cannot be had, furrow out the land, and drop the beans by nailing or tying a small tin pail to the lower end of a rod about the size of a walking stick, make a hole in the bottom large enough for the beans to pass out, and walk along shaking it over the furrow. The quantity or distance may be perfectly regulated by making the hole the right size from trial, by shaking more or less rapidly, and walking slow or fast. If the soil is weedy, plant in hills a foot and a-half apart in the row, and seven to a hill. The beans will be yellow in three months and ready for harvesting, which is done by pulling them. If the weather continues dry a few days they will soon be dry enough, if placed in small heaps. If wet weather is feared, take the bunches and place them in small stacks made around a pole driven into the ground, radiating from the centre or pole, and with either roots or tops out; these stacks may be as high as a man can easily reach, and should be built on four small sticks at the bottom, the size of stove wood, laid across, to keep the beans on the wet ground, and to allow the drying wind to blow under. When quite dry, draw out the pole and draw them to the barn, and thrash in winter."

## Thin Seeding.

REV. GEO. WILKINS in a Lecture before the Royal Agricultural College, among other things spoke as follows upon this subject:

"It is not the quantity of seed, but the manner in which it is put into the ground, on which success depends. For my part were a prize offered for the largest quantity of the finest grain of either wheat or barley, or oats, and I were to contend for it, I would not use more than two pecks of any kind of wheat an acre and of very long-strawed kinds not so much; nor would I use more than 2½ pecks an acre of either barley or oats.

"But before I use the seed of any grain, I ascertain, as I can do in five or ten minutes, how many grains there are in a bushel. I do this because of wheat, for example, some seeds are nearly twice as large as others, and the same of barely and oats; and because I stint the number of seeds to given quantities of land, putting them in one by one, as Xenophon, the learned Greek, describes they should be to his disciple Socrates.

"If men would only reflect and exercise the brains they are supplied with, it would be impossible for them to put their 3½ bushels an acre or 45 grains of seed-barley, and their 30 or 35 grains of wheat, on every square foot of ground, as very many do; and some even advertise their doings as if they were wonderful exploits; whereas, if it were not common, the man who should use those numbers of seeds would be considered to be insane, and probably put under the care of a keeper, or into confinement."

## Flax Items.

A COMPANY has been formed in this city, who intend to put up machinery in various localities in the northern part of this State, and in Wisconsin, where a sufficient number of acres can be engaged to warrant the expense. They will, we are told, pay a fixed price for both seed and straw, or will pay so much per acre for the crop, and take all risks of failure.

At Janesville, Wis., Messrs. Mallory & Blackwell have contracted for five hundred acres of flax, for which they furnish the seed, and take the rotted straw, one of their own men overseeing the process of spreading and rotting, paying the farmers twenty dollars per acre for the use of land, labour in growing, &c.—*Prairie Farmer, Chicago*.

HAY-MOWS should always be well ventilated, and not battened or enclosed with matched boards.

FLAX is getting into extensive use in Wisconsin for manufacturing purposes. At Milwaukee there are exhibited specimens of flax white as snow, and also coloured with the most brilliant hue; calico made of fifty per cent. of flax; cotton flannel one-half flax; felted cloths, and a variety of other manufactures of which flax is a component part. As handsome an article of broadcloth is manufactured from this cottonized flax as could be desired.

VITALITY OF TIMOTHY SEED.—It reply to the enquiry, "At what age does Timothy seed lose its vitality and cease to germinate?" the *Prairie Farmer* says:—If well kept it will germinate when three or four years old or even older. Should prefer not to sow even the third year without testing it. A simple test is to place between thick cloths, kept damp, in a warm place. If good the seeds will sprout in a few days; if poor will soon mould. Do not let water collect in the vessel in which your cloths are laid. If a saucer is used it can easily be turned off.

KEEP STOCK OFF THE MEADOWS.—Many meadows are seriously injured by stock in the spring months. They are permitted to run upon them when the frost is leaving the ground, which is soft and easily cut up by the hoofs of horses and cattle. The scanty picking they get will not begin to compensate for the damage they cause the meadow. When the ground is soft, as it always is in spring, stock should be carefully excluded. It is also very bad policy to pasture meadows in the fall. Every sprig is generally eaten off, and the ground and roots are left cold and naked. If the growth after cutting the grass had been left, it would have acted as a mulching, keeping the roots warm and uninjured by the severity of winter. A good coating of aftermath laying upon the ground all winter is equivalent to a covering of snow, which all know to be highly beneficial to land.

HOVE-MADE POUDBRETTE.—A correspondent of the *Working Farmer* says:—"Instead of paying one dollar and fifty cents per barrel for poudbrette, I manufacture twenty-five barrels per year in the following manner: Under the privy I have a cemented stone vault, five feet square, and two and one-half feet deep. Into this I put six barrels of sand, two barrels of swamp-muck, one barrel of hen manure, and some forest leaves. After four months, this is taken from the vault and deposited in the hen house, where it remains, and is shovelled over frequently, until quite dry. It is then put up in barrels ready for use."

NOTE BY ED. C. F.—We have here one method of turning to good account the richest fertilizer that can be put on land. It would be better, however, to dispense with the sand. Dried muck or soil of ordinary quality will answer every purpose. If enough be put into the well or vault, and the whole mass thoroughly stirred before removal, all offensive odour will be destroyed. It is not a good plan to put the compound into the hen-house, as it would be likely to create an atmosphere injurious to the health of fowls.

## Sheep Husbandry.

### Hurdles for Sheep.

The *American Stock Journal* has the following reference to this subject in a recent number:—

American agriculturists attach too little importance to the beneficial effects on the soil by keeping great quantities of live stock on their farms; and, strange as it may appear to stock farmers in the North, it is often a subject of remark that "so and so" has too much of his grass and clover eaten off, the ploughing it under being thought to have much more striking issue than if consumed on the surface

and the dung and urine left thereon. As wool has caused sheep to be much more thought of than formerly, it is a pity that some prominent breeders do not introduce the use of the common, simple "sheep hurdle," which is universally seen in England, without which no farmer there could keep his land in condition to bear the constant drain upon it by the rapid succession of crops taken therefrom. What a change might be produced on exhausted light land by a good system of sheep husbandry, keeping the sheep a great portion of the year in pens on the land; first rye, then clover, roots, &c.,—adopting a course of rotation with crops which would not only allow of supporting a large flock on every farm, but

by bringing a fourth or fifth of it in turn each year for roots a much more numerous herd might be wintered, in addition to the sheep than was ever thought possible to be fed alone."

A cheap, portable hurdle for sheep may be made with posts two inches square, and cross bars of inch strips three inches wide,—the strips let into the posts say half an inch—the whole nailed together, and strengthened with cross braces. A stronger kind is made with heavier posts, and the bars morticed into them. We have seen such hurdles in use in the neighbourhood of Guelph, the sheep being folded on fields of vetches, &c., and leaving the land in fine order for a subsequent crop.



PAIR OF SHROPSHIRE DOWNS.

HERewith we present a fine illustration of a breed of sheep which ranks high among Short-Wooled British varieties, and is deservedly attracting much attention from flock-masters in this country. The Shropshire Downs are the result of several crosses and have only quite recently established their claim to be considered a distinct and independent breed. They were first brought into prominent notice in 1845, since which period they have rapidly advanced in public favour. In reference to their origin and progress, Mr. Charles Howard of Biddenham, Bedfordshire, in an address before the London or Central Farmers' Club, in 1860, said:—

"This breed has been established by a prudent selection of the breeding animals, and I learn from a gentleman who kindly favoured me with this information upon the point, that the late Mr. Meire was the first to improve upon the original type. This he did in the first place by the use of the Leicester; as their faces became white he would then have recourse to a South Down or other dark-faced sheep. It was, however, left to the son to carry out and to bring to a successful issue what the father had commenced, and Mr. Samuel Meire no doubt may be looked upon as the founder of the improved Shropshire Downs. We gather from his address to the Wenlock Farmers' Club that he accomplished this, not by resorting to any of the established breeds, but by using the best animals from his own large flock \* \* \* Lately a

very great change has come over the breeders of Shropshires; they have availed themselves of larger sheep of heavier fleece and earlier maturity, so that the only affinity they bear to the original Shrop are dark faces and legs; they now pride themselves in exhibiting some well fattened shoarlings (yearlings past,) weighing upon times 22lbs. to 24lbs. per quarter, but this is not general."

The Shropshire Downs are nearly as large as the Leicesters and Cotswolds, and yield about the same quantity of wool. They have the dark-coloured legs and face of the South-downs,—the same nice round compact frame, and even uniform symmetry of appearance, with the additional recommendation that they are about one-third heavier. They are remarkably free from liability to disease, and are very hardy. They are prolific breeders, arrive at maturity early, fatten quickly upon a comparatively small quantity of food, and their wool, when they are well fed, is of that peculiarly glossy character which is much desired for the manufacture of a certain class of lustrous goods. They produce a superior article of mutton, and in this respect are only excelled by the South Downs. Very fine specimens of this variety of sheep have been imported into the United States and Canada. Randall, in his *Practical Shepherd*, gives an account of a ram imported in 1861 whose live weight is 334 lbs., and who yielded on the 16th May, 1863, 17 lbs. 5 oz. of washed wool of 11½ months' growth. He also

mentions a three-year old ewe, whose live weight is 241 lbs., and when sheared at the date just mentioned, gave 9 lbs. 3 oz. of washed wool of 11½ months growth. Mr. George Miller, of Markham, gives the Shropshire Downs a very high character, and says that for health, hardiness, and easiness of keep they excel all the other sheep, of which he has four kinds. The Council of the Provincial Agricultural Association, at its recent meeting, in revising the Prize List for the Exhibition in September next, erected this breed into a separate class, and we may therefore expect that it will henceforth attract more notice than it has hitherto done.

### Cure for Scab in Sheep.

For the benefit of Wool-Growers, I send you a recipe for the cure of scab—which has been used with great success in this county. It has the advantage of being cheap and not injuring the constitution of the sheep, or persons applying it, besides being a sure cure.

The recipe was procured by a shepherd of this county from his father, in Ireland, who has charge of about 600 sheep there.

Recipe.—To one gallon of Tobacco water or Salt brine, add one ounce of Corrosive Sublimate; one ounce of Sal Ammoniac; one ounce of Arsenic; one-fourth ounce Blue Stone; one-half gill Oil of Vitriol;

one gill Spirits of Turpentine. The compounds to be dissolved in boiling water; the Oil of Vitriol to be added when the liquid is cold, and the Turpentine just before using. If a person has many sheep to doctor, he should have a yoke to hold them. A very simple one is a forked post, the fork about two feet above the ground, with a pin through.

Before applying the medicine, the sheep, when diseased badly, should be scratched with a long-toothed curry comb, or scarified with a knife.—One man pour on the medicine, while another rubs it in, with his hands well greased. A person's hands would get sore, in time, if not greased. To make a sure cure, the sheep should be gone over a second time, after an interval of ten days.

For snake bites, we scarily the wound, or where swollen, and put in salt, and seldom lose a sheep when taken in time.—*Sol. Jewett, in California Stock Journal*

## Cost of Keeping Various Breeds of Sheep.

To the Editor of THE CANADA FARMER.

SIR,—Can you or some one of your numerous correspondents inform the farmers of Canada of the difference in the cost of keeping the Leicester and Cotswolds, and the Southdown and Merino sheep? Will the difference in the cost of feeding between the long and short-woolled compensate for the loss of mutton?

T. L. HEACOCK.

Whitchurch, March 8, 1864.

TO PREVENT FOOT-ROT IN SHEEP.—The *North British Agriculturist* says that, thirty years ago, Professor Dick showed that, in the great majority of cases, this disease results from the hoofs not being properly and regularly worn down. On hard, gravelly pastures the foot-rot seldom occurs. On soft and rich pastures the disease may be prevented by paring the feet of the whole flock every six or eight weeks.

VALUABLE MERINO RAM.—The ram "Sweep-stakes" was bred and is owned by Edwin Hammond, of Vermont. He is almost a perfect specimen of the breed, being defective in no essential particular. His weight is about 110 lbs. He is fully woolled, has no external gum, but possesses abundance of thin yolk. He has produced 27 lbs. of wool in one year's fleece. His constitution is powerful, and he impresses his characteristics strongly on his progeny. His owner has been offered two thousand five hundred dollars for him.—*Maine Farmer*.

SHEEP AND WOOL.—Wool at from 30 cts. to 50 cts. per pound pays, but when it figures up from 60 cts. to 90 cts., it takes but a few figures to show the result. With wool at 60 cts., about the lowest price now paid, sheep that shear from 4 to 16 pounds are worth having. But many are deterred from buying, because they say sheep are high. Let us figure. Cost of keeping one year and the care \$2. Wool, 4 pounds at 60 cts. per pound \$2.40. Lamb, \$2.60. Total \$5. Leaving a balance of \$3 besides the manure, and that will make up for all losses except by dogs, and all interest, as sheep are now selling. The sum of \$50 in bank pays only \$3, just what one sheep will pay above all expenses. This is 12 per cent on \$25, or 25 per cent on \$12.50. Does any one object to investing money in other kinds of business at 25 per cent profit? When sheep get up to \$12 per head, then it will do to say sheep are high. The above figures are made in reference to the common grade of sheep.—*N. Y. Journal of Agriculture*.

REGULARITY IN FEEDING SHEEP.—The utmost regularity should be observed in the times of feeding either store or fattening sheep, and giving them just the requisite amount to last them until the next feeding. If permitted to waste hay, they rapidly acquire the habit of doing so—i. e., picking out the best and then waiting, even though quite hungry, for another feed. If the hay is coarse and was cut over-ripe, especially if clover hay be thus circumstanced, it is not profitable to compel the sheep to eat the oats or refuse; but even with such hay, sheep can soon be taught by over-feeding and carelessness, to make a most unnecessary degree of waste. All experienced flock-masters concur in the opinion that the sheep fed with perfect regularity as to time and amount (making proper allowance for the weather), will do better on rather inferior keep, than on the best without that regularity. I prefer feeding three times a day even in the shortest days of winter; but many good flock-masters feed but twice. If fed three times, it should be at sunrise, noon, and an hour before dark; if but twice, then the last feeding should be an hour earlier. Sheep do not stand at their racks and eat well in the dark. It is not very important at what period of the day grain or roots are given, provided the time is uniform.—*Randall's Practical Shepherd*.



## The Breeder and Grazier.

### Feeding Stock.

At a recent meeting of the Lagswade Agricultural Society, Robert Irvine, Esq. F. R. S. read an interesting paper on the Rearing of Plants and Animals. The following brief extract on feeding may prove interesting—

It is quite natural to suppose that if an animal be fed on rich food, the products of that animal's body must be richer and greater. Compare the composition of hay with linseed cake.

Hay—1 year old.		Linseed Cake.	
Water	13.13	Water	10.56
Albumen	4.00	Oil	12.88
Fibre and Heat	77.61	Albumen	31.70
Ash	5.26	Fibre and Heat	36.71
		Ash	7.15
	100.00		100.00

In the use of such highly nutritious food there is a great danger to be specially guarded against, that of a portion of it passing through the animal without being digested or assimilated into its system. To lead proof that such waste does occur is unnecessary. I have known swine to subsist entirely from the food they could find in a dung heap. This evil is to a great extent the result of the use of such concentrated materials, and it certainly is not the proper manner to use those for cattle without any admixture of such inert materials as bran or sawdust. In Norway I am told sawdust forms a principal ingredient in the food of animals after being well boiled. I can imagine you think I am now running off the rails, but strange as it may appear, pure wood sawdust has so nearly the same composition to sugar, starch and gum, as to be almost identical. So much so is this the case, that for many purposes sawdust serves the same end as sugar in manufacturing certain chemical preparations. The stomachs of all animals require for the proper digestion of their food to be distended, and this you cannot do with such strong food as linseed cake, corn, or beans, for you cannot give them enough to do so without serious illness resulting. Dilute these with bran or sawdust if you will, and the animal will thrive as you change the composition, or lower its power to the virtual standard hay.

Linseed cake for every pound used would do with six or eight of bran to bring it to the level of hay. Thus linseed is much cheaper as a fattener than even hay or grass. It might want the oil, as this tends only to heat the blood and form fat, which I do not hold to be the legitimate end of stock feeding. At present prices, ton for ton, wheat is as cheap as linseed, but compare its composition with that of linseed. It contains only 1-4th of the flesh forming matters present in linseed, so that it is four times more costly in real fact. Indeed dried clover or clover hay contains as much nourishment as wheat.

## The Herd Book and Grade Stock.

To the Editor of THE CANADA FARMER.

SIR,—I am glad to know that the Agricultural Society has in course of preparation a Canadian Herd Book, as I have long considered that such a work was much needed.

I should like to make a suggestion, which, I believe, if carried out, would greatly add to the improvement of cattle in this Province. We have many cattle here in Canada, which, though not thorough-bred, are so nearly so, that when brought among thorough-bred short-horned cattle, could and have successfully competed with them, as was shown in the case of a bull, with the pedigree of which I was well acquainted, and which was only six parts thorough-bred, but which, nevertheless, carried off the first prize at one of the Provincial Shows from three and twenty thorough-bred cattle. Now, what I think would be advisable, would be to take cows (not bulls) that are six parts thorough-bred, and enter them as such in the Cana-

dian Herd Book. My reason for advocating this plan is, that there are many farmers who have grade cows pretty well bred who will not trouble themselves to take them to a thorough-bred bull, as they say, "It is no good, the calves will not be worth much more," and I shall never be allowed to compete with stock bred from imported thorough bred short-horned cattle." You will perceive from the above that I consider it takes eight crosses with a thorough-bred bull to make a thorough-bred cow. It is the opinion of many that it is impossible for us to raise thorough-bred stock from native cattle, but I should like to know how they were first introduced into England, if it was not from judicious crosses, made with different grades of cattle?  
R. G. T.  
Malton, C. W.

NOTE BY ED. CANADA FARMER.—Our correspondent's suggestion to admit cows into our forthcoming Short-horn Herd Book that are not thorough bred would be in opposition to all precedent and experience in matters of this sort. The great object of such a publication is to supply authentic information as a common standard of reference, with the view of ascertaining and securing purity of blood. The case of the bull to which our correspondent refers occurred, we presume, some years back, when a much looser method of admitting animals to competition prevailed at the Provincial Exhibitions than now exists. Crosses of short-horn bulls from selected specimens of our native cows are frequently very fine, but it is well understood among practical men that it will not answer to breed from them. By the frequent use of pure bred bulls of different breeds with good grade cows, the stock of the country will become generally improved, and every encouragement should be given for the best productions of such animals. But in our Register and Herd Book purity of blood must be regarded absolutely as a *sine qua non*.

## Judging Weight of Cattle by Measurement.

To the Editor of THE CANADA FARMER.

SIR,—A better mode of estimating all cattle by measurement than that which appeared in No. 5, is the following taken from the *Cattle Keeper's Guide*.—Take the girth just behind the shoulder blade, measure from the bone of the tail which plumbs the line with the hinder part of the buttock along the line of back to the fore part of the shoulder blade, say, girth 6 feet 4 inches, length 5 feet 3 inches, multiplied make 31 superficial feet, multiplied by 23, that being the number of pounds allowed to each superficial foot of all animals measuring less than seven and more than five feet in girth, makes 713 lbs., the weight of the animal. When the animal measures less than 9 feet and more than 7 feet in girth, 31 is the number of pounds allowed to the superficial foot. If an animal, calf, or pig measures 2 feet in length and 2 feet girth, 11 lbs. to the superficial foot is the number. If 4 feet 6 inches in girth and 3 feet 9 inches in length, 16 is the multiplier, being the pounds to the foot. This measurement in all cases does not include offal. If the animal is only half fat a deduction of one in 20 must be allowed. This mode of calculation makes a very near approach to accuracy.

London, C.W., March 20, 1864.

A FARMER.

## Dogs.

To the Editor of THE CANADA FARMER.

SIR,—I would like much to see one or more articles in your interesting journal on the dog and its treatment—feeding, training, breeding, &c.—as a work devoted entirely to this subject is not within the reach of most of your readers. There is scarcely a farmer in Canada who does not keep one or more dogs, either for sporting or other purposes; but the circulation of your paper is by no means restricted to the agricultural class. And as the dog, above all other animals, is the chosen friend of man, in whatever sphere he may move, information on this subject, I have no doubt, would meet with due attention from most of your readers, and more especially from

Yours respectfully,

ROVER.

Hamilton, 16th March, 1864.

Points of a Good Beast.

	No. of Points.	What Constitutes Goodness.
Head	4	Moderate length, wide and rather dished, with clear horn and flesh-coloured nose—not black.
Neck	1	Being well sprung from shoulders and slightly arched.
Neck vein	2	Prominent and full.
Shoulder and crops	6	Former being well thrown back and wide at top, "points" well covered and not prominent. Crops being very full.
Breast	2	Coming well forward, wide and full.
Back	3	Breadth and levelness.
Loin	4	Breadth, and being well covered, not low.
Hocks	2	Breadth, and being at right angles with backbone.
Rumps	2	Not being drooped.
Quarter	2	Length, levelness, and being well filled up.
Thigh	2	Length and firmness, and being well beefed inward.
Twists	3	Coming well down.
Hock	1	Being well bent, and not turned to.
Flank	3	Being full and coming well forward.
Back ribs	3	Being well sprung from back and round.
Fore ribs	3	Round and coming well down.
Quality and hair	4	Skin not being too thin, but soft and mellow; hair long and silky.
Color	1	Rouans and Reds.
Udder and milk vessel	3	Well formed teats and udder; large milk veins.

—Cor. of Co. Genl.

Stock in the Vicinity of Quebec.

To the Editor of THE CANADA FARMER.

Sir,—The Agricultural Society of the city of Quebec have, with much trouble and expense, imported thorough bred animals from England, both horses and cattle. They deserve much praise for their laudable endeavours to improve the breed in this vicinity. There have also been importations made by a private gentleman of cattle, sheep, and pigs. It is said that he will again, this spring, import some other specimens of short-horn cattle and Hampshire sheep. The pigs that were imported last year were the improved Berkshire.

Our cows, many of them, are pretty good, but deteriorating fast, owing to the niggardly parsimony of our breeders in not being willing to pay for the service of a good bull. I understand that the imported bull "Sweetmeat," although standing at the low rate of \$3, served only twenty-two cows, the majority of our farmers preferring to pay twenty-five cents for beasts not worth their salt. We improve slowly, I must say; but still we advance, thanks to the efforts of a few.

Quebec has always been noted for its superior breed of horses, and we have again to thank the Quebec City Society for the valuable addition of "Canwell," a thorough-bred stallion. He is by "Stockwell," out of "May Bell," the best blood in England. Bought last fall at a large price, and standing at the low price of \$10. I hope that the Society will be able to pay their expenses at this rate, but I fear it. Such a horse is an acquisition to any town.

MATTHEW DAVIDSON.

St. Foy's Road, Co. of Quebec,  
19th Feb., 1864.

A Snake Inside a Pig.

To the Editor of THE CANADA FARMER.

Sir,—When I put up my hogs to fatten, I noticed that one of them had a singular sort of growl during the time I had them up. When I killed them, I was cleaning the lard off one of their entrails, when they happened to break, and I turned out a snake about twenty-two inches in length. It had a solid hold upon the inside of the gut, and was full of a liquid like milk. I think that was the cause of the animal being so uneasy during the time it was fattening. This I can prove by two other witnesses, on oath, if necessary.

STEWART GILLILAND.

Kerwood, Warwick, March 12, 1864.

Large Galloway Calf.

To the Editor of THE CANADA FARMER.

Sir,—Mr. Arthur McVeil, of Vaughan, sold a bull calf a few days since, of the Galloway breed, to Mr. Alexander Kerr, of Westminster, for \$100. The calf was only 12 months old, and weighed 900 lbs.

WILLIAM McNAIR.

Vaughan, March 19, 1864.

NOTE BY ED. C. F.—This appears to us an alm at incredible weight for a yearling. Is there not a mistake? Should not the tail of the first figure be the other way so as to read 600?

TO TAKE SOWS OWN THEIR YOUNG.—A correspondent of the Boston *Cultivator* says that he had a sow which would not own her pigs, and that after trying various things without effect, he gave her a pint of rum, which had the desired result. The rum was put into the swill, and, he says, "she drank it like any old toper, and was perfectly quiet for three or four hours afterward." The *Maine Farmer* says the same prescription will prevent sows from eating their young. We suppose the rum makes them feel comfortable.

MARES IN FOAL.—The following from the *Albany Cultivator* will show the necessity of treating mares in foal with care, and avoiding rough work:—"A neighbour was ploughing near to where we were at work, a field which had never been effectually cleared of the stumps of large white oak and hickory grubs. The place had been grubbed by job-work, and grubs which should have been taken out by the roots, had been cut off merely at or near the surface, so that the man ploughing could not see or shun them. Of course, every now and then the plough would strike one, and either severely jerk or stop the team. One of the team was a mare not very far from her time of foaling, and whenever the plough was caught by a grub, she would turn partly around and look at the driver, as if she would have liked to tell him that that was not proper work for her. Finally, after showing more and more her reluctance to start again, she refused absolutely to draw at all. She had never shown any disposition to be baulky during a service of seven years; and at our suggestion that the mare instinctively knew that the jerking was injuring her or her colt, she was released from attempts to force her to continue the work."

PREJUDICE RUN MAD.—*Messrs. Editors*.—I see an advertisement in your last paper, of pigs for sale. They are styled the Prince Albert pigs. Now I want to obtain some pigs, but I am too much of a Yankee to buy a *Prince Albert* pig. If the advertiser would give his pigs some other name I would like to buy off him; name them Jerusalem, or anything but Prince Albert. E. F. S."

NOTE: Thus saith a subscriber. We fear the name is too well established to be easily changed. Prince Albert, the late husband of the English Queen, was a gentleman much interested in all agricultural matters, and well known as a promoter and patron of the interests of all the departments of science. Our correspondent should remember that it is the thing and not the name with which we have to deal, and which we must judge.

The name is but the nickel stamp,  
A pig's a pig for all that."

—*Maine Farmer*.

NOTE BY ED. C. F.—We are amazed to see our able contemporary, the *Maine Farmer*, dealing thus gently with one of the silliest manifestations of republican prejudice it has ever been our lot to meet with. Instead of having a sort of pity for it, if not sympathy with it, the true course would have been to ridicule and scout it.

SALTING AND PACKING PORK.—A correspondent of the *American Agriculturist* furnishes the following brief communication on this subject:—"I will tell you my mode, after an experience of forty years. I allow the hogs to cool after killing, take out the bones, (ribs and spine); cut off the hams and shoulders; then cut the side pork into strips of convenient width; put a quantity of salt in the bottom of the cask; then put in a course of meat, laying the pieces on the edges; then a covering of salt; then another course of meat, and so on until the cask is full. The whole is carefully kept covered with brine as strong as boiling water and salt will make it, skimming the boiling brine so long as anything rises. The brine is put on cold, and I am careful to know that there is always undissolved salt in the barrel. It is not found necessary to scald the brine in spring. I sometimes use saltpetre, and sometimes not. Hams and shoulders are salted in separate casks. I know of no reliable method of cleansing tainted casks, and would not take a waggon load as a gift, for storing meat."

A NEW DISORDER AMONG CATTLE.—R. W. Burt, of Atlanta, Ill., gives the following description in the *Prairie Farmer* of a disease new at least in that section:—"The animals affected appeared to look gaunt, and would move and stagger and fall, in some cases not get up again, or if they did, only to fall again and die. On examination, some blood appeared about the nose and anus. The veins under the skin were very full; the spleen or melt was very much enlarged, and on breaking the thin skin, or covering, it seemed rotten. The liver seemed unnatural. Large fine two and three year old steers, and cows with young calves, seem to be those attacked mostly. Some fifteen have died. These cattle had been two or three weeks on very luxuriant clover meadows, full of seed. The same disease has appeared on an adjoining farm." In reply, Dr. Dadd remarks:—"From the above description, I should infer that the disease alluded to is, or very much resembles, Splenic Apoplexy, a disease which has generally baffled the skill of those who, in this country, have attempted to cure it. What the conditions are which favour its propagation, I am unable to determine, for I have known it to affect, equally, those which appeared healthy, as well as others, unhealthy in appearance; hence it is very difficult for any one to point out the direct causes of the affection."

GROOMING HORSES. Every horse should be cleaned daily, and his bedding straw should always be thrown behind him in the stable during the day. The manger should be kept clean and washed once a week, at least. Oats are the best food for horses, according to general experience, and yet they thrive well in Arabia on barley. A portion of ground oats should always be mixed with whole feed, and for horses having imperfect teeth the oats should be crushed. When the weather is not frosty, the crushed oats should be moistened with a little water and some salt added. Cut hay moistened and sprinkled with ground oats, forms excellent food. The hull of the oats is hard and often unmastered, and passes undigested through the system, thus taking away instead of imparting strength and nutrition. For medium-shaped horses, with moderate work, nine to twelve quarts of oats per day and fourteen pounds hay are ample. For large draft horses, eighteen quarts oats and sixteen pounds hay. Food consisting of one-third corn ground with two-thirds oats forms strong, hearty, winter food for work or coach horses; good beds and good grooming are as important as good feeding. Horses, like men, want good dry, warm, clean beds. In grooming, tie your horse so he can't bite his manger, and thus learn to crib bite. Let the curry-comb be very moderately used on the body to loosen up the scurf and dirt, but never permit one near the mane and tail. Rely mainly on the brush and rough cloth for cleaning; combs tear out more hair in a day than will grow again in a month, and they ruin manes and tails. Half an hour is enough for a good groom to one horse, but one hour's time at the outside, ample to be very complete. Always be gentle about the horse's body, especially his head. Use whips as little as possible, and never tease a horse.—*Scientific American*.

VALUE OF CARROTS.—Carrots are very excellent "fodder" for horses that have been long kept on highly carbonaceous food, and whose digestive organs may be out of order in consequence of their constant activity in reducing meal and oats into the elements of animal nutrition. With a fair allowance of carrots, ground oats, and sweet hay, a horse will enjoy good health and spirits, have a loose hide, shining coat, and healthy lungs. A daily allowance of carrots should always be furnished to horses, the subjects of indigestion whose food often runs into fermentation, inducing diarrhoea, or a lax, watery state of the bowels. Carrots furnish an acid called pectic, which possesses the curious property of gelatinizing the watery contents of the digestive cavities. A few drops of this pectic acid will gelatinize both, and when mixed with the juice of an orange, changes the same into jelly. So that if the alvine discharges of a horse are watery, carrots can be used as a valuable therapeutic agent, both in view of arresting the same and restoring the tone of the stomach and bowels. By examining the excrements of a horse fed in part on carrots, it will be found to contain no undigested hay nor oats, and therefore we may safely infer that they promote digestion, so that by the constant use of carrots, less quantities of hay and oats will suffice than when a larger amount is consumed, and parted with in an undigested state. For fattening animals, carrots are exceedingly valuable. It will be urged that carrots are not very nutritious—that may be; still, if they possess the property of gelatinizing the contents of the stomach and bowels, they aid in the manufacture of fat out of other food, which might otherwise pass out of the system.—*Horse Owner's Hand Book*.



### The Dairy.

#### Associated Dairies.

To the Editor of THE CANADA FARMER:

Sir—The accompanying letter has been sent to me. It relates to a matter of so much importance that I think it ought to find a place in your columns, and therefore I send it to you.

It is an indisputable fact that we are and have been paying to our neighbours on the other side, a large amount of money for the article of cheese which could be manufactured in the country, and could the plan alluded to in Mr. Brown's letter, be brought into operation (and I know no reason why it should not), the result would be the creation of a source of revenue to those farmers that engage in it, (and it is within the reach of all), and be the means of keeping a very large sum of money in the country. I am quite convinced that the plan proposed will secure an article of a much better quality than that which now comes to the market (in very limited quantity) from our farmers generally, and I quite agree with Mr. Brown, that a large quantity of milk that now goes to waste could, by this means, be converted into a wholesome article of food and form a respectable item on the right side of the farmers' balance sheet. I write these few lines in commendation of the plan in the hope that it may be brought before the farming community and discussed through the medium of your columns and otherwise, with a view of inducing neighbourhoods to adopt it.

It is not unreasonable to expect that parties who have seen the system in operation will give their views on the subject, and thus induce people to take a favourable view of the subject. Such union cheese-factories could easily be got up, say within six miles of each other, and Canada would, in a very short period of time, export instead of import a large quantity of cheese. I am, sir, yours respectfully,

E. W. THOMSON.

HAMILTON, Feb. 24, 1864.

MY DEAR SIR.—My attention has recently been called to the eminent success which has attended the district dairies for the manufacture of Cheese in the State of New York and other parts of the United States, and so much am I impressed with the advantage such would be to our farmers and the country generally, if introduced into Canada, that I am led to write you on the subject, knowing not only that you are practically interested but also because you have special facilities for circulating widely whatever is calculated to promote the good of the farmer.

I recently conversed with Mr. Charles Taylor, one of the most extensive cheese buyers and exporters in New York, on this subject, and was perfectly amazed to learn the proportions to which the cheese trade had grown since the establishment in different districts of these joint dairies.

I have the best authority for saying that so eager is the enquiry for cheese made at these Union dairies that the product of a dairy can be sold before a single pound is made.

The cheese from such a dairy as I have described will not only be good but it will be uniform, being manufactured by one whose calling it is to make cheese. I am told that cheese made at these dairies commands ten per cent. or more over that of even extensive isolated cheese makers—and all because of its reliable and uniform character.

I could go on extending my letter on the advantages of introducing these concerns into Canada but I hardly think it necessary. One idea however occurs to me that I have omitted and it is that were such dairies established there would be in many country families perhaps a more prudent economy in the use

of milk than there is at present, as the profits on these concerns are divided each year in proportion to the milk delivered; and then there is the great question which commands itself to us all—Why should we be importers of cheese?—rather say I, should we be exporters.

There may very soon be modifications of the reciprocity treaty compelling our farmers to bestir themselves. Speedy action in what I have been writing about will do good any way and be sure to do no harm.

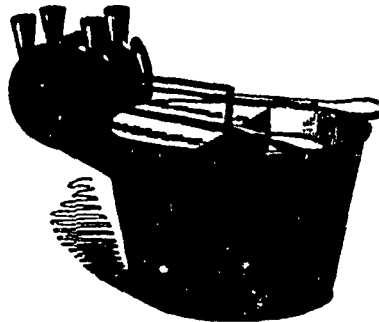
Yours faithfully,  
ADAM BROWN.

Col. THOMSON,  
Pres't Prov. Ag. Ass'n.

WHAT ARE THE BEST PASTURES FOR DAIRY COWS?—In answer to this question a correspondent of the *Genesee Farmer*, in Michigan, recommends seeding down the land with one-half clover, one-fourth timothy grass, one-eighth June grass, and one-eighth white clover. He thinks that the pastures ought not to be allowed to lie down longer than three or four years before being again ploughed.

COWS SHEDDING MILK.—Some cow's teats will leave more or less of their milk to leak or run out. To prevent this leakage, take, after each milking, a thin piece of muslin about as large as a three-cent piece, and wet it in collodion, and apply it quickly over the orifice of the leaking teat, as it will dry immediately and adhere firmly and so prevent all escape of milk, and, what is more, it gradually contracts the leakage orifice, and thus operates to some extent at least, as a permanent cure of the evil. This muslin covering can readily be removed at the next milking, and after it be applied again.

### The Cow Milking Machine.



SOME of our readers having manifested considerable curiosity to know more about the Milking-Machine, we give herewith an illustration of it, by which its construction and the principle upon which it is worked will be made clearer than by a lengthy description. Its manufacturers claim for it that it will milk the four teats of a cow at the same time, that it does its work thoroughly, that no dirt can possibly get into the milk, that it is simple in its operation as a common hand-bellows, requiring no particular skill, and that it is as readily cleaned in all its parts as an ordinary milk-pail. It only weighs, including pail, six pounds. Price, at the Lactal Works, Southwick, near Birmingham, England, £2, 10s. sterling. We publish the above merely as items of information, our own impression being, as remarked in our second issue, that the machine does not answer a very good purpose. It is not very easy to fit the finger-pieces on the teats air-tight; and when they are so fitted on, a restless animal is liable to throw the whole out of gear. Besides which, it does not milk the cow clean: an after stripping being required.

MILK CLEAN.—The first drawn milk contains only five, the second eight, and the fifth seventeen per cent. of cream.

ALDERNEY CREAM.—A friend writes us from the city of New York:—"Have you ever heard that cream from Alderney milk was excellent for consumptives? I am told that one of the most celebrated physicians in Edinburgh, whose skill in the treatment of consumption is very great, recommends it as fully equal to cod liver oil, and much more palatable. If this is a fact, it is worth knowing, and should greatly increase the value of this breed of cattle." We should be glad of the experience of our readers, medical or others, on this question.—*Country Gentleman*.



### The Apiary.

#### Management of Bees.

To the Editor of THE CANADA FARMER.

Sir,—There is no branch of rural economy connected with more agreeable associations than that of bee management. The proverbially industrious habits of the insect, its extreme ingenuity in the construction of its domicile and the deposition of its treasures, are such as to excite the admiration of the most unobservant. The common necessity of destroying the stock, in order to obtain the produce of their labours, has been always matter of regret. Many plans have been devised for the purpose of obtaining the honey without the destruction of the bees, but they have only been attended with partial success. The object has, however, been latterly and more perfectly attained by Mr. Quinby, St. Johnsville, N. Y., a practical aparian, whose system of management has given this branch of rural economy an importance and value of which it was not before considered susceptible, both in the greater productiveness of the bees and the superior quality of the honey.

#### WINTERING BEES.

Quinby says one will tell you to keep them warm, others to keep them cold, to keep them in the sun, bury them in the ground, put them in the cellar, in the chamber, wood-house, and other places, and no places at all, that is, to let them remain as they are without any attention. Here are plans enough to drive the inexperienced into despair.

My method for wintering is as follows:—I have an old dwelling-house in which I formerly lived, across my door yard, in which I winter my bees. They occupy two bed-rooms that are well plastered and kept totally dark, no fire-heat in the house. I put them up in November. Now prepare two saw horses of scantling, legs about one foot long, let those benches be the length of room, set your hives with your 30 inch bottom-boards across them, the same as in the bee-house, leaving the floor clear, so that you can guard against the mice; you may have three tiers of hives, one above the other, by putting blocks between the rows of hives in such a manner, that you can at all times take off or put on the covers that close the inch holes that lead to the caps. Those small covers must all be off in extreme cold weather, to let the vapour or breath pass off unto the walls, or otherwise it will accumulate in the hives and drown out the bees, or smother them to death. Without air, the fountain of life, the honey-bee will never subsist, they must have it at all times, in cold or hot weather. Those close rooms for winter must also have air passages, ventilation both in and out, without letting in the light, particularly in soft days in winter, otherwise the bees will crawl from their hives and never return to them again. I have wintered my bees in this manner greatly to my satisfaction. Much depends on the winter management to make it a paying business in summer.

#### BEE HOUSE.

The more trees the better around your bee-house, provided they do not cast a shade over it, until after 9 or 10 o'clock; let it front the 11 o'clock sun. I have three bee-houses; I find my bees do much the best in one that is only a shed, open all around, a roof sufficient to shed rain and keep off the sun. It lets in a current of air and blows the millers out. A house enclosed all round, as some are through the country, will destroy the bees within two or three years at most. Instead of a plank for the hives to stand upon, I substitute two scantlings 3 by 4 inches, set up edgewise within 6 or 8 inches of the ground for the lower tier of hives. Now get boards 15 inches wide and 30 inches long, place them crossways of the house, on the scantling, with the hive on the back end, leaving a large projection in front to accommodate your bees in getting safe home with their weary loads, in case of storms of wind and rain that frequently occur in the honey season. This will save the loss of your most valuable working bees. In the meantime, always keep the ground under the house



and 6 or 8 feet in front of it, clean from weeds and grass for the same purpose. Plenty of old tanbark, or perhaps leached ashes, put on in spring, will do it. A house 12 feet long, with two tiers of hives, will accommodate 12 or 14 swarms. Some authors think it better to have them scattered promiscuously round the garden;—that is not my opinion.

#### SPRING.

Within a week or ten days, after putting my hives out in spring, I commence to go to them every morning early and raise the front of each hive gently, and I find more or less worms to dispatch, which is indispensable to good success for the season.

Let the hives at this season stand flat on the bottom board without blocks to the corners, they should be as warm as possible for the young brood. This raising of the hives to search for worms should continue until the fore part of June, when you will find the bees begin to be very numerous on the bottom board. If the weather is not, raise the two front corners of your hive and put under each a block  $\frac{1}{2}$  of an inch thick, and by about the 20th of June put two blocks under the back corners, and your bees will be apt to put out the worms the remainder of the season without troubling you much.

#### SWARMING.

Watch your bees from 10 o'clock to 3 on pleasant days from the 5th of June to the last of the month. When they commence to swarm, keep yourself as quiet possible; don't be alarmed, you will not lose them if you do your duty,—that is, let them alone, they will settle in a few moments in a place to suit themselves. Now place your hive near them, and by gentle means get them into it, or the majority of them, and within one hour from the time they left the old hive, have them in the bee-house out of the sun. Don't be afraid if you are decently clean and not sweaty. If the bottom-board is covered with bees, carry them carefully and you are in no danger of being hurt, or of your bees leaving your hive for a house in the woods.

#### HIVES.

According to Quinby, I make my hives 12 inches square and 14 inches deep, inside measure, which will hold plenty of honey to winter any swarm, if properly filled. I have 12 one-inch holes on the top of each hive, 6 on each end in a row across the top; cover these holes with a  $\frac{1}{4}$  inch board tacked on, and it is then ready for the bees. This hive is made of good one-inch pine boards. Never plane the inside of hive or cap, or the bees will leave it, they can't hold on to a smooth board. My caps are made of bass wood  $\frac{3}{4}$  of an inch in thickness, 14 inches long, 6 inches wide, and 7 inches deep. They are made without covers, and inverted across the top of the hive; they hold from 16 to 20 lbs. of honey. A good hive that has cast no swarm will fill those caps by the 15th of July. Take them off and put empty ones in their place, and take off all caps, as by the 15th of August their work is done for the season. A hive that has cast one swarm will fill the caps but once, and should not be removed before the middle of August.

#### FALL.

In September you can take the blocks from the corners of your hives and let them down on the board; and as the honey is getting scarce, perhaps they may commence robbing. You can generally put a stop to that by closing the passage so that but one bee can pass at a time.

#### LOCATION FOR BEES.

Much depends on the section of country for the apiarian. The borders of a large upland forest will produce the most and purest honey. The Lynden of Russia is more celebrated for the abundance of its delicious virgin sweets gathered by the honey-bee than any other place I ever heard of. Pine plains, with buckwheat fields abounding, always produce honey of a dark colour, of second quality. The shores of large lakes or rivers will subject the apiarian to heavy losses of his best bees. The forest is the natural home of the honey-bee. Where the bass-wood or lynden, and sugar maple abound at a convenient distance, no one need fail of a good supply of a first-rate article. It will be understood that I have two of those small caps on each hive. By the help of a good veil and long gloves, I have removed 18 caps, and had all the bees out of them by 9 o'clock in the morning without help, excepting a quill or wing in my hand. I have known people to take off the cap and set it on the ground near the hive, expecting the bees to leave it; and so they did, but they took all the honey out first. The above shows plainly the means I used to obtain, during the past season, from 26 swarms, 900 lbs., and the season before 770 lbs. from 20 swarms, of pure white cap honey that can't be excelled.

W. H. SKIERWOOD.

Portland, Leeds Co., W. C.

## Correspondence.

### Whitefish of Canada.

To the Editor of THE CANADA FARMER.

SIR.—For the information of H. P. H., I beg to say that whitefish are caught by means of gill nets, during the whole of the summer months, at all points on the north shore of Lake Ontario, at distances varying from two to five miles from the land.

From specimens brought in on the nets, their food appears to be a small marine worm about three-quarters of an inch in length.

The spawning season is in the month of November, at which time they move in to within a quarter or half a mile from shore, and deposit their ova on the rocks.

In the months of April and May, large quantities of small whitefish, from one and a-half to three inches in length, are annually destroyed by seines at Toronto point. Again in July they approach the shore, and are caught in immense numbers at Presque Isle, Toronto point, Burlington Beach, and various other places. They are then about half grown; but whether the fish then caught are those spawned the November previous, I am unable to say.

J. J. R.

Newcastle, C.W., 14th March, 1864.

### Rosin and Turpentine.

To the Editor of THE CANADA FARMER.

SIR.—At this season of the year our maple timber becomes a source of wealth to the country, by its production of sugar; and it appears to me that our immense "pineries" might be made to add to the wealth of the country, too, by producing rosin and spirits of turpentine. Rosin is worth about \$20 per 100 lbs., and spirits of turpentine about \$4 per gallon wholesale. These are prices that ought to stimulate experiments in their production.

A SUBSCRIBER.

Pine Woods, March 2, 1864.

NOTE BY ED. C. F.—A recent number of the Galt Reformer states that the Editor had lately been shown a quantity of rosin manufactured by Mr. James Maud, who lives near Galt. Our contemporary remarks, in reference to the sample: "It is softer than the imported kind, the turpentine not being so well extracted, but of course this would be remedied as the maker required experience. We hope the manufacture of this material will be entered into extensively, and at the present high price it will no doubt prove exceedingly remunerative."

NEW FLAX MILL.—Mr. Charles Grant, of London, U. C., writes to say that he is erecting a Flax Mill.

CALIFORNIA POTATOES.—"H. M." of Brantford, wishes to know where this variety of potatoes can be got for seed.

WASHING SHEEP FOR EXHIBITION.—"E. S." asks, "Will some of your numerous correspondents please inform me how to wash sheep for exhibition?"

MODEL POULTRY HOUSE.—S. S. Southworth, of Frankville, asks for a "cut" and "description" of a "good hen-house." We will keep the request in view, and endeavour to fulfil it in a future issue.

QUESTION FOR BEE KEEPERS.—A correspondent asks:—"Why is it that bees will not always work and fill the boxes placed on top of bee-hives? We prepare every box alike, but only half are filled."

THRESHING AND SAWING MACHINES.—We have received a communication from W. Best & Co., Mount Pleasant, Cavan, in reference to these machines which is only suited to our advertising columns.

BEES AND BEE-HIVES.—We have several enquiries as to where swarms of bees, and good bee-hives can be had, and at what prices. Parties having these for sale, will do well to advertise to that effect.

ROTATION OF CROPS.—"Junor," of Biddulph, and "A. S. B.," of Compton, C. E., will find their enquiries answered in an article on this subject upon our first page.

VETCHES AND HORS.—In order to reply in full to enquiries made by correspondents about these crops, we propose devoting an article to each in our next issue.

WILD LANDS FOR SALE.—"T. W. L." is informed that we do not know the F. 'ty's address. An advertisement in THE CANADA FARMER would doubtless reach him.

WRITING IN A HURRY.—A correspondent sends us a letter for publication, and apologizes for it as having been "hurriedly thrown together." Justice to himself as well as his readers would suggest more deliberate, careful preparation.

GOVERNMENT LANDS.—A correspondent suggests that the author of the letter on page 79 of THE CANADA FARMER, headed "A new home wanted," may get some valuable information by writing the Commissioner of Crown Lands, Quebec, for a pamphlet containing an account and map of the public lands that are for sale.

WEIGHT VERSUS COMPACTNESS.—"A Subscriber" writes, "I am sorry to observe that our judges at the Provincial Fair generally look more at weight than compactness in the animals they examine. Every practical farmer knows that any animal with a compact form will increase in weight faster than a long-legged, flat-sided one."

TASTE OF TURNIPS IN MILK AND BUTTER.—"T. N. S." says, "Always feed the cows their turnips just after milking, and you will never be troubled with any turnipy taste in milk, butter, or cheese." Another correspondent, "X." says, "cut the turnips twenty-four hours before you feed them to the cows, and you will find it a sure remedy for the taste of turnips in butter. &c."

TABLE OF CONTENTS.—Several correspondents have suggested that a table of contents to each number of THE CANADA FARMER would be convenient for reference. In reply we would say that a large amount of valuable space would be thereby consumed, and as we intend giving a copious index at the end of the year, we have thought it comparatively needless to have one to each number.

CURE FOR BITE OF A MAD DOG.—"C. Y." of Petawawa writes to say that he has a certain cure for the bite of a mad dog, and adds, "I wish you to try this cure for the sake of humanity." As the trial of "C. Y.'s" cure implies being previously bitten by a mad dog, we must respectfully decline the experiment. We shall be glad, however, "for the sake of humanity," to publish the recipe, if it be really an efficacious one.

TURNIP FLY.—A correspondent says, "Last season, I sowed my turnips twice on new land, and like a great many others in this neighbourhood lost them by the fly. I have seen the following remedy recommended:—Soak the seed in sulphur water at the rate of one ounce of sulphur to a pint of water, which will be sufficient for three pounds of seed. I should like to know the opinion of practical farmers upon the matter."

SITUATION FOR BEES.—"B." asks, "Should bees be kept in a situation exposed to the full glare of the sun or in a rather shady corner or nook?"

ANS.—A rather shady place is to be preferred. See letter on Bee management in another column.

STOCKING FRAMES.—"J. T." enquires, "Can you inform me where I can procure Stocking Frames (for stocking and hosiery weaving) in this country? I have an idea that there were some shown at one of the late Provincial Exhibitions."

ANS.—We cannot furnish the desired information, but perhaps some of our readers can.

INSURANCE OF CATTLE.—"A. F.," of Warwick, asks, "Can you inform your numerous readers if there is any Insurance Company for insuring cattle, and upon what terms?"

ANS.—We are not aware of any Company that insures cattle exclusively, but all Insurance Companies that take risks on farm buildings and other property, insure stock, the terms being regulated by the character and situation of the buildings, &c.

"A YORNO FARMER" assures us that the figures in reference to the profits of his flock of sheep were correctly stated in our third number, and expresses his readiness to give the details. We think it would be well for him to do so.

**BEANS.** J. Ewing, of Greenbank, asks. On page 34 of THE CANADA FARMER, do you mean the small white Beans or the dwarf kind? [ANS.—Yes.] He proceeds to say, "With respect to the Bean grown in England as a field crop, I have tried it again and again. One year I got the seed direct from England, but the crop was a failure. The stalks wilted away at the top, producing little more than two pods each and those of a diminutive size."

**SKELETON FORMS.**—A correspondent suggests the preparation of skeleton forms to be published in THE CANADA FARMER, showing the particulars which require to be noted in making experiments with various crops. We think the suggestion a good one, and shall be glad to receive from him or others a draft of such forms, embracing the various points which it is desirable to have registered for general information.

**COE'S SUPERPHOSPHATE OF LIME.**—"R. W." of Euphemla, wishes to know the price of this fertilizer, how much it takes for an acre of wheat or roots, how it should be applied in both cases, and whether it will benefit spring as well as fall wheat.

**ANS.**—\$50 per ton in barrels containing about 250 lbs. each. Small quantities for experiment can be had in boxes containing 50lbs., at \$1.50 per box. From two to three hundred lbs. per acre is considered by the manufacturer a sufficient dose. Apply to wheat by sowing broadcast; to turnips and other green crops, by putting it in the drills. It is beneficial to spring as well as fall wheat.

**COMPLETE VOLUMES OF THE CANADA FARMER.**—Peter Shisler, of Stevensville, writes:—"It being my desire to have each volume of THE FARMER bound, I wish you to state through its columns whether you will have at the close of the year all the numbers of THE FARMER in reserve, and also what they will cost? Those I am receiving are read by some of my neighbours, and get soiled; therefore, I should like to procure them fresh at the close of the year."

**ANS.**—It is our intention to keep a full supply of back numbers on hand, and to preserve the stereotype plates, so as to reproduce any number that may run out. Our correspondent may, therefore, rely on being able to get the complete volume at the year's end. The price will be the same as for a year in advance—One Dollar. If bound, the cost of binding will be additional.

**"BUSINESSMAN'S BILL."**—We have at length found time to read your manuscript carefully from beginning to end; no small feat, considering that it consists of fourteen closely written foolscap pages! You have certainly brought out a great many racy, common-sense ideas by which we have been both amused and instructed; but of course you never expected we could find room for an epistle of such prodigious length. It does not appear to admit of condensation or extract-making, so that all we can do is to thank you for the trouble you have been at, and request you to send us future communications, brief, pithy, and pointed,—such as you are evidently able to produce,—and we shall be glad to insert them.

**A BOY'S QUESTIONS.**—"R. J. C.," of Cramahe, sends a couple of questions, and says, "I do not know whether you allow boys to ask questions."

**ANS.**—Certainly, we are highly pleased to have them take interest enough in farming matters to do so.

**Sore Mouth in Sheep.**—Our young friend asks "What ails a flock of sheep with sore and swollen mouths?"

**ANS.**—If he will send us a more particular account of the symptoms and appearance of the soreness, the way the sheep have been fed, &c., we will try to solve his puzzle.

**Wolf Teeth.**—Our young correspondent further enquires, "Will horses thrive that have wolf teeth?"

**ANS.**—Yes, if you give them plenty to eat; but as the wolf teeth are useless, and sometimes troublesome, it is considered better to take them out.

**NOT A SUBSOIL PLOUGH.**—We have received a reply to the question of "G. Y.," in our last, in which the party describes a plough of his manufacture, which, he says, is "a double plough; the first turns the grass or stubble into the furrow, the second plough following in the same track, will plough to any desired depth and turn the subsoil to the top, giving to the field a beautiful appearance for receiving the seed." Now, such a plough, though an exceedingly good one for ploughing old sod land, is not, properly speaking, a subsoil plough. A subsoil plough stirs the subsoil, but does not throw it to the surface. The implement described by our correspondent is a Double Michigan plough.

**GALLOWAY HERD BOOK.**—A correspondent asks, "whether the Galloway Herd Book for Canada West has been issued from the press?"—[ANS.—We find upon inquiry that a considerable number of cattle of this breed, as also of the Devon, has been entered on the Canada Register of pure bred stock kept at the office of the Board of Agriculture in this city. A good sized volume of Short-horn pedigrees will shortly be ready for the press; but we have no information that the Board have any present intention of publishing a Galloway Herd Book; the number on record, we presume, is not sufficient to call for or warrant such a step. Indeed, it is only within the last few years that any recorded pedigrees of this breed, or of Devons and Herefords, have been published in England.]

## The Canada Farmer.

TORONTO, UPPER CANADA, APRIL 1, 1864.

### The Anti-Canada Thistle Bill.

A MEASURE is now before our Provincial Parliament having in view a highly needful and most laudable object, viz: to prevent the spreading of the Canada Thistle in Upper Canada. This pernicious and troublesome weed has become so widely diffused and so deeply rooted in various parts of our Province that it may well be regarded as an evil that must be eradicated,—a nuisance that must be abated. The most serious consequences threaten some of the most valuable agricultural sections of the country, unless something effectual be done in the direction of this proposed enactment. It may perhaps be urged that self-interest, without legislative interference, will prompt the Canadian farmer to do all in his power to get rid of this weed. But as a matter of fact this incitement is not found to be potent enough. For years the mischief has been diffusing itself and very little effectual check has been interposed. From the nature of the plant in question, effective measures must, of necessity, be simultaneous. The seeds of the Canada Thistle are so light and downy that the winds readily convey them great distances. Nine-tenths of the farmers in a given locality may be vigilant and active in their eradication, but if their neighbour is negligent, they labour in vain. We have now in mind the case of a most enterprising and intelligent farmer who has fought this enemy with praiseworthy perseverance for years, but his next neighbour makes no exertions whatever. When the crop of thistles is fully ripe, and the west wind blows, the dreaded seeds come over the boundary line like a miniature snow-storm, and on an average it takes three men a fortnight annually to destroy the young plants that come from this seeding. Our lines of railway are in danger of becoming, to a large extent, seed-beds for this weed. In various localities, each side of the track is one dense mass of Canada Thistles. The value of farm property is beginning to be affected in some localities by the existence of this pest, and we know of neglected domains that are quite unsaleable because so overrun with this weed. It is manifest that the only way in which the country can be tided over

this very serious drawback to its agricultural progress, is by "a long pull, a strong pull, and a pull altogether." We cannot perceive any method by which this is to be accomplished except by legislation of some sort, and Mr. Sirten's Bill which we give entire in another column, seems to us not only a move in the right direction, but calculated if properly carried out, to go very far towards securing the desired results.

### Disastrous Fire and destruction of Buildings, Grain, and Stock.

We greatly regret to have to record the occurrence of a most serious calamity by fire which has befallen Mr. George Miller, of Markham, one of our most enterprising stock farmers. On Saturday morning, the 19th ult. about day-break, while the family were at breakfast, smoke was observed to be issuing from the horse-stable, and in a few minutes the entire building was in flames. The fire rapidly spread to the adjacent buildings, and the entire pile was quickly consumed. Along with them, melancholy to relate, a quantity of most valuable stock was destroyed. Ten horses, including "Bird Catcher," the Irish blood Stallion imported two years ago by Mr. S. Beattie, 18 head of thorough-bred cattle, 40 pure bred sheep, 12 or 15 pigs; and a number of choice fowls perished in the flames. Besides the animals lost, 700 bushels of oats, 500 bushels of barley, 360 bushels of wheat, 15 or 20 tons of hay, two reaping machines, one threshing wagon, sleigh, and a large number of valuable implements were consumed. The stock is indeed a serious loss not only to Mr. Miller, but to the country at large. It consisted almost wholly of breeding animals, and comprised some of Mr. M.'s best specimens, such indeed as cannot be easily replaced. The cash value of the property destroyed is estimated at \$12,000, on which there was only the trifling insurance of \$1,850. We understand the fire is supposed to have been caused by some of the men smoking while feeding the stock before breakfast. This calamity teaches at least three important lessons. 1. The wisdom of effecting full insurance on valuable farm property. 2. The importance of so constructing farm buildings, as to admit of ready egress of horses and cattle in case of fire. 3. The impropriety of smoking in barns and stables. We might perhaps add the value of presence of mind, of which we are told there was great lack at the fire in question. Mr. Miller himself has been on crutches for some time past in consequence of an accident, and was therefore unable to direct and aid in the extrication of his stock, or doubtless much more of it would have been saved. We sincerely sympathize with our enterprising friend, and are glad to know that notwithstanding his heavy loss, he has still a large amount of valuable stock left, and ample means to replenish it. We expect he will soon rise Phoenix-like from the ashes, in more than his former glory.

### Meeting of the Board of Agriculture.

A MEETING of the Board of Agriculture took place at the Agricultural Hall, Toronto, on Tuesday 29th ult. Present Messrs. E. W. Thomson, Hon. G. Alexander, Hon. Asa A. Burnham, Hon. D. Christie, R. L. Denison, Dr. Richmond, Professor Buckland, and J. Johnson, President of the Agricultural Association. The Secretary submitted a copy of the *Official Gazette* showing that the following gentlemen had been elected members of the Board for the ensuing term of two years, viz:—Hon. G. Alexander, E. W. Thomson, Esq., R. L. Denison, Esq., and Hon. H. Ruttan. The Board then proceeded to organize for the current year, Col. Thomson being re-elected President, and the Hon. D. Christie re-elected Vice-President. The minutes of the previous meeting were then read and confirmed, and the Secretary submitted several communications and reports, after which it was

**Resolved.**—That assistance be given to Mr. B. Walker, of St. Thomas, in his project of lecturing on

the cultivation and manufacture of Flax in the different towns and villages in the Province, to the amount of one hundred dollars, on a statement being furnished by him.

That the thanks of the Board be given to Mr. Walter Riddell of Cobourg for superior samples of seeds for the Museum, and to Mr. Denison of the Board, for his present of a Prize Durham Heifer's Head, carefully prepared and stuffed, also for the Museum.

That the Secretary be instructed to apply to the Bureau of Agriculture in reference to an appropriation for procuring Flax Seed, and that the President and Professor Buckland be appointed a Committee to take charge of the distribution of the seed if obtained.

That a Board be appointed to examine the pupils of the Veterinary School who shall have attended the lectures of that Institution for four winters and two summers, and that the following gentlemen compose such Board, viz.:—Col. Thomson, Professor Buckland, James Borell, Esq., M.D., and Mr. A. Smith, V.S.; That when a student is found duly qualified as a veterinary surgeon, he shall receive a certificate from the Board of Examiners to that effect, duly signed and sealed, which certificate shall be considered a proper qualification to practise in Upper Canada.

#### COUNCIL OF THE ASSOCIATION.

The Board then proceeded to business as Council of the Agricultural Association, the same members being present as above, with the addition of Dr. Beatty, President of the Board of Arts. Several communications and reports were submitted, amongst which was the Report of the Committee appointed to revise the Prize List for the next Provincial Exhibition, with the draft of prizes as proposed to be amended by them. In the following points the rules and list as revised by the Committee differ from those of previous years, viz. The charge for admission to the show, making a uniform rate of 25 cents each time for non members during the week, instead of 50 cents on two days as formerly; demanding proof that a brood mare has raised a foal, instead of proof that the foal has been lost, as heretofore; a new class for Angus cattle, 12 prizes; a separate class for Shropshire sheep, 6 prizes; medium woolled and fine-wooled sheep to be all for pure distinct breeds instead of practically admitting cross breeds as formerly; sheep for exhibition to be fairly shorn bare after the 1st of April, and a certificate to be produced to that effect; some changes in the class of Poultry; a revised list for fruit, recommended by the Fruit Growers' Association; a Ploughing Match during the show week with a very liberal prize list; also some changes in detail in the Arts and Manufactures Department.

The Report of the Committee was received and considered, when the following additions and amendments were made thereto, viz.: The Prince of Wales' Prize, \$60, to be given for the best portable steam engine for agricultural purposes, not less than six horse power, to be exhibited in operation on the grounds; two prizes of \$60 and \$10, for the best assortment not less than six varieties, of linen goods, manufactured in Canada from Canadian grown flax, each specimen of cloth to contain not less than twelve yards, the ploughing match to take place on Tuesday of the Show week instead of on Friday as before decided. The Prize List as amended was then adopted. In all respects except as above stated, the Prize List remains as in former years. The whole amount offered in prizes is over \$12,000.

After disposing of some routine matters the Board adjourned.

We would call the attention of Sheep breeders to the clause adopted by the Board in regard to shearing. This matter has been the occasion of considerable difficulty heretofore, and we understand the new rule will be strictly enforced.

### Mr. Sturton's Bill to Prevent the Spreading of Canada Thistles in Upper Canada.

Her Majesty, by and with the advice and consent of the Legislative Council and Assembly of Canada, enacts as follows:—

1. It shall be the duty of every owner, possessor, or occupant of land in Upper Canada, to cut, or cause to be cut down, all the Canada thistles growing thereon, so often in each and every year as shall be sufficient to prevent them going to seed; and, if any owner, possessor, or occupier of land shall knowingly suffer any Canada thistle to grow thereon, and the seed to ripen so as to cause or endanger the spread thereof, he shall, upon conviction, be liable to a fine of ten dollars for every such offence.

2. It shall be the duty of the overseers of highways in any township to see that the provisions of this Act shall be carried out within their respective highway districts, by cutting or causing to be cut all the Canada thistles growing on the highways or road allowances within their respective highway districts, and they shall give notice to the owner, possessor, or occupier of any land within said district whereon Canada thistles shall be growing and in danger of going to seed, requiring him to cause the same to be cut down within five days from the service of such notice; and in case such owner, possessor, or occupier, shall refuse or neglect to cut down the said Canada thistles, within the period aforesaid, the said overseer of highways shall enter upon the land and cause such Canada thistles to be cut down with as little damage to the growing crops as may be, and he shall not be liable to be sued in action of trespass therefor; provided that where such Canada thistles are growing upon non-resident lands, it shall not be necessary to give any notice before proceeding to cut down the same.

3. Each overseer of highways shall keep an accurate account of the expense incurred by him in carrying out the provisions of the preceding section of this Act, with respect to each parcel of land entered upon therefor and shall offer a statement of such expense, describing by its legal description the land entered upon, and verified by oath, to the owner, possessor, or occupier of such resident lands, requiring him to pay the amount: In case such owner, possessor, or occupier of such resident lands, shall refuse or neglect to pay the same within thirty days after such application, the said claim shall be presented to the Township Council of the Township in which such expense was incurred, and the said Township Council is hereby authorized and required to credit and allow such claim, and order the same to be paid from the funds for general township purposes of the township. The said overseer of highways shall also present to the said Township Council a similar statement of the expense incurred by him in carrying out the provisions of the said section upon any non-resident lands; and the said Township Council is hereby authorized and empowered to audit and allow the same in like manner.

4. The Municipal Council of the township shall cause all such sums as have been so paid from the township treasury under the provisions of this Act, to be severally levied on the lands described in the statement of the overseers of highways, and to be collected in the same manner as other township taxes are levied; and the same, when collected, shall be paid into the township treasury to reimburse the outlay therefrom aforesaid.

5. Any person who shall knowingly vend any grass or other seed among which there is any seed of the Canada thistle, shall for every such offence, upon conviction, be liable to a fine of ten dollars.

6. Every overseer of highways who shall refuse or neglect to discharge the duties imposed on him by this Act, shall be liable to a fine of twenty dollars.

7. Every offence against the provisions of this Act shall be punished, and the penalty hereby imposed for each offence shall be recovered and levied, on conviction before any Justice of the Peace; and all fines imposed shall be paid into the treasury of the township in which such conviction takes place.

GREEN CROPS OF ENGLAND FOR 1863. In our last, we gave the summing up of the *Mark Lane Express* in reference to the cereal and potato crops of England for the past year. A subsequent number of that paper contains an abstract of the remaining crops, consisting of beans, peas, turnips and mangolds. Omitting the figures, we quote the editorial remarks on the general results made apparent:—"It will be seen that whilst the beans and pease have proved a good crop, the turnips and mangolds show a large deficiency, and in many cases the mangolds under

the figures of "two-thirds under average" were almost a total failure. Indeed, in some parts of the country the farmers have abandoned the cultivation of this root, having repeatedly lost the crop, or had it so inferior as not to pay. The turnips are not quite so deficient, but, at the same time, between the two, the loss of cattle-food is very great. The graziers, therefore, will have to resort to a much greater extent than usual, to the use of artificial food or corn. Already many have been giving their cattle both wheaten and barley meal, as well as oilcake in an increased proportion. The excellent crop of inferior grain will, in this respect, prove a great relief, and in a measure make up for the deficiency in the root crops, which must be chiefly reserved by the stockmasters for their ewes and lambs in the spring.

#### Book Notices.

THE CANADIAN EMIGRANT HOUSEKEEPER'S GUIDE.—

Toronto: Lovell. By Mrs. C. P. Traill. 150 Pages. Seventh edition. Price 50 cents.

This unpretending publication is indeed a "guide," and a most useful one, not only to the class for whose benefit it was specially intended, but to every Canadian housekeeper in her city, town, or country home. To the newly-arrived emigrant, it is invaluable, answering those questions which new-comers ask so anxiously, and supplying a vast amount of needed information in small compass, and for a very trifling outlay. This book may be obtained by addressing "Publisher of Canadian Housekeeper's Guide, Toronto."

BOOKS RECEIVED.—We gratefully acknowledge having received from Charles L. Flint, Esq., the able Secretary of the Massachusetts State Board of Agriculture, copies of the following works, of which he is either author or editor:—Manual of Agriculture; Milch Cows and Dairy Farming; Grasses and Forage Plants; Insects injurious to Vegetation; and two volumes of Reports and Transactions of the Massachusetts Board of Agriculture. They are all valuable books, and we shall have pleasure in giving them a fuller notice at some future opportunity. We may add that these works came to us through Mr. James Bain, bookseller of this city, who always keeps a good supply of agricultural works in stock.

REPORT OF HAMILTON HORTICULTURAL SOCIETY.—We are in receipt of the 14th Annual Report of this Society, from which we are gratified to learn that it is in a most prosperous condition. The entries at the September Exhibition were 806, being 300 more than the entries in the Horticultural Department of the last Provincial Exhibition. It numbers two hundred and forty-three members, and its cash receipts from all sources amounted to over a thousand dollars, more than half of which was expended in premiums. The Exhibitions for 1864 will be held on the 24th of May, the 13th of July, and the 21st of September. These Societies do much towards creating and diffusing a taste for horticulture, and deserve every encouragement.

#### Officers of Agricultural Societies for 1864.

(Continued from page 42.)

DARLINGTON BRANCH AGRICULTURAL SOCIETY.—President, R. Beith; Vice-President, M. Jones; Treasurer and Secretary, R. Windatt.

COUNTY DURHAM AGRICULTURAL SOCIETY.—President, T. Tamlyn; 1st Vice-President, G. S. Shaw; 2nd Vice-President, D. Deacon; Treasurer and Secretary, R. Windatt.

COMING FAIRS.—Frankford Spring Fair will be held the first Tuesday in April. Frankford Fall Fair, the first Tuesday in October.

The half-yearly Agricultural Fair of Chatsworth Village, Garrafraxa Road, Holland, nine miles South of Owen Sound, for the exhibition and sale of Live Stock, Produce, Implements, &c., will be held on Wednesday, the 6th April next.

## Veterinary Department.

### Distemper or Strangles in Horses.

A VERY common ailment amongst horses at this season is an affection known as Distemper or Strangles. It is an eruptive fever peculiar to the horse and occurs chiefly in young animals, and at the time the coat is shedding as they are then naturally weaker. This disease is said to resemble measles in man, and shows itself by the formation of a hard knotty tumour between the angles of the jaws, which in time matures and bursts; this is the normal form of the complaint; but in many cases it assumes various irregular forms, and tumours will appear on various parts of the body, as inside the thighs, or underneath the shoulder blade. At other times it forms in some of the internal organs and in these cases generally leads to a fatal termination. Some seasons are worse than others for causing the disease to take an irregular form as for instance in the Spring of 1863, out of about forty cases of Strangles coming under our notice, one-fourth did not exhibit the usual, or so to speak, the natural symptoms of this complaint. In several of these cases the seat of the tumour was in the groin, in others on the anterior part of the shoulder and in two cases that proved fatal we found, on making a post mortem examination, tumours on various parts of the mesentery. Within the past two months we have been called upon to treat a great many cases of Distemper, and with two or three exceptions, all of them presented the usual form of this disease, differing however, considerably in the length of time betwixt the forming and the healthy maturation of the abscess.

The early symptoms of Distemper vary somewhat. In many cases we find it ushered in by colds and a watery discharge from the nostril; in other cases we observe the animal feverish and dull, appearing weak, and unable to do his work with ease, the coat looks dry and starved, the appetite is impaired, and perhaps he coughs now and then, the circulation is quickened, the mouth hot, dry and sticky, and the mucous membrane of the nose somewhat reddened. In some cases the throat becomes very tender, and the animal is unable to swallow, which is readily seen when he attempts to drink, large quantities of the water being returned through the nostrils. These symptoms occur to a certain extent in laryngitis or inflammation of the larynx, and at this stage it is often difficult to decide whether it is a case of laryngitis or likely to end in distemper, until we observe the formation of a tumour betwixt the branches of the jaw—which plainly tell us the true character of this disease.

Usually the disease is slow in its progress, in other cases the swelling enlarges quickly and is not confined to the angle of the jaw, but is spread all over the side of the head and even to the nostrils, the mouth, the tongue, and in some violent cases, the whole head appears to be involved in one mass of tumefaction. The tumour when first formed is hard but soon becomes soft and fluctuating, and finally pointing; that is a healthy abscess. At other times, the tumour gradually disappears without discharge, having become absorbed, and this generally happens when the swelling is small.

In general the treatment of distemper is simple, and in fact it is most successfully treated by simple measures. Blood-letting, purgatives, and irritant dressings are all of them highly injurious, for they tend to interfere with the natural course of the malady, and prolonging the disease, which, like other eruptive diseases, such as scarlatina and measles in man, cannot without danger to the patient, be arrested. Distemper is best treated by placing the animal in a comfortable, well-ventilated loose box, clothing the body well, and bandaging the legs with flannel, which should be removed twice a day, and the body and legs rubbed over. The animal should be allowed a liberal supply of nutritious food as boiled oats or barley, linseed, carrots, &c. If the bowels appear constipated, injections of soap and water should be given. Apply hot fomentations or poultices to the jaw to encourage the abscess to form. Poultices are better than blisters, which in many cases retard the healthy formation of the tumour. It is also useful to give small and repeated doses of diuretic medicine, as the kidneys in this disease are rather inactive. When the tumour feels soft, fluctuating and pointing, make an incision with the lancet or knife, so as to allow the matter to escape. Afterwards apply hot poultices over the wound, and allow the pus to come forth by gravitation. When there exists a discharge

from the nostrils it should be promoted by steaming, which is commonly done by means of a nose bag and hot bran. In severe cases steaming must be used with caution, as many animals are suffocated from carelessness in the operation.

If there is much debility, stimulants and tonics must be had recourse to. Give a quart of ale twice a day, or a pint of the best port wine twice or thrice a day. When recovery is taking place, the sulphate of quinine in one drachm doses twice a day is exceedingly beneficial, or some one of the compounds of Iron. When the tumefaction is great and the animal likely to be suffocated, our only chance of saving the patient is to open the windpipe and insert a tube until the swelling somewhat abates. Distemper, when neglected, or badly treated, often gives rise to roaring, whistling, &c., and also in some cases, to a disease called nasal gleet, which assumes a chronic form and is very unsatisfactory to treat.

### Paring Horses' Hoofs.

To the Editor of THE CANADA FARMER.

Sir,—I beg leave to bring before the public a difference of opinion between the rules of W. Jones, a veterinary surgeon of London, as stated in your second number, on the subject of shoeing horses, and a very excellent writer, Mr. Blaine, in a general treatise on that noble animal.

It is to the first rule by Mr. Jones that these remarks apply. Accepting as good and sound the four subsequent ones, he says:—

"After having taken off the old shoe, shorten the toe and remove all the dead and loose parts of the hoof. Do not cut the sole or pare the frog, except when the foot has received an injury from a nail or otherwise, when it must be cut out."

Mr. Blaine, when treating of the foot of the horse, has given a long and correct list of the causes of injurious contraction, and most of them are fortunately under the control of the owner of the animal. He places at the head of them neglect of paring. The hoof is continually growing, the centre is lengthening, and the sole is thickening. This is a provision for the wear and tear of the foot in an unshod state, but when the foot is protected by a shoe, and none of the horn can be worn away by coming in contact with the ground, the growth of horn continues, the hoof gets high, and the sole gets thick, and in consequence of this, the descent of the sole and the expansion of the heels are prevented, and contraction is the result. The smith might lessen, if not prevent, the evil by carefully thinning the sole and lowering the heels at each shoeing; but the first of these is a considerable labour, and the second could not be done effectually without being accompanied by the first, and therefore they are both neglected. The prejudices of many owners of horses assist in increasing the evil; they imagine that a great deal of mischief is done by cutting away the foot. Mischief may be the result of injudicious cutting when the bars are destroyed and the frog is elevated from the ground, but more evil results from the unyielding thickness of horn impairing the elastic and expansive principle of the foot.

This is not the only cause or source from which is derived serious disease of the foot. I might mention many others, but my object is not now to treat of a subject the importance of which is better suited to a professional pen, but merely to invite attention to the point at issue.

TAKE CARE.

Quebec, 29th Feb., 1864.

THE PROPER WAY TO BIT A COLT.—Farmers often put a biting harness on a colt the first thing they do to him, buckling up the biting as tight as they can draw it, make him carry his head high, and then turn him out in a lot to run half a day at a time. This is one of the worst punishments that they could inflict on a colt, and very injurious to a young horse that has been used to running in pasture with his head down. A horse should be well accustomed to the bit before you put on the biting harness, and when you first bit him you should only rein his head up to that point where he naturally holds it, let that be high or low; he will learn that he cannot lower his head, and that raising it a little will loosen the bit in his mouth. This will give him the idea of raising his head to loosen the bit, and then you can draw the bit a little tighter every time you put it on, and he will still raise his head to loosen it. By this means you will get his head and neck in the position you wish him to carry it, and give him a graceful carriage, without hurting him, making him angry, or causing his mouth to be sore.—Rarcy.



## Poultry Yard.

### Review of English Poultry for 1863.

We extract the following from the *Collage Gardener*, the organ of the English poultry keepers. "Our review of the different classes will be a laudatory one. Many have improved greatly. The least favoured have held their own as compared with last year. Certain breeds would appear always to be in favour, like some useful colours in dress, as black, some shades of brown, and slate; while others reign for a time and then suffer eclipse, like mauve, magenta, cuir, &c.

Dorkings are always looking up. They increase in size, entries, and popularity. They contribute more than any other breed to the amounts at the sale office. They are, more than any others an epitome of poultry shows. The bird that won easily ten years ago, and was unquestionably rouncy at the end of two days, has disappeared to make room for the hardier, handsomer, and heavier bird that now wins with difficulty.

Some breeds are intimately associated with names, and when their support is withdrawn the classes suffer. Spanish first learnt on Captain Hornby. They attained their apogee at the hands of Mr. Davis; they maintained it with Mr. Rake, but since he has given up they have not been so popular. We look for their revival.

The good old Cochins "keep on the even tenor of their way." Through good and bad repute they have held their own, and good birds make good prices. They are still favourites, and they deserve to be so. The Buff and the Partridge are decidedly better than the White.

Brahma Pootras are established, and maintain their right as a distinct and very valuable breed. They fill good classes and are attractive. Our own opinion remains unchanged—they are among the best fowls ever introduced.

Malays were never better than they are now; but their entries hardly justify the amount given to them in a prize list.

We have been everywhere disappointed in the entries of Creve Coeurs. There is no doubt they are a valuable importation; but the Various class must be their home until they can show in greater numbers.

Among the Pencilled Hamburgs the Golden are far in advance of the Silver. The latter want the care and knowledge of Mr. Archer. The Spangled have been very good, and the Black a great success at Birmingham.

All the Polands have exhibited pens of undeniable merit during the year. Mr. Adkins' Silvers are perfect, Mrs. Pettat's Golden, and Mr. Edwards' Black deserve the same praise; but they are not sufficiently numerous.

It is only necessary to say of the Game that they are perfect.

Bantams are still favourites, especially the Game. Their numbers throw the Sebrights into the shade. All that can be said of Aylesbury Ducks is, they have held their own. The year shows no progress. Rouens have beaten them in numbers, and they tread on their heels in weight. The Black Ducks have throughout the year been numerous, excellent, and attractive.

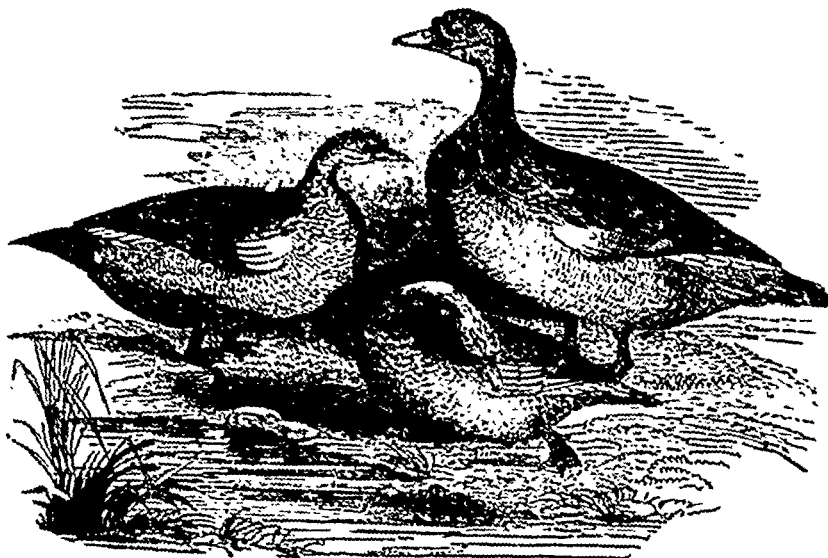
The average of Geese and Turkeys has been all out the same as former years; but individual pens have not been so heavy as they are sometimes. We have far more pleasure in chronicling a large average than a few very heavy exceptions.

Poultry shows remained popular through the year. Some die annually, some start afresh, and others spring from the ashes of their predecessors; but it is become a pursuit. Poultry sales have much increased all over the kingdom. There is everywhere a steady and good demand for average poultry. On two points we are stationary, the quality of the poultry at country markets has increased, but the quantity is still small—not sufficient for the demand in many places.

SEX IN GESE.—The goose is heavier behind and nearer to the ground, than the gander. There is a difference in voice, which may be tested by shutting them up apart, where they can hear without seeing each other.—*The Field*.

Ducks.

Ducks possess many excellent qualities, such as justify entitle them to a place of high distinction among the tenants of the poultry-yard. They are quiet and harmless in disposition, so hardy as to require but little of that care without which fowls droop and perish, while they will subsist upon almost any sort of food, and are excellent scavengers, disposing of all offal and waste in a most summary manner. A fence of ordinary height confines them by day, and an open shed is all the shelter they ask at night. Their flesh is deservedly esteemed for the table, and a given number of their eggs, is equal in culinary value, to twice the number of hen's eggs.

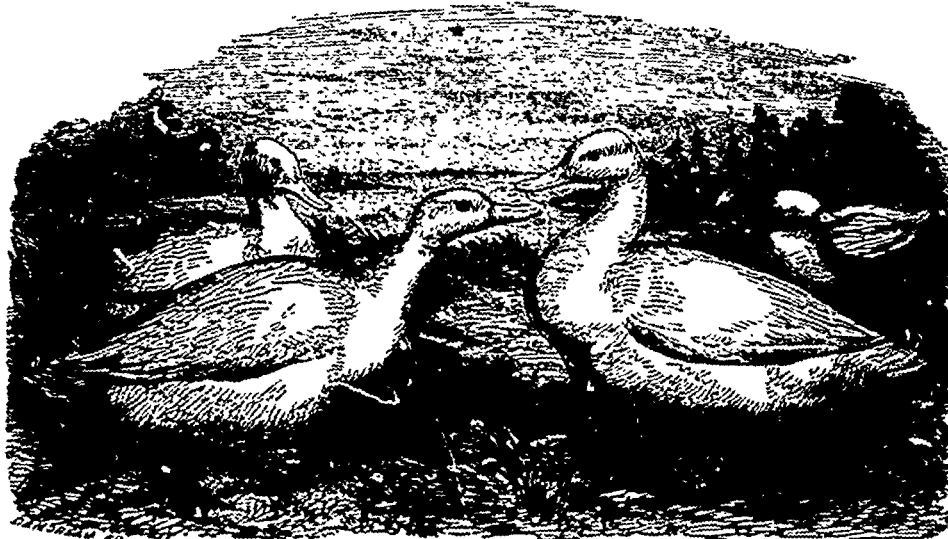


MUSCOVY DUCKS.

Naturalists count nearly a hundred species of the duck genus scattered over all parts of the world, but there is not a great variety in our domestic ducks. The following six kinds comprise all that poultry-keepers in general regard as worthy of attention. The Common, the Muscovy, the Aylesbury, the Rouen, the Crested, and the Buenos-Ayreal duck. The two last mentioned varieties are chiefly valued as ornamental birds, one would almost as soon think of cooking a gold fish for breakfast as of dooming one of them to the spit. The common duck is well enough known to need no description, and we proceed to give illustrations of the remaining three kinds just named.

We begin with what is usually known as the Muscovy duck, though its more correct name is the Musk, or Brazilian duck. It has by some strange means come to be called after a country which certainly never witnessed its existence in a wild state, it being only found wild in South America. It is called the Musk duck from the supposition that its plumage emitted the odour of musk. This species is of various colours, commonly variegated with black predominant. The male attains a much larger size than the female. The drake has on the cheeks caruncles as red as those of the turkey. They have a strange aversion to the water, seldom going near it except to drink. If thrown into a stream, they will scramble out again as quickly as possible. They lay about the same number of eggs as common ducks, and are preferable to them only for

their larger size and handsomer appearance. The Muscovy duck has considerable powers of flight; but her mate's heavier bulk is unfavourable to his accompanying her upon aerial excursions. Contrary to the usual habits of this genus, the top of a wall or the branches of a low tree are favourite resting places. Their feet are somewhat more adapted to such uses than those of other ducks. If allowed to spend the night in the hen-house, the female will generally go to roost beside the fowls, but the drake is too heavy and clumsy to admit of his doing so with ease.

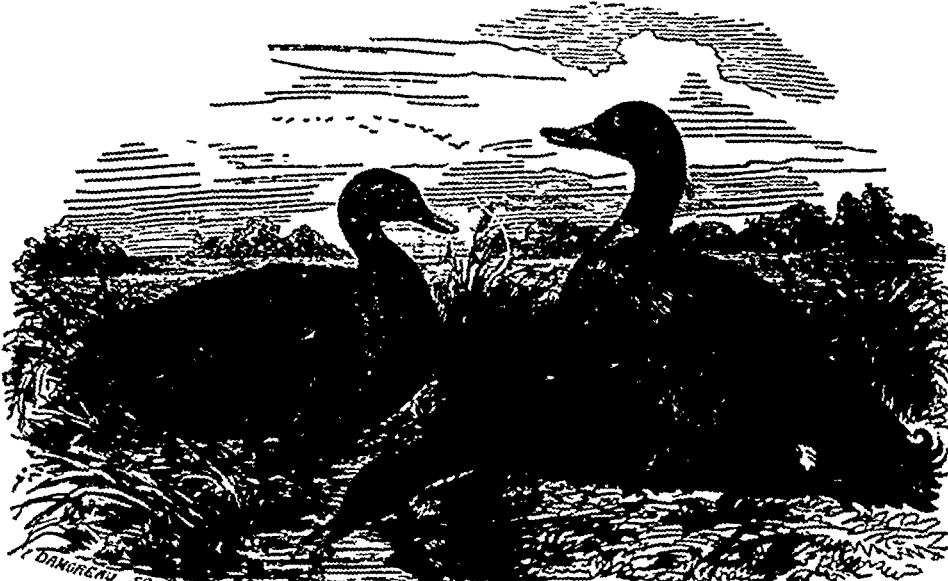


AYLESBURY DUCKS.

Travellers assert that these birds, in their wild state, perch on large trees that border rivers and marshes, that they build their nests there, and when the ducklings are hatched, the mother takes them one by one and drops them into the water.

Our second illustration is of the Aylesbury duck—a much-esteemed variety wherever it has been tested. Its plumage is snowy white, and it would be very valuable for the pure white down with which it is thickly covered, if it had no other good qualities. But it is a good layer, and a large and excellent table bird. It is thought by many breeders that the Aylesburys consume less food than the common duck. They are very quiet in their habits, and do not keep up the constant "quack, quack, quack" of the bird just mentioned. The ducks represented in our cut were drawn by our artist from life, and are portraits of birds in the possession of a gentleman who resides near this city. The specimens drawn averaged 25 lbs. each, and were in the ordinary condition in which they have been kept all winter. Fed for exhibi-

tion, it would be easy to bring them up to 25 lbs. the first-prize Aylesburys at the late poultry show in Birmingham, England, said to have been "the greatest show ever seen."



ROUEN, OR RHONE DUCKS.

The great beauty of this breed consists in its snow-white plumage,—the delicate flesh-coloured bill is also much admired. There should be no stain or blemish,—no yellow tinge anywhere on the body of the bird, and the bill should be of pure rose-colour, without spots of black or yellow. The Aylesburys are early layers,—hence their ducklings are always first in the market. The eggs are white and of excellent flavour.

Buckinghamshire, in England, has long been celebrated for the great numbers of this breed, which are reared there, many of them by the peasantry.

We next give a cut of the Rouen, or Rhone duck. This is one of the most useful and hardy varieties, somewhat larger than the Aylesburys, not very good in carriage but excellent layers,—the best layers of all the duck

tribes—easily fattened and of good flavour. Their usually dark plumage is rich, and very nearly resembles that of the original wild duck. A well-bred Rouen drake is a very fine looking bird.



### Dwarf Pear Trees.

An esteemed correspondent residing in the county of Huron inquires, "Whether is it more profitable for a farmer to plant dwarf or standard pears?" The answer to this question cannot be positive; circumstances will so modify the aspect of the question that what will be true under certain conditions would not hold good under a different state of things; and as this is a question of such general interest, in some degree affecting all who are planting pear trees, we shall devote a little space to its consideration.

There is an erroneous idea very commonly entertained by parties not as well informed upon the culture of pear trees as is B. R. S., which must be corrected at the outset. It is that the Dwarf Pear is a particular kind of pear, differing from all others, but small in tree and fruit, concerning the qualities of which very vague and often contradictory opinions prevail. Now, a Dwarf Pear tree is not a particular kind of pear. Any variety of pear may be made to become a Dwarf Pear tree. The pear is made to grow as a dwarf tree by budding or grafting the pear upon a Quince stock. The Quince does not become a large tree, and the pear scion by being grafted upon a Quince stock is thereby made to partake in some measure of the habit of growth of the Quince. The result is a tree of less size than the natural pear tree, and to distinguish it from one growing on a Pear stock, it is called, from its diminished size, a Dwarf. The size of the tree being diminished, it consequently attains its full growth in less time than a standard or one grown on a pear stock, from which it follows that it soon comes into bearing. It will be seen from this explanation that any kind of Pear may be dwarfed at the will of the cultivator, simply by taking a graft of the kind he desires to dwarf, and inserting it in a Quince stock. Theoretically, this is true, but some difficulty is found in practice, arising from the fact that some varieties of the Pear refuse to thrive when worked on the Quince. This difficulty is partially overcome by first grafting upon the Quince stock a variety of the Pear that is known to thrive well on the Quince, and after this is established, then graft upon this the other variety that will not grow when worked directly upon the Quince. This is known as *double working*, and is practiced when for some reason it is especially desirable to dwarf the unwilling variety.

With this explanation of the true character of the Dwarf Pear tree, the consideration of the question asked by our correspondent can be entered upon understandingly. In the different sections of the Province, involving difference of temperature, of soil and of exposure, it is found that certain varieties of the Pear thrive better in one locality than in another; consequently that the farmer, intending to plant, has first to make selection of those varieties that will thrive best on his farm. If, then, these varieties are such as will not thrive well when grafted on the Quince, it follows that he should plant standards; but if they are those that grow vigorously on the Quince, and are improved both in the size and flavour of fruit by dwarfing, as is the case with the Duchess d'Angouleme, Louise Bonne de Jersey, and some others, then it would be more profitable for him to plant dwarfs. Again, the object which one has in view has something to do in framing the answer to this inquiry. If it is desired to make a large collection of different sorts from which to obtain specimens of fruit as soon as possible, the dwarf tree will usually be found preferable. In short, wherever

economy of time or of ground (for Dwarf Pear trees can be planted ten feet apart each way) are very important objects, it will be more profitable to plant the dwarf tree. If the object in planting be to grow pears for market, then the whole question turns upon the varieties to be planted. If they are varieties that are improved in size and flavour of fruit by dwarfing, and at the same time vigorous and healthy when grafted on the Quince, it will certainly be more profitable to plant dwarf trees; but if the varieties are those which do not thrive well on the Quince stock, as the Bartlett, Sheldon, and some others, then it will be more profitable to plant standards.

There is another point from which some, we know, view this question, but it is one of which every farmer ought to be ashamed. They who take that view of the subject belong to the class of slipshod cultivators whose farm-yard is the highway, whose cattle-shed is the lee side of a rail fence, and who, if they plant a tree, set it as they would a fence post. With them the question really is, "Which kind of pear tree, dwarf or standard, can I plant in land which has had no preparation, and which will have no proper cultivation afterwards, and leave the trees to take care of themselves, with the most profit?" It is not the province of THE CANADA FARMER to discuss such a question. Both dwarf and standard pear trees, of varieties suited to the soil and climate, will amply repay good cultivation both will punish their owner for neglect. Without proper care, neither will be profitable; if there be any difference, the dwarf tree will show proper resentment soonest, as it also responds more promptly to generous treatment.

The result, then, seems to be this, that it is more profitable to the general planter to use both dwarf and standard pear trees, planting as dwarfs those varieties that are known to be preferable when worked on the Quince stock, as standard those which do not thrive well on the Quince, and those that are equally desirable on Pear or Quince, to plant dwarfs or standards according to circumstances.

### Grape Vine Culture.

#### PLANTING, PRUNING, AND TRAINING.

The plants should be strong, healthy, well ripened, and not less than two years old. They should be set in rows, from east to west, six or eight feet apart from row to row, and the plants from two to three feet apart in the row. Allow no other crops to occupy the ground, and cultivate thoroughly to keep down weeds.

Before planting, cut down the stem to two or three eyes. When the vines break, select the strongest, giving the preference to the one nearest the ground. Pinch off the others.

Plant in a slanting direction, about four inches under the surface, close up to the young wood of last year's growth. Set each to a stake, say four or five feet high. When the vine reaches the top of the stake, pinch in and stop all laterals back to one point, continuing so up to middle of August. If the plant grows very luxuriantly, the laterals may be allowed to extend to two joints, leaving one new leaf on each joint each time. After middle of August, it may be allowed to grow without further care. When the leaves fall, cut down every other cane, or every other row of canes, as may be determined upon, to within two eyes of the ground. Cut back the canes intended to be fruited next year to the top of the stake or trellis, and cut off all the laterals to within an inch of the main stem.

For trellis or vineyards, we recommend cedar posts of good size, six feet high, ten or twelve feet apart, with wires run lengthwise the rows, six or eight inches apart. No. 12 wire will be sufficient.

It is very useful to lay down even the very hardest vines in the fall, and cover with an inch or so of soil, according to the plan pursued with raspberry vines. Mulch with manure or compost.

#### PRUNING.

In the spring, when the buds begin to start on the fruit trees, uncover the fruiting canes. Sling them

horizontally on the lowest wire till the shoots have made a growth of two inches, then tie up perpendicular. When the fruit buds begin to form—there being generally two together,—select the strongest pricking off the other and stop the lateral, or branch two joints from the bunch. Stop all other laterals, leaving one new leaf every time till the fruit takes its second swelling; then allow the foliage to grow without further check.

Vines may also be grown in this way, tied to stakes or upon arbours, and be allowed to extend 16 or 18 feet, so as to cover the whole with foliage, with nearly as good results.

#### SORTS OF VINES.

The sorts of vines we would recommend planting are very limited. Get the best two year old and well ripened. Plant carefully. If well done, it matters but little whether the planting be done in the spring or the fall.

#### ISABELLA.

This is more generally known than any other variety. Colour purplish black, covered with blue bloom. Flesh tender and sweet. The vines are hardy and productive. Ripens from 1st to 15th Oct.

#### CATAWBA.

The celebrated wine grape of the Western States. Large bunches somewhat loose berries. When ripe, deep purplish red, flesh juicy and sweet. Matures from 15th to 20th Oct., 10 days later than the Isabella.

#### CLINTON.

This is a vigorous, exceedingly hardy, and productive variety. Bunches medium size, very compact, berries small to medium; colour black, flesh rather acid, with an exceedingly brisk and sprightly flavour. Ripens middle to end of September—two weeks earlier than the Isabella.

#### DELAWARE.

This is exceedingly hardy, early, and very productive; perhaps the very best of all the hardy American varieties. It is very delicate, sweet, sprightly, and of high vinous flavour. It has been known to stand the severest Northern winters, beside which the Isabella and Catawba were killed out. Ripe fully three weeks earlier than the Isabella.

#### CONCORD.

Bunches and berries very large, almost black, thickly covered with beautiful bloom; very hardy, second only to Delaware, and exceedingly vigorous and productive. Much less liable to mildew than either the Isabella or the Catawba. Similar in quality to the Isabella, but ripens two weeks earlier.

#### DIANA.

Bunches large, berries similar to the Catawba, reddish colour. The fruit is very fine, rich, juicy, vinous, and aromatic, second only to Delaware. More vigorous than either the Isabella or Catawba, and ripens a week or ten days earlier.

#### HARTFORD PROLIFIC.

Bunches large and compact, berries large round, skin thick and black, very juicy and sweet; an exceedingly hardy and productive variety. Ripens two weeks before the Isabella. A very valuable variety for Canada.

#### HERBEMONT.

Bunches very large and compact, berries large round, violet blue, flesh sweet, sprightly and aromatic. It is of great vigour, excelling any other native variety in this respect. Rather tender in Canada, and requires good protection in winter. Ripens end of September.

#### UNION VILLAGE.

Bunches and berries very large. An unusually rapid grower, but somewhat tender, and requires good winter protection.

#### REBECCA.

A pale green grape. Bunches compact, medium size; the flesh juicy, sweet, and delicious. Grows freely, but rather slender. Ripens ten days earlier than the Isabella.

A few observations on grape culture in general, and select varieties for culture under glass, must form the subject of another article. We have already more than exhausted the space we intended to occupy.

Woburn.

W. S.

**A HOT BED IN THE KITCHEN.**—A peck measure, an old box or earthen pot, may be filled with proper soil, and tomatoes, lettuce, radishes, cabbages and other edibles, started successfully without the cost of anything but a little pleasant care; and the pleasure of seeing them burst into life and grow, will repay all this, to say nothing of the fun of eating them. Will the women see that this is done?

## Hardy Ornamental Shrubs.

To the Editor of THE CANADA FARMER.

SIR,—As the season for planting is fast approaching, perhaps the following remarks will not prove unacceptable to your many readers. Many of the shrubs sent out by the nurserymen are entirely too tender for the climate of Canada, but being easy of propagation, they are put forward as being all that is desirable.

The following list consists of really useful articles, all of which may be depended upon for ornamentation, either in the shrubbery, the border, or the lawn:—

*Wiegelia Rosea*.—This is a native of Japan, and is one of the handsomest and hardiest shrubs known—a free, vigorous grower, and very neat in its style. The flowers vary from whitish to dark pink, and are very freely produced. When in full blossom, it is a striking and beautiful object. Should be planted universally.

*Pyrus Japonica*.—Japan Quince, another Japanese, but totally different in every respect to the preceding one, being a low prostrate grower; but, withal, stout and very hardy. The wood is furnished with long thorns, and were it not difficult to propagate it, would make a good hedge plant where height was not desirable. Its bright scarlet flowers are produced early in spring, and are sure to attract attention. Should be much more widely planted than it now is. No garden or lawn is complete without one.

*Deutzia Scabra*.—Rough-leaved Deutzia, a fine erect growing and very useful shrub, not half as well known as it should be. It produces numerous spikes or racemes of white flowers, nearly resembling orange blossoms, and ought to be a favourite.

*Spiraea Lanceolata*.—Lance-leaved Spiraea, a most charming and graceful shrub, and one that should be in every garden. It is hardy and vigorous, although a slender grower; in its outline, elegant and airy, and a striking contrast in habit and growth to the one above mentioned. It produces a profusion of white blossoms, born in panicles, early in the season, and wherever known is always a favourite. There is a double variety of this species—*Spiraea Lanceolata*, fl. pl.—which deserves special attention for its great beauty and the profusion of its flowers.

*Spiraea Colossa*.—Another beautiful Chinese shrub, introduced by Mr. Fortune, and one of the most charming of this extensive genus. It is perfectly hardy, and flowers later in the season than any of those previously mentioned. The blossoms are borne in large corymbs, and are of a dark rose colour; altogether, a very showy and desirable plant. It has become a great favourite in England, and is considered by some the handsomest of all shrubs. Should be in every collection.

*Spiraea Sorbifolia*.—Mountain Ash-leaved Spiraea—Very distinct from either of the two last above-mentioned, although belonging to the same genus, its white, feathery inflorescence being very graceful, although the plant itself has a somewhat uncouth habit of growth. Its principal fault is the tendency it has to throw up suckers; nevertheless, being a hardy, useful plant, it should not be neglected.

I do not mean to say that the above list comprises all the hardy shrubs we now possess, but it will be found to contain the cream of the collection, and all the varieties mentioned may be relied upon, both for hardiness, beauty and utility. If it would prove acceptable to your readers, I shall be glad to give a short list of some of the half-hardy or tender sorts, and which, if care be taken of them, are very useful and ornamental.

W. T. G.

## Planting Apple Trees.

To the Editor of THE CANADA FARMER.

SIR,—In perusing your second number I see new ideas on planting apple trees, to which it would be well to draw the attention of the public. It is wise to guard against planting too deep which is ruinous sooner or later to the tree. Shallow planting to the inexperienced would be a dangerous operation, depending on a small mound of loose earth around the tree. It is well known that the frost and winds have some action on a newly planted tree, which if not guarded against would have a tendency to lift them before they became established. By digging a hole large enough to take the roots in without crowding, placing the tree an inch or two lower than it was grown, and filling in with surface soil until the hole is filled up quite rounding to allow for its setting,

and with a slight mulching of some litter, you may expect the trees to stand the droughts of Canada.

Planting only eighteen feet apart may look very well at the end of five years, but where will they be in ten years if they grow as they should grow with horizontal branches and only nine feet space each way? How is the atmosphere to have an influence on the soil so densely shaded as it must be. It is well known that apple trees will not flourish in this climate with the branches entangled one with another, and to take a natural course they will in twenty years have the appearance of a natural forest with dead side branches, and their only fruit or foliage on the top, being the only branches exposed to the sun. Shelter is very important, but to plant apple trees for shelter and to go in with the axe when they become too thick, it would make it a difficult matter to decide which should be the victims, after bearing their gold in fruit for many years. A forest tree in open ground, the beech or butternut for instance, will bear four times as much as it will in close woodland. The largest apple trees that I have seen were growing where they had plenty of space to stretch out their branches and form a round top, which gives the greatest surface possible. I have measured apple trees with trunks six and seven feet in circumference, but to attain this size it is not expected to get three bushels per tree five years from planting. It would be better to let a tree have its own natural time to come into bearing, some sooner and some later. Early bearing kinds do not attain such large size as those that form a top before they commence bearing. Before planting an orchard it would be well to weigh these matters, when once planted it is done for a lifetime, and not easy to be altered or improved.

Cobourg.

B. L.

NOTE BY ED. CANADA FARMER.—Will our correspondent please explain why he would plant the tree deeper than it stood in the nursery?

## Queries about Grape Culture.

To the Editor of THE CANADA FARMER.

SIR, Having read an interesting article in the last number of THE FARMER on the "culture of the grape vine," by W. S. of Woburn, I would esteem it a favour to be informed by your correspondent, through the same medium, of a few particulars regarding his "single short-cane principle":—

1st.—What distance apart should the vines be planted, so as to have no waste space on the trellis or walls, and yet sufficient?

2nd.—To about what length should the "short cane" be pruned?

3rd.—What length should the "very short lateral branches" be left, or how many buds or bunches of fruit should be allowed to each?

4th.—What five or six varieties would he recommend as the earliest and best for open-air culture in this country, taking into consideration the fact that many parts of Western Canada are not as favourable for the ripening of the fruit as that of Woburn?

Lindsay, 24th March, 1864.

J. K.

NOTE BY ED. C. F.—Our correspondent will find these questions answered in the communication by "W. S." headed "Grape Vine Culture," in the present number.

THE WAY THEY MAKE HOT-BEDS IN GERMANY.—Take white cotton cloth of a close texture, stretch and nail it on frames of any size you wish; take 2 oz. lime water, 4 oz. linseed oil, 1 oz. white of eggs, 2 oz. yolk of eggs; mix the oil and lime with very gentle heat, beat the eggs well separate, mix them with the former; spread the mixture with a paint-brush over the surface of the cotton, allowing each coat to dry before another is put on, until they become waterproof. The following are advantages this shade possesses over the glass one: First—The cost is hardly one-fourth. Second—Repairs are easily made. Third—they are light; they do not require watering, no matter how intense the heat of the sun. The plants are not struck down or burnt, faded, or checked in growth; neither do they grow up so long, sickly and weakly as they do under glass; and yet there is abundance of light. Fourth—The heat arising entirely from below is more equable and temperate, which is a great object. The vapour arising from manure and earth is condensed by the cool air passing over the shade, and stands in drops on the inside; and therefore the plants do not require as frequent watering. If the frames are large, they should be intersected by cross-bars about a foot square, to support the cloth. These articles are just the thing for bringing forward seeds in season for transplanting.—*Scientific American*



## The Household.

### Children's Feet.

LIFE long discomfort, disease, and death often come to children through the inattention, or carelessness of the parents. A child should never be allowed to go to sleep with cold feet; the thing to be last attended to, in putting a child to bed, should be to see that the feet are dry and warm; neglect of this has often resulted in a dangerous attack of croup, diphtheria, or fatal sore throat.

Always, on coming from school, on entering the house from a visit or errand in rainy, muddy, or thawing weather, the child's shoes should be removed, and the mother should herself ascertain if the stockings are the least damp, and if so, should require them to be taken off, the feet held before the fire and rubbed with the hand until perfectly dry, and another pair of stockings be put on and another pair of shoes, while the other stockings and shoes should be placed where they can be well dried, so as to be ready for future use at a moment's notice.

There are children not ten years of age suffering with corns from their too close-fitting shoes, by the parent having been tempted to "take" them because a few cents were deducted from the price, while the child's foot is constantly growing. A shoe large enough with thin stockings is too small on the approach of cold weather and thicker hose, but the consideration that they are only half worn is sufficient sometimes to require them to be worn, with the result of a corn, which is to be more or less of a trouble for fifty years, perhaps; and all this to save the price of a pair of half-worn shoes! No child should be fitted with shoes without putting on two pairs of thick woolen stockings, and the shoes should go on moderately easy even over these. Have broad heels, and less than half an inch in thickness.

Tight shoes inevitably arrest the circulation of the blood and nervous influences through the feet, and directly tend to cause cold feet; and health with habitually cold feet is an impossibility.—*Dr. Hall's Journal of Health.*

BLACKING FOR STOVES.—Mix the lustre with the white of an egg; have your stove cold, apply with a brush, rub till perfectly dry, and you will have a lustre nearly equal to that of a new stove.

FROSTED FEET.—Raw cotton and castor oil are said to be an infallible remedy for frozen limbs, and to have effected a cure when amputation was thought to be necessary to save life.

TO DESTROY BED BUGS.—These troublesome creatures can be effectually removed by occasionally applying a small quantity of turpentine, by means of a feather, to all parts of the bedstead usually infested by them.

USEFUL HINTS.—Never enter a sick room in a state of perspiration, as the moment you become cool your pores absorb. Do not approach contagious diseases with an empty stomach; nor sit between the sick and the fire, because the heat attracts the thin vapour.

A NOVEL CURE.—It is said a poultice of onions, tobacco and salt, mixed in equal parts, bound tightly upon the part afflicted, is effectual in curing the bite of a rattlesnake or mad dog. It is worth remembering, as it may do good, and cannot do harm.

DOMESTIC SWEATERS.—It is a singular fact that many ladies, who know how to preserve everything else can't preserve their tempers. Yet it may easily be done on the self-sealing principle. It is only to "keep the mouth of the vessel tightly closed!"

QUICK ANTIDOTES.—If any poison is swallowed, drink instantly half a glass of cool water with a heaping teaspoonful each of common salt and ground mustard stirred into it; this vomits as soon as it reaches the stomach, but for fear some of the poison may still remain, swallow the white of one or two raw eggs, or drink a cup of strong coffee, these two being antidotes for a greater number of poisons than any other article known, with the advantage their being always at hand, if not, a half pint of sweet oil, or "drippings," or melted butter or lard, are good substitutes, especially if they vomit quickly.





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I HAVE a large stock of fine Trees suitable for spring planting, of sorts recommended by the "Fruit Growers' Society of Upper Canada" as best adapted to this climate—the wood well ripened, firm and thrifty. Apples, standard and dwarf; Pears do. do.; Peaches on plum roots; Apricots and Nectarines do.; Cherries, Plums, and Siberian Crabs; Quinces, Grapes, and all the small fruits; Rhubarb, Asparagus, &c., of best kinds. Also, Ornamental Trees, (including beautiful Evergreens from 2 to 8 feet high.) Shrubs, Roses, Climbing Plants, Chinese Peonies, Phloxes, &c.

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GEO. F. BURROWS,  
Dundas, C.W.

April 1, 1864. 6-1t

**SPRING PLANTING.**

TORONTO NURSERIES.

AS the season for planting is approaching, the proprietor of the Toronto Nurseries would call attention to the excellent stock which he has to dispose of this spring. It consists largely of the following:—Standard and Dwarf Apples, Pears, Plums, Cherries, Peaches, Hardy and Foreign Grapes, Currants, Gooseberries, Strawberries, Esculent Roots, &c.

In the Ornamental department will be found Deciduous and Evergreen Trees, Flowering Shrubs, Roses, Herbaceous Flowering Plants, &c. Especial attention is invited to the following articles, the stock of which is particularly large:—Grape Vines, comprising all the new and hardy kinds; Roses—Hybrid Perpetual, in very great variety and quantity; Hedge Plants, viz., Buckthorn, Berberry, White Cedar, and Privet. The demand for Hedge Plants is steadily increasing,—that for Buckthorn more especially, which is beyond doubt the best plant grown for fencing purposes. Specimen Hedges to be seen at the Nurseries.

Parties near town about to plant are invited to inspect the stock on the ground. Descriptive catalogues furnished upon the receipt of two cent stamps.

Address—  
GEORGE LESLIE,  
Leslie P.O., near Toronto.

April 1, 1864. 6-3t

**SHORT-HORN BULLS.**

MR. CHRISTIE has for sale the following very superior pure Short-horn Bulls:—

Eric, 4788—A. H. B.; calved April 23rd, 1861. Eric took the second prize at the Provincial Show at London, 1861.

General Grant, 4826—A. H. B.; calved April 12th, 1862. General Grant took the first prize at the Co. Brant Show, in 1863.

Warden, 5250—A. H. B.; calved Jan. 28th, 1863. The Plains, Brantford, C.W., }  
April 1, 1864. 6-2t

**SHORT-HORNS.**

I OFFER for sale the Bull *Hotspur*, 4030, A. H. B., rich roan, calved May 15, 1860; got by *Duke of Gloster*, (11382) out of the imported cow *Daphne*, by *Harold* (10299). *Hotspur* is one of the best living bulls of the get of the famous *Duke of Gloster*; has been a successful show bull at the New York State Fairs, is in high health, vigour and condition; a very strong and sure getter, and very gentle. His portrait is in sixth volume of the American Herd Book. Also, three Yearling Bulls and five Bull Calves (all but one got by *Hotspur*), of fine promise and good pedigrees. Also, a few Heifers.

Catalogues will be sent on application.

T. L. HARISON,

Morley, St. Lawrence Co., New York.

April 1, 1864. 6-1t

**COE'S**

**SUPER-PHOSPHATE OF LIME.**

MR. COE has received the following letter from the Rev. Mr. Papineau, of Bishop's Palace, Montreal:—

MONTREAL, March 2nd, 1864.

SIR,—Having been appointed Superintendent last spring of the garden attached to the Bishop's Palace, Montreal, I applied to our esteemed seedsman, Mr. Evans, for a few pounds of Coe's Super-Phosphate of Lime, in order to judge personally of its fertilizing effects as a manure, and to satisfy myself whether it really deserved the high reputation in which it was commonly held. [I generally distrust the reliability of widely-advertised articles.] But now, sir, I deem it my duty to assure you that the success of the Super-Phosphate greatly exceeded my anticipations, and that I believe it to be superior even to its reputation. I planted a piece of very dry, hard and barren land with potatoes and Indian corn, manuring a portion with stable compost, another portion with common kitchen salt, and the remainder with Super-Phosphate of Lime. The crop gathered from the plot manured with this latter substance was far more abundant, and was taken out of the ground fully ten days earlier than the crops manured with compost and salt. I have used the Super-Phosphate with equal success on onions, cabbages, beans and peas. The Super-Phosphate of lime, in my opinion, is one of the most powerful and economical fertilizers known for the cultivation of gardens. It does not force all sorts of noxious weeds into existence like stable manure, but, on the contrary, imparts rapidity of growth and vigor to the useful herbs. I cannot recommend it too highly to gardeners and others, convinced, as I am, that they will be well pleased with it.

Allow me to thank you, sir, for the powerful fertilizer you sent me, and believe to be, sir,

Your very humble servant,

T. V. PAPINEAU, Priest.

April 1, 1864. 6-1t

**LANDS FOR SALE.**

TWENTY THOUSAND ACRES OF LAND, both wild and improved, and at all prices, for sale in various townships throughout Upper Canada, cheap and on easy terms.

For lists and particulars, apply to the proprietor.

T. D. LEDYARD, *Barrister, &c.*  
South-west cor. of King and Yonge-sts., Toronto.  
Toronto, March 15, 1864. 6-4t

**FARM FOR SALE,**

LOT No. 19, in the 16th Concession, Township of Mersea, County of Essex, containing 100 Acres, 60 Acres cleared and under good fence, good Dwelling House, with other suitable buildings, and good bearing Orchard.

Price, \$1,600—\$600 down and the balance in four equal annual instalments. Title indisputable.

Address  
ROBERT ELLISON,  
Mersea P. O., Co. of Essex.

March 1, 1864. 4-4t

**FOR SALE,**

THE SYKES' RATTLER, a three-year-old Roadster Stallion, by "Shales Rattler," imported, dam by "Sir Tatton Sykes," colour jet black, height 15 hands, beautifully formed, and perfectly docile. Besides local prizes, he took first prize as a two-year-old Roadster the last Provincial Fair at Kingston; can be seen at subscriber's residence.

For further particulars, apply to the owner,

SAMUEL HATTON,  
Port Hope, March 1, 1864. 4-3t

**THOROUGHbred STOCK FOR SALE.**—I have for sale Six Durham and Four Galloway Bulls, from 9 to 23 months old, and a few Females of the above Breeds. Cotswold and Leicester Sheep, male and female.

JOHN SNELL,  
Edmonton, C. W.

1-tf

**PEACH BLOW POTATOES.**

250 BUSHELS PURE PEACH-BLOW POTATOES for sale, at \$1.00 per bushel, by

JAMES R. IRELAND,

Aldershot F. O., C. W.

5-2t

**FLOWER SEEDS,**

JUST imported, including many novelties. Twenty packets, free by mail, for One Dollar. Warranted fresh and genuine. Parcels up to 1 pound in weight can be sent by post for 25 cents. Send for a list.

W. T. GOLDSMITH,  
St. Catharines, C. W.

March 15, 1864. 5-4t

**FARMER & GARDENER WANTED.**

FARMER must be a good ploughman, and understand the management of green crops. Gardener must understand the management of a Market Garden. Must be single men. References required.

Address (post-paid) Box 316, Post Office, Kingston.  
March 15, 1864. 5-2t

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Address "ENGLISHMAN," at the office of THE CANADA FARMER, immediately.

Toronto, March 15, 1864, 5-2t\*

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