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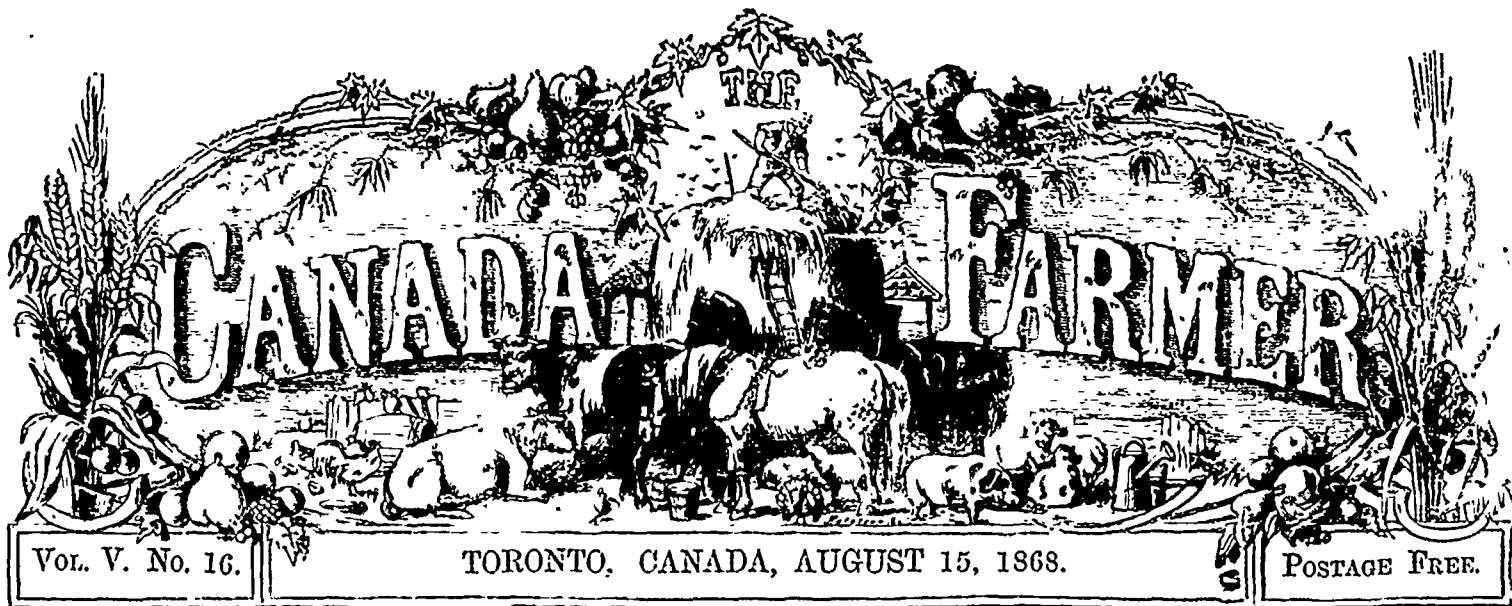
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## The Field.

### Cultivating the Thistle.

To the Editor of THE CANADA FARMER:

SIR:—There are two things at this time, in reference to the Canada thistle, of which I would be glad to say a word worthy of your notice. First, before the Thistle Act was passed in 1866, Path masters always mowed down the thistles growing on their respective roads, but the past two years they have ceased to do so (at least in this locality). There are now growing on embankments hideous avenues of thistles, formidable enough to make fences, and they could scarcely ever present a more vigorous growth; the dry weather has had no retarding influence on their perfect development. A few remarks, though having a local reference, might have a general bearing. Then supposing we start from the city westward, we find long before quitting the limits, vacant lots, (as they are called) completely occupied by thistles, all of which might have been cut down the last week in June for a very trifle. Passing on to a little west of the Lunatic Asylum, and joining the Grand Trunk Railroad on the south side of the lake shore road, is a large portion of the garrison common, which some two or three years ago was cultivated, but is now again abandoned, and here you see the thistle in its greatest state of perfection. Some think they might be made useful in the event of an invasion from that quarter, because they could place in ambush several regiments of soldiers, while others think intrenchments would answer as well; however, military authorities ought to know best. One thing is certain, there is enough seed on that one spot to stock the whole Province. The next remarkable thistle forest you come to (still going west) is a little before you come to the Etobicoke river, where is a large field that has been abandoned to the thistle for five years, and they visibly began to deteriorate for want of proper cultivation, and this year they have got it, by the ground being ploughed and sown with barley. Ploughing the ground that is infested with thistles after they have ripened their tops (in the fall or in the spring), is the unfailing way to strengthen and increase their number. Take a large district as a whole, it is safe to assert that in the past seven years the thistles have doubled their numbers. In all extreme cases it is wrong to waste time in the fall or spring, to plough the thistle ground, or sow it with grain (for a season would be comparatively lost); but let them grow till after midsummer, then mow them with the mower or scythe, or with both, and as soon as dry, burn them, after which plough, and if need be, get some help. After this, use the cultivator at least twice, then sow buckwheat, with two good harrowings, and the thistles will be at least three parts subdued, and not one can possibly ripen seed. As soon as the

crop is ripe, cut and remove it, and without loss of time, use the cultivator (not the plough), which will take off the heads of all remaining thistles (let none escape), also it will cause to grow every grain of wheat that might have shelled out, and so avoid future trouble with the next crop. A first class crop of buckwheat will just pay the farmer all expenses, and leave his land in good condition for spring wheat, to be seeded down with clover. All the labour attending the cultivation of the foregoing crop will not in the least interfere with the grain harvest, or cultivating, or collecting the farmer's root crop. We find here now and then, and I suppose it is so everywhere, sapient legislators, who boast and say they can drive a coach and six through any Act of Parliament, and the Thistle Act especially, arguing "a man may grow what he likes on his own land." Well, suppose the thistle grower is allowed to possess this right, then let the legislature come down upon him and spoil his market for this class of produce, by inflicting a fine heavy enough to allow a portion of it to go to the informer, to make it worth his while to look after the vendors of this nuisance. There are some who care not for consequences, and, so long as they can get the same price for thistle heads as for grain, or the same price for the dead thistle plants as for hay, and different sorts of straw (especially pea-straw) they will continue to do so; but let the law plainly designate all such transactions as obtaining money under false pretences, with a bill of pains and penalties attached, and the farmer would quickly give up growing the vile stuff, because there would be no market for it, and the whole community would be benefited by the change, and none more than the farmer himself. Secondly, I wish to say one more word in reference to seeding of the Canada thistle. I have discovered this much, that farmers generally do not know a thistle seedling plant while in its infant stage of two leaves. To all such I would say, beg or buy a pinch of lettuce seed and sow it, for the young seedling is precisely similar to the young thistle, being closely related to each other as species. I have recently received a Chicago newspaper, in which I saw a significant heading to a paragraph, namely, *The Canada Thistle*. The writer implores one and all to lend a helping hand, to spare no expense to arrest and exterminate its presence, for it has made its appearance in three places, at least, in Illinois. The reason assigned for this vigilance is, its presence will depreciate the value of land twenty-five per cent. I was not aware till recently of that general incredulity among farmers in disbelieving the propagation and extension of the thistle by its seeds. To reason from analogy and from facts of every year's experience, I see no reason to conclude that the thistle seed is less certain to grow (when placed in favorable circumstances) than any other weed; and if so it might fairly be inferred there is not one in a million that is not capable of producing a plant. But if they all grew, it would be

woe to the inhabitants of *terra firma*, at least; for to multiply every year's product for twenty-five years by eleven thousand (the product of one thistle) would produce enough to sow thickly the whole globe, and then there would be sufficient left to build a bridge across the Atlantic, although the waters should be miles deep. The learned tell us that one pair of red spiders would soon produce a quintillion, but then there are other animals that would as soon consume them, and birds eat an enormous quantity of thistle seeds. Thistle seeds, doubtless, are endowed with the same powers in common with other seeds, to preserve their vitality when buried deep in the ground, and when divested of their hoary trapping can fall down in cracks in common with other seeds. But I anticipate some will say "let us have facts and not theory." Here they are: Seven years ago I reclaimed a portion of a swamp where no thistle ever grew nor could any animal pass over it. In 1865 I had to abandon part of it (being cultivated with the spade), but in the fall there was a heavy crop of grass, &c. On mowing it (to my surprise) I found it full of thistles half a yard high, and on examining them I found every one of them were seedlings. Every year we make up a hot-bed in the spring, and collect some of the best earth we can get to put on the top, and the seedling thistle has never once failed to be thickly represented among a multifarious mass of weeds. Last year, while walking across a field in company with a farmer, he stooped down and picked up something; it was a thistle head, and full of young plants. He remarked that "some people did not believe they grew from seed, but seeing was believing." I have done the same thing myself without being curious enough to count their number. This spring a neighbouring farmer called on me, and, of course, we had some talk about the thistle. After referring to this fact that farmers did not believe the seeds grew, he said: "I was determined to put it to a test, I took a thistle-head and planted it, and there came up just fifty plants." I live next to a neighbour who don't believe in bothering about thistles at all, and enormous quantities every year go to seed, of which I get a large share. This spring I ploughed up a meadow, having been down five years, and the seedling thistles sprung from the upturned soil by thousands, the seed having lain buried all that time; and if the vitality of the seed was preserved for five years so it would be for fifty, or five hundred. This spring I dug up a piece of ground that had never before been disturbed by plough or spade, from which grew thistles and an enormous lot of mullen. I have now one seedling thistle growing from the top of a stump, which I hope (for a time) to preserve. Before bidding adieu to this subject permit me to refer to friend Peter Shisler's last letter on this subject. He speaks of the seeds of thistles as imaginary foes, but the plant itself as a real one, and asserts: "the most careless could not fail to observe that its principal mode of pro-

pagating itself is by the root;" and as a proof of this, he refers to my first letter, wherein I related an experiment of a thistle being planted in a garden, having produced sixty plants in the spring, after (supposing) they had extracted all the pieces. Let it be observed, this thistle was placed in an artificial position, with rich, damp, and unctuous earth, with no other plant to share or obstruct the ramification of its roots, which cannot happen in a state of nature. I once grew a single oat plant, to see what could be done by high cultivation. I petted it all I knew how. It produced seventy-five stalks, which numbered three thousand grains; but, like the thistle, it could not be done in an ordinary way. There is, moreover, in my mind some ambiguity as to the precise application of his expression, "They are propagated by careless cultivation," which, perhaps, he would have the goodness to explain.

PUBLICOLA

### Building Stone Fences.

A New Hampshire correspondent of the *Genesee Farmer* writes as follows on this subject.

"A stone fence built upon a light, porous soil, if laid with tolerable skill, will stand for a long time; but to construct one that will stand upon a wet, springy tract of land, especially if it is sloping, is far more difficult. The action of the frost will gradually loosen the foundation, and, when the ground becomes soft in spring, the stones are crowded out of place, and in a few years the fence is in ruins. When the line of direction is east and west, fences are injured most by frost, for the ground upon the south side is thawed earlier in spring.

"These difficulties, however, may be overcome. If the proposed fence is to be on a loamy soil that is not very wet, it will be sufficient to make a small ridge or embankment, say four feet wide and one foot high, to build the wall upon, but if the land is spongy, dig a ditch three or four feet wide, and deep enough to remain uninjured by the frost, fill it with small stones, or partly fill and cover, and then your fence will have a foundation which cannot be shaken.

The foundation well prepared, the next thing is to have the fence well laid. Only such stones should be used as will be firm and afford a good surface to build upon. They should be so laid as to secure these results, and endeavors should also be made to have each principal stone, in all except the lower course, rest upon two below it. It requires no little skill to build a stone fence well, but by following these rules one is not likely to go far out of the way; and when it is once made it is very durable."

Another correspondent in Oneida county, N. Y., writes as follows, adding that stone walls constructed according to this method in the most frosty sections of Wales have stood for centuries.

"Plough four furrows six or eight inches deep and ten inches wide; take all the sods, or turfs, and lay them on one side—also all the loose earth that is easily taken up with a shovel, and lay it on the same side with the turfs, both to be on the opposite side from the stones for the wall, then commence setting stones on the sides of the trench large enough to rise about three or four inches above the outside surface; then fill in with small stones until within two or three inches of the top of the border stones; then throw on a few shovelfuls of fine dirt, passing the shovel over it to make it level; then commence laying on the border stones, being careful to have them tip a little towards the centre, then commence again with the small stones and dirt as above described. When the dirt is used up, cut the turfs at suitable lengths and lay lengthways of the wall, bringing the edge of the turfs close up to the edge of the border stones, filling the middle space with small stones. In this way there will be about two tiers of dirt and two of turf—if more, all the better.

"It will be seen that this wall will be about forty inches on the bottom and twelve inches across the top, when raised about four feet in height. If there is no stone handy large enough to reach across the top, continue on as before until the top is well rounded off."

CANADA THISTLES.—WHEN TO CUT.—The N. Y. Agricultural Society has received a communication from John Ferguson, of Caldwell, giving his experience in fighting Canada thistles. He ascertained that cutting them, as he did, August 17th, 18th, 20th and 24th, was sure to kill them. He cleared his farm entirely by pursuing this course of cutting. There is a general concurrence in the opinion that August is the right time to mow thistles for the purpose of killing them.

### Sandy Lands.

The common opinion is that the sandy lands of New England are its poorest lands and in conformity with this opinion, thousands of acres are suffered to lie uncultivated, to spring up to wood if they will, or afford a scanty crop of wiry grass to sheep that are allowed to run over them. If cultivated at all, it is with rye, generation after generation, either every year, or every alternate year, as the land may hold out, and without the application of manure! All this is wrong, both in theory and practice, and would not be continued if we better understood the nature of soils and how to treat them.

Sandy lands are usually among our most level lands, and are cheaply cultivated on this account. They are light, and are ploughed at one-half the cost of adhesive soils. Twice as many acres of them may be hoed in a given time as can be in heavy and stony lands. Sinclair says sandy soils of a good quality, under a regular course of husbandry, are of great value. They are easily worked, and at all seasons; they are cultivated at a moderate expense; are not so liable to injury from the vicissitudes of the weather; and in general are sufficiently retentive of moisture to produce good crops, even in dry summers.

Sandy lands may be improved in several ways, and the plan adopted should depend upon surrounding circumstances. If they are adjacent to a clay pit, clay may be used; if near a deposit of muck, muck may be used, or both may be employed with decidedly beneficial results. If the land is too far from such sources of supply, then another plan may be adopted. It may be restored by turning in crops, green or dry, where they will decay under the surface. Sandy lands may, therefore, be reclaimed, wherever situated, and brought into a fertile condition, and at a fair profit.

One plan of operation is to plough under green crops, such as oats, millet, buckwheat or clover, when the crop is in bloom, reseed at once and plow in another crop the same year. If the land has been dressed with clay or peat muck, this operation greatly hastens the work of reclamation. Dana says that it is the experience of some practical men, that one crop allowed to rot itself and die where it grew, and then turned in dry, is superior to three turned in green. The whole result is explained by the fact that dry plants give more *gum*, (the word means "earth," or the product of decaying vegetable matter) than green. Green plants ferment—dry plants decay. A larger portion escapes in fermentation as gas, and more volatile products are formed than during decay. The one is a quick consuming fire—the other a slow mouldering ember, giving off, during all its progress, gases which feed plant, and decompose the silicates (that is, sand, flint, quartz) of the soil. These hard silicates in the soil have their uses, and an important part to perform. It belongs to us to supply them with vegetable matter. Feed them well with muck, straw, meadow hay, rushes, flags, or almost any other vegetables, and their decay will cause an evolution of carbonic acid gas, that decomposes the silicates of potash in the sand; that potash converts the insoluble into soluble manure, and to a crop." When once a crop is obtained, even on the poorest sands, there is the nucleus of fertility, and fair crops may be obtained from it perpetually.—N. L. Farmer.

### The Treatment of Tree Seeds.

Our people are at last waking up to the importance of trees, whether for fuel, timber or shelter. The subject is already beginning to have a literature, as we last month noticed the "Forest Tree Culturist" of Mr. Fuller. Upon looking over our correspondence, we find a great many queries as to the proper method of treating particular tree seeds, and we can best answer these queries in a lump. These seeds may be divided into two classes, one including those that must be sown as soon as ripe; the Elm and the Red and White (or Silver) Maples ripen their seed in the spring. As we have shown in a former number, the failure with these seeds is due to want of knowledge of the fact that they ripen in June, and that they must be sown at that time. If kept until the following spring, these seeds lose their vitality and fail, but if sown as soon as mature, they make strong young plants the first year. Other seeds needing immediate sowing ripen in autumn, and these are to be treated as nearly as possible as nature treats them. If late in autumn we look beneath the fallen leaves of an oak tree, plenty of acorns will be found from which the radicle has protruded, showing that germination has already commenced. This will give the hint as to the proper treatment of acorns, which are to be planted shallow, and the bed protected with a good covering of leaves or other mulch. Chestnuts, Horse Chestnuts and Buckeyes,

Tulip Trees, Hickories and Walnuts are treated in the same way. Hickories and Walnuts are said to do well if mixed with earth in a cool cellar during winter, and we have succeeded perfectly well with Horse Chestnuts put in a box of earth and exposed to the weather all winter.

Seeds that are kept over winter should be preserved at a low and even temperature, and of course be quite dry before put away, to prevent mould. The following are among the commonly planted seeds that are usually to be had of seed dealers: Honey Locust, Osage Orange, the Ashes, Larch, Deciduous Cypress, Maples (except red and white), Spruces, Pines, and other evergreens. Honey Locust, if fresh, will grow without preparation, but if old, it should be scalded. Osage Orange must be sown; the others merely need to be sown in a light, rich soil. Evergreens are very tender when young, and are apt to be sun-scorched. These are best sown in beds where they can be shaded by a lattice work screen made of laths.

Young trees, like other young plants, require care, and no one need sow the seeds with the expectation that they will take care of themselves. Weeding, cultivation and thinning must be duly attended to, and if the little trees are likely to suffer from drought, the ground should be covered with a good mulch of saw-dust. If they are left in the seed bed over the first winter, they will need to be covered with leaves.—*American Agriculture.*

### Marl.

In the southern portions of New Jersey, Delaware and Maryland, there is used with success a valuable natural fertilizer with the above name. New Jersey in particular is underlaid with it, and in the largest and finest belt there are thousands of tons exhumed from the earth annually, and sent to all parts of the State. The Squankum enjoys the best reputation, being of a deep green colour, and containing a much larger proportion of valuable ingredients. It has been proved by years of experience to be the best and cheapest fertilizer for all kinds of crops. Immense quantities are taken out at the above place, and delivered along the line of the railroad at a small cost. A dressing of one hundred to one hundred and fifty bushels is applied per acre once in three years. Its value is found in the fact that it contains nearly all the substances necessary to make up the ash of our common plants. Prof. Cook, State Geologist of New Jersey, says: "A comparison of the analysis of marl with that of the ash of plants shows how abundantly it supplies the mineral substances needed for the growth of vegetation. The following is the analysis of Squankum marl:

Water.....	19-600
Silica.....	51-162
Protoxide of Iron.....	18-200
Alumina.....	6-100
Potash and Soda.....	4-224
Lime.....	3-478
Magnesia.....	2-037
Phosphoric Acid.....	4-467
Sulphuric Acid.....	0-629"

The growth of white clover upon marl-heaps has come to be a test of its character. Those marls containing lime soon become covered with a spontaneous and luxuriant growth of clover.

Marl can be purchased in any quantity, in New Jersey, as low as \$1.50 per ton, and in Delaware and Maryland at from \$2 to \$2.50 per ton.

The amount of Potash and Soda in a ton of Marl is \$5 1/2 lbs., which at 6 cts per lb amounts to.....	\$5 13
Phosphoric Acid, 99 8-10 lbs at 9 cts.....	7 20

Value of a ton of Marl.....\$12 33

Besides these elements there is always a small quantity of ammonia. The sulphuric acid unites with the lime, forming sulphate of lime, also a valuable fertilizer; besides these, there are plaster and iron; but, at least estimates, a ton of marl is worth at least six times the price it costs in the above sections.

HARDENING THE MOULD-BOARD OF PLOUGHS.—A new metal has been discovered for the manufacture of the mould-board of ploughs which gives them all the hardness and temper of steel, in combination with the toughness of iron. The mould-board (good iron) is heated and dipped into molten iron. It remains there ten seconds, when the two surfaces become heated to a white heat, while the centre is not heated through. It is then immediately dipped into water, the surface comes out harder than the highest tempered steel, while the interior is still iron and retains all the toughness and strength of the iron. The advantage claimed for this invention is that the ploughs made by the process will take the finest and hardest polish, which they will be tough enough to endure any reasonable knocking about in stony soils.—*N. Y. Weekly Herald.*

## Thinning of Turnips.

A correspo. of *The Farmer* (Scottish) writes as follows on the above subject:

"Turnips have for a long course of years been generally thinned with the hand hoe; and in thinning great care has been taken to have the plants left all laid flat upon the ground, with only a very feeble hold of the soil. The method is still in full practice by a number of farmers at the present day; but a considerable number have found, from experience, that this is not the best mode of management. The new, and at present best method, is the *hand thinning*, which is gradually growing in favour, and countenanced by several extensive farmers. It is allowed to be as speedy a mode, when performed by expert hands, as the common old hand-hoeing system. This new method is performed by the thinners; boys and girls can do the work admirably, and at little expense and at every proper distance for a plant to be left, a good-sized one is seized by the left hand, while the right clasps and pulls out what are unnecessary. By this system the plants are left less injured and with firmer hold of the soil than when thinned with the hoe, which causes them to come forward more rapidly than when laid prostrate and loosened. For swedes the plan has been found to be advantageous. It is but natural to suppose that, where the plants are laid over and loosened, even allowing them to take but a short time to rise again, those never laid over must be a stage further advanced by the time the others have got upright, besides they are less liable to injury by being tossed about by high winds. The experiment has been tried by several farmers, and the result has proved favourable. The use of the hoe in cleaning is, nevertheless, necessary, and this is a light matter and easily performed. One trial will be found convincing."

Whereupon the Editor observes:

"The mode of thinning turnips mentioned by our correspondent may be new in his neighbourhood, but we adopted it more than twenty years ago, not indeed from any idea that it was an improvement, but because we were so situated that we could not get hands who were expert in the use of the hoe. We found, however, that it was a good plan, and continued to practise it; but the ground must be gone over with the hand-hoe very soon after the plants have been thinned."

## The New Double Furrow Plough.

This recent invention was tried on Saturday last, through arrangements made by Messrs. Benjamin Reid & Co., on a field at Rubislaw, near Aberdeen. The plough is the invention of Messrs. Thomas Pirie & Co., millwrights, Longside, Aberdeenshire, by whom it was patented and first exhibited at the show of the Royal Northern Agricultural Society in July last. There it received commendation from the judges, and was set aside for trial in autumn. At the trial, which took place on the farm of Auchterloun at the same time as the competition in reaping-machines, held under the auspices of the Society, its merits were seen and appreciated. One man can superintend the plough and also drive the horses. By means of two iron handles or levers, fitted with regulating screws—one regulating the first plough, the other for regulating the second—he directs the depth of the furrow slice, which can be altered at any time without stopping. A third lever is used to move the front or steering wheel, by which the plough is readily turned. On this occasion, the size of furrow was six by nine inches. The coulter and mould boards are of cast-steel. Applying the dynamometer, the draught was found to be favourable as compared with that of the single plough. Here the average draught was nearly six cwt., and the common plough, when tried on the same ground, averaged four and a half. Tried immediately after on land after turnips, the difference was rather more marked; so that it may be stated generally that the double furrow plough on such land is much about the same as the common plough on lea. Of course, the same dimension—six by nine inches was allowed to in making the comparison. Trials made on heavy clay lea, in different parts of the county, show a similar difference of draught between the double and the single plough. On such, it is calculated, three horses draw the former with more ease than two can do the latter. And then, as the amount of work done, with two horses in eight hours, one double plough turns over two imperial acres of light loamy lea, and as an instance in point, on the farm of Tipperary, near Elton, some weeks ago, with three horses, strong land in lea was ploughed with a furrow of seven inches by nine and a half inches, at the rate of two and a half acres in ten hours.—*Farmer* (Scottish.)

## Top-Dressing Grass, &c.

The agricultural correspondent of the *Inverness Courier* says, with reference to the use of artificial manures for the purpose of top-dressing grasses, &c.: "We see that everywhere, almost, top-dressing is now the rule for much of the grass. Nothing pays better when a proper opportunity is taken for doing it, and suitable manures are applied, because whether for pasture or hay a thick sward, and a vigorous start, is half the battle won. If for hay, we have a prompt return in the stack; if for pasture surely it is wiser to increase the growth on one's own land than to send half the cattle away to enrich a "superior grass park" let by somebody else for your money and their manure. We know very little land that would not repay the farmer for top-dressing his first year's grass at any rate. For of course all the conditions that hold good for increasing crops in general, hold good as regards grass; the better, and richer, and drier the soil, the more will the profit be, notwithstanding the fact that very enormous crops of grass grow in the sea-sand, where, as a rule, cereals with the same treatment would do no good. It was their experience of this fact that brought those Ayrshire farmers to grief, of whose wonders we heard so much ten years ago. Not that they were farming sea-sand, but that they mistook the effects of over-enriching cereals by top-dressing. In our own time we have succeeded in illustrating the process. On a farm of the lightest soil—if it might be called soil at all—we broke up four or five-year-old lea, and with a little labour and a great dose of guano, got a spanking crop of turps. We gave the whole crop to sheep, sowed barley, and had the most beautiful and bulky growth the eye could desire. Very proud we were of our farming, and we went on talking largely about our precious field till harvest approached. One day we made the startling discovery that some of the long and handsome ears happened to have no grain in them, and we pursued our researches long enough to become aware that perhaps the less we said about the whole affair the better; for, in fact, that field which looked five quarters did not thrash out two bushels! We had stimulated the poor weak soil into a fever, and grown grass (in fact), and left in it no strength for growing grain. Of course it is very possible to waste top-dressing even on grass, for if a long drought succeeds the time of application the manure will be nearly useless."

## The Barberry as a Hedge Plant.

P. ALLEN, of Benton Harbor, Mich., writes to the New York Farmers' Club as follows:

"I want to say a few words about the barberry. One fact is worth half a dozen guesses, and I have experimented on barberry for ten years, and cannot see its character as so do. Ten years ago, or about that time, I planted one hundred barberry bushes in Delaware county, Iowa. The following winter, on thirty different days, the mercury sunk down from 10° to 30° below zero, and it did not injure the barberry. This ought to establish its hardiness. Four years ago I planted ten rods of small barberry plants for a hedge on my place. That hedge now appears much like a perfect fence. Man or beast would try more than once before passing through it. Two years more of such growth as it had last year would make it hog-tight, horse-high, and bull-strong. As to its blasting crops, I have raised wheat, corn, sugar cane, and many varieties of fruit right along beside the barberries, and the only thing I ever knew blasted even when far away from the barberries. A Massachusetts man complains of the seedlings springing up. I will pay him \$100 for 20,000 such plants, delivered to me next fall. One writer complains of their sprouting at the root, and becoming a nuisance. I deny that one plant of the barberry ever sprouted from the root. It does, it is true, throw up each year straight sprouts from the collar of the plant. These second year said shoots throw off lateral branches, which lock and interlock with the previous growth. All of these sprouts unite below the collar in one central root, which at the depth of eight or nine inches branches out into proper roots, but I have never seen one bud on the root of any plant of the barberry. Let no one send me for seeds or plants, for I have neither for sale. I do, though, fully believe that the barberry is yet destined to become the great hedge plant of America."

THE EARLY ROSE POTATO—Our American exchanges give a very flattering account of this new potato. Specimens of this year's growth are described as large and of excellent flavour. It is thought it will take the lead of all the early sorts.

## New and Simple Potato Digger.

A POTATO-DIGGING machine, easy of construction and light of draft, is thus described by a correspondent of the *Country Gentleman*:—

It consists of a wooden bar four feet long, into which are inserted from the bottom five steel teeth. These teeth, which are of bar steel, rounded on the upper surface and brought to a point at the working end, are put through the wooden bar and secured by nuts, so they are easily removed. From the wooden bar to the principal curve in the teeth is about five inches, and from this curve to their outer extremity they form an angle of about fifteen degrees. An iron rod, rising about two feet and a half from the wooden bar, and fastened to each end of it, forms the handle. Trace chains, from six to ten inches long, pass from each end of the bar, by which to attach the horse to the machine, which is done by hooking these chains to the traces, so no whiffletree is used.

As to the efficiency of this digger, it is alleged that it does its work well and rapidly, inasmuch that two men dug forty-three bushels of potatoes with it, and put them in a waggon, in three hours, last fall. This labour, by the same men, would dig and put in waggons over 140 bushels in ten hours.

## Ashes for Wheat.

A correspondent of the *Rural Gentleman*, in Delaware, writes strongly in favor of ashes to prevent rust in wheat, and from experience has found them of great value. As to the effect of ashes, he says they have, like Shakespeare's "sherry sack," a "three-fold operation;":

1. The ashes operate as a manure upon the wheat, even in the limited quantity of eight bushels per acre.
2. They push the wheat forward several days, and in time to escape the hot, sultry days which often prevail about the time of the "heading out" of the wheat; and
3. They strengthen the stem, giving it substance and solidity.

I may add one or two more properties of the ashes; they afford just that kind of pabulum or food which is best for the development and perfection of the grain, and will, in my opinion, also prevent the ravages of the fly in wheat. I would here venture the remark, that whoever once tries this experiment will thereafter spread his wood ashes upon his wheat, as above indicated; and, in so doing, he will effectually guard against and prevent "the rust" in his wheat.

GREAT YIELD OF BARLEY.—A California farmer by the name of Gridley, who cultivates some 3,000 acres of land, recently harvested fifty acres of barley, which it is reported averaged eighty bushels to the acre.

IRISH OATS.—We were pleasantly reminded of the "old country" the other day by seeing a magnificent sample of oats brought to our office by a gentleman, who had just arrived from Ireland and brought the specimen to show Canadians what could be raised in spite of drought and adverse seasons; for crops of all kinds have been exposed throughout the whole of Great Britain to the same scorching ordeal that we have experienced in this country. Such, however, is the abundant moisture of the "Emerald Isle," that we are informed they have suffered less from the drought than the sister country; and certainly the sample before us speaks well for the fertility of the soil and the skill in culture that could produce so luxuriant a growth. The straw is between six and seven feet long, stout and strong in proportion, and the heads are heavy and well filled. The sample was taken from the farm of W. Watson, Esq., of Ballanrath, near Edonderry, in King's County, and was brought over by Mr. R. J. Tackabury. Mr. Watson, we understand, does not trust solely to the natural richness of the land on his estate, but makes a liberal use of manure. To produce like results, we must treat even the virgin soil of Canada on the same principle.

## Rural Architecture.

## Cheap Country House.

We again present our readers with a design for a country house, carefully and completely drawn, both as to elevation and plans, so that any good builder using the accompanying illustrations, as working drawings, could erect what would be allowed by most persons to be a very picturesque as well as commodious dwelling. We may state that a gentleman in England, wishing to put up on his estate a frame building such as we use in this country, selected this design for his purpose, and has had all the timber framed in this country and sent out, to be put up by a Canadian workman on its destined site. The architect, builder, and material are consequently all Canadian. The structure will present an unique appearance amid its English surroundings.

have received particular attention, at the same time that economy in construction has been kept in view. By referring to the drawings it will be seen that the house is entirely surrounded by a wide and airy veranda, the roof of which is supported by light lattice posts.

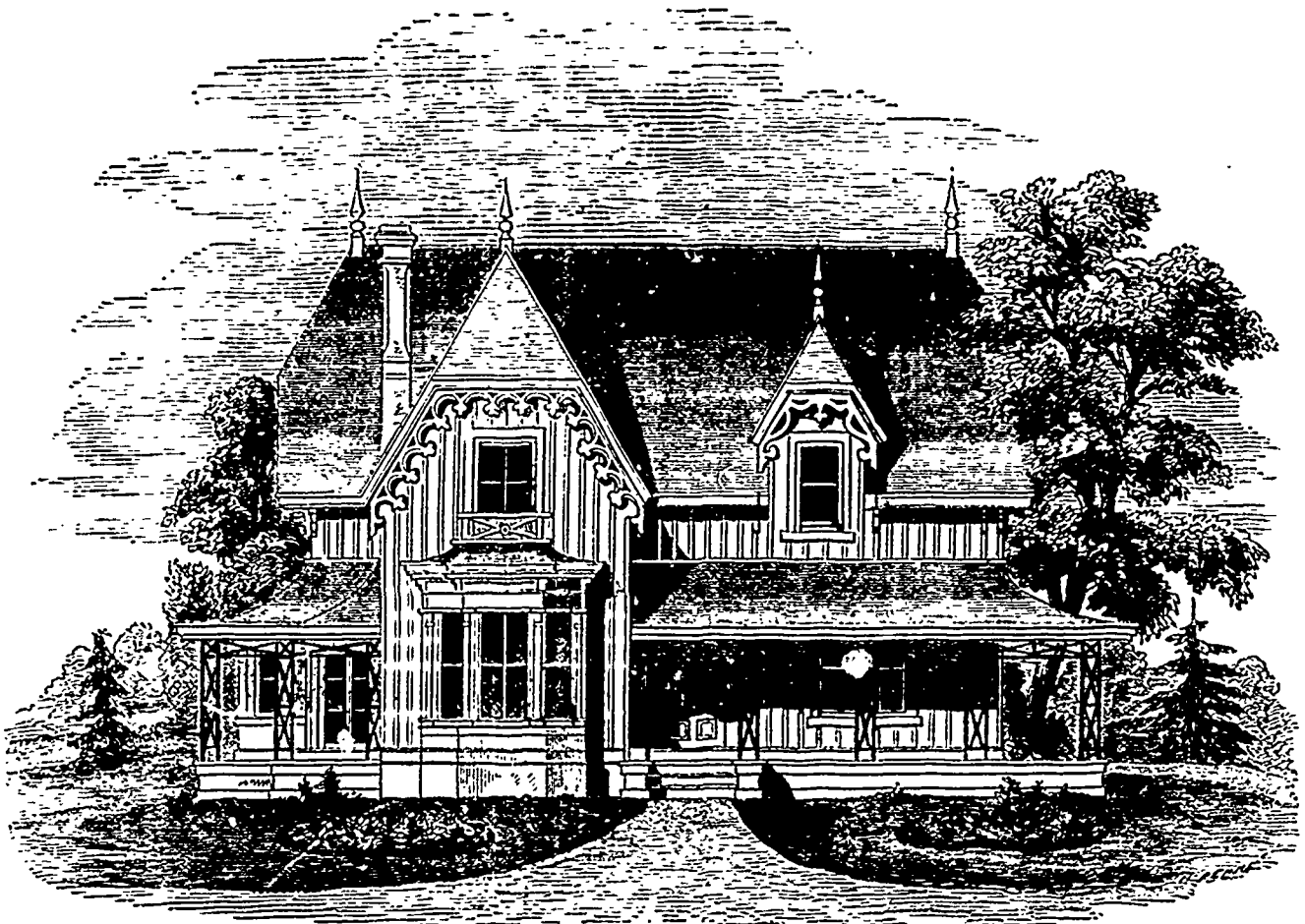
The dining-room projects from the main wall, and is furnished with a bay window, where views can be had to the south, east and west. The drawing-room, which connects with the dining-room by sliding doors, also projects, and is furnished with a bay window similar to that in the dining-room, looking north, south, and west. These rooms are each sixteen feet wide, and eighteen feet long, and furnished with fire-places. To the right of these rooms is a spacious hall, nine feet wide, running right through the house from back to front; in which are placed stairs leading to the upper rooms. Opposite the drawing-room is the library, also furnished with a fire-place. In the rear of the stairs, and opposite the dining-room is the

tion of seasoned lumber, and properly plastering the walls down to floors, a warm and durable house would be the result.

It will be seen, by referring to the elevation, that it is the intention to build this house of timber, and framed in the usual manner, the sills of the frame resting on brick or stone foundations, whichever may be most conveniently procured in the locality. The outside will be sheathed with one-and-a-quarter tongued and grooved upright boards, and the joints covered with inch by three-inch batten. The interior can be finished to suit the tastes of those who may build.

## Painting Buildings and Farm Implements.

FARMERS should learn how to paint their buildings, tools and farm implements in a neat and workman-like manner; and they may just as well do all their own painting and varnishing as to pay some painter



The design is adapted for a dwelling of more moderate cost than some of those that have recently appeared in this journal, and will doubtless be quite within the means of many of our farmers. It is very important in this country to secure in connection with a dwelling house plenty of verandah room, and large and airy apartments capable of easy and complete ventilation. During the recent sultry weather, every one who had an outside porch or verandah was certain to be occupying it in his hours of rest and leisure, and those who had not this luxury were disposed to envy their more fortunate neighbours, or at all events would mentally resolve that if ever they built a house they would have a verandah. These appendages, besides being ornamental and giving relief to plain walls, are pleasant as an out-door retreat in hot weather, serve to keep the interior cool, and will be found very convenient also in wet seasons, especially where there are children.

As the accompanying design was prepared for a country house, all these convenient arrangements

kitchen, connecting with the main hall by a short passage; and on each side of this is a pantry, one opening out of the kitchen, and one off the main hall. On the first floor—the chamber floor—there are five bed-rooms, and a dressing-room connecting with the best bed room, and three wardrobes. The three principal bed-rooms are provided with fire-places. Although the upper story is termed a half one, the bed-room ceilings are ten feet high, and only a small part of the slope appears in the rooms.

The exterior will have a very pretty appearance, broken up as it is with projections, bay windows, verandah, and steep-pitched roof, &c. By lovers of the picturesque a house of the above description, situated on a fine smooth lawn, and surrounded with group of shrubs and trees, would be thought the height of comfort and elegance. Such a house, though commodious and ornamental, need not be an expensive one. If properly built with timber, and placed on a brick or stone foundation, it would last for many years, and if due regard were paid to the selec-

tion as much as it is actually worth to perform a given job. In the spring, and during warm days in winter, and at any other season of the year, if a farmer has only a little instruction in preparing paint and putting it on, he, and those in his employ, may do all the painting, when they could do nothing else which could be of much account.

Farmers are quite apt to think that it requires a vast amount of wisdom and skill to prepare paint and put it on, and some painters like to make them think that it is far better to pay a very exorbitant price to a painter to have an implement painted than to undertake to do it themselves, and then fail. But there is no danger of failing in ordinary painting. Suppose the first, or even the second coat of paint be a little too thick or too thin when it is put on, after it is on it will preserve the timber just as well—which is the chief object in painting—and no one will care to know, so far as "looks" are concerned, after the implement has been used twice, whether a novice or an experienced workman painted it.

Common paint-brushes are made of the bristles and coarse hair of swine. The long bristles are assorted with no little care and judgment and placed by themselves, and those of a corresponding length are put in another place. They are then combed out, straightened, and fastened to the handles. For ordinary painting, those having the longest hair are preferable, and those brushes that are of an oval form are preferable to round ones. When the handles are round, it is best to flatten them a little so that the brush in painting will wear on two sides only. A painter can usually paint better with a brush of an oval form than with a round brush.

When selecting brushes, see that the handles are not loose, and that the hair does not come out. Brushes are liable to burst loose from the binding when they are bound with cord, unless the cord is well painted. Therefore, whether they are bound with cord or wire, they should have two good coats of paint applied to the binding before they are used.

Before using paint-brushes or whitewash brushes they should be placed with the hair end up and some good varnish poured down against the butt end of the handle, which will spread among the hair and become so hard in few days that the hair and handle will be so firmly united as to prevent the bursting of the brush or shedding of hair. By turning a few spoonfuls of good varnish into a white wash brush, and by giving the leather band a good oiling, its durability will be increased sometimes more than one half.—N. Y. Times.

**An Out-Door Cellar.**

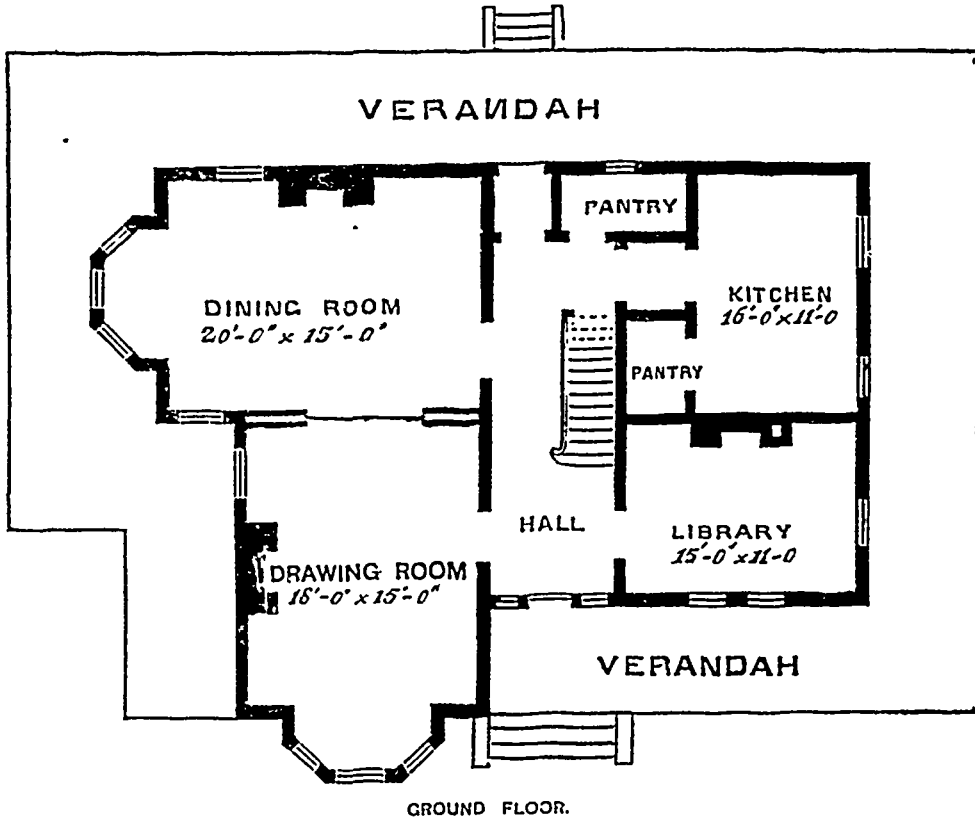
It is very unwise to store a large quantity of vegetables in the cellar of a farm house, even if it is of sufficient capacity. In the latter part of the winter there will be some decay, and nothing can be more detrimental to health than living over a mass of decayed vegetable matter. But few cellars are large enough to hold the products of the farm that requires winter storage. As we devote more attention to the economical feeding of stock, the necessity of good root cellars will be felt more seriously. Carrots, beets, parsnips, cabbage, and the like, require cellar room. A sandy hill-side is the best place for making a cellar, as in this situation good drainage is secured as well as easy access. A good cellar, however, can be made in any place where the water will not be within three or four feet of the surface. Especial pains must be taken to secure good drainage.

Dig down as far as drainage will allow, and throw the earth back to be used in banking up. If rough stones are to be had, they are the best for the walls, if not, posts and planks will answer. A strong ridge pole is necessary, which must be supported by posts. Bank up the sides with earth, and plank the roof,

and cover with straw or leaves, over which rough boards, or something of the kind must be placed to prevent blowing off. An easy entrance should be made at the front by digging down the earth in a gradual slope, and as this part will be exposed to the weather, it should be double; and if of boards, filled between with straw. Where stone is used a space for air is sufficient.—Michigan Farmer.

the entire surface. It will be seen at once that three thicknesses of matched boards, securely nailed and thoroughly pinned, besides being so hung as to obviate effectually all possibility of sagging, as is the case with doors of ordinary construction and workmanship when hung in the usual way, must secure an article of great efficiency and of an almost indistinguishable character. The labor of opening and closing

these doors may be performed by the merest boy, and in windy weather they are not slamming and endangering not only their own fastenings and fixtures, but the lives, also, of all by whom they are approached. The old fashion of placing two trucks at the bottom is anything but desirable, as the former is liable to become clogged by snow and ice; but when it is placed at the top, no obstruction can possibly intervene from this source; the door glides easily along the rail, and never requires to be forced open by main strength. Small doors for tie-ups, sheds, out-houses and other similar buildings, are constructed in a similar way. They are much cheaper than panel doors, to which they are preferable for all purposes where strength and durability are required.—Cor. Ger. Tel.

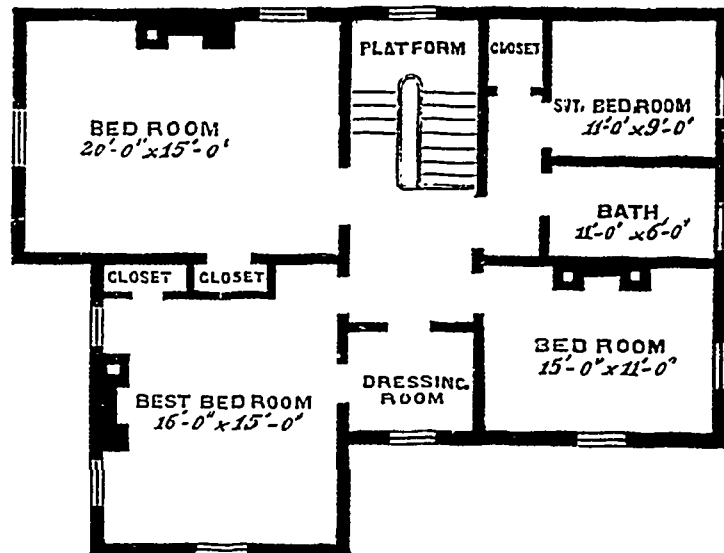


GROUND FLOOR.

**Railroad Doors for Bars.**

These doors are far superior to the old fashioned doors, which revolve on hinges. They are opened and closed by means of a rail and several small iron

**CHOICE OF A SITE.**—This is a matter of no small importance, and should be well considered before commencing to build. With regard to the prospect, choose the spot for your future residence in a dull weather. If pleasant then, it will be charming under a brighter sky. If possible, have at least a few trees ready grown about the place. Let the aspect be south; the level high, but not bleak and exposed. The conveniences for water supply, space for the necessary outbuildings, and ready access to road or other portions of the land, must all be taken into consideration. Look well beforehand. Do not build "in haste and repent at leisure."



CHAMBER FLOOR.

trucks securely attached to the top, and are so constructed as not only to close the door effectually against the ingress of rain, snow and cold air, but to be very durable and in every respect efficient. Large doors are formed by one inch matched boards, placed perpendicularly, and crossed by matched strips of the same in a diagonal direction, or from corner to corner on both sides. These strips are so put on as to represent the sheathing often seen on fine houses, being about six inches in width and covering

**THE ODDITIES OF OWNERSHIP.**—Why do people call their residences by such strange names? Why should a brick cottage be called "Stonehengs?" or a little tenement in a shady street "Sunny Side?" Why are bold-looking edifices styled "retreats;" and places without a tree "the elms," "the oaks," or "the willows?" If Jones or Robinson, with the aid of a building society, erect a weather-board dwelling, why christen it "the rosary," "the bower," or "Mannersutton villa?" Doubtless a lady who takes in boarders may with propriety call her residence "the lodge, out of compliment to her lodgers; but it is decidedly objectionable even for an Englishman to designate his abode a "castle," although the habitation of a Briton may be looked upon as such. A trip round the suburbs will amply illustrate the oddities of ownership, as almost every domicile passed has some queer name.

## Stock Department.

### Importation of Alderney Cattle.

Mr. Sheldon Stephens, of Montreal, has received advices of the shipment from London of a herd of Alderney cattle for his farm near Montreal. The herd consists of twelve animals—ten heifers and two bulls. Five heifers and one bull were selected by Mr. Henry Tait, Steward of the Home Farm at Windsor, from Her Majesty's herd of Alderneys. The remaining five, with a young bull, were selected by Mr. L. P. Fowler, Little Bushey Farm, Bushey, Herts. The herd before leaving England, was much admired, and gave entire satisfaction to Mr. Tait and Mr. Fowler. The animals are described as being perfection in form in all the best strains procurable. They were shipped on the *Kennicott*, sailing from London on July 24, and are expected early this month in Quebec. Mr. Stephens has also purchased some of Prince Albert's breed of pigs from Mr. Tait. We are glad to find Mr. Stephens vying with his neighbour, Mr. Cochrane, as a breeder of improved stock, and hope the adjacent province of Quebec will yet give Ontario energetic rivalry in this line of things.

### Large Merino Fleece.

The sheep department of the *Rural New Yorker* (Hon. H. S. Randall, Editor.) is ecstatic over an extraordinary scoured merino fleece, the "largest on record," and devotes a column and a quarter to description and eulogy of it and the animal on which it grew. This fleece was one of several which were publicly sheared and weighed at an exhibition conducted by the Ontario and Livingston Counties Wool Growers' Association. It was the growth of eleven months and twenty-one days, grew on a three-year-old ram, the weight of whose carcass, after shearing, was only 108 pounds, the fleece weighing twenty-four pounds when taken from the sheep, and nineteen pounds and three ounces after scouring. Mr. Randall says this fleece beats all other known fleeces by nearly, if not quite a pound, while the proportion of carcass and wool makes it still more decisive in superiority. He adds "this case is likely to become historic in the annals of sheep husbandry." The owner of the ram is Levi Noble, Junr. We are not informed of what place.

**Cotswold Wool.**—Mr. Geo. Jackson Bloomfield Farm, near Wilmington, Del., writes us that four ewes he imported from Mr. F. W. Stone, Guelph, Canada last fall, sheared 16 lbs. wool each in May. They are two years old. This is a heavy yield. They have grown very much and are fine animals.—*Co. Genl.*

**Stock Purchases.**—The Guelph *Mercantile* mentions the sale by Mr. Joseph Kirby, of Esquesing, of stock destined for Nova Scotia. Mr. Roy, of King's County, in that Province, bought of Mr. Kirby recently a Shorthorn bull calf and a heifer calf of the same breed; also a yearling Leicester ram, a Leicester ewe lamb, and a Cotswold ram lamb. Mr. Kirby has also supplied thorough-bred stock to purchasers from Quebec and the United States.

**NEW DISEASE IN LAMBS.**—The *Gardeners Chronicle* records the appearance of a mysterious and fatal disease in lambs in one of the eastern counties of England—"There is a large tract of fine alluvial land in one of our eastern counties, well drained, and lying under a dry climate, where sheep breeding has been followed for many years. The ewes are tupped and lambed upon old pasture, and the lambs suckled—and to a large extent also weaned—upon old pasture, the proportion of clover or two years' seeds being very small. Undoubtedly, lambs were a better business there at one time than they seem to be now. The losses are often excessively heavy, and the flock

masters can scarcely believe some of the hill-countrymen, who boast their large falls of lambs, carried through a summer without any serious difficulty from the all prevalent 'scouring.' Of late years ill-luck has visited particular neighborhoods, with what the shepherds, seeing it for the first time, suppose to be a new malady. Lambs at ten weeks to three months old begin to do badly; their fleeces look dry and 'ponny' and abound with ticks, they nab or bite the wool, they suffer from obstinate diarrhoea; they die suddenly. In their stomachs are found large pellets of wool; in their small intestines are quantities of tape-worms. Last Monday, on a farm well known to us, a lamb died suddenly—so suddenly that it was found with its mouth full of fresh grass just as it reached off the sward, the bowels were highly distended with gas, a large clot of wool had passed the first stomach, and the smaller intestines were full of tape-worms. Last year the same farmer lost more than twenty, and a neighbor of his lost more than fifty lambs, affected in this way.

**DEATH OF THE SHORT-HORN BULL "DUKE OF BOURBON."**—We very much regret to learn that Mr. Snell has lost one of his prime bulls in the celebrated "Duke of Bourbon." This noble animal died on the 3rd inst. of bronchial affection. He was bred by George M. Bedford of Paris, Kentucky and imported by Mr. Snell, when eleven months old, at a high price. He was the winner of the first prize at the Bourbon (Ky.) County Fair as a Bull Calf in 1867; the second prize as a yearling at the Provincial Fair in 1869; the first prize as a two-year-old at the Provincial Fair at Kingston last year, and also the diploma for the best Durham Bull of any age. Besides these important premiums he won six first prizes at County and Township fairs. "Duke of Bourbon" was pretty deeply bred in the Duchess blood, and proved a good "getter," impressing his own characteristics in a marked degree upon his offspring. Mr. Snell has used him in his herd three seasons with very great satisfaction. He was a bull of very fine style, combining fineness of bone with sufficient substance, his weight at three years old being 2350 lbs.

**AN IMPORTANT DISCOVERY.**—A writer in the *Quarterly Review* says that sheep graze from the land on which they graze a considerable quantity of potash, much of which is ultimately excreted from the skin with the sweat. It was pointed out by Chevreul that this peculiar potash compound (suint) forms no less than one-third of the weight of raw merino wool; while, of ordinary wools, it constitutes about fifteen per cent. of the weight of the fresh fleece. As the "suint" may be extracted by mere immersion in cold water, it is easy for the wool manufacturers to produce more or less concentrated solutions from which the potash may be recouped by an appropriate treatment. The development of this new industry is principally due to MM. Maumene and Rogelet, and their process is probably in operation at most of the great seats of the wool manufacture in France. The plan adopted by these gentlemen is a very simple one. They evaporate the solutions which are sent to them until a perfectly dry and somewhat charr'd residue has been obtained. This is placed in retorts and distilled, very much in the same manner that coal is distilled at gas-works; and the result is, that while much gas is evolved, which can be used for illuminating the factory, and much ammonia is expelled, which can be collected and utilized in many ways, there remains a residue which chiefly consists of carbonate, sulphate, and chloride of potassium. These three salts are separated by the usual method, and then pass into commerce. Curiously enough, they are remarkably free from soda. The wool manufacturers of Rheims, Elbeuf, and Fourmies annually wash the fleeces of 6,750,000 sheep; and the amount of potash, reckoned as carbonate, which these fleeces would yield, if all subjected to the new process, represents a value of £80,000. But MM. Maumene and Rogelet calculate that there are seven times as many sheep in France as are included in the above estimate; and this will enable us to judge of the enormous loss in potash constituents which the soil of an agricultural district has to suffer. The practical and very obvious moral supplied by these facts does not yet appear to have penetrated the mind of the British farmer. [Nor that of the Canadian or American farmer, notwithstanding the magnitude and value of the wool interest.—Ed. C. F.]

## Veterinary Department.

### The Hot Weather and the Health of Stock.

THE present scorching hot weather, with the thermometer at ninety degrees in the shade, tells injuriously on the health of all domestic animals. Dogs lie panting, with outstretched tongue, happy if they live beyond the reach of Sir Richard Mayne, his meddling myrmidons, and his vexatious muzzles, like their masters they are averse to much hard work, seeking the cool shade, and enjoying the light drinkable fluids, but certainly less apt to take rabies than in the frigid weather of December or January. Sheep suffer from attacks of flies and from thirst, require as much attention to their water supplies as do cattle and horses; and six months hence will, we fear, in many quarters pine and die from the needful water now withheld.

Horses fully and readily knock up, the direct rays of the powerful sun falling on the head render megrims more frequent than usual, although we might suppose that weather of such Indian splendour would banish all colds and sore throats, we nevertheless find such ailments strikingly common; horses are overheated and exhausted, their skins are highly congested and their nervous energies prostrated, and thus predisposed, if they stand in draughts or are left out in the cold night air, they are just in the condition in which they are apt to catch a host of ailments. Again, from the tear and wear of the bodily structures, typhoid febrile disorders abound; and in badly ventilated, overheated, foul stables, glanders, farcy, and other diseases depending on special organic poisons are rife. Moreover, from the dry hardness of the streets and roads, and the number of loose stones which the heavy traffic is everywhere tearing up on the macadamised ways, horses are very liable to stumble, and we have never known, either in town or country, of such long lists of broken knees. Against such accidents the careful horseman will provide by keeping his horses well up to the mark, avoiding as much as possible heavy or continued work during the heat of the day, and lessening the jar on the legs and feet by having a band of leather or gutta percha nailed on between the bearing surface of the foot and the shoe; pulling up at short stages and allowing the steed a few minutes breathing time and a few swallows of water.

From the continuance of such hot weather the cattle suffer as well as the horses. Not only are the pastures bare and scorched up, and the stock reduced to very moderate rations of "roast meat"; the water supplies are also in many quarters getting short, the water is apt to be turbid and contaminated with organic matter, whilst troublesome flies prevent the poor things feeding or resting. The scarcity of natural food compels the grazier to purchase cakes, beans and other concentrated foods, which, being in such demand, have consequently become very dear. The free use of such food, coupled with the extreme heat, and probably also with a shortness and impurity of the water supply, has in Lincolnshire and elsewhere led to the production of quarter-evil and epenic apoplexy. The dry season, the scarcity of succulent food, and the restlessness of the cows, have diminished the supplies, and increased the price of all dairy produce. From the heat, and the cows galloping restlessly about, their milk is apt to undergo some prejudicial changes, and deranges the bowels of young calves. In some districts, owing apparently to the heat and state of the milk, we have seen cases of typhoid fever among the sucking calves.

In such cases the best arrangement is, if possible, to keep the cows in the house during the day, and only turn them out to graze in the night. The calves when scouring should at first have a dose of castor oil; along with their milk give them lime water. If the bowels still continue irritable, suspend the milk for several days, and feed on well-boiled wheaten flour and linseed gruel; sustain the strength by small doses of gin, whiskey, sweet spirit of nitric or other stimulants, and be particularly careful as to cleanliness. When the calves are attacked by typhoid fever, when the excretion becomes foetid, the skin acquires a noisome, sickly odour, the belly is tender, and the little animal so weak that he cannot stand, good nursing, tonics and stimulants are the only remedial measures. He had better be removed from the healthy calves; placed in a cool, comfortable pen, have his bed made afresh twice every day; receive, especially when first attacked occasional small doses of castor oil; twice daily with his food have ten grains of carbolic acid; instead of milk he will generally do better with boiled bread or linseed tea, given often, but in small quantities at a time; several times a day he will be benefited by a little tincture of gentian, ether, or ammonia.—*North British Agriculturist.*

## The Dairy.

### The Drought and its Influence on the Dairy.

We extract the following from the *Times Weekly Herald* of the 28th July:—

We have now had several weeks of intensely hot weather, with no rain. Pastures are rapidly failing, and fears are entertained of a severe and long continued drought. We have advices from the western part of the State and from Canada, that the country is suffering from drought, and that the quantity of cheese has already been shortened up materially, and will be much less than last year in these sections. If dry weather continues much longer the amount of cheese made in New York will be very much less than was expected, and it was well understood, even under the most favourable circumstances, that it would be much less than last year. Under this state of things, prices for dairy products must without doubt advance. It will be remembered that cheese has gone off freely, and that there is no surplus in the country. We understand that every pound of the western product is needed west, and that now will reach the seaboard. The cheese made in the Eastern States will be mostly needed in the home markets, and the exports must come from New York and Canada. But a large share of the New York cheese must be kept at home to supply the southern market and home demand. If we are to have a drought of long continuance, it is easy to see that exports must be cut short. As to the Canada market, it will not be any larger, and probably not so large as last year. We have a letter from a reliable and trustworthy friend, well posted in regard to the Canada product and the quantity on hand, which we give below. It will be seen that the Canada cheese has been already disposed of, while up to September last year it was all held in the factories. The New York cheese, so far, has been moving off at lower rates than the producer can well afford to make it. The question, therefore, for dairymen to decide is, whether under the present prospects an advance in price should not be demanded.

Our Canada correspondent writes from Ingersoll, C. W., under date of July 15, and gives the following:—

"The season to the 1st inst. has been very favourable, both for yield of milk and quality of cheese. We think the make much improved over last. There has been quite a falling off in the number of cows supplying factories, particularly in this section. The few new factories started will not make up for those that have stopped running. From the best information I can get, I think the make will be one-quarter less than last year. Cheese has been sold very freely from 8½c. to 9c. gold; at the latter figure everything that could be got is picked up. Buyers have been very busy the past two weeks, and have cleared out everything in this section fit to move. Mr. Webb, of New York, is, I think, the largest buyer; he has been operating through Mr. Casswell of this place. We have just sold about 700 boxes at 9½c., the highest price yet paid. This was the only lot remaining unsold in this section. I believe the cheese is bought up all over Canada to the 1st ult. An intense heat and severe drought has prevailed since the 1st inst. The feed is drying up, and milk decreasing much more rapidly than last year. Should the drought continue, it must have a serious effect on the make of cheese. I do not know how far the drought extends, but the heat has extended all over the country."

## Milk Fever.

THE *North British Agriculturist*, in reply to a correspondent, gives the following directions for the treatment of Milk Fever in cows:—

"Milk fever abounds wherever cows, as in Ayrshire, are bountiful milkers; and great care is requisite to prevent serious attacks. Putting the animals on short commons, as usually recommended—or in popular lingo 'taking a stave out of their hicker'—for a fortnight or three weeks before calving will greatly lessen the number of cases. The reduction must be made alike in the quantity and quality of the food. Dry straw or poor hay is better than rich clover or succulent tares. A dose of physic repeated weekly for three weeks before calving is also a useful precaution, and in all such cases a full dose should further be given immediately after calving, unless, indeed, the animal will drink of its own accord, a bucketful of tepid water, in which a handful of salt has been dissolved. Adherence to a sloppy laxative diet for three days after calving will likewise be essential. The bag should be drawn once or

twice daily for at least a fortnight before calving; and for a week after the arrival of the calf great relief will be given by milking four or five times daily. Fully half the cases attacked die—a strong reason for careful attention to preventive measures. Bleeding and a smart dose of physic so soon as the cow goes down is the best that can be done, especially if the patient is fresh. Fomentations along the spine, with the subsequent inrubbing of mustard, are useful. Hot cloths applied over the belly are serviceable in soothing, and also probably in expediting the action of the bowels."

## Butter Making at Cheese Factories.

From the address of Dr. N. S. Townshend, delivered before the Ohio Dairymen's Association, we extract the following relative to the profits of butter making and milk condensing at cheese factories.

If factories make only cheese, some of the valuable constituents of the milk will not be saved or utilized. However much you may desire to retain all the butter in the cheese, its complete retention is not possible, and in spite of your efforts, much will run off with the whey, which although not as good as first rate butter made from cream, is yet better than much of the cream butter that comes to market; and if properly made it will gladly be purchased at a somewhat reduced price by families with whom economy is an object. Does any one dispute the possibility of making a fine butter of whey? Let me reply by saying that such have a pleasant and profitable lesson yet to learn. Of course the best butter may be largely made in factories whenever the price of butter is relatively higher than that of cheese, or whenever half-milk or skim-milk cheese is in good demand. We do not see why factories cannot, without injury to their reputation, of which they are properly very careful, make large quantities of half milk and skim-milk cheese of a different form or style from whole-milk cheese, and supply the market with an article at somewhat lower price, much to the comfort and convenience of families that regard the highest price cheese as too expensive a luxury. This would enable factories to make a fine article of butter, and perhaps contribute to improve the butter making of the whole region. The manufacture of butter, whether in factories or private dairies, is not so purely a mechanical operation as some imagine, and therefore the purchase of the last patented churn is not all that is required. The time allowed for the preparation of the cream, the temperature for churning, the making, working and salting, all require great skill, and the perfection of that neatness so indispensable to the manufacture of good cheese.

Condensed milk has not yet been considered one of the common products of our dairies or factories; when it shall become such, one of the commonest objections to our factory system will be obviated, which is, that they do not use the milk for cheese making, either at the beginning or towards the close of the milking season. If our factories would learn the method, acquire the right, and obtain the necessary apparatus for desiccating milk, and adopt the practice earlier or later, then cheese making would be profitable, it would probably prove remunerative to the factories, and a great convenience to their patrons. Condensed or desiccated milk, which is the milk as it comes from the cow after the water is evaporated, with the addition of a trifle of carbonate of soda to prevent souring in the manipulation, and a definite quantity of pure loaf sugar, is the best substitute for fresh new milk that a family can have who do not keep and milk their own cow. During the recent struggle with the rebellion this article was largely supplied to hospitals for the use of our sick and wounded soldiers, and many a poor boy, whose cup of coffee was trimmed with it, could not tell that he had not been treated to cream from his own mother's pantry. In all our large cities, and even in the villages, how much safer and better to feed the babies on milk desiccated to its original consistence than to feed them on the queer compounds sometimes sold as milk. And even if one could always swear by his milkman, and feel assured that he sold nothing that was not milked from his cows, how much inferior the milk from cows fed on brewery grains or distillery slops to that of country cows, whose only feed is the fresh and fragrant herbage of upland pastures.

CURING RENNET.—Orrin Johnson writes the *New Hampshire Farmer's Record* about curing rennets. He says they ought never to be dried inside out. He adds:—When taken from the calf put a handful of fine salt into it, lay it aside for a week or more—they will not hurt—then stretch them on sticks, not tanned inside out. When taken off the stick, see that both ends are tied or closed up tight. Keep a year's stock beforehand. I think one cured in this way worth two dried inside out."

## The Apiary.

### Industrious and Prolific Colony of Bees.

I have in my apiary one colony of bees in which I feel particular interest—first, from the fact that it has gathered more white clover honey than I have yet had gathered by one colony; 2. It goes to establish an opinion which I have some time cherished, that one great failure in non-swarmers is, there is not room enough for all the colony.

This hive has twenty-seven boxes, of an average capacity of about seven pounds, making an aggregate of nearly 200 pounds.

They now have fourteen boxes completed, except a few cells to cap. They have seven boxes nearly full, five in which they have commenced operations, and but one lone empty box. To see one swarm filling the central apartment, and occupying and working in twenty-six boxes, and a few scattering ones gathering in the last remaining box to commence operations, exceeds anything I have ever witnessed before in my apiary.

It will be seen if this prolific queen had been in a hive of only two-thirds the room, with only eighteen boxes, a swarm must have issued from want of room. Seven or eight thousand cubic inches would be required for room for all her progeny.

Is this not one reason for the opinion that the Italians will always swarm? Are not the queens more prolific, requiring more room?

I should be pleased to show this colony, with its labors, to any friend pleased to call and look at it. I think they have now nearly 150 pounds of white clover honey. JASPER HAZEN, in Co. Gentleman.

## Fecundity of the Queen Bee.

In a paper read by Mr. Desborough before the Entomological Society, he makes the following extraordinary statement, to quote from the published report of the meeting:—"The author had succeeded in ascertaining that in certain cases the queen bee will survive and deposit eggs, during not fewer than six seasons, whereas the worker bees only live about eight months. A single queen had produced as many as 108,000 eggs, which would be about 20,000 a year; but the greatest amount of eggs was deposited during the first two years of her life, only about 15,000 being laid during each of the last three years." With regard to the longevity of the queen bee I have little to say, except that I do not believe, as a rule, her existence extends to more than four years. In all my experience I have never known the life of any to exceed that period of time. The workers may and do live about eight months during the late autumn, winter and spring, but on an average, during the summer, their lives do not exceed three or four months.

But it is with respect to Mr. Desborough's statement as to the fecundity of the queen that I must take exception. A healthy, vigorous queen, at the head of a strong and prosperous colony, in a well proportioned hive, instead of laying only 108,000 eggs in the course of her life—according to the author—six years, will lay much nearer 100,000 eggs in one season. I have myself had hives, in which I have been quite certain that the queen has laid at least 70,000 eggs in a single year; and I have had and heard of other hives in which I have no doubt that the numbers far exceeded that amount. I have also had occasion to notice that the fertility of a queen is most abundant in the third season of her life, a great change for the worse taking place in her fourth or last year.

It appears to me most probable that Mr. Desborough has drawn his inferences from observations of a colony domiciled in a glass observatory hive. It must be obvious to every one that bees under such circumstances must be labouring under very great disadvantages; their energies are cramped in every way, and the breeding powers of the queen, as well as the working powers of the ordinary bees, cannot have full scope for their development.—S. BEVAN FOX in *London Farmers' Journal*.

BEE-SWARMING EXTRAORDINARY.—A correspondent of the *London Free Press* mentions a singular case of bee-swarming that took place on the farm of Mr. Jno. Campbell, Ekfrid. The swarming took place as early as the 15th of March—fully two months before the usual time. Possibly, says the writer, the mild weather induced the emigration from the old hive to a neighbouring apple tree. This could have been no case of swarming. The bees must have left the hive for want of food, or some such cause.





## Weather and Crops in Oxford--Hedges, &c.

To the Editor of THE CANADA FARMER.

Sir—What short-sighted mortals are we? Allow me to illustrate the truth of the above quotation: In the middle of June last, when I was travelling through the country, the land had been inundated with floods, and everything saturated with constant rain; the growth of crops so luxuriant, (except where the land is low, and undrained) that farmers began to fear for the results. Cattle were in great demand to consume the enormous growth of grass, mowers and reapers were ordered with a recklessness never before witnessed, and harvest hands pre-engaged at very high wages, anticipating such a push and such a drive as is not often seen. Some said grain would never rise, therefore could not fill—others said we could do without rain till after harvest and nothing suffer from the want of it. Oh! what a change a few weeks' dry weather has made: who could have believed then that in six weeks the earth would be parched, and that great abundance of water would so far disappear as to leave channels dry, and springs fall short of water?—such, however, is the case.

Still, barns are too few and too small to house more than two-thirds of the stuff grown. Hay was never better, either in quantity or quality. Fall wheat yields well to the acre, though not in proportion to the straw. It is shrunken considerably; all but the midge-proof varieties have suffered from the insect pest, some very severely. The barley has ripened too early; it is bright in color, but light in weight; still there will be a large quantity to ship. Early-sown spring wheat has suffered fearfully by the midge—I never saw it worse; in some instances it will not pay for harvesting and threshing. Late-sown will escape its ravages, but will not yield well, on account of the great heat and drought. Oats, for the same reason cannot be heavy. Potatoes—where shall we find them? I hope some one will save seed to start with again. I have seen but one good field of turnips where sown on raised drills, but several on the flat system, which proves the best three years out of four. Apples are drying up on the trees, especially the Rhode Island Greening. The blossom was very good everywhere, but the east wind prevented the forming of fruit, and there cannot be many, even of such as they are. The long grass which was rejected in June is quite acceptable now, and to keep up a supply of milk green fodder is used, and some are beginning to feed out hay. A good steady rain would still be valuable in starting pastures and root crops into freshness, but on account of the great scarcity of "hands" dry weather is desirable till the crops are secured; but both we cannot have at one and the same time.

Hedges—I would like to have written at length on this subject; but am waiting till I have visited the farm of Mr. Adamson, deputy-reeve of Durham, who has a fine specimen of hedge from the English hawthorn capable of resisting any unruly animal, and only eight years planted. I am also glad to learn by your correspondent of Sylvan that he has succeeded in raising a good fence from the common thorn of the country (surely not the hawthorn, if the plants were gathered from the woods). From the appearance of the many hedges I have seen this summer, I am inclined to the opinion that the native thorn is the hardiest and best adapted for our use.

If the buckthorn is an "old favourite" of anybody's, I wish he would tell us how to make it impregnable to colts and calves. I have a great many rods seven or eight years old, which look well and have been well cared for all the time; but I had to erect a board fence along side of it this summer to keep out cattle from my orchard. Those of my neighbours who have it, have done no better: it will not thicken at the bottom; and its prickles are so slight that a row of thistles make a better fence.

R. W. S.

Woodstock, July 27th, 1868.

NOTE BY ED. C. F.—The above communication was received too late for publication in our last issue.

**POLLTRY DISEASE.** In reference to a recent communication under this head *Demizen* writes:—"In the CANADA FARMER of July 15, W. C. Belleville, says he lost a number of fowls, and describes how they died. In an editorial note at the bottom you say "probably from poison." In this suggestion I agree with you. Near where my fowls are kept fly poison was used and the fowls that consumed the dead flies are dead also."

**C. OIL FOR INSECTS.**—A correspondent, over the initials T. B. S., who gives us in addition his full name and address, sends the following communication in reference to the use of coal oil to destroy insects. It seems evident that with some parties the remedy is effective against insects and innocent in regard to the plants. The difference may be in the kind of oil used. T. B. S. says.—I was much surprised to see articles in your issues of July 1st and 15th warning farmers against coal oil as an insect exterminator, and though unaccustomed to writing for the press, I could not forbear giving you my experience in this matter. When the article which you copied from the *Gardener's Monthly* appeared, I had a bed of cabbage plants which were badly infested with flies. As I had not a watering can at hand, my method of testing the recipe was of the most primitive kind. Putting some water in an old tin vessel, and adding to it a little oil, I then took a wisp of straw, thoroughly mixed them together, and sprinkled the plants. In a few days an improvement was visible, after which the process was repeated, completely clearing the plants from their enemies without doing the plants any harm. I used about a tablespoon full of oil to one gallon of water. In these proportions, I am convinced that it will prove a safe and useful application for all the purposes recommended."

## The Canada Farmer.

TORONTO, CANADA, AUGUST 15, 1868

### The Weather and Crops.

SINCE our last issue moderate rains have fallen in most parts of Canada, and some localities have enjoyed copious out-pourings. From a careful examination of a large number of harvest reports that have appeared in local papers in various parts of the Dominion, we are inclined to think that on the whole the crops are not so bad as it was feared they would be, in consequence of the excessive drought. Some places have suffered more than others, and there are favoured neighbourhoods that have not suffered at all. Hay and fall wheat were splendid crops, even where the drought has been the worst, and as more fall wheat than usual has been grown this year, it is fortunate that the season has proved so favourable for it. Of spring wheat we have diverse accounts. In some places it is a failure, in others half a crop, in others an average yield, and in a few cases, excellent. Peas, barley, and oats have, of course, felt the drought severely. So have potatoes. Turnips have borne the dry weather wonderfully, and the recent showers have greatly freshened them up. Should we have abundant rain soon, the bulbs will prove of good size, and the crop turn out as good as usual. We have had a lesson as to the value of summer forage crops for stock, which, it is to be hoped, we shall not soon forget. The pastures have been literally scorched, and only those who have been able to supplement them with cut feed have been able to bring their cattle well through. Fruit prospects are not so good as it was hoped they would be early in the season, owing chiefly to the ravages of insects. The experience of the present summer leads us strongly to urge on farmers, notwithstanding the discouragements of recent years, the expediency of sowing some fall crop, and especially winter wheat, that will be well advanced before drought can affect it.

### "Farming for Boys."

Messrs. Ticknor and Fields, of Boston, have recently published a very entertaining book with the above title, written by the author of "Ten Acres Enough," a perusal of which has excited many thoughts we have had on the best means of inspiring boys with a love of life on the farm, and we purpose in this article at once to give some idea of the book in question, and discuss somewhat the general subject to which it relates. The author's object is the very laudable and important one of checking the tendency on the part of young men, born and brought up in the country, to make their way to the city for the purpose of seeking their fortunes, under the impression that agriculture is a dull, prosy, toilsome, and unprofitable occupation, and that comfort and wealth are not to be had in a rural sphere. He aims to show that it is a mistake to leave the green fields of childhood for the dust and turmoil of the city; that rural pursuits give scope for intelligence, are comparatively free from temptation to vice, bring a certain reward to well-directed industry, occasion less anxiety, and are every way favourable to the true advancement of mankind. The lessons which are sought to be conveyed are taught by means of an interesting story, the plot of which is laid on a neglected farm in the State of New Jersey, near the city of Trenton, and having, hard by, direct railroad communication with New York and Philadelphia. This farm is owned and occupied by one Philip Spangler, a sober, hard-working man, but of slovenly habits, ignorant, and wedded to old-time notions of agricultural management. Everything about the place is in disorder, there is no systematic management of farm work, no proper care taken of anything. The buildings, fences, implements, manure-heap, all give evidence of unthriftness. There are three boys on the farm,—two young Spanglers and a hired or apprenticed orphan lad, named Tony King, whom Mr. Spangler has taken to teach—what he sadly needs to learn himself—how to farm. These boys have a hard life of it, being kept at work without intermission or encouragement, and never having a holiday, except when a rainy day makes out-door work impracticable, and takes Mr. Spangler to the country tavern, not far distant, to learn the news and discuss politics with his neighbours. In course of time, "Uncle Benny," an old gentleman, a distant relation of the Spanglers, takes up his abode at the farm-house. He is in all respects the very opposite of Mr. Spangler, well educated, orderly, prompt, systematic, thoroughly versed in the theory and practice of farming, and withal possessed of a very genial disposition, fond of young people, and anxious to make them happy. This wise and worthy old man soon acquires a great influence over the boys, and gradually wins even upon incorrigible old Spangler. He quickly sets himself at work to improve matters about the farm and farm-house, making a great change in the appearance of things in a very short space of time. He talks to the boys about the right way to farm, lectures in a familiar way about manures, drainage, and a variety of things, until the youngsters become quite enthusiastic and curious. He then, by adroit management, gets Mr. Spangler persuaded to "give the boys a chance," by allowing them to buy a pig and some pigeons, the money for which "Uncle Benny" advances; and also by obtaining two acres of land, which the boys are to work at odd times. The pig they buy is of the Chester County White breed. She brings them ten young porkers, seven of which they manage to raise. They start with several pairs of pigeons. Their land is manured, under "Uncle Benny's" directions, with all the odds and ends, the scrapings and refuse they can find, and planted to corn. A neglected briar patch on the farm, which had become a thicket of blackberries, and from the outer edge of which the family had been in the habit of gathering some fruit each year for domestic use, is

courageously attacked in berry time under "Uncle Benny's" auspices, and an enormous quantity of fruit gathered, enough to bring, when sent to market, *sixty dollars*. The old gentleman sees a mine of wealth in the briar patch, and gets Mr. Spangler's permission to do what he pleases with it. He invests the proceedings of the first blackberry gathering in getting openings cut through the jungle ten feet wide, which are thoroughly ploughed and harrowed, leaving the plot, some six acres in extent, in even rows of bushes. These rows are cultivated and manured. "Uncle Benny" does the planning and financing, while the boys co-operate with him in the most industrious and persevering manner. Everything prospers under such wise management and diligent labour. Four of the young pigs are taken to the County Fair, where they win the first prize, and sell for ten dollars apiece. The pigeons multiply, and the increase are readily sold. The corn crop is abundant and remunerative. The corn land is planted to strawberries and raspberries, with single plants of sweet corn at such distances as to give a little shade to the strawberries and raspberries, without crowding them, and the sweet corn brings in enough to pay the outlay on the fruit plants. The six acres of blackberries yield four hundred dollars,—two hundred and fifty clear of all expenses. Thus the boys become successful fruit farmers, under "Uncle Benny's" tutelage, grow up to love rural pursuits, become reading, thinking, progressive young men; while old Mr. Spangler yields to the force of the practical logic brought to bear upon him, and improves vastly in his farm management. Comforts thicken and multiply in-doors as the progress goes on out-doors. The upshot of it is, that when a rich uncle of Tony comes along, and wishes to help his nephew make a start in the world, Spangler sells thirty out of his hundred acres, including the briar patch, so that Tony and the Spangler boys become next neighbours, raise fruit on a large scale, get on famously, while "Uncle Benny," when disabled by age, continues to be their "guide, philosopher and friend."

The above is a meagre outline of a well-told tale, which boys will read with as much avidity as the "last new novel," and which cannot fail to rouse them to self-reliance, and a laudable ambition to carve out success for themselves. Of course it is only in certain favoured localities, near large cities, that fruit-farming can be gone into on a large scale profitably; and the author of "Ten Acres Enough" is known to make fruit-farming a hobby; but the narrative we have outlined brings out principles of wider application, although the same brilliant results are not to be looked for in all conceivable circumstances.

It is a most important question—what can be done to interest our young folks in agriculture, as their future occupation? As an old lady, a farmer's wife, lately remarked to us, "The rising generation does not take much to farming." Many reasons may be given for this. But the main thing is to apply the remedy. And must not this be done very much by such means as are suggested by the foregoing narrative? If boys are kept on the farm as mere drudges, if they are made to toil mechanically, instead of being initiated into the whys and wherefores of what they do, if they have no opportunity for making a little money for themselves, if home is not rendered pleasant and attractive, if due provision is not made for occasional recreation, can it be wondered at that they regard the farm as a place of confinement, whence they make their escape whenever they find a chance of so doing? Let fathers act the part of "Uncle Benny" to their sons and daughters, and there would be less complaint of the tendency cityward, of which we ever and anon hear so much. To sum up, we would suggest as likely means to induce a love of farm life in young people, the following things:—

1. That instruction be given in our country schools

on the theory and practice of agriculture, especial pains being taken to explain principles, trace results to their causes, and waken intelligent interest in those natural processes and laws which have to do with successful culture of the soil.

2. That farmers aim to make home life pleasant, by surrounding their dwellings with some show of beauty, providing, as far as possible, in-door comforts, furnishing books and papers for their children to read, especially such as treat on rural pursuits, devising suitable recreations, and avoiding excess of work for young muscles and growing bones.

3. That instead of a constant fault-finding in regard to farm-life, which is too common, agriculturists learn to estimate their calling aright, to feel an honest pride in reference to it, and infuse into the minds of their children similar sentiments.

4. That personal interest be created in farm operations, by giving young people a plot of land, a young animal, a hive of bees, or something of the sort, to encourage and enable them to acquire and save a little money for themselves.

5. That by attendance at agricultural exhibitions, visits to the best conducted farms in the neighbourhood, and the establishment of Farmers' Clubs, at which interesting matters pertaining to rural life may be debated, the minds of young people be sharpened and stimulated toward improvement.

6. In a word, life on the farm, to be attractive, must be elevated and dignified, as it may easily be, so as to render a country home not only as delightful as a city home, but more so, because of those charms which invest nature, and never can be out-done by art.

We anticipate a great change for the better, when the generality of farmers' families are moulded under such influences and principles as those which are brought out in practical action, in the suggestive book for boys which has prompted this article.

### Cattle Plague in the West.

AN alarming disease has broken out among the cattle in the Western States. The earliest complaint comes from Indiana and Illinois, where the losses are already said to be very great. As the cause of the plague is said to be the importation of Texas cattle, no doubt the track of the plague must be a lengthy one on the plains. Texas droves commenced arriving about the first of May, and as they stopped at many places to graze, the native cattle contracted a disease, which for fatality is said to challenge the rinderpest. Wherever the native stock fed after the departure of the Texas cattle, death ensued usually in about five days.

In one county in Illinois, a writer shows that \$10,000 worth of cattle had been skinned in fifteen days at the early outbreak of the pest, and it was spreading with such fearful rapidity that all medicines were abandoned. It chiefly attacked milch cows, and among them not a single instance of recovery was noted. In some communities, the people have been suddenly deprived of milk and butter. Vigilance committees are forming in the interior villages, and threatening to kill every Texas herd that comes within miles of the neighbourhood. At Kankakee, in Illinois, where the disease is raging, an indignation meeting was held, and the owner of a large Texas herd was threatened with its destruction if not removed immediately. The owner assured the committee that removal was then too late to abate the disease, and pacified the people by guaranteeing to make good the loss of all the cattle which should die of the disease in that neighbourhood.

A commission of medical men, appointed by the Pork Packers' Association of Chicago, have visited the points where the Texas disease has appeared, and will issue a carefully prepared report. They state that intense excitement exists in the afflicted localities, and vigilance committees are preventing the

landing of cattle from boats or cars, or their passage through the country in droves.

In reference to the question, "what is the disease?" the *Prairie Farmer* of Aug. 6, says:

"We can only answer by giving the opinion of Professor Gamgee, who after a *post mortem* examination of several animals, pronounces it one of a group of inflammatory fevers, or blood diseases, called in England Anthrax Fever, in other places Black Water, from the colour of the urine; and from the resemblance of this one to that, he would suggest that it be called the Black Water of Texas."

The panic has reached Chicago, and the newspapers there say there is no further occasion for secrecy. The dreaded fever found its way into the stock yards, by means of a cow from the infected district, on Monday last, and the cattle dealers and public are in great anxiety. There are in stockyards about 5,000 head of native cattle, and some 4,000 head of Texas stock are herded outside. The fever had begun to spread, and several cases of death occurred in the early part of last week among cattle belonging to residents in the vicinity of the Texas herds. The authorities of Chicago are using every means to prevent butchers from buying any suspicious meat, and a thorough city inspection is demanded to prevent a frightful addition to the mortality list.

The stockyard drovers are offering to sell at ruinous prices, but cannot find eastern buyers. The plague will effectually stop the shipping north of Texas cattle for some time to come, and will perhaps force eastern consumers to other markets than Chicago for a supply. We see by our exchanges already an increasing activity among American buyers in Canada, which may be partially caused by the hesitation to purchase any more cattle from the west until the cattle plague panic subsides. Our Government should take immediate steps to prevent cattle being imported from the Western States into Canada until the pestilence has disappeared.

### Food Prospects for the Coming Winter.

It is too early yet to speak very positively of the general yield of grain for the present season. According to the latest telegrams from Britain, the crop is represented as considerably above an average, both there and generally over Europe. We sincerely hope that such statements may be fully borne out; but there is not as yet sufficient evidence to that effect to set all anxiety on the subject at rest. It is notorious that such a drought, both for length and severity, has not been known in the United Kingdom for a very long time. Even 1826, which gives the nearest approach to it, will have to yield in this respect to the present year. The consequence of this is, that while the harvest has been surprisingly early in a good many places, it has been forced on to the great injury both of grain and straw. In some places the straw has been so short that it could scarcely be harvested; while in many more the grain has been quite scorched, and the hay crop is a failure.

The root crops have also suffered greatly, but only on certain soils. The whole system of husbandry in Britain so very much depends now upon the character of these crops, that any partial failure in them cannot but be widely and severley felt. From such considerations it may, after all, be matter of doubt whether there be such a superabundance in the grain yield as latest reports represent. In our own country it is very manifest that the hopes of a more than usually bountiful crop, generally and very naturally entertained about the beginning of the season, are not destined to be realized. There will be plenty for home use and a fair margin for exportation; but we very much doubt if the cheap loaf is to be among the notable advantages of the coming winter. The midge has been doing its work, and the long drought has also had its influence. Potatoes, we fear, will not now be greatly benefited by the rain, though were it to come immediately, turnips

might still feel the advantage. The crops in the States are on the whole good, so that while the food prospects may not be so bright as at some time they appeared, they are not as bad as they have been represented by some. France is not expected to need almost any importations this year and the question to be determined is principally how much will meet the wants of Britain.

We can scarcely see that butcher meat can be anything but dear. From the enormous consumption, it can now never be spoken of in Britain as really cheap, and the restrictions lately put upon the importation of foreign cattle, along with the partial failure of the hay and root crops, will not allow the coming season to be much different in the matter of price from those which have gone before.

### Tiptree Hall Farm.

THE *Mark Lane Express* of July 13th gives a short but interesting account of a visit paid to the above named Farm (Mr. Mechi's), by deputations from the Midland Farmers' Club, the Farringdon Farmers' Club, and the Maidstone Farmers' Club. From the character of the soil of the county and the general healthy appearance of the wheat crops of the district, it was expected that the Tiptree wheat would present a very creditable appearance, but none of the members of the deputation were, we believe, prepared to see so much good wheat for the whole growth as Mr. Mechi showed them. The total extent of land in wheat is seventy-two acres, the farm comprising only 170 acres, of which thirteen are in pasture.

Mr. Mechi having stated at Birmingham that he had made eighteen per cent. on his capital of £16 per acre, and would have preferred to increase his capital to £25 per acre, was requested to give his opinion as to what percentage he would obtain on this additional capital. Mr. Mechi, in reply, stated that last year he had to sell hay and straw, which, had the additional capital been forthcoming, he should have consumed with cattle, thus obtaining a much greater quantity of manure, both liquid and solid, and thereby increased fertility and yield. He considered, if he had employed £1,500 more, he should have made twenty per cent. on the whole capital.

A discussion then took place which elicited the general opinion, that to farm on the plan pursued at Tiptree was only practicable in connection with security of tenure and compensation to tenant farmers. Mr. Mechi, in conclusion, said that no doubt the main question involving investment of capital in the soil was security of tenure. He was decidedly in favour of a long lease, or an equitable tenant right. Long leases were impossible in all cases, and he thought landlords should be most particular in looking to character, conduct, improving business habits, and capital of tenants, and then bad farming would soon become the exception.

### International Convention.

A convention of deputies from a large number of the States, as well as from various Provinces of the Dominion, has lately been held in Portland. The object of this assemblage was to discuss commercial matters in their bearing upon the intercourse between the States and Canada, and especially to consider what might be the most advisable course to be pursued in finding an outlet for the ever growing products of the Great West. As might have been expected, the question of Reciprocity between the two countries came in for a large amount of attention.

Upwards of two hundred gentlemen were in attendance, and the convention continued its sittings for two days. The speaking was in general very good. Of course it was only what was to be expected that there should be some spread eagles. But even of that there was a great deal less than might have been anticipated. The whole affair passed off in the most friendly, satisfactory way. The kindest feelings for

Canada and Britain were expressed by the various American speakers, and in the strongest manner everything was deprecated that could in any way interrupt the neighbourly good feeling which ought always to be cherished by the two nations. A series of resolutions was passed favouring a renewal of Reciprocity, and urging measures for the opening up of an International route, by way of the great lakes and the river St. Lawrence, as an outlet for the agricultural products of the two countries.

### Parliamentary Documents.

We have to acknowledge receipt of the following publications:

RETURN to an Address of the Senate, dated 7th May, 1868; For correspondence between the Minister of Agriculture and Immigrant Agents in Canada and Europe, on the probable extent and character of the immigration of 1868; which plainly shows the need of a wiser and more efficient system of promoting an influx of population to this country.

FINAL REPORT of the Select Committee on the best means of protecting hemlock timber from destruction; from which it appears that wholesale spoliation of our hemlock forests is going on for export purposes, chiefly in the shape of extract to supply foreign tanneries, but to some extent in the shape of unmanufactured bark. Canadian tanners, with one voice, deprecate this, and ask for governmental interference either in the way of an export duty on bark and extract of bark, or absolute prohibition of exportation.

REPORT of Select Committee on the Cultivation of the Vine in Canada; a most important document, showing the adaptation of our climate to vine-growing, the excellent quality of Canadian wine, the profitability of vine culture and wine-making, the disastrous effect of the Inland Revenue Act on the interests of the Canadian Vine Growers' Association, and the duty of our Government in regard to encouraging and fostering this branch of industry.

FALL SHOW. The annual Exhibition of the North Riding of Oxford Agricultural Society will be held at Woodstock, on Monday evening and Tuesday, the 5th and 6th days of October next. A very large list of prizes is presented, besides about \$250 in special prizes given by the inhabitants of Woodstock.

SUBSTANTIAL RECOGNITION OF SERVICES.—An appropriation of \$2,000 was made at the last session of the N. Y. Legislature for the benefit of the heirs of the Rev. Chauncey Goodrich, the producer of the Goodrich seedling potatoes. The heirs of Jethro Wood, the inventor of the cast iron plough, have received an appropriation from the Legislature of \$2,000, in consideration of the services of their father.

A GOOD IDEA.—The Vernon County (Missouri) Agricultural Society have resolved to substitute agricultural periodicals for diplomas as prizes at their coming fall fair. Foreign and costly journals that would be interesting and suggestive to the class of farmers who are likely to take premiums, might advantageously be put on the prize list, it being certain that they take their own local agricultural paper.

SAMPLES OF GRAIN. We are glad to find that notwithstanding the severe drought, there seems to be plenty of good grain in the country. Early in the month we saw standing spring wheat of excellent quality, not only with the heads well filled, but to our surprise with straw of fully average length. Many of the farmers we meet with speak of average grain crops, in spite of all the disadvantages of the season. Fall wheat in many instances has been especially good. We have before us excellent samples of more than one variety. The Diehl wheat in this neighbourhood seems to have endured the winter, escaped the midge, and yielded more abundantly than other varieties. Mr. Springer, of Hamilton, as we noticed

in our last issue, has raised a good crop of this wheat, and advertises the produce for seed. Mr. James McNair, of Richmond Hill, has a quantity of the same promising grain. The estimated yield of both these parties was over forty bushels to the acre, but the crops were not threshed out at the time we saw the samples. The Messrs. Atkinson, of Etobicoke, after threshing out the produce of two acres of the same variety, obtained one hundred bushels, or fifty bushels to the acre. The quality of all the samples is first class; and we recommend a trial of this winter wheat, especially where the soil is sandy loam, which seems well suited to the crop.

### Literary Notices.

FARMING FOR BOYS.—Boston: Ticknor and Fields, p.p. 286. We have to acknowledge the receipt of this work from the publishers, and for a more extended notice of it refer our readers to an article which will be found elsewhere in the present issue.

THE LITTLE CORPORAL.—This charming juvenile monthly maintains its high character as a repository of "the good, the true, and the beautiful." An article on the "Wild Flowers of August," which we have copied into our Horticultural department, will give a taste of its quality. Published by Alfred L. Sewell, No. 6 Custom House Place, Chicago, Ill. Price \$1, American currency, per annum.

"STERILITY IS LAIN."—A pamphlet of twenty-three pages, containing an address delivered before the Bedford (New Hampshire) farmers' club, Feb. 28, by John A. Riddle, Esq. This address briefly expounds and warmly eulogizes Prof. Ville's new system of agriculture, with which our readers are doubtless familiar, it having been fully explained in the columns of the CANADA FARMER.

THE FARMER'S GAZETTE AND INDUSTRIAL INDEX.—This is a new monthly, published at Richmond, Virginia, chiefly in the interest of agriculture, but as its double name denotes, having an eye also to mechanical and other industrial pursuits. Judging from its initial number, it seems likely to be ably conducted. It is, however, intensely Southern. Having occasion to quote Henry Ward Beecher, it takes care to say "We have no affiliation with him, theological or political." In its "Salutatory," while eschewing party politics, it promises "never to lose sight of the fact that 'the white man must own and govern Virginia;'" and hopes the time is nearer than some think "when the place that once knew Coffee shall know him no more forever."

THE PRAIRIE FARMER.—We have been rather tardy in noticing the change of form which has recently taken place in this journal, but our delay has not been owing to want of interest in our far-Western contemporary. Its entrance on a new volume at the beginning of last month was made the occasion for altering it from a quarto of sixteen pages to a double quarto of eight pages, very similar in size and general appearance to the *Rural New Yorker*, which journal it now resembles also in combining literary and miscellaneous contents with the agricultural and horticultural. The conductors of the *Prairie Farmer* state that after many years' experience they are convinced that a paper strictly devoted to the farm and garden is not so well suited to farmers and their families as one more general in its character. The new issue is a very handsome-looking sheet, and we doubt not will be conducted with all the ability and tact for which it has been heretofore distinguished.

ANALYTICAL AND PRACTICAL GRAMMAR.—Toronto: Adam Miller, p.p. 210. This is a new treatise on English Grammar, which has been prepared under the sanction of the Council of Public Instruction for the province of Ontario, and forms one of the Canadian series of National School Books. It is on the basis and plan of Bullions' work, but with alterations

## Agricultural Intelligence.

### Royal Society's Exhibition at Leicester.

*To the Editor of THE CANADA FARMER:*

SIR,—The Royal Show at Leicester has just terminated, and has proved a signal success. In consequence of the cattle disease, no horn cattle were exhibited at Bury St. Edmonds last year, and for the same reason no show at all was held the previous year. Leicester, however, has now amply made compensation for all these drawbacks, and the exhibition just closed, in whatever aspect it may be viewed, is regarded by all with pride and admiration. Although I spent upwards of a week on the trial grounds and in the show yard, I feel myself incompetent to send you a full report of this splendid display of Agricultural, Horticultural and Mechanical skill and industry, and the limits of a single communication will only admit of a very summary view of some of the more salient characteristics. I hope, however, to be able hereafter to use certain portions of the memoranda I have made, for the information of your readers and the improvement of the working of our Societies in Canada.

The grounds selected were most conveniently situated, close to the Town (the race course), and would, had it not been for the severe and protracted drought, have been covered by a thick and elastic sod, a condition so conducive to the comfort both of animals and visitors. Upwards of fifty acres were enclosed by a high boarded fence, so that ample space was provided for the vast and increasing wants of the Society. About five miles of shedding, covered by canvas, forming wide streets in straight lines, were provided for animals and implements. These sheds were of good width, and divided into compartments called stands, of various lengths, hired by exhibitors, in which to arrange and display their different productions: some with only a few articles would occupy a correspondingly small space, while larger exhibitors would require several hundred yards. It will give your readers some idea of the magnitude of the show when I state that in live stock there were 335 exhibitors and 994 entries. In the implement department there were 307 exhibitors and 632 entries. The catalogue of Agricultural implements and machines, including some other things of a mechanical character, forms a closely printed octavo volume of more than 400 pages. It is, I believe, universally admitted that on no previous occasion have the arrangements in all their multifarious details been so perfect; and the result has been a degree of harmony in the working of this huge and peculiarly complicated machine, never before attained in the annals of the Society.

It has been for some years the practice of the English Society to give no premiums for implements and machines without testing them in the field. The kinds of implements for trial this year were those used in the cultivation of the soil; such as steam and horse ploughs, sub-soil ploughs, scarifiers, harrows and rollers. Mowers, reapers, &c., though exhibited in large numbers, received no attention from the judges, but will be subjected to a practical test next year, when they will be eligible for premiums.

This field-testing of implements has now grown into great magnitude, and is a very onerous task. The Society hired a farm for one year from last autumn, nearly two miles from the show ground, at a rent of £1500, for this purpose. As nothing had been done with the land since last harvest, except a slight scarifying of the surface in a few of the fields, the stiffer portions of the farm were as dry and almost as hard as a macadamised road, putting even the steam ploughs and cultivators to the severest practical test. These trials commenced on the 9th inst., and terminated on the 15th. The show yard was opened on the 16th at a fee of five shillings each person, when the judging, which was open, was completed, and the

animals and articles obtaining prizes were ticketed. Admittance on the 17th and 18th was half a crown, and notwithstanding vast numbers during these three days entered the grounds, there was no crowding, but every one had the most ample opportunity of examining in detail whatever he desired. The 20th and 21st were shilling days, and notwithstanding the vastly increased number of visitors, the facilities for inspection were not seriously diminished. The attractions were so equally distributed over extensive and well arranged grounds, that overcrowding, for any length of time at least, in particular places, was obviated.

The testing of the steam cultivating apparatus naturally attracted more than ordinary attention. The competition rested between the following firms:—Messrs. J. Fowler & Co., Leeds; Messrs. J. & F. Howard, Bedford; Messrs. Aveling & Porter, Rochester; Messrs. Parker & Sons, Andover; and Mr. G. Hayes, Stony Stratford. The ground being so excessively hard, considerable time was occupied in getting the machines into proper action; the anchors in different parts of the field would be now and then drawn out, and it soon became evident that great power and the strongest machines only would be adequate to the occasion. Fowler's ten horse power double set of hauling apparatus, working their cultivators and harrows, was certainly very effective, as was also a plough moved by a similar amount of power, made by Messrs. Aveling & Porter; which some considered did the best work as a mere plough. Howard's proved itself fully adequate to the occasion, and its operations were watched with much interest and satisfaction. The land on which steam power was brought to bear was in such a condition that horse power in no way could be applied. The prizes offered by the Society for steam cultivation were pretty equally divided between Fowler and Howard, both of whom exhibited and put in motion traction engines of considerable power. The display of steam engines adapted to cultivation, locomotion, threshing, &c., was very large, and comprised specimens of the best workmanship. Steam cultivation in England is no longer an experiment, but has become an every-day fact. As to its general adaptability and profitability even in this country, more time and data are required before we can reach an absolute conclusion. I heard it stated that the Viceroy of Egypt had awarded a piece of plate, of the value of £200, to Messrs. Fowler & Co., for the strongest steam cultivating apparatus adapted to foreign countries, where serious repairs cannot be readily made. The state of the ground where the horse ploughs were tested was something better than the before-mentioned, but it was painful work to the animals. In this department the Messrs. Howard took the lead, very closely followed by Messrs. Ransome and Sims. Hornsby, Cooke, Bentall, Crosskill, Cambridge, and others whose names I cannot now recall, received either prizes or commendations for ploughs, harrows, rollers, &c. Although there was but little absolute novelty, it was universally admitted that both in quantity and quality the mechanical department this year has far outstripped any preceding exhibition of the Society.

In the live stock department the show fully maintained the high character which the Society has for many years attained. For horses the Royal has never been eminently distinguished. How this is I have not heard satisfactorily explained. The Yorkshire Society in this respect usually excels it. This year 167 horses of all classes were on exhibition, and certainly the beauty and high breeding of most of them gave to this department of the show a large amount of interest and attraction. The blood stallions were pronounced by competent judges to be on the whole of excellent quality, and were judged with special reference to their capability of getting good hunters. Leicester is situated in one of the very best hunting districts of England, and this class of horses is in much request, and have long enjoyed a high character. "Lady Derwent" exhibited at the late Isling-

and additions designed to render it more suitable as a Text Book for general use. The phraseology has been adapted, as far as practicable, to that employed in the authorized Latin Grammar, so as to facilitate the work of the pupil in passing up from the Common to the Grammar School. Exercises in analysis are interspersed throughout the entire work, instead of being confined to a particular portion or section. In the Syntax Department, examples of false syntax are omitted, the editor not approving of that method of instruction. A limited number of examples are inserted in an appendix. We disagree with the editor in his objection to examples of false syntax, and think many more will do the same. An appendix on Prosody has been taken from Dr. Collier's English Grammar, and free use made of the best modern works in this important department of knowledge, so as to render the volume as complete as possible. This grammar is intended for pupils who have mastered the Introductory Grammar already in use in our public schools.

THE CANADIAN ENTOMOLOGIST; No. 1, Toronto, August 1, 1868.

We have much pleasure in acknowledging the receipt of the first number of this little periodical, which is issued by the Entomological Society of Canada, under the editorial management of the Secretary, Rev. C. J. S. Bethune, M. A. It is intended to serve as a medium of intercommunication among Entomologists in Canada, and enable them to tell one another "what they have taken, how and where they have taken it, and what they are in want of;" it is intended also to contain original papers on the classification, description, habits, and general history of Insects, the transactions of the Society, and other matters of interest to those engaged in the study of this branch of Natural History.

The first number opens with a few introductory remarks relating to the objects and scope of the periodical; this is followed by a notice by the Editor of a very remarkable "Luminous Larva," which he describes as appearing in the dark "ringed and dotted with greenish fire," and presenting a singularly beautiful appearance. The next article is entitled "Entomological Notes, Paper No. 1," by Mr. W. Saunders of London. It contains an account, with full descriptions, of the larvae of several species of butterflies and moths reared by the writer. This valuable branch of entomology, though requiring close attention and unremitting care, and hence commonly neglected by insect collectors, is, we understand, a speciality of Mr. Saunders, and one in which he has obtained much success. This is followed by a short notice of a "New Fluid for Preserving Larvæ, etc.," prepared by Prof. Verrill, and which is expected to prove of great value to naturalists. The report of the annual general meeting of the society recently held in London,—a notice of which has already appeared in the CANADA FARMER,—and some lists of specimens for exchange, complete the contents of this number. This periodical, though small and unpretending, will no doubt prove of value to Canadian students of Entomology, and will, we trust, ere long fulfil the hopes of its projectors, and "by and by grow and increase, and acquire goodly dimensions, and become a handsome and valuable exponent of the progress of Entomological science in this Dominion." We beg to commend it to the favourable notice of our readers, and trust that it will be well sustained and supported; while we desire at the same time to congratulate the Society on the enterprise and zeal they have shewn in its publication. The importance of entomological knowledge is becoming every year more manifest, and no class of men are more interested in its progress than farmers.

We may mention that it is issued gratuitously to members of the society, and at the rate of fifty cents per volume to non-members; communications to be addressed to the Rev. C. J. S. Bethune, Credit.

ton show, where she won the £50 prize and a gold medal, deservedly obtained here the first premium. In symmetry and action she appeared to have reached almost absolute perfection. The cart horses were select, comprising several breeds and crosses, but there were a few weedy specimens that ought, perhaps, not to have been brought forward on such an occasion. The Suffolks, although not large in number, were of very superior quality, and they continue to occupy in England, for agricultural purposes, a high position.

The display of cattle, both as to amount and quality, must be regarded as a remarkable success. The fearful ravages of the plague only so recently arrested, with the present widely extended drought, must have prepared people not to expect too much. Nevertheless, it is very questionable whether this important department was ever exceeded on a former occasion. It is true that there was an absence of a few distinguished breeders in several of the classes, but this was quite compensated by others infusing a fresh life into the proceedings. The Shorthorns were, as usual, in great strength. Mr. T. C. Booth, of Warlaby, obtained the first prize of £25 for his four-year old bull, "Commander-in-Chief," a large and symmetrical animal. There was a very fine young bull from Ireland, 14 months old, "Bolivar," that deservedly attracted much attention and won the first prize. The cows and heifers presented many specimens of great size and beauty, and this may also be said of the yearlings. The animals in this and other classes were generally in excellent breeding condition, not so fat, I think, as has been too commonly the case.

The Herefords did not muster strong, only thirty-six entries, but these comprised several animals never, to say the least, previously excelled. The Devons considerably exceeded in number the former, and bore evident marks of high breeding. They were exceedingly pretty, some a little too high perhaps in condition, and evinced a tendency to diminution in size. In the Sussex, a breed very analogous to the Devon, there was an absence of competition; only five animals were exhibited, but these indicated properties of a high order, showing that this breed, confined within narrow limits, deserves more attention than it has hitherto received. The animals attain to a much larger size than the prevalent rule of Devons, make excellent beef, and are said to be unsurpassed in the yoke.

The Alderneys or Jerseys, commonly called Channel Islands, were in great force, and comprised a number of superiorly bred animals. Great improvements have been made of late years in this breed, which is in much request among gentlemen for domestic dairies. I am told it is now just possible, when these animals cease to be useless for the dairy, to make them ripe for the butcher. I did not observe a single specimen of the Ayrshire. There were several excellent specimens of the Norfolk Polled, and a few others of analogous character; also some half dozen Longhorns, of great size and considerable symmetry, but evidently slow feeders. What a striking illustration was here of Bakewell's immortal success with Leicester sheep, and his equally remarkable failure with the Longhorns!

Of the Sheep department, no other words but those of commendation, or rather admiration, would be at all appropriate. The Leicesters appeared not only in large numbers, but with all the improved characteristics of that world-renowned breed. How different do these animals appear to what frequently pass muster in Canada as Leicesters! The Southdowns were perfect beauties, and Mr. Rigdon's shearing ram, which gained the first prize of £20, reminded me of an observation made by a distinguished Devon breeder some years ago in reference to the late Mr. Webb's sheep, that "the breeding seemed to be carried to perfection." Lord Walsingham, the Duke of Richmond, Lord Radnor, and others, exhibited animals in this class of extraordinary excellence.

The Shropshire Downs appeared to much advantage, and are steadily making their way in several parts of the country; and the same may be said, though perhaps in a somewhat modified degree, of the Oxford Downs, of which there was quite a number of characteristic specimens of the improvements recently effected. The Hampshire Downs, though generally good, were not so numerous as at previous shows; while the Cotswolds, as a class, it was thought, scarcely came fully up to their usual high standard of excellence, although there were several specimens in the yard that certainly had never been surpassed. Mr. Brown's shearing ram, which won the first prize of £20, and others that might be mentioned, were superlatively good. I must not omit to say that though the improved Lincolns did not appear in large numbers, they fully maintained the great reputation they have recently acquired; but they are in general appearance so much like the modern Leicester that ordinary observers scarcely detect any difference.

Several lots of sheep among the different breeds were disqualified on the ground of not being shorn in accordance with the regulations, and other circumstances. This disqualification was extended to pigs in a few instances, their dentition indicating a greater age than that for which they were entered. To expose and prevent frauds of this nature, the Society employs the most vigilant means, as also in relation to the soundness of horses. All animals of which the shadow of a doubt exists, are thoroughly examined by the Society's Veterinary Surgeon, who devotes much time and attention to this important and necessary duty. The display of pigs, both as to number and quality, was quite equal to former occasions, which is saying a good deal. They were classified as small and large black or white breeds, the Berkshire being separate. Other breeds, not included in the above, were put into a miscellaneous class.

Throughout the stock department animals possessing remarkably good points, although failing to obtain prizes, were distinguished by cards having printed thereon in large letters "commended" or "highly commended," a principle recognised through every department of the show. In live stock also the judges placed on the next best animal to the one obtaining the lowest prize, a card printed "reserved number." In case of any one of the prize animals being subsequently found disqualified, the one receiving the "reserved number" would be awarded a prize. This, I was informed, had been found to work well in practice. Another commendable feature of this exhibition arising from the admirable arrangements, is the full opportunities of inspecting whatever one feels a particular interest in. The stalls and spaces are ample, no overcrowding, and the horses and horned cattle, whether they have taken prizes or not, are publicly paraded in the order of their number in their respective classes each day of the show; the public being notified of the hours and other particulars by hand bills, day by day. The carrying out of the details of such an enormous exhibition with so high a degree of precision and dispatch, requires much time to prepare the regulations, and a large outlay of money, patience and perseverance in their practical application. We should do well in Canada to keep the example of the English Society steadily in view, and follow it as far as circumstances will render practicable.

During the show, I had the pleasure of accidentally meeting two Canadians, Mr. John Miller, of Ontario, and Mr. Simon Beattie, of Quebec; others may have been present, but I had not the good fortune to fall in with them. These gentlemen were in quest of breeding stock suitable to Canada, and I parted with them attempting to negotiate for a shearing Cotswold ram, the asking price of which was one hundred guineas! First class animals are held in England at enormously high rates.

The Royal Horticultural Society of London, held for the first time last year a country exhibition at Bury St. Edmunds, at the same time and place as the Royal Agricultural Show; and the success which attended the experiment induced the Horticultural to do the same this year at Leicester. Several acres of the ground adjoining the Agricultural show yard were fenced in, and extensive shedding and tents were erected for the exhibition of fruits, vegetables and flowers. The arrangements, like those of its twin sister, were most ample and complete, and the whole display had a beautiful and artistic effect. Many of the choicest exotics from London and the gardens of the nobility and gentry of the midland counties graced the scene, which was on the whole of unrivalled magnificence. In such a season of drought, I could hardly believe my senses that such splendid specimens in the various departments of horticulture

could be produced. It is truly pleasing to see these two great national societies working together in harmony but independently, and both in this instance with the most gratifying and successful results.

Speaking of horticulture, I may just mention that while strolling one evening along the banks of the Soar, immediately close to Leicester, I was induced to enter the precincts of what once was a magnificent Abbey—founded in the 11th century. The outer walls are in excellent condition, enclosing a space of forty acres, now used as a nursery. There are some fifty acres devoted to the same purpose outside the walls, and the manner in which these beautiful and hallowed grounds are kept, and the healthy, growing state of their productions, reflect great credit on the taste and skill of their enterprising proprietor. It was here that Cardinal Wolsey, in troublous times, while on his way to London, took refuge and died, and his ashes repose beneath the fragrance and beauty of trees and flowers. What remains of the ruins of the Abbey proper are clustered with ivy and other creepers to the very top, while the extensive old walls are covered by the choicest varieties of fruit trees. What lessons does such a scene teach! I could not help thinking that if the disembodied spirits of those whose feet centuries since trod this sacred enclosure, were cognisant of what is now doing in this lower world, they would not regard the gardener's operations, at least, as a desecration; for the Monks, despite the abuse which it has been too much the fashion to heap upon their memory, were in their day not only the great conservators of sacred and clerical learning, but foremost in the improvement of agriculture, gardening, and the useful arts of life; the testimony of which is so frequently present in these British isles.

The drought still continues in almost unmitigated intensity, though heavy rains have recently fallen in some parts. Last Saturday the first shower fell, worthy of the name, that I have seen since my arrival in England. Harvest operations are now become general, and wheat is the only good crop which the farmer will this year gather. The harvest is full three weeks earlier than the average of seasons. I have not heard the amount taken at Leicester for admissions to the show, but it will prove, no doubt, unprecedentedly large. I am now on my way to the Highland Society's show at Aberdeen.

GEO. BUCKLAND.

Shrewsbury, July 22, 1868.

### Imports and Prices of Wool:

THE *Economist* (New York) states that the imports of foreign wool at New York for the first half of the calendar year are only about half the quantity and value of those for the same period of last year. "For the first six months of 1867 we imported 13,000,000 lbs. valued at \$2,233,000, against 6,700,000 lbs. this year (1868), valued at \$1,105,000. The decrease has been principally in the arrivals from England, the Argentine Republic and Mexico, while those from Russia have been doubled. The abundance of the home crop, especially in California and Texas, has limited our wants for foreign descriptions." The leading item in the table given for 1868 is the Russian wool imported, amounting to 3,122,013 lbs., of the value, as entered, of \$570,765.

The *Economist* also adds the following statement of the current value of domestic wools, as compared with that of two years ago—before the passage of the present tariff:

	June 10, 1868.	July 6, 1866.
Am. Sax'y fleeces, per lb...	60@65c.	60@65c.
Do. full blood Merino....	52@56	50@57
Do. ½ and ¾ Merino....	49@50	45@50
Extra, pulled.....	49@49	55@60
Superfine, pulled.....	42@48	47@53
No. 1, pulled.....	30@36	38@45
California fine, unwashed.	28@32	33@38
Do. common, do....	22@25	20@25

A SUBJECT FOR THE CHAMBER OF AGRICULTURE.—According to *The Coventry Standard*, "a landlord in Mid-Warwickshire refuses to let his tenants use mowing machines, lest they should injure the game!"

During last year over half-a-million of money—£540,884—was transmitted to Ireland from America by emigrants to their friends—£202,914 of the sum being in the form of prepaid passage orders.

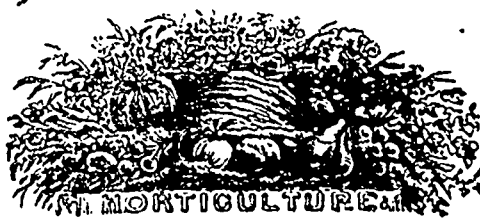
GRAPES ALONG THE LAKE SHORE.—M. B. B. writes the *Ohio Farmer* that grape prospects all along the Lake Shore region continue very good, though considerable damage was done to the vines around Sandusky by the storms last month. The dry, warm weather for some time past has been favorable to the growth of the vines and fruit. It is added that the prospects for peaches and apples in Lake and Ashtabula Counties are quite fair.

**ABOLITION OF TOLL-GATES.**—The Perth County Council, at its late sitting, adopted a report of a committee recommending the throwing open of the toll-gates on all the public roads in the county. The ground taken for this movement is, that it will be much better to build and keep in repair the public roads in the county directly by public funds, and thus save the expense of keeping up gate houses and paying the salaries of gate keepers—each gate costing probably from \$300 to \$400 for keeper's salary, and building and repairing houses. The *Free Press* hopes the Middlesex County Council will adopt a similar course, which would result in a saving to the tax-payers of that county of not less than \$50,000 a year.

**CLOTH MANUFACTURING IN AUSTRALIA.**—Manufactures in Australia are gathering strength. A woollen company, which has gone recently into operation, has now nearly 5,000 yards of cloth made, comprising the kinds called "tweeds," "meltons," "diagonals," "stripes," "hair lines," &c. These cloths have not yet been sent into the market, as the company intend to accumulate 5,000 yards, for the production of which a premium of £1,500 was offered by the Government some time since, and claim the money, before they appeal to the cloth-consuming public for support. The finished products of the factory are of many different patterns, serviceable and lasting, as they consist wholly of good sound wool. With its present resources, the mill will turn out, when at full work, about 1,500 yards of cloth a week, and consume 1,820 lbs. of washed, or 2,880 lbs. of greasy wool.

**THE MUSKOKA DISTRICT.**—The *Orillia Expositor* thinks its Muskoka friends have taken an excellent plan to bring the capabilities of the District under the notice of settlers. They will issue, in a week or two, a pamphlet showing fairly the advantages possessed by the Territory, and also its drawbacks; and as quite a number of these are to be scattered throughout this Province and the old country, we may expect a large influx of settlers to the district during the coming fall in consequence. The resources of the district only require to be more generally known to have all the good land it contains taken up. The pamphlet is being printed for the "Muskoka District Settlers' Association," which has already done much to advance the interests of Muskoka, and remove the erroneous impressions which have been made on the minds of the people of many parts of the Province by the false statements of those who have had only a glance, and perhaps not even a glance, at a small portion of it, and then reported they "have been in Muskoka, and found no good land worth mentioning—nothing but rocks!" Parties wishing for reliable information concerning the District should address the courteous Secretary of the Association, J. B. Browning, Esq., Bracebridge, who will be always found willing to reply to their enquiries. Pamphlets forwarded to any address on application to the Secretary.

**CLOSE OF THE ST. THOMAS FLAX MILLS.**—The operations which were carried on in this town for several years have been brought to a close, and in common with many others in the country, the St. Thomas mill is lying idle. This is owing to several causes, but chiefly to the decline in the price of cotton. During the American war, when the supply of raw cotton was difficult to obtain, and English factories were turning out scarcely half the quantity of previous years, the manufacture of flax was found remunerative, and in this country several enterprising firms were found to engage in it. Foremost of these were the Messrs. Perrine, who at one time, we believe, had not less than twelve mills in various parts of the province. In connection with Mr. Alexander Young they began operations here about four years ago, and being well patronized by the farmers of the district, who entered heartily into the culture of the flax crop, they had the prospects of establishing an excellent business. The farmers, finding the crop a paying one, were eager to continue it, and were ready to supply whatever quantity was needed. The decline of prices in the manufactured article, however, made it imperative on the part of the mill-owners to close the business, and thus a valuable and very important branch of industry, not only to the neighbourhood but to the country, is brought to an end. During the four years the mill was in operation here, the money paid out in the purchase of raw material and running expenses ranged from \$10,000 to \$25,000 yearly—giving employment to thirty men and as many boys in the fall, and upwards of twenty hands the rest of the year.—*St. Thomas Journal*.



### The Raspberry in Quebec.

To the Editor of THE CANADA FARMER :

SIR, Several communications I have lately seen respecting the alleged want of hardiness in the raspberry, induce me, with your permission, to venture a few words of encouragement to any who may be hesitating as to the possibility of their cultivating in Canada the finer varieties of this delicious fruit. To such, then, I would say, it is not because you are located far to the north that you will not succeed. On the contrary, living near the City of Quebec, I never fail to have a most beautiful crop. Last winter was the most severe experienced here for many years, the thermometer sinking to 37° below zero, and remaining near about there for days together. It has been followed by a most scorchingly hot, dry summer, yet my bushes are fairly loaded down with large and delicious fruit, and not of the common kinds, but of the, so called, tender Antwerps. From my experience with this berry, I have thought that it cannot be merely the cold which injures them, but, possibly, rather the alternate freezing and thawing which they are exposed to in milder countries. I have cultivated here yellow Antwerps for the last fifteen years without experiencing any difficulty; and six years ago, wishing to try other varieties, I procured a few bushes of "Red Antwerp," "Franconia," "Falstoff" and "Victoria." They have all flourished; but the Red Antwerps produce so much the best and largest fruit, that to me the others are valueless.

My mode of cultivation is simply this:—About the middle of September, select a spot where a goodly supply of snow is sure to lodge early in the fall (no difficult matter here), manure the ground heavily by digging in decayed stable manure, plant in rows about three feet apart, plants about eighteen inches asunder in the row, and shortly before the first fall of snow, throw over them any refuse straw or branches. We find potato stalks and spruce boughs excellent. These will gradually bend the plants towards the ground, the weight of the snow will assist, and in the spring they will come out ready to send a leaf from every bud. I had omitted to say that, after planting, I shorten the canes to within less than a foot of the ground. Succeeding springs, I merely take off a few inches from the tops. The Red Antwerps, with me, average from five to six feet high. We train them to horizontal strips of board, placed between each second row, on stakes about three feet high, bringing two rows to meet to one board, and leaving thus an alley between each second row. I find it essential to tie them up in this way, as, if not done, the weight of the fruit brings them flat to the earth, soiling and spoiling the berries. We top-dress well with decayed stable manure and ashes every spring, and again as soon as the fruit is gathered. Treated this way, a very small patch will supply a very large family, and will last without replanting or changing the location for an indefinite number of years. Even without any covering except the snow, very good crops can generally be had; but a few branches or potato stalks cost very little trouble, and insure a large yield, and by bringing the canes evenly and gradually to the ground, prevent their being broken.

As I said, I have yet found no variety to equal the Red Antwerp; but Mr. Beadle's letter, in your last number, has given me an inclination to try what could be done here with the "Hornet," for, so far, I have had no necessity to look for the hardiest, but simply for the best and largest raspberry. As to productiveness, they all produce about as many berries as you could by any possibility stick on the bushes.

F. W. A.

Quebec, Aug. 6th, 1868.

### Wild Flowers of August.

BY MARY LORIMER.

It is now August; sultry, midsummer August. There are not as many flowers to be found as in the earlier months. The waxen May-flowers, and frail Anemones, and many delicate vernal blossoms have folded themselves away to sleep till next spring. But there are many beautiful flowers in August. I hope my young friends have found and faithfully pressed many a wild flower, and have become so in love with the charming and healthful pursuit as never to give it up.

In July I found forty-five wild flowers, and I hope you found several, and that among them were the six varieties of the pretty Silk Weed, or Milk Weed. The species called Tuberosa is the most brilliant orange, and the Quadrifolia is remarkably pretty, with balls of pale, pink flowers.

You must find in August the handsome Orchis family. The white orchis is lovely, and the Purple Fringed Orchis is superb, with its elegant, fragrant blossoms.

The Wild Lilies are a gorgeous family, from the fiery red, single lily, growing so freely in the woods, to the graceful buff yellow, where twenty delicate bells often tremble upon one stalk.

The yellow and purple Gerardias are found in August; these you can never transplant with any success, because they are what is called parasitic plants, and so is the Scarlet Tipped Painted Cup. Of these parasitic plants I must tell you at some other time, and also of the beautiful air plants, which grow and blossom on a stick of wood, or piece of cork, and require no earth.

Do find the rosy-purple Rhexia or Meadow Beauty, and the flower of Parnassus, the large, white petals, veined with delicate green lines. Above all, look sharp for the superb Cardinal flower, that marvel of brilliant carmine color, though you will not have to look very sharp, for you can see it from afar. It seems to light up the damp nooks by the brooksides, where it loves to grow.

The ferns, too, are beautiful in August, and the trees are full of interest; every tree having its own peculiar way of growing. How wonderful this is; a Maple spray will never grow like an elm spray; each knows whether the leaves must come out opposite on the branches, or alternate, and they never make a mistake.—*Little Corporal*.

**HORTICULTURAL SINGLE-TREE.**—Our correspondent, D. B. Weir, of Lacon, Ill., has furnished us with one of his new whistle-trees, made expressly for working among young fruit trees, orchards, &c., which we find accomplishes the intended object in as perfect a manner as anything of the kind we ever had the pleasure of thoroughly testing. The leather traces are let out in length a few inches, so as to pass around the end of the implement and hook in the rear. They are secured in their position, so as to extend beyond the ends, and to render it impossible for anything but the leather to touch the tree. We have used it both with a single horse, and with a double team in full ploughing. We requested our ploughman to see if he could not rub off some of the bark of the trees, but he asserted it to be impossible, exclaiming, in his own vernacular, "This is the biggest thing out!"

In cultivating orchards of many hundred standard pear trees—the rows being planted nearer one way



than the other—we had previously found it impossible to run much nearer than two feet to the rows, leaving a strip nearly four feet wide unploughed. This was afterwards finished, with a good deal of difficulty, by the use of a single horse. Now, by the use of Weir's Single-tree, placed on the right or left of the orener, according to the direction of the furrow, whether from or to the trees, the whole work may be neatly accomplished at one operation. If the trees are near together, it will be most convenient to finish with the one-horse plough. As the new single-tree is short and light, it is necessary to have another equally light to balance it, when using it with two horses. We think that all orchardists, who desire to keep their grounds in a neat and finished condition, without resorting to hoeing or spading in the rows, will be gratified in procuring this new contrivance.—*Country Gentleman*.

**A NEW MULCH FOR GRAPES.**—A correspondent of the *Courier and Advertiser* speaks very highly of leached ashes and cut grass as a mulch for grapes. First mellow the soil; spread the grass several inches thick; sprinkle with water, and apply the ashes. Grapes thus treated have grown luxuriantly all through the recent drought.

**QUICK GROWTH.**—"The new early peas, 'Ring-leader,' sown on the 12th of February, were this week harvested, fully ripe, at Messrs. Sutton's farm, London Road, Reading." So says the *Mark Lane Express* of July 1st. This would be deemed terribly slow growth here, and may illustrate the difference between the British and Canadian climates.

## Entomology.

### Exhibition of Insects at Paris.

An exhibition of a novel and interesting character is to be held during the present month in the Palais de l'Industrie, at Paris. It is to be confined entirely to insects in their practical relation to Arts and Agriculture, and is intended to include the illustration of the propagation of useful insects, methods of curing or preventing disease, and economical management, and the history of destructive insects, with means of counteracting their ravages. Noxious insects are to be classified according to the plant on which they feed, and not according to their scientific order. The exhibition is to open on the 1st and close on the 31st of August, and is under the management of Dr. Boisduval, M. Guerin-Meneville, and other entomologists and scientific agriculturists. The following are the principal heads of classification:—**First division**—Useful Insects. 1st class.—Silk-producing insects. 2nd class.—Insects producing honey and wax. 3rd class.—Insects used in dyeing and for colour. 4th class.—Edible insects, crustacea and mollusks. 5th class.—Insects employed for medical use. 6th class.—Insects used as ornaments. 2nd division.—Destructive insects. Ten classes, comprising those that attack cereals, the vine, plants used in industry, forage, vegetable and ornamental plants, fruit trees, forest trees, timber used for building, truffles and fungi, dry organic matters and, lastly, parasites of man and domestic animals. The third division comprises three classes, carnivorous and parasitic insects—those that destroy chrysalids and insectivorous animals, birds and reptiles. Fourth division.—Insects and other animals destructive of mollusks, and notices respecting edible snails (!) and the benefit that cultivators may derive from them. Fifth division.—Optical instruments for entomological purposes, and special apparatus connected with the rearing or destruction of insects. Printed or written memoirs are also to be admitted, even without specimens of the insects to which they refer. It is also intended that there shall be conferences during the exhibition on various subjects connected with entomology. Such an exhibition, if well carried out, must surely be productive of great benefit to the agricultural interests of France, and might well be imitated elsewhere.

### Specimens reared from Larvæ or Pupæ.

From time to time we have endeavoured to rear specimens that have been sent to us, in order to discover what their perfect state is like, and thus learn their name and whole history. To obtain satisfactory results is by no means an easy matter, as a day's neglect will often prove fatal to the caterpillar, and this, from want of proper food, or absence from home, cannot always be avoided, some, too, die during the winter, and never emerge from their pupa state; and others are destroyed by parasites. The following is a brief account of our limited success.

**STRAWBERRY WORMS.** In last year's volume (C. F.

Aug. 1, 1867, p. 238; do. Oct. 15, p. 311) we referred to some specimens found feeding on strawberry-leaves, and sent to us by Mr. Arnold, of Paris, Ont.: these we have entirely failed in rearing, much to our disappointment.

**FALL WEB-WORM ON APPLE TREES.** Last year we received some caterpillars from a correspondent at Halloway, County of Hastings, which we stated were specimens of this insect, the cocoon had for some time, till at length they turned into the pupa state, enclosing themselves in a slight hairy cocoon. On the 20th of June, 1868, a moth emerged from one of these cocoons and during the following week many more came out, they were all, as we expected, specimens of the Fall web-worm (*Hyphletia textor*, Harris) and were the first that we had ever seen. We also raised some specimens of the same insect from caterpillars infesting our own trees. Last year we stated that "they have not, that we are aware, been before recorded as occurring in this country;" we have lately been informed by Mr. Sumner and Mr. Reed, of London, Ont., that they have known and reared the insect during two or three years past, though they never recorded its occurrence. During the last few days we have noticed the webs of this insect upon our apple trees, this being the time of year when they first make their appearance; we would strongly recommend our readers to look over their orchards and cut off and destroy any of the webs of these destructive creatures that they may find.

**BALSAM-FIR SAW FLY.** The correspondent mentioned above also sent us some cocoons of the larvæ that he found injuring his Balsam-fir trees (C. F. Aug. 1, 1867, p. 238, do. Sep. 2, p. 269). From these only one solitary specimen has come out, it is a black-bodied saw fly with beautiful iridescent wings, but we have not yet determined its name.

**PROMETHEA EUPHEON MOTH.**—In our issue of the 15th of June of the current year (page 172), we noticed the receipt of two singular cocoons from a lady at Mimico, and we gave an illustration of the large moths we expected them to produce. About ten days after the publication of our notice, two handsome female *Promethea* moths emerged from the cocoons, similar to the lower figure in our illustration; they now form fine additions to our collection.

**THE WHEAT MIDGE.**—In June last we received a lump of clay filled with orange larvæ from Mr. Belch, of the *St. Mary's Argus*, and in our issue of the 1st of July we published Mr. Belch's letter, with the result of our examination of the specimens, stating our belief that they were the larvæ of the wheat-midge. During the succeeding fortnight an immense number of the winged midge emerged from the clay, and, being unable to escape through the gauze lid of the box in which they were enclosed, almost covered the surface of the clay with their dead bodies. We hope to hear what effect they had upon the crops in the neighbourhood from which our specimens were brought, but we fear that the account will not be a very cheering one.

**THE PRIVET SPHINX CATERPILLAR.**—In our last issue we noticed the receipt of one of these caterpillars, and stated that, to our surprise, it had gone thus early into the chrysalis state, from which we did not expect it to emerge till next year. To add to our surprise, on the evening of the 8th of August, we heard something flying up and down our study, which, at first, we took to be a bat, but as the noise of its wings was "wish-a-wish-a-wish" instead of the "flutter-flutter" of a bat, we knocked it down, and found it to be a fine moth (*sphinx cnicæ*) which had come out of the above mentioned cocoon.

**CHAD FLY.**—We have received, but not in time for more than this acknowledgement, a communication from Mr. Tait, of Beverley, accompanied by a specimen of a singular and "ferocious" looking insect. It is the Chad Fly. We have placed the specimen in the hands of our artist, and hope to give an illustration and some account of the species in our next issue.

## The Household.

### Drowning.

In a recent number of this journal we gave a few "hints for emergencies." We propose occasionally, without repeating the heading, to add such suggestions as may appear useful and seasonable, as a guide to the inexperienced. Among the most serious accidents, in connection with which any of us may be suddenly called upon to render aid, there is one that has become recently very frequent, and in which assistance is too often speedily unavailing—the accident of drowning—an instance of which is recorded in nearly every newspaper that we open.

In these melancholy catastrophes, unless the unfortunate individual is quickly rescued from his peril, there is very little hope of restoring animation. A few minutes' complete submersion under water is sufficient to extinguish life. And yet, as we every now and then hear of well attested instances of resuscitation after a comparatively long submersion, it is well, when there is any ground for hope at all, to use every means in our power to recover the drowned. One chief reason of the discrepancy of statement that we have met with in regard to the length of time that a person may be submerged and yet recover, is owing to the different modes of death in drowning. In some instances the person faints almost immediately on the occurrence of the accident; and in these cases animation may be suspended for a much longer period, without proving fatal, than when no such arrest is given to the full activity of the vital functions, and suffocation, neither modified nor complicated, is the cause of death. The appearance of the face will often indicate whether fainting occurred or not. In some drowned persons the countenance is remarkably pale, in others it is livid and swelled. The first would most probably be the result of syncope or fainting, and would leave more hope of recovery than the latter appearance. Still, after five minutes of complete and uninterrupted submersion, very little expectation could be entertained of restoring the breathing and animation.

In the treatment of drowned persons, the greatest gentleness and care should be observed. It is a common opinion that the lungs are filled with water, which is the chief cause of suffocation, whereas usually very little water enters the lungs, the spasmodic effort caused by the contact of water with the glottis preventing the entrance of fluid into the windpipe. Nothing is more foolish, therefore, or more likely to do harm, than the practice of holding the drowned person up by the heels, or with the head in any way low, or rolling the body about, or any other of the rough usages resorted to, with a view of emptying the lungs of water. There are three principal objects to be kept in view in our treatment of the drowned. First, to restore the breathing—Second, to restore or keep up the animal heat—and Third, to rouse dormant animation by stimulants.

The two first objects should, as far as practicable, be attended to immediately; the wet clothes removed, and dry blankets or dry coats substituted; but no time should be lost in the first and most essential part of the treatment, namely, efforts to restore the breathing. First try the following plan. Place the patient on the ground with the face downward, and one of the arms under the forehead, in which position the tongue will fall forward, so as not to obstruct the entrance of air, and fluid from the mouth and throat will naturally escape. If breathing does not immediately commence, move the body on the side, a little over towards the back, apply harts-horn, snuff, or tickle the throat with a feather, and dash a little cold water on the face. If these measures have no effect, replace the patient in the former position, with the face downwards, supporting the chest upon a folded coat or other garment. Then turn the body back again gently on the side, and a little

beyond. Repeat these movements carefully and perseveringly, about fifteen times in a minute, or once in every four or five seconds. The reason for these movements is, that the first or prone position forces the breath out of the body, the weight of the body being on the chest, this weight is removed by turning the body on the side, and air will naturally tend to enter the chest. The effect is increased by making uniform and brisk pressure with the hands on the back, between and just below the shoulder blades, while the body is placed face downwards, removing the pressure completely or turning the body over on the side. One person during the whole time should gently support the head, and keep the arm under it when the face is turned down.

Another method which may be resorted to, if the preceding measures do not in the course of five minutes seem to have any effect, is that recommended by Dr. Sylvester. Place the patient on the back, with the head higher than the feet, and support the head and shoulders on some kind of cushion or pad. Draw forward the tongue and keep it projecting beyond the lips. Remove all tight clothing from about the neck and chest, not omitting the braces. Then placing yourself at the patient's head, grasp the arms just above the elbows, and draw them gently and steadily upwards above the head, and keep them thus stretched up for two seconds. This is done to draw air into the lungs. Then turn down the patient's arms, and press them gently and firmly against the sides for two seconds, to force out the air. Steadily repeat these movements, alternately, about as often as those recommended previously, namely, fifteen times in a minute. As soon as any spontaneous breathing is induced, let these efforts be at once discontinued, and proceed to keep up the warmth of the body.

Should the foregoing measures seem unavailing, attempts may be made to restore the breathing by insufflation of the lungs with a pair of bellows. The nozzle of this is to be inserted into one nostril, the other nostril and the mouth being closed. The projecting cartilage of the throat is also to be pressed back while air is introduced. To expel the air, pressure is made with the hand on the chest and abdomen. These movements should be repeated as before, with about the frequency of natural breathing. The treatment should be persevered in for several hours if necessary.

At all times it should be remembered that the free access of pure air is indispensable, and all unnecessary crowding round the patient should be avoided. To promote warmth, wrapping the body in warm blankets, friction with dry and warm flannels, the application of bags of hot salt, bran, or the like, are the readiest means to be resorted to.

As soon as re-piration is sufficiently restored, small quantities of wine, brandy and water, or warm coffee, may be carefully administered.

### Washing Windows.

A correspondent of the *American Agriculturist* gives the following improved mode of washing windows, which, although not wholly new, may be valuable to many of our readers:

"The nicest article for washing windows is deer skin, as no particles come off to adhere to the glass and make it look as if washed with feathers. There is no need of anything larger than a hand basin for washing windows. The great splashing some people make in the exercise of their art is entirely useless, and is, moreover, deleterious. When the water is permitted to run down in great quantities upon the glass, it dissolves the putty and soon loosens the panes from their setting, and also stains the glass. Two pieces of nice wash leather and a bowl of suds are all that are necessary. Wipe the glass first with the wet cloth or leather, and after it has become dry rub it with the clean cloth and it will look clear, and far more so than if rinsed with a dozen pails of water."

In a class of little girls in one of the schools of Boston, the question was asked, "What is a fort?" "A place to put men in," was the ready answer. "What is a fortress, then?" asked the teacher. This seemed a puzzler, until one little girl of eight summers answered, "A place to put the women."

### Poultry Ward.

#### Chickens Dying in the Shell.

EVERYBODY does not keep poultry, everybody will not, but many people do. We are beset with letters asking why chickens die in the shell instead of emerging from it; why hens do not bring their chickens off punctually. We answer all their questions with another: Do you moisten your eggs yet? If you do not, there is the cure for all your troubles, the solution of all your difficulties.

Partridges, Pheasant, and Grouse seem to be more successful at hatching than our domestic fowls that have all known "means and appliances" to boot. The truth is, their eggs are thoroughly wetted twice every day. At morning and evening the hens leave their eggs to feed; they go in among the damp grass covered with dew, and come back wetted through, especially on the breast that is immediately in contact with the eggs. The hen does not even shake herself before she sits on them. Every egg is well soaked, and the moisture penetrating to the membrane lining the inside of the shell keeps it soft; whereas, especially in this dry and hot weather, if the hen is merely taken off her eggs for half an hour, and they are not moistened, the membrane becomes as dark and tough as india-rubber. The chickens cannot get out. For a full week before hatching time, when the hen leaves her eggs, dip your hand in water, withdraw it while streaming, and wring it over the eggs.—*Journal of Horticulture.*

**IMPORTED EGGS.**—For the encouragement of those who contemplate importing eggs from England for the purpose of hatching, we are able to state that a gentleman in Montreal obtained this season, from three dozen of eggs supplied by Mr. Cooper, of Limerick, twenty-two strong healthy chicks. A long railway journey seems more destructive to the vitality of eggs than a voyage by water. Where parties have the opportunity, we would recommend eggs being sent by water as far as possible—by the lakes rather than the rail.

**EGG STORY.**—A student at one of our military academies had copied a drawing of a scene in Venice, and in copying the title he had spelt the name of the city *Venicie*. The drawing-master put his pen through the superfluous letter, observing, "Don't you know, sir, there is but one *hen* in Venice?" On which the youth burst out laughing. Being asked what he was laughing about, he replied he was thinking *how uncommonly correct eggs must be there*. The master, in wrath, reported him to the colonel in command, a Scotchman. He, on hearing the disrespectful reply, without in the least perceiving the point of the joke, observed, "An' a varra natural observation too."

### Advertisements.

#### THE BRIGHTEST ITALIAN QUEENS IN AMERICA.

HAVING IMPORTED three extra fine Queens from the Dzierzon Stock, I can now furnish an unlimited number of the brightest Queens ever offered for sale, price as usual, \$5.

#### SAFE DELIVERY GUARANTEED.

I will also be able to furnish an unlimited number of Italian Stocks in the Fall, Italianized with Queens from the imported stock. Price in the S. B. hive \$18—in the D. B. hive \$20.

Orders must always be accompanied with the money, and will receive prompt attention.

J. H. THOMAS,  
APIARIAN,  
Brooklin, Ontario.  
v5-15-4f.

Aug. 1, 1868.

#### GEO. A. DEITZ,

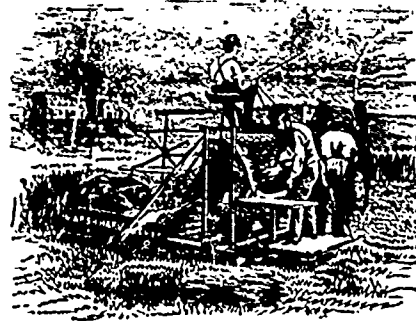
**The Great Seed Wheat Grower,**  
CHAMBERSBURG, Pa., sends free a Descriptive List of the best Seed Wheats in the world.  
v5-11-6f

#### Duncan's Improved Hay Elevator.

PATENTED April 13th, 1867.

THE cheapest and simplest constructed Fork in use in the Dominion of Canada. County or Township Rights for the manufacture of the above Fork may be obtained from the undersigned.  
JAMES W. MANN,  
v4-20-1f  
Port Dover, Ont.

### Paxton, Tate & Co., Port Perry, Ont.,



#### MANUFACTURERS OF THE MARSH HARVESTER!

AGRICULTURAL IMPLEMENTS  
OF ALL KINDS,  
STAVE & SHINGLE MACHINERY,  
OSCILLATING MULLEY SAWS,  
TURBINE WATER WHEELS,  
MILL CASTINGS, etc., etc.,  
MADE TO ORDER.

Repairing of all kinds promptly attended to.

#### WARRANTY.

We warrant the Marsh Harvester to be well made, of good material, and when properly used, not liable to get out of repair; to be a good grain-cutting machine upon which two experienced binders can bind in average grain, on suitable ground, from eight to twelve acres in twelve hours, and that it will work on as rough ground as any other Reaper

Port Perry, March 28, 1868. PAXTON, TATE & CO. v5-7-4f

### EXECUTOR'S SALE.

#### Valuable Farm for Sale BY AUCTION.

WILL BE SOLD BY AUCTION, AT THE "DALY HOUSE," INGERSOLL, On Wednesday, Sept. 2, 1868,

AT ONE O'CLOCK, P. M., that valuable Farm, being Lot No. 21, A 3rd Concession of Dereham, containing 100 ACRES, situated five miles from Ingersoll—the property belonging to the estate of the late William S. Ott.

TERMS made known at time of sale, or on application to the Executor or Auctioneer, Ingersoll P. O. JOHN MARKHAM, Executor.

JAS. BRADY, AUCTIONEER, Dereham, July 30, 1868. v5-15-2f.

### The South Grenville Agricultural Society

WILL HOLD THE ELEVENTH ANNUAL EXHIBITION, AT PRESCOTT,

ON Wednesday, Thursday, and Friday, Sept. 30, Oct. 1 & 2, 1868.

WM. TRACY, Secy. and Treas., Prescott, August 1, 1868. (v5-15-2f) pro tem.

### MILLER'S

INFALLIBLE



### TICK DESTROYER FOR SHEEP!

DESTROYS the TICKS, cleanses the skin; strengthens and promotes the growth of the wool, and improves the condition of the animal.

It is put up in boxes at 35c, 70c, and \$1, with full directions on each package. A 35c box will clean twenty sheep.

HUGH MILLER & Co., 167 King Street East. Medical Hall, Toronto. v4-14-4f

### DIEHL WHEAT.

THE Subscriber has for sale a quantity of DIEHL WHEAT at \$2 per Bushel

LEWIS SPRINGER, v5-16-4f. Hamilton, Ont.



PROVINCIAL EXHIBITION

OF THE AGRICULTURAL ASSOCIATION OF UPPER CANADA.

TO BE HELD AT HAMILTON, On the 22nd to 25th September, 1868.

PERSONS intending to exhibit will please take notice that the Entries of articles in the respective classes must be made with the Secretary, at Toronto, on or before the undermentioned dates, viz.:

Horses, Cattle, Sheep, Swine, Poultry, on or before Saturday, August 15th.

Grain, Field Roots, and other Farm Products, Agricultural Implements, Machinery and Manufactures generally, on or before Saturday, August 29th.

Horticultural Products, Ladies' Work, the Fine Arts, &c., on or before Saturday, September 12th.

Prize Lists and Blank Forms, for making the entries upon, can be obtained of the Secretaries of all Agricultural Societies and Mechanics' Institutes throughout the Province.

HUGH C. THOMSON, Sec. Bd. of Agriculture.

Toronto, July 24, 1868.

NEW ZEALAND!

THE undersigned having been appointed Emigration Agent at Toronto for the Province of Auckland, New Zealand, is prepared to give free grants of land (40 acres to adults, and 20 to those over 5 and under 15 years of age) to those intending to settle in that healthy and beautiful country.

Information may be obtained on application to Dr. Riddell, 217 Queen Street East. Letters must be prepaid, and contain return stamps.

A. A. RIDDEL.

Toronto, August 11, 1868.

FRUIT AND ORNAMENTAL TREES

FOR FALL OF 1868.

WE have the pleasure of announcing that we are prepared for the Fall Trade with an unusually large and well grown stock, embracing

Standard and Dwarf Fruit Trees.

Grape Vines, new and old sorts, strong open ground plants. Currants, Raspberries, Blackberries, and all the small fruits.

ORNAMENTAL TREES AND SHRUBS,

Roses and Flowering Plants of every description.

Nurserymen, Dealers, and others, purchasing largely, will be dealt with liberally, and all orders, however small, will receive prompt and careful attention. Parties interested will do well to consult the following Catalogues, which are just issued, and will be sent pre-paid on the receipt of 10 cents each, for Nos. 1 and 2, and 5c. for No. 3.

No. 1, Descriptive and Illustrated Catalogue of Fruits; No. 2, Descriptive and Illustrated Catalogue of Ornamental Trees, &c.; No. 3, Descriptive Green House Plants. No. 4, Wholesale Catalogue, 1868.

ELWANGER & BARRY.

15-17-41. MOST HONOR NURSERIES, ROCHESTER, N. Y.

SHORT HORN BULLS.

FIRST-CLASS BULL CALVES FOR SALE, the get of the Sweepstakes Bulls "Baron Solway," and "Duke of Bourbon."

JOHN SNELL, EDMONTON.

5-16-11

LEICESTER AND COTSWOLD RAMS FOR SALE.

30 SHEARLING and TWO-YEAR-OLD RAMS, of first-class quality. Also a number of RAM LAMBS.

JOHN SNELL, EDMONTON.

15-16-11

THE FINEST STRAWBERRY

FOR AMATEUR CULTURE—NAPOLEON III. of LARGE SIZE, HIGHEST FLAVOR, GREAT PRODUCTIVENESS, AND EXTREME VIGOR AND HARDINESS. We offer a splendid stock of young, thrifty plants of this valuable new French variety. Illustrated Descriptive Circular mailed to applicants.

Price of Plants, (by mail, postage paid), \$3.00 per doz.

FRANK J. EVANS & Co.,

15-15-

YORK, PENNA. U. S.

Markets.

Toronto Markets.

"CANADA FARMER" Office, Aug. 13th, 1868.

FLOUR AND GRAIN.

The produce markets since our last have been dull and uninteresting. Stock of all kinds are nearly exhausted.

Flour—The business done during the week has been very small. Stocks here are now nearly exhausted, and few or no lots are offering. No 1 Super is nominally worth \$7, and spring wheat extra \$7 25. In fall wheat flour there has been nothing doing, there is little demand for the higher grades. Buyers will not pay within 5c. for fall wheat flour of the price of strong fresh ground spring wheat flour.

Oatmeal—The market is firm. Car lots are worth from \$3.50 to \$3 75.

Bran—Worth from \$10 to \$11 per ton.

Wheat—The market has been unusually quiet. There have been almost no lots in the market. Spring wheat is scarce and in great demand for local mills. There are buyers at \$1.50 for car lots. Fall wheat is dull of sale. A few car lots were offering during the week without buyers.

Oats—Scarce. Lots offering to arrive at 6c., without buyers; on the street 6c. would be paid.

Barley—The season is this year expected to open earlier than usual. A few loads have already been brought into the market. Today four were sold, the price paid were 9 1/2, 9 1/2, 9 1/2, and 9 1/2c. Peas—Nothing doing. No stock in the market. Prices nominal.

We quote wholesale prices: Flour per bbl. superfine No. 1, \$7 to \$7 25; Oatmeal, per bbl. \$6 15 to \$6 25; Bran, per ton \$10 to \$11; Wheat, Spring, 60 lbs., \$1 50; Wheat, Fall, 60 lbs., \$1 45 to \$1 50; Barley, 45 lbs. 9 1/2 to 9 1/2c; Peas, 60 lbs., 8 1/2c; Oats, 34 lbs., 6c.

Hay—\$12 to \$16 per ton.

Straw—\$10 to \$12 per ton.

PROVISIONS.

Pork—Very light stocks in the market. Nothing unchanged, \$2 1/2 to \$2 50 for mess.

Cut Meats—Nothing doing. Quotations nominal.

Butter—Scarce, and held firm. Owing to the advance in gold there has been no export demand. Holders are asking from 15c. to 20c. for tub, according to quality, with buyers at from 16c. to 18c.

Cheese—Market firm. Holders are asking 11c, with buyers at 10c. for choice dairy.

Eggs—Selling at 10c. 11 lots, packed, with supply good.

Bacon—Unchanged. Cumberland cut worth 10 1/2c. to 11c.

THE CATTLE MARKET.

A good number of cattle have been offering during the past fortnight, but principally inferior. First-class cattle have been scarce. We quote:—1st class \$6 50; 2nd, do \$5 50 to \$5 75; 3rd, do \$4 50. Sheep have been in plentiful supply, and of good quality. Trade has been brisk. We quote:—1st class \$1 to \$1 50; 2nd, do \$3 75 to \$4; 3rd, do \$2 75 to \$3. Lambs have been in good supply and were readily taken up. We quote:—1st class \$2 to \$2 75; 2nd, do \$2; 3rd, do \$1 50 to \$1 75. Calves—The market has been well supplied, but the demand is not very so active. We quote:—1st class \$6 each; 2nd, do \$4 75 to \$5; 3rd, do \$3 to \$3 25.

Wool—The market is firm. Small lots on the market sell at 27c, a better feeling seems to prevail among dealers, and a few days ago a lot of selected combing sold as high as 30c.

Hops—Inferior per lb, 10c to 15c; medium do. 15c. to 25c; good do. 20c. to 30c.

Salt—American bbls., \$1 60. Liverpool, coarse, bags \$1 to \$1 10.

Hides and Skins—Hides, green, rough per lb., 5 1/2c, do. green, inspected, 7c; do. cured and inspected, 7 1/2c. to 8 1/2c; Calfskins, green, 10c; do. cured, 12c; do dry, 15c. to 20c; Lambskins, green, 30c. to 35c; Pelts, 25c.

Montreal Markets, Aug. 12.—Flour, superioextra, \$7 50; extra \$7 15 to \$7 25; Fancy, \$6 80 to \$6 85; Welland Canal superfine, \$6 65 to \$6 70; Superfine No 1 Canada wheat, \$6 60 to \$6 50; Superfine No 1 Western wheat, \$6 50 to \$6 60, No. 2 do., \$5 90 to \$6, Fine, \$5 60 to \$5 65; Middlings, \$4 75 to \$4 90; Pollards, \$4 25 to \$4 40; Bag flour, \$3 40 to \$3 60. Wheat—Canada Fall, \$1 50; Canada Spring, \$1 55 to \$1 60; Western, \$1 44 to \$1 45. Oats—Per 22 lbs. 45c to 50c. Butter—Dairy, 17c. to 19c., store packed, 16c. to 18c. Cheese—Factory, 9 1/2c. to 10 1/2c. per lb.; Dairy, 9c. to 10c. Eggs—11c. to 15c. Ashes—Pots, \$5 90c.; pearls, \$5 50. Pork—Mess, \$25; thin mess, \$23 to \$23 50, primo mess, \$17 50, prime, \$16 50c. to \$16 70c.

Milwaukee Markets.—Aug. 12, noon.—Wm. Young & Co's report—Wheat—Receipts, 9,000 bushels, shipments none, No 1 wheat, quiet but firm at \$1 88, No 2 wheat, at \$1 77 1/2 to \$1 78 1/2 flour quiet. Pork unchanged and nominal.

Chicago Markets, Aug 12, noon.—William Young & Co's report—Wheat—Receipts, 46,000 bushels, shipments, 4,000 bush. No 2 wheat, firm at \$1 78, cash, and \$1 77 1/2 in store, sellers' option all August. Corn active at \$1 05 1/2 to \$1 05 1/2, receipts, 151,000 bush; shipments, 106,000 bush. Pork nominal and unchanged.

Contents of this Number.

Table listing various articles and their page numbers, including sections like THE FIELD, RURAL ARCHITECTURE, STOCK DEPARTMENT, VETERINARY DEPARTMENT, THE DAIRY, THE APIARY, CORRESPONDENCE, EDITORIAL, LITERARY NOTICES, AGRICULTURAL INTELLIGENCE, HORTICULTURAL, ENTOMOLOGY, and THE HOUSEHOLD.

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Communications on Agricultural subjects are invited, addressed to 'The Editor of the Canada Farmer,' and all orders for the paper are to be sent to GEORGE BROWN, Manager Director.