THE

FARMER'S ADVOCATE.

"PERSEVERE AND SUCCEED."

VOL. X. {WILLIAM WELD, Editor & Proprietor.} LONDON, ONT., FEBRUARY, 1875. {$1 Per Annum, Postage Prepaid. Office—Dundas-St., Opp. City Hotel.} NO. 2

Caution! Caution!

Can you give me any information regarding the Hulless or Bohemian oats. There has been a person round here selling Hulless oats at $10 a bushel, and binding the parties purchasing them to supply him with the whole of the crop at $6 a bushel.

R. GRAFTON, Mannheim.

We would not advise any one to invest in this speculation. The grain you may pay for and receive, but the crop you raise will not so readily be disposed of. The advantage this variety possesses over other oats in having no hull will be found quite counterbalanced by the good qualities possessed by other oats.

You need not expect to dispose of the crop you raise, except to feed your stock with. Before hulling mills were brought to their present perfection they might have been valuable; even now, where persons live a long distance from the market of the world, like Robinson Crusoe, they might be valuable, but at $10 per bushel here you will not see your money back. At least, this is our impression. We may, through ignorance, have introduced to our subscribers some things that may not have been of advantage. The Hulless oats have been in our establishment, but we considered them of no advantage to our supporters, or we should have offered them to the public.

We know that able salesmen can sell anything; we know thousands of farmers have been wronged by these able talkers, and we believe some system should be adopted to lessen these travelling salesmen. We know that sales are sometimes effected under false pretensions and misrepresentations.

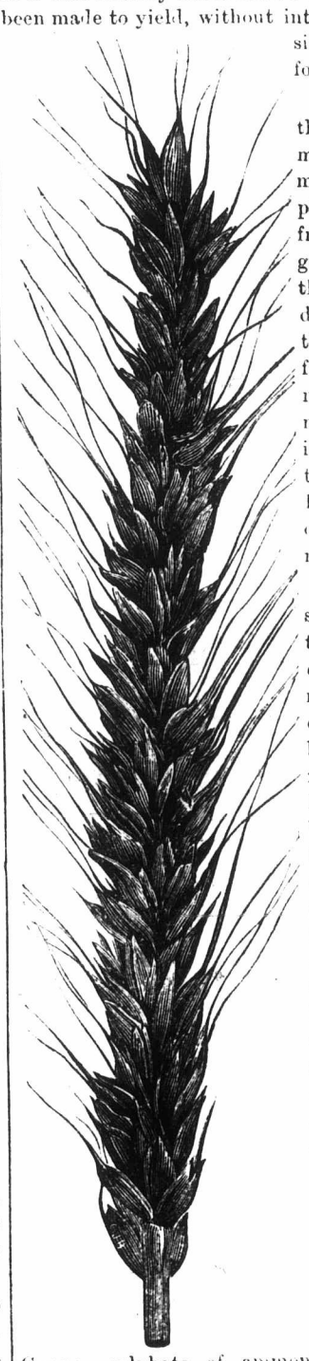
Seed Wheat.

In our last issue we promised the readers of this journal the cut of a variety of new wheat. The accompanying engraving is taken from a head of wheat, of which we have several similar samples in our office, and is the exact size. We know many will think this the Rio Grand, Red River, or McCarling Wheat, but the grain is totally different, being much shorter and of a superior quality. It is about two-thirds the length of the other grain, having a similar head. If any of our readers have seen or know of such graain, or anything about it, we should like to hear from them. Let them send us a postal card.

We are having another head of grain engraved for the next issue of the ADVOCATE, and as we hope to publish early next month, there will be ample time for you to have your seed for sowing. We do not comtemplate giving you a large variety, but we wish to supply you with a new and valuable kinds. Your general stock of seeds you can procure in you own localities. Mr. Child, of this city, will have a fine new collection, and we think that he is a reliable and deserving person. Messrs. Bruce & Bros., of Hamilton, have just gone into their new establishment. They are well known. Messrs. Steel Bros., of Toronto, have their advertisement in this paper, and are importing a good stock. Mr. Marcon, of Guelph, will also supply the demand near Guelph. Mr. Vick, of Rochester, is well known to most of you for his choice flowers. P. Henderson comes out with a beautiful catalogue in which are numerous handsome colored plates. By referring to the advertisements you will find your requirements, all ready to be supplied to you. We shall be ready next month with some kinds of seeds that will be of much value to you.

Manures—When to Apply Them.

All are acquainted with the fertility of the virgin soil of Canada. When the land is first brought under cultivation, there is no need of manures; no thought then enters the mind of the farmer of increasing its fertility, in order that it may bring forth abundantly. So much is this the case that its state of productiveness has been abused, and, as if this fertility could not be exhausted, it has been made to yield, without intermission, successive crops of grain for many years.



But as all crops, though they absorb much of their nutriment from the atmosphere, draw largely from the soil the greater portion of their food, it is evident that in order that the soil retain fertility, those elements drawn from it must be restored, if its productiveness is to be maintained. Hence the necessity of liberal supplies of manure.

So much is the success of agriculture found to depend on manure that the market of commercial fertilizers has become one of the most important in England. Her ships homeward bound bear fertilizers from every quarter of the globe — woolen rags from the continent of Europe, guano from the Islands of Peru, bones from every land, and the many other commercial fertilizers from east, west, north and south, wherever they are to be obtained. But most suitable for every soil and crop, the best fertilizer is organic manure, the product of the farm itself. Guano, sulphate of ammonia, nitrate of soda, phosphate of lime and many others are extensively used, but it is to supplement the manure made from the farm products. Let us prepare with due care and use, so as to produce the greatest profit on organic manures, before we have recourse to commercial fertilizers. At the head of our manures is that of the farmyard. It contains within itself, more than any other, the elements needed to ensure abundant produce. The principal element of which it is composed, and which greatly enhances the value of others, is that which seems to have been intended by nature for the renovating of the soil—animal excretions. All vegetable matter, as straw, hay, &c., when decomposed, form manure, and when mixed with the excreta, as in litter, add to the quantity of the manure heap without detracting from its productive value.

The *making* or *saving* of this manure is to the farmer a matter of great moment, as on this much of its value depends. It is necessary that it be decomposed equally throughout, that it be not deprived of the ammonia by evaporation, and that it lose not its salts by unnecessary exposure to the rain. Not only does the fertilizing power of the manure heap depend in a great degree on the saving and preparation, but the animal excretions, the most valuable among the manures, differ much in real value.

The richer the food of the animal has been, by so much are the excretions richer. Scrapings of yards, and muck that has been some time exposed to the air, and offal of various kinds are all valuable adjuncts to the manure heap, and the elements of fertility they contain, when made available by the composting with the excretions, will do much to make up the elements of fertility of which the soil has been deprived. It is well for us to bear in mind that manure must be decomposed, and the salts brought into such a state that they will be available to the growing crops for food, and that in the manure heap the primary part of this decomposition is effected. The richer its component parts, the sooner and the more thorough will be the heating, fermenting, and decomposing of the manure, and we should therefore have them as rich as possible. The excretions tend to this fermenting more than any other, and, we repeat, the well-fed animals give the richest excretion.

Of the organic manures, another one of very great value to the farmer is lime. It has been doubted by some if lime be in itself really a fertilizer, but as it is known that it enters largely into the composition of all plants, we can entertain no doubt on the subject. We know that it is in vain to expect good crops of wheat if there be not lime in the soil, and the quality, not only of grain, but also of potatoes, is better from the land to which lime is applied. But lime, as a manure, we intend to consider in a future number.

We would now refer briefly to the best time of applying manure; and hope our few remarks on the subject will lead many of our readers to consider the matter more attentively, and that some will, through the ADVOCATE, give the results of their experience of the comparative advantages of fall and spring manuring. There are differences of opinion on the subject, and it is a question on which the experience of the farmer must bear stronger testimony than any arguments drawn from science; and as the value of manure to the producer is of the greatest importance, we should know how we can obtain the best results from this, one of the most important products of the farm.

Though the winter season is generally the principal time for making manure, it should at all times of the year have a claim on the attention of the farmer. The manure that we now write of, regarding the time for applying, is what is made after that of the winter has been applied. Is it more advantageous to apply it in the fall, or to prepare

and keep it till we are putting in our spring crops? It is in some places the practice to apply it often uncomposted, and scarcely to be called manure, to the stubble field intended for turnips and other roots. It is plowed in and allowed to lie till the land is stirred preparatory to sowing. This, it is true, saves much labor; it is the quickest way of getting rid of it. But it is to be doubted if this be attended with as profitable results as the composting the manure in a heap and applying it in the spring, when, having been applied in proper condition, it aids the germinating of the seed and the early growth of the young plant. It is objected that we often see in newly manured land great quantities of the manure sticking above the surface and in the middle of the drill, and this is not only the occasion of its being by so much a dead loss, but it is also an injury to the crop, the drought thereby having free access to the seed bed, to which moisture is so necessary. This can be best guarded against by having the manure well prepared, and by good use of the plow. In manuring ground, as in every other branch of farming, due regard must be had to climate as well as to soil. Here in a climate naturally dry, it is the more necessary not to apply manure uncomposted. We have sometimes seen it applied in such a state that we would expect a better crop from the soil not manured at all. —S.

Agricultural Prizes.

In a late number of the ADVOCATE we expressed our preference for the system of giving prizes for the best cultivated farms, as in England, to that of awarding them for small select samples. We are pleased to find our opinions on this subject sustained by the highest agricultural authorities in the home country. The awarding of such premiums has been found to be the greatest incentive to improved farming in the several districts in which the farms entered for competition were situated. From our late English exchanges we abridge a report on prizes for the best managed farms in the various provinces in Ireland, read before the Council of the Royal Agricultural Society of Ireland:

The committee appointed "to consider and report whether it would be advisable to offer farm prizes for the best managed farm in the county or province in which the society's show is held, and if so, to report further the conditions they would suggest for the competition, size of holdings to compete, prizes to be offered, and what steps should be taken to provide the necessary fund," are unanimously of opinion that it would be advisable to offer farm prizes for competition, and recommend that the area within which the competition be limited should be the province in which the society holds its annual show, in this way affording in each, in the course of four years, the opportunity of competing for the prizes to be offered.

They suggest that a grant of £50 should be made from the funds of the society to head a subscription list, and that a circular be issued throughout the country, and especially in the province of Ulster (in which the show of 1875 is to be held), inviting the public to contribute the necessary funds.

They also submit suggested form of entry, in which the conditions of competition are fully stated.

The committee are of opinion that the inspection of each competing farm by two judges at two different periods—say March and in July, just before the annual show—accompanied by one of the members of the society as steward, would probably be found sufficient. There should, however, be power given to the judges to call in a third in the event of their not agreeing. They should be called upon to give detailed reports of the farming operations carried on upon each of the prize farms, with a general reference to the farming of the province, which could then be published with the annual proceedings of the society.

The committee estimate that the probable expense of carrying out the plan would be as follows:—

Total prizes	£130
Two judges paying two visits to each farm as suggested, at £30 each tour	120
One steward to accompany them	60
Printing, &c., expenses	20
Total	£330

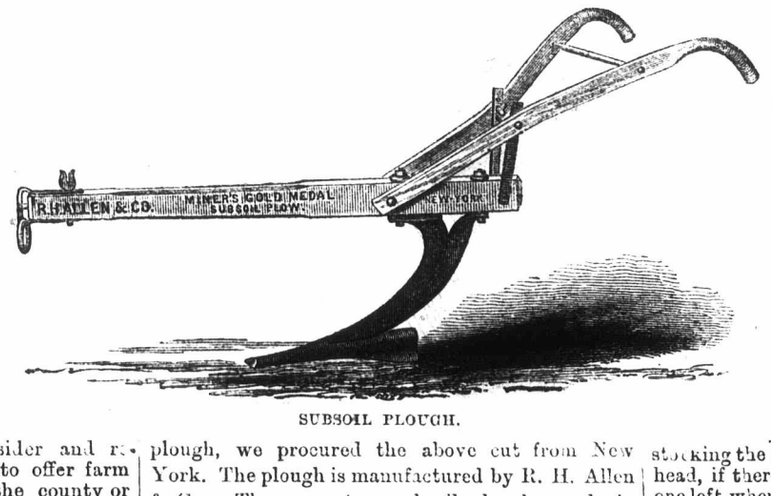
If the expenses connected with the judging can be kept lower, it would, of course, be so much the better, but the committee are of opinion that as the satisfactory working of the scheme depends upon the care with which the adjudication is conducted, no false economy should be attempted. They think at least £350 would be required, and if the response be large, a class of smaller holdings could be added, say from twenty pounds valuation to fifty pounds.

In conclusion, the committee desire to express to the council their sense of the importance of the movement proposed to be initiated, and feel that it will tend, if worked to a successful issue, to promote the best interests of the agricultural community.

They propose to contribute toward the expenses the sum of £460, and expect that subscriptions will be received, sufficient, with the addition of this sum, to carry out the design with entire success. —S.

Subsoil Plough.

In response to enquiries made by one of our subscribers to give an illustration of a subsoil plough, we procured the above cut from New York. The plough is manufactured by R. H. Allen & Co. There are two subsoil ploughs made in Canada, and we are not aware that the manufacturers of either have a cut of them. One plough costs $45; the other we believe the same price as Mr. Allen's. We do not yet know which is the most efficient. Mr. Lamb, of Strathroy, had a patent subsoiler. We intend putting Mr. Allen's subsoiler into operation if we do not find a better one. It may be seen at our ware-rooms in this city.



SUBSOIL PLOUGH.

Clearing the Land of Wild Mustard.

PRIZE ESSAY, WRITTEN FOR THE FARMERS' ADVOCATE.

SIR,—Encouraged by former efforts, I will again enter the list of competitors for the prize for the best essay on the destruction of the Charlock or Wild Mustard, which are one and the same thing. There is no way it can be so effectually done as by summer fallowing, provided it is done properly and in the same manner as was recommended for the destruction of wild oats. Neither that or any other weed seeds can live through a summer's fallow. Bring the seed with the plow and harrow within the influence of sun and air, and they will soon vegetate, and the same implements will equally soon kill them. But the wild mustard may be very effectually destroyed in the following manner: In the first place, I presume you have a piece of stubble land, or any other from which the crop has lately been taken; plow it very shallow, or, what is far preferable, a skimmer or skirting plow, regulated by a wheel, as it is not easy to hold a plow as shallow as is necessary to keep the seed as near the surface as possible—always presuming the greatest part of the seed came from the last year's crop. You cannot plow, skim or skirt too shallow, provided the land is all turned. Then early in spring harrow it well, and let it lay, and it will soon be up green; let it be so until you have got through the rest of the crop, for your mustard is in a fair way to destruction, but at your earliest convenience plow it down regular depth, and there is nothing surer but every seed that vegetated must die; and so let it lie, except what is left in the ground should be too plentiful, in which case harrowing on a fine day is quite sufficient. Then, in July plow again and prepare your field for turnips, that is, if you can get manure, for they require good cultivation from first to last; then they are a very profitable crop, and you can depend on a good crop of grain the following year, as much as you would get from two or three acres not well cultivated.

There is another method to destroy this pest equally effectual, that is, in the absence of manure requisite for turnips, prepare your land by plowing and harrowing as I prescribed above for turnips (manure excepted), and in the same month—July—sow the field to vetches or tares, and what little Charlock seed might possibly have escaped, will then come up with the vetches, and, for a time, threaten to overcome them; but their triumph is of short duration, for when the vetch has properly taken its root, it grows rapidly if the land is not too poor. About six weeks after this time let the farmer take particular notice of its progress, for at this stage there are two methods to adopt. If the vetch grows very strong, it will assuredly kill any old seed that might have escaped, and the farmer can see if his field is cleaned to his satisfaction; if so, I leave to his own judgment what to do with the crop of vetches.

Now, the second method is, if the land should be poor, as is sometimes the case, and there is any charlock or mustard seen through the field and the vetch from eight inches to a foot in height, to stook it with his milch cows and also his feeding for fat cattle, and if the field is large enough, put in pigs, sheep or any beast that is healthy, and you will soon see the difference in the appearance, and any farmer must know the field must be the better for such a soiling as it would get.

The last method is this: if the vetch should not be strong enough to overcome the mustard by stocking the land, the cattle will crop every old head, if there should be any left; but if there is one left when the vetch is sown, and if it should be a poor crop, they will soon show their yellow heads, then stock the field, or cut and hawl them to the stable, and fed out there; but, be sure it is done before the seed is formed. But my opinion is, let in the cattle to eat it on the land; it will enrich it and have it in good state for the next crop. I have tried it and seen it done often in England, I can assure you, it is by the growing of grain crops that the English farmer pays his rent, rates, and taxes, and men's wages and I feel certain the sooner the farmers, the young ones especially, turn their attention to the growing of green crops, and raising fat cattle the better; and mark my words the farmer that first sets about it in earnest, and goes over his farm once will never again want to know how to kill or destroy wild mustard for it cannot flourish much where there is a state of good cultivation; now, I never heard that sowing grain one crop after the other did anything but impoverish the land, and equally so the farmer; But this comparatively new country with its virgin soil will bear considerable cropping before it will give in, and the first symptoms you may see in impoverished land is, the weeds which will multiply. THOS. SQUIRES.

Leeds, Ja'y, 16th, 1875.

On account of the heavy loss sustained by delinquent subscribers, we intend to bring our business to a cash system. Persons who are in arrears for last year, if not paid within one month, will have their names struck off and account placed in suit for collection.

Old Churchyards in Towns.

From 'Notes of a Tour,' in *Gardeners' Monthly.*

"In New York the yards of St. Paul's and Trinity churches, by a little judicious management had been converted into perfect fairy spots. Here, instead of hauling away the bones of their ancestors, and selling the ground for building lots, as is too often the case in our large cities, the grave mounds had been carefully graded down and flower grounds had been made between the stones and the monuments. These beds are very neatly planted with a fine selection of flowering and foliage plants, &c. Along the banks, where it was very dry, the English ivy had been planted, and double and single Portulacca sown. The plants were in a very flourishing condition, the bright flowers of the Portulacca contrasting with the dark leaves of the ivy, producing a very pretty effect. I afterwards learned that a gardener was employed to look after both churchyards, and, judging from the appearance of the plants, he must be kept pretty busy."

Could not something be done here similar to that in New York? In advocating the improvement of our agriculture, we have not forgotten the beauty of our gardens and homes, and we desire to encourage the beautiful as well as useful through the land. The planting of shade trees in town and country is undoubtedlya step in the right direction, and such flower gardens in the middle of our towns as those mentioned in New York would nurture in the minds of the young a love for the beauties of nature, and their loveliness would cheer many a heart. In this city there are at least two places well suited for such a purpose. Nearly opposite the Post Office, in the very heart of the city, is one plot that might at little expense be made a beautiful flower garden, such as that described in the *Gardeners' Monthly.* On North Street is another site that might be so improved.

Manufacturers and the Patrons of Husbandry.

The principal manager of one of our best agricultural implement manufactories called at our office a few days since and enquired of us in what way the Grange movement was to be met by manufacturers. He stated that the working capital of that establishment was held largely in the States, and that the profits from the investment were not as remunerative as investments of capital in the States. The present workings do not show a profit of over 10 per cent.

The whole businesr, we believe, is worked as advantageously as any reliable implement factory in Canada. The Patrons of Husbandry were asking for terms. He said they would be most happy to give liberal terms to them if they could dispense with the agents now employed. He thought the agents would still be necessary, as the Patrons would require implements to be put in working order, and sometimes kept in order.

The Patrons of Husbandry might procure machinery cheaper if they would effect sales and attend to the working of machinery. He believed it would be a much greater loss to farmers if some of our manufactories were closed. He would be most willing to aid and assist any measure for the benefit of farmers, but the manufacturers must leave or close their establishments.

At the present time farmers are making quite as much for money invested as implement makers are, and had not half the risk to run. His arguments were so sound and just that we at once agreed with him, and consider that the Patrons of Husbandry in Canada will do no good to themselves or the country by interfering with manufacturers of reliability. Our impression is that the Patrons of Husbandry will do about as much injury as good to the country by interfering with the general trade. The Patrons might possibly have lower prices for one or two years; then up would go the prices higher than ever.

We are satisfied that the Patrons will not obviate the necessity of agents. In cases where exhorbitant prices are charged they might combine and do good, but they will be wise not to interfere in the legitimate trade, in which only a fair profit is made.

Garden, Orchard and Forest.

Half Hardy Trees and Wind Shelter.

Every once and a while we come across a statement that this tree or that is not hardy. There is no doubt that so far as temperature is concerned, the trees referred to will stand all the cold they are likely to meet with in the regions referred to, but still the trees die.

It may be as well to remind our friends who lose their trees, that it is not so much frost as wind which destroys them. Death is the result of the whipping out of the juices of the tree, and not by the freezing of its cells and it is no proof that because a tree dies in an exposed windy place, that "it is not hardy" in the deponent's latitude. That trees die under diffierent circumstances, where they were thought hardy, is no wonder to those who are familiar with trees. Indeed it is rather a wonder that so many live that do. Generally it is the tree nature to be gregarious. They grow up in forests thousands together, and by natural protection hardly know what wind is. The falling leaves protect the young plants, so that in the severest winter's day, one may go into the dense woods and hardly find frost an inch below the surface. So that trees growing in woods have a double chance. They are kept from severe waste of their juices by their mutual protection from wind; and the roots, without much hindrance from frosty ground, draw in moisture all the winter through, and thus supply what little waste there may be. How different is this from a tree's usual fate. Set out alone, to battle with the winds unaided, and with the frost encasing every root, so that all the moisture they can take up has to be thawed by their own internal heat from the frozen ground, why should not large numbers perish? It is not in the nature of things to be otherwise, and it shows rather a limited acquaintance with plant life when the loss occasions any surprise.

In the suburbs of Philadelphia is a settlement formed by some of the highest classes of citizens of this city, known as Chestnut Hill. It is a high and bleak spot, some two hundred feet above the leavel of the Delaware; and with a valley of some six or eight miles wide in front and around it, it is particularly exposed to bleak north, north-east and north-west winds. The writer knew it some twenty-five years ago, when barely a tree was found over its surface, except where a sheltered inlet or so kept off the worst winds; and every farmer remarked as if it were as true as gospel, that trees would not grow on Chestnut Hill. But trees or no trees, it is a delightful spot, whereon to catch the beautiful summer breezes. It is just the spot for summer-burnt Philadelphians to have beautiful summer residences. A railroad was led to it, and improvements began. One of the first of these improvers was Col. Cephas G. Childs, one of the heroes of the Mexican war, and a highly intelligent horticulturist. He took in the idea of shelter at once. Trees were planted almost as thick as they could stand together; and besides this, very common and hardy trees were set thickly outside of all. The Hemlock Spruces, which, single and alone would have been easily killed, were set thick together; and together they grew up without any injury to leaf or bud, and finally made a good shelter for all the rest. It was a rich treat to go there in subsequent years and see the rare trees growing. Deodar Cedars, Abies Smithiana, Hollies, Yews, and such like, which the average Phelidelphian horticulturists will tell you "are not hardy here," flourished like weeds, though everybody's exposed trees died as regularly as they were tested.

But there is not a place in the whole country but might do as well. The coldest places on the bleakest Western prairie, by thick planting of the valuable trees; and planting the shelter belts of Larch or other wind-proof trees, might have everything we have,—everything we call half hardy,—everything in fact that any reasonable horticulturist could desire.

To be sure, much has been done in this direction in the West. The agricultural papers and agricultural writers have written over and over again as to the necessity of shelter belts before much can be done; but when we read, as we continually do, of experiments with these trees or those, and the conclusions come to, that "they are not hardy west," when we know it is all a matter of wind and not of frost, we see how much more is to be done in pushing a knowledge of the shelter idea, before those regions can half enjoy a full pleasure of horticulture, and it is in the hope of reinforcing our Western friends who have labored so long in this field, that we have been moved to pen this article.

A Nut Garden in England.

Previous to the year 1855, Mr. Webb grew nuts in a small way, much as his neighbor did, but finding the demand for them increasing, and the price rising in the market, he planted all the spare ground he had, about ten acres, with nut trees, and these are now in full bearing order. The trees are planted diagonally, about eight feet apart, two rows of nuts and one of fruit trees alternating, 640 trees being planted to the acre. The ten acres are divided off into quarters, by grass paths, these paths on either side being edged with rows of Strawberries, and in their season with wallflowers, and Narcissus, etc. While the trees were small, the ground was kept clean with the hoe; it was dug once a year for the first seven years, and it has only been manured once since the trees were put in, though for several years Mr. Webb has taken off good crops of potatoes. The only dressing that he gives to the ground is rotten leaf-mould, a large stock of which he has generally on hand for this purpose. By growing Potatoes and such like crops on the ground while the trees are getting up, a fair return for the original outlay is received. It is only when the trees come into full bearing and attain a good size, which takes about seven years, that the nut plantation pays, and then the returns are more than cent. per cent., and go on increasing. On this subject Mr. Webb says, of the 460 trees bear at the rate of 1s. each, £32 per acre per annum is secured; and if they should bear 10s. each tree, it would amount to the almost fabulous sum of £320 per acre; and it is not too much to suppose that they will yield even more than that, for as a proof of it he "had six individuals a quarter of a day gathering the nuts from one tree, and they were all witnesses to the weight—110 lbs. of cob nuts." Nuts are such bearers six years out of seven, and always saleable, Mr. Webb has come to the conclusion that no crop can be planted that will yield so much money per acre. "Compared with land for building purposes, it will yield ten times the profit without any expense after the first few years, and then but trifling." I am here citing Mr. Webbs opinion; it is obvious that the reader must himself test their correctness. The nut trees have grown into a perfect thicket, though in many instances they have been beaten in height by the fruit trees. Of the latter only really first-class sorts are grown, and many of these this year carried enormous crops. The last season Mr. Webb considered only a moderate one for nuts, but the crops were very evenly distributed, and, I thought plentiful. In a good season as many as from 1500 to 1800 lbs. of nuts have been picked in a day. When gathered they are stored in barrels of 100 lbs weight each, and kept in a barn until sent away to market. Mr. Webb has raised a number of new nuts, which he calls Cub Filberts, remarkable for their size, excellent quality, and free-bearing properties, and it is these really fine sorts that he has particularly planted. —"Gardener's Chronicle."

Pruning the Apple Tree.

"So much has been said and written about the form of the apple tree, that it seems almost as a universally acknowledged law that that tree must have an open vase, or an upturned umberella form, and he who undertakes to say the contrary must appear like a heretic. Nevertheless since everything has two sides, I venture to make few objections to it.

1st. It is natural for that tree, if left to itself till it comes to maturity, to never assume that form, but rather the reverse.

2d. The idea to give the tree in that form more light and air seems to me more imaginary than real; for the natural roundish shape brings more surface to the sun than the hollowed out form.

3d. After the tree is cut out to the form, it is constantly taxed to fill up all the gaps, and the industrious pruner must always be on the alert to clear out. This I call a murderous war on the

vitality of the tree, under which it successively succumbs. Instead of pruning to assist nature, this form of pruning is with most pruners to all-absorbing idea of the operation. Stunted branches, of which the tree ought to be relieved by removal, are left, if it happen that they be in the circle of outward standing branches, selected to make the frame; and the most thrifty branches are cut out if they be in the way of the ideal form, and the sagacious pruner removes every little side branch as far as he can reach up on these main branches, by which they are weakened, instead of growing thicker and stronger down to the base, where they start from the beauty of the tree. The first heavy crop bends them out and downward, the unprotected bark gets hard and scorched by the sun, causing the circulation of the sap to stagnate, and numerous sprouts to spring up, to the great annoyance of the former pruner, and the battle with the life of the tree has begun.

I do not wish to be understood to be against all artificial forms or certain desirable shades in cultivated garden trees, but I am much against the attempt to produce them in the orchard, planting for profit, by more rude pruning. Any form that necessity or fancy may dictate, can be produced by constant attention, and applying all the principles and rules given for the purpose, and this only by an experienced hand.

Strawberry Culture in Scotland.

This district is famous for growing strawberries, raspberries, and gooseberries. Ferdell Dea, a place celebrated in Scotland for growing strawberries is within three miles of this; and the late Mr. Moffat, whose name is celebrated in Edingburg for the Ferdell Dea strawberries, told him he grew them 14 years without renewing them, and then he rested the land one year, manured it, and planted on the same land. But it is a deep heavy soil, and such the strawberries delight in, while on land the reverse, the plants will die out yearly. I have been acquainted with strawberries for 47 years, and the best I ever saw was at Glamis Castle, Forfar, this year. The sorts were Eclipse and Elton. Keen's Seeding was about past. At Cester, Haddingtonshire, the seat of the Marquis Tweedale, they were equally good, the soil in both places is very strong and deep and a little cold. About 1½ lbs. would be gathered off one plant, but the plants were nearly two feet between each other, and nearly three feet between the rows. It was a treat to see the berries hanging round the plants. Within four miles of this, there are 200 acres of strawberries grown, but at Ormiston three or four crops only are got when the plants must be cleared off. The soil is lightish with a gravelly subsoil. The fruit is sent to Edingburg, Glasgow, Dundee and Aberdeen, often in barrels, but for the Edingburg market, it is sent in small round baskets which hold 1½ lbs.; and sell from 6d. to 1s. each. At 6d. they give a good return if the crop is good. When planted in April, the fruit is by far the largest the following year, but the crop will not be over half of what it will the second year. —*J. Addison in English Journal of Horticulture.*

Garden Hedges.

One of the many difficulties that a gardener has to contend against is to screen his grounds from the cutting wintry blasts. A keen January north-easter coming across a large expanse of open country on to a plantation of tender conifers and shrubs, will not only cause them to present a miserable appearance, but often so injure them that they will look as if they had passed through a severe fire. When grounds are placed in this position, there is nothing better than to stem the blast by a thick plantation of Scotch and Spruce Fir (as recommended in a former paper on Conifer Planting). But when the position is open without being exposed, hedges will be found to be sufficient to stem the cold winds. The gardener should be careful to have hedges in keeping with his grounds. There is nothing more unsightly than a common hawthorn hedge near a garden hedge, for, although a great deal of sentiment is written about the "shade of the thorny bush," it is decidedly more in keeping with the farmer's field than the gardener's domain. It is very frequent that in large grounds hedges have to be made to hide an unsightly patch of ground or a part of the vegetable garden. Then, if the position is not too much exposed, there is nothing more suitable than the *Cedrus deodara*. This planted in some good fat loam, at convenient distances apart, will not fail to give satisfaction. For the first year or two they can be allowed to grow freely, and then when they have begun to close towards each other, their outside branches should be carefully pruned so as to allow them to grow upwards and expand into a thick and shapely hedge. The only other juniper that really makes good hedges is *J. virginia*, commonly called the "red cedar."—*The Gardener's Magazine.*

A Year's Grape Experience.

The Germantown *Telegraph*, under this head, discusses the botanical and entomologicul phases of grape culture thus:

When the entomologists announced that they had di covered the truth of the grape trouble, and that it was an insect feeding on the root, a new party at once arose, which was quite sure that the phylloxera had very little, if anything to do with it. It was mildew and mould, and not an insect —a botanical, not an entomological study. It is not to be wondered at that these radical differences should exist. There can be no doubt in the world but that those who have studied fungoid diseases of plants, and have advocated the fungoid origin of grape disorders, have proved their point by incontestable evidence. It is equally true of the root-insect idea. Here are the insects, and there are the rotton roots in myriads as the consequence, and every child knows a vine cannot do well when half its roots are desnroyed. What is the simple editor to do, who has no theory to advocate, but whose business it is to direct the judgment of the reader according to all the facts in hand? He can only say that no one thing causes disease; at least there are many things which will cause disease, sometimes, perhaps, existing together, so that one depends upon the other; at other times each acting independently, and as some of our friends expressively say, on its own hook.

But independently of fungus and root-parasites, it seems clear that the little secret conditions of seasons—the exact elements of which no fellow has yet found out—have their own distinct field of labor. Look at the old varieties which have almost gone out of some good catalogues, and which many have thought "gone up," and see how well they have done this season. The antiquatec Catawba, which at one time stood at the head of the grape lists, and then fell to the foot, has this season almost equaled its best days, in the few old fogy gardens where an attachment to the good things of the past permitted a few plants to survive. Looking at these facts, we say at once that season has to do with success; and perhaps feel some contempt for all other suggestions.

It has been of late years pretty well understood that an old-fashioned dry time, is good for the grape, and we have had it dry enough, in all conscience, this season. How was it in the past? The Catawba did as well at one time as the Concord does now. We suppose there were wet seasons and dry seasons. Probably they were wetter than now, for the scientists are telling us that the cutting away of forests increases dry times. Yet the Catawba did well in all the rain and drizzle of these pre-generatic days. There must be some cause besides mere climate. Yet it is strange to the mere looker-on that beyond the mere fact that the Catawba grape has done remarkably well this season, so little more should be positively known.

Aster.

There are few flowers that have been so improved by cultivation as the aster. Originally in was single and ordinary, and can still be seen in many sections in all its pristine ugliness, so prone are many good people to hold fast to the relics of the olden time. But, by careful cultivation, the aster has finally been developed into a flower as double as the most perfect dahlia. In the whole floral creotion there are but few flowers so perfectly suited for an antumn display, so long as that display lasts; for the truth compels us to state that the aster is short-lived. For three weeks blossoms will be produced in abundance, but after thot time the plant begins to look "ragged, careworn and weary," and in a few days is just about as ornamental as a decayed thistle. This being the case it should not be placed in a prominent position. Nothing is more foolish than the too common practice of placing short-lived flowering plants on the lawn, or in a conspicuous place in the garden. Of course they are magnificent when in bloom, but their death leaves a blank which need not have been had they been placed on the borders of "the social circle."

We have here spoken of the sole defect of the aster. In all other respects it is well nigh perfect; and every one who cultivates flowers, no matter on how small a scale, should grow it. As the bloom will be more enduring by coming into bloom late in the season, we would advise sowing the seed in a well prepared bed in the garden, about tenth of May, and by the last of the month the plants will be ready for the permanent bed in the garden, which should have been prsviously enriched with well rotted stable manure. The large varieties should be set one foot apaet, and the dwarfs six inches or so. Many vsrieties need tying, as without support they are sure to fall to the ground, when loaded with blossoms, during any ordinary storm. The stakes should be made, and painted green, during the winter. Do not wait until the hurry of spring to do it, for if so, you will forget the paint, and that is the best part of the stake. Half hidden by the foliage of the plant, a painted stake will hardly be noticed, and if it is, will rather a better appearance than an oak splinter off the nearest rail fence.

Our seedsmen offer a long list of varieties, and while all are good, some are better. We havd found the New Rose the best for all purposes. The La Superbe, Truffant's Pæony, flowered perfection, and the Imbrique Pompon. The Hedge Hog, or Needle, is a quilled variety, and one of our favorites. Of the smaller sorts, the newest Dwarf Bouquet is likely to prove the most satisfactory, although a person's experience with the same variety may vary more or less in two successive seasons.—*Prairie Farmer.*

Essay.

SOILING OF CATTLE IN CANADA.

Written for the Farmer's Advocate.

The "Soiling of Cattle in Canada" having been offered as a subject of competition, and made an object of an offered premium by the proprietors of the FARMER'S ADVOCATE, I shall offer a short essay on that mode of managing stock.

"Soiling" I understand to be the keeping of stock in the stable or barn all the year round, with only a daily and short liberty of a yard, and during the summer months to be fed with green food, cut and delivered to them in the stalls, instead of feeding in pastures.

In setting forth the merits of soiling as a branch of farming, I shall treat the subject under the two following heads:—

I. The advantages which it possesses over the usual mode of pasturing stock.

II. The manner and mode of carrying the same into effect.

From my own experience, and what I have seen of the detailed experience of others on this subject, I am convinced that six distinct advantages may be claimed for the soiling of cattle in Canada: 1st. The saving of land. 2nd. The saving of fencing. 3rd. The economizing of food. 4th. The better condition and greater comfort of the cattle. 5th. The greater product of milk. 6th. The attainment of manure.

The only offset to these advantages is the labor of raising and cutting the food and taking care of the stock. But, as will be shown hereafter, the advantage in one of the cases is sufficient to counterbalance the whole.

1st. The saving of Land.—Under this head it will be unnecessary to produce arguments or facts in proof. It is evident to any person even of the least experience that an acre of land in a high state of tilth and cultivation will produce more succulent food when mown down and delivered in the stall, than can be obtained by the animals continually roaming over the field. The difference is probably at least as one to two. But it has been variously stated by different writers, and men of experience, to be much greater, and even as high as one to five. It is evident, too, that arable lands which are subjected to the plough, and annually manured, will be kept to a much higher productive power than lands lying long in grass, relying simply on the winter manure and that portion of the summer droppings which is not evaporated by the sun or washed away by the rains.

2nd. The saving of fences.—In this respect "soiling" affords a great and decided economy. It includes not only the cost of the material used in fencing, the labor of putting them up, and keeping them in repair, but the land which is occupied by the fences, and all the head-lands which are

necessarily left on each side of the fence, and which are usually an apology for slovenliness and a refuge for noxious weeds and vermin.

In this, as in the preceding case, the greatness of the economy is so obvious as to render any particular calculations unnecessary. The first and general effect of "soiling" is to render all interior fences useless, except those surrounding the buildings, and leading from thence to the highway.

The cost of placing fences of even the most temporary description upon farms of one hundred acres (as those farms are usually divided and subdivided) may be estimated at several hundreds of dollars, and, in addition, the annual cost of keeping them in repair is something very considerable.

A farm, therefore, which is relieved from all interior fences enjoys exceptions from great annual expenditures, and other facilities in its management which are of very great importance.

There is no waste of land. The whole may be divided into cultivation with reference to the quality and condition of the soil. When the plough runs it meets with no obstruction, the length of the furrow being determined by the judgment of the proprietor. It presents, then, to the eye a scene of cultivation neat, orderly and beautiful.

3rd. The economy of food —By "soiling" the advantage here gained is most conclusive. Under the pasturing system there are six ways by which the animal destroys the article destined for its food. 1. By eating. 2. By walking. 3. By dunging. 4. By staling. 5. By lying down. 6. By breathing on it. Of these six only the first is useful; all the others are to a great extent useless. Here, then, under the pasturing system, are five modes of waste, which, by keeping the animals in the barn, may be almost, if not altogether, prevented.

It is true that the portion of the food thus wasted and lost to the animals feeding is not totally lost to the soil; that it may tend to enrich the soil, &c. But we are now speaking of soil cultivated to its highest productive power, and it is far from economy to allow any of the productions of the earth to be wasted before it has attained its growth, or applying it to that legitimate purpose for which all food is intended.

By keeping in the stable, that portion of the food would mostly, if not all, be consumed, for it has been found by experience that by this mode of feeding the animals will eat many products of the earth in the stall which they will absolutely reject in the pasture. It only remains, therefore, to be added under this head that the manure which would accumulate by this mode of feeding (being properly protected, &c.,) would be a far greater compensation to the soil than staled or refuse grass lying exposed to the rays of a scorching sun possibly can be.

4th. The better condition and greater comfort of the cattle.—The condition of cattle always depends upon the quality and quantity of the food, and the regularity of the supply. In this respect stall-feeding has the advantage over pasturing. The one is under the guidance of intelligence and discretion, nothing is left to chance. The other, the beasts are left to their own care.

The want of exercise, which is inseparable from this mode of management, is the only objection that can here be raised. Yet all those who have made the experiment, and whose opinions I have seen expressed on this subject, are unanimous in declaring that no bad effect results from this circumstance.

I may observe that stall-feeding does not imply keeping in the stall the whole time. It only means always feeding them there, and keeping them there the greater part of the time.

It is an essential part of the system that the cattle be allowed to go loose in yards for two hours before noon and two in the afternoon. Here they lay themselves at their ease, or move around, taking exercise in that act, or in rubbing themselves against posts provided for that purpose. These sheds or yards should be shaded artificially or by trees.

Any person who observes the slowness with which cattle usually walk in their pastures, and that when full they invariably lie down, will scarcely believe that the difference between the two modes of exercise can materially affect their health. When to all this is added that when fed in the stall the animals are prevented from eating any noxious weeds; from drinking bad water; from being worried by dogs or by one another. That they are wholly protected from flies (so torturing to a cow), it cannot be doubted that this mode is far more conducive to health than pasturing can be. If, therefore, the condition of the animal be better, as is here shown, it follows that they must be more comfortable, for the one is dependent on the other.

5th. Greater product of milk.—Although this is positively the case, it may be here observed in the outset, that during the first month of grazing, when the feed is flush, the cattle are eager after it, and there is a great range of pasture land to select from, the difference is not much. Perhaps there is no mode of feeding that can produce a greater flow of milk than pasturing will during the first month of the season, say from the 20th of May until the 20th of June. During that period there is a good supply of food, the cattle feed quietly, and take only the most nutricious and palatable. After this month, however, the quality will gradually cease, the supply begins to fail, pasture food grows more or less scarce, and toward the third month the pastures are virtually pinched. This, of course, is governed by the character of the season. But in all seasons this holds true to a greater or less extent. Whereas, he who takes care to provide a regular succession of succulent food, and feeds his cattle in the stall, may keep the milk produced unaffected by the state of the season to the end of autumn. Therefore, in soiling, if succulent crops be raised on the farm, and fed in the stall, which is equally nutricious with the grass of early spring (and such can be done), and that no decrease in the flow of milk be permitted except what is natural, by the advance and termination of the animal's term, it must follow that under the soiling system the product of milk is much greater.

6th. The attainment of manure.—This is a great and characteristic benefit of "soiling," or stall-feeding of cattle through the year. It is unnecessary to remark that the key-stone to success in farming, under any system, is the procuring of a necessary supply of manure. By "soiling" this can be done; in fact, a man who soils need never want for manure.

In pasturing, the farmer has to depend almost entirely upon the winter manure, for the summer manure is almost wholly lost. It falls in lanes or highways, or upon rocks, among bushes, in watercourses, or upon the sides of hills, and fall where it will, it is, to a great extent, evaporated by the sun, or washed away by the rain. Insects destroy a part of it, and the remainder (a hard, dry cake) often lies a year on the ground. sometimes impeding vegetation, and never enriching the earth in anything like the proportion it would do if deposited under cover, carted out at the proper season, and ploughed at once under the surface. It has been stated by various writers on the subject, and my own experience convinces me of the fact, that all the labor connected with "soiling," such as cutting and carrying in the feed, currying, cleaning and taking care of the stock, is far more than compensated by the extra manure which is obtained by this mode of management.

II. The mode and manner of carrying the system into effect.—This must always depend, to some extent, upon the character of the climate and the land to be soiled from. I shall offer a few ideas and suggestions generally applicable to the conduct of this system in Canada.

This includes the description of crops used for soiling, and the mode of sowing and cultivation. As to the quantity of land to be cultivated for each head of cattle to be soiled, no stated rule can be laid down. Different soils vary in their productive power, so the man who engages in the business must judge for himself. Having first decided the number of cattle he intends soiling, the farmer then proceeds to set apart that portion of his arable land which is located nearest his barns. The quantity of land to be thus cultivated he must, in the first instance, decide by his knowledge of its productive power. Every farmer has an idea how much to expect of his fields, and better have too much than not enough, as nothing need be lost. If there should be more than sufficient of this food, it may be allowed to mature, and be housed away for winter feed. My own experience has been that from one-half to an acre of land, according to its condition and quality, is sufficient for each head of cattle soiled. This done, he must then determine the description of crop which is most adapted to his soil. The kind of crop used must, of course, be different in different soils and climates. In other respects the variety to be used is whatever succulent vegetables cattle will consume. In my own opinion, the crops most suited to the greater portion of Canada for a succession of succulent food in stall-feeding would be grass and clover, oats and fall rye, Indian corn, late barley and cabbages. The soiling season may commence about the first of June, or sooner, in some climates, as the case may admit of, and upon that portion of the grass land which has taken the earliest start in spring. Often pieces by the door yard, by the roadside or fences may be fed from before the regular crop comes to hand, the idea being that nothing should be wasted. The crop which is first used may be fed for about ten days. From the time it is first fit to carry the scythe it will remain soft and juicy for that length of time. In this way clover and grass may be fed from the 1st until the 20th of June, and may be calculated at the rate of 1¼ square rods per day for each cow soiled. Thus an acre of land will feed ten cows for twenty days. From the 20th of June till the 1st or 10th of July, fall rye or oats may be relied on. The oats to be sown for this purpose as early in April or May as the condition of the land will admit of, and both to be sown very thick. Each of these crops may be soiled from for a period of ten days, and calculated at the rate of a square rod per day for each cow to be so fed. For the next twenty days Indian corn would come to hand. Two acres should be sown, separately, at intervals of ten days, and at such time in May that it would attain its proper growth at the 10th or 15th of July, then to be fed in succession, as they were sown, for a period of twenty days.

In the same way barley may be depended on for the next twenty days; say the 20th of August, when the grass and clover plots which were first mown will have produced a second crop, that may now be applied to the same purpose. Early in September the corn-stalks which were mown off in July will have shot up a luxuriant growth, probably superior to the first, and will fodder the stock for an equal length of time. By this time the farmer may turn his field roots, such as carrots and turnips, the tops of which will provide food for a considerable length of time. Any farmer in Canada who would prosper as a stock breeder or dairyman will see the necessity of cultivating his root crops for winter feed in great abundance.

For the remainder of the season I can think of no crop that would be more suitable and profitable than cabbages. I am told these can be raised at the rate of five to six thousand heads per acre, and with an allowance of a dozen heads to each cow per day, an acre of cabbages would afford abundant food for the stock until the close of autumn.

These general directions as to the description and quantity of crop to be cultivated for soiling of stock may be varied to suit the various circumstances of individuals.

With regard to the quantity of land required for the support of a given number of cattle, the directions I have given are sufficient for the guidance of any individual, with the assistance of his own judgment, in the start. For the second and succeeding years he requires nothing but the experience of the first to carry him on in security to this most safe and profitable of all modes of managing stock.

With regard to the descriptions of crop to be cultivated, and the time of sowing, my directions will also be of great assistance in initiating the system, to be regulated, improved and adopted to individual cases, as circumstances may dictate, the matter for most particular attention being to sow in point of time and quantity to meet the demands of the stock, and to afford a regular succession of food.

The classification and rotation of those crops will also be found suited to the climate of Canada. For instance, fall rye and oats, the first grain crops to be fed from—while barley is left to the last, that crop being the best calculated to resist the early frosts of autumn.

With regard to the labor of soiling, such as cutting, carrying in and distributing the food, currying and keeping the cattle clean, all these are more than compensated by the great increase in the quality and quantity of manure. For the protection of the manure heap it is only necessary to have a pit, somewhere convenient to the stables, dug to the depth of two or three feet in a clay bottom, and large enough for the purpose. Into this receptacle the manure may be thrown. Gutters may also be constructed from the stables to pit, by which the urinary portions are carried in, and nothing whatever lost. The importance of attaining manure cannot be overrated by the farmers of Canada. How often have we heard the farmer say, "if he only could get good manure,

the greatest obstacle to successful farming would be removed;" that the obstacle is greatly removed by the soiling of cattle is quite conceivable.

Correspondence.

Diversified Farming.

We direct the attention of our readers to the following communication from a gentleman who held at no distant period the high position of President of the Agricultural Association of Ontario :

SIR,—The January number of the ADVOCATE is to hand, and it is highly pleasing to see that it has not only been improved in appearance, but also enlarged, giving more space for reading matter. It is to be hoped that your numerous correspondents will take advantage of this, and furnish you with interesting communications on agricultural subjects. Materials are as plenty as blackberries, for, in every month of the year the farmers have duties to perform, either in preparing for the raising of crops, or securing or disposing of them.

Would it not be wise, under the present circumstances, when wheat—our staple crop both in Europe and the United States--is almost down to zero in price, for the agriculturists of Ontario to go more into the dairy business? Butter and cheese have gone up to almost fabulous prices, higher than ever known before. Every one knows, or ought to know, that dairying, even for a few years, would tend to improve the old worn out land of the earlier settled portions of Ontario, and bring back, to a certain extent, the original fertility of the soil.

When the raising of grain is made the chief object of the farmer, it is found impossible, in a majority of cases, to keep up the fertility of the soil from lack of a sufficient quantity of manure. And although it is true that artificial manure might be substituted, it is well known that small farmers have neither the faith in nor the means of purchasing it.

If this meets with your approbation, and an opportunity provided, you may again hear from your

EASTERN CORRESPONDENT.

Maitland, Jan'y 11, 1875.

The Miners.

SIR,—Please find enclosed the sum of $1 for the ADVOCATE for 1875. It may be gratifying to you to know that the McCarling Wheat I received from you took a prize; the turnip seed—Carter's Champion—was also awarded a prize at our Agricultural Show last fall. The ADVOCATE looks well in its new dress.

All the talk just now is about the miners; they want to hold about thirty thousand acres and pay no taxes, leaving the settlers to pay the taxes and build the roads for them to travel on.

BENJAMIN LAVENDER.

Millbridge, Jan'y 7th, 1875.

[MINERS AND TAXATION.—Nothing unusual. Persons engaged in mines and timber limits are sure of official favor, let the farmers do as they may. In some places a farmer cannot make use of the timber grown on the land he has purchased—all reserved for the lumbermen. Appropos to this subject, a correspondent of the *Northerly Advocate*, Bracebridge, writes as follows :—"It is the lumbermen's influence in the Legislature that is now keeping the township of Franklin and other townships out of the market—thereby retarding the settlement of the country and seriously injuring it. The interest of the lumberman is directly opposed to that of the settler, for it is not only the interest of the lumberman to keep lands out of the market as long as he can, but also, if possible, to prevent the settler from obtaining his patent."—Justice to the farmer demands that there be none of this class discrimination by Government or Legislature. Farmers are powerful enough, if united, to compel justice being done. —ED.]

Gravel in Horses.

SIR,—I wish you would insert in your paper some remedy for gravel in horses. I have one very bad with it.

JOHN WEST.

St. Troyes, Q., Jan'y 11, 1875.

[The remedy we have tried for many years and found entirely effectual, we would recommend to Mr. West for trial. We had the oats, when placed in the manger for the horse so affected, damped with a slight sprinkling of water, and then a small portion of nitre sprinkled over them. It is simple, safe and efficacious.—ED.]

A New Disease.

SIR,—An infection has broken out among my sheep in the form of a small white pimple on the lower part of the left eye, and finally extending all over it and causing them to go blind. Some eight or ten of my flock are affected in this manner. If you or any of your readers could inform me of any way of curing and preventing the disease, you would greatly oblige

A SUBSCRIBER.

BRAILIEBORO', Dec. 28, 1874.

[We have not met with such a complaint in our flock, and we referred the case to Mr. J. Wilson, Veterinary Surgeon. The complaint, as described, is quite new to him, also, and he has not, in his researches on the subject, met in the authorities a similar case. Has any of our subscribers met with such a complaint among their flocks? If so, would they be kind enough to drop us a line?—ED.]

Disease in Pigs.

A subscriber writes to us describing a disease that has attacked his pigs. The weakness he speaks of is not at all uncommon. If the sow has fed chiefly on beech nuts, such a weakness is not unfrequently known to affect her pigs when young. We append an article on Blind Staggers in pigs, the disease affecting our subscriber's, judging from his description.

Professor Law has given the following :

When the hog is attacked, dash bucketfuls of cold water over the body, and throw a purgative injection into the rectum, composed of six ounces of sulphate of soda and one or two spoonfuls of spirits of turpentine in ten ounces of water.—Seton saturated with turpentine may be inserted under the skin behind the ears, or the back of the neck may be blistered by rubbing in the following mixture: spirits of turpentine and liquid ammonia, one ounce each, with liquid catharides, two drachms.

We think carbolic acid, given thus, would be efficacious: One teaspoonful of crystals diluted in two teaspoonfuls of soft water; forty drops in food once a day. The moment a pig is attacked it should be separated from the rest, as these diseases may be readily communicated to others.

The Apple Worm.

SIR,—I want you particularly to give the best remedy for the apple worm. Most all the good apples in this locality are spoiled with the worms, and they are getting worse every year.

P. D. SCOTT.

Milton P. O., Jan'y, 1875.

[We believe the best plan yet tried has been to have several small fires blazing in the evenings, during the time the apples are forming.—ED.]

The Yam, &c.

SIR,—The Yam has been a failure, no doubt owing to the excessive drouth; the Japan Pea did not blossom; the potatoes are a success, Brownell's Beauties yielding 88 for 1, Compton's Surprise 56 for 1, and the potatoes you sent me in June, 24 for 1. I would like to know the name of the latter.

WALTER W. BOSWELL.

Peterboro', Jan'y 11, 1875.

[The Yams, we are sorry, were dry. Them and the Japan Peas we sent out as experiments; the failure of both has been general. With one of our subscribers the Yam planting has been successful. He has had a return from them, though not large. We may be able by such trials to acclimatize them, so that they may, after a time, be reckoned among our Canadian products.—ED.]

Judging Field Crops.

SIR,—The present appearance of the ADVOCATE proves the truth of its motto—"Persevere and succeed." You commenced it under very unfavorable circumstances and very ungenerous opposition, and I congratulate you on your success, owing entirely to your indomitable perseverance.

In your last issue I see a letter from Mr. Roe, of Clarence, in which he says there is one thing he would like to get information on, viz., whether it would be best giving up judging field crops altogether, and having samples brought to the exhibition instead? A little reflection, I feel satisfied, will convince Mr. Roe that judging crops in the field and producing samples are quite different things. Agricultural associations are formed for the improvement of husbandry generally, and I fail to see how samples of grain can prove that; for instance, a man may pick all shrunken grain, which is often done, whereas judging in the field proves at once whether agriculture is prospering or not.

The Directors of the County of Carleton Agricultural Society passed a resolution giving the judges instruction to question the exhibitor as to the nature of soil, the number and kind of crops raised previously, and the kind and quantity of manure per acre. Failing or refusing to give satisfactory answers, the exhibitor forfeited his claim to a prize. Samples of all kinds are also exhibited. The only way to foster and encourage agriculture is to inculcate good tillage, rotation of crops, and judging in the field.

If these crude remarks are of any value, you may give them a place in the paper.

RIDEAU.

Making Soap.

SIR.—I send you a recipe for making soap, which is as follows : 1½ lbs. of unslaked lime, 3 lbs. of washing soda; put into three gallons of water.—Boil for a few minutes, and let it stand for a night; strain and add 3 lbs. of grease; boil until quite thick. The above gives the proportion of ingredients used.

MRS. K.

Ottawa, Jan'y, 1875.

Paris Green.

SIR,—I am surprised in reading the statements that have been made by some writers, to the effect that Paris Green is not an effectual remedy for destroying the potato bugs. I will venture to assert that it is a positive remedy to destroy the potato bug; I have tried it to my satisfaction. I put a quarter of a pound of Paris Green in four quarts of plaster, and having mixed well, put it in a tin box, made after the form of a pepper box, and sprinkled it on the vines evenly. The bugs were completely destroyed; there is none to be seen.

GEO. EMBURY.

Huntingdon, 1874.

The Redfern Wheat.

SIR,—In sending my subscription for the ensuing year, I beg to state that I consider your paper one of the most useful of the day. In your December number you mentioned a new seed wheat bearing the name of a Mr. Redfern. As that gentleman resides in this neighborhood, and as I have sown this wheat for two or three years, I wish to say that I prefer it to any other that I know of. A Mr. Wright, who lived near me—and he is a gentleman on whose veracity I can rely—says he sowed two bushels of it on the same day, and side by side on the same land with two bushels of Fife and Black Sea wheat mixed; from the two bushels of Fife and Black Sea wheat he harvested but fourteen bushels, and from the Redfern variety forty-two. Comment is needless. It is highly recommended by the millers in this section.

THOMAS MILLER.

Jan'y 1st, 1875.

From Mitchell.

SIR,—I have been much pleased with the ADVOCATE both with regard to its style and the object it has in view. You have labored hard for the benefit of the agricultural community and to defend the rights of the farmer, and for this you are deserving of every praise and support. I hope your labors will be crowned with success. Some people believe agricultural sheets are not worth reading; we might suppose those parties living at a distance from any human toil, or that they do not know

where their bread came from. What is our country now compared with what it was 25 or 30 years back, when my children ground grain in a pepper mill to make a cake for themselves? Now we have flour mills, oat mills and flax mills; we can see sweeping over the railroad the wonderful steam engine. What keeps these works in a running order, or where is the foundation? It is the plow. If it is the plow that supports all of these great works, let us all unite and sing "Speed the Plow."

I intended making some remarks on some articles I have seen in your paper that could not have been written by practical farmers. One article condems leached ashes, or ashes in general, as being of no use. I have used ashes as manure for 50 years, and never knew them to fail. One gentleman said they were worth double the price they were sold for at the ashery; one barrel of good ashes is equal to a barrel of plaster. In the year 1872 one of my neighbors applied some loads of leached ashes to an old meadow, and the result was that where the ashes was applied there was a fine crop of hay, but the remainder was not worth cutting. In the same season I sowed a field of turnips; on a part of the field I put ashes, and on another portion one part ashes and one part salt. I had a fine field of turnips; the portion on which the ashes was appled grew a little stronger on the top, but there was little difference in the roots; the salt portion was not so good. There is nothing better than ashes for turnips, barley or gaass.

I also noticed a cure for wild oats, viz., to sow buckwheat and plow it down, when, it was maintained, the wild oats would entirely disappear.—One of my neighbors tried this remedy, and the field produced a good crop; he then plowed it down and harvested it well, and left it to remain over the winter. This spring he plowed it again and sowed barley. To his disappointment, where there was one head of barley there were five heads of wild oats. We have had an abundant crop of wild oats this season. I have been trying a little experiment, of which, however, I cannot say anything at preseut, as it will take another season to prove itself. ENGLISH FARMER.

Mitchell, Dec. 23, 1875.

A Bank Barn.

SIR,—I would like if you or some of your correspondents would give a plan of a bank barn for 150 acre farms or more; the cheapest and most convenient division of basement for fat cattle, cows and young cattle and horses, with cistern placed so that the water could be led into the horses and fat cattle portion, to mix with cut feed; also, with root cellar, to hold 5,000 bushels, placed as conveniently for all as possible, in regard to feeding out. The main idea to be the keeping of cows for dairy purposes. So much for the basement.

Main floor—how best divided for storing, threshing and feeding; where granary should be placed to load grain and keep it handy for threshing; how the door should be hung, whether in the end or side, aiming to get as much in as little space as possible; wheat and hay the main features. Also, the best shape, whether long and narrow, or short and broad. My own idea is one 75 feet long by 50 broad, or in that proportion.

Hoping this will be found worthy of insertion and answer, I remain yours truly,

W. HUNTER.

Killyglen Farm, Jan. 11, 1875.

[As many of our readers have doubtless on their farms such a barn as our correspondent desires to build, we will give a chromo prize for the best description and plan of such a building as W. H. wishes to build. The plan may be a rough sketch. We prefer the results of experience from one who has had trial of such a barn to mere theory.—ED.]

Agents Granges, &c.

SIR. I— have taken your paper for one year and am well satisfied with it, considering the price, it is very good. I think you have not many correspondents in this northern country which was once spoken of as a place where winter reigned through most of the year. I am glad to say that the stories we used to hear were very much exaggerated; true, we have deep snow, but this need hardly be thought a disadvatage.

Mr. Thompson tried to organize a Grange in this neighborhood, but failed; whether the failure was owing to our ignorance, or good sense, is a question about which there is a differenee of opinion. This age of shoddy and humbug perhaps makes one too suspicious.

I wish some talented Granger would answer a few questions, not for controversy, but that we may find out the truth. Tell us first what is a fair profit for a merchant to make on his goods, and a farmer on his wheat? Secondly, if the Grange movement is fair and honorable why make any secret about it? And thirdly, tell us if a man who cheats and lies for the sake of money is morally qualified to be a Granger? Finally, if agents and middlemen are such villains now, how can we be sure of their honesty when employed by the Grangers? Those questions perhaps will appear childish, but children should be instructed. I wish to say a few words about agents before I close. The best man I ever encountered was an agent; he told me that he was an inventor of useful machinery, could work at several trades better than almost any one else; he had been in good society of which he was an ornament, and had relinquished all that he might benefit us poor farmers. Such sublime forgetfulness of self, fairly took away my breath while he poured forth a torrent of information on almost all subjects. I don't pretend to understand half he said, although he tried to make it plain; it was haying time, and a shower seeming imminent I had to bid the excellent man good-bye. But, "picture it; think of it!" A man of his abilities giving up all that he might benefit his fellow creatures. Then came the apple-tree man, and the insurance man, the patent gate man, and the bankrupt stock man, the family bible man, the clothes-line man, the soap, solder, and picture men, but time would fail to tell of all who are studying my interest. Some have hinted that these men have selfish motives; this cannot be, for they all seem to have my interest mainly at heart, the clothman in particular said they gave me about double what I could get in the stores. It is true the "Broadcloth" gave out the first Sunday, but the snag was sharp, and I ought not to have sat upon it. I might add more, but perhaps this is sufficient.

Love and justice prompts me to take ideas with the worthy, so I shall give my name, and then the above class will know where to find a friend and customer; and while entertaining them I may possibley receive the blessings, of those who entertained angels unawares. THOMAS DUNINGTON,

Chatsworth.

SIR,—Enclosed find $2.00 for your paper. I am well satisfied with it, and should have remitted sooner, especially as I presume you get no Government support, for which I am glad for such support is apt to compromise a man's independence and usefulness. I believe in a fair field, but no favors neither to farmers nor any one else.

The Model Farm is a model humbug and judging by recent revelations, where, I ask, is the farmer in Ontario who would wish his sons educated in such an institution? Wishing you every success, Yours &c.

JOHN A. SCOTT.

Stratford, Dec. 31st. 1874

To the Editor of the FARMERS' ADVOCATE. Will some one please tell us through the ADVOCATE how Tamrack posts will stand for fence posts, and whether dry or green will last the longest; or if any one has tried them. A SUBSCRIBER.

Chinguacousey, Jan. 10th., 1875.

New Seed—The Arnold Wheat.

From the interest taken by the ADVOCATE, in the introduction of new seeds; I am induced to say a few words in refierence to a new wheat produced by Mr. Arnold, of Paris, Ont. From (as near as I understand) a cross between the Deihl and the Mediterranean. I sowed in the fall of 1873, about a peck on a part of a field which I had prepared for Tredwell. Being anxious to procure my seed for the following year, I gave it what I considered the best, and most favorable spot. Intending to hoe it, I put it in drills about 18 inches apart. The rest of the field was sown broadcast with Tredwell, finishing on the 10th of September; both looked equally well in the fall; but when harvest came I was forced to the following conclusion.

1st. It is a very passable *white* wheat, with a beautiful compact head, and stiff straw.

2nd. With a good stand on the ground it would be *productive*.

3rd. It is *later* by several days than the Tredwell.

4th. It is *less hardy*. On account of this quality I think it will fail to give general satisfaction. Mine was much more winter killed than the Tredwell; so much so that I did not think it would pay to hoe it; still it was not injured with weeds to any great extent. Had about three and a half bushels on the ½ acre sown. I have given it a further trials of ¾ of an acre sown broadcast. A first trial is all I could devise at present. If I change my opinion in regard to it; I will inform your readers through the F. A. F. MALCOLIN,

Innerkip, Jan'y 7th, 1875.

How I Destroyed Sheep Ticks.

Last February I had fifteen sheep, and they had any amount of ticks on them. For an experiment I bought one pound of Scotch snuff, and put it in a tin pepper box, a little at a time; I parted the wool at intervals and shook the snuff well into the skin all over the sheep, and gave an extra dose on places where ticks were thickest. At shearing time there was not a live tick to be seen on them. The lambs were also entirely free from them. I put the snuff on the sheep about the 15th of February.

HASTINGS FARMER.

Compton, Jan'y, 1875.

Egyptian Wheat.

SIR,—In regard to the Egyptian Wheat, I do not want it. I had a quart sent me by a friend over twenty years ago, and it shrunk so that I never harvested it. R. C. H. COTTER.

Frankford, Jan'y 14, 1875.

SEED REPORTS.

SIR,—I received 13 lbs. of Compton's Surprise Potatoes, from three ounces sown.

MR. M. HAMMOND.

Arran, Jan'y, 22nd, 1875.

Commendatory Remarks.

SIR,—I consider the ADVOCATE the best agricultural paper extant. I will recommend it to my friends and neighbors. W. H. CAREY.

Dalkeith, Jan'y 18th, 1875.

SIR,—Your journal is the best of the kind in America. J. GLENDENNING.

Scarboro', Jan'y 15th, 1875.

SIR,—One number of your paper is worth a year's subscription. SAMUEL ALLEN.

Ingersoll, Jan'y 18th, 1875.

SIR,—I deem the FARMERS' ADOOCATE the best paper in Canada. C. L. PERRY.

Chatham, Jan'y, 1875.

SIR,—The ADVOCATE is taking the lead of any agricultural paper in this part. N. BENTHRAM.

Rodgerville, Jan'y 14th, 1875.

SIR,—I cannot do without the ADVOCATE. I have gained more by it than it would have cost me to take it through life. ALEX. WALLACE.

Burgoyne, Jan'y, 1875.

SIR,—The ADVOCATE is the best agricultural paper in America. THOS. PICKERING.

Zephyr, Jan'y 14th, 1875.

SIR,—I regard the ADVOCATE as the best paper in the Dominion to advance the farmers' interests.

HENRY BAYNARD.

Kent, Jan'y 2nd, 1875.

Charcoal for Poultry.

The benefits which fowls derive from eating charcoal is, I believe, acknowledged. The method of putting it before them is, however, not well understood. Powdered charcoal is not in the shape in which fowls usually find their food, and consequently is not very enticing to them.

I have found that corn burnt on the cob, and the refuse—which consists almost entirely of the grains reduced to charcoal, and still retaining their perfect shape—placed before them is greedily eaten by them, with a marked improvement in their health, as is shown by the brighter color of their combs, and their sooner producing a greater average of eggs to the flock than before.—*S. Rufus Mason, in the Poultry World.*

Stock and Dairy.

Making Butter in Winter.

One of the regular contributors to the *Country Gentleman* suggests the following treatment for butter-making in winter:—Feed your cow well—put the coloring into the cow in the shape of shorts—never feed Indian meal, however, unless you desire to dry up the milk and fat her for beef. Give also carrots, beets and turnips if you can raise them profitably. As I farm on less than an acre, this is impossible. If the turnips are fed only just after milking there is no danger of tainting the milk with disagreeable odors—so say old farmers. I have never tried it. Fed with shorts and good hay, our cow gives milk which makes butter not quite as yellow as cow-slips, yet of an agreeable color and delicious taste. When the milk is strained, the pans are placed in the milk room opening out of the kitchen and warmed by it. The temperature rarely raises much over 65°; and often will sink to 36°; or lower. When it is so cold as to freeze, the pans will be placed in a kitchen cupboard with a more even temperature. Every morning and evening the pans which have stood twenty-four hours are placed upon bits of soapstone lying on the stove, and are heated until the cream, which has already risen, crinkles somewhat. They are not heated to a boiling temperature, but very nearly. This throws up the remainder of the cream in the milk, and makes it of a fine color, thick and leathery. Butter churns more readily from cream thus treated, fifteen minutes being sufficient time to bring it. A Blanchard churn I always prefer to any other kind, because a child can churn butter in it, and save my strength, and it does work out the buttermilk to a charm; not a drop can remain in the butter if the flaps are only turned a sufficient length of time. Butter made by this process need not be handled excepting to form into butter pats or rolls. I must confess to a weakness for prettily stamped butter. It may not add to its flavor, but it certainly does to its appearance, and we eat with our eyes as well as with out teeth. Housewives will always find it an advantage to prepare their butter tastefully if they desire to obtain "gilt-edged" prices for it, for consumers will always pay a little something for the looks of a commodity. Care must be taken, in skimming the cream, to have every utensil clean and sweet. If they are not, the butter cannot be A No. 1. The cream jar must be kept with scrupulous cleanliness, and no drops allowed to trickle down the sides and adhere to them. Never scrape off the cream, which may adhere to the fingers in cleaning off the skimmer upon the edge of the jar, but detach it with the skimmer itself. Keep the cream jar closely covered, and where no ill or dust can approach it. Cleanliness is one great secret of the making of good butter; unless the housewife pays the strictest attention to little things—which in the aggregate amount to great things—she toils in vain, and her butter can never be considered prime. Again, the milk room must be duly aired, and the atmosphere kept sweet. Milk and cream possess a wondrous power of taking to themselves the disagreeable odors about them. The smell of boiling fat will taint milk to my taste. The odors of codfish, kerosene, and the like, are often absorbed in the milk; and then the housewife puzzles her brains to know why her butter does not taste as good as Mrs. Thrifty's, who keeps her milk room entirely free from all other articles. She would not allow plates or eatables—fried doughnuts, gingernuts, apples, &c., to be placed near her milk-pans; for she understands that their mingled odors will surely steal the sweetness from her butter pats, and the rich man of the place would instantly detect the change, and refuse to pay the high rates she charges. The secret of good butter is extra care, provided the cows are of a good stock, and well fed and cared for; this is the only essential required. If Bridget or Dinah will not attend to it, and most likely they cannot do so with judgment, then take the skimming of the milk into your own hands, and learn how much more butter, and of what superior quality, brains can produce. Personal attention is surely the chief requisite in dairy matters.

How to Judge of Wool.

There is perhaps no defect which renders wool, and otherwise good wool, too, so absolutely useless for manufacturing, and especially for combing purposes, as tenderness or breachiness; and it is my conviction that this defect is more general and causes greater loss to the country, through the pockets of our sheep-owners, than all the other defects in our wools together. However fine, or however much your wool in every other desirable quality may excel, no sooner is it submitted to the wonderfully acute and skilful examination of the European wool-sorter, classer, buyer, or manufacturer, than its deficiency in this respect is detected, and a price is bid for it scarcely exceeding that offered for locks and pieces; in fact, nothing is wanting to reduce fleece to that class, but the solution of continuity which is sure to take place in the course of the very first manufacturing process to which it is subjected. Except, however, possibly, in cases where neglect or mismanagement have been the rule for generations, it is not hereditary; nor is any one breed of sheep more liable to it than another. To these conclusions I have come by repeatedly finding an entire flock affected with break one year and quite free from it the next, in consequence of a change in management. On the whole, it is to be feared that this defect is yearly gaining ground; and I am credibly assured that for the last two or three years we have produced more wool of this description than was ever known before.

Certain it is that wheresover this most objectionable tendency manifests itself, sheer carelessness, neglect, ignorance, over-stocking, inordinately large paddocks, or scarcity of feed or water—each or all—will be found. When sheep get into very low condition the pores of the skin contract, and permit only wool of a very fine fibre to extrude.—When the feed once more becomes abundant, the pores again expand, and permit the passage of a larger and stronger fibre. In consequence of this the extremities of the fibres are stronger than their centres, and the wool upon the slightest strain snaps at the weakest place—namely, at the portion which grew when the sheep were in the lowest condition. But nothing is so sure to cause a break in wool, or indeed, in many sheep, a perfect stripping or shedding of the entire fleece, as want of water.

It is not only important that wools should be free from the defects above described, but it is desirable that the whole of the various parts of the fleece should have as nearly as possible a uniformity of character—that is, as regards fineness, length of staple, density and softness. The method of determining this quality of evenness is thus described:

"Always assuming that the wool to be inspected is really a fine wool, we first examine the shoulder at the part where the finest and best wool is usually found. This we take as the standard, and compare it with, in turn, the wool from the ribs, the thigh, the rump, and the hinder parts; and the nearer the wool from these various portions of the animal approaches the standard, the better.—First we scrutinise the fineness; and if the result be satisfactory, we pronounce the fleece, in respect of fineness, very 'even.' Next we inquire into the length of the staple; and if we find that the wool on the ribs, thigh and back approximates reasonably in length to that of our standard, we again declare the sheep, as regards length of staple, true and even. We next desire to satisfy ourselves of the density of the fleece; and we do this by closing the hand upon a portion of the rump and of the loin wool, the fleece at these points being usually the thinnest and faulty; and if ths again gives satisfaction, we signify the fact by designating the wool 'even' as respects density.

The Norfolk Polled Cattle.

At the close of the last century there would appear to have been two distinct breeds of cattle native to the county of Norfolk. One of these, the horned variety, no longer exists; the other, the polled, has by judicious selection and careful breeding, been so greatly improved, that for the last ten years its claim to rank on an equality with the Suffolk breed has been admitted. In all probability there has been an infusion into the polled cattle whose pedigree for three or four generations is well ascertained. It is consequently well to note first what has been put on record of the breed. Mr. Marshall, agent to the Gunton Estate from August, 1780, to November, 1782, says of this breed in his valuable book, *the Rural Economy of Norfolk*:

"The present breed of cattle in this respect is not less peculiar to the country than this breed of horses was formerly, and is strongly marked with the same leading characters. The native cattle of Norfolk are a small, hardy, thriving race; fattening as freely and finishing as highly at three years old, as cattle do in general at four or five. They are small-boned, short-legged, round-barrelled, well-loined, thin-thighed, cleaned-chapped; the head, in general, fine and the horns clean, middle-sized, and bent upward; the favorite color a bright-red, with a white or mottled face. The breed of Norfolk is the Herefordshire breed in miniature, except that the chine and the quarter of the Norfolk breed are more frequently deficient. This, however, is not a general imperfection. I have seen Norfolk heifers sent to Smithfield, as well laid up, and as full in their points as the Galloway or Highland 'Scots' usually are; and if the London butchers be judges of beef, there are no better fleshed beasts sent to Smithfield market. These two qualifications, namely, the superior quality of their flesh, and their fattening freely at an early age, do away with every valid objection to their size and form. Nevertheless, it migl.t be advisable to endeavor to improve the latter, provided those two far superior qualifications were not by that means injured. But it might be wrong to attempt to increase the former, which seemed to be perfectly well adapted to the Norfolk soil. The medium weight of a well fatted three year-old is forty stone (of 14 pounds each). Bulls of the Suffolk polled breed have at different times been brought into this district, and there are several instances of the Norfolk breed being crossed with these bulls. The consequence is an increase of size, and an improvement of form, but it is much to be feared that the native hardiness of the Norfolk breed, and the quality of fattening quickly at an early age, are injured by this innovation, which was first introduced by gentlemen who, it is probable, were unacquainted with the peculiar excellence of the true Norfolk stock, and the mongrel breed which has arisen from the cross yet remains in the hands of a few individuals. A few years ago a Highland Scot bull was brought into this neighborhood by a man who stands high in the profession of grazing, and who has crossed his own stock of the true Norfolk breed with this bull. The produce of this cross proves that if the genuine breed can be improved by any admixture of blood whatever, it is by that of the 'Highland Scot.' The chine is by this cross obviously improved, and the hardiness, as well as the flesh and proneness to fat at a certain age cannot receive injury from the admixture. The only thing to be feared from it is that the stock will not fat so early, as will that of the genuine breed The fact appears evidently to be, that the Norfolk husbandmen are in possession of a breed of cattle admirably adapted to their soil, climate, and system of management; and let them cross with caution, lest by mixing they adulterate and in the end lose irretrievably their present breed of cattle as their forefathers, heretofore, lost a valuable breed of horses, the loss of which can only be lamented.... From what I have seen and know of the Norfolk stock, and what I have since seen of the improvement of the breed of cattle in other countries, it appears to me evidently that nothing more is wanted to improve the form of the present breed of cattle in Norfolk than a due attention to the breed itself. While such cows, and such bulls, as I have somtimes seen are suffered to propagate their deformities, no wonder some valuable points be lowered. But if in the reverse of this unpardonable neglect men of judgment and enterprise would made a proper selection and would pay the same attention to the Norfolk breed as is paid to the long-horned breed in the Midland Countries, and to the short-horned in the north of Yorkshire, every point might beyond a doubt be filled up, and the present valuable qualities be at the same time retained"

Profits of Dairying.

Butter and cheese are rapidly becoming the most important and profitable of our agricultural products. The experience of the past two years will go far to encourage the practice of dairying in place of growing grain. Last year corn was a drug in the markets, and in many places where it is the standard crop, its most valuable use was for fuel. To-day, with only a full average crop of wheat the past season, all over the world, farmers are feeding it to their stock, or storing it in their granaries, or are intent upon finding new methods of turning it to more profitable uses than selling it at unremunerative market prices. In times past, when the adage that to "tickle our lands with a hoe was to make them laugh with a harvest" bore more than a semblance of truth, wheat growing was the most profitable business of the farm. The first few crops taken from the virgin soil paid for the land and the cost of clearing. We have

changed all that now. To raise a dollar's worth of wheat or corn in many parts of the country costs more than a dollar. The cost of repeated plowings, occasional summer fallowings, laborious fertilizing of the soil, and the expense of harvesting, cleaning and marketing of this crop is only repaid by a very abundant harvest. An average crop of fifteen bushels per acre is grown at a loss in nearly every case.

In the western States, where the soil is most cheaply cultivated, wheat costs, to raise and market it, seventy cents a bushel. For want of the necessary means to fertilize their broad fields with profit, a more than average crop, raised by the use of manure of any kind, would result in a large loss.

The greatest wheat grower of the Western States, whose crops have sometimes reached 20,000 bushels per year, after a few years of temporary success, is now reported a bankrupt. In California a few seasons may bring profit to those who are engaged in reducing their lands to barrenness, but who can doubt the early arrival of the inevitable result—a gradual falling off of crops and final destruction. Thus it has ever been, and must necessarily always be while grain is made the staple crop. But, on the contrary, with judicious and skilful treatment, grass may be grown year after year with a gradual accession of fertility to the soil. No crop is so cheaply raised, none so cheaply harvested, and none so profitably spent. With this crop there is a minimum of labour. No other crop is so safe against insect depredators. Even the locusts, which devastated so large a territory the past year, spared the grass and left it intact. A very large portion of our territory is "natural" grass land, and thousands of hill sides, too steep for the plow, furnish the best of pastures. To raise grass and turn it into meat and dairy products, is, then, not only the least laborious branch of agriculture, but if done with skill it is not exhaustive of the soil. Dairying needs less skill and less capital, and may be carried on with less risk than grazing cattle for the market. Of the two the first is the more profitable and the steadier business. And in dairying there is a vast scope for extension, especially in making cheese. The present production of cheese, much as it has grown of late, is still far beneath its proper and ultimate proportions. The consumption of cheese is rapidly increasing. As an article of food it is of equal value, pound for pound, with the best beef from bone. At present price it is much cheaper than beef. It only needs the cultivation of the popular taste by improving the standard of quality, and by introducing an agreeable variety, to greatly increase the ratio of consumption. Already our dairymen are putting upon the market varieties of cheese which are supplanting some foreign makers. We know of makers of Cheddar, Edam, Neutchatel, Brie, and other foreign cheeses, which are said, we grieve to say, to meet the popular mistaken demand for things of foreign manufacture, as imported cheeses. "By any other name it would smell as sweet," but yet this fact shows that the American dairy interest is gradually meeting its most conspicuous need, and probably in course of time will feel strong enough to stand alone without leaning upon a false prop.

That dairying is a profitable business, and probably the most profitable branch of farming just now, and promises to remain so, hardly needs a proof. But yet there are those who must always see the figures. These are at hand in the usual reports of the cheese factories and creameries which are now in course of publication. From a recent issue of the Utica "Herald" we gather the following, taken at random from a list of reports of the season's business of a large number of the New York State factories. We take the average net produce per cow during the factory season of six months, or from the 1st of May to the 1st of November, of the following five factories:—

	Best.	Average of Factory.
Vernon and Verona	$58 45	$35 56 $42 12
S. A. Ayers	53 67	31 00 30 00
Warsaw	53 39	38 24 47 36
South Canton	50 67	26 60 40 56
London	48 00	23 00 41 00

These figures give, in the first column, the best average net money per cow in a single dairy; in the second, the lowest average in a single dairy, and in the third, the average yield per cow of the whole factory.

Here is much food for reflection. One dairy nets $58.45 per cow in six months, and another only $26. There may be something in the kind of cows kept, but we imagine that this large difference is rather to be accounted for in the care and feed for the cows, and general management of the different dairies. Surely dairymen need no more expressive fact than this to show how their business may be made profitable or otherwise, and, in fact, the same lesson should be needed by every person who keeps a cow. If the difference arises from the breed or quality of the cows, it shows plainly that to keep the best pays; for here is a margin of profit on the side of the best cow equal to seven per cent. on $350 for each animal. A dairyman, at this rate, could better afford to pay $400 for pure-bred Ayrshire cows than $50 for native scrubs. For the same reason he could afford to invest a gross sum equal to at least $250 per head in providing such necessaries—pure water, good feed, good shelter—as would raise the effectiveness of his herd to the highest standard.

Again, the average yield per cow for these six months, added to the income for the rest of the year, which may be reasonably estimated at one-half more, sums up to nearly $70 per annum. A hundred-acre farm, well managed, should support twenty cows as a portion only of its income. For the money invested and the labor involved, we know of no other part of the farm economy which will yield $1,400 so easily as this. By skilful soiling we do not doubt that 50 to 80 or even 100 could be supported upon 100 acres. In such a case the average product would be even larger, and $7,000 to $8,000 could possibly be reached. But this would involve an expenditure of capital, and the need of a peculiar supply of labor which is rarely to be obtained, that would render its occurrence exceptional or rare. At the least the return is satisfactory enough to induce many farmers who now grow grain with labor and little profit, to turn their attention to dairying, as an easier and better-paying business. From the present outlook, it does not seem that there is any danger of overstocking the markets with dairy products, but most certainly not with those of superior quality, which will always be in good demand.—*N. Y. Times.*

Devon Cattle.

At a meeting of the Connecticut State Board of Agriculture the subject of discussion was "Value of Different Breeds of Cows for the Dairy." The pure Short-Horn, grade Short-Horn, Ayrshire and Jersey had each their advocates. Messrs. H. M. Sessions and Mattoon spoke as follows in favor of the Devons:

Mr. Sessions—One of the strongest points in this race is their clear, bright red color. No breed of cattle equals the Devons for uniformity in this respect. For the yoke they have no superiors, being readily matched in color, size and style. As milkers they have a good record; 200 lbs. of butter per cow, from herds of twenty cows, have been obtained in a season, and more than two pounds per day, for a period of four months, and 19½ lbs. in one week are among the recorded statements of the yield of Devons. Owing to various causes, the importations of this stock into this country have fallen off somewhat within the past few years, and, indeed, it is doubtful if we have not already improved this breed in our own country to that degree of excellence that nothing would be gained by going abroad. The only objection urged against the Devons is their size; it takes a greater number to do the same amount of business which larger cattle would do. His own farm produces all the feed his cattle consume. Kept sixteen cows last year, mostly four years old and under. Raised over twenty calves during the past two years. One of his young cows had given sixteen quarts of milk per day, and from eight quarts of her milk in June a pound of butter was made, and in September only six quarts were required. To an enquiry from Mr. White, of Woodstock, whether it is always safe to breed from so young animals, and whether he could keep up the size, Mr. Sessions replied that a good bull was good at ten years old, and it is better to use animals for breeding purposes which have nearly come to maturity.

Mr. Wells, thinking, perhaps, that his favorite Ayrshires might be forgotten during the discussions of the merits of other breeds, again took the floor and recounted incidents of his experience with both Ayrshires and short-horns. He formerly kept the latter and attempted to raise a superior herd, killing all cows which would not give twenty quarts of milk per day. He attended Mr. Birnie's sale of Ayrshires, and found that these little cows of nine or ten hundred pounds weight, were giving more milk than his own large short-horns, and that, too, upon two-thirds the hay and the same amount of grain consumed by the short-horns. He had changed for Ayrshires, and was perfectly satisfied with them.

Mr. Webb here told a story which he said he had been keeping a long while to himself, but upon hearing so much said in praise of the Ayrshires, he could not keep it any longer. He, too, went to see a herd of Ayrshires, thinking to purchase, but looking them over and finding such short teats, he concluded to postpone the change. Upon enquiring of the foreman at the farm (not of the owner), how they contrived to milk such short-teated cows, he was told that they did not milk them, but used them for raising calves to sell!

Hereupon, Mr. Wells thinking that one good turn deserved another, hinted that those who knew most about breeding short-horns, allowed that it took the cream of two good Jersey cows to raise one short-horn calf.

The serious business of the evening was then continued by Mr. Mattoon, of Springfield, a very successful breeder of the Devons. Mr. Mattoon was formerly engaged in railroad building, and sometimes had fifty pairs of cattle at work at a time. He found the Devons the best cattle for oxen, and subsequent experience had taught him that, although other breeds might be better for special purposes, the Devons are the best for all. Speaking of their size, he said they were generally a little heavier than they get credit for. He had weighed herds of Devon cows which averaged over 1200 pounds each. Devons are too apt to be neglected, and kept on too poor or too short feed. Keep them as well as short-horns, or Ayrshires, or Jerseys are kept, and they would make a better comparison with these famous breeds. Who ever thinks of steaming the feed for Devons? With scarcely an exception, they are kept as though they were expected to live and do well on such food as other animals would suffer on. Keep them well from infancy to maturity, and breed only from the best well grown specimens, and the Devons will not be small animals. From a manuscript prepared for another occasion he read some extracts, giving the amount of milk and butter yielded from some of the best cows of the breed.

Dry Earth in Stables.

I am asking about the use of dry earth in a cow stable. The writer has seen it stated that earth which has been used in an earth-closet, is less valuable for manural purposes than the manure itself would have been without the admixture; he has planned to use the dry earth in his cow stable, but does not wish to do it to the detriment of his manure heap. I have tried to keep watch of the discussions here and in England, on this subject, and have never seen anything tending so strong an argument against the use of the earth-closet, earth, as the objection above indicated. Dr. Voelcker, who is a very high authority, published the results of his investigations as to the value of earth-closet manure, showing that it was very much less than the advocates of the system had claimed. When I saw him in London, I asked him how he accounted for the small amount of fertilizing matter in the samples ananlyzed. His reply was that there is but a small amount in the manure itself, early in the whole of all animal faeces consisting of water and refuse matter of little fertilizing value; the nitrogen and fertilizing manurial matter, though large in the aggregate when large populations are considered, are small when compared with the large amount of earth used in the closet. I especially asked him whether there was, through oxydation or otherwise, any actual destruction of fertilizing parts; this is distinctly disclaimed, and said that the only bearing of his criticism was, that his analysis showed the same small proportion of material, that a mathematical calculation of the quantity and character of the faces, and the quantity of the earth would indicate. I shall say that unquestionably the use of earth in a cow stable, must be productive of the very best results, not only as saving all the fertilizing matter presents, but also, and very largely, by reason of the development of available plant food in the earth itself, in consequence of the chemical action going on in the manure it contains. In addition to this, the mere increase of bulk, enabling us to spread the manure more evenly over the ground, and the increased effect of the manure as a mulch or covering, when used as a top-dressing, constitute a sufficient reason for the use of earth in very liberal quantities. I have little doubt that my correspondent's experiments in this direction, will result satisfactorily.—*American Agriculturist.*

Why Cattle Require Salt.

It has been questioned by many agricultural writers whether stock actually require salt, either alone or in connection with their food; whether it is really one of the necessaries of life or simply a luxury, to be used or let alone as convenience may equire.

Prof. Johnston, a Scotch writer, referring to the subject, says :

We know why the animal craves salt, and why it ultimately falls into disease if salt is for a time withheld. Upwards of half the saline matter of the blood (57 per cent.) consists of common salt; and as this is partly discharged every day through the skin and the kidneys, the necessity of continued supplies of it to the body becomes sufficiently obvious. The bile also contains soda as a special and indispensable constituent, and so do all the cartilages of the body. Therefore, if the supply of salt be stinted, neither will the bile be able properly to assist the digestion, nor the cartilages be built up again as they naturally waste. And when we consider it to be a fact that without salt man would miserably perish; as among horrible punishments entailing certain death, that of feeding culprits on saltless food is said to have prevailed in barbarous times, we may become partially convinced, at least, of the necessity of feeding salt to our stock—that it is one of the necessaries as well as one of the luxuries of life for man and beast; and it should be profusely provided at short intervals, in proper places, if it cannot be kept by them continually, so that each and every animal may satisfy the demands of his nature. Then it shall not be said of us that while our pudding is well seasoned and salted, our stock are allowed to suffer for want of the same ingredient, which is as truly necessary for their food as for ours

How to Lead Cows.

Every woman will tell you that a man can be led much easier by putting an arm around his neck than by pulling his hair; but we never knew till recently that the reason you can't lead a cow behind a waggon is because she objects to having her horns pulled. The other day a red-shirted emigrant passed through here on his way to Carroll County. His family and household possessions were in a covered waggon, to the hind end of which was fastened a cow. Behind her, with a sharp stick, walked the emigrant, giving her a smart welt occasionally when she hung back. Every now and then she would brace herself and stop the team, and then in unclerical language he would beseech her to go on, marking each forcible period with a prod of the sharp stick. The poor cow rolled her eyes and rolled her tongue. The poor emigrant, too, was dusty and tired, but his voice and stick didn't fail him. She had suddenly halted the procession in front of the post-office, and was shaking her head in reply to his earnest entreaties, when a man called out to Red Shirt that he didn't "understand cows worth a cent."

"Well, what are you going to do about it?" asked Red Shirt.

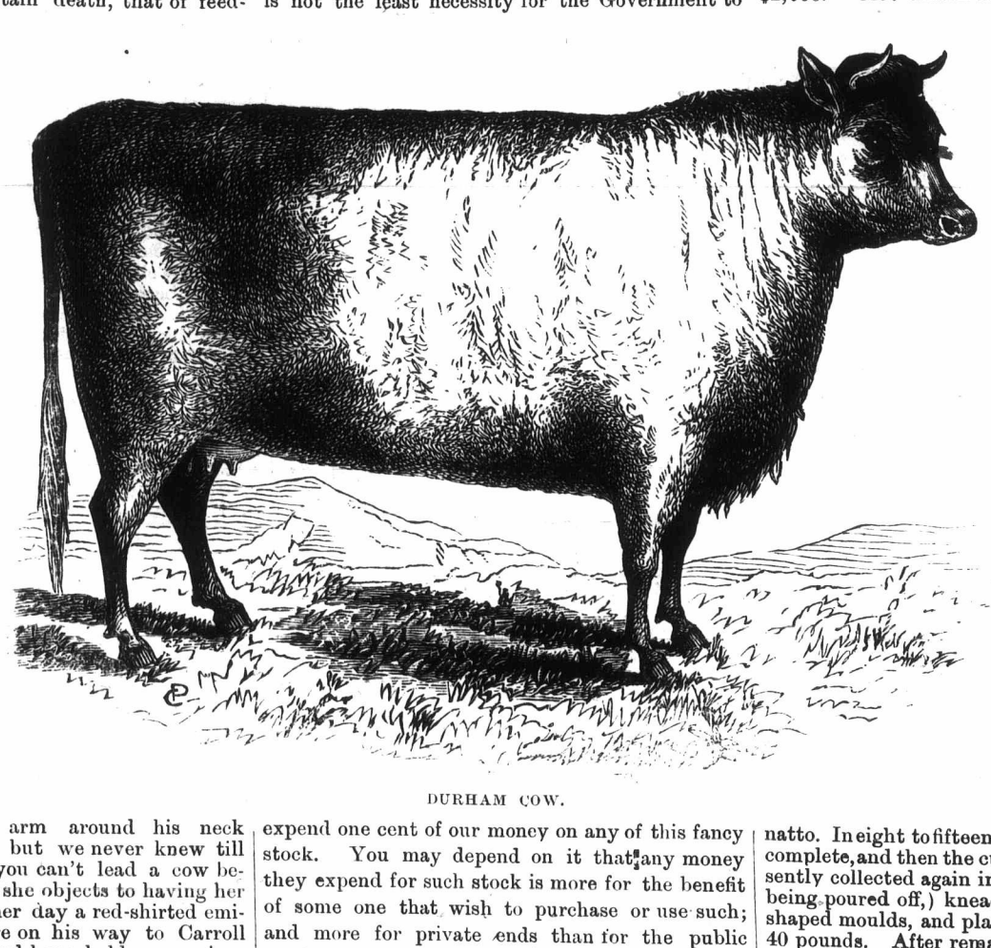
"Why, just take that rope off her horns, and put it around her neck, and she'll lead as quiet as a lamb. If she don't, I'll follow her a mile myself."

The rope was changed to her neck, and the team started. The cow gave a look of surprise and walked along.

"Well, that beats all," said Red Shirt, and without a word of thanks he mounted his waggon. The procession moved slowly on toward Carroll County, and the cow followed with countenance as placid as if she were walking home at milking time.—*Intelligencer.*

Durham Cow.

We give our readers the cut of the above cow, which was made for one of our Canadian breeders, but, from some defect in it, was not quite as good as required, so we do not give the name of the cow or of the owner. We hope they may never have worse stock than the cut represents. We have a space in our paper for the cut of any good Canadian animals, if the engraving is well done and not too large. We do not charge for inserting new cuts. It is somewhat to be regretted that nearly the whole of our stock men are totally regardless of Canadians, their object being to raise fancy stock to supply Americans with at fancy prices. There is not the least necessity for the Government to expend one cent of our money on any of this fancy stock. You may depend on it that any money they expend for such stock is more for the benefit of some one that wish to purchase or use such; and more for private ends than for the public good. Our breeders have far more stock now in Canada than Canadians will purchase at any such prices as are now asked for it with peculiar strains of blood.



DURHAM COW.

The Recent Stock Sales.

Some of our breeders have had large sales of stock lately, and as the principal business aimed at by our breeders is the American trade, comparatively few Canadians knew about them.

Mr. W. Millar, jr., of Artha, had a successful sale, selling about 40 head of Durhams; the highest price realized was $3,360 for a three-year old heifer. She was what is termed a "Fennell Dutchess," of the Bell-Bates stock. She was purchased by Mr. Goodson, of Kentucky.

Mr. Thompson, of Whitby, offered for sale a large and fine lot of short-horns; several animals were sold.

Mr. J. R. Craig, of Edmonton, offered about 40 head of Short-horns, nearly all of which were sold. One cow brought $2,600, and many others brought high prices. Mr. Craig sold one Berkshire boar at $600, and two sows brought $300 each. Several others were sold at prices varying from $25 to $100.

Messrs. Birrell and Johnston offerred about 30 head. This stock was principally composed of animals imported from Scotland. Scotch Durhams do not sell so well and would not realize as much here as in Scotland, while the Bates and Booth stock, or those having that stream of blood in them, command fabulous prices. Of course the time will come when this fever heat will be at its height, but it appears to show no sign of abatement at the present time; in fact, we feel confident that the top prices have not yet been reached. We are pleased to learn that this county appears likely to raise its name in the Durham line. Mr. R. Gibson has a fine young herd coming out of the right strain of blood. He has now a calf only two months old, for which he has already refused $2,000. Mr. Gibson has also some of the finest Southdown sheep to be found in America; his Lincolns carried off the prizes in England and Canada. He has sold part of his stock of Lincolns to Mr. R. S. O'Neil, of Birr.

Edam Cheese.

The London *Field* recently gave a translation of Dr. Staring's report on Dutch Dairy Husbandry, in which the following account of the method of manufacturing the celebrated Edam cheese is given:

The milk as it comes from the cow is poured through a strainer into a tub, and, having been removed to the dairy, is there emptied into a large vat, and when the latter is sufficiently full the next operation is to add rennet and annatto. In eight to fifteen minutes coagulation will be complete, and then the curd must be broken and presently collected again into large pieces (the whey being poured off,) kneaded into perforated, cup-shaped moulds, and placed under a weight of 20 to 40 pounds. After remaining a few minutes in the press, it is again immersed in the whey, enveloped in a porous cloth, replaced in the mould, and again pressed two to twelve hours, according to the time of the year. The next process is the salting of the cheeses, as the pieces of curd may now be called. The first day they are merely sprinkled over with a pinch of salt and transferred to fresh, and, this time, perfectly spherical forms, fitting into low, rectangular boxes, so constructed that all moisture escapes into a receptacle below. On the following day they require to be taken out of the forms, rolled about in a bowl containing moist salt, and put back again, the under half upwards. This process is repeated for nine to ten days, at the end of which time the cheeses will have become firm and thoroughly penetrated with the salt.

Finally, on their removal from the forms, they remain some hours in brine, and after being dried are taken to the curing-room and arranged according to their age on the shelves. For the first month they require turning once a day; during the second, once every alternate day; and from the

beginning of the third month once a week. In thundery weather every cheese on the shelves, whatever its age and degree of ripeness, must be turned once every twenty-four hours. Besides being turned, freshly made cheeses need, after remaining twenty-four to thirty hours in the curing room, to be immersed for an hour in luke-warm water. They are then washed, brushed, dried (weather permitting) in the open air, and replaced on the shelves. A fortnight later the washing and drying operations must be repeated, and the cheeses, having been rubbed with linseed oil, are put back in their places, and during the next six weeks only require to be turned regularly.

They are then sold to the merchant, who takes all risks connected with transport and marketing. Produce intended for England and Spain is colored yellow. If destined for France or for the navy, the annatto used as coloring material is generally mixed with Berlin red instead of with linseed oil. In dairies where Edam cheese is made, the curing room should be dry and well lighted, and its temperature should not exceed 72 degrees Fahr., in summer, nor sink below 45 degrees in winter. The precaution has also to be observed of not exposing the cheese to north or east winds. Were proper attention not paid to these particulars, it would probably soon be covered with an injurious red mould. The mode of manufacture of Gouda cheese is very similar to that followed in the production of Edam. The cheese is, however, not colored, is round in shape (flattened top and bottom), and its average weight from nine pounds to sixteen pounds.

The spiced or Leiden cheeses are made chiefly in the Rhine district of South Holland and in the neighborhood of Leiden. The milk intended for its manufacture is collected in large tubs or vats, and after being skimmed several times, is coagulated in the usual way, and the curd freed, by pressure, from the whey, and broken. Sometimes the curd is broken by the hands, sometimes by the feet, and it is then mixed with powdered cloves, cummin and other spices, pressed, salted, and after a time scraped with a knife to remove the greenish blue mould which the salting produces. Finally, to preserve the rind and give it an attractive appearance, it is colored with a mixture of annatto, potash, and the first milk of a fresh cow, and is then stowed away to ripen ready for market. The cheeses weigh from 22 to 37 pounds, and are disposed of in lots of about 150 pounds for home consumption and export *via* Amsterdam to Sweden.

The Gooseberry.

THE NEW AMERICAN SEEDLING DOWNING.

We have all tasted the little wild gooseberry, and the majority of us have tasted the improved varieties. Nearly all of our farmers have abandoned the culture of this fruit. It is found that the English varieties do not thrive here. This American seedling surpasses anything that has yet been introduced in this class of berries. It does not mildew; it is a great cropper of large size, and a rapid grower; it is undobtedly the finest gooseberry yet introduced. There is, as yet, a great difficulty in getting the genuine article. We have heard of one nursery man sending out another variety to fill orders for this kind. We have procured a few from H. E. Hosker & Bros., of Rochester, New York. They are the gentlemen who disseminated this superior variety. We have seen this variety growing in Canada, and such a sight of gooseberries we never before beheld in our Dominion. We determined to procure a few fer our garden, and will supply a plant to any one of our subscribers who sends us one new subscriber. We will send them by mail, post paid; and we advise each one of you that has a good garden, and likes to have something superior to his neighbors, to procure a plant. The plant we send out will only be small, but true to name, and, with proper care, will soon grow. The price, if mailed for cash, will be 35 cents, and not more than one will be sent to an individual. If our stock is not sufficient you will have your money refunded.

THE NEW AMERICAN GOOSEBERRY.

Keen Competition Between Short-Horns, Devons and Herefords.

Abridged from Mark Lane Express.

The Tredegar Agricultural Society recently held a meeting at Newport, Eng. The catalogue commenced with the North Devon breed, of which there were several good entries—those ef Mr. Thos. H. Risdon's in particular, which gained two prizes. A more beautiful, or perhaps a more perfect specimen, than Mr. Risdon's two year old heifer, could not have been shown anywhere, and she was deservedly awarded the prize plate for the best female; her chief opponent for that prize was awarded to Mrs. Langdon of North Molton. In the three next classes — short-horns — the Stratton family carried all before them, Mr. Richard Stratton winning the silver cup for the best yearling bull with his Charles I., and also the silver cup for the best two year old heifer with Nectarine Bud, the Smithfield show heifer. In the bull-calf class of short-horns, Mr. Joseph Stratton's, by James I., won the cup against fifteen competitors, including those shown by Mr. B. St. John Ackers and Mr. R. Stratton, both highly commended, and Lord Tredegar and Mr. R. Stratton's, noticeable for excellence; but others of second quality. In the heifer class Lord Tredegar bore away the cup with a very good specimen, while in the same class Mr. R. Stratton's Queen Bess was highly commended. In the yearlings bull class of Herefords the judges had some little difficulty before making their award, their choice resting between the Rev. Archer Clive's bull, which gained the first prize at Hereford, and that of Mr. W. Harris. Eventually they decided in favor of the latter, and highly commended the former, giving a high commendation also to Mr. Tudge's Lord Walton, by Sir Roger, which was first at Leominster. Verbena stood unchallenged in the two year old heifer class, but there was considerable difference of opinion as to whether the the Rev. Archer Clive's bull calf, or that belonging to Mr. William Badham, of Arkstone, should be allotted the prize in his class, but the judges decided in favor of Mr. Clive's. We next refer very briefly to the class in which Herefords were placed in competition with the short-horns and with the Devons. And first of these were the yearling heifers, in which were twelve entries, and a Hereford was picked out as most deserving the prize—Mr. Carwardine's Helena; and her owner may fairly congratulate himself on so decided a victory over short-horns and Devons. In the stock bull class—the cup in which was given by Mr. J. H. Arkwright—Mr. R. Stratton showed Protector, who not only gained the prize for this class, but also the corporation of Newport's prize for the best male animal in the yard. Messrs. T. Fenn and J. Harding, Bridgenorth, showed in this class a fine Hereford bull, which was highly commended, and placed as the reserve. There were four breeding cows, and this was one of the classes in which arose the question whether it was fair to pass over the Herefords for the short-horns. It was a very good class on the whole; and Mr. Taylor's Dainty and Mr. H. N. Edward's Annie II. were not much inferior to their more fortunate rival, Rosalind, belonging to Mr. R. Stratton. The fat ox of Mr. Keene's from Birmingham held the lead here. The prize fat cow was a Devon. The two year old steers was but a small class—in fact there were only two entries—nevertheless it occasioned, perhaps, greater difference of opinion among the judges than any other, for while his colleagues were firm in favor of the Devon, Mr. Downes was not less strong in support of Mr. W. Evans' Hereford. The prize was given to Mr. Risdon's Devon. In both the yearling steer classes the short-horns were good, and especially that of Mr. Pybus', while the Herefords were not worthy of their standing room at the show. The principal remark we need make as to the other cattle is that the classes contained several good animals, except the fat cow class, where even the winners were bad. Mr. Thomas, of St. Hilary, took a prominent place in the Hereford bull, cow and offspring class.

Dairies in North Wilts.

From the Agricultural Gazette.

"In this country there is a different system of dairy management, not only in every county, but very often in different parts of the same county and district. For instance, in Somersetshire there is a district nearly in the centre of the county, and lying more or less around the Mendip Hills, known as the Cheddar District, and famous for its own peculiar and excellent system of cheese-making, while other parts of the same county adopt an entirely different method of disposing of the produce of their dairies. Take Dorset, again, and how varied is the practice there. In some dairies the milk is skimmed and skimmed until nearly every particle of cream is abstracted, and nothing is thought of, or much cared for, except butter-making; while in others the Cheddar practice is either wholly or partially adopted. In fact, it is a strict truth to say that Dorset turns out some of the best and much of the very worst cheese found in the market. Not to multiply these examples, then, it may be repeated that great dissimilarity of practice prevails in most districts, be it Cheddar, Cheshire, Dorset, Gloucester, Stilton, or any other.

"Perhaps one of the best arranged dairies in North Wilts is that of Mr. Gregory, of the Manor Farm, Biddeston, Chippenham; and his manegement may be taken as illustrating the general method adopted in that locality. The cattle most in favor are the short-horn breed, in the seltrtion of which more attention is paid to their milking qualities than their capab lities to make flesh. In winter the animals are divided into lots of about eight or ten, each lot has a separate yard, with a shed to lie down in, and a good bed, care being taken as near as can be to put those of the same age together. In summer they are driven twice a day to these yards to be milked, and each animal tied. As each cow is milked the milker empties his pail into a large bucket, two of which are kept standing in the yard for that purpose. When about three parts full, these buckets are carried to the dairy windows and emptied from the outside—an excellent plan whenever practicable—into a receiver, which is a tin vessel, in shape not unlike a Dutch oven, and fitted with a pipe which conveys the milk through a chute, in the morning, to the cheese tub, and in the evening to the 'temperator,' which is a capital invention of Mr. Gregory's and deserves not only to be much better known, but also to be generally adopted. It consists of a rectangular hollow vat, measuring about fifteen to sixteen feet long, three feet wide, and eighteen inches or two feet deep, the inside being made of tin and the outside of copper, and fitted over a fire-place like any ordinary furnace, or rather more like the old-fashioned steamers once used for steaming potatoes. The top of this vessel communicates with a cistern, and it can be filled with cold water by means of a tap. There are also two taps at the bottom, one above the other, which will partially or completely draw off the water, according as the upper or lower one be opened. In the evening, should the weather be hot, a current of water can by these means be kept constantly surrounding the milk by first filling the vessel from the upper tap, then opening the bottom one, and so regulating the flow as that the one shall give as the other takes off, and thus effectually prevents the possibility of the milk becoming sour, whereas, in spring-time or winter, should the temperature of the milk deposited there be lower than is necessary, a fire can be lighted, the hollow space filled with water, and the temperature raised as desired. The object of the invention is, in fact, to regulate the temperature of the milk, an object which it accomplishes at all seasons in a short space of time. The makers are Messrs. Wilkins & Sons, of Calne. At 6 a. m. the next morning's milking is done, and the milk conveyed at once to the cheese-making tub. To this is added the night's milk from the 'temperator,' after one-halt of its cream has been removed for butter-making, and its temperature raised as nearly as possible to that of the morning's milk, which is generally about 80°; but this must be varied according to the weather, and is one of the arts peculiar to dairy work which can only be acquired by long practice. Annatto is now added, sufficient to give the cheese the required coloring, which is preferred by the dealers rather high up in this class of cheese, and enough rennet to produce coagulation in about sixty minutes. The rennet is made by adding salt to water until an egg will float in it, and then boiling the brine for about twenty minutes. When perfectly cool about one, vell is added to every quart of brine, and three sliced lemons to every gallon of this mixture. We will now suppose the cheese to be 'come,' *i. e.*, the action of the rennet has completely coagulated the contents of the cheese tub. This fact having been carefully ascertained, the revolving knives with which the vat is fitted are put in motion, very slowly at first—a rapid disturbance just now would liberate a considerable quantity of fat, which would pass off in the whey—as faster as the curd hardens. When the whole is thoroughly broken up, it is heated to about ninety degrees; but this, again, must be left to the experienced judgment of the manipulator, for no absolute rule can be given. A great deal depends upon the weather and the quantity under treatment. The next process is to run off the whey, and when this is done the curd will settle down into a solid mass. As the object now to be attained is to drain off as much of the whey as possible, the curd is cut with a sharp knife, more whey is liberated, and it becomes tolerably firm in about five minutes. Then another cutting or two take place, which completely drains off the whey, and the curd is put into thin vats and pressed for about twenty minutes, during which time the remaining whey is removed. It is then taken out, put once more into the cheese-tub, and again cut over in thin slices. In this state it remains spread over the tub to cool for half an hour or so, when it is dried, ground and salted. By this time it is about the consistency of chopped suet, and is at once vatted into what is known as North Wilts Fours (*i. e.*, about four to a hundred weight) or Double Glosters, and put into the press. All that remains now, so far as the cheeses are concerned, is to ripen them off gradually for the market.

"It has been before stated that the practice here is to remove one-half of the cream from the night's milk before it is added to that of the morning, and this accumulates, in most dairies, until Thursday in each week, when churning takes place."

Mange or Scurf in Cattle.

The "Colonial Farmer," in reply to the query of a correspondent—Is there any remedy for scurvy that collects about cattle's eyes, destroying the hair?—writes as follows:

"The disease from which your stock is suffering is mange, or as some call it, scab or scurf, and is usually caused by poor living or want of cleanliness. You do not give any particulars, and we are therefore unacquainted with the condition of your cattle. As a rule, this disease makes its appearance in the spring, just as the warm weather sets in. The unusually mild weather, together with confined and badly ventilated quarters, and poor feed, are quite enough to bring on this disease, even at this time. Carefully examining the animals, you will perhaps discover that in addition to the scab or scurf about the eyes, that the skin is more or less diseased all over the body. If this is so, you will find the skin is stiff, and sits fast to every part of the carcase, as if too tight for the body. The first appearance of the disease is about the head, and the animal scratches itself against everything that comes in its way. Frequently it is caused by parasites or insects, but whatever is the cause, remedies should be applied without delay. The affected animals should be removed from those that are in health, otherwise the disorder will spread through the whole stock. The first thing to be done is to thoroughly wash the affected parts with soap and water—soft soap is as good as any other kind—then apply some one of the ointments here given. In the first place we would recommend the application of paraffine oil. This, a gentleman informed us, he has found an excellent remedy, particularly in cases where parasites exist. Rub it well in with the hand, and keep the animal by itself. If this does not have the desired effect, rub the affected parts with sulphur and lard. This will also be found highly serviceable, provided the disease has not advanced too far. Should the skin be cracked, make up an ointment in the following proportions, and rub in thoroughly with the hand. One lb. sulphur, ¼ lb. turpentine, 2 oz. mercurial ointment, 1 pint linseed oil. The turpentine and oil should be mixed together and warmed; when nearly cooled, stir in the sulphur, and when quite cold add the mercurial ointment; mix the whole well. Half a pound of hog's lard, to which an ounce of vitroil has been gradually added, is an excellent ointment; but when this is applied it is often found necessary to give internally a small dose of sulphur. Do not forget to wash the diseased parts in every case, and before applying the ointment, however frequently it may be done.

"While the animal is undergoing treatment, keep it confined and give the most particular attention to cleanliness and diet. If the weather is dry and mild, as the animal improves give it some exercise, but on no account let it be exposed.

"We recommend 'Subscriber' to take better care of his stock. Cattle that are well fed and kept in clean, well-ventilated stables, are rarely attacked with mange; while, on the other hand, stock that are poorly and irregularly fed, and confined in low, cramped and confined quarters, are almost certain to have either that or some other disease.

"In regard to your question about superphosphate, we need only remark that we have never heard of any injury from its use, but those who do use it consider it beneficial in all respects."

Wheat as Cattle Food.

The London *Agricultural Gazette*, in a short are ticle on the comparative value of wheat, oil-cake and barley as cattle food, says that wheat is richer than oil-cake in the sum of its most important food elements—carbo hydrates, albuminoids and fat—but that in fat alone the oil-cake is seven times as rich as wheat. There is but little difference in the comparative value, in all these substances, of barley and linseed cake, the latter being the better of the two. In summing up the *Gazette* says that when the feeder is interested in the future condition of the soil of his farm, linseed-cake is preferable to wheat, as the manure is richer; but where only the actual selling value of the fattened stock is taken into account, wheat at present prices is the cheapest food in the kingdom.

Entomological.

Killing Weeds in Peas and Beans.

Every farmer who has cultivated peas and attempted to keep some through winter for seed, knows what are called "pea bugs," which, by the way, is not a bug, but a small grey beetle, known to entomologists as *Bruchus pisi*, LINN, or in some late lists as *Mylabris pisi*. When gathering the peas in the fall the presence of an insect in the pea is not noticed, although it is there nevertheless, but in the larva or grub state, which undergoes its transformation during the winter and comes forth a beetle at the approach of warm weather in spring. There are very few localities where peas are not attacked by this pest; and although it does little harm to the crop if gathered for green market, when kept for seed their depredations become quite apparent.

Another species (*Bruchus obsoletus*, SAY,) attacks beans in the same manner, but instead of one beetle in each seed as is generally the case with the pea, there are several; sometimes twenty or more will be found in one bean. The insect attacks all the varieties, but is not quite as abundant in the Northern as in Middle and Southern States. But they are becoming more numerous every year, and unless soon checked it will be difficult to obtain sound beans for seed.

Now, it must be evident that if these insects are ever to become less in numbers, efficient and persistant efforts must be resorted to by all who cultivate peas and beans. Perhaps the most certain method of destroying is to thoroughly dry the seed soon after gathering and then put away in air tight vessels, putting in a quantity of gum camphor, say a half pound to a barrel—some old clothes soaked in spirits of turpentine, placed in the bottom of the barrel, will usually answer the same purpose. It is now the season to attend to this matter, and every one who has peas or beans to put away for seed next year should endeavor to destroy whatever insect they may contain.—*N. Y. Rural.*

Ants Enemies to Caterpillars.

The Belgian Official Journal, referring to the ignorant conduct of those who destroy all kinds of birds and insects indiscriminately, insists on the necessity of children in primary schools being taught to distinguish between useful and noxious insects, and thus to exercise their destructiveness on caterpillars with relentless energy. A farmer, who had noticed this fact, and had had his cabbages literally devoured by caterpillars, at last hit upon the expedient of having an ant hill, or rather nest, such as abound in pine forests, brought to cabbage

plot. A sackful of the pine points, abounding in ants, was obtained, and its contests strewn round the infested cabbage plants. The ants lost no time, but immediately set to work; they seized the caterpillars by their heads. The next day heaps of dead caterpillars were found, but not one alive, nor did they return to the cabbages. The value of the ant is well known in Germany, and although their eggs are in great request as food for young partridges, pheasants, and nightingales, there is a fine against taking them from the forests. The ant is indefatigable in hunting its prey; it climbs to the very tops of trees, and destroys an immense quantity of noxious insects.

Agricultural.

What Good does a Drouth Do ?

This article which has reached us among other waifs is, though written some years since, so appropriate now at the close of 1874, that we commend it to the readers of the ADVOCATE.

BENEFITS OF A DROUGHT.

1. A loss of mineral matter in the soil is constantly going on by being taken up by growing crops, and also carried away by the washing of the surface, the water of which flows into the rivers and streams, and thence into the sea. These causes are constantly in active operation. The former is restored in part by the application of manures, and the latter is also, to some extent, made up by the same method. But this supply is small, often uncertain and of limited application. Whenever a drouth occurs, it brings up from the deep sub-soil latent mineral elements necessary for the growing of plants, which are dissolved when rain shall fall, and brought into a state suited for the use and nourishment of the growing plants. In very dry weather, a constant evaporation takes place from the surface soil, above that furnished by dew or rain, which creates a vacuum that is at once filled by water coming up from the sub-soil. This moisture or water thus brought to the surface, brings with it whatever it holds in solution, as the salts of lime, magnesia, potash, soda, or whatever the top strata of the earth may be found to contain. As fast as the moisture reaches the surface it evaporates, but leaves in the soil its potash and lime, phosphates, salts, carbonates and silicates, which are all indespensable to vegetable growth. Rain water, when it sinks into the earth, becomes largely changed with carbolic acid (from the decomposing vegetable matter in the soil) acquires the property of quickly dissolving the mineral brought up from the sub-soil, or which before it could have but little effect. From the above it will be seen how inportant a part a drouth performs to the economy of nature, in enriching the soil, and bringing into use elements which in a wet season would remain crude and useless in the sub soil. This is one of the great benefits of a drouth. There are a few more practical lessons which we will just glance at.

2. Deep cultivation is a means of guarding against the ill effects of a drouth, and it is a remedy which admits of almost universal application. It operates beneficially,—first by giving a better chance for the roots of the plants to penetrate into the soil, thereby acquiring greater vigor and strength, and they are less subject to be endured by dry weather or changes in the season; and second by fitting the soil the better to receive and retain rain when it falls—much like a sponge—rendering it more capacious of moisture and not so easily exhausted by seasons of drouth. A soil cultivated shallow, resting upon a hard plan, must very soon have its water dissipated during a season of protracted drouth, when the plants growing upon it are constantly drawing the moisture out of its shallow bed, and throwing it off in insensible vapor through their leaves. Soils that are cultivated only four inches deep will not allow a heavy fall of rain to sink down into the subsoil, but it remains in the mellow part or surface, and is compelled to pass off by evaporation—a very slow and injurious process. On the contrary, a soil worked deep and thorough, will be found to retain its moisture (obtained by the means of the long roots which the plants send down through its mellow surface, or by the capillary absorption of the upper portions from the moister soil below) a much longer time even during the most severe drouth. Drainage has the same effect upon the land only in a more perfect and thorough manner. These operations cannot of course be attended to now, but should be thought about and form a part of the general improvements upon the farm to be carried out in the future.

3. Another lesson which the drouth has forced upon our notice, is that land well manured is fitted not only to produce the largest crops in any season, and return the best dividend, but especially in a severe drouth, it will suffer less and give a good yield when land lightly manured famishes and dries up, and the crops upon it become a complete loss. Our own observation, and that of our readers also, during the present and previous dry seasons, have shown the great benefit of liberal dressing as a remedy against drought. We have this summer noticed fields near this city, in a high state of cultivation which, notwithstanding the almost total absence of rain during the entire summer, have produced a good crop of barley, while upon land only partially manured the crop of barley and oats will be almost a total failure. We have constantly urged our farmers to manure more liberally—to go over less surface and put more dressing upon a given area; but a drouth like that we have been experiencing, urges this duty in a most emphatic manner. It will be well if this lesson shall be more thoroughly learned, and more generally practiced in consequence of the drouth. If so, who will deny that with its many grievances, it has not only brought its blessings?

4. The opportunity which a dry season affords of destroying the noxious weeds should not be lost sight of by the farmer who knows the luxury and value of clean fields. If cut up they readily die from exposure to the sun, whereas in a wet season they grow even after pulled out "root and branch." There is another consideration why weeds should not be allowed a place in a field or garden during a drouth: they rob the useful plants of nourishment and moisture at a time when the latter needs the benefit of every favorable influence of nature. A deep, clean, mellow soil is one of the best remedies against drouth, and one of the best sureties of a good crop.

5. The drouth shows the value of some kind of green fodder crop, both as a partial substitute for hay in winter, and for the purpose of feeding out to stock when pastures become scorched and dry during the summer. Fodder corn if planted thick in drills, and on land well manured, will, if planted early, obtain a good growth and shade the ground so much that a drouth, though injuring pastures, would not seriously check its growth. A season like the present shows its great importance as a farm crop

6. In a season noted for an absence of rain, the meadows and low lands of the farm are found to be the most valuable portion. Low-lying lands, swamps and meadows bordering upon brooks will invariably produce a good crop of hay, if cleared, ditched and mowed from year to year so as to allow a better quality of grass to work in. There are thousands of acres of such land now waste and unimproved, the value of which a drouth renders more apparent, and which will be cleared in consequence thereof, thus improving the farms, adding to the wealth and productive capacity of the State and to the happiness and enjoyment of the people.

Application of Lime.

The state in which lime is applied to land varies with the quality of the land and other circumstances. The common practice is to cart the lime to the field, make it into a heap, or heaps, cover it over with a little earth, and allow it to fall into powder, or to slake spontaneously; after which it is evenly spread on the land and harrowed in, or otherwise worked into the ground.

The slacking of the lime is a chemical process. The lime absorbs and combines with moisture, forming hydrate of lime and causing the development of heat and a swelling of the limeshells, which soon crumble to powder. The finer the state of subdivision into which the lime falls, the more completely it is distributed through the soil, and the more thorough and uniform its action.

When the lime is applied, as above described, it absorbs moisture from the air, and is said to slake spontaneously; and for general purposes there is no better way of applying it. Some farmers who use much lime, make it into a large heap or heaps, and hasten the slaking process by pouring water upon the mass. If applied immediately after slaking in this way, lime is quickest in its action, as it is in the caustic or hydrate state.

Sometimes, again, the lime is made into a compost with earth or peat, in which state its action is slower than in either of the preceding states.

It is evident that the propriety of applying it in one or other of these three states depends on the nature of the ground; also on whether we wish its action to be quick or slow. When the soil is light or sandy, and deficient in vegetable matter, and its texture open, it is recommended to apply the lime in a state of compost, which contains the lime in a mild state, and also contains other materials in which these soils are deficient. It is said that lime, when applied to light land in the caustic state, encourages the growth of red poppy and other weeds. On the other hand, lime should be applied in as caustic a state as possible to all soils containing much vegetable matter, such as peat and moss, as well as to clays, moors and other soils undergoing reclamation, and to all soils containing injurious substances, such as the salts of iron.

The application of lime to clay land renders the soil more friable, and at the same time converts a good deal of its dormant constituents into the active state.

An excess of moisture in the soil prevents the lime from producing its full effects. Hence, wet lands require a greater quantity of lime than those which are naturally dry, or those which have been made so by drainage. In the permanent improvement of clay land, or wet ground of any kind, lime should, therefore, be applied after drainage. For the same obvious reason, good farmers put lime upon the ground in dry weather.

Lime is applied with advantage to all crops except flax.

There is a difference of opinion among farmers as to the crops to which it is best to apply lime; some contend that it should be applied for roots, while others prefer to apply it for grain. Regard being had to its various functions, it cannot be expected to produce its full effects in the year in which it is put upon the land. If, therefore, the farmer has good reason to suppose that one crop in the rotation requires lime more than the rest, it should, if practicable, be used a year before that crop.—

Nature says :—

"The report of the Potato Disease Committee of the Royal Agricultural Society has been recently published. It will be recollected that three years ago Earl Cathcart offered a prize of one hundred pounds for essays on the prevention of the disease. Although no fresh practical information was elicited, and it may perhaps be said that no direct good came from this well meant offer, the society took the subject up and offered prizes for potatoes reputed to be proof against disease. Two prizes were offered for the beginning of this year, for potatoes of varieties already known, and two are to be awarded five years hence for varieties that may be produced by cultivation before that period. Six different varieties were sent in, one ton (twenty bags of one hundred weight) of each. The society arranged to have these practically tested. Twelve stations in England, four in Scotland, and four in Ireland, were selected, and one hundred weight of each variety sent for planting, and of these so-called disease-proof potatoes. During the summer the botanic referee of the society visited all the localities, and in all cases disease was found. Much valuable information is likely to arise from the statistics that have been collected, for although it seems that no indication is given of how the disease can be prevented, yet under certain conditions, principally influenced by moisture, its effect is but small. The disease is owing to a fungus which attacks the leaves first, and after absorbing the nutriment of them, utilizes the petiole, and thus reaches the tubes."

Thorough Tillage for Drouth.

In a recent number, one of your correspondents gives us some interesting facts under the title of "Deep Plowing for Drouth." He has furnished the facts, and I will endeavor to supply the "reason why," only reserving the right to substitute "thorough tillage" for "deep plowing;" for, while the former includes the latter, yet deep plowing does not include thorough tillage, which is, or may be, entirely distinct.

Thorough tillage prevents the bad effects of long-continued dry weather in two ways :

1. By preventing the passage of heat through the soil. If we kindle a fire upon a block of stone or brick work, we may soon heat the whole mass; but if this stone or brick work is ground to a powder, the effect of our fire will only extend a few

inches from the portion in direct contact with the fire. The conducting power of the material is very much impaired. We may carry our comparison still farther: rain falling upon a block of stone passes off; but if it falls upon the same stone powdered, it is at once absorbed into the pile.

2. A finely divided soil promotes the absorption of moisture from the atmosphere, and also from the subsoil below it. If we dig a hole in the middle of a dry road, and, after pulverizing the earth, return it to the hole, we will in a short time find the finely divided soil moist and damp, while the surrounding hard soil is in its original condition. This moisture comes from the atmosphere and subsoil. These effects of thorough tillage are quite as visible where the plowing has been shallow as where it was deeper, for the non-conducting covering of fine soil is the same in both cases; where the plowing has been deep, the supply of moisture obtained from the subsoil.

So much for a theoretical view of the question. Now for a question which may develop a fact, though perhaps not a new one. If a stiff green grass sod is turned over to the depth of not more than four, or at most five inches, will not the ensuing crop of corn suffer less from dry weather than if the plow had run double that depth? In ordinary field culture, do we not find that the soil under an overturned loose sod is one of the last spots to become dry? I do not ask this question to provoke a discussion upon the merits of deep or shallow culture—for I regard that as one of the fixed points—but merely to bring out what I know many practical men believe to be a fact. Let the four inches below the overturned sod be fine, if you choose—will not the crop be proof against ordinary drouth if it can get its roots under the partially decaying sod?

Horticulture.

A Few Words to Our Readers About Gardening.

Special for the Farmer's Advocate.

Not much actual work can be done this month in the garden, but plans can be laid and arrangements made, which, if carried out, will make the operations for the spring season much easier of accomplishment, and also lay the foundation for producing effects which are not now thought of being realized. Farmers, as a body, do not appear to appreciate the opportunities which are ready at their hands to help in the beautifying of their homesteads; they think that it requires an amount of money and time to make a place anyway attractive, and that those are only at the disposal of men of means and leisure in and about our towns and cities, when in point of fact these very men under the same circumstances would consider that half of what they required to make the outside of home beautiful, was already prepared to hand, and only required the exercise of some taste to develop it.

Sit down some one of these long evenings, and if there are any grown-up daughters in the family, be sure and have them present, take a piece of paper and pencil, and jot down the opinions of those present, ralative to what ornamentations could be made about the house and immediate neighborhood by the expenditure of a little cash. Ask each one what they will do towards providing this fund, to be used when spring opens. Some one might suggest, perhaps, that the weather-beaten brown house would be improved by a coat of white lead; another might think that if the old crooked rail fence in front was replaced by pickets, painted white, that it would materially add to the appearance of the place. And a host of such suggestions might be elicited in the course of the evening's conversation.

On a great many farms, good specimens of evergreens are to be found not too large for moving. These can be marked now, and places located for them in the immediate neighborhood of the house, either in clumbs or groups, or as single specimens. Some nice hard maples could also be hunted up, for the purpose of standing along the road front, or on each side of the lane or roadway leading to the house, interspersed with some of the evergreens.

A compost heap could now be made, composed of black swamp muck, rotten wood or chips from the wood-pile, leaves or all rotted manures, lime rubbish, and a host of etceteras which are often an eyesore about many a house, instead of being a source of comfort and profit; but without some forethought in these matters, nobody can reasonably hope to succeed in growing trees well and beautifully, or in having their vegetable gardens well stocked with really good vegetables.

Turn up your Farmer's Advocate, or what other agricultural paper you take, see what nursery and seed establishments are advertised in it, then write for a descriptive catalogue of their goods, and give each one of the family an opportunity to say what they would like, One would, perhaps, like a collection of flower seeds; another some pretty ornamental shrub or other, and so on. These can all be bespoke now, and arrangements made for their reception at the proper season.

By and bye, when spring has passed away, and summer come, the place will wear a different appearance, and all for the hour's planning and conversation now.

An old stump, got now, nothing in itself to admire, perhaps, will become a thing of beauty when festooned with some of our many of really beautiful climbers—some of them perennial and some maturing themselves from seed in the same season. An ornamental rustic gate, made from cedar, with the bark attached, and a garden seat of the same material, could both be put together now by many a boy, and what an improvement to many a garden they would be.

It is not saying too much that thousands of our homes might be greatly improved by carrying out some of the foregoing hints, and it cannot surely be impossible for many a farmer, harrassed as he is by work in some shape or other at nearly every season of the year, to carry out some of them.

In furtherance of this idea, I intend to give you monthly a few plain remarks about gardening and gardens, and shall only be too proud if they are of use to any one. A. P.

The Apiary.

Successful Bee-keeping in Canada.

By A. C. Atwood, Apiary Ed.

It is an old adage—"that cows far off have long horns." So long, indeed, that we sometimes find it difficult to believe the accounts given off them; and in bee keeping, when we read of such accounts as was given in last number by Mr. Adam Grimm's success, amounting in one year to the nice little sum of $3,800. Canadians are inclined to say: well he lives in a better climate for honey than ours; "or is windy," but such remarks have no weight with, well informed bee keepers in Mr. Grimm's case, for he is a gentleman of the highest standing in apiarian circles in the United States, and it must be borne in mind, that he lives in Wisconsin, a State that is not one whit in advance of our own Ontario, naturally as a honey producing locality. But Mr. Grimm, like many other American bee keepers, manages his bee business scientifically; and as a natural consequence, has made a fortune out of it, so much indeed, that he is now a banker. Then in the States the ladies take hold of the thing in a way that I should very much like to see our Canadian girls do. Who has not heard of Miss Grimm's big operations two years ago in one of her Father's apiaries.

Among all my apiarian correspondents, and I can assure you they are not a few, I have only one lady, but I am glad to be able to say truthfully, that she is the most intelligent correspondent I have, and I regard her letters as the most interesting I receive, not purely because the correspondent is a lady, for A. C. A. is married, and as a matter of course, like Cæsar's wife "above suspicion" but because she is thoroughly posted in all bee matters, and I have no doubt that her apiary will prove a great success. I know of nothing that a young lady can engage in, that is more remunerative, and more healthy, nor one that is better calculated for female developement, both mind and body, than bee keeping, except it be indeed to get married to some nice young man with a good farm and brick house, and a nice horse and buggy. I have no drubt but the majority of our young ladies prefer married life, and so does A. C. A., and perhaps would more particularly if he were a girl, but the very best authority we have on bee keeping in America is, Mrs. F. S. Tupper, a lady of very high standing in apiarian circles in the United States. She is now Editor of the American *Bee Journal*, and I give my judgment, that the Journal has never been so well conducted as it is now under her guidance.

If we cannot lay claim to the great success that Mr. Grimm has had we can report a success such as no person need be ashamed of. I have a particular confidential friend, he is a farmer, as almost all the rest of us are, but ten years ago he thought he would stick the bee keeping iron in the fire, along with a good many others that he had in before; but as bee keeping in those days was a new thing, he make up his mind to keep a regular book account of his bee operations, and if he ever saw the amount on the wrong page he would shut down. At that time he had not the slightest knowledge of bee keeping, he began with just one swarm, he bought a patent hive, and books to read up, he now reports that he devotes about three weeks time to his bees every year; one summer he had as many as seventy swarms, but usually he winters only from twelve to twenty stocks, he has had all the drawbacks of loosing bees in winter; in two years in that way, he lost $700.00; he keeps nothing but the Italian bees, uses the Thomas, Hive, and for the last five years, has used the extractor. I was in his company last New Year's day and saw his books, he balanced them that day; they now show a cash balance of $1,493.08. In addition to that he has stock on hand such as bees, hives, extractors, and territory, which he values at a wholesale estimate at $1,200.00. This stock is all paid for, and has all been paid for out of his bee business, and of course his bee business is credited with the full amount, total $2,693.08 upon the whole a very nice little amount, and when taken into consideration that ten years ago he started perfectly green at the business, and with only one swarm of bees, and taking his losses into account also, the amount of time devoted to his bees viz., from three to four weeks each year, it amounts to very nearly $100 per week for all the time devoted to his bees, and, no doubt the knowledge he has attained during those ten years, will in the future be worth to him many hundreds of dollars more.

My friend is proverbally modest, and does not wish his name should be brought before the public in connection with his success, but I can vouch for the truth of the above statement, and if any of my readers wish my friends acquaintance I shall be most happy to send his address to any person who may request it.

Poultry Yard.

Mr. Mechi on Poultry.

This eminent English agriculturist has the following to say on poultry:

No one item on a farm pays so well as a good stock of poultry properly managed. With them everything is turned to account. Not a kernel, wild seed or insect or insect escapes their scrutinizing eyes. Their industrious claws are ever at work, uncovering, ready for appropriation, every hidden but consumable substance.

Fowls must have free access to chalk or lime for the shells of their eggs, and grit or gravel to grind the food in their gizzards. They luxuriate on grass or clover, which are a necessity for them. In winter they like mangolds or swedes. They must have access to plenty of pure water. The quality of the eggs depends upon the quality of the food. They, like ourselves, like shade in summer, and warm, sheltered corners in winter. They must have some access to shelter in wet weather. Fowls will not be long healthy on the same ground or yards—the earth gets tainted. Therefore, to prevent disease, lime and salt your yards and their usual pasture once a year, say in autumn, when the rain will wash it well in and sweeten the surface.

Broods of chickens never do better with us than on the grassy brows or patches abutting on the growing crops, either of corn or pulse, into which they run either for insects or for shelter. The roof of the coop should be water-tight, and the coop should often be removed, having only the natural ground for the floor. The ground soon gets tainted unless you remove the coop. You can hardly make some people good managers of poultry if they lack observation and judgment. These are especially necessary in the breeding of poultry. Your male birds should be often changed, say at least once in two years, and they should be young and vigorous. Breeding in-and-in will not do, any more than it will with animals. I consider winged game, poultry and birds, the farmer's friends. My poultry have access at all times to my fields. Fowls are very useful in cleaning off flies. I have often been amused at seeing the neat and quick manner of their taking flies from reposing bullocks and sheep, much to their comfort.

Patrons of Husbandry.

Many are enquiring of us about this Order, and think we ought to know the future results. We had noticed through our exchange papers the progress the movement was making in the States; it was our opinion that good might result to the farmers of Canada by the Order being introduced amongst us. We do not yet regret that we gave information about the Order, and we approve of a Dominion Order. The first officers were appointed during our absence in England; our name was used as one of them.

We preferred to leave this matter in the hands of the farmers, whom we think quite capable of managing it. We are willing to aid it as long as we think it will be properly managed, but we do not consider the greatest good is to result from interfering with mercantile business; nor do we think any great benefit will result from interference with our well-established implement manufacturers.—There may be much benefit derived from discussions on agricultural affairs, the proper adjustment of taxes and matters affecting farmers as such in organizing or combining to carry out any great improvement in the country, and in checking imposition aud wrong in many ways.

We well know that perfection is not easily attained in the management of any institution. The Order is young, but growing and strengthening.—Perhaps many who join the Patrons expect some advantage as a result; some expect direct pecuniary gain, others position and honor; some desire the general good of the country, and a few may, perhaps, have a desire to advance political interests. We dare say all have some hobby-horse to ride.

The Executive Committee have to act for the best interests of the Order; should they centre their attention on measures really beneficial, we shall be most willing to aid them. We are not bound to serve this Order as some persons would feign make you believe. We will condemn them if we think any great injury is about to be done.

There may be objectionable steps or acts, but we do not deem them of sufficient importance to waste space in writing about them.

For the good of the Order we will make a few remarks. It is our impression that a great deal of the ceremony and form might with advantage be abandoned. We do not think the aprons worn by the Order are either useful, ornamental or necessary. We do not deem it necessary that each small Grange should be compelled to procure an expensive seal until their business shows the necessity of such a course.

It is our impression that as the fee for admission for the ladies is only a very low one, the monthly payments should also be reduced. We believe it would be well, after one minor in a family is admitted at the full rate, to allow other minors to be admitted at half rates, or even quarter rates, as the Order is intended, if we understand it right, to be of as much advantage to the young as to the old. The cost of admittance to a large family is of some importance to them.

Toronto.

Eye and Ear Infirmary. Our attention has been directed to a circular, from this very praiseworthy institution. Its support is derived from a small grant from the public fund of the Province of Ontario, from the paying patients and from private subscriptions. The number of indoor patients admitted during the year was eighty one; and during that period no less than 454 persons have received medicine and medical treatment as external patients. The revenue of the infirmary for the year were $ 2746.76; the expenditure $ 3,362.48. Those who visit the infirmary and have witnessed the various appearances of those who resort to it for relief among whom are the young, and old, the infant in arms, men and women, some of them sufferring from hereditary disease, others from disease contracted by vice and poverty, and others again resulting from accident, can form a more just appreciation of its value. The directors commend the claims of the Toronto eye and ear infirmary to the large benevolence of the public.

Miscellaneous.

Changing Seed.

A change of seed in agriculture operations is almost always beneficial. Growing the same crop in one locality from the same seed, year after year, often tends to deterioration. The advisibility of this change of seed from one locality to another is well instanced in the oat crop. Seed grown in the cool atmosphere and soil of Northern Vermont and Canada is found to be more luxuriant when resown in the Middle and Western States, and uniformly turns out heavier weight to the bushel. If the same seed is sown every year, in the latter States, without new importation, the produce per acre and the weight per bushel gradually deteriorate, the farmer of Bermuda always grow their potatoes from American seed, and never from their own seed. Hence they are able to attain a remarkable success in potatoe culture, such as we never knew here. Vegetable seeds should be changed frequently and obtained from localities remote from the farms where sown. The farmers of England, who raise excellent cereals, roots and grasses are particular in selection of seed, in procuring it from a foreign country, if possible, and in steeping it in liquid manure before sowing. In the north of Ireland, where flax is grown extensively, the farmer prefers seed brought from Russia or Holland to that grown by themselves, as they find the change very boneficial. The finest bulbous and tuberous-rooted flowering plants are annually imported into England, the United States, etc., from Holland and Germany; and the change is beneficial for two or three years. Forest-tree seeds obtained in the mountains of the Tyrol germinate in other parts of Europe with much greater vigor than those of home growth.—*Montreal Daily Witness.*

Curing Bacon.

A writer in the Chicago "Times" says:—"The finest flavored bacon is dry cured; so, too, is the most nutritious hams. Every one knows that meat of all kinds contain certain juices, which impart to it an agreeable flavor, which render it nutritious, and which aid in digesting the harder portions. Immersing hams in pickle tends to wash these juices out, and to render the meat of less value. Liebig has shown that the natural juices of meat correspond in character and composition with the gastric juices secreted in the stomach. The removal of these juices by placing the meat in brine, therefore, renders the meat hard to digest, and helps to cause dyspepsia, which is becoming alarmingly prevalent among farmers. The disease is largely due to farmers eating so much salt meat, and salted, too, by soaking for weeks and months in brine.

Some farmers make a practice of dry curing their small hams and shoulders, but wet curing their large ones. They do this for the reason that the large hams are more difficult to keep, and they think they will ensure their keeping by immersing them in brine which will penetrate to every part of the meat. The truth is there is less objection to putting small hams in pickle than large ones. Small hams, that is those cut from small hogs, are naturally tender, and can be readily digested without the assistance of natural juices; while large hams, those taken from the older animal, are tougher, and require the aid of natural juices in order to render them easily digestible.

Three substances aside from smoke are relied on for the preservation of bacon—salt, sugar, and nitrate of potash. Many use only salt, but such seldom have fine hams. The use of salt is too well known to require explanation. The saltpetre preserves the natural color of the meat, makes the use of a less amount of salt necessary, and decreases the extractive power of the salt by closing some extent, the pores of the flesh. Sugar acts like salt as an antiseptic, and gives an agreeable flavour to the meat. Too much saltpetre makes the meat too hard and too high colored. Too much sugar causes the meat to be of a very dark color when it is boiled or fried.

Kentucky boasts of the finest hams of any State in the West. The mode of curing them there was brought from Virginia, and it is a fair to presume the Virginian method was imported from England, since the English way of dry-curing hams is almost identical with that practised in Kentucky. The curing apparatus consists of a strong table or bench, having a groove made round it to carry off the brine that may be formed, so that it may fall into pails placed to receive it. The following materials are employed for 250 pounds of meat; ten pounds common salt; 1 pound Turks' Island salt; 4 pounds sugar; ½ pound saltpetre. The salt to be used should be heated in the oven until it is quite dry. The pieces of meat are then rubbed with it as soon as it is cold. They are then laid with skin side down and the sugar is spread over the meat surface. After the lapse of four days, most of the sugar will be melted and absorbed. At this time the pieces should be thoroughly rubbed with the dried salt, and some of it should be washed in round the bone of the leg. The rubbing requires to be well done. Some persons use a piece of wood for a rubber. At the end of a week, if the weather is cool, and at the end of three or four days if it is warm, the pieces should be handled over, and rubbed again. The saltpetre, finely pounded, should be used with the salt. It is a good plan to use a little of it pure about the bone. Large pieces will be required to be rubbed four times, medium-sized ones three times, and small ones only once. At the end of the last rubbing, which should be on all sides of the pieces, the remainder of the material should be spread on top. When the pieces have remained a week after the last rubbing they should be wiped quite dry with a cloth, when they are ready for the smoke house. There are advantages in hanging the hams and shoulders from the upper instead f the lower side, as is ordinarily done. By doing this the juices of the meat do not run out while the operation of smoking is going on, and a smaller part of the outside is injured by absorbing too much smoke. By using a wire instead of a cord to hang up the hams by, all danger of their falling in the smoke house is avoided.

The chief difficulty with most smoke-houses is they are not high enough. In a low smoke-house the smoke reaches the meat when it is quite hot, and the meat is injured thereby. A smoke-house made of wood is preferable to one made of brick or stone, for the reason that it is far more likely to be dry. The walls of a brick or stone smoke-house will often be covered with moisture, with which some will unite and form a very disagreeable compound. Care should be taken that the pieces of meat do not touch each other while the operation of smoking is going on. If they do touch, they will be imperfectly smoked and liable to injury.

The operation of smoking should proceed slowly. The very best material is hickory wood. All materials should be rejected from the smoke-house fire that will produce a disagreeable smell. It is an excellent practice to kindle a little fire in the smoke house every few days, even after the meat is sufficiently cured. It keeps the air within dry and prevents mould forming on the sides of the meat.

Three Prizes for Essays in February.

VICK'S HANDSOME CHROMOS FOR 1875.

We offer these beautiful chromos as prizes for the best essays on the following subjects:

One for the best essay on the most effectual means to destroy the Codling Moth, so as to save our apples.

One for the best essay on the most suitable time for the application of manure.

One for the best essay on subsoiling.

NOTE.—The essays are to be based, not on theory, but on practical experience in Canada. Essays to be in the office by the 18th inst.

☞ We are most happy to inform our readers that we have now made arrangements with Mr. Alexander Pontey, of St. James' Park Nurseries, with whom we have long been acquainted, to write monthly for your journal. This, we know, will be of great advantage, as no person in Canada is better aware of your requirements in the horticultural department.

Fireside Selections.

The Snow.

I stood gazing from the window,
On the fleecy snow
Falling—falling—ever falling,
Solemnly and slow;

And I felt that downy stillness
To be more sublime
Than thunder—flakes like ages
In the lapse of time!

Bright sun! blue skies! Now the orchard
Hath no air of gloom;
White-clothed, down-weighed branches seeming
Laden with summer bloom:

Not a shroud! an elder mantle,
Shielding earth from storm,
Is the friendly snow; it keepeth
Flower and grass-blade warm.

So with chilly biting trials,
Rightly understood;
God, aye watching those that love him,
Worketh all for good.

A. G. SYMINGTON.

The Language of Flowers.

In our younger days in sparking, flirting, or courting time, we were pleased to give and receive little bouquets of flowers, to and from young ladies. We do not doubt but lots of boys and girls will be highly pleased to amuse themselves in a similar manner. We therefore give the meaning of some of the varieties that are found in many of our farmers' gardens. We take a few from a neat little book which we procured in Rochester; the book may be purchased by sending us one new subscriber, or 30 cents; we do not intend in this paper to give you more than a quarter of the names contained in it; it also contains a list of terms and flowers to represent them, poetry, &c., &c.; this will be very pleasing and even refining to our little class of boys and girls.

Acacia, *Locust Tree*—Elegance.
African Marigold—Cruelty.
Amaranth, globe—Immortality. Unfading love.
Antirrhinum, *Snapdragon*,—Deception. I have been flattered with false hopes.
Apple blossom,—Preference.
Apple (fruit,)—Temptation.
Arbor Vitæ,—Thy friend until death.
Ash,—Grandeur.
Ash, Mountain,— With me you are safe.
Aster, garden,—Afterthought.

Bachelor's Button,—Celibacy. Single blessedness.
Balm of Gilead.—Cure. Relief. You have cured my pain.
Balsam,—Impatient. Touch me not.
Barberry,—Sharpness of temper.
Bartonia aurea,—False pretensions. All is not gold that glistens.
Beech,—Prosperity.
Birch,—Meekness.
Black Hellebore,—Relieve my anxiety.
Bramble,—Envy.
Branch of Thorns,—Severity. Rigor.
Broken Straw,—Dissension. Rupture.
Broom Corn,—Industry.
Bud of White Rose,—A heart ignorant of love.
Burdock,—Importunity.
Buttercup,—Riches.

Calliopsis,—Vanity.
Camellia Japonica, red,—Admiration.
Camellia Japonica, white,—Perfected loveliness.
Canna, *Indian Shot*,—Vindictiveness. Retaliation.
Candytuft,—Indifference.
Carnation, red—Alas! for my poor heart.
Carnation, striped—Refusal.
Carnation yellow—Disdain.
Castor-oil Plant,—Detestation.
Catchfly,—I am a willing prisoner.
Cedar,—Endurance. Fidelity.
Celosia cristata, *Cocks-Comb.*—You are a fop.
Chamomile,—Fortitude Cheerfulness in adversity.
Cherry blossoms,—Native charms.
Chestnut,—Do me justice.
Chicory,—Frugality.
Chickweed,—Let us meet again.
Chickweed, mouse-ear,—Simplicity.
Chinese Pink,—Preseverance. Repulsed but not in despair.
Chrysanthemum, rose or red—Love.
Chrysanthemum, yellow—slighted love.
Chrysanthemum, white—Truth.
Cineraria,—Always delightful.
Clarkia,—The variety of your conversation delights me.
Clover, four-leaved,—Be mine.
Clover, red—Industry.
Clover, white—Think of me.
Coekscomb,—You are a fop.
Convolvulus major, blue,—Bonds.
Convolvulus major, pink,—Worth and affection.
Convolvulus minor, Repose. Night.
Coreopsis,—Always cheerful.
Corn,—Riches.
Corn, broken—Quarrel.
Corn Cockle,—Gentility.
Cress,—Stability.
Crocus, garden,—Cheerfulness.
Currants,—You please me.

Daisy, red,—Unconscious beauty.
Daisy, white,—Innocence.
Daisy, wild,—I will think of it.
Daisy, ox-eye,—Disappointment.
Dandelion,—Smiling on all. Coquetry.
Dead leaves,—Sadness.
Dianthus barbatus, *Sweet William*,—Gallantry.
Dianthus Chinensis, *Chinese Pink*,—Perseverance. Repulsed, but not in despair.
Dogwood,—False pretensions.

Elder,—Compassion.
Elm, American,—Patriotism.
Everlasting Flower,—Never-ceasing remembrance.
Everlasting Pea,—Lasting pleasure.
Evening Primrose—Inconstancy.

Flax,—Domestic Industry.
Forget me-not,—True love.
Four-o'clock,—Timidity.
Foxglove,—Insincerity.
French Marigold,—Jealousy,
Fuchsia,—Proposal of marriage.

Geranium, Ivy-leaved—Bridal decoration.
Geranium, Oak-leaved,—True friendship.
Gooseberry,—Anticipation.
Grape, wild—Charity.
Grass,—Submission. Utility.
Hawthorn,—Hope.
Heliotrope,—Devotion.
Hellebore,—Scandal. Calumny.
Hemp,—Fate.
Hibiscus,—Delicate beauty.
Hoarhound,—Imitation.
Hollyhock,—Ambition.
Honeysuckle,—Faithful affection.
Hop,—Injustice.
Horse Chestnut,—Luxury.
Houseleek,—Domestic economy.
Hyacinth, purple,—Sorrow.
Hayacinth, red and rose,—Sport. Game. Play.
Hyacinth, white,—Unobstrusvie loveliness.
Hyacinth, yellow—Jealousy.

Ice Plant,—Frigidy. Your looks freeze me.
Ironwood,—Ornament

Larch,—Audacity. Boldness.
Larkspur, pink and white—Fickleness.
Larkspur. purple—Haughtiness.
Lavender,—Confession of love.
Lettuce.—Cold-hearted.
Lilac,—First love.
Lily, chequered—Persecution.
Lily, water—Purith of heart.
Lily, white—Purity. Sweetness.
Lily, yellow—False and gay.

To be continued.

Flannels for Children.

In this cold weather mothers should see to it that the flannel wardrobes for the younger members of the family are in order, ready to put on these sudden frosty morning, thus warding off many an attack of croup. or violent cold or sore throat. The younger the children the more imperative is the necessity for this care of them; the older members of the family will generally importune, if necessary, and their wants will be supplied; but sometimes amid the hurry and driving of work the little helpless ones who, in their ignorance have no knowledge of their needs, are put off from day to day until a sudden frost bights them, as it does the flowers, and they fade from sight.

READING Milton is like dining off gold plate in a company of kings; very splendid, very ceremonious, and not a little appaling.

The Cow Tree.

On the parched side of a rock on the mountains of Venezuela, grows a tree with dry and leathery foliage, its large, woody roots scarcely penetrating into the ground. For several months in the year its leaves are not moistened by a shower—Its branches look as if they were dead and withered; but, when this trunk is bored, a bland of nourishing milk flows from it. It is at sunrise that the vegetable fountain flows most freely. At that time the blacks and natives are seen coming from all parts, provided with large bowls to receive the milk, which flows yellow and thickens at its surface. Some empty their vessels on the spot, while others carry them to their children. One imagines he sees the family of a shepherd who is distributing the milk of his flock. It is named the *palo de vaca*, or cow tree.

Pigs and Snakes.

A farmer living on the west side of the Ohio river, a short time since in walking about his farm, discovered a nest of rattle snakes in a hollow bark of an old tree, about which several large pieces of rock were scattered. Our friend had heard that pigs were hostile to snakes of all kinds; and not caring to attack the nest himself, he thought he would try the experiment, and a fight. He drove several pigs in the vicinity to the nest, and watched the result. The pigs soon seemed to scent the reptiles, and commenced rooting eagerly about the spot. In an instant half a dozen of the vicious reptiles emerged from their places to attack the intruders, who manifested a zealous disposition to give battle. A snake would rear himself to the height of the back of the pig, shake his rattte, and plunge his fangs into the animal with lightening-like celerity, and then dart away, pushed by the pig, who dexterously received the sting upon the fleshy part of the jaw. Over and over again this would be repeated, until the pig got his fore foot upon the snake, when he would deliberately rip the reptile in twain, and then devour him. This slaughter continued until all the snakes were disposed of, when the pigs grunted contentedly, and without any signs of being disturbed, waddled off in search of other provinder. The eye-witness to this singular contest, which was not without its exciting features, declares himself convinced that a pig is impervious to the poisonous bite of any kind of serpent.

GREAT WORKS are performed not by strength but by perseverance.

SPARE minutes are mighty laborers if kept to their work. They overthrow or build up, enrich or impoverish a man.

THE word "home"—lively to all—is perhaps never felt in the fullness of its peaceful beauty except by the homeless.

AVARICE in old age, is foolish; for what can be more absurb than to increase our provisions for the road, the nearer we approach our journey's end?

BAD company is like a nail driven into a post, which after the first or second blow may be drawn out with little difficulty; but being once driven up to the head, the pincers cannot take hold to draw it out, but which can only be done by the destruction of the wood.

THE success of individuals in life is greatly owing to their early learning to depend upon their own resources. Money, or the expectation of it by inheritance, has ruined more men than the want of it ever did. Teach young men to rely upon their own efforts, to be frugal and industrious, and you have furnished them with a productive capital which no man can ever wrest from them.

TO MUSIC we are indebted for one of the purest and most refined pleasures that the bounty of heaven has permitted to cheer the heart of man. As it softly steals upon our ear, it lulls to rest all the passions that invade our bosom, arrests our roving fancy, or, in louder strains, excites the soul to rage. Often, when wrapped in melancholy, the sweet voice of music charms away our cares, and restores our drooping spirits.

A JAPANESE HOUSE.—A Japanese house consists of one entire apartment, divided by temporary and movable screens, which are placed in such positions as to divide it into as many rooms as the owner may wish, and, which he can change at any time without interfering with the structure of the main building. They have no chimneys, for they never have a fire in their houses, except in a little movable sand filled box, where they boil their tea and warm their hands with ignited charcoal or fine pieces of pine wood.

Uncle Tom's Department.

Millbank, January 12th, 1875.

My Dear Uncle,—To-night I received the papers and the picture inside of them, and last week the chromos, for which I shall forever be grateful. You cannot tell how delighted my little brother was when he saw them. He danced around the house like a little mad man. His name is Sammy. He says that if you are my uncle you must be his also. He is only four years old, but I shall soon take him to school with me.

The other day I caught a nice little owl on the fence and brought it home. I thought a great deal of it until Saturday night, when it got out of its cage and killed two pet canaries which father got in Buffalo and paid $4.00 for them. I did not think so much of the owl after that, but I put it down in the cellar and it died last night. But I am beginning to ramble a little, as no doubt you will think. You will please send two more of the January numbers of the ADVOCATE, as I have got two more subscribers. We publish a paper in school now, but it is not in print. Every week one of the scholars has to be editor; the rest send in scraps and he or she reads it out on Friday afternoon. They have appointed me to be editor this week. We call the paper *Hash*, being composed of many scraps. WILLIE A. RUTHERFORD.

Seal Fishing.

Among the Esquimaux, and those inhabitants of the northern countries, seal fishing forms one of their chief occupations. At certain seasons of the year the seals flock in immense numbers on the shores of the ocean, where the waters are very shallow, and by a little strategy, on the part of the inhabitants in search of them, quite a number are sometimes captured. The engraving we have procured for our young readers this month, shows some of the means adopted to secure them. This is the Esquimaux "harvest," as the seal furnishes both food and clothing, and they endeavor, during those visits of the seals to the shores, to lay in sufficient provisions to keep them during the inclement winter of the northern climes. Many of the inhabitants of Newfoundland and the Maritime Provinces are engaged in seal fishing, and frequently make expeditions to the coasts of Labrador, returning well laden with their booty, and sometimes accumulate fortunes very fast. Latterly this has become quite an industry, and is attracting much attention.

SEAL FISHING.

Puzzles.

No. 8.—HIDDEN RIVERS.

Some brothers do not agree.
Can men get myrrh in Egypt.

WILLIE PICKLE.

No. 9.—HIDDEN CITIES.

My first is in kitten but not in cat;
My second is in Willey but not in Pat;
Hy third is in eye but not in sight;
My last is in river but not in light:
My whole is a town in Europe.

E. L. BOWMAN.

No. 10.—In Lancashire there is a town
Whose natives think of some renown.
Curtail me twice, and then you'll find
An instrument as swift the wind.
Transform me now and you will trace
To mark, to stain, or to disgrace.
Behead me now, and I will be
A man of very high degree.
Curtail me now and you will see
An interjection you've made me.
When of another tail bereft
You will find that there is fifty left.

FRANCIS E. LAWSON.

No. 11.—HIDDEN COUNTRIES.

No. 1.—When you see an ape rush to the door.
No. 2.—Two pipes make a tun I see.
No. 3.—Jane is as big a rascal as Kate.
No. 4.—My burnt fingers pain me greatly.

W. A. RUTHERFORD.

No. 12.—SQUARE WORDS.

1—Something used in a railway carriage; a song; a money of account of the United States; a mantle of state.

2—Trespasses; one's imagination; close to; one of the channel islands.

3.—Made by birds; a woman's name; to shut with violence; docile.

No. 13—PUZZLE.

No book is without me of that I am sure,
A person I am often seen at the door;
Its certainly funny, but still it is true,
There never was one without there was two;—
And two is a portion of every tree;
You'll find it correct when the answer you see.

Answers to December puzzles:—283, Liquorice; 284, Bellows; 285, Violet; 286, Jack and Jill went up the hill, to get a pail of water; Jack fell down and broke his crown, and Jill came tumbling after. 287, Red; 288, Black; 289, Pink; 290, Green; 291, Blue; 292, Ingrate, granite; 293, throne, Hornet; 294, Short, shorter; 295 Level.

We have received answers to Dec. No. from the following: Chas. McKenzie, Monckton; Henry M. Zinn. E, L. Bowman, Nobleton? W. A. Rutherford, Millbank; M. L. Linton.

ANSWERS TO JANUARY PUZZLES,

Received from—F. E. Dawson, Nilestown; E. L. Bowman, Nobleton; I. R., London; Mary Amos, Winnipeg; W. A. Rutherford, Millbank; M. L. Linton.

No. 1—Uncle Tom; 2—Naples, Lyons, Toronto. Venice. 3—Titusville.

No. 5.—S A I L
A L O E
I O T A
L E A D

No. 6.—A young lady saw a man eating an orange at an Inn, and she remarked to a companion that the man was very Yellow. The man exhibited much Wrath, and walking away knocked a Turkey off the table muttering you are anything but a Darling.

No. 7.—Chocolate.

As one out of the hundreds of instances where this paper penetrates into the far-off outskirts of our Dominion, and to show how pleasantly Uncle Tom's Department is appreciated, we offer the following:

Victoria, British Columbia, Dec. 27, 1874

DEAR UNCLE TOM.—I don't know how we would get along here on the wilds of the Pacific Coast, if it were not for UNCLE TOM'S COLUMN to smooth down the rough edges of life. If agreeable I will contribute a mite to it:

"On my way home from Church one Sabbath with a son of the Green Isle, and talking of the uncertainty of life, he speaks of the good pious wife he had; she had promised to bury him if he died first, and desired him to do the same for her; if the case was reversed; "and," said he, "if she does die first, *and I'm alive*, I'll do it."

A Key to a Person's Name.

By the accompanying table of letters the name of a person or any word may be found as follows:—

A	B	D	H	P
C	C	E	I	Q
E	F	F	J	R
G	G	G	K	S
I	J	L	L	T
K	K	M	M	U
M	N	N	N	V
O	O	O	O	W
Q	R	T	X	X
S	S	V	Y	Z
U	V	V	Y	
W	W	W		
Y	Z			

Let the person whose name you wish to know inform you in which of the upright columns the first letter of his name is contained. If it be found in but one column, it is the top letter; if it occurs in more than one, it is found by adding the alphabetical numbers of the top letters of these columns, and the sum will be the number of the letter sought. By taking one letter at a time in this way the whole can be ascertained. For example, take the word Jane. J is found in the two columns commencing with B and H, which are the 2nd and 8th letters down the alphabet; their sum ten, and the tenth letter down the alphabet is J, the letter sought. The next letter, A, appears in but one column, it stands at the top. N is seen in columns headed B, D, and H; these are the second, fourth and eighth letters of the alphabet, which added give the 14th or N, and so on. The use of this table will excite no little curiosity among those unacquainted with the foregoing explanation.

Words of Puzzles.

The following funny puzzles in spelling and pronunciation may amuse some of our readers:—

There is one word of only five letters, and if you take two of them away, ten will remain. What word is that?

It is often. If you take away *of*, ten will remain.

There is a word of five letters, and if you take away two of them six will remain. What is it?

Sixty. Take away *ty*, six will remain.

There is a word which, if you change the place of one of its letters, means exactly the opposite from what it did at first. What is the word?

It is united. Place the *i* after the *t*, and it becomes untied.

Can you tell me what letter it is that has never been used but twice in America?

It is *a*—it is only used twice in America.

Can you tell me when there were only two vowels?

It was in the days of Noah, before you and I were born—in the days of no *a* before *u* and *i* were born.

I suppose you know how to spell heiress?

Perhaps you can tell me why a hare is easier to catch than a heiress?

It is because an heiress has an *i* and a hare has none.

What is a word of one syllable, which if you take away two letters from it, will become a word of two syllables?

You must try and guess that, for it is my last puzzle. It is plague; take away *pl* and it becomes ague.

Wedding Anniversaries.

The marriage anniversary celebrations are given as follows:—

First anniversary—Iron.
Fifth anniversary—Wooden.
Tenth anniversary—Tin.
Fifteenth anniversary—Crystal.
Twentieth anniversary—China.
Twenty-fifth anniversary—Silver.
Thirtieth anniversary—Cotton.
Thirty-fifth anniversary—Linen.
Fortieth anniversary—Woollen.
Forty-fifth anniversary—Silk.
Fiftieth anniversary—Golden.
Seventy-fifth anniversary—Diamond.

HUMOROUS.

A gentleman standing over a register in a Cincinnatti store, attracted general attention to himself by observing to his wife, "Mariar, I guess I'm agoin' to have a fever, I feel such hot streaks a running up my legs."

"That bed is not long enough for me," said a very tall, gruff Englishman, on being ushered into his bedroom by an Irish waiter at one of our hotels. "Faith, an' you'll find it plenty long, sir, when you get into it," was the reply; "for then there will be two feet more added to it."

A man who had recently been elected a major of militia, and who was not overburdened with brains, took it into his head on the morning of parade to exercise a little by himself. The field selected for this purpose was his own apartment. Placing himself in a military attitude, with his sword drawn, he exclaimed: "Attention, company! Rear rank, three paces, march!" and he tumbled down into the cellar. His wife, hearing the racket, came running in, saying, "My dear, have you killed yourself?" "Go about your business, woman," said the hero; "what do you know about war?"

"Sir," said an astonished landlady to a traveler who had seat his cup forward for the seventh time, "you must be very fond of coffee." "Yes, madam, I am," he replied, "or I should never have drank so much water to get a little."

A man who had been drinking more than was good for him, undertook to walk home alone, when he came with a bang against one of the many trees along the street. "I beg your pardon," he said to the imaginary individual against whom he had jostled, and continued his walk, when he came with another crack against a tree on the opposite side of the street. "A thousand pardons," quoth Ebriosus, again resuming his journey, and forthwith he ran against another tree. For some time he caromed against the limes in this way, till at last he came to a seat. "Ah," he said, with a sigh of relief, as he flung himself down upon it, "IthinkI'llwait tilltheprocessiongetspast."

A man in Yates county, New York, who has been an inveterate smoker for fifty years, has suddenly and permanently given it up. He knocked the ashes off his pipe into a keg of blasting powder.

A man went into the post office in Dundas and asked, "Is there a letter here for Mike How?" "No," angrily replied the clerk, "there isn't a letter here for anybody's cow."

A few nights ago, as a Detroit policeman was passing a certain house in that city, he saw a man drop from a window, and heard smothered cries inside. Supposing the man to be a burglar who was escaping, he seized him, but he soon found out that it was the owner of the house whom he had arrested. "Well," said the officer, "it looked suspicious to see you drop out of a window in that way." "Well," replied the man, heaving a sigh, "when the old woman gets her dander up, I ain't particular about what road I take to get out of the house."

A soldier on trial for habitual drunkenness was thus addressed by the magistrate:—"Prisoner, you have heard the charge of habitual drunkenness; what have you to say in defense?" "Nothing, please your honor, but habitual thirst."

A Sabbath School superintendent asked the scholars if any of them could quote a passage of Scripture which forbade a man's having two wives; whereupon nearly the whole school cried out, "No man can serve two masters."

The other day a little boy, who had cut his finger, ran to his mother and cried:—"Tie it up, ma; tie it up quick; for the juice is all running out!" The same urchin, on one of the hot days last summer, appealed to his mother for help, saying;—"Ma, do fix me, for I'm leaking all over."

A exchange thoughtfully remarks: "Delinquent subscribers should not permit their daughters to wear this paper for a bustle. There being so much *due* on it, there is danger of taking cold."

Why is the letter "g" like the sun? Because it s the centre of light.

Vick's Chromo.

The illustration on this page represents the rough outlines of Vick's chromo for 1875. It is much larger than any previously issued, the size being 19x24. Some of the colors are beautifully blended, forming a very handsome picture. We will send this beautiful chromo to any one who will hand us in four new subscribers, accompanied with the amount of subscription. This is such a handsome ornament that we are sure it will be prized by all who obtain it. If the picture is found to be otherwise than what we represent it, we will return the subscriptions to the agent, and send the paper to the four subscribers for one year, free of charge.

VICK'S CHROMO FOR 1875.

Minnie May's Department.

Recipes.

APPLE PUDDING.

Dear Minnie May,—Wishing to add a little to your valuable column, I send a few good recipes, which if you think worth putting in please do so.

A NICE STEAMED PUDDING.

Take 2 eggs; 1 cup of sugar; 2 cups sour milk, or butter milk; 1 teaspoonful soda; 1 cup currants, or raisins; and flour to make rather stiff. Put into a two quart pan, and set in the steamer and steam two hours.

A NICE NEW YEAR'S CAKE.

Beat to a cream ¾ lb. butter; add 1 lb. flour; ½ lb. sugar; ½ lb. dried currants; 4 well beaten eggs; ½ teaspoonful soda; ½ pint milk; spice to suit and bake with care.

APPLE PUDDING.

Make a nice light paste with sour milk and soda, with a little lard added, as for cake, and line a pie-dish and fill with apples; put in sugar and spice; roll out a cover and press round tightly and place in a steamer and steam three hours, if large.

MINCE MEAT—VERY NICE.

Take 3 lbs. of currants; 1½ lbs. of raisins; 1½ lbs. of apples; 1 lb. of sugar; 2 lbs. suet, shred as fine as possible; 1 lb. sugar; 1 lb. beef, minced; the peel and juice of 1 lemon; ½ pint of wine; 1 gill of brandy; ½ oz. mixed spice; mix all well together.

MINCE MEAT.

Take 2 lbs. of raisins; 3 lbs. currants; 3 lbs. beef suet; 1 small nutmeg; 1 pottle of apples chopped fine; the rind of two lemons, and juice of one; ½ pint brandy; mix well together; this should be made a little time before wanted for use.

JOHNNY CAKE WITH EGGS.

Two cups of sweet milk; half a teaspoonful of sugar; two eggs well beaten; a small teacup of white flour mixed with a teaspoonful of baking powder, and corn meal enough to make a batter. Sometimes I begin with the meal and scald it, and then use only one cup of sweet milk and no baking powder, with no definite proportion of white flour—enough to make the batter right. The batter should always be thicker when the meal is scalded than when it is not, because in the latter case you must allow for the meal to swell some. Of course, the milk should be added to cool the scalded meal before the eggs are put in, or the hot mush would partially cook the eggs.

Economical Hints for Farmers' Wives.

Every housekeeper, says a lady in the "Rural New Yorker," may not know of what they are capable in the line of keeping their tinware in order. For the benefit of such, I will say that it is easier to solder such things than to pay a traveling tinker two prices for mending them. Take a sharp knife and scrape the leak until it is bright, so that the solder will stick. Then sprinkle on a little powdered rosin; (they have liquid solder to sell, but rosin will do as well) lay your solder on the hole, and with your soldering iron melt it on. Do not have the iron too hot, or the solder will adhere to that. After two or three trials you can do a job that you will be proud of. If you do not own a soldering iron, procure one by all means; but when hard pressed I have used the knob on the end of the fire shovel or a smooth piece of iron, or hold a candle under the spot to be mended. Anything is better than stopping leaking pans with bees wax or rags. Try it, young housekeepers, and see how independent you will feel. Your pans should be dry when you take them in hand.

Spring is the season when those who believe in painted floors generally repaint. An enterprising housekeeper who depends on herself to accomplish a great many things which she cannot wait for the head of the house to get around to, can buy the materials and mix her own paint, and give herself better satisfaction, both in price and quality, than if she buys the paint already mixed at a shop. Boiled oil, japan for drying, and French yellow are the ingredients commonly used. The addition of a small quantity of white lead improves the color and makes the paint hard and durable. The paint should be well mixed, and not too thick, and two coats are always better economy than one. Paint over one coat and the next day paint it again, and, if possible, keep off from it then until it is well dried.

To make paper go on smoothly, and not blister and wrinkle upon the wall, use boiled starch instead of flour paste. The starch is made in the usual way and put on the paper cold. If possible, have a board a little longer than your lengths of paper, but no wider. You will see the reason when you put on the starch. Measure your paper the proper length, and cut them by a carpenter's square so that they may be even. Prepare five or six at once, and lay them all on the board and apply the starch to the top one. Then lap the bottom back on a foot or so for convenience, and take hold of the top end of your paper and fit it to the wall. Use a little brush broom; brush first a little way, lightly through the middle, then sideways alternately. After you get it half way down satisfactorily, pull down the piece that was lapped up from the bottom and brush it all through the middle first. In this way you will have to be to some trouble to avoid wrinkles, and when your room is finished, everyone who sees it will wonder what professional paper-hanger did it.

JELLIES.

In making jellies of apricots, quinces, peaches, apples or plums, peel, remove the stones or cores, cut in pieces, cover with water, and boil gently till well cooked; then strain the juice gently through a jelly bag and add a half pint of sugar to a pint of juice. For berries, a pound of sugar to a pint of juice; boil till it ropes from the spoon, or from fifteen to twenty minutes. In making raspberry jelly use one-third currants and two-thirds raspberries.

It is said that the bark of a willow tree burnt to ashes, mixed with strong vinegar, and applied to the parts, will remove all corns and excrescenses on any part of the body.

FOR SPRAINS AND BRUISES.

Take a half a pound each of beef tallow, beeswax, rosin and stone pitch, and one pint of lard oil. Boil together for half an hour, remove the scum and pour into cups. For use spread it on kid and apply. It gives immediate relief, and is as good also for domestic animals as it is for man.

Talks With Farmers.

Very frequently we have the pleasure of a short visit from our subscribers from many parts of the country, and their reports on the different crops, with their observations on agriculture, are such as must be interesting to our readers.

We have had some information from Mr. Thos. Beatto, of Strathburne, concerning wheat. He says he has tried the Baltic wheat, and does not like it; it does not seem to suit that neighborhood, at least. The McCarling wheat has done little better; it is a coarse grain, and does not sell well. The Farrow wheat he does not like, and he abandoned it last year. The Fife wheat is best with him, but he wants some better variety, as that is not profitable to raise there.

On the same subject F. Malcom, of Innerkip, informs us that he procured one peck of the Arnold wheat in 1873. He gave it every advantage, sowing it in drills by hand, and giving it a half acre of ground; he did not get four bushels from its produce.

Mr John Gill, of Coldwater has been very successful in his experiment with potatoes and tomatoes. He informs us that he had seventy pounds from one, a pretty good yield. He had very fine tomatoes, one of them weighed three and three-fourth pounds, and measured 22 inches in circumference.

The Hanson lettuce surpassed anything he ever saw.

Is land plaster beneficial in farming? Mr Charlton, of Yarmouth, a good farmer, and consequently a close observer of everything agricultural, says he is in the habit of applying land plaster as a *top-dressing* to his potatoes every year; he uses farm yard manure when planting them, and afterwards sprinkles the young vines with plaster. This top-dressing causes a rapid growth in the vines, so that they are strong and well advanced before the bugs make their attack. Last season he planted three pecks of Early Rose seed, and they supplied his family for three months, and when digging them he had thirty bushels left.

His wheat last season yielded from 20 to 30 bushels per acre, barley 30 to 40 bushels.

Fatting Tegs for Yearling Sheep.

Recently we quoted some good authorities upon the general management of ewes in winter, and promised to explain the excellent, but somewhat novel method of teg feeding adopted by Mr. Sidney Davey, in Cornwall. Too often we find the question of the winter management of sheep discussed in March or April, just as the season is passing away. The papers and discussions are, no doubt, read, but before winter again comes around the lesson is forgotten. Our purpose at the present moment is not so much to advance anything new as to refresh the memories of our readers, and to reproduce some valuable hints upon sheep feeding just at the season when the topic possesses the greatest interest.

Roots have long been pulped for cattle with good results, the advantage over slicing being principally that of economy. In some seasons such a consideration would not influence the grazier, but in the present it cannot be ignored. Pulping for sheep has not become general, chiefly because it is difficult to pulp roots on a large scale in the field, away from the mechanical power and contrivances now usually found at good homesteads; Mr. Davey described his plan before the East Fenwith Agricultural Exchange much as follows:

In the first place, a wooden house on wheels is provided, 10 feet long and 6 feet wide, at a cost of about £15. Inside it is placed one of Hornsby's pulpers, and this house always precedes the fold, and is removed daily or every alternate day.

The roots are pulled—say a month's stock at a time—topped, and placed in convenient heaps, covered with a little straw, and then re-covered with earth to keep them dry. These heaps are placed in rows across the field, so as to allow the fold to be shifted at convenient intervals. The method pursued is as follows:

The sheep are folded according to sex, the wethers and drift hoggs in one pen, and the hoggs for breeding purposes adjoining. The house on wheels is drawn near the heaps of roots, as before mentioned, and for 300 folded sheep, two girls (one at 8d. and the other at 6d. per day) commence pulping the roots in the morning, and store it back with a layer of chaff (consisting of two thirds straw and one-third hay), and then a layer of pulped roots, with a little malt screenings intermixed.—The next morning, when this food is required, instead of giving the sheep a cold, frosty turnip on a frosty morning, on an empty stomach, they have their pulped food, with the juices of the formerly cold turnip, absorbed by the naturally dry chaff. The food is eaten with evident relish. The sheep fill themselves quickly, and lie down and rest contentedly. They are fed three times a day, namely, 7 a. m., 12 noon and 5 p. m., during the winter.

"The last season (1868)," says Mr. Davey, "I had the pleasure of trying different quantities of artificial food. I divided my wethers into two different pens, all feeding on the same quantity and quality of pulped food. To one pen I gave ½ lb., and to the other ¾ lb. of artificial food per day.—The former I had the gratification of selling at 15 months old, without their coats, at 52s. per head; and the other lot at the same time, which had ¾ lb. of cake per day, were worth 67s. per head. My idea is to allow feeding sheep ¾ lb. of cake or artificial food per day, and sell them off in March or April at about 12 months old, without their coat, at 21 lb. per quarter.

Mr. Stratton, of Duffryn Farm, Monmouthshire, says:

"I like to get on to swedes or mangel by October 1st. My own plan is to give the sheep as many roots as they will eat. I find 1 lb. of cake per day and 20 lbs. of roots to be about the average quantity a fair-sized teg will consume; and, reckoning in this way, I have been always able to calculate the time my roots would last me, and this is sometimes useful to know. There is a prevailing notion that the mangels are unfit to feed with sheep on the land in the autumn. This is, I venture to state, a great mistake, as I would quite as soon have mangels as swedes in October, November and December."

In the case of a Cotswold farm at the present moment, the ram tegs are folded upon Greystone turnips, the daily allowance of which has been increased from 15 lb. per head to 18 lb. As nearly an we can ascertain, the tegs are receiving 2½ lbs. of good clover hay, and ½ lb. of crushed linced cake, mixed with a few peas.

Although Mr. Stratton declares in favor of the swedes or even mangles as early as October 1st, there are good reasons for thinking sheep will do better on white turnips until near Christmas. Experiments might be cited in proof of this assertion, if we could also quote facts that too hurried an introduction to swedes is often the cause of increased mortality. Gradual changes are the best, and the change from grass to rape, white turnips, mixed white and swedes, and finally swedes alone, is safer than the plan of dashing at once into swedes and mangels.—*Agr. Gazette.*

Fat in Forage Plants.

To any one not a chemist or a quadruped the last place to look for fat would be in a haymow or a stack of straw; yet it appears, from recent investigation, that fat is not only an essential constituent of hay and straw and similar forms of vegetation, but one of considerable economic value. In the lower leaves of oats in blossom, Arndt found as much as ten per cent. of the dry weight to consist of fat and wax, the latter appearing as a bluish bloom so conspicuous on the leaf, of luxuriant cereals. In fodder crops, generally the greatest proportion of fat is found in young and thrifty plants. Thus Way found early meadow grass to contain six and a half per cent. of fat; while in that of the same meadow collected the latter part of June, there was but little more than but two per cent. The proportion of fat is increased by nitrogenous manure; the grass of a sewerage meadow at Rugby contained four per cent. of fat, the nature of this sort of vegetable fat was investigated some little time ago by the German chemist Konig, who found that by treatment with strong alcohol the fat of grass and clover hay could be separated into two parts, one solid waxy substance the other a fluid fat, soluble in alcohol. At first he considered the latter to be a true glycerine, but changed his mind after the investigation of Schultz, who proved that, though it contains the same proportion of carbon and hydrogen as ordinary fat, the fluid fat of hay is something quite different, since our glycerine can be obtained from it. Konig has since confirmed these results and carried forward the investigation, hay, oat straw, the grain of oats, rye, vetches and possibly others, he finds oleic and palmitic acids not combined with glycerine but in a free state; and as these acids in their combinations are well known as large ingredients of nutritive fats and oils, it is likely they have a considerable influence on the value of these plants for fodder. Konig also finds in hay and in oat straw the important ingredient of animal bile, *cholestenia*; still further, cerotic acid, a waxy body which forms twenty-two per cent. of ordinary beeswax; and two fatty substances new to science, one fluid and the other solid. They are distinct compounds having the character of fatty alcohols. Another interesting discovery in hay is the presence of hydrocarbon, the relations of which are not fully made out. In several respects it agrees with some of the paraffins.—*Scientific American.*

Farm Rakings.

Difference between red and white wheat. It is said that the hard wheats are all natives to warm climates such as Italy, Sicily and Barbary. The soft wheats are from more northern climates, such as England, Russia, Belgium, Denmark and Sweden. There is however, one exception to this general rule, as the elebrated Polish wheat is hard, and from this season it has been contended that it was not a native of Poland, but was introduced there from some milder climate. The English atmosphere is so humid that it is impossible to ripen wheat hard, but in many cases it requires artificial heat to harden it before it can be ground into flour. Different soils and climates materially change the nature and variety of wheat. The difference between red and white wheats is not in variety, but is owing chiefly to the variety of soil on which it is grown. A generous dressing of wood ashes applied to the growing wheat in the former part of the growing season will exert an excellent influence in rendering wheat of a lighter color than it would be without potash. Lime is excellent also for the same purpose.—*N. Y. Tribune.*

Granges Organized Since Last Issue.

75. MOORE CENTRE—Wm. Nesbit, Master Moore; Wm. Gray, Sec'y, Moore.

76. GLASGOW—A. R. McIntosh, Master, Spring Bank; R. J. Coulton, Sec'y, Spring Bank.

77. FOREST ROSE—M. Wallace, Naster, St. Thomas; J. F. Davis, Sec'y, Glanworth.

78. PRIDE OF BLANCHARD—Jas. Highet, Master, Anderson; John Irwin, Sec'y, Anderson.

79. MOUNTAIN—T. M. Houser, Master, Campden; S. N. Fry, Sec'y, Jordan.

80. CREDIT VALLEY—N. Steen, Master, Streetsville; A. McKinnon, Sec'y, Streetsville.

81. OBAN—John Waddle, Master, Oban; Wm. Carrick, Sec'y, Oban.

82. LOUTH—John D. Crowe, Master, St. Catharines; Frank Hill, Sec'y, St. Catharines.

83. FRUIT—Job Hughes, Master, Oakville; Geo. Hardy, Sec'y, Oakville.

A good method of treating old feathers, is to expose them to the sun in an old musquito net (or course corn sacks will answer) until perfectly dry, shaking them up from time to time. To get out the dust, they must be tied up to some convenient place in the yard, and well beaten up with the hands or a stick (the person standing windward of course). If a lace net is used, feathers may be as thoroughly dried and sifted in this way as can be desired.

The Markets.

In the English Market the price for Wheat continued low with little fluctuation, though at our latest report, (Ja'y. 23) they took a slight rise upwards and showed a rise of 2d. on Red Wheat, and 1d. on White, but a fall of 3d. on Club, and of 1s. on Corn, markets being quiet. Malting Barley remained fully as dear with a steady enquiry. Oats were fully as dear. Montreal and Oswego were dull and unchanged. New York loss firm, at $1 09 to $1.12½, and Chicago lower. Toronto markets showan increased activity. The flour was steady with sales of extra at $4.35, and of spring extra at $3 95. Oats were firmer; one case sold at 43½ cts., and another at 44 cents. Barley was steady and moving freely, selling at $1.08 to $1.11; some as high as $ 1.17 to $ 1.18. Peas from 75 to 76 cents. Hay scarce; Timothy sold at $19 to $20; inferior $15 to $18.

Liverpool Quotations. Flour 21s. 6d. Red Wheat 8s. 7d. to 9s. 4d, White Wheat 9s. 7d. to 9s. 8d. Corn 38 to 39; Barley 3s. 6d. Oats 3s. 4d. Bran 42s. Cheese 69d.

London Markets. White Wheat $1.50 to $1.65. Red Wheat White $1.40 to $1.50; Barley $2.00 to $ 2.20; Oats $1.15 to $1.17; Peas $1.10 to $1 20; Rye $1.00 to $1.20; Corn $ 1.08 to $1.15. Dressed Hogs $7.50 to $8.00. Keg Butter 22 to 25 cents Rolldo. 25 to 28 cts.

ESSEX.

54-142, Tilbury West.—100 acres, 40 improved; new frame barn, shed and stable. One mile from Comber Station, on the Canada Southern Railway. Price $3,000.

75-165, Rochester.—100 acres, high and dry; good drainage; hickory and cordwood. One mile from the Canada Southern Railway. Price $1,000.

77-167, Colchester.—361 acres, 120 improved; oak, hickory, walnut, white wood; good orchard; light loam; comfortable two-story house, barn and stables; churches and schools near; good roads; chestnut orchard, average yield $150 a year. Price $10,000.

329-211, Colchester.—100 acres, 20 acres clear; 10 more acres chopped; timber good; oak, hickory, beech, maple, elm, and black and white ash. One and a half acres choice young fruit trees; fences good; well supplied with water; soil, loam, with clay under; frame house; frame stable; sheds and potash works; cellar; churches and school close; four and a half miles from Essex Centre Station, on the Canada Southern Railway. Price $2,100.

81-90, West Tilbury.—100 acres; wild lands. Price, $800—one-quarter cash, balance on time at 7 per cent.

154-238, Tilbury West.—100 acres, 30 acres improved. Hewed log house, new log stable, frame milk house. Soil, clay loam; about 50 fruit trees. Timber—beech, maple, white and red oak, ash and elm. Good neighborhood, within 2½ miles of village; churches, school and Railway Station. Price $2200,

Romney.—1200 acres of wild lands.

Colchester.—500 acres of wild lands.

195-277, West Tilbury.—145 acres; small clearance; soil, good black loam, on clay subsoil. Timber good quality, red and white oak; a few fruit trees. Frame house, 20x30, and shed. Churches and schools 1½ miles; Railway station 1½ miles. Price, $2000.

ELGIN.

100-182, Aldboro.—200 acres—about 130 acres clear; balance timber, beech and maple; good orchard, grafted fruit; clay loam well watered; well fenced; good, new and large frame house; barns, sheds and stables good; churches and schools close; village ¼ mile; cheese factory in the village. Price, $9,000.

4-23, Dunwich.—100 acres, 50 cleared, 50 well timbered; maple, beech, oak, elm and ash. Good bearing orchard, grafted fruit; clay loam and sand; frame house and good barn; churches and schools within 2 miles; railway station 2½ miles. Price $3,000.

6-40, Dunwich.—92 acres, 60 improved, 32 timbered; beech and maple; about 100 fruit trees; clay and sand loam; frame house; churches and schools close; railway station, 2 miles. Price $3,000.

12-64, Bayham.—140 acres, 70 improved; maple, beech, chestnut, black ash, and a few pine; a good sugar bush of 900 trees; orchard; grafted fruit; clay loam; timber on this farm sufficient to pay for it; under-drained; frame house; good out-buildings; churches and schools close. Price $4,000.

30-144, Yarmouth.—100 acres, about 60 improved; balance heavy timber; fine orchard, excellent fruit; mixed loam. Large comfortable frame house and out-buildings; frame barn. School one mile; Churches four miles. Price $3,000.

Dunwich.—1000 acres of wild lands.

198-280, Aldboro.—200 acres, wild land; good loam; a nicely rolling, well watered lot. Timber, beech, maple and hickory. 7 miles from Newbury; 4½ miles from Rodney. Price, $16 an acre.

203-285, Yarmouth.—94 acres, 85 improved; timber, beech, maple, oak and chestnut; 2 good orchards grafted fruit, about 5 acres; soil, sandy loam; new frame house, 14x42, 8 rooms; also a second comfortable frame house, with 5 rooms; 2 frame barns, 30x60 and 20x30; churche 3 and school ½ mile; within easy distance of good markets and Railway; 11 acres fall wheat in a choice farm. Price, $7500.

HURON.

28-131, West Wawanosh.—100 acres, 55 improved; beech and maple; clay loam; never-failing springs. Orchard; log house, log stable. Schools close; churches within two miles; railway station, six miles. Price $2,200.

44-161. West Wawanosh.—43¾ acres, 20 improved; balance principally hardwood, some pine; orchard; mixed soil; good springs; log house in good repair Churches and schools near; Lucknow seven miles. Price $1,200.

KENT.

146-228, Harwich.—400 acres, near the Rondeau Harbor This land is capable of being made into two, three or four first-rate farms. This locality is considered the Garden of Canada. Soil a fine black loam, on clay subsoil. The climate is mild, and there are no late spring frosts to injure vegetation. A fine fruit growing district; peaches, grapes and other choice fruits are grown here most successfully. Ten miles from Charing Cross, on the Canada Southern Railway, and close to the projected route of the Huron and Erie Railway. The proprietor has the lot laid out as follows: 100 acres on north end, with about 30 acres clearance, and log buildings; price, $3,700. 150 acres, centre part, with about 30 acres clearance; price, $3,500. 100 acres, south part, with log house and peach orchard, about 30 acres clearance; price $2,000. 50 acres south-east of creek, with about 14 acres clear ance; price, $1,000. The timber on these lots is good hardwood.

114-196, Zone.—100 acres, about 10 acres improved; balance heavy timber, beech, maple, hickory, ash, elm, oak and bass-wood; one well, good fences; soil, sandy loam. Drainage good; two township drains through lot. Good neighborhood; churches and school one mile. One mile from Bothwell Railway Station, and a good market. Good roads. Price, $2,100.

92-174, Sombra.—100 acres, 70 acres improved; orchard, 400 fruit trees; soil, clay loam; high and dry; churches and schools ½ mile; log house; Wallaceburg 2 miles; Chatham 16 miles. This farm fronts on the River Sydenham; steamboats constantly pas ing. Price, $4,000.

Chatham.—1256 acres of wild lands

Camden—500 acres of wild lands.

East Dover.—400 acres of wild lands.

East Tilbury.—500 acres of wild lands.

LAMBTON.

201-283, Brooke.—100 acres; a good timbered lot; close to Railway Station; the price of the land can be readily made from the timber. Price, $20 per acre.

202-284, Brooke.—200 acres; a well timbered lot; 2½ miles from Railway. Price, $10 an acre.

70-86, Sombra.—100 acres wild land; 5 miles from River St. Clair. $7 an acre.

71-81, Dawn.—100 acres wild land; heavily timbered, hardwood. Dry and heavy soil; $7 an acre.

73-89, Enniskillen.—150 acres wild land; black ash, oak and elm. $8 an acre.

15-95, Warwick.—150 acres; 80 clear. Beech and maple. Fine sugar bush. Orchard grafted fruit. Light loam, inclined to clay. Good and comfortable red brick house, beautifully situated and surrounded with fine shade trees. Good barn, stable and out-buildings. Churches and schools close. Price, $7,000.

43-100, Moore.—7 50 improved; balance beech and maple. Mellow clay loam, partly underdrained. Orchard. Good frame house, frame barn, log barn and log stables. Churches and schools near. Price, $3,500.

74-102, Enniskillen.—100 acres wild land heavily timbered, oak, elm and maple. Price, $10 an acre.

62-78, Dawn.—100 acres wild land; oak, black ash, beech and maple. Price, $700.

69-85, Zone.—50 acres wild land; first-rate land. $10 an acre.

80-170. Sombra.—53 acres, 40 improved, Hickory, elm and black ash. Clay loam. Orchard, good frame house, barn, drive shed, cow shed, &c., stone cellar. Churches and schools within easy distance. Price, $2,700.

89-171, Moore.—100 acres, 68 acres improved; balance best heavy timber. Good orchard, large and nearly new frame house, barn and sheds; black clay loam; good neighboroood; churches and schools close. Price, $4,000.

106-188, Brooke.—140 acres, 60 improved; hardwood timber; never-failing spring; also, creek; orchard. Soil, clay loam; frame house, log barn, stable and granary. Price, $3,850.

107-189, Plympton.—200 acres, 35 improved; well timbered, mostly hardwood. Soil, clay loam; good spring; also, small creek, empties into Bear Creek, about 60 rods distant; well fenced; log house, 22x26; log stable. Churches and schools 1 and 2 miles. Wanstead Station, on Sarnia Branch of G. W. R., 2 miles; Watford, 8 miles; Wyoming, 5 miles. Price, $3,600;

111-193, Plympton.—100 acres. 26 improved; good location. Four miles from Wyoming Station, on the G. W. R., and four miles from Camlachie, on the G. T. R. Soil, clay loam. Timber mostly hardwood. Churches, school and post office close; good roads, and an improving neighborhood. Price, $2,350

141-223, Moore.—South ½ lot 1 on the 1st concession, 100 acres. $10 an acre.

142-224, Enniskillen.—West ½ lot 1 on the 4th concession. 100 acres. $11 an acre.

Enniskillen.—2000 acres wild lands.

Sombra.—600 acres of wild lands.

Dawn.—600 acres of wild lands.

Brooke.—1000 acres of wild lands.

MIDDLESEX.

191-273, London.—100 acres; 60 improved and free of stumps; good loam soil; young orchard; timber, beech and maple; about 6 acres cedar; spring creek; small log house; good frame barn and shed; churches and school 1 mile; London 6 miles; 15 acres fall wheat in, 45 acres fall plowed. Price, $4800

192-274, London.—50 acres, 35 improved; loam; timber, oak, beech and maple; small orchard; frame house, 5 rooms; new frame barn, stable and milk-house; churches and school 1 mile; London 5 miles; 12 acres fall wheat, 5 acres fall plowed; Price, $2600.

200-282, London.—63 acres, 50 improved and free of stumps; good bearing orchard. grafted fruit, 3 acres; about 9 acres timber, mostly good hardwood; soil, clay loam; new frame house on brick foundation, 6 rooms; frame barn, 50x32; frame sheep-shed, 12x18; log cow-stable; 32x14; hog-pen, 17x22: churches and school near; London 9 miles. A good farm, price $3600.

205-287, Dorchester.—100 acres, 65 improved and free of stumps; timber, beech and maple; soil, gravelly clay loam; bearing orchard. grafted fruit; frame house on stone foundation, 7 rooms and cellar; frame barn, log stable and log barn; churches and school convenient; 20 acres fall wheat in, 20 acres fall plowed; a nicely rollihg, well watered farm; London 10 miles. Price $6000.

1-58, Westminster.—188 acres, 153 clear. Beech and maple. Two fine orchards, grafted fruit, all under good fence. Clay loam. Two-story frame house, large frame barn, stable, sheds, &c. Good gravel roads. London 8 miles. Churches and schools close. Price, $10,000.

7-59, Lobo.—186 acres, 80 clear. Orchard grafted fruit; living springs; sandy and clay loam. One and a half story frame house, two frame barns. Schools and churches within two miles. Price, $7,900.

14-93, Delaware.—105 acres, 40 improved. Beech, maple, oak and pine; fine orchard grafted fruit. Clay loam. Large frame house, with good cellar, good new barn, drive house and sheds. Good gravel roads; London 8 miles. Price, $3,675. This farm is divided; the 65 acres which is all bush and has no buildings, being three-quarters of a mile from the homestead, and would be sold separate if desired.

78-168, Ekfrid.—74 acres, 40 improved. Good hardwood. Clay loam. Log house, log stable; small orchard. Churches and schools near. Price, $2,500.

79-169, Ekfrid.—96¾ acres, 70 improved. Beech, black ash, oak, maple and basswood. Black clay loam. Small orchard, frame house, barn and shed. Price, $3,600.

97-179, Metcalfe.—220 acres, 180 acres improved; beech and maple. A fine orchard of grafted fruit, about 10 acres. Clay and sandy loam. Well fenced. Never-failing creek. Large frame house in bad order. Good and extensive out-buildings, brick dairy. Cheese factory on the farm. Market town and railway station 2½ miles. Churches and schools near. Price, $9,000—$4,000 cash, balance on time to suit purchaser. This is a first-class dairy farm.

98-180, Metcalfe.—80 acres, 60 acres improved, beech and maple. A small orchard. Clay and sandy loam. Good frame house, 26x36; good barn, 35x50; root house. Two creeks. Market town and railway station 2½ miles. Churches and schools close. This adjoins the above farm. Price, $2,500—$1,500 cash, balance in two years.

103-185, Caradoc.—100 acres, 80 acres improved. Timber—oak, ash, cherry and basswood. Soil sandy loam. Comfortable house, brick and frame. Good out-buildings of all kinds. Good root house. A really good homestead and farm, within 1¼ miles of Strathroy. Price, $7,000.

104-186, Adelaide.—200 acres, 60 improved, balance heavily timbered, mostly beech, maple and hickory. Small frame house, nearly new. Soil, clay loam. Within 3 miles of Strathroy. Price, $6,000. This would make 2 good 100 acre farms, the main road equally dividing it.

150-232, Adelaide.—200 acres, about 60 acres improved. Small orchard; timber best hardwood; soil clay loam. Brick house on corner; tavern stand; good stable and barn combined. Within three miles of Strathroy; would make two 100 acre farms, the main road equally dividing it. Price, $6,000; adjoins the above lot.

181-213, Caradoc.—230 acres, 130 acres improved and free of stumps. Timber—beech, maple and elm. A good sugar bush, about 300 trees. Small orchard, grafted fruit. Mixed soil. Comfortable log house, 4 rooms and cellar; frame barn, 30x60; frame shed, 115x15; stable, 20x25. Churches and school about 2 miles. London 17 miles. Mount Brydges about 6 miles. A capital good stock or dairy farm, situate on the river Thames. Price, $8,000;

132-214, Lobo.—50 acres, all improved, and in good state of cultivation. Small orchard; loamy soil. Comfortable frame house, about 8 rooms; wood shed, barn and stable; good cellar and stone milk-house. Close to railway station. Churches and school. All plowing done, and five acres of fall wheat in. Price, $2,700.

144-226, Westminster.—135 acres, 100 acres clear, balance heavy timber, beech and maple. Good frame buildings in good repair; house, barn, driving shed, &c. Good orchard. Soil clay loam. Churches, school and post office convenient. On good gravel road. London 10 miles; St. Thomas 6 miles. A very capital farm. Price, $8,000.

145-227, Caradoc.—50 acres, 25 acres improved. Timber, beech and maple. Soil, sandy loam. A good frame house worth $700. Two miles from Strathroy. Price, $1,600.

115-197, Biddulph.—100 acres, 70 acres improved, balance timber, mostly maple and blackash. Soil clay loam. Good springs; well fenced. Hewed log house, 26x18; log barn and stable, cellar. School close. Church, R. C., 3 miles. London 16 miles; Lucan, 4 miles; Granton, 2½ miles. Price, $3,500.

122-204, North Dorchester—About 50 acres, 40 acres in good cultivation Soil gravelly loam. About 5 acres timber; a young orchard; never-failing creek; well fenced. Log house, 20x28; frame barn, 40x30; log stable; cellar. Dorchester Station, 5 miles; London, 7 miles. Price, $2,000.

126-208, Caradoc.—200 acres, 40 acres improved, 70 acres heavy timber, all hard wood. Soil sandy loam; well supplied with water; small orchard. Frame house. One mile from Strathroy. Price $6,500.

NORFOLK.

193-276, Windham.—100 acres, 80 improved; a good orchard, 250 trees; timber, maple, cedar and pine; sandy loam; comfortable frame house, 9 rooms, stone cellar; barn 54x54; drive house 28x48; churches and school 1 mile; close to station on Canada Southern Railway. Price $4000.

2-16, Woodhouse.—208 acres, 168 improved; balance heavily timbered, oak, chestnut and pine. Abundance of water; never failing springs. Large orchard grafted fruit. Large comfortable frame house, in good order; out-buildings, barns, &c., extensive and good. Board fence on the outside; inner fences rail. Sandy loam. Four miles from Simcoe county town. Price, $8,500.

125-207, Windham.—33 acres and tavern stand. Soil sandy loam; well fenced; small orchard. Situate on Woodstock Road. Frame house and barn. Railway Station on the same lot. Price, $1,200.

OXFORD.

199-281, Dereham.—168 acres, 103 improved; balance good quality of timber, beech, maple, white oak, ash and some few pine; good orchard, about 2 acres; soil clay loam; comfortable frame house, 18x28, 6 rooms; frame barn, 50x66; shed and stable, 26x63; good supply of water; churches 2 miles; school 3 miles; 2 railway stations within 2 miles; cheese factory near; 18 acres fall wheat in, 50 acres seeded, 25 acres fall plowed. A first-class farm, in a well known, good farming township. Price $8200

17-65, South Norwich.—100 acres, 60 clear. Beech, birch, maple, some pine, ash and cedar; fine orchard grafted fruit. Mixed soil. Good, large house, with cellar; barn, drive house and sheds (good.) Churches and schools within 2 miles. Price $3,000.

23-122, North Oxford.—25 acres, all improved. Clay and gravelly loam; creek. Close to cheese factory; well fenced. Two miles from Ingersoll. Price, $1,000.

24-123, North Oxford.—20 acres, all improved. Gravelly clay loam; good orchard, grafted fruit. Comfortable frame house and frame out buildings; picket fence in front. Price, $1,500.

40-156, Blenheim.—200 acres, 150 improved; hardwood; orchard. Clay loam. Frame house, barns, stables, &c. Railway station, churches and schools near. Price, $6,000.

PERTH.

196-278, Wallace.—200 acres, 80 improved; timber, 80 acres first-class hardwood, 40 acres cedar and pine; soil good clay loam; some fruit trees; good supply of water; well fenced; log house; frame barn; churches and school within one mile; railway station 1¼ mile. Price $6500.

18-110, Mornington.—90 acres, 50 improved, balance timbered—beech, maple and elm; a few fruit trees. Heavy clay loam. Log house, well finished; good frame barn. Churches and schools near. Price, $3,200.