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THE CANADA FARMER

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The Field.

Familiar Talks on Agricultural Principles.

MISCELLANEOUS FERTILIZERS

After four "Talks" on the subject of manures, our readers will begin to think it time to change the topic of conversation. Before doing so, however, a brief reference must be made to some fertilizers not yet named. Nature is bounteous in providing sources of enrichment to the soil. If one description of fertilizer cannot conveniently be had, there are usually others within reach, so that there is no need to let land become impoverished..

Guano is a very rich and valuable manure. It consists of the droppings of sea-fowls, and is found on certain uninhabited islands on the coasts of Peru and Africa, where it has been accumulating in a dry climate, for an unknown length of time. It contains in large proportion, and in a highly concentrated form, nitrogen and the phosphates, those rare and expensive elements of plant food. It varies in quality, but good guano is a very powerful fertilizer. From two to four hundred weight per acre on most soils will suffice for a crop of turnips and a succeeding grain crop. It is however better to apply it as an adjunct to farm-yard manure, in half the quantity just mentioned, because although it is rich in the rarer and more concentrated material of plant food, it does not contain much of the commoner organic substances necessary to make a soil fertile. This fertilizer has been too scarce and dear in Canada to be much used, but as our readers will have observed, Messrs. S C. D. Clark & Co., of this city, lately advertised in our columns, that they would import a cargo direct from the Chinicha Islands, provided orders for 300 tons could be obtained, and would furnish it at $50 per ton. At this price, we do not know of a better investment that the farmers of this country could make, especially those whose lands are worn out by successive grain crops. For such soils, there is no better restorative than guano,—and none that acts more quickly. An artificial guano is made in Newfoundland and Maine, from fish refuse, of which Prof. Dawson speaks in high terms as one of the richest of portable manures.

Wood Ashes, unleached, are a very valuable manure, and may be applied with any crop. They must however be used sparingly, as in addition to their fertilizing properties, they exert a caustic or decomposing influence on organic manures and the roots of plants. Fifty bushels per acre for heavy soils, and a less quantity for lighter soils, will suffice. Wood ashes are especially valuable as a manure for what are called he potash plants, viz. potatoes, turnips, Indian corn, and beets. This is in consequence of the great amount of carbonate and other salts of potash which they contain. Many farmers are in the habit of selling their fallow and house ashes to ashery pedlars, or even of teaming them to the nearest ashery for sale themselves. This is poor economy. They are worth more for manurial purposes than the soap and potash manufacturer can afford to pay for them. Let these establishments be left to obtain their supplies from town and city households. On no account should a farmer ever sell a bushel. At present rates, it would be wise policy to buy a supply of them to spread on the land. Leached ashes, though of less value than unleached, are still of great utility, consisting largely of carbonate and phosphate of lime.

Soot is a precious manure, being made up of carbon, in a state of the finest powder, and also full of volatile salts. In Flanders, it is carefully preserved for beds of colza, which it protects from plant lice. In England, the sweepings of town and city chimneys, are husbanded and scattered upon meadows with the best effect. The soot from bituminous coal is even better than that from wood.

Hair and hoofs, are excellent manures, and may often be obtained simply for the hauling, from adjacent tanneries. They decay slowly, nevertheless an application of from 20 to 30 bushels per acre, produces marked effects.

Sea weed is a fertilizer of great value, and easily obtainable by farmers who live on the sea-coast. It is however beyond the reach of most of our readers.

Land Weeds are useful too, especially those rank roadside weeds, which, left to mature their seed, are a constant source of annoyance to adjacent farms. Their removal would give a neater appearance to the country, as well as increase the manure-heap and prevent the multiplication of weeds.

Dead Animals rank among the very best manures. The practice of dragging off a dead horse or cow to the edge of the woods, and leaving it there to decay and fill the air with pestilential odours, cannot be too severely condemned. It is wilful waste, as well as the creation of an execrable nuisance. The best way to dispose of the carcass of a dead animal is to place it in a hole one or two feet deep, sprinkle plenty of quick-lime upon it, then throw on a layer of earth, next a layer of gypsum, then again a layer of earth mixed with powdered copperas, and over all a good thickness of earth. The gypsum and copperas absorb the ammonia and sulphuretted hydrogen, and prevent all unpleasant effluvia. In a few weeks, the heap may be opened, the bones separated to be used in bone manure, and the remaining mass turned over and mixed, if necessary with additional earth. Dana in his "Muck Manual" affirms that the body of a dead horse can convert twenty tons of peat into a morrich and lasting fertilizer than stable manure.

Lime is an important manurial agent, chiefly in consequence of its promoting the decay of vegetable matter, and setting at liberty the potash and other alkalies in the soil. It should be used most freely on heavy soils containing considerable vegetable matter. On light soils, it must be used sparingly. The necessity for applying it may be ascertained by the simple experiment of trying whether clover and such of the green crops as require much lime will thrive on a particular soil. If they will not, lime is needed. Lime tends to mellow clay land, and corrects the acidity of soils, particularly that of bogs and swamps.

Marl is a mixture of lime and clay, which produces all the permanent effects of lime, though it acts less quickly. The geological survey has discovered the existence of this substance in many parts of Canada. It should be made use of wherever accessible, and applied, clayey marl to sandy soils, and sandy marl to clayey soils.

Gypsum or *Plaster of Paris* is useful as a supply of sulphate of lime to crops, affording not only lime but a proportion of sulphur, often an important and essential element of plant-food. It is valuable also as a means of fixing carbonate of ammonia, one of the most volatile products of the decay of animal substances. By converting it into sulphate of ammonia its waste is prevented. Plaster should be applied in the shape of very fine powder, in the spring of the year just when vegetation is beginning, while the dew is on the plants. It must not however, be applied in rainy weather.

Green Manures are standing crops ploughed in at the stage of ripeness, when they contain the greatest quantity of soluble matter. Clover, lucerne, sainfoin, vetches, cabbages, radishes, turnip-tops, Indian corn, and rye, are the best plants for this purpose. Deriving a large proportion of their nourishment from the atmosphere, they add considerably to the fertility of the soils into which they are ploughed.

There are various artificial fertilizers of which there is not now space to speak particularly. In concluding this important subject, we would quote with entire approval, a piece of advice we have met with somewhere, to the effect that a farmer should never run in debt, but if he ever does contract a debt, it should by all means be for MANURE.

Harvesting Wheat.

THE advent of harvest induces us to offer a few observations on the best methods of conducting its operations, and first, with regard to the degree of maturity in which wheat ought to be cut in order to produce the best sample, and to avoid the most loss. It may be laid down as a rule, that as soon as the grain has passed from the milky state, which may be ascertained by squeezing it between the finger and thumb, it may safely be cut, and any further maturity it requires will be accomplished quite as effectually on the shock. The rationale of this is, that wheat *dies upwards*, that is, it begins to die first at the root, and from that time it receives no nourishment from the soil; but what sap it still contains continues to

rise to the ear; and this process is not stopped by cutting. If wheat stands until it is dead-ripe it gets thicker in the bran and rougher outside, and will acquire a great weight as well as measure if it could be all assured; but wheat when dead-ripe will shell both in cutting and removing, and the loss is probably as great in that way as the gain would be otherwise. On the other hand, the early cut grain has a fine, thin, glossy skin, weighs heavy in the bushel, and ought to fetch several shillings per quarter more than the dead-ripe corn, because it produces more flour in proportion to its weight by 7 or 8 per cent., and the quality of the flour is very superior.

In the next place, if there is any reason to apprehend a fickle or wet harvest, the best way of preserving the wheat from taking harm is the adoption of the French practice of tying a sufficient number of sheaves near the base, and then opening and placing them head downwards over the shocks. If this is done cleverly, whatever rain falls will run down the sides of the outer sheaves, or *moyettes*, as they are called in France, where this plan is almost universally adopted. The wheat-harvest in that country last year was very wet, but wherever the *moyettes* were used the grain was harvested in a perfectly dry and sound state, whilst where it was neglected considerable damage was sustained. It is surprising that the custom has not been more generally adopted in this country. We have seen, with deep regret, wheat standing on the shock in a wet time, week after week, without the slightest precaution being taken to guard against the weather, in consequence of which the grain has in some cases been sprouted to that degree as to give the shocks quite a green appearance.

In the third place, the proper time to cart wheat so as to avoid its heating is when the knots or joints of the straw yield no moisture when pressed with the thumb nail If they do, it is a proof there is sufficient moisture in the straw still to cause it to heat on the stack, which will seriously injure the sale of the grain. Some farmers, in a "catchy time," pay little attention to this proof, under the idea that a little heating in the stack is better than having it sprouted on the shock—which is true enough; but the wisest plan will be to avoid both, by using the *moyette*, and availing yourself at leasure of the first fine day after the wheat is properly weathered, to cart it.—*Mark Lane Express.*

How to Set a Bar Post.

"ANY fool can do that," said neighbor Tucker, as I got the hole dug out to plant mine for the fifth time. "Just chuck your post into that 'ere hole, and pound the dirt in well, and it will stay till it rots. Dirt packs a great deal solider than stone," said Tucker by way of a clincher.

'Not so fast, neighbour Tucker." said I "There is gumption needed in setting a bar post as much as in setting a hen. I used to do it in your way until I found out a better. You see if you pack the dirt in solid there is no chance for the water to run off quick, and the soundest wood will rot off just below the surface of the ground in a very short time I have had 'em spoiled in three years so that I had to put in the other end. That bar post has been in service at least 35 years, and if you examine the wood, you will see it is about as sound where it has been under ground as it is above.

"I dig a good sized hole to begin with, and then put in a good sound post of chestnut or white oak stripped of the bark. The butt should be at least eighteen inches below the lower hole in order to hold well. I pack in around the post stones of any convenient size, and pound them in snug with a crowbar This leaves room for the air to circulate all round the bottom part of the post, and it is kept about as dry as if it were above ground. A post set in this way is good for an ordinary life time. I have some posts of forty years standing, and they are good yet. The frost of course will move the stones, and they will need resetting occasionally, but no oftener than those packed in dirt."

"How much, do you suppose, you have saved by that operation," asked Tucker with a sneer.

"No contemptible sum," said I, as you can easily calculate. Bar posts set in dirt will last say five years; in stone forty. If they are worth $2 a pair I save seven pairs in forty years, or fourteen dollars, not counting the interest for every bar way I have forty on my farm, quite too many I admit, but that makes a saving of $560, which is worth looking at."

It is by attention to small things that the farmer makes his money and his fortune A penny saved is as good as a penny earned.

CONNECTICUT *in American Agriculturist.*

The Agriculture of the South of France.

THESE lands were, it may be, as richly and carefully tilled in the days of Augustus Cæsar as they are now; or rather, as they were at the end of the eighteenth century. For since then, the delver and sower—for centuries the slave of the Roman, and, for centuries after, the slave of Teutonic and Saracenic conquerors—has become his own master and his own landlord; and an impulse has been given to industry which is shewn by trim cottages, gay gardens, and fresh olive orchards, pushed up into glens which in a state of nature would starve a goat. The special culture of the country more and more special as we run eastward -is that of the mulberry, the almond, and the olive. Along every hill-side, down every glen, lie orchard-rows of the precious pollards. The mulberries are of richest dark velvet green, the almonds, one glory of rose colour in early spring, are now of a paler and colder green; the olives (as all the world knows) of a dusky grey, which looks all the more desolate in the pruning time of early spring, half the boughs of the evergreen are cut out, leaving the trees stripped as by a tempest, and are carried home for fire-wood in the quaint little carts, with their solid creaking wheels, drawn by dove-coloured kine. Very ancient are some of these olives, or rather olive-groups. For when the tree grows old it splits and falls asunder, as do often our pollard willows; the bark heals over on the inside of each fragment, and what was one tree becomes many, springing from a single root, and bearing such signs of exceeding age that one can well believe the country tale, how in the olive grounds around Nismes are still fruiting olives which have furnished oil for the fair Roman dames who cooled themselves in the sacred fountain of Nemausa, in the days of the twelve Cæsars. Between the pollard rows are everywhere the rows of vines, or of what will be vines when summer comes, but are now black knobbed gnarled clubs, without a sign of life save here and there one fat green shoot of leaf and tendril bursting forth from the seemingly dead stick. One ought to look with something of filial reverence on the agriculture of the district into which we are penetrating, for it is the parent of our own From hence, or strictly speaking from the Mediterranean shore beyond us, spread northward and westward through France, Belgium, and Britain all the tillage which we knew—at least, till a hundred years ago—beyond the primeval plan of clearing or surface burning the forests, growing miserable white crops as long as they would yield, and then letting the land relapse, for twenty years, into miserable pasture. This process (which lingered thirty years ago in remote parts of Devon), and nothing better seems to have been that change of cultivated lands which Tacitus ascribes to the ancient Germans. Rotation of crops, in any true sense, came to us from Provence and Languedoc; and with it subsoiling, irrigation, all our artificial grasses, with lucerne at the head of the list, our peas and beans, some of our most important roots, almost all our garden flowers, vegetables, fruits, the fig, the mulberry, the vine (the olive and the maize came with them from the East, but dared go no further north) and I know not what more, till we may say that (saving subsoil-draining, which their climate does not need) the ancestors of these good folks were better farmers fifteen hundred years ago than too many of our countrymen are at this day *Rev. Charles Kingsley, in Good Words for July*

Urine as a Liquid Manure.

A WRITER, in the *Gardener's Chronicle*, finds urine a most valuable fertilizer, when used in the following manner Human urine, free from other slops, is allowed to get quite stale, which in a moderate temperature it will do in about a week In this condition it is strongly alkaline, and will turn red litmus paper blue. To the urine in this condition, sulphuric acid (oil of vitrol) is gradually added until it is slightly acid, which is known by its turning the blued litmus paper red again The amount of acid required, is about two ounces to each gallon of urine. To neutralize any excess of acid, add about 2 ounces of ground chalk to the gallon. Of the liquid thus prepared, one pint, after stirring it thoroughly to diffuse the settlings, is diluted with one or two gallons of water, the latter proportion being strong enough for most plants, and applied at once. This manure has been found very serviceable on grass plots in England, and may be applied wherever guano or other ammoniacal manure would be admissable. The litmus paper is paper coloured with an infusion of litmus. It is blue or red, according as it has been subjected to the action of an acid or an alkali. The paper, or the litmus itself, may be had of any good druggist.

Results of Irrigation.

IN connection with this subject, we take the following remarks on Wiltshire irrigation from the *Agricultural Gazette* of the 30th June.

'Barring an occasional thunderstorm, we are enjoying a splendid haymaking time; and if anything can help the wheat crop over the disastrous effects of a wet March and April, it will be the extremely fine season during which it is now in bloom. The recent rains, after a cold dry May, have been welcome for all succulent growth. Grass and mangold-wurtzel and turnips have greatly benefited by them; and the effects of a few hundred tons per acre of water falling upon the hide bound soil illustrate and explain the results which all visitors to the recent show at Salisbury may have seen of the many thousand tons per acre which are poured over grass lands there during winter. We then saw a heavy crop ready to cut, equal in weight to the ordinary hay crop of a first-rate dry meadow, the land having already yielded a larger crop before to ewes and lambs, folded over it in April and May. Mr. Combes, of Tisbury, near Salisbury, who is the great authority on Wiltshire irrigation, informs us that a square hurdle—*i.e.*, about 4 square yards - is the average daily allowance for a ewe and lamb, putting their consumption at 24 lb., we have a crop of upwards of 12 tons of grass per acre, and this is taken before the early June haymaking, which represents almost as much more. This is the result of an enormous flooding with water. It is the practice to lay on as much water as possible in a thin flowing sheet during November and December. The watering goes on more or less during winter, and even in the severest frosts the grass will grow under the ice. We are quoting Mr. Combes' statement. In January, as a general rule, it is held to be advisable to water five days in six—in February about three days in four, and at the beginning of March every other day. Consider what quantity this represents. When in full flow the water runs on at the rate of 2 or 3 tons per acre per minute, 150 tons an hour, 30,000 tons and more every day. No doubt enormous growths of grass, greater than are known in any ordinary water meadows, are obtained from 6,000 to 10,000 tons per acre yearly in the case of sewage water. The clear spring water, which is said to produce the best effect in Wiltshire, may be as pure as one can imagine it welling from the chalk, but 30,000 tons poured daily over every acre for nearly 100 days must contain more food for plants than even 10,000 tons of sewage per annum—food enough to account for the luxuriant growth it produces, however small the per-centage of food for plants it may contain.

'Mr. Combes has ascertained by repeated cuttings and weighings that the total growth of grass during the year in a well-managed water meadow may be as much as 40 tons per acre. This was taken by frequent mowings throughout twelve months; but the ordinary practice is to feed off in April and early May, to mow in the middle of June, in some cases to take a second crop for hay in August, and thereafter to graze with cattle and horses, keeping the land perfectly dry during autumn, and feeding it bare, before the first November flooding. The four streams which meet near Salisbury are utilized in this way over about 9,000 acres of land, and probably 300,000 to 400,000 tons of grass are thus produced, worth £200,000, or upwards of £20 per acre to the occupiers, and enabling a most advantageous management of the farms to which they belong. According to Mr. Combes, the spring grass of a 20-acre meadow, fed with sheep, will keep 400 couples during seven weeks in April and May. During this time this flock is used to fold 15 to 20 acres of arable land. This meadow will then in two cuttings give at least 60 tons of hay; and thus there is annually put on the arable land 15 acres of spring folding and 60 tons or more of hay, thus enabling the farmer to dispense with the growing of 20 acres of turnips and 25 acres or more of field grass, or to increase the number of his sheep stock on a farm of 400 or 500 acres at least 12 per cent. In one instance given by Mr. Combes, 277 couples were kept 33 days and 11 cows 26 days with less than 10 lb. of hay per day per cow, on a meadow of 13¾ acres, after which there was cut from the same meadow at least 2 tons per acre, the aftermath being fed by cows and horses."

SORGO SUGAR.—A Lebanon (Ohio) paper says:—"The question, 'Can sugar be made from sorghum?' has been answered by the Shakers at Union Village They have a method of their own discovery, by which they make sugar from the pure sorghum material. We have seen a specimen. It is very dark, exceedingly coarse-grained, and has the real sorghum taste, but it is thoroughly dry, and is indeed sugar. They have not brought their method to perfection, but they expect in a short time to be able to make a good article."

Stock Department.

Taking the Young Pigs From a Sow When She Litters.

The following controversy appeared in a recent issue of the *Irish Farmers' Gazette*. The letters themselves as well as the editorial remarks appended to them are suggestive, and breeders will be amply repaid by giving the subject as here represented, their careful attention:-

A letter from "Harden, Yorkshire," appeared lately, which somehow escaped our attention, or we should have replied to it; however, as it is of some little importance, and as it takes us to task for our teachings, we re-insert it:—

Sir,—Under the head of "Queries and Answers," in your paper of last Saturday, you instruct some Greenhorn from Ennis how to manage his fat sow at her first parturition as follows:—

"Attempt no quacking (!), but have her closely watched, and as she litters let each be taken from her and put into a basket with some fine hay or warm wool, till all are come forth. Then put each by hand to suck, and when they get enough return them to the basket. Attend to this three or four days before they are permanently left with the sow, &c."

Now, sir, I venture to say that no sow will stand *her young ones being taken away in a basket*, and brought back in this manner for *three or four days*, if 'tis lined with silk, instead of warm wool or fine hay. Your friend will never rear a pig. Let him try this plan: have the sow lean, not fat. Let the *regular attendant only* be present on the occasion. As each one comes forth let him place it to the teat, and get the litter to suck as quietly and as soon as possible. He must try to keep them from being lain on or trod upon by the sow, but rather allow *some* to be sacrificed in that way than *irritate the mother*.

After they have all found the way to the teats and had a slight breakfast, let them retire and leave them to the care of their natural and generally most affectionate guardian. This is the experience of—Yours; HARDEN, *Yorkshire*.

To this the original querist from Ennis replies as follows.—

Sir, I see by your last number that your answer to my query—what should I do with a valuable sow on her first litter, within a week of her time, from which I apprehend trouble in her parturition owing to her being very fat?—has induced 'Harden, Yorkshire,' to give us the benefit of his experience, and recommends me to try his 'plan.' Before recurring to this plan I must say I followed your instructions, and succeeded quite to my satisfaction. That 'interesting event' is now over, and I am happy to say, the 'fat sow' and her young are now all right.

I have found no difficulty in removing the young into 'the basket,' and leaving them near, not '*taking them away in a basket* for three or four days,' as Harden' phrases it. After two days I found I could with safety leave the young ones with her.

Now, sir, as to 'Hardens plan,' viz., 'Have the sow lean, not fat. Let the *regular attendant only* be present on the occasion. As each one comes forth let him place it on the teat.' I differ a bit from him. 1st. I don't like to breed from a sow that will not keep fattish even on grass, with very little other feeding. 2nd. I consider the better the condition, the better she will breed and rear her young. 3rd. A 'lean sow' will rarely, if ever, bring two litters a year regularly, as a well fed, fattish sow will usually and ought to do. 4th. I don't think it is possible to let each be placed to the teat as he comes forth. 5th. The young ought not to be placed to the teat until the placenta has been ejected.

"I would like to know on what authority 'Harden' says 'your friend will never rear a pig.' I may tell him I hope to do so, and have reared some good ones, which he would admit if he saw my present stock. More, I would like to know is it because I seek information in your columns he calls me 'greenhorn from Ennis.' I beg to tell him it is a long time since I was a 'greenhorn.' I also tell him I agree with him in leaving sows to farrow with the '*regular attendant only*,' as the less they are irritated the sooner they let down the milk; also that I am obliged for his plan, which is not a bad one, save those little objections I have raised.—Yours, &c., SUBSCRIBER, *Ennis, 28th May*, 1866."

Our subscriber's letter is certainly a sufficient answer to "Harden, Yorkshire;" but as he calls in question the authority and practical value of the information and recommendations given, and by so doing would lessen the confidence which the *Gazette* has for so many years enjoyed, as far as "Harden, Yorkshire" can do by stating "your friend will never rear a pig," we have but to say that the mode of treatment recomended by us has been adopted by numerous pig breeders and fanciers in Ireland.

It will be in the recollection of many of our readers who have frequented the Royal Dublin Society's Spring exhibitions of live stock that sows have been shown which had littered on the way to or in the show-yard, and the owners and attendants treated the mamma pig and her offspring exactly as we have recommended, and that the visitors were daily witnesses of the interesting sight of seeing the basket brought near the crib in which lay the unwieldy mother, a great overgrown white Yorkshire sow, and the tiny young things, handed one by one, put in through the bars of the crib, still held by hand, and allowed to suck till satisfied, and then removed.

In addition to this public instance, we have a beautiful Berkshire sow since it was eight weeks old. The 27 February last she had her first litter, no less than 14 black beauties. She littered in the middle of the night, and the young things as they came forth were one by one basketed, and were brought regularly from the warm kitchen to the sow and regaled in the manner recomended, and restored to the basket and warm kitchen till the "lady in the straw" was perfectly recovered and able to perform her maternal duties, which she did with care. Had we not adopted this plan it is quite possible we would never have reared one of them; for, after having given birth to thirteen, we thought all was over, and in some hours after she gave birth to the fourteenth, which she devoured. Well, we reared the rest, and have now six of as well-looking swinish lads and lasses as can be seen. So much for "Harden's" assertion, that those who follow our teachings will never rear a pig.

We had begun to think after reading "Harden, Yorkshire," that Yorkshire and Irish pigs were differently constituted as to temper and disposition; but curiosity tempted us to look into "Youatt," the best and most reliable author in the English language on our domestic animals; and he says, page 116, in his valuable treatise on the pig, "The young ones should be taken away as fast as they are born, and deposited in a warm spot; for the sow, being a clumsy animal, is not unlikely in her struggles to overlie them, nor should they be returned to her till all is over, and the afterbirth has been removed, which should be done the moment it passes from her; for young sows especially will invariaby devour the afterbirth if permitted, and then, the young being wet with a similar fluid, and smelling the same, will eat them one after the other." So that we are led to believe the practice is in vogue in England, and that we certainly are not singular in adopting it.

In our own case, as the sow got accustomed to the removal of her young ones, we had some doubts about her not being careful enough in lying down to suckle them, and that there was some danger of her crushing some of them under her as she did so, and, therefore, kept them in the basket for three or four days, till they got strong enough to take care of themselves. It is fortunate for "Harden, Yorkshire," and also for some more of our readers, English as well as Irish, that he called in question the propriety of our teachings, as he will now have learned a little more of such matters than he evidently did before.

We should not forget to thank our Ennis subscriber for coming so promptly to the rescue; and though "Harden, Yorkshire," has in his wisdom designated our respected subscriber a "greenhorn" from Ennis, he has in his letter in reply shown "Harden, Yorkshire," that he is not so green as the latter has gratuitously supposed, but a sound, practical, experienced man, from whom "Harden, Yorkshire," and many others, could gain valuable information, if they would only cast aside prejudice and seek knowledge. But, unfortunately, Englishmen, and Scotchmen too, that do not know us (it is the contrary with those who do) imagine that in Ireland we are a parcel of know-nothings.—*Irish Farmer's Gazette.*

HIGH PRICE OF COTSWOLD RAMS.—We learn from *Bell's Messenger* that "recently, 54 sheep of the Cotswold breed were sold by Messrs. Lyne and Son, for Mr. W. Lane, at Broadfield, and realized the extraordinary average of £26. 18s. 9d. each. Four of the sheep sold for upwards of £100, each, namely, one purchased by Mr John King Tombs, 110 guineas; another, by Mr. Fletcher, 122 guineas; a third, by Mr. Porter, 126 guineas; and a fourth, by Mr. R. Garne, at 100 guineas. Again at Aldeworth, on the following day (by the same auctioneers), Mr. Brown of Norfolk gave 120 guineas for one sheep, and Mr. Charles Barton 70 guineas for another, the property of Mr. Robert Garne.

Ayrshire Cattle.

On this subject, Mr. Sanford Howard, the efficient Secretary of the Michigan State Board of Agriculture, writes to the *Prairie Farmer* as follows:

EDS. PRAIRIE FARMER:—I am glad to see that some of the farmers of the Prairie States are turning their attention to dairying. The Great Northwest comprises many situations in which butter and cheese may be made to advantage. Persons engaging in this business are of course interested in the kind of stock best adapted to it. In fact, I have lately seen various inquiries from your section in regard to dairy breeds of cattle, especially Ayrshires and Jerseys. On this account I am induced to send you a brief notice of the fine herd of Ayrshires belonging to Hon. Samuel Campbell, of New York Mills, near Utica, N. Y. I have lately enjoyed a re-examination of this herd after an interval of two or three years.

I am more particularly induced to mention this herd, as persons visiting the eastern cities might with very little delay or trouble, examine it for themselves. By stopping at Utica, they can take a Whitesborough horse car, and go to within a few steps of Mr. Campbell's farm—the trip not necessarily occupying more than the usual interval between trains going the same way on the New York Central railroad.

Mr. Campbell's herd of Ayrshires numbers some fifty head, and since the dispersion of that of Mr. Peters, of Massachusetts, is probably the largest herd of this breed in the United States. The older animals, and some of the younger ones, were imported from Scotland, selected without stint in price, from the best herds in that country. The two bulls—Baldy and Tarbolton—now being used in the herd, were imported a year or two since. Both are very fine animals.

The milk from Mr. Campbell's cows goes to supply the operatives in a large manufacturing establishment in which he is interested. No particular measurement of the yield of each cow is commonly taken. In some cases, however, this has been done—the cows being found to give from twenty-five to thirty quarts (wine measure) of milk per day, and in a few instances, thirty-five quarts per day. Many of them would give milk the year round, but it is better for the constitution of the cow, and insures a stronger and better calf, to have her go dry six or eight weeks, and this is the general practice.

To show that there is generally no lack of constitution in the herd, I will mention that Ayrshire Lass is now eighteen years old, and has still nearly the vigor and sprightliness of a young cow. White Lily and Lady Ayr are thirteen and fourteen years old. All these are extraordinary milkers, and have usually had calves annually.

Besides Ayrshires, Mr. Campbell has Short-horn cows—nearly as many of the latter as the former. Some of them are imported, and the others are their descendants. They are large and showy animals. In summer they run on the same pastures with the Ayrshires, and the grass being abundant and good, all have enough to eat. They are fed on the same kind of food in winter—all having what they want.

I was interested in knowing what would be the comparative yield of milk of the Shorn-horns and Ayrshires, under these circumstances, and questioned the herdsman on this point. He replied that the Ayrshires generally gave most milk, notwithstanding that the Short-horns were very much larger and consumed a proportionately larger quantity of food.

It is not often, at least in this country, that the two breeds are thus brought together, and though it is not certain that the same result would follow in a comparison of other animals or herds, the fact stated is deserving some weight.

I should say that most of Mr. Campbell's Ayrshires are very handsome, judged in reference to points of merit in a *dairy cow*.

GYPSUM IN STABLES.—The *Germantown Telegraph* says—"Gypsum should be sprinkled daily over the floors and tie-ups, to absorb the ammonia of the urine. The strong odour observable on entering the stable on a morning, arises from the presence of ammonia, one of the most valuable products of stable manure, when properly economized. Gypsum or lime, either slacked or caustic, should also be sprinkled over the bottoms of cellars in the spring. This will tend to purify the atmosphere and prevent many deleterious effects resulting from the presence of miasma. After a few days it should be removed, and a fresh supply substituted in its place."

Canadian Natural History.

The Common Raccoon.

(*Procyon lotor*, Storr.)

THE Raccoon is a plantegrade mammal of the bear family, and is from twenty-two to twenty-three inches in length, with the tail about a foot additional. The general color of the animal is grayish white, the long hairs being tipped with black, and communicating this tint to the body. Upon the top of the head and accross the eyes, the fur is of an exceedingly dark brown shade and upon the knee-joint of each leg the fur is darker in color than upon any other part of the body. The head is somewhat round, the nose sharp and flexible, and the expression of the face much resembles that of the fox.

The favorite haunts of the raccoon are solitary forests, watered by streams. As regards food, the animal is nearly omnivorous. The eggs of birds, and of the soft shelled turtle, frogs, mussels, oysters, ducks, green corn, spiders &c., are some of the miscellaneous list of dainties on which the cute 'coon dines. He is hence a fisher, a hunter, a trapper, a reaper, or a fly catcher, as occasion may require. He is instinctively canning as the fox, inquisitive and meddlesome as the monkey, greedy as a bear, shy as a cat.

The raccoon has generally been supposed to dip its food in water before eating it. From this circumstance the specific name of *lotor*, or washer has by naturalists been applied to it. Some amusing particulars, which illustrate the peculiar habits and instincts of the animal, are related by an eminent naturalist respecting a raccoon that was confined in a barrack yard in this country. The menagerie, of which the 'coon formed a prominently active member, likewise comprised a bear, an owl, and various other finned and feathered creatures. "The coon was extremely tame, but could not be trusted near poultry, as it had a bad habit of pouncing suddenly upon them, grasping them in its hand-like paws, and biting off their heads in a moment. It would then devour the head and afterwards the body in a leisurely manner. There were many bats in the neighbourhood, and the soldiers were in the habit of capturing these nocturnal depredators, and throwing them on the ground within reach of the raccoon's chain. Before the bat could flap its wings, the raccoon would leap upon it, roll it rapidly in its paws for a while and then despatch it with a single bite.."

"It was rather a vengeful animal, and possessed of a tenacious memory for an insult. The great owl that was partaker of the same residence had one day been irritated with the raccoon, and had pecked it on the back. The raccoon treasured the insult in its heart, and waited a favorable time for revenge. The opportunity was not long delayed for on the first occasion that the owl ventured within reach of the raccoon's chain, the aggrieved animal crept slily towards its foe, and adroitly snatched out all the feathers of the owl's tail."

The raccoon is easily tamed, and becomes in captivity a cunning and amusing, though somewhat of a troublesome pet. He is an expert pickpocket, and keeps up an incessant inquisitive activity after sweetmeats. Unlike most animals, he has an innate propensity for fermented liquors, be they ever so strong. In reference to this singular propensity, Lawson, who was Surveyor-General of Carolina in the year 1714 says of the raccoon that "if taken young, it is easily made tame, but is the drunkenest creature living, if he can get any liquor that is sweet and strong."

Probably, however, this attributed weakness of the animal for intoxicating beverages, has been greatly over-rated.

A Singular Species of Rat.

WE take the following curious rat story from the *Sydney Morning Herald*:—"The orange trees of this colony have been subject to many adverse influences. Sometimes they have suffered from blight and drought; at others they have been roughly treated by flying foxes and peccant bipeds; but a new enemy was discovered a few days ago on the estate of Mr. Josephson, M. L. A., at Newtown. One of Mr. Josephson's gardeners observed that a tree in the middle of the orangery was robbed day by day. The rinds were left empty on the ground, each having a circular piece cut out, about the size of a florin. There were also strewn about some of the young leaves and tender branches. A close inspection was made of the trees, and among its topmost branches was discovered a clump of leaves and twigs, containing a pair of sleek rats of a glossy slate color. Much has been written in defence of rats, in view of the sanitary condition of thickly inhabited towns. These orange-eaters, however, were killed, it not being thought desirable to encourage a new variety, especially when there was a probability that it might multiply as rapidly as the brown rats, now commonly known, which within a few years of importation from the East took possession of the sewers, and exterminated their able predecessors."

MOLES.—The *Cosmos* relates an interesting experiment, which proves the service rendered to agriculturists by moles, and the impolicy of destroying these little quadrupeds. In a commune of the canton of Zurich, the municipal council were lately about to proceed to the selection of a mole-catcher, when M. Weber, a distinguished naturalist, laid befor the board the following facts. M. Weber had carefully examined the stomachs of fifteen moles caught in differerent localities, but failed to discover therein the slightest vestige of plants or of roots, whereas they were filled by the remains of ascaris, or earth-worms. M. Weber, not satisfied by this fact, shut up several moles in a box containing sods of earth, on which fresh grass was growing, and a smaller case of grubs and earth-worms. In nine days two moles devoured 311 white worms, 193 earth-worms, 25 caterpillars, and a mouse, skin and bones, which had been enclosed while alive in the box. M. Weber next gave them raw meat cut up in small pieces, mixed with vegetables; the moles ate the meat and left the plants. He next gave them nothing but vegetables; in 24 hours two moles died of starvation. Another naturalist calculated that two moles destroy 20,000 white worms in a single year.

Rural Architecture.

Balloon Houses.

AT a late meeting of the American Institute Farmer's Club, the subject of Balloon Houses was brought up by Solon Robinson, who read a letter asking information concerning the erection of balloon frames for dwelling houses.

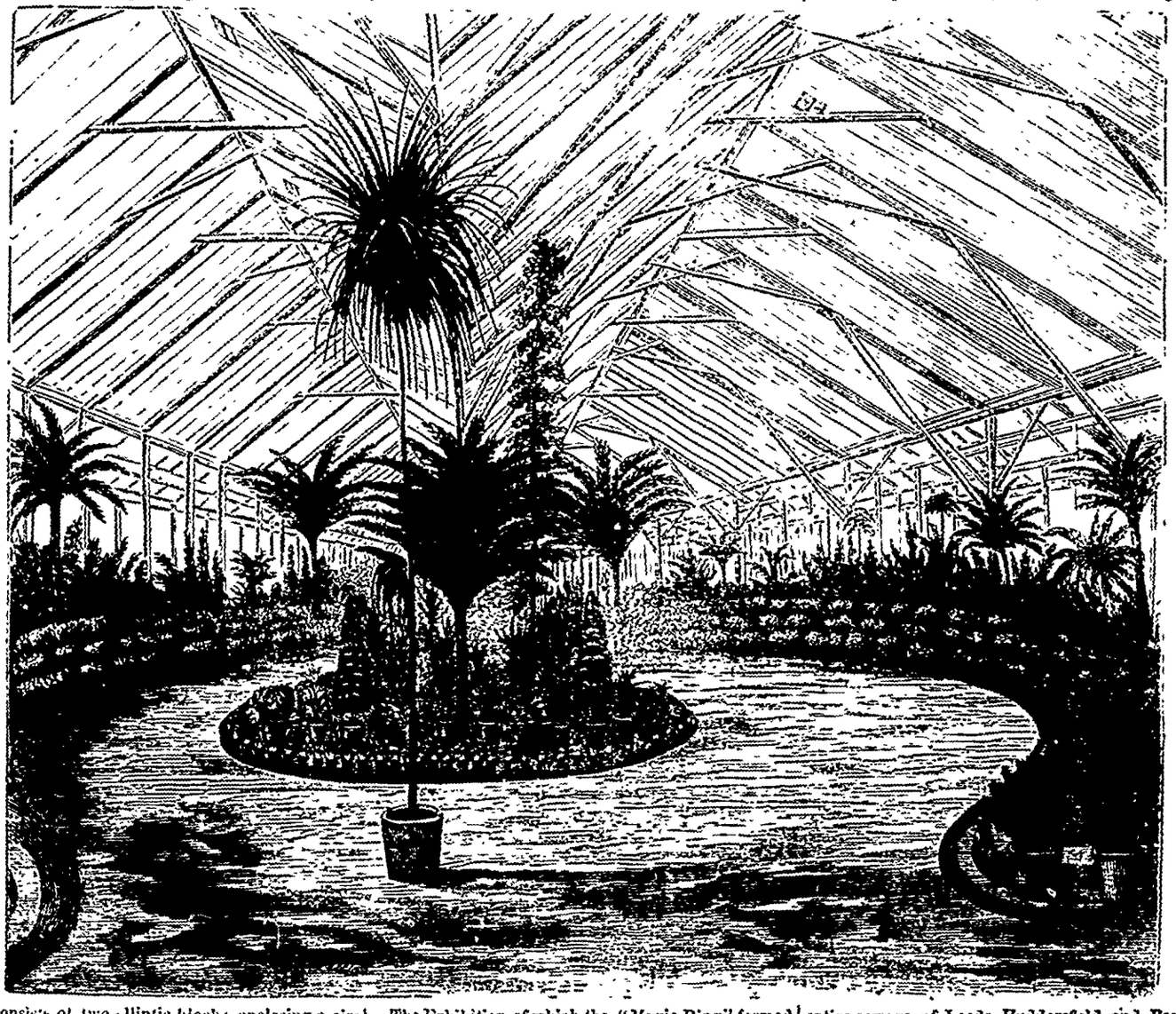
Mr. Robinson stated that he now dwells in a house built on the balloon style of frames, the largest stick of upright timber in the building being only two by four inches square He had adopted the practice, now in vogue in many other localities, of "back lathing and plastering," which is not only a most effectual way of rendering a house warm in winter and cool in hot weather but the back lathing renders the house much stiffer than all the braces that could be put into the frame. The "back lathing" is done by nailing strips of boards on the broad sides of the studs, sawing lath into short pieces, just long enough to extend from one stud to another, and nailing them to the strips that are fastened to the studs. A heavy coat of mortar is then laid on the lath, as any wall is plastered Clay will subserve a good purpose for the "back plastering" After the mortar has become hard the inside of the studs is lathed and plastered By this means there will be two air-chambers, instead of only one, between the outside siding and the papered or whitewashed wall on the inside of the building. S. Edwards Todd said that when he lived in Central New-York he erected four houses in the balloon style of frame, and he thought the subject might be ventilated with interest and profit to builders. He said it is a mistaken idea that a *framed* building is stronger and stiffer than a balloon frame, to say nothing of the comparative expense of the two modes of building. In building a large two-story house, he had used timber for sills, only two inches by eight, which was just as good, when resting on a substantial wall, as a stick eight or ten inches square The ends of the braces in balloon frames are sawed in a mitre-box, and nailed to the timber. Balloon frames always make stiffer houses than can be made by simply framing the timbers together with mortices and tenons.

British Gleanings.

The "Magic Ring" at the International Horticultural Exhibition.

In our issue of July 2nd, we gave some particulars in reference to the great floral exhibition, held at South Kensington, near London, England, from May 22nd to 25th. Herewith we present a beautiful illustration of the centre block and banks of Pelargoniums which graced that magnificent display. I will not only interest and gratify our readers but may probably supply a suggestive hint toward the arrangement of Horticultural Exhibitions in this Province. With reference to the illustration, we cannot do better than quote the graphic description given of the scene it represents by the *Gardener's Magazine*:

"Now for the "magic ring." The centrepiece



really consists of two elliptic blocks enclosing a circle. This is the lowest part of the ground, and is the most finished compartment in the whole exhibition To say that it glows or burns would be miserable description; all that can be said is that it is as rich in colour as it can possibly be without overtasking the eye, and it stops at just the point of safety, and there is such a grand and tasteful combination of green with the colour in banks of shrubs specimen palms, tree ferns, and modest miscellanies, that at every view the eye is delighted with the freshness and purity of the harmonies. The centre bed though not much more than a dot in the plan measures about 35 feet across, so that the walk round is more than as many yards, and the two ellipses have a span of 150 feet each. The centre bed is covered with great subjects, such as dasylirions, palms, and tree ferns, and the ground between the pots and tubs covered with small plants of Dracæna terminalis, making a rich crimson carpeting On the outside is a broad silvery band of Centaurea candidissima, and a marginal line of Alyssum saxatile, making a gold line to finish with The two ellipses are faced with show pelargoniums all around, and that is the main feature as respects colour in this magic ring. There are in all 131 specimen plants, they average three feet each in diameter, all through, some few batches attaining the largest dimensions ever seen; such a display has never been seen before in this country, and it is so so but in that no other display divides attention with it, and a thousand or more persons can enjoy it together on the ample gravel space enclosed. The exhibitors of these pelargoniums are Messrs. Turner, Fraser, Dobson, Bailey, Donald, Weir, Shrimpton, and Foreman."

The Exhibition of which the "Magic Ring" formed so interesting and attractive a feature, was in all respects a success, and marks an era in the history of British Horticultural Shows. Henceforth they will be more elaborately got up, and will continue for several days instead of being crowded into a single day. Among the good results predicted to follow the recent great display of plants at London, the *Gardener's Magazine* enumerates the following:—"Flower shows generally will be improved; that will be one good result. No doubt the general public always in need of wholesome recreations will look with more favour on flower shows than before. No doubt at all, horticulture will have an increased and increasing throng of followers, and it will, as it should, and as it can, displace many less innocent, less healthy, and less costly pursuits that win the leisure and love of mankind. Let us hope that such results may follow; let us hope that some more lasting good may result from all this effort than the mere gratification afforded by a spectacle. But should this last prove to be the only result achieved—should it be agreed that it was a show, and nothing more, well even *then*, it was worth the effort, worth the cost, worth the approbation of the thousands who came filled with curiosity, and went away filled with wonder."

The Pollution of Rivers—Effects of Sewage on Cattle.

The *Leeds Mercury* states that the River Commission is beginning to inspect the streams of the manufacturing parts of Yorkshire, and that the result of the inspection is anything but satisfactory. The entire sewage of Leeds, Huddersfield, and Bradford is emptied into the rivers, and the consequence is that all the cattle grazing on the meadows below the main sewer outlet of Leeds were swept away by the cattle plague. But in addition to the sewage of towns the refuse of tanneries, woollen manufactories, dyeworks, the cinders of steam-engine furnaces, and the carcasses of dogs and other animals, are turned into the rivers. In and near Leeds alone two millions and a half of skins are dressed and tanned, both the fluid and solid refuse of which is sent into the river, by means of the sewers and intersecting streams. With such facts before us we need not wonder that the death-rate of Leeds is the second highest in the kingdom; and with the daily advance of the cholera, these facts assume a much wider significance.

HORSE-FLESH MARKET.—We learn from a British exchange that a market for the sale of horse-flesh was recently opened in the Bouvelard d'Italie, Paris. The price is one-third that of beef.

WOOL SHIPMENTS FROM AUSTRALIA.—According to Clough's Circular and Pastoral Advertiser of March 23d, the shipments of wool from Victoria, mainly to England, from the 20th of October 1865 to March 10th 1866, foot up an aggregate of 27,976, 444 lbs., valued of $9,474,605.

DOGS AND THE RINDERPEST.—We learn from *The Farmer* (Scottish) that "an interesting and valuable experiment has been for some time past on trial at the Royal Veterinary College at Camden Town. A number of healthy dogs have been fed upon the most diseased portions of cattle which have died of the *Rinderpest*, some of the meat having been given to them raw and some in a cooked state. The result of the experiment has been that the dogs are fatter and healthier than ever."

THE PARIS EXHIBITION.—An extract from the London *Gazette*, of the 26th ult., has been published-giving an account of the regulations respecting the nature of the awards and the composition of the juries appointed to the Paris Universal Exhibition, 1867. By this it appears that £32,000 will be given in prizes, awarded by international juries: of this sum £4000 is appropriated to the arts sections, in 17 grand prizes of £80 each; 32 first prizes of £32 each; 44 second prizes of £20 each; and 46 third prizes of £16 each. The distribution of the above will take place on the 1st of July next. Jurymen may compete for these awards.

EXTRAORDINARY VITALITY OF SEED PEAS.—A recent issue of *The Farmer* (Scottish) contains the following: "Three years ago Mr. John Hill, tailor, of Dulverton, Somerset, received from his sister, who resides at Pontypool in Wales, three single peas, taken from a bottle found buried in an old ruin near that town. The bottle contained a parchment, from which it appeared that it had been deposited there 200 years before. Mr. Hill planted the peas, and in his garden plot the produce may now be seen, a most luxuriant crop of gigantic peas, the stocks much above the usual height, and covered with very light green semi-transparent pods of enormous dimensions, one of which measures 5½ inches in length and 3 in circumference, another being 7 inches long and 1¾ wide."

USEFUL MACHINES.—In the monthly scientific notices in *Chamber's Journal* is mention of the *conversazione* of the Institute of Civil Engineers, at which some interesting models were shown. One was a sewing-machine which will stitch the stiffest leather, thick boot-soles, and harness with almost as much facility as woollen cloth. Another sews leather gloves. An hydraulic coal-cutting machine, with a supply of 30 gallons of water a minute, at a pressure of 300 lbs., will do as much work as twenty men, and with satisfactory economy in the produce of coal as well as of labour. The machine represented by the model is at work in a mine near Leeds, and when once supplied with water it keeps going, using the quantity over and over again as long as may be desired, making 25 strokes a minute, with but little noise, friction, or dust. It runs on the rails laid in the mine, and by the mere pressure of the water will cut a length of 40 feet per hour, and is so simple in construction that an ordinary miner can work it with but little of the risk to which he is commonly exposed. The cost of labour for coal dug by hand is 8d. a ton; with the machine it is from 3d. to 5d.

STEEPING FLAX.—The following extract from a letter of Mr Haymans Hye, British Vice-Consul at Ghent, dated June 21, recieved from her Majesty's Secretary of State for Foreign Affairs, was read at a recent council meeting of the Royal Agricultural Society of England:—

"The new system of treating flax consists in planting elm trees round the ponds or along the ditches in which the flax is retted; when the leaves fall they are gathered and thrown into the water, where of course, they decay, which impregnates the water, and gives the flax a more even colour (as it is called, silvery blue), and renders the fibre softer and silky. When the ponds and ditches become almost dry they carefully take out the first layer of mud, and place it in heaps on the sides, which is again thrown into the water when the retting season returns, and thus repeated every year. As colour and softness increase its value so considerably, and as the method of producing those qualities, appears so simple, the information given by Mr Haymans Hye may perhaps be of much interest."

"WHO MAKES FLOUR FOR HER MAJESTY?" Asks *The Farmer*.—"What farm grows the corn, what miller grinds it before it reaches the hands of the Queen's baker! Now, as an Englishman is made up of many nationalities, so the bread on which he lives must owe its strength to one country, its sweetness to its own, its manufacture often to a third. Although the royal arms may figure on several miller's bill-heads, it is generally understood that Messrs. T. & C. Kingsford, of Mark Lane, as agents to a French maker of *Grueaux* flour, supply the greatest quantity of flour used in Her Majesty's household. But other flour—the finest, whitest, *creme de la creme of* flour—is also used in the royal palaces, and this comes from where just now much attention is now directed—Vienna. At the Great Exhibition we saw for ourselves that the Austrians could print the best maps in the world, but our knowledge is only one day old that their manufacture of flour can challenge that of every other nation. M. Gustav Hannak, Bohemia, obtained in 1862 the prize medal as manufacturer of the finest Vienna flour. This is sold on the old market by his London factors, Messrs. Burrows & Perks, and finds its way from them to Buckingham Palace, to the West-End clubs and hotels, and those households where the cooks need not spare expense. After this Vienna flour, Hungarian and French *grueaux* rank next: much of the former is made at Buda, Pesth, with patent steel rollers."

WEATHER WISDOM.—In a recent issue of the *Mark Lane Express* is a long communication on this subject, from which we extract the following:" Amongst many weather-proverbs, the following come to my recollection, and as their paternity is unknown, we may even credit the Druidical Priests with their origin, viz.:

"If red the sun begin his race,
Expect that rain will fall apace.
The evening red, the morning gray,
Are certain signs of a fine day.
In the waning of the moon,
A cloudy morn, fair afternoon.
When clouds appear like rocks and towers,
The earth's refreshed by frequent showers.
If woolly fleeces spread the heavenly way,
No rain be sure disturbs the summer's day."
"A rainbow in the morning,
Is the shepherd's warning.
A rainbow at night
Is the shepherd's delight."

The shepherds of the Kyle division in Ayrshire draw an indication of a change of weather from observing the mountains in the Isle of Jura, distant some seventy miles. When seen from the plains of Kyle, like twin cones formed by an azure cloud, rain is expected.

Grose, in his antiquities, gave the following weather note respecting Penline, Glamorganshire, viz.:

"When the hoarse waves of Severn are screaming aloud,
And Penline's lofty Castle's involved in a cloud;
If true the old proverb, a shower of rain
Is brooding above and will soon drench the plain."

BARBAROUS OUTRAGE ON SHEEP.—The *Warder* (Dublin) of the 30th ult., contains the following account of a barbarous outrage perpetrated on some sheep, in the county of Dublin:—

On the morning of the 26th inst., William Taylor, of Woodside, on the border of Ticknock Mountain, found 35 sheep of his either dead or dying, although on different farms—some on Colonel Verner's land, others on his own up the mountain. Altnough there were 400 sheep belonging to other persons on the same hill, they all seemed healthy. Taylor, it seems, had taken some land from which another person had been ejected. For this he had been threatened about a month ago, during the night, by some persons who broke the windows of the house in which he was residing. Strong suspicions were entertained that the sheep had been poisoned in consequence of Taylor having taken possession of the land in question. The investigation was entrusted to Professor Ferguson, of the Veterinary Department of the Privy Council. Five of the dead sheep were sent into him. The following is his report to the Government.

"I beg to report to the Under-Secretary that, according to his instructions, I have superintended the *post-mortem* examination of five sheep, the property of William Taylor, farmer, Woodside, county of Dublin. These animals were five out of thirty-five that died on yesterday, it was thought, from poison. On opening them there was found great effusion of blood into the thoracic and abdominal cavities, the viscera of which were wounded in several places, the wounds in lungs, intercostal muscles, diaphragm, liver, stomach and bowels, presenting a punctured appearance. On examining the skin, to ascertain where the instrument had entered to inflict the internal wounds, it was found to be entire. On tracing the direction of the internal wounds from the chest backwards, it was found that they led to a large puncture in the rectum within the anus. At the latter part the instrument had been evidently inserted and pushed forward for the purpose of killing the animals without leaving any external marks of violence.

BLOOD STOCK IN AUSTRALIA.—We learn from a British exchange that "a wonderful sale of racing stock is reported to have taking place in Australia, which throws even Mr Blenkiron's last and greatest success into the shade. Some years since, Mr Hurtle Fisher, who lives near Melbourne, at Maribyrnong, imported from this country a number of our best horses and mares; among them Mr Parr's Fisherman and Mr Hawke's Marchioness. On the 10th of last April the Maribyrnong stud was sold by auction. Forty-three horses, of which nine were yearling colts and eight unweaned filly foals, fetched £26,305, rather more than £600 each. The nine yearlings fetched 5055 guineas—502 guineas each; 11 horses and mares in training 11,540 guineas—2049 each; 14 brood mares, 7080 guineas—506 guineas each; and eight unweaned fillies, 2110 guineas—263 guineas each, A four-year old colt by Fisherman—Marchioness fetched 3600 guineas. In spite of the horrors of democracy, Australia cannot be such a bad place after all."

BRITISH CROP PROSPECTS.—The *Mark Lane Express* of August 6th, thus discourses on this subject:—The past week has brought us into the midst of our cereal gatherings for the midland and southern counties. Heavy showers have already fallen and some damage been done in the north by laying, and delay must necessarily arise from the quantity of wet, but no serious amount of damage as yet appears in our reports. We are, however, reminded that the broken weather may be the forerunner of disasters, and also learn not to be unduly confident. Already a taint is upon the crop of potatoes in some localities, and a further heavy fall with warm weather might produce the dreaded disease in force. The late heavy decline, partly occasioned by the prospect of peace in Europe, being excessive on small stocks and but moderate prospects, has brought about some reaction, and a general gain of about 1s. per qr. has to be noted in the country, though London has lagged behind, finding that the previous rise has brought larger foreign supplies. As France proceeds in her gatherings, she is less content with her wheat crop, and Paris becomes dearer, while the north-eastern provinces exceed the capital in the demand for and value of wheat. Everything indeed at harvest time is in danger of being rose-colored; and those who leave the city for the country—whether in Britain or elsewhere—make well-stored garners of their bright imagination, and so there is plenty in prospect, as certainly as that they have seen sheaves in the field. Those, however, who pay for the acre and the toil, as well as share in the anxiety, can make a more practical summary of the result, and we do not find here, any more than they do in France, that we have a full average upon the ground, much less in the barn."

THE MYSTERIES OF THE MEAT TRADE.—The London correspondent of a local newspaper writes on this subject as follows:—"Before the committee on 'The Trade in Animals,' some of the leading butchers of London and other great towns are now giving evidence. I was present the other day when a swell butcher from the West End was under examination. He was a very intelligent tradesman; but his Cockneyisms—especially in the way of predilection for the letter 'H'—were very amusing. He would call an ox a *hox;* and in double negatives he was accomplished and emphatic. An honourable member having asked him whether he could buy dead meat in Newgate Market as cheap as he would have it if he had slaughtered the animal himself, he replied, 'Well, that depends. Now, if it's a *hox* you mean, this week I may go into Newgate Market and buy a *hox*, the meat of which I should have cheaper than if I had killed the *hannimal* myself; but next week the same *hox* might be dearer to me in Newgate Market.' 'What,' asked an honourable member, 'do you now charge for beef, say sirloins?' 'Well, that depends; if I cut it along, I can do it at nine a-half; but, suppose you say, what many gentlemen do say, I won't have no suet, then I must charge eleven. It's the same with a piece of salt beef. If you say, I won't have no fat, and I won't have no bone, why then I must charge more.' Another hon. gentleman asked the witness whether he did not think that private slaughter-houses were likely to be less clean, and therefore more unwholesome, than public ones? The aristocratic knight of the chopper and steel replied, 'I do not, sir. I sometimes have occasion to enter the dwellings of the lower classes, and I can say they are not as sweet and wholesome as my slaughter-house. On the contrary, I assure you, the dwellings of the lower classes are positively *stenchable*.' The hon. interrogator was shut up by this marvellous display of sanitary knowledge."

The Dairy.

Cheese-Making in Gloucester.

In the regular Gloucester dairies the cheese is made thin eight of them only weighing one hundred and twenty pounds. They are made twice a day. They commence at seven o'clock in the morning and finish about ten to eleven o clock. In the afternoon they commence with the evening milk about five and finish again between eight and nine o'clock. These cheeses have a name in the cheese-consuming world as the famous Berkley cheese. They are rich and sweet, if made well. The makers of these are quite as tenacious of their reputation as those who make cheese worth from ten to twenty shillings per cwt. more money. Cows are kept more or less over the country generally, except on the uplands. The south and southwest around the neighbourhood of Bristol, are the coal meadows. The district is formed not the best in the world, from various circumstances; being in the coal district, the surface is uneven, and the enclosures small, as the farms also are. Besides, it is near Bristol, to which place hay, straw and milk are continually sold.—*X. A Willard's Letter from England.*

SORE EYES IN MILCH COWS.—The following enquiry is submitted to the Editor of the *North British Agriculturist*, by a correspondent:—"I have been very much troubled this last week with my milch cows taking sore eyes. The first appearance is water running from the eye, the ball of the eye is a little inflamed, then a white skin grows over the sight of the eye; some of them are slightly affected, others get entirely blind. I can give no reason for their being so seized, they appear to be in good health otherways. Your opinion would oblige."

To which the Editor replies as follows. From sudden alterations in the weather, from cold winds, and occasionally from atmospheric causes which we cannot yet explain, colds from time to time appear alike amongst men and animals. Throughout a considerable district, numbers of horses, perhaps in a single week, will be seized with influenza or sore throat. In like manner colds come suddenly and without any apparent cause amongst cows. Sometimes the udder suffers especially, becoming hot and tender. Probably from similar causes, the eyes are attacked, as in the cases you mention. Possibly other herds in your neighborhood are suffering in the same way. Such ailments are sometimes popularly stated to depend upon "a blight." Often they disappear as suddenly and unexpectedly as they came. The best treatment for appearances such as you describe will be to keep your cows in the house or yards so soon as you find them to be failing; give them a dose of opening medicine, such as a pound each of Epsom salts and treacle, with two ounces of ginger, mixed up and dissolved in half a gallon of tepid water; bathe the affected eyes twice daily for fifteen minutes with tepid water; and when the eye gets hazy, or "the skin" of which you speak appears to obscure it, moisten it every morning with a camel's-hair brush, wetted with a solution made by dissolving ten grains of nitrate of silver in an ounce of water. If the cows are in a poor condition, a daily allowance of linseed cake will benefit not only the eyes but the general health."

Poultry Yard.

The Coming Provincial Exhibition, Hints on Judging Poultry.

To the Editor of the "CANADA FARMER."

SIR,—As the great Agricultural Exhibition is to take place next month, perhaps you will allow me to offer a few observations with relation to that essential but so generally neglected portion of farm stock, Poultry. In the old country, as they call it, Poultry Exhibitions have done wonders, to supply the market with first class poultry and why should not the same returns be found here? Even the handsome prize list of the Society fails to bring forth in many cases even respectable birds—a few hints to exhibitors of what the points &c., in the birds to be shown, may not therefore be useless at this season, the more so as a spirited farmer of Toronto has offered a handsome prize for the best pen of birds. A just award will not be arrived at unless the points are particularly noticed by the Judges, and then it will be a most difficult thing to decide upon. The list begins with.—

DORKINGS, size essential—combs immaterial, but in birds in the same pen, legs white with good distinct fine claws—color is not important, but there should be no glaring contrast. Cocks with black, or black and white head, and tail light hackle and saddle. Hens slate color, ash cobweb speckled with brown and black any color but black and white.

POLANDS.—Black lustrous plumage top knots white as may be without trimming, close and compact, leaden blue legs, full tails, and straight even beaks—the cock and hen should have gills, but generally there should be no comb or spikes in front, beard or no beard I should with Mrs. Blair, give my voice against them. Gold and silver Polands must have spangled breasts—in the silver all the tails in the hen should be purely white, tipped with black. In golden birds the tail black and the tail covers black in the centre, but having rich orange shades on each side. The Judges will probably handle these birds as they are very subject to be crooked and hump-backed which would disqualify.

GAME.—Bright red face, strong stout beak, slightly curved, round hard body tapering to the tail; short, round, hard, thigh; stout leg; flat foot; spur low, near the foot; scanty plumage, but very hard; tail scanty, carried rather drooping than otherwise; head moderate in size, but fine, sharp, and snake-like.

COCHIN CHINA.—Large size desirable but not sufficiently important to hide defects; straight and upright combs, sharp heads; well clipped wings, ample flaff and well feathered to the toes, and short, very little tail made up of numerous curly feathers, that seem to roll over the back rather than stand up. The birds must match in each pen, and the white birds *must* have golden legs.

BRAMAH POOTRA.—Pea or single crest, breast black speckled with white, thigh black; hackle and saddle light; tail black, yellow legs well feathered, deep breast, very full hackle, the hens body should be delicately pencilled all over. In the light varieties the cocks and hens are alike, the tail and flight feathers black, and the hackle black striped, the rest of the plumage white.

SPANISH.—Perfectly upright comb for the cock, falling over for the hen. Thoroughly white faces, without mixture of red, perfectly black plumage, legs large and blue, size desirable not essential.

HAMBURG.—Double combs, full of points ending in a stout pike turning upwards, and fixed firmly in the head, not hollow in the centre, small ample tail, with feathers pencilled to the points, hackles spotless if possible, legs blue. In the spangled variety, the breasts should be well spangled, full black tail in golden and quite white, with a black point at the extremity of each feather in the silver birds and the hackle of the silver cock, should not be shaded or clouded as in the golden Black birds should be of one colour.

CREVE CŒUR.—*Cock* voluminous, body squarely built, short well seated on solid legs, back almost horizontal and standing but little towards the tail; thighs, legs, and wings, well developed; short limbs; very large head, topknot, whiskers, and beard; double comb shaped like horns, sometimes parallel straight and fleshy; sometimes joined at the boll, slightly uneven, pointed and divided at the top, whisker very thick and beard very ample and falling below the wattles. *Hens* well shaped square body, topknot black, in a pullet whitish, in a hen after second moult beard, ear lobes, short and hidden, comb, and wattle short; should weigh 6½lbs. to 8 lbs.

SEBRIGHT BANTAMS.—Cannot be too small, free firm hackle and saddle, clear tails, and *accurately* laced feathers, drooping wings, full pointed pike combs pike going upwards.

BLACK AND WHITE BANTAMS.—Small close feathered, with long and full tails. The Black should have white ear lobes, combs, should all match in a pen.

TURKEYS.—Should be as large as possible and all match in the same pen.

GEESE—Also, heavy; the White Embdem, should have pale bills. Turkeys and Geese are generally, if perfect in other respects, judged by weight.

DUCKS.—Aylesburg ducks should be heavy with pale bills and orange legs, and white plumage. Rouen, as like the wild birds as possible and large as possible

It would occupy too much of your space to go into detail as to the points of Pigeons, but I shall be most happy so to do if you require it, and I conclude by hoping these hints may be of use to younger exhibitors in the selection of their stock, which is my sole object in having trespassed on your valuable space.

I am &c.,

A POULTRY FANCIER.

NOTE BY EDITOR C. F.—We shall be glad to receive our esteemed correspondents' communication on pigeons. At the same time, we take the liberty of requesting him to write a *little* more legibly, and only on one side of the paper.

Veterinary Department.

Ringbone in Horses.

RINGBONE, as it name indicates, consists of a ring or circle of bony matter extending round the coronet. Most commonly it is laid down around the lower part of the large pastern bone, but in all bad cases the small pastern bone is likewise involved. The swelling is very distinctive, and can hardly be mistaken for anything else. It is hard and unyielding, and although at first occurring in separate points, it gradually extends round the sides and front of the coronet. Sometimes it passes downwards, implicating the lateral cartilages, and constituting sidebone. It is always apt to increase, especially when the horse continues at work on the road, and sometimes becomes of large size, interfering with the movements of the joints. Out of 150 ossific diseases in the region of the fetlock, Mr. Percival found sixty-three cases of complete anchylosis, including five of the fetlock joint, forty of the pastern joint, and eighteen of the coffin joint; whilst the remainder consisted of bony incrustations of various degrees of severity. When the horse is much used on the stones during the early development of ringbone, the fetlock is apt to become hot and tender, and the animal goes lame. In the large proportion of cases the bony matter, however, is laid down gradually without causing much pain or any notable lameness. A certain degree of stiffness is, however, usually observable. Whether causing lameness or not, ringbone constitutes unsoundness. As it is apt to be hereditary, animals with such exostoses should be avoided for breeding purposes.

Like most other bony deposits, ringbones generally result from concussion. When this is frequent or continued, inflammation is set up in the periosteum and underlying bone, giving rise to the outpouring of plastic lymph, which is gradually converted into bone. The jar is obviously greatest where the pasterns are short and upright, and underbred animals of such conformation furnish a large proportion of cases of ringbone. It is common in the fore limbs of heavy horses, and of high-stepping hacks and carriage horses; but it likewise occurs in the hind limbs particularly of the lighter description of horses. Professor Spooner states that horses with small feet are especially subject to ringbone. From a blow, tread, or other such injury, inflammation of the periosteum is sometimes established, leading, like the concussion of hard work, to bony deposits. When depending upon such cases, ringbone is apt to be confined to one limb.

A deposit of bone once formed cannot be removed by any treatment short of excision. When, therefore, an old ringbone has become hard and unyielding it had better be left alone, especially if it be free from tenderness, and does not cause lameness. Irritants may re-excite inflammation, and increase the evil. A ringbone of recent growth, in which the newly-formed deposit is yet soft and spongy, may, however, be greatly reduced by simple remedies. Any tenderness or heat should be combated by soothing measures, such as cold wet slabs, total immunity from work, a half dose of opening medicine, and laxative cooling diet. After a few days, when the parts are become cool, some ointment of the red iodide of mercury should be well rubbed in, and the blister repeated several times at intervals of a week or ten days. Firing is often resorted to, but has the disadvantage of blemishing, and is not more effectual than the iodide of mercury ointment. After the first days' rest, unless the limb is hot and tender, moderate farm work on the soft land will do no harm. When the horse goes to work, his shoes must be light and nicely fitted; whilst the jar may besides be somewhat abated by the use of leather soles.—*N. B. Agriculturist.*

The Apiary.

Management of the Apiary for September.

(BY J. H. THOMAS.)

All honey boxes containing honey should not be removed. Examine all stocks and see that they have plenty of honey to carry them through the winter. About 30 lbs., is required to winter a strong stock safely. Weak stocks may be joined together, also late swarms, giving them all the honey they may have made.

Stocks that have not the above amount of honey should now be fed with honey or a syrup made of sugar and water, in order that they may have time to carry it into the combs and seal it over while the weather is warm. In weighing hives to ascertain the amount of honey it should be remembered that from ten to twelve pounds must be deducted for bees and bread, besides the weight of the hive. Where moveable comb hives are used, the honey may be easily divided among the stocks by exchanging cards of comb giving to all an equal portion.

It is bad policy to feed stocks in the winter when it can possibly be avoided, as bees winter much better for not being disturbed. Entrance to hives should now be contracted so as to prevent robbing and weak stocks should be well watched. Queenless stocks are almost sure to fall a prey to robbers, and if there seems a determination on the part of the bees to rob any one stock, it is pretty good evidence that such a stock is queenless, and if in a moveable comb hive it should be examined, and a queen given it, if necessary. Queens may often be obtained from those stocks that are to be taken up, as many people still take up weak or late swarms instead of uniting them.

Apiarian Experiences.

To the Editor of THE CANADA FARMER.

SIR,—I am pleased to notice that you are taking an interest in apiculture. In the spring of '65 I commenced with one hive, without any previous knowledge of the habits of bees, and from being surrounded by bee-keepers, all satisfied with and determined to continue the old plan of management, I have had to grope along in the dark, without any other information than that derived from reading, never having yet had the advantage of seeing any operation performed with bees. Not knowing any thing better, I made Langstroth No. 1 hives, and as soon as the swarming season was over transferred the present stock to one of these. My next object was to obtain possession of an Italian queen and this I did in September last. I last season got only one small box of honey from the old hive before swarming. The Langstroth hives are large, holding ten frames each, 17¼ by 8¾ inches and I thought they did well in stocking these large hives. Not being able to watch constantly I have been desirous of practicing artificial swarming but as yet find some difficulty in the matter. How are we to be sure our early swarms will not cast swarms again? I am afraid I lost an Italian swarm this spring from that cause. I made a swarm 30th May and on 27th June I found a queen cell and every indication of its having swarmed. The plan given at page 234 appears very simple. Langstroth says "A story which may seem so plausible as almost to amount to positive demonstration, when put to the working test, may be encumbered by some unforeseen difficulty, which speedily convinces even the most sanguine that it has no practical value. It is one of the laws of the hive, that bees which have no mature queen seldom build any cells except such as are designed merely for storing honey, and are too *large* for the rearing of *workers*. When all goes right it is usually from two to three weeks before any eggs are laid in the mother stock; and when the brood left by the old queen has all matured, the number of the bees will so rapidly decrease, before any of the brood of the young queen hatches, that she will not have a fair chance seasonably to replenish the hive." Thus by the plan there given we may expect to have the two empty frames filled with drone comb and the comb unprotected by bees exposed to the ravages of the moth. These difficulties it appears to me might be got over by supplying the parent stock at once with a fertile queen. But will they receive one? From all I can learn I believe that hives from which we desire to have surplus honey should be disturbed as little as possible, otherwise they might be examined through the season to see if there were any precautions for swarming. During the past season I have not aimed at more than doubling my stocks, from a desire to keep all strong. I have not been able to keep my queens pure, some beautifully bright are producing black brood, by perseverance however, I hope to overcome this next season, having now four queens raising pure brood. I have not yet touched the surplus honey. Can you inform me if the bee-moth are all alike? as to size and color? Are those enclosed the genuine bee-moth? I found them concealed about the hives and one was inside a hive. Are those sent male or female? Langstroth says the tongue of the female is double, but I hardly know what would be called the tongue. To those who are desirous of advancing in the knowledge of bee-keeping a bee journal would be interesting. Do you know if there is any such publication in Canada or the States?

Yours, &c.,

BRIAR.

NOTE BY ED. C. F.—We submitted Briar's communication to our experienced apiarian contributor, Mr. J. H. Thomas, of Brooklin, who replied as follows:—"In reply to "Briar's" first question, I would briefly say that we can prevent early made swarms from swarming again by cutting out the queen cells and removing an outside card of comb, giving them an empty frame. Or if Italians and the swarm was made as early as the 30th of May, we may divide again making another swarm. Swarms are made by dividing a stock which is called artificial swarming or making swarms.

There is but little doubt that "Briar" lost a swarm as he supposes from that cause, that is his early made swarm. (30th May,) swarmed again.

The apparent difficulty which "Briar" has found in artificial swarming would be removed, as he suggests by "introducing a fertile queen." He asks, "but will they receive one?" Certainly, if introduced in the same or somewhat the same manner that he would introduce an Italian queen. But the difficulty "Briar" finds is only apparent. After removing the *two* frames from the old stock which he wishes to divide or make a swarm from, the *remaining frames* should be placed together in the centre of the hive and the two empty frames, to replace the two removed ones, placed on the outside of the others next to the walls of the hive. If then the bees build store-comb it does but little or no harm as they seldom require the outside combs for breeding purposes but use them principally for storing honey.

"Briar" labors under quite a mistake in supposing that hives should not be disturbed from which we wish to get surplus honey. If a moveable-comb hive is properly constructed, the stock in it may be examined at any time without materially retarding the laying in of surplus honey. The honey box should not be removed from the honey board—both should be taken off the hive together as gently as possible when the comb builders will often continue their labour as if nothing had happened, and so soon as replaced the honey gatherers will rush in and deposit their honey as before. I can give no better description of the bee-moth than is given by Langstroth. The larvæ of the bee-moth or miller grub as it is often called, vary in size according to the amount they have to feed upon.

There is a bee journal, monthly published in New York called the *American Bee Gazette*, price $1 a year, Am. cy. The first number was issued in June last. I now have August number or No. 3. Address E. Van Slike, Editor and Proprietor, Office *Am. Bee Gazette*, 180 Broadway, New York."

A WEE SWARM.—Mr Bidwell, of Bidwell Brothers, writes to the *Agriculturist*:—"Our little girl wishes me to send the following message: "My wee, small swarm of bees, is little smaller than Master Judd's little hen's eggs. It's only my two little hands full; and such beauties!—while my papa's swarms are two big hats full!" I will add, that the day being windy, only a few came out, with a young queen. On the next morning the old queen swarmed with 8¾ lbs. of bees, while the *wee* swarm only, weighed with the little bush on which it lit a quarter of a pound!"

Entomology.

War on the Curculio.

The report from the Oneida Community, in "The Circular," says:—Two squads of infantry, each consisting of six men, including officers, have been detailed for the extermination of the curculio, and are making systematic raids every morning. Sunday morning, May 20, they left 413 dead on the field. Monday, 560. Tuesday the number of killed and prisoners was 413. A few burly specimens were brought home in a phial and put on public exhibition after which they were sent to execution. Wednesday a cold rain prevented the raid. This morning, May 23, though cold, the raiders started at the usual early hour, and had the satisfaction of killing one curculio. We presume they must have felt somewhat as Percy did when, after having "killed some six or seven Scots at a breakfast," he washed his hands, and said to his wife: "Fye upon this quiet life! I want work." People who want plums should follow this example.

The Similarity of the Insects of Canada and England.

ON comparing collections of British insects with those captured in this country, we have been frequently surprised at the very great similarity, and oftentimes identity, that subsists between them. The following remarks by Dr. Jordan, of Birmingham, in a late number of the *Entomologists' Monthly Magazine*, afford some further evidence on this interesting subject:—

"On receiving lately a box of Lepidopterous insects from an entomological friend in Quebec, it was impossible (he states) to help being struck at the first glance with the great similarity between them and our British species. Sixty-six species were sent to me (the only selection being that when an insect was known by my friend to be English it was excluded); of these no less than ten may be classed as decidedly common to the two countries. On the other hand, there were eighteen only without any English generic ally; and in making this selection a rigid exclusiveness has been observed. The remaining thirty-eight are generically related to our native species, and in many instances the approximation is so close as to suggest specific identity also.

It is the business of entomologists to deal with facts, and not with hypotheses, yet the question of how are we to account for this similarity will obtrude itself upon our minds. Naturalization will account for some some part of it, certainly; and the history of this in *Pieris rapæ* has been most admirably traced out by the friend to whom I am indebted for the very specimens now under discussion, Mr. Bowles; thus the *Vanessa* and *Scoliopteryx* may be brought over whilst in their winter sleep, and awake in a new country, there to deposit their eggs, but *Melanippe hastata* and *Scotosia undulata* at least would be difficult to account for on any theory. If there was a distinct centre of creation for the two countries, we must either suppose that *undulata* was created alike in both regions, and Nature reproduced herself, or else if we turn Darwinians for the nonce that *undulata* was "developed" in both regions. Now it seems to me that if we are to take two cells or germs as our starting points, it is but an N'th chance (where N is infinitesimally small) that any process of natural selection should even develope the same order, *Lepidoptera*, in both the centres. How utterly impossible, then, must it be that they should both develope the same species!

If, on the other hand, the Continents were ever continuous, we have then in our friend *undulata* that often quoted individual "the oldest inhabitant," and a thorough-going Tory he seems to be, for not a spot or speck is changed on his coat, though he must have lived under different climates and under different circumstances in the two countries from those old days when mammoths were plentiful as blackberries, and long before the time when Adam was a little boy.

Seriously speaking, however, the *undulata* must teach us how vain at present is any attempt at a theory of creation, and how difficult to reconcile with the facts around us. We feel how little we do know, and how truly Tennyson speaks when he calls man—

"An infant crying for the light,
And with no language but a cry."

Correspondence

Something More About Pianos.

To the Editor of the THE CANADA FARMER:

SIR,—My attention has been drawn to an article in THE CANADA FARMER of July 16th, headed "Something About Pianos"—and as that article reflects upon the honor and integrity of musical professors, allow me to say a few words in reply.

In looking at the spirit of the article referred to, I cannot help feeling that it is prompted rather in the interest of dealers, who wish to pocket a professor's rightful commission, than with a wish to guide as to the best course to pursue when a Piano is to be purchased. The article copied by you from the *Boston Journal* truly says, that "as there are truly a number of Pianoforte makers who all profess to make the best instrument, it is very difficult for a buyer (except advised by a thorough and high standing musician or mechanic who cannot be influenced by mercenary considerations) to choose between them. It should be a well known fact, that the most respectable Pianoforte manufacturers, both English and American have printed price lists, descriptive of the several kinds of Piano made by them, the price of each being marked in plain figures. These manufacturers *invariably* allow a commission to all professors, agents, and dealers for all sales effected by them, or by their influence, even if they have not been seen in the matter. No extra price is paid by the buyer on account of this commission, as is stated in the article referred to; but the reduction is made to professors, agents and dealers upon the same principle which is practiced in every branch of trade and commerce. A shoemaker can buy leather cheaper than a private individual. Surveyors, lawyers, and brokers have commissions and fees for all they do, and why should not musicians and music dealers have the same privilege in the exercise of their profession? Those who will buy pianofortes without professional advice, must run the same risk as those who will buy land without having the title examined, they *may* think they are buying of a respectable firm or individual, but they *may* be taken in. It is the duty of a musical professor to be acquainted with the different styles of pianofortes manufactured by the several makers, and his experience enables him to look for and discover the good and bad qualities of a musical instrument. It is the professor's judgment alone which can be relied on if a good piano is to be secured, and if he be an honorable man, he will protect the purchaser from imposition, while if he be inclined to act a dishonest part, he cannot succeed in a matter of this kind without the collusion of the dealer, who if he will impose with the aid of a professor, will not be the less likely to do so if there be none. If there be any doubt in the matter, the safeguard is in the printed price list, which should be always referred to, if the price of each instrument is not marked upon it, *as it should be*, in plain figures. No respectable firm will charge an additional dollar to pay a professor or dealer a commission, the manufacturers allow liberally for this, and it is only an imposition to state the contrary.

Yours, &c.,

JOHN CARTER,
Organist, St. James' Cathedral.

Toronto, August 23, 1866.

PRIZES FOR CHEESE AT THE PROVINCIAL FAIR.—The appended remarks of Mr. J. W. Fearman, of Hamilton, with respect to the awards offered to cheeses at the coming Provincial Exhibition are entitled to consideration:—"I noticed in the prize list of the Provincial Agricultural Association that there is no prize offered for small sized factory cheese. I consider there should be as my experience of over 20 years in the cheese trade is that good small cheese sell the best. I would also take the liberty to suggest that a prize be given for pine apple cheese, also English dairy. The large size of the factory cheese excludes them from a great portion of the grocery trade of this country."

FLAX PULLING MACHINE.—The Rev. Dr. Freeland enquires where he can purchase a Flax Pulling Machine. He desires further to ascertain its cost; the number of acres per day that can be harvested by it; the number of hands required to work it; and whether it accomplishes its task satisfactorily.

ANS. Such a machine is a desideratim, we do not know of one.

LARGE BLACK SPANISH EGG.—Mr. James Spiers of Beachville has forwarded to us an unusually large egg, laid by a Black Spanish hen. It measured 7½ inches the longest circumference, and 6½ inches the shortest circumference. Weight 4 ounces. On breaking it, we found that it contained a double yolk. Such unusually large eggs are generally double-yolked. We may observe that the Black Spanish breed of fowls though rather small sized birds, lay on an average the largest eggs of any fowls known. The Cochins or Brahmas will outnumber them, but the Spanish will produce the greatest weight of egg meat.

SUPERPHOSPHATE OF LIME.—"Briar" writes as follows: "At page 161 present year, you say, farmers should manufacture their superphosphate at home. I have not any doubt that many would be willing to do so if they knew how. Would you recommend the adoption of the process there given from an eastern exchange? I shall feel obliged if you will say if you think it worth trying. Here we have for 1,200 lbs. superphosphate, 20 lbs. acid, 40 lbs. bones, two barrels charcoal, dust or dry peat, and the difference seemingly made up of hen manure. Should we find the same difference in every other respect as in the price of the acid, it will materially enhance the cost, but even then it would be within the reach of all, whereas Coe's or Snow's as directed to be used will cost $7 per acre. Sulphuric acid is stated to be 5 cents, in Ottawa it will cost 8½ cents to which may be added nearly as much more on the first occasion for vessels. For breaking small bones a hammer may do, but with large ones some other means must be adopted. Should the bones for the purpose be fresh or are old and weather beaten ones, good?"

ANS.—We have no hesitation in recommending the adoption of the process of manufacturing super-phosphate described at page 161. See also the FAMILIAR TALK on "Bone Manures" in our last issue.

The Canada Farmer.

TORONTO, UPPER CANADA, SEPT. 1, 1866.

The Harvest.

THE date has arrived at which definite and positive opinions may be ventured in regard to this year's yield of farm products, and accordingly we find in most of our exchanges throughout the province, more or less copious harvest reports. To insert all the extracts we have culled and clipped would occupy too much space, and we can but endeavour to give the spirit of the press in a brief editorial of our own. Indeed to copy the reports in question would be to a great extent, to say the same thing over and over again, for there is a marked similarity about the most of them. Happily, this accord is to the effect, that we are gathering in one of the most bountiful harvests ever vouchsafed by Providence to this or any other country. One of our cotemporaries, the *Perth British Standard*, reports "an extensive harvest, which is all in all said to be as large as those of the previous four years combined." Another, at the opposite end of the province, the *Huntingdon Journal*, reports "a yield of the staple crops of surpassing excellence and abundance," and adds:—"Agriculturists have unbounded cause of thankfulness, and little to deplore in the order of nature the present season." The *Guelph Mercury* says of the counties of Grey, Bruce, and Perth, that "the yield of this year will exceed anything known in Canada for the past fifteen years." The *Chatham Banner* says: "The harvest in this county is nearly finished, and so far as we have been able to learn, the yield exceeds anything we have had for eight or nine years past." The journal just named adds: "A very good idea of the extraordinary prosperity enjoyed by the farmers of this county may be formed from the fact, that between 140 and 150 reaping and mowing machines have been sold here this year." Our exchanges do not all paint the state of things in colours of such glowing hue, as do the journals we have named, but there is a general and pleasing agreement as to the satisfactory character of the harvest of 1866.

Of course there are exceptional cases. In some localities fall wheat was badly winter-killed, and in others both fall and spring wheat have suffered from the midge; but the fears that were entertained in the early spring as to the general failure of the fall wheat crop have not been justified by the result. In some parts where it was considered to be hopelessly winter-killed, it recovered wonderfully, and has turned out beyond all expectation. The *Mitchell Advocate* reports "a good yield of fall wheat, both in quantity and quality. One or two farmers have 40 and even over 40 bushels to the acre." In the newer counties we believe the fall wheat is almost without exception good, while in the older counties, there is more or less complaint of it, but the yield of spring wheat and other crops goes very far toward compensating for the deficiency. One of our exchanges gives a doleful recital as to "the severity of the winter, the midge, the rain, and now the grasshoppers." These we are told have "vented their spleen on the products of the husbandman, and have certainly diminished the yield to a great extent." We do not name the last quoted journal, for inasmuch as another newspaper account of the crops in the region referred to is of a very different character, we incline to the hope that the melancholy report was written under one of those attacks of the blues, to which Editors as well as other people are now and then subject. In several localities there has been very catching weather, and some instances of injury to out-lying crops are reported by our exchanges. The weather has, however, been cool during the prevalence of wet, and in consequence we hear of but little rust and no growing. Very favourable reports are given as to the flax crop, which is turning out well both as to seed and fibre. The *Woodstock Times* states that "one gentleman in that neighbourhood, Mr. J. H. Brown, has about one thousand acres of flax, Mr. Cottle has upwards of one hundred and ten, and Mr. Josiah Campbell of North Norwich has one hundred and twenty acres of flax under cultivation. At the lowest calculation, the seed from this crop will produce $20 per acre, and the fibre $30, making a total per acre of $50,—or on the whole, $51,500." We can only hope that these figures may be reached, though with all our faith in the remunerativeness of flax, we think the estimate too high.

As to the root crops, potatoes promise to be a splendid yield. We hear no accounts of rot in any quarter, but note several references to the particularly healthy appearance of the vines the present season. Turnips will be a light crop, and in some localities, all but a failure. For some cause or other, the past summer does not appear to have been very favourable to the growth of this root. Carrots and mangolds are well reported of.

We have observed but little information as to the fruit yield the present season. The small fruits have done well with the exception of strawberries, which turned out but poorly. Our impression is that there will be an average supply of apples, and but a meagre yield of plums. Grapes, of which a considerable number are now planted in various parts of the province, promise a large yield, unless they should be nipped by untimely frosts. This fruit deserves wider culture in Canada.

Rural Economy of the Netherlands.

(Concluded from page 260.)

We now come to the portion of M. de Lavelege's report which treats of the other half of the Low Countries, comprising nineteen millions of acres, one-half of which remains to this day uncultivated. This belt of land is in most parts naturally sterile, extending from the great Belgian plain to the sands of Prussia, having on an average about fifty feet above the level of the sea. It comprises the provinces of Drenthe, Brabant, Leinbourg, and part of Over-Yssel and Gelderland, and of Utrecht

This region largely consists of swamps and peat bogs, of sands and heaths, and is in great measure shut out from communication with parts of the country described in a preceding article. Around the drier and better parts where enclosures are made and cultivation has been established, large areas yet remain in a state of commonage, which is in some places partially cultivated and grazed with animals at particular periods of the year by the owners or occupiers of the surrounding enclosed farms. It is clear that cattle cannot be turned out on these wastes till the isolated crops in different places are gathered in, and a meeting of farmers accordingly takes place every year to determine the time when the crops are to be removed, after which the land is free as common pasture. Rye is the principal grain produced in these situations, but buckwheat has of late years obtained a footing. They have a practice of paring and burning the turf and heather of such parts as are left entirely in a state of nature, and of carrying the ashes to where very imperfect cultivation is practiced; a system, when persevered in, which must inevitably doom a large portion of the country to perpetual and irreclaimable sterility.

"The peat bogs that fill the hollows of this region give rise to a special kind of farm management. No man lives there, indeed he can hardly move about them without danger. The neighbouring farmers therefore lease, or as they express it, purchase the land for twelve years. In the spring they drain the surface of the bog by making drains in it, then they cut the turfs, which are left through the summer to dry. In the spring of the following year they set fire to the dry turfs, level them with a harrow and sow buckwheat. The land so treated produces five or six crops in succession, after the third the yield begins to fall off; from the fourth, spurry, a plant not native to the peat-bogs, makes its appearance, and gradually overruns the land so that in the sixth year, spurry and buckwheat together are cut as forage for cattle. When the land is completely exhausted, it is again abandoned to the natural herbage. Twenty-five or thirty years must elapse before the bog is restored, so as to offer a seed bed for cultivated plants. The area burnt every year is so great that the thick columns of smoke, driven by the north wind, spread over the half of Europe. A special odour accompanies the appearance of this singular phenomenon, which the people call dry or northern mists, without questioning their origin. *

It must not be inferred from what has been stated above, that the whole of this large tract is non-productive, or equally barren. In some sections of the various provinces the best systems of cultivation have been introduced. More importance is given to green crops, rye is less frequently repeated, clover is grown, and some approach is made to the alternate system of cropping. Both the practice and products of husbandry are nearly the same as in Belgium. One portion of the province of Leinbourg which is naturally more productive is exceedingly thriving In the peaty tract of Groingen, peat farming has given rise to rich colonies, that furnish one of the brightest pages in the agricultural history of the country. The work of settlement proceeds at the present time. The city of Groningen, possessing a large extent of unreclaimed peats, has made a canal and opened the way to new settlers. The system of hereditary lease is applied to their clearings, and the city may well be satisfied with it for the farmers bring to the work that energetic action to which the feeling of ownership gives rise

"At another spot has arisen the little colony of the Society of Benevolents, established about forty years ago by General Vamden Bosch. Owing to the devotedness of the managers, and the generosity of the subscribers, 434 life homesteads have been built, 3,500 acres of land have been brought into cultivation, and a laborious population of 3,000 souls has been removed beyond the reach of poverty. It is true that the outlay has been disproportionate to the results, and this gives rise to doubts as to the future."

Planting the poor land is a work not open to the same uncertainty. The Netherlands are deficient in wood, having in all only 562,500 acres, almost all situated in the provinces of Gelderland and Brabant. A change is taking place in this respect, and extensive planting has been undertaken. The timber trees which succeed best are the Scotch fir and the black Austrian pine. This new source of wealth promises to be some day highly productive. M. de Lavelege remarks, with justice, that if the Low Countries during the last century had devoted to the planting of their heaths all the money they have invested in foreign loans, their returns would have been more steady, and less exposed to risk from the possible bankruptcy of involved governments. To sum up, the 7,500,000 acres capable of cultivation in the territory of the Netherlands are disposed as follows:—

	ACRES.
Natural pasturage.....	3,375,000
Arable land.....	1,812,500
Wood	562,500
Uncultivated land.....	1,750,000
	7,500,000

These figures show that the Netherlands (together with Switzerland) have the largest proportion of pasturage of any country. If we add the root crops and artificial grasses, it appears that twice as much is appropriated to feed domestic animals as is devoted to cereals and other vegetable products that serve as food for man.

"Among cereal crops rye stands first, occupying nearly 500 000 acres. Wheat is only grown in the most fertile portion, and the entire crop does not exceed 620,000 qrs., or one bushel and eleven gallons per head of the population. Bread made from wheaten flour is here an article of luxury; that in general consumption, in town as well as in country, is made of rye flour. The crop of rye exceeds 1,200,000 qrs., or two bushels, six gallons per head. After adding to these figures 515,625 qrs. of buckwheat, it still appears that the crop of grain is scarcely sufficient to meet the consumption, notwithstanding a large growth of potatoes. The exports consist chiefly of cheese, butter, and other animal products.

During the commercial prosperity of this interesting country upwards of a century ago, the Netherlands produced no wheat, and much less rye than now, still it was then the granary of Europe, its merchants importing grain largely from the Baltic, not only to meet the deficiencies in their own growth, but largely supplying England, France, and other European countries. The decline in its commerce was, as has been already observed, the commencement of a new era of agricultural improvements, and Holland promises at no distant period not only to increase its dairy exports and animals to a much greater extent than at present, but also to become absolutely independent of any foreign supply of grain. Its farming already on the sea-board is pronounced by competent authority to be on a par with that of England, Belgium, Lombardy, French Flanders, or any other portion of the old world. It is the wide tract of inland peat and heather that pulls down the national average; but even here, as we have seen, the industry and science of the people is gradually triumphing over the apparently insuperable impediments of nature.

"Since 1790 the population of the Low Countries has increased 50 per cent., whilst that of France has only increased 30 per cent. in the same period. The improvement has been particularly marked in the districts described as "*sandy*." The possibility of such progress could have been little anticipated at the period when the Dutch lost the monopoly of naval transport; but agriculture has retrieved everything Consequently there is no country where rural economy is held in greater honor. There are numerous Agricultural Societies; the Agricultural Society of the two provinces of Holland alone numbered 7,000 members in 1850. They talk of uniting the members of all these societies in one powerful association, and hope to bring up the number to 40,000, fixing the annual subscription at two shillings. At present, instead of such a combination, there are agricultural meetings which assemble every year, sometimes in one province, sometimes in another, to which proprietors and farmers flock from all parts of the kingdom. Many of these Agricultural Societies publish an account of their labors. All questions touching on rural economy are handled in a number of journals, books, and pamphlets, and all foreign works of importance are translated. The province of Groningen supports, at its own expense, an agricultural school, which is well attended. Among the circumstances favourable to agriculture, the number and excellence of the means of communication must be taken into account. Heavy traffic is all managed by water. Unrivalled facilities for navigation are afforded by the extent of sea-coast; by the Zuyder Zee, which penetrates far into the country, like an inland sea; by the multitudes of islands and river mouths; by the rivers and canals which interlace and cross each other. On the sea board there is not a farm without its dyke communicating with the nearest canal, with its boat for the conveyance of hay, manure and the crops. It is by boat that the milk is brought home morning and evening from the pastures. The roads that complete this net-work are paved with bricks so hard that they ring like metal; perfectly kept, neat, even, without dirt or dust, you roll along as smoothly as upon the floor of a room."

In such a country railroads have made no rapid progress, for the simple reason that they were much less needed than in other countries differently situated. This modern means of transit, however, has already connected the larger towns and places of commercial importance. There is, perhaps, no other country on the globe, not excepting Egypt itself,—ancient or modern,—that presents so marked a career of agricultural advancement, under the greatest possible natural difficulties, and has attained so high a state of wealth and independence from the management of the soil alone, as the Kingdom of the Netherlands.

* This phenomenon apparently resembles the smoky mists which usually accompany, more or less, our Indian Summers in Canada, and which popular belief ascribes to the burning of the prairies by Indians.

Literary Notices.

The American Bee Gazette.—We are glad to hail the appearance of a periodical on this continent devoted to the subject of bee-keeping. The Germans we believe have several, and it will be a disgrace to the apiarians of the new world, if they cannot sustain at least one. Three issues of the *Gazette* are before us, and so far we are highly pleased with it. We earnestly advise our bee-keeping readers to take it. A one-dollar greenback remitted to E. Van Slyke, *Am. Bee Gazette*, 180 Broadway, New York, will secure the paper for one year.

Rural Affairs, p.p. 338.—Four hundred engravings. Albany, N.Y.. Luther Tucker & Son. Vol. IV. We have received a copy of this publication from the office of the *Country Gentleman* whence it is issued, and have great pleasure in commending it to our readers, as a valuable compend of information upon a variety of matters connected with the farm, garden, and household. This volume is the fourth of a series, and like its predecessors, contains three annual issues of *The Illustrated Register of Rural Affairs*. These are furnished at 30 cents per number yearly. The bound volumes cost $1 50 each, American money, so that for about $1 in Canadian currency, the entire set can be bought. From an intimate acquaintance with the work ever since its commencement, we have no hesitation in saying that a farmer cannot make a more useful investment of a $1 bill than in the purchase of these volumes.

The Canadian Sunday School Harp.—We have received from the publisher a copy of this collection of sacred music for children, and from a careful examination of its pages, and a pretty intimate acquaintance with works of the kind, are constrained to give it the highest commendation. The pieces are judiciously selected, and with scarcely an exception, of decided excellence. The Editor, Rev. J. A. Williams, of this city, deserves the thanks of the youth of Canada for the service he has done them in putting such a work within their reach. It is beyond question the best collection of juvenile sacred music which has come under our eye. It is published at the Wesleyan Book Room in this city, contains 212 Tunes and Hymns, in 212 pages, and is sold at 40 cents per copy, or $4 per dozen in boards; in paper covers at 35 cents per copy, or $3 50 per dozen.

Agricultural Intelligence.

Meeting of the Board of Agriculture.

A meeting of the Board of Agriculture was held in the Agricultural Hall, Toronto, on Wednesday, 15th August, at which there was a full attendance of members, and a considerable amount of business was transacted Among the subjects which came up may be mentioned the following.

Several offers of handsome special prizes were made to be given at a Ploughing Match to be held in connection with the Exhibition. These were declined on the ground that a ploughing match cannot be conveniently held by the Association at the same time with the Exhibition.

Communications were received from the managers of the leading railway lines offering the usual facilities in the conveyance of passenger and articles to and from the Exhibition.

The Exhibition grounds were visited, and the Board noticed with much satisfaction the progress made by the local committee in the preparation of the buildings.

The nomination of Judges for the different classes at the Exhibition was apportioned to the various county societies, and the Secretary instructed to communicate with the societies at once.

A communication was received from the Bureau of Agriculture, stating that the sum of $2,000 had been placed at the disposal of the Board for the purpose of procuring specimens of the agricultural products and agricultural implements of Upper Canada for the forthcoming Universal Exhibition at Paris in 1867. The Board were of opinion that this amount was scarcely sufficient to secure an adequate representation; but resolved to turn it to account in connection with the approaching Provincial Exhibition for the purpose of procuring specimens. Exhibitors of grains and implements at the Provincial Exhibition will therefore do well to have in view the possibility of their articles being selected for the Paris Exhibition, and to prepare them in a suitable manner for that purpose.

A delegation consisting of the following gentlemen was appointed to visit the New York State Show on 11th to 14th Sept. next, viz: Messrs. McGillivray, Christie, Rykert, and Dr. Beatty

It was ordered that the prize cattle and horses, should be displayed in the ring on the Thursday of the exhibition week at 1 p.m.

On concluding their business, the Board adjourned to Wednesday, 15th September, at 1 p m.

A Vist to Mr. Snell's of Edmonton.

To the Editor of THE CANADA FARMER.

SIR,—Having been recently on a visit at Mr. John Snell's of Edmonton, and having travelled through the greater part of Canada West, I had a great curiosity to see his stock. One evening I went to see him weigh some of his sheep, and was very much astonished at the size and weight of them. They are certainly the best sheep I have ever seen. Of eight Leicester and Cotswold rams that were weighed the heaviest was 401 lbs., the lightest 281 lbs., six of those were shearlings, one two shears and one three sheers. The eight weighed 2,511 lbs., or an average of 317 lbs. One shearling ram weighed 320 lbs. I also saw a fine lot of young Durham Bulls, eight in number, they were from eight to ten months old, mostly by the imported bull, Baron Solway. They are not so large as some I saw imported from England to Ireland, but are finer in quality, and of a better style. Mr. Snell's stock is in excellent condition, and reflects great credit on his skill and judgment as a breeder. A visit to his farm will well repay any of your readers.

Yours, &c.,
JOSEPH H. HARE.

Beverly, Aug. 17, 1866.

THE FORESHADOWING OF RAIN.—Just before rain, flowers smell stronger and sweeter, because the vapours of the air prevent the scented particles of their perfume from ascending, as they would in a drier atmosphere. Instead of rising above the earth, the odour is disseminated by the moisture. Because the plants are stronger in fragrance just before a fall of rain, we see horses stretch out their necks and sniff the air in a peculiar manner. They are thus able to prognosticate the coming storm with unerring signs, while man stands bewildered and lost in doubt.—*Turf, Field, and Farm.*

☞ Over 3,000 barrels of flour are manufactured daily in Milwaukee.

THE DROUGHT IN THE AUSTRALIAN CATTLE RUNS.—A correspondent of one of the South Australian papers, who has just visited some of the runs north of Clare, gives the most deplorable account of their condition. He says that some of the fenced portions had their boundaries in many places lined with the carcases of bullocks; and that on scarcely one of the sheep runs would there be any lives saved. The ewes, unable to give milk to their offspring, were deserting them, and the lambs were being knocked on the head by the shepherds to save them from a more lingering death by starvation. Upon three runs he severally estimates the loss of sheep this year at 20,000, 8,000, and 5,000.

SEVERE LOSSES AMONG FLOCK MASTERS.—The *Prairie Farmer* of the 14th ult. contains the following:—"Our exchanges from Ohio and Michigan have lately been giving sad accounts of the destruction of sheep from the effects of a very cold storm that came on soon after a large number of the flocks were shorn. Hundreds perished in some flocks. The total number is estimated at 10,000 or 12,000 head. We have heard of no complaints from this State or other states west of us, and presume that our more fortunate flock-masters have escaped any very serious loss. The destruction of so great a number of sheep is a heavy loss in these days of high prices. We hope the reports will prove exaggerated."

SIGHTS IN GERMANY.—A correspondent of the *New York Turf* in Germany, writes:—What a queer sort of country this is to a man fresh from America. The roads stretch away for miles and miles together, under the shade of a double row of cherry and apple trees; there are no fences beside the roads, none around the fields, none even around most of the houses. One sees no cattle, except now and then a small herd watched by a keeper, throughout a dreary day; no sheep, except under the same conditions; no horses at all, no swine, and not even any geese and chickens. All are kept up in their places, and I have laughed more than once to see a stout Dutchman driving a flock of geese or a brood of chickens on their morning or evening promenade."

BERLIN SEED FAIR. The annual Fall Seed Fair was held on the Berlin market grounds on Wednesday last, and proved very successful. The attendance of farmers was not so large as at last year's fair, caused, doubtless, by the late harvest, still there was a very good display of wheat. There were 22 entries altogether; four in "Midge proof," fourteen in "Soules," and four in wheat of any variety. Besides these there were a number of samples on the ground not entered for competition. The quality of some of the wheat on exhibition was very fine, especially in the "Soules" variety, and one of the judges informed us that he never saw better samples of this kind. We understand considerable business was transacted among the farmers in selling and exchanging for seed. The Judges—Messrs. Elias Eby, Wm. Ralph and Ephraim Wilson, Sen.,—awarded the prizes as follows.—Midge Proof Wheat—1st, David Shoemaker; 2nd, Christian B. Snider. Soules' Wheat—1st, Jacob Herber; 2nd, Antony Wilhelm. Wheat of Any Kind—1st, Antony Wilhelm, for red chaff white wheat.—*Berlin Telegraph.*

OFFICIAL INCOMPETENCE.—Many complaints are made by our U. S. exchanges as to the incompetency of the Chief of their Agricultural Bureau. The *Maine Farmer* is responsible for the following:—"We have it from a source eminently to be relied upon, that the Commissioner was engaged in writing a statement concerning sugar cane seed, and being called away from his desk for a few moments, one of the clerks made a glance at his unfinished manuscript, and found he had written it *Shugar cain seed!* And we have ourselves seen a communication, bearing the autograph of Mr. Newton, in which are declarations exhibiting ignorance upon common farm matters which, if made by a farmer boy of fifteen, would be inexcusable! Yet, such a man—one who has not the remotest conception of the duties of his office, and whose ignorance and incompetency would have caused his removal long ago, had it not been for personal friends in high places who keep him in office—is allowed to disgrace the important position which should be filled by a man of learning and good judgment, one of broad and enlightened views, and of some executive ability."

The Household.

Homedale Farm.

THE CREEK TURNED TO ACCOUNT.

As already intimated, there flowed a short distance behind the orchard and garden of Homedale, a clear, silvery spring creek. Its course lay through a valley in which there was a considerable deposit of black muck, the value of which for manurial purposes was very great. From the time of his purchase of the place, Mr. Perley had revolved in his mind certain projects in regard to this creek. It had once contained speckled trout, but he well remembered how, in his younger days, he and the other boys of the neighbourhood had so thrashed the stream up and down for miles, that all trace of trout had disappeared. But it could be stocked again, and he did not know why a farmer with a spring creek on his place should not grow good trout as well as raise ducks and chickens. It was his intention, therefore, to scoop out a pond or two, and make arrangements for the cultivation of fish. Moreover, he wanted a bathing place, and he conceived the idea of making a pond large enough for swimming purposes. He was fond of bathing occasionally himself, and had been in the habit of enjoying the luxury of a swim now and then in the bay at Hamilton during the summer season. Moreover, he wanted his boys to learn to swim, and there was no stream or body of water suitable for the purpose in the vicinity of Homedale. Knowing the value of swamp muck, it occurred to him that he might make his fishing and swimming ponds actual sources of profit to the farm, by getting out of them a supply of that material for composting with the farm-yard dung Accordingly, in the middle of summer, when the creek was at its lowest, and the valley pretty dry, he set men at work throwing out the muck in heaps upon the banks of his intended ponds. First, he laid out a swimming-pond 40 feet long, and 12 feet wide. As he could not well dam up the stream very much, it was necessary to go down some. The black muck was about two feet deep, and then they came to a solid, compact gravel, which was as hard as though it had formed a macadamized road in days of yore. No sooner did they fairly get into this gravel, than they found it full of little springs that boiled and bubbled up, and discharged so much water that it made excavation difficult. A pump had to be used before the job was finished. By keeping one end of the pond a little the lowest, they managed to pump out the water and get down the required depth. Cedar posts were set round the sides of the pond, and with scantling and plank the banks were held up so that they could not cave in. Before turning the creek through the pond, it filled up with water two feet deep from the springs on the bottom. It was like a big well, the water being as pure, clear, and cold as could be desired. The coolness of the water made Mr. Perley apprehensive that it would hardly do for bathing and swimming; but an expedient presented itself which he thought would remedy the difficulty. It was the formation of an outside pond, shallower than the one already made, which, warmed up by the rays of the sun, would tend to correct the too great coldness of the swimming-pond. He needed far more muck than the first pond had yielded, and concluded to take out more in the way just described. The outer pond would be just the thing for a skating place in winter, besides its utility as a warm water reservoir in the summer-time. A tight board fence, six feet high, round the swimming-pond, secured privacy; and a little dressing-room at one end, made the whole thing very complete and convenient. Before the end of the summer, Mr. Perley and the boys had some agreeable baths—Charles and George taking their first lessons in the art of swimming. The lads and young men in the neighbourhood, also, were very glad to avail themselves of Mr. Perley's

invitation to use the pond. They were made welcome to do so, on the reasonable conditions of orderly, quiet behaviour, and care to do no injury to the pond and its appurtenances.

Mr. Perley found that an entirely independent arrangement must be made for the fish. The provision for warming up the water, though useful for the bathing-place, was fatal to the fish-pond, since trout need cool water, and will not thrive except in be kept under a certain temperature in the summer-time. It was, therefore, necessary to provide accommodation for the fish higher up the stream. He did not purpose going into it largely at first. He knew that a very limited amount of space would suffice for the raising of more fish than a single family could consume. He, therefore, planned a couple of ponds about 12 feet in diameter; one for the larger and the other for the smaller fish; together with gravel runs for spawn to hatch upon. He proposed to breed the fish artificially, knowing that the spawn and young trout are liable to be preyed upon if the process of breeding naturally is attempted within narrow bounds. He had read some articles in rural papers, describing the way in which trout are propagated by artificial means, and felt satisfied that it would be the most satisfactory method he could adopt. When his little ponds were in readiness, the next business was to stock them. He knew of a stream near Paris where he had reason to think trout could be found; and thither he went, taking Charley with him, to try and find some fish. To transport safely any trout he might find, he provided two tin pails, one larger than the other, the smaller one perforated with holes on the bottom, to facilitate changing the water two or three times while bringing them from Paris to Homedale. While fishing, the pail with holes in the bottom was to be set in the stream where the trout were caught. The plan worked very well. Mr. Perley succeeded in finding some trout. Most of them were small, but now and then a good sized one was twitched out of a sly hole. A hook was used with the barb filed off, to prevent serious injury to the mouths of the fish. Occasionally a trout slipped off the barbless hook; but by quickly jerking them out, a good lot were easily secured, the stream in which they were taken being a very narrow one. Two trips were made in search of trout with which to stock the ponds, and several dozen obtained, so that a very good start was made in the fish business. They were fed occasionally, to tame them and hasten their growth, and when spawning-time arrived, Mr. Perley purposed commencing experiments in the way of artificial breeding with the larger fish. Already pleasant visions of lusty trout were indulged by the family, and the boys thought they would have fine sport angling close at home when the fish were large enough and plentiful enough to make inroads upon them. Meantime, the muck that had been thrown out of the ponds was draining and drying, so as to be comparatively light for teaming to the barn-yard, where it was destined to be spread under the cattle, pigs and sheep, or to be piled up close at hand awaiting admixture with horse and other dung the following spring. Teaming the muck was held in reserve as a winter job, when the teams had little to do.

(To be continued.)

How to Meet Cholera.

FIRST, have a clear conscience. Next, attend to the following directions:

Cholera has two stages,—a premonitory, or mild stage, and a stage of collapse, which is fatal. The premonitory stage is ushered in by a mild, painless diarrhea, which generally continues for hours, sometimes for days, before the stage of collapse sets in. In this premonitory stage the disease is readily and promptly curable by simple remedies, combined with rest in the recumbent position. All that is necessary therefore, to prevent a fatal attack of cholera, is that the patient shall lie down, keep warm and quiet and take such remedies as will relieve the diarrhea.

A knowledge of these facts led many English towns in former visitations of cholera, to organize a body of visitors, under the direction of a central medical board, whose duty it was to visit from house to house two, three or four times daily, and enquire in every family for these cases of diarrhea. Each visitor carried the proper remedy, and personally attended to its administration, and to the confinement of the patient to his bed. The result of those organizations was most happy; in numerous instances, towns lying in the direct track of the disease did not lose a single inhabitant by the cholera, though thousands of cases of painless diarrhea were treated.—*London Examiner.*

They won't Trouble you Long.

CHILDREN grow up—nothing on earth grows so fast as children. It was but yesterday, and that lad was playing with tops, a buoyant boy. He is a man and gone now! There is no more childhood for him or for us. Life has claimed him. When a beginning is made it is like a raveling stocking, stitch by stitch gives way till all are gone. The house has not a child in it. There is no more noise in the hall; boys rushing in pell mell: it is very orderly now. There are no more skates or sleds, hats, balls or strings, left scattered about. Things are neat enough now.

There is no delay of breakfast for sleepy folks, there is no longer any task before you lie down of looking after anybody, and tucking up the bed-clothes. There are no disputes to settle, nobody to go off to school, no complaints, no importunities for impossible things, no rips to mend, no fingers to tie up, no faces to be washed, or collars to be arranged! There was never such peace in the house! It would sound like music to have some feet clatter down the front stairs! O for some children's noise!

What used to ail us that we were hushing their loud laugh, checking their noisy frolic, and reproving their slamming and banging the doors? We wish our neighbours would only lend us an urchin or two to make a little noise in these premises. A home without children! It is like a lantern and no candle; a garden and no flowers; a vine and no grapes; a brook and no water gurgling and rushing in its channel. We want to be tired, to be vexed, to be run over, to hear child-life at work with all its varieties.

During the secular days, this is enough marked. But it is Sunday that puts our homes to the proof. That is the Christian family day. The intervals of public worship are long spaces of peace. The family seems made up on that day. The children are at home. You can lay your hands on their heads. They seem to recognize the greater and lesser love—to God and to friends. The house is peaceful, but not still. There is a low and melodious trill of children in it. But Sunday comes too still now. There is a silence that aches in the ear. There is too much room at the table, too much at the hearth. The bedrooms are a world too orderly. There is too much leisure and too little care.

Alas! what mean these things? Is somebody growing old? Are these signs and tokens? Is life waning?

HENRY WARD BEECHER.

Brooklyn, N. Y.

Boiling Potatoes.

The lady authoress of "Uncle Tom," and divers other popular publications, has been writing a homily on cooking potatoes. I should like to know if Mrs Stowe does really boil potatoes herself? I do, and I have long since known better than to pare my potatoes raw and then dowse them naked into water red hot—boiling at two hundred and ninety horse power. That is one way to boil potatoes certainly, but not the proper one, by a very long way. Philosophy, common sense, and a month or two of practical experience over the dinner pot, teach us a great deal better than.

My dear madam, don't you know that about six tenths of all the starch that a potato affords is deposited so near the surface, that however carefully we may pare the tubers in a raw state, we are sure to throw away the greater portion of that very material that we eat potatoes for? Then, if we toss our potatoes into boiling water, unprotected by their overcoats, we have set in a second, and hopelessly incorporated with the mass, that semi-volatile principle which gives the ill-cooked potato its slightly acrid something insipid, and always objectionable flavor.

Any thoroughly potato bred Irish woman would as soon think of committing regicide, as boiling her potatoes undressed, in the manner recommended by our literary lady cook, and there are no better potatoes, or potato cooks, any where in this world than there are in Ireland.

I tell you, fellow-housekeepers everywhere, that the correct way to cook a potato in any country provided boiling is the determination, is to wash it clean firstly. Let it lie in clean cold water two hours—ten is all the better. place it in cold water in the pot, without paring, boil moderately until the test fork goes smoothly through the potato without encountering a mite of core. Then drain off the water, set the pot over the fire uncovered, for five minutes, after which whip off Mr Potato's jacket in a hurry, and send him to the table in a close cover, piping hot—or if you are not over-fashionable and fastidious, it is preferable to serve "murphy" in his coat.

Please follow this formula a few times, and if you shall find it a pernicious practice, you shall be at liberty to consider Madeline as competent to write a readable romance, as she is to cook a potato.—*Saturday Evening Post.*

Making Pickles.

DIFFERENT methods are practiced in making pickles. The most common one is to make a brine, and put the cucumbers in it; and keep adding to the quantity as you pick them from the vines. You may continue this process for weeks, till the cask or barrel is full. By adding salt to the brine, you may keep the cucumbers sound and good for months,—These brined cucumbers can, at your convenience, be converted into pickles, by taking a larger or smaller quantity of them, and putting them into good vinegar. In a short time they will be fit for use. As you pick the cucumbers from one day to another, you must see that the brine is strong enough. A quart of salt to a gallon water is the proper proportion. But great trouble is often experienced with pickles in brine, from the formation of a white scum on the surface. To remove this put a piece of cloth over the surface of the brine, and a board cover on this. When you add fresh cucumbers to the barrel, carefully lift up the cloth and the scum adhering to it; wash it and replace it. Repeat this process as often as is necessary.

Another method for making kickles is, to put the cucumbers in a barrel, and sprinkle them freely with fine salt. The moisture within dissolves the salt, and thus a strong brine is formed. The fruit itself will shrivel, but the plumpness will be restored as soon as it is put into vinegar. When you have large quantities of cucumbers, you may fill barrels with them, add a half peck of salt to each, head them and fill them with water through the bungs, and then close the bung holes tight. Pickles thus prepared, it is said, keep in good condition for a few weeks, till sold, and the purchaser then manages them in his own way.—*Ex.*

THE VOCATION OF WOMEN. A great deal of the unselfishness and consideration and tact of women is the result of long days spent in humouring the moods, and noting the caprices, and studying the tastes of those with whom they have been thrown in contact, during their girlhood and their youth. Little things at such a time make or mar the precarious sunshine of each day, and at a very early part of their life, women thus begin to learn to be delicate tacticians and diplomatists of no mean skill. Hence comes, perhaps, their keen power of observing and remembering trifles, not to mention their habit of judging of character from small outward peculiarities.

FIRST LESSONS IN RIDING.—Teach the boy to sit first. Fasten the pony's head into the right place with a pair of reins buckled to the flaps of the saddle, and a standing martingale if necessary. Then put the boy into the saddle carefully, fit the stirrups to his legs, tell him to keep his shoulders back, his back slack, his heels down, and cross his arms across his chest. Then, repeating the cabalistic words, "Heels down, back slack," over and over again, lead the pony about at a walk for a day or two until the boy gets his balance, or what the French happily call "son assiette." Then give him a single pair of reins, and explain that in riding the hands are always to be kept lower than the elbows, and generally as low as the hips. Impress on him, "If you raise your hands you are lost," and that the bridle is not a safety handle to hold on with, but a pair of lines for steering: "If you want to turn to the right, pull the right rein; if you want to turn to the left, pull the the left rein." * * *

There are boys and men who learn to ride, and ride well, by instinct, imitation, and practice, especially if they have good models before their eyes, and are not spoiled early by flattering toadies, but there are many men who never ride with any sense at all, although they ride all their lives. Some people seem to think that falling off does boys good. That is not the writer's opinion. A boy should, as a matter of course learn not to make a fuss about a fall, or any other hurt or accident; and he who is not afraid will fall the most cleverly; but the first point of good horsemanship is not to fall until your horse falls, the next is to guide and hold him that he shall fall as seldom as possible. Many a fine boy has been cowed and spoiled, as a horseman by being put on ponies too restive or spirited for his strength and immature seat. But there is a mistake in the other direction. Teaching is wasted unless principles are followed by practice, and unless what has been learned in the home park or school is practiced on rough ground and across country, up and down steep hills, across moors, and through woodland. For this purpose there is nothing better than an occasional day with the hariers; boys and horses both learn to be quick to turn, to stop, and to start again. No horseman or horsewoman is safe who has not learned to leap real fences, ditches, banks and hurdles; for the quietest horse will buck sometimes, and the slowest ride end in an inevitable short cut.—*Dicken's "All the Year Round."*

Clair House Vineyards, Cooksville.

Results that cannot fail to exercise an important influence on the horticulture and trade of this province, have been already secured by the comparatively recent experiments in vine-growing and wine-making which have been made by Mr. De Courtenay of Cooksville. The success that has marked the history of this vineyard for the past three years demonstrates that grapes, well suited for table use, and for the manufacture of wine, take kindly to our climate, and withstand the inclemency of our winters without any protection whatever.

Did space permit, we would gladly enter into some details of the growth of this important undertaking. Like every other innovating enterprise of a useful character, the Vine-growers' Association has had many difficulties to encounter. We believe, that the history of the movement will shortly be issued in pamphlet form when we may notice it more in detail, at present we will address ourselves more particularly to the system of culture pursued with the vine at Cooksville.

Mr. De Courtenay rightly regards the essential condition of successful culture to consist in a proper system of planting and pruning. The vigour of the vine varies with the climate, and consequently in warmer latitudes the plants require a larger amount of feeding-ground so to speak than they do in colder regions. In this province, a suitable distance between vines is four yards apart each way. This affords an area of sixteen square yards to each plant, planted thus, an acre contains somewhat over three hundred vines, and yields from fifteen to twenty-five tons of grapes. Some of our readers, who have not inspected the Clair House Vineyards for themselves, may regard this statement as an exaggeration. A visit to the establishment will effectually dispel any such doubt, and will most probably enlist such visitors among the believers in the movement, if not among the shareholders in the concern. As regards pruning, no satisfactory description of the process can be given in writing. It must be seen and studied to be understood. The method of propagation pursued is by planting cuttings at the time of pruning in spring. The soil being thoroughly pulverized, and a little bone manure added, three cuttings each of about a yard in length are planted together—the distance preserved between each three being, as already intimated, four yards. We carefully inspected a large area planted last season, and satisfied ourselves that of the cuttings so planted, at least two-thirds thrive and do well. The young vines come into bearing the third year. The fruit is, however, invariably removed from them that year before it ripens, in order that it may not unnecessarily exhaust the plant. It is a well established fact in plant physiology, that the chief exhaustion of the vine, and other fruit yielding plants and trees, occurs from the time when the seed begins to form until it ripens. Removing the fruit before it matures has another beneficial effect, inasmuch as it permits the plant to divert its resources of sap to the better ripening and hardening of its wood. It will readily be understood, that in a rigorous winter climate like ours this is an important desideratum. The young vine, in the fourth year of its life, presents the appearance shown in the accompanying illustration. The dimensions of the row so admirably depicted by our artist, are as follows.—Twenty-four feet in width, six feet in height; distance between the plants six feet, space between the row shown and the next, six feet. The outer row shown on each side of the engraving, forms one side of an avenue similar to that fully represented by our artist. As will be observed, the vines are trained on simply constructed rustic trellises. In fastening these structures together, as well as in securing the vines to them, no other material is used but shoots of the osier willow.

As already stated, the vines are pruned in the spring; and, with the exception of keeping the stems of the plants for about a yard high from the ground, carefully divided by shoots and leaves, not a tendril or a leaf is disturbed till the ensuing year. By thus preserving what have been well designated "the lungs of the plants" unmjured, the fruit produced is of the finest possible description. The important object of having all the fruit in the vineyard ripen simultaneously, is also fully secured, a matter of no small consequence where grapes are grown for wine-making purposes.

The Clair House Vineyards comprise 170 acres of land, of which 40 are already planted with grape vines, more than half of which are in full bearing. The example thus set has not been lost upon residents in the neighborhood, by whom considerable tracts have been planted with cuttings gratuitously furnished by Mr. De Courtenay. Why should not every farm and garden in the land be decorated with a grape walk similar to that shown in the above engravings?

Grape Trellises at the Clair House Vineyard, Cooksville.

Killing the Worms.

The worms in my apple trees were legion—they were in solid masses as large as my fist. How to destroy them was the question. I tried crushing them in my hands—this was quite effectual—but, bah! rather too unpleasant; so I bethought me of another plan. I took a pint of kerosene oil in a vessel, went to the rag bag and got some pieces of rags of various sizes, averaging as large as my hand—was not very particular about the size—some of them may have been larger than my hand. These I put into the oil—then I took a lot of matches and a pole about ten or twelve feet long, the small end of which was split a little way down through the middle. I put a rag, saturated with oil, in this split of the stick, and set it on fire with a match, and then held it close to the nests of the worms, and destroyed as many as possible with the burning rag. Large clusters of them fell to the ground, and these I killed by smashing them with my boots—taking a fresh rag as fast as one was burned. These rags burn with a good blaze and intense heat, and I consider them very effective. I think that in three hours I destroyed enormous quantities of them. This is a sort of "Greek fire" for them, and is terribly destructive to the worms.—*Ed.*

Talk about Strawberries.

At a recent meeting of the New York Farmers' Club the followin; conversation respecting strawberries is reported to have taken place: -

"Which is the best sort? C. Taber, the market reporter of the *Tribune*, says this question is quite as unsettled as it was a year ago. None of the fancy sorts seem to increase in market. A few new kinds make their appearance every year, have a short run, and then are heard of no more. Triomphe de Gand, Union and Austin, show less this year than last. The sort which made the greatest sensation a year or two ago, the Agriculturist, is scarcely to be found in market. Perhaps those who have this sort are growing plants for sale. They certainly do not grow fruit for market. The few offered look well, but marketmen say they are too soft to carry or keep well. The Triomphe de Gand loses ground every year. The fruit is good, appears well, but the plants are not reliable for a crop. Wilson's still takes the lead, and comes out a long way ahead. Growers maintain there is more money in it than in any other variety. The Early Scarlet and Scotch Runners, small as they are, have paid well the present season. After all, it is a difficult matter to give advice about the varieties of strawberries, for a kind which does well in certain localities with one kind of culture may fail entirely in another locality with different culture. Wilson's succeeds over wider range than any other. Upon the whole, growers differ about as much in their opinions as they did one year ago—some of them say they know less.

"The Committee of the Club which went out last week to Newark to look at the Durand Seedling strawberry in Mr. Brill's garden, made a report, and also read a letter from Mr. Durand, giving a description of its origin and character. He states it to be a hybrid of Triomphe de Gand, Green Prolific, Peabody's Seedling, and we think one other sort. As several members remarked they didn't see how it could have four fathers. This is its third year, and of course first year of bearing to any extent, and although a handsome berry, of large size, prolific, rich scarlet colour, remarkably firm, and growing with strong rich foliage, some members of the Club are not as yet prepared to endorse it as the very best strawberry yet produced, and as likely to supersede all others.

Colon Robinson said he had heard the same story of at least a dozen different kinds. A few years ago, this same Peabody, Green Prolific and Triomphe de Gand was each in turn to supersede all other varieties. Each in its turn has gone, or is going to a state of oblivion. I know of but one kind of strawberry which has stood the test of culturation for market in almost all sections of the country, and that is the Wilson, much despised by some because it is sour, yet much relied upon because it will grow and produce fruit, where many of the fancy sorts have proved magnificent failures in spite of grandiloquent recommendations.

Hints on Transplanting Evergreens.

THE warm summer months, now at hand are the best time in the year for transplanting evergreen trees, and a few short hints on the subject may not be amiss. A large percentage of nursery-grown evergreens, and probably three-fourths of these trees taken from the forest, are killed out-right in transplanting, simply on account of ignorance of the necessary precautions to be taken in their treatment at the time they are transplanted and afterwards.

The principal thing to be observed is, *never to let the roots see the sun, or feel the wind*, long enough to lose their surface moisture. The reason for this is not agreed upon by all vegetable physiologists. Hon. John H. Klippart, so widely known in connection with Ohio agricultural matters, in a conversation on the subject, gave me, as his opinion, that the bark of the roots of evergreens, and many other plants, is as sensitive to light as are the chemicals of the photographist, and that the rays of sunlight, either direct or refracted, produce a chemical change in the bark, or vessels therein, injuring them to a greater or less extent. In support of this theory, Mr. Klippart can certainly show some good evidences. Evergreens, and some wild flowers and plants from the woods, in his grounds at Columbus, Ohio, are much thrifter if transplanted *in the night!*

My own theory is, that if the sap in the roots, which is more or less resinous, is suffered to become even partially dried by the sun or wind, it (the sap) is rendered thicker, and becomes almost, or quite, indissoluble, choking up the vessels of ducts, and thus rendering the roots incapable of assimilating the necessary food for the growing tree from the surrounding soil.

Whatever the theory, the fact remains, that if the roots of evergreens are kept moist and shaded from the sun, these trees, are, as a class, more sure to grow when transplanted than any other living plants, except some weeds.

Furthermore, if possible, get the evergreens from a good nurseryman, who is a good propagator, and, if to be shipped for any distance, who will pack the trees so that the roots will keep moist, and the foliage and branches cool and dry. Nursery-grown trees are already prepared as to their roots for transplanting, many or all the rootlets remaining on the roots, while trees from the forest unavoidably lose nearly or quite all the rootlets, unless the trees are very small when transplanted.

As to the time of year, from the first of May to the end of August is as good as any time, provided always that the roots are kept covered and moist. I have taken hemlock from the woods in August with better success than in April or May. They seem to do better when the sap is in motion than before or after.

Lastly, set out plenty, and you will get the benefit, and also the thanks of the next generation.—CHATANGA *in Horticulturist.*

Dwarf Apple Trees.

THE culture of dwarf apple trees (*i. e.*, worked on the paradise stock) is yet very limited in our country, and it is only within a few years that they have attracted any attention, but as they become better known, and their real value appreciated, they will, we are sure, be considered almost as indispensable as the pear. They are less particular as to soil than the pear, grow quite as readily, occupy but little more space than a currant bush, and bear three to six dozen of large and beautiful fruit each. Besides this, they are so completely within the control of the cultivator, that if the canker worm attacks the trees, they can easily be destroyed by the application of whale oil soap. Now that this pest is so destructive to orchard trees, the bush apples supply their place, and the same ground, covered with a dozen or two trees, will produce nearly the same quantity as a standard, and much larger and more beautiful fruit. —*Hovey's Mag.*

ARAUCARIA EXCELSA.—The Norfolk Island pine—in its island home is a splendid tree, being thickly scattered everywhere; many specimens standing singly are furnished to the ground, forming the most perfect pyramids that can be conceived. The average height of the tree would seem to be about 100 feet, but one fine old specimen measured 36 feet in circumference at the base, and must have been considerably over 150 feet high.—*John G. Veitch, in the Gardeners' Chronicle.*

MOSS ON FLOWER POTS.—Ladies who are fond of cultivating flowers in the house, will find great benefit to the plants by spreading a coat of moss over the earth in their flower pots. This keeps the water from evaporating, and the temperature more uniform. Tea grounds are often used for the same purpose. Where a flower pot sets in a saucer, with a hole in the bottom of the pot, put a little sand in the saucer and cover it with moss, and you have a simple and admirable arrangement.—*Ex.*

STOPPING THE BLEEDING OF GRAPE VINES. -Though too late for use this year, we give two methods recently proposed. A correspondent of the *American Horticulturist* writes, that having to move an old vine, he cut it back and covered the wounds with copal varnish when obliged to prune in spring, and finds it stops the bleeding. A writer in the *Journal of Horticulture* wipes the end of the vine dry, and covers it with a stiff paste of cement (hydraulic lime.) The application is repeated two or three hours after the first one, and the bleeding effectually stopped.

THE ONION.—An American exchange discourses on this subject as follows: —"I never eat onions." said a simple and would-be fashionable girl. Now we will venture to say she eats slate-pencils, clay, brick, and pickles, and says they are "splendid." We have no patience with such sentimentalism, that prompts persons to talk so much against onions, and leads to the ignoring the use of a good and healthful vegetable, because it is fashionable to decry its terribly offensive odour, while they perfume themselves with the nasty scent of a muskrat. Verily has it been said, there's no accounting for taste."

NEW ROSES. *The Farmer* states that at the Crystal Palace Rose Show on 23d, and that of the London Royal Horticultural Society on the 28th June, the first prizes for new roses were taken by Messrs. Paul & Son, Cheshunt, on whose stands the following were the leading kinds: Paul de la Meilleray, Xavier Olibo, Princess Mary of Cambridge, Madame Ambroise Verschaffelt, Marie Boisse and Baronne de Maynard, both whitish hybrid perpetuals; Michel Bonnet, Exposition de Brie, Friderick Biborel Duchesse de Caylus, La Duchesse de Morny, Fisher Holmes, Prudence Besson, and Maréchal Souchet Charles Rouillard, Alfred Colomb, Madame Fillion Marguérite de St. Amand, Josephine de Beauharnais the yellow tea Maréchal Niel.

MELBOURNE BOTANIC GARDENS.—The building for the new laboratory at the Botanic Gardens has been furnished and fitted up with the necessary apparatus and a series of experiments commenced, under the direction of Mr. Muller, for the extraction of tan acids, potash, &c., from the various woods in the colony, with a view to preparing a tabular statement of their respective products, and also that specimens may be in readiness for the forthcoming exhibition It is also intended to test the various natural products of the colony, as to their suitability for paper material, and to prepare various raw materials in a fit state for export. It may be mentioned that the essential oils prepared from the leaves of the *Eucalypti*, &c., in a similar series of experiments, undertaken prior to the last exhibition, have now become articles of commerce.

DOUBLE-FLOWERING PELARGONIUM -LADY VICTORIA SCOTT.—This novelty is one of those which cultivators designate, for convenience, true or stage pelargoniums. It is pure white, of remarkable substance, and stout robust habit. A specimen was exhibited by Messrs Carstairs & Sons—who are sending it out—at a meeting of the Edinburgh Botanical Society on the 10th inst., which elicited general admiration, not only from the beauty of its double flowers, but also for the regular rotundity of their form. These varied from an inch and a-quarter to an inch and a-half in diameter, resembling somewhat those of the double-flowered gean—*Cerasus sylvestris flore pleno*, and the *Merisier Ranuuculer* of the French—this regularity in form being rare in flowers like pelargoniums and violets, which, in their original or natural state, are each composed of five petals, in three different forms and sizes.—*The Farmer (Roman).*

"PRUNING TREES TO LET THE SUN IN." A few days since, happening to go through a friend's young orchard of apple trees, we found them all pruned, with the heads, or leaders, mostly cut out, and the bare branches and centre of the tree fully exposed to the full blaze of the sun. We asked the why and the answer was, "It was done to let the sun in." We said nothing, but thought ourself that, in this clear, sunshiny clime, where shade is essential to vegetable life at mid-day, our friend must have been conversing with some old country gardener, whose practice had been in a clime of moisture, and where to obtain sun, not shade, was a part of his routine As a rule, more injury than good is done by this severe pruning. Cut away all crossing branches or twigs; shorten in all that incline to grow too strong and throw the tree out of shape; cut away some few little weak shoots and then throw away your knife, rather than mutilate the tree by cutting its limbs and causing it to try for its life by sending up watersprouts.—*Horticulturist.*

GRAPE-GROWERS.—We have received the Report of the Northern Ohio and Lake Shore Grape-Growers' Association for 1865-6. Its next show will be held at Cleveland, in October. As to the extent of grape culture in the district covered by this Society's operations, Mr. F. R. Elliott, the former Secretary after much inquiry and observation, has published his opinion that previous to the planting of the spring of 1866, there were not less than *six thousand acres* of grapes in the Lake Shore region, including the Islands. And the President estimates that at least 1,000 acres more have been planted in vineyards the current season. Of the amount of wine manufactured in this region, the past year, Mr Elliott gives the following estimates:

"The section east of Cleveland, 40,000 gallons; the section west of Cleveland, 150,000 gallons; Cleveland and its immediate vicinity, 89,000 gallons, in all, 279,000 gallons. The value of this wine at wholesale prices is between five and six hundred thousand dollars. Had the entire grape crop of last year been made into wine, the product would have been 2,000,000 gallons."—*Co. Gent.*

Miscellaneous.

The Agriculturist's Education.

At a recent meeting of the Bridport Farmers' Club, Mr Cox is reported to have said: "Why has not every farmer his own thatcher? There is nothing so difficult in the art but that it may be easily learnt, but 'tis not every one who likes to find reed and spars with which a novice might practice, and they depend on the district thatcher. Again, how useful on a farm is a man who has a knowledge of rough carpentry, and how many pounds a year might he save his master? But you may say—'It is very well to talk of the utility of such men, but how are we to get them? Why you must begin with the young children; you must educate them. But you may say, what have reading, writing and arithmetic to do with thatching, carpentry, hoeing, drilling, ploughing, and the host of other things on the farm? True, they have very little to do with them, but every boy should learn them, and whilst he is obtaining a knowledge of these he should likewise study the various agricultural labours as well. Your village schools are not yet what they should be; but we are going on, on, on, towards what I suppose we shall have them in time, and that is, industrial schools. A philanthropic lady of Bridport, whose name will live for ages, though she now sleeps with the departed, some years since established an industrial school for girls in this town. Now, these girls are taught all the work of the house—cooking, cleaning, washing, ironing, baking, and a host of et-ceteras, besides a good English education. At fifteen or sixteen they are fitted for a situation as house servants, and many people have already obtained from that establishment what is now rare to be had—a good domestic servant. Now, we want similar institutions in country villages, for children of both sexes; and I am happy to say that there are many in England already, viz., at Henley-on-Thames, at Northampton, Gloucestershire, in Herefordshire, Warwickshire, and Worcestershire. I cannot find time to tell you exactly how these schools are worked, but I would refer you to vol. vi. of the *Bath and West of England Society's Journal*, where, in a paper written by the "Spender and Isaac," the schools are fully described. It is all very well, gentlemen, to teach children to be moral, virtuous and good Christians, but you must teach them something more—how to be good and expert workmen, and how best to do their duty in the sphere of life in which they may hereafter be placed."

Josh Billings' Philosophy.

I hold that a man haz just az much rite tew spel a word az it iz pronounsed, az he haz tew pronounse it the way it ain't spelt.

Earthli glory iz sum like potatoze on very ritch sile—top plenty—tater skarse.

It ain't so much trouble tew *git* rich, az it iz to tell when we have *got* rich.

The most bitter sarkasm sleeps in silent words.

Hope iz everybody's handmaid, she iz a sli coquette and promises menny favors, but grants only a fu, and them are badly diskounted.

If you want tew git at the circumference ov a man, examine him amung men—but if you want tew git at hiz aktual diameter meazure him at hiz fireside.

There iz nothing so difficult tew hide az our follys.

There iz but few men who have karakter enuff tew lead a life ov idleness.

Tru Love iz spelt jist the same in Chocktaw az it iz in English.

Buty that don't make a woman vain, makes her very butiful.

A puppy plays with every pup he meets, but old doggs have but fu associates.

He who buys what he kant want, will, ear long want what he kant buy.

It kosts a good deal tew be wise, but it don't kost enny tew be happy.

Necessity begot Invenshun, Invenshun begot Convenience, Convenience begot Pleasure, Pleasure begot Luxury, Luxury begot Riot and Disease, between them, begot Poverty, and Poverty begot Necessity again—this iz the revolushen of man, and iz about awl he brags on.

There iz no such thing az flattery—if commendashun iz deserved it iz not flattery but truth, if commendashun iz undeserved it iz not flattery but slander.

"The luxury ov grief!"—this, i take it, means to have yure old unkle die and leave yu $9,000, and yu cry.—*Poughkeepsie Press.*

Hints to Farmers.

Little Gris, the funny lecturer on Hunkadora perpetrates the following Hints to farmers, through the Cincinnati *Times:*

What Hoes to Use—In planting or hoeing corn use the ordinary hoes in common use. Neither India rubber hose nor cotton hose would be of account in a corn field; no more would one of *Hoe's* eight-cylinder presses.

How to Hold the Plough.—Don't try to hold it out at arms length. You can't do it.

If you hain't a plough of your own, get out an attachment on your neighbour's who owes you. Any Justice can tell you whether you can *hold* it or not.

The Best Time to Put in Rye.—I asked an old farmer once what was the best time to put in rye? He looked at his watch and replied:

"*This is about my hour.*"

The rye was immediately put in.

All seasons are the same for putting in rye.

How to Keep Corn.—The best place to keep corn is in a good corn house, though some perfer to keep it in their system—*in the juice.* If they don't keep corn they keep *corn'd.*

Fences and Fencing.—Good fencing is essential on a farm. Get a good "fencing-master" to learn you. A *rail* fence is better than an imaginary one. You can't repair a *worm* fence by taking vermifuge. Neither can you cut good whitewash brushes out of *brush* fences. Mintzer can tell you that.

To Make Your Stables Warm in Winter.—Set fire to them.

To Drain Lands.—Drink whiskey, and spend all your time at the village tavern. This will drain you of all your land in a very short time.

Easy Way to Draw Saw-logs.—Draw them with a crayon pencil. After a little practice you will be able to draw the largest kinds of saw-logs with ease.

☞ An Irishman, in describing the trading powers of the genuine Yankee, said:—"If he was cast away on a desolate island, he'd get up the next morning and go round selling maps to the inhabitants."

Rust on Iron—Paint.—Every particle of rust on iron may be removed by first softening it with petrolium and then rubbing well with coarse sand-paper. To paint iron take lampblack sufficient for two coats, and mix with equal quantities of Japan varnish and boiled linseed oil.—*Rural N. Y.*

Our Common Schools.—The common schools give to the mass of the people the key of knowledge. I think it may with truth be said, that the branches of knowledge taught therein, when taught in a masterly manner—reading, in which I include the spelling of our language, a firm, legible handwriting, and the elemental rules of arithmetic—are of greater value than all the rest which is taught in our district schools; for the young person who brings these from school, can himself, in his winter evenings, range over the entire field of useful knowledge. Our common schools are important in the same way as the common air, the common sunshine, the common rain—invaluable for their commonness. They are the corner-stone of the municipal organization, which is a characteristic feature of our social system, they are the fountain of that wide-spread intelligence, which like mortal life, pervades the country. From the humblest village school, there may go forth a teacher who, like Newton, shall bind his temples with the stars of Orion's belt—with Herschel, light up his cell with the beams of before undiscovered planets—with Franklin, grasp the lightning.—*Edward Everett.*

Lucifer Matches.—"Says the *Working Man*: "The insignificant-looking lucifer match has become one of the indispensible adjuncts of modern civilisation. Unknown to the public thirty years ago, it has risen with unprecedented rapidity into popular favour, effectually superseding the flint, steel, and tinder-box. The sedan chair, and the oil-lamp, have become things of the past, never to be revived in these days of express trains, ocean steamers, and electric telegraphs The contrast between the tiny splint and the ungainly form of its predecessor, the common brimstone match, is eminently suggestive of the difference existing between the past and the present. Yet, common as the lucifer match is, there are few who really know anything of the manner in which it is produced. Like the pin, the lucifer match forms one of the curiosities of modern manufacturing industry. Although its manufacture only dates from 1833, yet whole forests have already been cut down to supply the immense and increasing demand for the wood of which the matches are made, to say nothing of the many tons of chemical matter likewise required; and when we come to consider that at present the trade is, comparatively speaking, in its infancy, the probable extent of its future requirements becomes sufficiently starting."

Poetry.

Kitchen Hippics.

"We find in *Galignani's Messenger* of the 2nd inst. the following announcement, "The first market for the sale of horseflesh will be opened on Monday next, at No. 3, Boulevard d'Italie. The price will be about two thirds cheaper than beef."—*Sporting Life*, July 4

Gently stir and blow the fire,
Put the sirloin down to roast;
Vegetarians curb your ire,
"*Horseflesh!*" is the reigning toast;
Here, at last, a dish I find,
Meet for men of stable mind.

On the dresser see it lie,
Oh the luscious white and red!
Finer meat ne'er met my eye,
On the sweetest oats it fed;
Now horse-radish scraped with skill,
Its *true* mission can fulfil.

'Cute receipts I have in shoals
For each part from tongue to croup;
Mother of a dozen foals
Makes good stock for gravy soup—
Dearly loves a Ring believer
'Corp-es' full of "pencil fever."

Cutlets from the cookson stud
Prophets' brain and hearts will stir,
Horse laughs show the pure "blue blood,"
Date a "Horse godmother;"
Horse-leech you may swim at ease,
And smile at all the similes!

Cabbage drags the soul to earth,
Porkers have the measles lean,
As of old in Centaur birth,
Horse "assimilates" with man,
Each man bears, so Huxley said,
A hippocampus in his head.

Why is horse-flesh held in fee
By Remus, Baltywood, and Guider,
Give them beef, and leave to me
Round of tough and "rank outsider"
But the fillet for my spit
Is "Tommy Syearling" favourite.

Colour don't affect the meat,
Bay or chestnut, grey or brown,
Stallion steaks are quite a treat,
When "he's thickened and let down;
Still I don't despise "a weed
Of a filly" fricasseed.

Both love "Trojan horse," I know,
And, though hardly of a feather,
William Gladston and Bob Lowe
Shall hippophagise together;
With good Bass and Bordeaux wine,
Epicurus! how we'll dine!

H. H. D. *in Mark Lane Express.*

Markets.

Toronto Markets.

"CANADA FARMER" Office, Sept. 1, 1866.

THE produce market since our last issue has been dull and without animation. Transactions have been principally confined to small lots to satisfy the demands of local consumption. Flour in sympathy with wheat has slightly advanced; dealers however are apart in their views, and few transactions have therefore taken place. No. 1 superfine has been offering at from $6 to $6 30. Extra sold at $6 50. Superior at $7. Wheat, owing to the bareness of supplies has been more in demand, and prices have advanced. New midge-proof has been offering at from $1 30 to $1 35. Buyers will, however, not take hold at these figures. Barley has been offering on the streets only sparingly. Sales are reported at from 40 to 50c. These sales, it is thought, will be well maintained as the season advances, American buyers being in the market, who are as anxious as ever to procure our Barley, particularly the choicer samples,

Flour.—Receipts 74 bags; market improved; sales 100 barrels No. 1 superfine at Weston at $6. $6 15 offered for good No. 1, without transactions. Some enquiry for good extra, from $6 40 to $6 50. Sales, 100 barrels middling flour, at $6 40.

Wheat.—Receipts 370 bushels. Sales, 180 bushels new midge-proof wheat at $1 26. No spring wheat offering.

Oats—Receipts 1,800 bushels. Offering at 34c without transactions.

Barley—No receipts by waggon.

Provisions—Dull. No transactions of importance reported.

Hamilton Markets.—August. 28.—Grain Market.—*Fall Wheat*—*Winter Wheat*, $1 25 to $1 35; *Red Wheat* $1 20 to $1 25. *Spring Wheat*, $1 to $1 10. *Barley*, 45c to 50c. *Peas*, per bush., 45c to 50c. *Oats*, 31c to 33c. *Corn*, per bush., 60c to 65c.; none offering. *Wool*, at 36c to 37½c.

Galt Markets—*Fall Wheat flour*, per 100 lbs. $3 25. *Sp. Wheat flour* do., $2 75. *Fall Wheat* per bush., $1 10 to $1 18. *Spring* do per bushel, $1 to $1 08. *Barley*, do, 40c to 45c. *Oats*, per bushel, 25c to 28c. *Butter* per lb, 13c to 15c. *Eggs* per doz., 10c to 12½c. *Apples*, 50c to $1. *Wool*, 37½c to 38c.

Guelph Markets.—*Fall Wheat*, per bush, $1 30 to $1 35; *Spring Wheat*, do, $1 30 to $1 33; *Oats*, 30c to 31c; *Peas*, 50c to 55c; *Barley* 40c to 45c; *Hides*, per 100 lbs., $6 50; *Wool*, per lb, 34c; *Eggs*, per dozen, 10c.

Montreal Markets.—Laidlaw, Middleton & Co., report—*Flour*—Receipts, 3,300 brls. Market quiet. Sales of fancy at $6 25 to $6 35; Welland Canal superfine at $6 40; good Canada at $6 40, Strong at $6 60 to $6 75. Wheat, no sales. Oats, small sales at 37½c ex-store. Peas and Corn, nothing doing. Ashes, first pots at $5 60 to $5 65; inferiors at $5 10 to $5 20; first pearls at $6 75 to $6 90. Pork quiet. Butter dull; sales 15c to 16c.

Oswego Markets.—Aug 28.—*Flour*—Market unchanged. $10 50 for brands from No. 1 spring, $12 from red winter, $13 from white, and $14 to $14 50 for double extra prime white wheat. *Grain*—*Wheat* dull with no sales to report. Price of No. 1 Milwaukee club is nominally unchanged. Buyers and sellers are apart in their views. Club on private terms—selling in car lots at $2 25. *Corn* offered at 75c for No. 1 Illinois, with 73c bid.

Boston Markets.—*Flour*—The market is firm, with a fair demand; sales of Western superfine at $7 50 to $8 50, common extra $9 25 to $10 50, medium do $10 75 to $12; good and choice do $12 50 to $16 per bbl. *Grain*—Corn dull. Small sales of Western Southern yellow at 98c to $1 03; Western mixed 91c to 93c per bush. *Oats* are in steady demand, sales of Western at 45c to 46c, Northern and Canada 78c to 80c per bushel. *Rye* is selling in small lots at $1 to $1 10 per bushel. *Shorts* are scarce at $30 to $31; Fine Feed $34 to $35; Middlings $33 to $39 per ton. *Provisions*—Pork is firm; sales of prime at $39 to $39; mess $33 to $34, clear $37 to $40 per barrel cash. *Beef* is scarce, sales of mess and extra mess at $20 to $27 per barrel, cash. *Lard* is selling at 21c to 22c, *Ham* at 21½ to 23c per pound, cash.

New York Produce Market.—August 30.—*Cotton* quiet at 33c to 34c for middling uplands. *Flour*—Receipts, 9,956 brls. Market 10c to 25c lower for choice and inferior grades, while medium grades are scarce and rule steady. Sales, 7,200 brls, at $5 30 to $7 50 for superfine State; $6 20 to $8 90 for extra State; $9 to $10 25 for choice; $5 25 to $7 80 for superfine Western; $6 75 to $7 50 for common to medium extra Western, $8 40 to $10 for common to good shipping brands extra round hoop Ohio. Canadian flour quiet and nominal. Rye Flour rather easier. Sales, 600 brls., at $5 50 to $6 25. *Wheat*—Receipts, 330 bushels. Market dull and 2c to 3c lower. Sales, 28,000 bushels, at $2 for mixed Milwaukee and good Chicago spring; $2 70 for new amber State and No. 1 Milwaukee on private terms. *Rye*—Receipts 15,700 bushels. Market quiet. *Barley*—Receipts, none. Market dull. *Corn*—Receipts 291,724 bushels. Market 1c to 2c lower Sales 143,000 bushels, at 78c to 80c for inferior, 80½c to 81c for shipping mixed Western; 98c to $1 for white Western. *Oats*—Receipts, 13,285 bushels. Market heavy and 1c lower. Sales 52,000 bushels, at 40c to 46c for Chicago, 46c to 50c for Milwaukee, 53c for Green Bay, and 55c to 56c for Delaware. *Pork* quiet and irregular. Sales, 2,250 barrels, at $32 70 to $32 81¼ for new mess, closing at $32 75 cash, $30 50 to $31 for old do.

Latest Markets.—*Flour* closed 10c to 25c lower for choice and inferior grades, and steady for medium grades. *Wheat* closed dull and 2c to 4c lower. *Corn* closed heavy, and 1c to 2c lower. *Pork* closed quiet and irregular; new mess $32 75, cash. *Lard* closed dull and heavy, at 18½c to 20¾c.

Contents of this Number.

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