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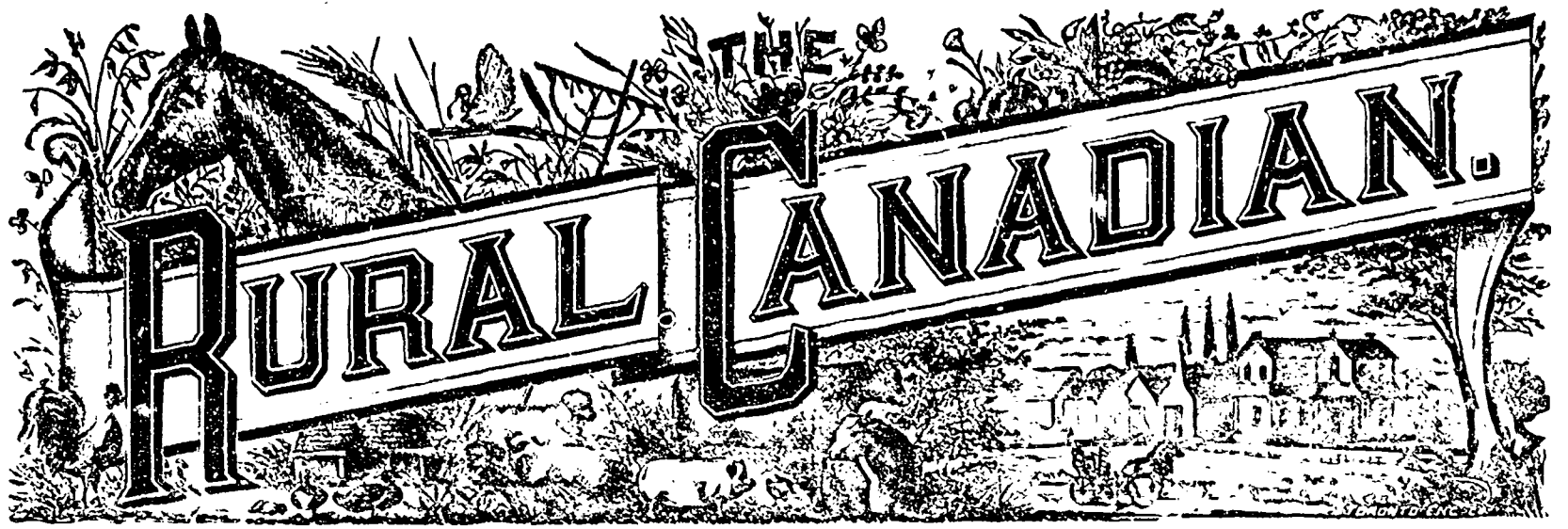
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RURAL NOTES.

THE secretary of the Manitoba Board of Agriculture estimates the area of the wheat crop in that Province at 250,000 acres, and the produce a little over 6,000,000 bushels. If this quantity is realized the Province will, for the first year in its history, have not only enough for home consumption, but a surplus of about 2,500,000 for the foreign markets.

MR. J. J. McHUGH, inspector of the North-West Indian farms, was recently in the city of Ottawa. He says the two Indian supply farms established in connection with Treaty Seven have been closed, the red men being now able to till the soil and supply themselves with sufficient seed. The position of inspector has also been abolished. This will effect a saving of several thousand dollars per annum.

A DISEASE has this year appeared in the potato fields of York township that gives some uneasiness to farmers. It is not the rot proper, but some kind of blight, and during the last two months it has spread very rapidly. Market gardeners believe it is the same as a blight which did great injury to the potato crop of England some years ago. Whatever it is, it should be thoroughly investigated.

PROF. BROWN, of the Model Farm, has a good opinion of the native or common cow of Ontario. For ordinary dairy purposes he says it takes a high place in value of annual produce, and is peculiarly the dairy cow for the country. It is certainly a good animal, but if more care were taken to select the best for breeding purposes, it might be very considerably improved. Only the calves of those possessing the best milking qualities should be kept.

ONE of the objections to barbed wire for fences is its cost, but there is a prospect of its becoming considerably cheaper before long. The monopoly that has hitherto controlled all the patents is being forced to defend its claims in the courts, and in several cases the decision has gone against it. With cheaper wire a much larger quantity of it will be used, especially in the older sections of the country where timber for rails is getting to be scarce and dear.

A FEW Holstein cattle have been brought into Ontario this year. Mr. Scatcherd has placed five on his farm in West Nissouri, and we hear of a Waterloo farmer who has imported an equal number. These animals, with two or three exceptions, were imported from Holland, and are likely to be heard of in the course of the next

year or two. For dairy purposes the Holstein cow has an excellent reputation, and the breed is rapidly rising in favour with farmers on the other side of the lakes.

THE *Country Gentleman* expresses our opinion of the handsome volume recently published by Wm. Saunders, of London, on "Insects Injurious to Fruits," when it says:—"The book may safely be pronounced the best work of its kind now before the public in meeting the practical wants of the farmer and fruit grower." Mr. Saunders has written his book in a style that cannot fail to commend itself to all persons interested in the subject, and no one interested in fruit growing can afford to do without it.

SECRETARY Fisher of the Illinois Board of Agriculture estimates the wheat yield of that State at 16,000,000 bushels. A member of the New York Produce Exchange, taking Secretary Fisher's own data, and applying them to counties, makes the out-put of the crop about 23,000,000 bushels. We are afraid that Mr. Fisher is not well up in the use of figures, for in his calculation of totals for the State he makes the absurd mistake of taking the average of county averages. But this is a very common blunder of statisticians. Until very recently it was made year after year in compiling the tables of our own Educational Department. The average of an average is usually a very misleading quantity.

IT is now about six years ago that Prof. Lintner, of New York State, discovered and described an insect that has since become only too well known as the clover midge. It reached the Lake Erie counties of Ontario two years later, and since then has been rapidly extending throughout the Province. We were shown the other day a head of clover taken from the waggon of a farmer in from the township of Etobicoke. It was literally alive with the midge, and of course with such a voracious enemy there is no hope for the seed. The midge is about one-eighth of an inch in length, of a bright orange colour, and very lively. The first brood usually make their appearance in the latter end of May, and the second in August. It is the latter which plays the mischief with the red clover seed.

THE hay crop in Ontario this year is a very large one, and the greater portion of it has been saved in good condition. Last year there was an abundance for home consumption, but it appears that this year the supply has been doubled. What are farmers going to do with it all? No doubt their horses, cattle and sheep will be well fed during the winter; there is no reason why feeding racks should be stinted. This itself is no slight

thing, for the more liberal the feeding the better will be the condition of live stock, and the richer the manure heap. During the last two or three years, too, there has been a considerable quantity of hay pressed and sent to the American markets; but the demand is somewhat limited, and it is possible that our surplus is more than enough to supply it. There is after all nothing that pays the farmer so well as to feed his hay crop at home.

IT is sometimes very amusing to read the opinions of wise men on new implements and inventions. The *Journal of the Canadian Institute* for October, 1852, was devoted almost exclusively to the Provincial Agricultural Show, which was held that year in the city of Toronto. In the description of agricultural implements and machinery, we find the following:—"The threshing machine by Haggart Brothers, of Brampton, is a good article; and so is that exhibited by Sanderson, of West Flamborough. We think the very long contrivance for carrying off the straw is rather a far-fetched idea, and must add very much to the work of the horses, without giving any adequate advantage." The farmers of to-day will enjoy a good laugh at the expense of the editor of the *Canadian Journal*. It would indeed be a strange sight to see one of the old fashioned rakeless threshers of thirty years ago at work in a farmer's barn of our day.

CLOVER is for many purposes one of the best crops that can be grown on the farm. But what is to be done if the seed is going to be destroyed by the midge? Some say, abandon clover for two or three years and the midge will die out. The same thing has often been said concerning the pea crop during the past twenty years. But somehow or other there are farmers enough in every county to grow peas from year to year to keep the bug from starving. So it will be with clover, and the midge will live and flourish unless, like the wheat midge and the potato bug, the breed runs out in the course of time. True, our farmers are not dependent upon home grown seed; it may be imported from abroad. But foreign grown seed is costly, and if the price is high the quantity sown will be limited. Why may not more attention be paid to the cultivation of Alsike clover? It is a better fodder than the red; it grows luxuriantly in suitable soils; it requires little attention after the first seeding, but will continue to propagate itself. Besides, it ripens the seed in the first crop, and is much less liable to injury by the midge than the red clover. It is true that Alsike clover does not flourish in a high and dry sandy or gravelly soil, or even in a thoroughly drained clayey soil; but there are many localities to which it seems admirably suited, and we think that farmers would do well to give it a more general trial.

FARM AND FIELD.

THE CULTURE OF WHEAT.

Some twelve or fifteen years ago an impression prevailed—indeed the results seemed to establish the fact—that wheat culture in Pennsylvania, like fruit culture, had run out, and farmers' clubs and agricultural papers went full tilt to discussing the reason of it. But subsequently both took a turn, and we should like to know to-day if any one dares to say that both wheat and fruit can not be raised as successfully here as in almost any other State. Some said at first that it would last only a little while—now and then we may get along well enough, but who can say how long it will last, or in case failure should come again what we are to do about it. This was anticipating an evil which there was no reason to believe would soon occur again, and has it had not yet returned we hear no more about it. The grumblers are quiet; they take with thanks we hope, all they receive, and may entertain the best expectation for the future.

The greatest enemy of the wheat crop is too much water. It may be said that the wheat root is more susceptible to injury from too much water than many of us believe. To be sure, there is a general impression that an overdose of water is bad, but the full force of the impression is seldom felt as it deserves to be. Water laying around roots does not always kill the wheat plant, but many of the roots are injured, and the few that are left are not able to do the work that all were intended to take part in doing. If any one will dig up a wheat plant in spring which has stood all winter in a wet place, he will see exactly how this is. Only living roots close to the surface, and below this may be injured.

The English seem to understand this water injury better than we do, and provide against it on wheat lands by numerous furrows, in some cases of flattish land one-twentieth of the whole area may be counted as surface furrows; and yet with this waste of ground, as some would say, they beat us considerably in the number of bushels they get per acre.

It is supposed by many that whether we have a good wheat season or a bad one depends more on quantity of rain we get at various seasons, on the condition of the ground, or of the plants at the time rain falls. If it goes away through the ground rapidly, it is good for the plant, though in large quantities; but if it lies long it is an injury. Thus, if a piece of land is rather flat and the ground is frozen deep and stays frozen after the upper has thawed, and rain or melted snow let in the frozen bottom keeps the water from passing away, and so injury results to the roots. On sloping ground the water passes out on the lower position, and in these cases not much injury results.

There is no doubt many causes which conspire to injure crops; but this overdose of water is very likely to be one of them, and it will be wise for all those who are interested in wheat culture to take every precaution to carry water which may fall on the land. Open ditches or plough furrows, as many do; they are very useful to this end. Attend to this carefully and it will be found that wheat culture in Pennsylvania will be as productive as ever it was, and will continue to be so.—*Germantown (Pa.) Telegraph.*

WILL DRAINAGE PAY?

"Four years ago some one handed me a paper on this subject. I read it. The article which attracted my attention most was one about 'Thorough Work' in drainage, and what might be expected in the way of a per cent. annually,

by investing money in drainage. I thought it over and over. I had at that time three or four hundred dollars by me, and it was not making me anything, and I could not readily loan it at a good interest, and young stock was hardly to be had at any price. Finally I concluded to under-drain a twenty-acre field near my house, and I thought, 'Well, I will do it right.' To get a good outlet I had to dig first an open drain down the road about eighty rods. But having reached the point where we wished to enter the field, we commenced laying the tile three feet and a-half deep, and run out larger and smaller drains. Well, there is no use in my telling all about how I did it, only that the drains would average about five rods apart, and it cost me about \$21 per acre. Well, I said to myself several times, Will it pay? I finished up the work about the 1st of May, but I had the side where we began first ploughed before we finished the ditching, and we had the whole field ready for planting by the 10th of May.

"There was a great difference in working the land the first year. When fall came I had fully sixty bushels of corn to the acre, and I don't think I ever had more than forty bushels before, and the land had been much easier to tend. I said, Here is \$8 over the best crop I ever raised on this land before, and on an average it is \$10 better. Well, well, that does pretty well. But will it hold out? Since I have grown three more crops better and better. The money that I put in the ground has paid me fully fifty per cent. interest. This year I put in four miles of tile.

"I am truly glad of one thing, and that is that I got hold of that article on 'Thorough Work'; it caused me to begin right.

"Several of my neighbours are draining the low places with tile that are altogether too small, but they think that I put too much tile on my land; but while the money in the tile continues to pay me so well, I shall keep on draining until I get all my land drained.

"Then, do you know, I have loaned a little money; not much, but I was always peeking into my neighbour's business if he had any of my money. I could not help it: I was somehow afraid I'd lose it. Now I am not the least uneasy; it is better than putting it in bank for some gambler to use in trading in bargains. After a while I will divide my land among the children, and they will have a good investment of money in drainage for them—better than any I could make for them, and big dividends if they work it. You can hardly say too much for drainage."

Is it not infinitely better for farmers to invest their capital in their own land and get good dividends, and certain dividends, than in any outside stock that can be named? And where is the stock that can guarantee such large dividends? A quaint writer once truly said, "The farm is a machine." Then keep it in good order, and it will give in return large dividends.—*The Drainage and Farm Journal.*

THE SOURCE OF PROFIT.

The principle on which all farming rests is the profit on fertility: whether the fertility be purchased in the land or in the manure applied, the manure being eventually the main dependence. The more manure, therefore, that can be used, the better, if it be intelligently done. To bury manure in the lower soil is to lose a large share of it; to overcharge the soil with it, is to incur loss in the manure and the crop; to inter-mix it intimately with the soil and in sufficient quantity to grow a full crop (which must be determined by practice) is to get the greatest benefit; and this is the true testing point between the cost of the manure and the value of the crop. The differ-

ent kinds of soils and their condition must also be considered in the amount of manure to be used. A full benefit can not be realized on rough and poorly-tilled land. There will be an increased waste and less effect of the manure, and a reduction in the crop. This is because the mechanical condition will not admit of that free passage of the roots and their close contact with the soil as in well-fined mellow ground. It is for this reason largely that thorough working of the soil is held to enrich it. It is in a con'tion the better to favour the manure; hence less manure is required, and hence the profit on it is increased. Those farmers, therefore, that use most the implements of culture get the most profit on their manure, have a cleaner soil and more easily tilled, where there is a large proportion of clay, which constitutes the greater part of our land, and requires the most care and work.

CROPPING AND MANURING.

Farmers are frequently advised by certain agricultural journals to double-crop their land for the purpose of increasing their profits. Though well meant, the advice is often mischievous, because based on serious misrepresentation of facts. True, there are some cases where such a system of cropping would prove a good practice; and these are quoted as examples worthy of general following. A closer investigation, however, shows that farmers who successfully grew two crops in a single season from the same field have soil well drained, well manured and under thorough cultivation. It may be safely assumed that farmers who have succeeded in bringing their land into this high condition are not greatly in need of advice from any quarter. They are a law unto themselves, and if they do or do not follow a certain course the result justifies their action. For the great majority of farmers the attempt to grow two crops in a season on the same land is, however, a mistake. As a rule they cannot make or in any way procure manure enough to cultivate all their land, so as to produce one maximum crop per year. So long as this is the fact their wiser course is to do as they have been doing—cultivate what they can manure thoroughly and let the remainder rest; or, in other words, sow clover and grass seed and thus slowly recuperate its wasted fertility. If all that is ploughed is well manured and thoroughly tilled, it will probably make a profitable crop. It is on the profits of cultivated crops that all agricultural improvement must be based.

REMEDY FOR RAGWEED.

Nearly all our wheat is now sown following a spring crop, and a rotation of crops is generally adopted, which destroys all annual weeds by thorough tillage. And that is the way to destroy ragweed—thorough cultivation and a rotation of crops. Plant corn, follow the next season with oats, turn in the stubble as soon as the crop is harvested, and before any seeds mature and fit well for wheat; then seed to grass to lay down one or two years, this course to be repeated. Under this system no annual weeds will give any trouble. I now regard ragweed as no more troublesome than the common pigweed; it is just as easily killed and no more damaging to crops when allowed to grow, but neither should be allowed to grow to the injury of crops. The man who cultivates his land to the extent beneficial to crops will not be troubled with foul weeds of any kind. It is the slipshod of half-way tillage that enables weeds, drouth and other causes to rob the farm of profitable returns.—*F. P. Root, in N. Y. Tribune.*

MANAGEMENT OF PASTURES.

The value of pasture consists in its capability of furnishing grazing from early spring until late in the autumn. To reach the best results in this direction has been the study of the most acute farmers of England for the last fifty years. The success has only been measurable even in that cool, moist climate, one of the best for grass in the world. Even there the greatest success has only been attained by means of irrigation during certain seasons. In the United States, with our cold winters and hot, dry summers, the difficulty is intensified; and our best feeders, especially dairymen, have found themselves obliged to fall back on special crops—corn, sorghum, alfalfa, where it will stand, and various other soiling crops, to be cut green—to tide over the drouths and heat of July and August. That plants will ever be found adapted to grazing that will produce succulent food through the hot, dry months of summer is hardly to be expected; hence we must be content with those plants that give an abundance early and late, falling back upon forage crops and the grain of Indian corn, which, fortunately, can be raised so cheaply in the west and which will compensate for the lack of moisture that has made the meadows and pastures of Great Britain the theme of poets the world over.—*Breeder's Gazette*.

STIR THE SOIL.

That is what weeds are for, to induce the farmer to stir the soil and cultivate the crops. If we can't use the hoe, use the plough and cultivator to keep the surface of the soil loose and mellow.

It is a question worth considering how much hoeing and cultivating, or rather how little, would be given to crops, were it not for the presence of weeds. The farmer is apt to say, "The corn or the potato field is getting very weedy and must be cultivated," but one rarely says, "The soil must be stirred."

An English gardener says he does not agree with those who say that one good weeding is worth two hoeings. He says:—"Never weed a crop in which a hoe can be used, not so much for the sake of destroying weeds, which must be the case if the hoeing be well done, as for increasing the porosity of the soil, to allow the air and water to penetrate freely through it. Oftentimes there is more benefit derived by crops from keeping them well hoed than there is from the manure applied. Weeds or no weeds, I keep stirring the soil, well knowing from practice the very beneficial effect it has."—*Western Agriculturist*.

THEORY OF CROP ROTATION.

A writer in *Country Gentleman*, of Tyrone, Pa., whose initials are W. G. W., makes these suggestions:

"It is now generally admitted that rotation of crops is rendered necessary, not, as formerly supposed, because the soil becomes exhausted of some necessary element, or becomes unwholesome for that particular plant, owing to poisonous excreta left by the roots, but because insects and diseases accompany the plant which are special to it, the eggs or spores of which are left in the soil to attack the same crop in the next following year with hundredfold increase of numbers and power. Prof. Bessy, of the Iowa Agricultural College, shows how this is the case with smut, which grows up all through the interior of a wheat plant, and finally develops its spores within the bran-casing of the grain, filling it not with flour, but with innumerable black, stinking seed of the parasite which, when set free, float out and stick fast to sound grains of wheat, and also to particles

of the soil, where they lie ready to enter into the circulation of the next year's growth of wheat plants, unless killed by steeping the polluted seed in blue vitriol solution, and drying off with lime. As to polluted soil, it is purified from the contamination only by using it for some other crop on which the smut plant cannot take hold."

A VALUABLE HINT.

The *Orange County Farmer* says concerning housing manure:—"When farmers learn from experience that by housing manure and thoroughly working it over, mixing with absorbants such as muck, earth, road dust, leaves, etc., to take up the liquid and the ammonia set free, its value is double what it now is, and at an expense, too, much less than the same amount of plant food could be obtained in an artificial fertilizer, a new era will have been reached in agriculture, and we shall see the fertility of the old farms brought back to where they were fifty years ago."

LIMING MEADOWS.

Liming meadows or old pasture lands with, say, thirty bushels to the acre, has an effect upon the condition of the crop of grass that few farmers would believe without giving it a trial. In fact, we do not know how the same amount of money can be expended upon land with the same profit. It is not only certain but lasting. We have known farmers to pasture meadows fifty years without being turned up by the simple application of lime once in six or ten years. These pastures which are regarded as permanent, and mostly abound in clay moulds, after being grazed down thoroughly, are restored almost knee-deep in from five to six weeks. We do not hesitate to say that nowhere has lime a more marked effect, and can be used with better results, than in the renovation of old pastures.—*Orange County Farmer*.

CARE OF FARM IMPLEMENTS.

A correspondent writing to the *American Rural Home* says:—"Do not let any of your farm implements remain exposed to the weather. When not in use keep them housed by all means. By letting farm machinery stay in the field exposed to rain, dews, winds and the hot sun, they receive more injury than from careful usage. I know of a sulky-rake that has done the raking on a large, rough farm, for eleven years, that is as good as new; but it has been taken good care of and housed when not in actual use. Farmer friend, I tell you it *pays* to take good care of your tools."

CURING CLOVER HAY

A writer in *Farm and Fireside* says that in order to cure clover as it should be, let the exterior of the stems and leaves cure in the sun, but for a comparatively short proportion of the time required for its proper curing which should be mainly done in the cook. By this process an equalization of moisture takes place. That is, the exterior of the stem and leaves become partly dried as it falls, when cut by the sickle of the moving machine, and the process called sweating, after it is cocked up, is merely the passage of the excess of moisture in the succulent stems to restore the equilibrium to the surface. After this has taken place, but little more drying should be given the clover than is secured by exposure in loading in the field and unloading at the barn or rick.

When you have a little pie-crust, do not throw it away; roll it thin, cut in small squares, and bake. Just before tea put a spoonful of raspberry jelly on each square.

HINTS FOR THE HOUSEHOLD.

Stings of insects are relieved by the application of ammonia, or common table salt, or a slice of onion to the part.

To keep flies off gilt frames boil three or four onions in a pint of water, and apply with a soft brush.

To beat the white of eggs quickly put in a pinch of salt; salt cools, and the cooler the eggs the quicker they will froth.

BAKED EGGS.—Break eight eggs in a well-buttered dish; put in pepper, salt, and butter, and three tablespoonfuls of cream. Bake twenty minutes.

An agreeable and appetizing dish is made by cooking asparagus and peas together. Cut tender stalks of asparagus in small pieces (both vegetables require the same length of time to cook), season with cream, pepper and salt, or in place of cream use milk with a lump of butter melted in it.

In gardens and greenhouses, where boiling water cannot be poured on, ants' haunts may be easily removed by using picked bones, which will be soon covered with ants, which may be destroyed in hot water. Repeat the process and the ants will soon be cleared out, if a number of bones are used, which may be placed in out-of-the-way spots where they will not be seen, but where the ants will soon find them.

CHOCOLATE PIE.—To one pint of water take four spoonfuls of grated chocolate, six of sugar, and two of corn starch, beside a small piece of butter and the yolks of two eggs, well beaten; stir them all together, and putting them in the pint of boiling water, stir them until they take on the consistency of custard. A spoonful of vanilla may be added if liked. Bake in a rich crust with the whites in the form of a meringue on the top.

LEMON RIND.—When using lemons for any purpose, it will be found an economical plan to grate the yellow rind off, mix it with an equal quantity of sugar, and put it up in an empty box with a tight cover. This will be delicious for flavouring custards, molasses cake, and anything else where lemon extract is used. It retains the strength of the lemon while cooking, and is much more delicate to the taste than the oil or extract of lemon.

A Dainty dish for dessert is made of three tablespoonfuls of peach or raspberry marmalade or jam, two ounces of fine bread crumbs, and two well-beaten eggs, a quarter of a pound of sweet almonds, blanched and rubbed or pounded to a smooth paste, or they may be chopped; beat an ounce of butter till it is light as cream, then stir all these together, beating till mixed thoroughly then butter some small cups, and fill them two-thirds full with the mixture; bake for twenty minutes in slow oven.

Rice is becoming a much more popular article of food than heretofore. It is frequently substituted for potatoes at the chief meal of the day, being more nutritious and much more readily digested. At its present cost, it is relatively cheaper than potatoes, oatmeal, or grain-grits of any kind. In preparing it, only enough cold water should be poured on to prevent the rice from burning at the bottom of the pot, which should have a close-fitting cover, and with a moderate fire the rice is steamed rather than boiled until it is nearly done; then the cover is taken off, the surplus steam and moisture allowed to escape, and the rice turns out a mass of snow white kernels, each separate from the other, and as much superior to the usual soggy mass as a fine mealy potato is superior to the water-soaked article.

GARDEN AND ORCHARD.**THE CULTURE OF APPLES.**

When advised to set more apple trees, the average farmer answers: "Orchards do not pay. If apples are selling at a good price, it is the year my trees do not bear, and when I do have a good crop apples are so cheap that they scarcely pay for picking."

Something of truth in that; but it is not quite the truth. When apples are at the lowest price, a man can make pretty good wages in picking, assorting and barrelling them, even though he has but a small share of the products of the orchard for his labour.

The day's labour spent in an apple orchard usually yields better pay to the farmer than any other farm work that he does. Compare the time necessary to get a barrel of apples ready for market and that required to grow and harvest a barrel of potatoes.

The increased demand for apples for exportation is likely to make better markets and better prices for this fruit in the future than we have had in years of plenty in the past. The evaporators or fruit dryers, and the conversion of cider into apple jelly, enable those whose temperance principles would not allow them to make cider to be used as a beverage to feel that they can now convert their cider apples into a wholesome food.

Better cultivation and better varieties of fruit will make better crops and better prices. In the matter of fruit, also, increased supply seems to create an increased demand. Witness the quantities of strawberries, cranberries, and other small fruits now sold in our markets, and then think of the time thirty years ago, when scarcely one-tenth as much was sold, and yet prices have not declined very much.

Of all our fruits, none other is as valuable as the apple. It can be had in perfection at almost all seasons of the year; it can be eaten raw or cooked in a variety of ways; it is healthful and nourishing, and it can be found in the greatest variety of flavours, enough to suit all tastes. Therefore, we repeat, plant out more apple trees; get good healthy trees grafted with good varieties of fruits; put them in good soil; prepare the land carefully, and give the trees good care, and you will find that they will prove profitable.—*American Cultivator.*

THE KEEPING OF FRUIT.

The proneness of some thin-skinned and tender-fleshed kinds of fruit to go off with rot when they have not even reached full maturity, is vexatious. Some of the fine, luscious gages and handsome, refreshing heart-cherries are thus taken away from our very lips with Tantalus-like tease. There is no trouble about growing the trees, and they set fruit almost unfaillingly, but as unfaillingly, for us, they all spoil before one has its mature fl our or colour. Fruits equally sweet, but with thicker skins, keep well, but very acid fruits, as a general rule, keep best. The lemon, the current, the gooseberry, are examples. Green gooseberries keep well in water even without being heated themselves. Currents will hang on the bushes through all the heat of the summer, if protected from the birds by a net. Dr. A. B. Barnes, Southington, Conn., has sent a sample of cranberries, in their natural condition, kept over two winters; and, although frozen many times and softened, neither the flavour nor colour has been lost; on the contrary, they seem the richer for age. The apples make an exception to the general rule of acid fruits keeping best. The sweet varieties are usually more easy to keep long in good condition than sour ones. We have

at this writing—July 27—a few left of the Lady Sweet, kept headed up since November in a barrel in an ordinary house-cellar, which are not in the least withered or decayed, and scarcely inferior in flavour to that excellent sort at its best.

RASPBERRY CANES AND CROP.

I used to think it of little consequence when the old canes of blackcaps were out. Wild raspberries continued to bear well, though the old wood was never removed. But recent experience and experiment have convinced me that they should be removed as soon as the fruit is gathered. At this season the old bearing canes are yet alive, and may be out easily with a sharp hoop attached to a handle two feet long, after which the field may be more thoroughly cultivated and hooped than if the encumbering canes were in the way.

But aside from this the old canes appear to draw out the vitality of the plant, and seriously affect its subsequent capacity for bearing fruit. It is now held by scientific men that a dead branch exhausts the vitality of the tree as much as though alive. The dead canes on raspberry bushes would appear to affect them in a like manner. Bushes not cleared of old canes produce small, defective, crumbling specimens. The first year or two the bushes are not so seriously affected. Hereafter we will trim ours as soon as the fruit is gathered, sweep them out of the spaces between the rows with a one-horse rake, similar to a steel-toothed hay-rake, but very short, no wheels, burn them and save the ashes.

Blackcap raspberries are one of the most certain crops and are as sure of sale as wheat. If not wanted fresh-picked they pay as well evaporated. After one learns how to manage them there is no more trouble to harvest them than most farm crops. A young girl often has charge of fifty pickers on our place, but it pays to have a competent person walking about to see that the work is well done. Our blackcaps bring in about \$100 per acre, gross income, on the average, for the fruit alone. The crop of plants from the same acre is as valuable as the fruit, often far more so. The blackcap abhors low, wet ground; but, if such is drained, it will thrive therein. Souhegan or Tyler, for early, and Gregg for late are the best varieties.—*Charles A. Green, Monroe Co., N. Y.*

REFUSE VEGETABLES FOR MANURE.

Weeds, if they are allowed to grow in a garden, should always go to the rubbish or compost heap before the seeds ripen, and if placed in alternating layers with manure or other decaying stuff will become thoroughly disintegrated. But no thrifty gardener allows weeds to grow or reach any size, being destroyed as they reach the surface of the ground. But there are many refuse portions of vegetables, as potato-tops, tomato-stalks, cabbage stumps, lawn-mowings, thinnings of various crops, etc., which may be turned to good account if the heap is moistened with refuse soap-suds, treated with hen-house cleanings, various slops, and the many other matters too often wasted. Ashes, lime, brine, etc., may be added as opportunity presents. It will be observed that every good manager clears up these waste materials to keep the premises in neat condition, and he may as well turn them to good account as to lose their benefit. In addition to the advantage obtained from the intermixture of these materials, the ingredients of common yard manure are more valuable if well incorporated together. A late writer remarks that he finds a mixture of cow and horse manure the best of all fertilizers. He throws them together, mixing well, and if they lie in a

heap ten days or two weeks before applying they never become overheated by fermentation. In wintering cows and horses, one of our best scientific farmers has the rear of the lines of the stalls of these two animals placed together, so that the drier horse manure tempers the more liquid cow droppings, renders the attendance easier, and makes an excellent fertilizer.

SEEDS BEST SOWN IN AUTUMN.

Most people have observed, no doubt, that self-sown seeds that have dropped from the growing of the previous season, sometimes produce the strongest and most healthy plants that bloom the most freely. This is true of several kinds, but particularly those that suffer under exposure to our midsummer sun. The reason is that self-sown seeds get a very early growth in the spring, vegetating as soon as frost is gone, and are good-sized plants by the time we usually put seeds in the ground, even if they do not start in the fall. They thus mature and flower during the cool weather of spring. The clarkias and nemophilas and annual larkspurs are noted examples. There are also several varieties of hardy annuals that do well with spring sowing that will bear autumn sowing in open ground, and reward us with early spring flowers. Sweet alyssum and white candy-tuft will give us abundance of white for early cutting, if sown in the fall. In a sandy soil the portulacca may be sown in the autumn with good success. Seeds of biennials and perennials, if sown early enough to produce strong little plants, will flower the next summer. Pansies and Chinese pinks, though they bloom the first summer if sown in the spring, will make much stronger plants and flower more freely and earlier if young plants are grown in the autumn.—*Western Farmer.*

EXPERIMENTS IN CULTIVATING.

W. W. Higbee, of Vermont, writes to the *Practical Farmer*, giving some of the results of his experiments in cultivating orchards, which, although according with the experiments of others, may be useful if briefly stated in enforcing their teaching. Sowing wheat in an orchard always seriously checks the growth of the trees, even if the ground is manured. Oats are exhausting, but less so than wheat. Corn and potatoes both answer well, and the cultivation they receive benefits the trees. In one instance, half of an orchard was sown with wheat, and the consequence was it was put back two years as compared with the other half. Wheat in a thrifty young plum orchard ruined it. To these statements we may add the following: A neighbour set out a hundred peach trees, cultivating a part of the ground in potatoes, and the remainder was in wheat. None of the trees in the potatoes grew less than a foot and a half, and some sent up shoots two feet and a half. None of those which stood in the wheat ground grew more than three inches.

SAVING CABBAGE SEED.

A writer in *Gardening Illustrated* gives the following practical suggestions:—Cabbage seed is by no means easy to secure pure where it is saved in a small way; not only does the cabbage cross most freely with broccoli, but also with all kinds of the *Brassica* family, and if there be any diverse sorts growing not merely in the same garden, but in any other near, the chance of securing true stocks is very doubtful. A few plants saved to bloom, and purposely blocked in together, may be largely protected with fine netting. If a garden is isolated from all others, and no members of the *Brassica* family are permitted to bloom in

that garden, then the results may be all that can be desired. Where seeds of this kind are grown in a large way, and the plots of perhaps several acres are isolated, the danger of intercrossing is minimised. Bees, the chief agents in fertilization, will find so much food in a large field in flower, that they will not be tempted to go to another kind to get the needful load of food. Cabbages planted now will, as a rule, run off to blossom next spring. Of course, the heads are all out in the interim, as shoots burst forth freely enough from the leaf joints in the spring, and these produce ample bloom. It is not an uncommon practice for autumn planted cabbages to bolt off to flower in the spring. Seed saved from these would only perpetuate rubbish, and should be pulled as fast as they are observed.

THE STRAWBERRY DUDE.

The Philadelphia *Record* man eats of the modern strawberry and sighs for the rich red berry of his boyhood, found in green meadows. Hear him:

There is one strawberry which grows in the country meadows, sweet, wholesome, sugary, sour, delicate in its flavour and wholly delightful. This strawberry plants itself and propagates itself, and continues from generation to generation, a good thing, asking no odds of anybody. It was of this strawberry that good old Isaac Walton declares: "Doubtless God could make a better berry; but he never did."

There is one strawberry, the hucksters delight; oversized so that a basket will not hold many; of forced growth, so that its juices are immature and tasteless; soft, spongy, sandy and misshapen. This monster has monopolized our markets. This strawberry is a fraud. It is a strawberry dude. It is a proof that over-cultivation is as disastrous as under-cultivation.

For years past the strawberry has been growing in size, price and worthlessness. It is impossible to retrace our steps and go back again to the little, sharp-pointed, deep-red berries that looked when picked as if the tips of a fairy's fingers had been served up for the breakfast of a mortal man?

FRUIT CANNING.

The canning of fruit for market requires a capital of \$10,000, but every one can dry fruit if possessed of will to do so. Dried fruit can always find a market, but fresh fruit often fails to pay freight and expenses. A bushel of apples fifty pounds will dry to five or six pounds; pears will dry to seven pounds, worth fifteen cents a pound; plums yield twenty pounds to the bushel; peaches will dry to ten pounds. The average market price of dried fruit will render the profit of drying about equal to that on green fruit, and will be obtained from that which would otherwise have been wasted.

IMPORTANCE OF GOOD SEED.

Benjamin P. Ware, in urging the importance of carefully obtaining the seed of the best varieties, said there was a severe hailstorm which destroyed a part of the seed plat of one of the best onion-raisers in Marblehead, so that the seed of his own raising was only enough for a part of his ground last year. He bought the rest of the seed he could find. The result was, as he said, that it would have been better for him to have paid \$20 a pound for the best seed, like his own, than to have used such seed as he bought had it been given to him. What is true of onions is true of cabbage and other vegetables. Poor seed, with the best manuring and cultivation, cannot give good crops.

TRANSPLANTING ROSES AND RHODODENDRONS.

When setting out young rose bushes in the spring, cover them with window sash until they are growing nicely. During the heat of the day have them covered from the sun by putting a canvas tent or a large umbrella over them. Before winter comes have the roses and rhododendrons protected, by wrapping plenty of straw around them and placing a barrel over them. Rhododendrons may be planted in a large tub, and put into the cellar during the winter.

Such extravagant praise as is often given to new fruits destroys confidence and creates disgust in the mind of all sensible people.—*Rural New-Yorker*.

If gardeners would give good cultivation to the kinds they have, and make the best of them, they needn't fool much money away on novelties.—*Farm Journal*.

Last year I put twelve moles in my strawberry patch of five acres, to catch the grubs, and they did the work. I never had a dozen plants injured during the summer either by the grubs or the moles.—*Rural Home*.

A CORRESPONDENT of *The Iowa Farmer* reports Crescent the most prolific of both plants and fruit of any strawberry he ever tried; it is of "fair size, good colour, flavour medium, but sure to bear in any soil and almost any season."

CAPTAIN W. M. PITTS, Vineland, N. J., raised the "boss" big strawberry of that fruit region this year; it was a Sharpless, and measured nine inches around. From a bed of this variety, 50 by 100 feet, he picked 1,840 quarts, which sold for \$45.

DR. J. S. WILSON, in the *Southern World*, declares that to cure a fever, or act on the kidneys, no febrifuge or diuretic is superior to the juice of fresh, ripe, watermelons, which may, with very few exceptions, be taken in sickness and in health, in almost unlimited quantity, not only without injury, but with positive benefit.

Mrs. A. F. S. thinks it passing strange that President Smith "never saw a robin eat a strawberry." She has not only witnessed that common exhibition, but lately observed the feathered epicures in fruit throw out the poorer specimens from a small basketful left, under shade of a tree, so as to get at the sweetest and best. "Naughty birds," she says, but kindly adds—with appreciation of their songs and all-season usefulness against insects: "I wouldn't have one killed for anything."

A WISE man of the east has found out how to get rid, in a peaceful manner, of a raiding flock of hens. He captures the attendant male bird, and rigs him up in thick brown paper leggings. His uncouth appearance and awkward movements disgust and affright his feminine companions, who leave him solitary and woe-begone. When once rid of his paper breeches, Mr. Chanticleer avoids the premises of the inventive tailor who fitted him with them, and his lady friends decline to go there without him.

Four or five decades ago a story was told in the papers of a woman, obliged to leave a house, spitefully scalding a peach tree in hopes that her successor would have none of its fruit. Contrary to her wish and intentions the tree became more flourishing and fruitful than ever. I have often and often used boiling water on peach stems since, often with marked effect for good, and never with any bad results. Of course worms are destroyed, if the collar is first cleared of gum, and as the heat must reach through the vital cambium layers of wood, it seems very possible that, if applied at the right season, the growth of any parasitic fungus through that layer may be arrested.—*Bortus*.

CREAM.

Nothing is perfect but the new baby; and that is often a perfect nuisance.

A SMALL FISHING PARTY: "Did you catch anything?" Second Boy: "Not until I got home."

A YOUNG lady calls her beau "honeysuckle," because he is always hanging over the front railings.

"NAT, what are you leaning over that empty cask for?" "I'm mourning over departed spirits," was the reply.

A PERSON being asked why he had given his daughter in marriage to a man with whom he was at enmity answered, "I did it out of pure revenge."

"WELL, sonny," said a doting uncle to his little nephew, who had been absent all day fishing, "did you catch a good many fish?" "No, uncle; but I drowned a good many worms," was the sonny's answer.

"THE bees are swarming, and there's no end to them," said farmer Jones, coming into the house. His little boy, George, came in a second afterward, and said there was an end to one of 'em, anyhow; and it was red hot, too.

A CONCEITED young country parson, walking home from church with one of the ladies of his congregation, said, in allusion to his rustic audience: "I preached this morning to a congregation of asses." "I thought of that," observed the lady, "when you called them beloved brethren."

"Two servant girls on their way home from church in Paisley are discussing the merits of the psalmody. First servant girl: "We have been haen three hymns an' only two psalms lately. It's my opinion oor minister's putting the works o' man before the works o' the Maker." Second do.: "Yer aboot richt there."

THE misery of being called upon suddenly to make a speech was once got over by a noted English mathematician, who delivered himself in this fashion: "Gentlemen, a morbid desire for originality prevents me from saying, 'This is the proudest moment of my life,' and it does not occur to me to say anything else."

A FARMER once told his man, who was from the Emerald Isle, to run into the pasture and catch an ox, "I mean the off'un; I will manage the other myself," said he. Pat ran to do as bidden, but suddenly paused on his way, with the exclamation: "He's a reasonable fellow, anyhow, bedad! And how am I to know which is the orphan?"

"WHAT is a score?" said the teacher. "The number of runs got at a cricket match," replied the urchin. "No, no; what I mean is, how much does a score signify numerically? What does it give? That is to say, were I to tell you that I had a score of horses, what would you think?" "Please, ma'am, I should think you was stuffin' me," calmly replied the boy.

LITTLE Harry had been told not to bathe in the mill-pond; but as he was climbing over the fence back of his house he saw other boys in bathing, and the temptation was too strong for him. He was careful, however to keep his head dry, so as not to arouse suspicion when he returned to his mother. But she immediately taxed him with having disobeyed her. "Why, mother," said he, taking off his hat, "look at my hair; it would be wet if I had been in swimmin'." "Yes, my son; but how comes your shirt wrong side out?" "Oh! why?—faltering, then gleefully—" "Oh, I turned that getting over the fence." "Oh, you did. Did you? Well, then, one good turn deserves another." And the wails from little Harry told that he had been turned to a horizontal position.

HORSES AND CATTLE.

DEVELOPING THE YOUNG HORSE.

To those who have become impressed with the fact that the structure of the horse is complicated, it will not be incomprehensible that the ingeniously formed bones and joints, furnishing leverage for several hundred muscles, each designed for a more or less distinct purpose, are, if developed to their full capacity, capable of making a wide range of motions and accomplishing great feats. It is quite clear that the full limit of these capabilities is seldom brought out, as the movable parts are, as a rule, only developed by the colt in the pasture, and some colts have very limited opportunities even in this direction. If, as is the case with the tailor's finger on which he wears his thimble, the colt could be trained, through careful attention to certain motions made frequently, and continued during longer periods than now, it would make certain joints and muscles—particularly those brought into action in road and speed work—larger, flexible, and as enduring as iron.

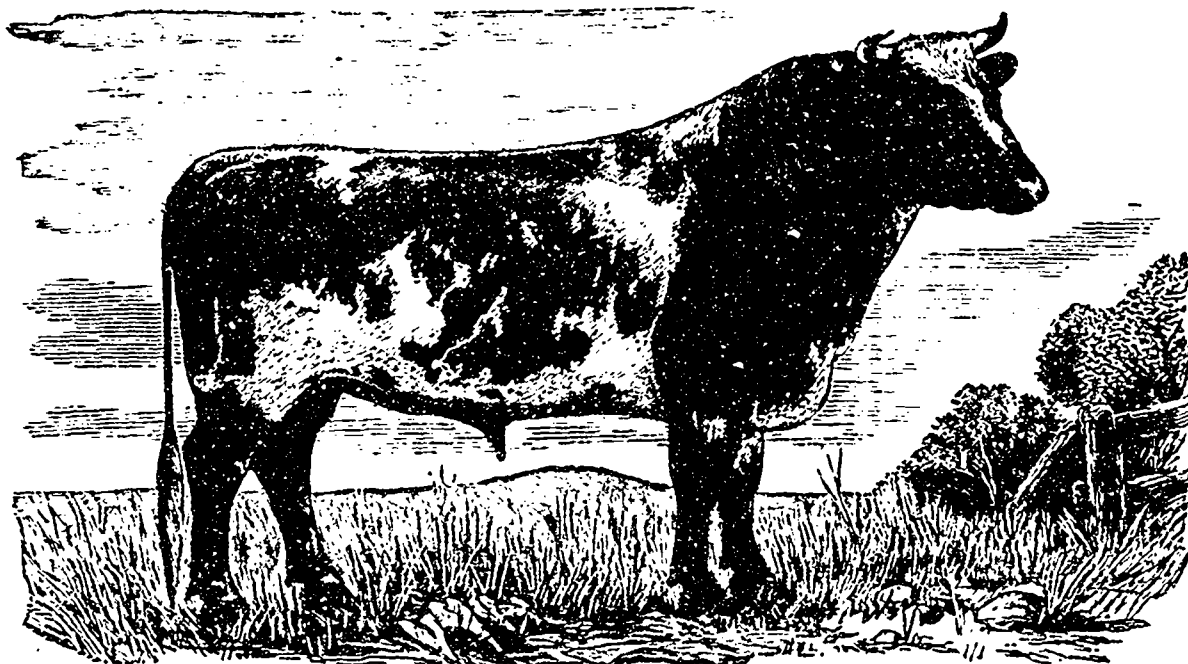
Colts and young horses that are, owing to their

of the soft parts, after being drilled for a few days. This liability is hereditary, and in such stook these breaks can only be averted through the most careful, early, continuous, and prudent drilling.

No loud-talking man, merely because of being able to hold the colt to the track, and rub him dry after exercise, is capable of measuring what strain is and what is not safe to be put upon the mainly untried limbs and wind of the immature and heretofore insufficiently drilled horse. The fact that the colt has been permitted to get considerable growth, affords of itself no guarantee against injury when put upon the track. The limbs and joints that get size under confinement are soft, and the attachments of muscle and ligament to the bones are in a degree insecure and liable to rupture. The colt that is considered too valuable to often go outside of his carefully-bedded box, except now and then to be led up and down the alleyway, will be badly prepared for track work when he arrives at the age of supposed usefulness. The well-bred youngster is merely a machine, possessing capabilities that are not found in the low-bred colt, but these capabilities consist, in quite a degree, in the capacity for

upon which the strain comes must be made to grow in strength, size, and firmness before they can be safely put under severe and continuous strain. No one thinks it possible to breed acrobats and gymnasts to order, as we essay to breed trotting colts. Of course, the acrobat, like the colt destined to be a trotter in the future, is expected to have a favourable formation. But bear in mind that horses of all shapes are said to go fast. All acrobats as well as all horses have each a like number of muscles. These muscles are similarly attached, both at the principal and at the tendinous end. But the power of each depends (1) upon its size; (2) upon that innate quality which we cannot see or measure, except by results—this we will designate as the fruits of high breeding—and (3) upon exercise, and in this third division there is much to be brought out.

Some one is quoted as saying that early in 1900 a horse will make his mile near down to two minutes. We do not doubt this, and possibly we have as good material to get this low-down speed out of him now as we will have then. Do we not err in waiting for the colt to come to the speed? Should we not make a more vigorous effort to bring the speed to the colt? The young deer is



AYRSHIRE BULL.—"HANLAN."

Calved March 2nd, 1880. Bred by Messrs. Jardine & Son, Hamilton, Ontario. The property of William W. Macalister, Stony Mountain, Manitoba. Got by Mars First [803]; Grandsire Abbott [804]; Dam Orphan Lass, 565, by Nelson [438]; grandam Ayrshire Lass, 439, imported by Messrs. Jardine, July 20th, 1872, from Ayrshire, Scotland.

high breeding, considered to be too valuable to bear any rough treatment, are, like the children of well-to-do city folks, too tenderly kept, in view of the fact that they are expected before half mature—that is, counting maturity to come at seven years—to undergo violent exercise upon the turf. The training that a colt gets just upon the eve of having sufficient age, as his owner thinks, to win some money, is well enough if the drilling is entrusted to competent hands. But the drivers who do this preliminary work are usually somewhat reckless. They are at least careless. If they were to change places with the colt, they would soon realize that muscle and ligaments, comparatively unused, when put under new exactions, are liable to become sore, and equally liable to become so strained that puffing, from rupture of minute fibres, with added effusion, are quite likely to occur. Hence we see so many young things fall under trial upon the track through want of previous fitting. The joints, muscles, ligaments, and tendons are, so to speak, soft, and hence entirely inadequate to stand the work finally demanded of them. The get of some horses, and the produce of some mares, are especially prone to having trouble upon some portion

development under training. If we can, by a judicious system of manipulation, enlarge the joints, ligaments, and muscles of the colt bred for speed, as is the arm of the smith by habitual use, without endangering the trunk or materially increasing his weight—retaining his natural capacity to go, and adding to this by developing, and thereby strengthening and toughening, the parts that are mainly instrumental in giving speed—then we will not only get the outside limit of his speed capacity, but we will secure immunity from being easily strained.

Twenty-three hours out of the twenty-four in the box, with perhaps a portion of the time spent in a quiet walk about the grass lot, will not fit the anatomy of a young horse to stand up to hard work on the training track. Any competent veterinarian or anatomist can tell you this much. The thorough gymnast only reaches his capacity to stand extraordinary strain upon the parts involved after persistently putting the parts under careful yet severe tension (not under the direction of an ignorant person who is quite likely to look upon the leg of the colt as about as simple in its formation as a hickory sapling), under a competent trainer, who fully understands that the parts

taught to reach out beside its dam, and soon equals the dam in speed and bottom. If it were kept seven-eighths of its time in a padded box, the other eighth being devoted to gentle exercise, we would in a little while have wind-puffs and blood-spavins upon the deer if put to the top of his speed. We would not secure the development referred to by idleness in the box, neither by track-training while yet a colt; certainly not as a yearling, and very cautiously and lightly in his two-year-old form. Not much less so as a three-year-old, but instead, the groom, in place of lying idly in the shade, should mount a suitable horse, and take by the halter one colt, or three or four, giving them, not rods, but miles of walking exercise, once or twice a day, in all suitable weather. This should be increased to a jog as the colt gets age, thus adding daily growth and firmness of joints, muscles, and ligaments.—*Country Gentleman*.

Every bull bred upon the Island of Jersey, or that can be traced to Island breeding, is entitled to registry. But it does not follow that his better record is good, or amounts to anything at all.—*Live Stock Indicator*.

HEREFORD BEEF IN LONDON.

The *Mark Lane Express* of London, England, alluding to a statement made in our columns by an English correspondent, says:—"A Shorthorn breeder writes to one of the United States papers stating that the London salesmen say they cannot sell Hereford bullocks. No wonder this Shorthorn breeder does not give his name. The only difficulty the London salesmen experience with regard to the Hereford bullocks is in getting as many of them as they want in the season. As grass-fed beef, there is nothing that comes into London that can touch the Herefords."—*Breeder's Gazette*.

The following appeared in your last issue copied from the *Mark Lane Express*.—

"The only difficulty the London salesmen experienced with regard to Hereford bullocks is in getting as many of them as they want in the season. As grass-fed beef, there is nothing that comes into London that can touch the Hereford."

This is stating the case rather extravagantly, but we have not quoted it here for the purpose of making any question in regard to the excellence of the Hereford as a grazing beast, but to direct the attention of those of your readers who are not familiar with British Markets and British methods in grazing and feeding cattle, to a few points essential to a correct understanding of such paragraphs as this. It is said that salesmen find it difficult to get as many Hereford bullocks as they want "in the season." Now it is to be observed that Scots, Herefords, etc., are always looked upon in the markets as grass-fed beasts, while Shorthorns of all grades are in the market all the year round.

In the next place, it is to be observed that grass-fed beef, in proper condition, is always of better flavour than the stall-fed, and this is especially the case in Great Britain where turnips and cake are chiefly fed, which, as is well known, impair the flavour of meat, as they do of milk and butter. Besides, the Scots, Herefords, and Devons, when brought fat to the markets in the autumn off grass, have more age than the average of Shorthorns, which may be profitably fattened on artificial foods at from twelve to twenty months. Now, cattle killed at those ages make beef that is relished by many as being exceptionally tender, while it lacks the rich juiciness and high flavour that would be found in the flesh of the same cattle when fully matured and made up on grass of the highest quality. Hence we find upon the estates of wealthy gentlemen in England, select lots of bullocks being grazed to full maturity, to furnish a supply of beef for the holiday season. These bullocks are frequently found grazing in the parks with the deer. In winter, in very severe weather, they are sometimes allowed a little hay, but are never fed turnips or cake.—*Breeder's Gazette*.

MAMMOTH STOCKMEN.

From the Standard Oil Company and W. H. Vanderbilt down, the heavy capitalists and combinations of heavy capitalists are engaging in the live stock business, and from day to day we hear of sales of stock and ranches aggregating large sums, made to rich capitalists or companies native and foreign. It is not with unfeigned pleasure we note this invasion of combined capital into this vast and profitable field of agriculture. Heaven knows the words "capitalists," "combinations," "syndicates," have become well-nigh synonymous with schemes for ill-gotten wealth and the crushing out of all smaller competitors, and already that audacity and defiance of law so characteristic of many of these great concerns has been exemplified by the Standard Oil Com-

pany and others in their stock operations. However, it is a case of "What are you going to do about it," and in the meantime our general farmers must see to it, so far as the means at their command will permit, that their stock shall be steadily improved. Perseverance on the part of every farmer in the matter of breeding to a higher standard every kind of stock from his horses to his pigs, like persistent care in the selection of his seed, will very soon show its good effects upon his pocket. Many farmers raise a couple of colts every year. A little breeding up would soon make these colts worth \$50 more apiece at four years old than they are now. The same care persisted in with regard to all the stock products of his farm will in ten years time make all the difference between affluence and penury in many a man's case. We are writing now of the average hard-working farmer who is carving out his own fortune in the west.—*Farmer's Review*.

HOLSTEINS AS BUTTER-MAKERS.

A correspondent in *Country Gentleman* says:—"The Holsteins are fast coming into prominence as the greatest milk and beef breed. But the fact that they are also among the largest butter-makers is not so well known. Breeders have paid more attention to milk production than to butter, and comparatively few tests have been made. Those that have thus far been published seem to show that the Holsteins are destined to become as famous for butter as they already are for milk and beef. I have figures at hand of a few tests of thoroughbred cows and heifers, which I give in the table below, all of which I believe to be reliable and correct.

TESTS FOR SEVEN DAYS.		
Name.	Yield.	
Netherland Queen	20 lbs.	0 oz.
Jannek	19	15
Zwarts	19	4
Lady Walworth	19	0
Aegis	18	2
Altona	17	14
Texelaar (six days)	17	14
Paula	16	12
Aegia 2d	15	8
Violet	15	6
Vesta 2nd	14	12
Netherland Princess	14	11½

TESTS FOR ONE DAY.		
Name.	Yield.	
Frieda	8 lbs.	4 oz.
Chautauqua Girl	8	8
Groningen Maid	2	18
Mink	2	9½
Aaggie	2	8½

TESTS FOR SEVEN DAYS OF TWO-YEAR-OLD HEIFERS.		
Name.	Yield.	
Aaggie 2nd	13 lbs.	6 oz.
Ophelia	13	5
Orisna	13	3½
Georgia	12	2
Isadora	10	13½
Netherland Countess	10	4

If owners of thoroughbred Holsteins will make careful tests for seven days and send the results to me, of all cows giving fourteen pounds or over per week, I will be glad to publish them in another table later in the season. I believe we can produce a list of butter cows from our Holstein beef and milk breed, that will rival that famous Jersey butter list of Maj. Campbell Brown, and that it can be shown that the Holsteins are the very best breed of cattle in the world for either beef, milk or butter, or for all combined."

OIL-CAKE MEAL FOR HORSES.

The *Life Stock Journal* says:—"But very few know anything of the value of oil-cake meal for horses. Its use in fitting fine bred cattle has long been common and its value fully appreciated. The same can be said of swine, for no food will cause a pig to gain and put him in show

condition so speedily as oil-cake meal, giving him a glossiness of coat not obtainable so well in any other way. What oil-cake will do for cattle and pigs, it will do equally well for horses. A horse appearing to be bound up, as this term is understood in the stable, can, by the use of this feed, be relieved of this condition as promptly as by turning out to grass, involving none of the contingencies which attend the latter, the full strength and vigour being maintained in the meantime. Nothing so quickly improves the coat of a horse, as the use of a little oil-cake incorporated with his feed; while turning out to grass in sun and rain fades and roughens the hair in a week's time. In addition to this, oil-cake loosens the bowels, the degree to which this is done being entirely under control, while the effect from a run on grass is entirely a matter of chance."

AN INTERNATIONAL EXHIBITION.

At the International Exhibition just held at Hamburg, the show of cattle was confined almost exclusively to the breeds of Northern Europe, and the following extract from the correspondence of the *London Live Stock Journal* is interesting, as showing the relative strength in which they were represented:

The entries in cattle numbered nearly 1,000, although many stalls were empty, and these were divided among 140 classes—one of which was for a collection, and this was a most remarkable class, and contained about 250 specimens in 82 entries, so that there were considerably over 1,000 head exhibited. The Marsh breeds of North Germany commenced the list, and here we had 62 East Frisians, cattle of good size and quality, rare udders, capital heads, and chiefly black-and-white and grey-and-white. Then came 180 Oldenburgers, a smaller race, with straighter horns and less symmetrical form, being heavier in the fore-quarters and narrower behind the hips. They are, however, similar in colour, and carry capital udders. A slashing class of 172 Dutch followed, some of them being attended by Dutch women in native costume. These were one of the grandest lots in the exhibition. Their fine size, milking properties, fine coats and condition, and uniform quality, made much impression, and it is a decided disadvantage that we cannot import them for our dairies. In the next section were 58 Nilstermarshers, a Holstein race, a medium horned, thick-skinned, red-and-white, decidedly fleshy, but yet coarse beast. The Breitenburgers, also Holstein cattle, were 79 in number. These are a short straight-horned, fleshy beast, of a dark-red flecked with white, and appeared to be favourites with many.

The next division was for herds kept in the higher lands, and the above races here numbered but 18, but the Angeler, the famous little Danish race, came out with 62 entries. This breed is one of the best milking races we know; small, and almost as fine as the Jersey, it is carefully bred to type and colour, and has every characteristic of a good dairy animal, being, moreover, most gentle and a perfect fancy cow. The colour is a deep smutty red, and we know of no animal of the size more likely to come into popular favour when it is better known. There were no entries of Jutland beasts, but the next group furnished 88 specimens of less known races, which need no mention.

In reference to the query: Does cold retard gestation? a friend writes from Hawley, Minn., that after the not severe season of 1881-82 his cows "all came in on time, but after the very cold weather of last winter they all ran over about two weeks."

SHEEP AND SWINE.

FEEDING YOUNG PIGS.

A correspondent, writing to the *Breeder's Gazette*, says: In the problem of feeding there are so many unknown quantities that the majority of feeders of pigs go by guess. In the absence of a thorough knowledge of the feeding values of the articles used for feed, it is not strange that we find many amusing prejudices among raisers. It is a fact, however, that many of our most successful feeders and breeders know little about the chemical constituents of the feed they use, or of the formulas arrived at by science in arranging a perfect ration for pig, horse or steer.

Not one housewife in a thousand of the many good bread-makers can give any reason for the action of the yeast on the dough, and, perhaps, never heard of carbonic acid gas, and, surely, never thought of the part it plays in making the bread light. Like Widow Bedotte, these feeders of pigs and makers of bread go by their judgment, and none can be successful at feeding pigs or making bread who have not what an old lady calls "good judgmental sense."

An Irish neighbour, speaking of his success at pig feeding, said, "A man must look at his pig frequently. Yes, no pig will do well unless you look at him frequently." A rushing, busy neighbour, who never took time even to count his pigs, but pitched them their corn and hastened away to his work, was always complaining of his bad luck with his pigs. His next neighbour, however, had fine success. When he went to feed he first saw that the trough and feeding-floor were clean, and then looked over his pigs to see if they were all there. If one or more were missing, he spared no time in seeing what the matter was and where they were. The laggards found, and his pigs all at the table, he put in the slop, always careful that it was not too sour or that it varied little from what he usually fed; and he then enjoyed seeing how every pig pitched in for its share. When they were called for the corn he had time to get in among them and spread the corn out so all could get it readily, without crowding and fighting for it. He even had time to rub the backs of a few favourites, and to stand and look at them eat. His neighbour, commenting on his laziness, said, "B. would hang on the fence a half-hour looking at his pigs eat; and he did this three times a day, yet he always has good luck with his pigs, and I know he don't feed so much as I do."

This circumstance illustrates about the same principle in the Irishman's plan of "looking at them frequently." The successful feeder likes to feed, likes to see them eat, and likes to keep things in order about the pens and feeding-floor, that the pigs may enjoy what they eat; and when that is eaten he loves to see them find comfort in cool shade, or to bathe in a clean stream, if he can have it so. Like a great hog raiser, who is most successful in raising, feeding and selling pigs, and has a choice boar's quarters in the corner of a nice ten-acre meadow. "Well," said the writer to him, "Won't that hog damage a great deal of grass?" He replied, "Oh, yes, he may muss it up a little; but there is nothing too good for a hog." He wanted that hog to do without grain; yet he wanted him to keep up in flesh, as his customers saw him whenever they came to the farm to look at his fine pigs. The old farmer felt the hog would pay him for all the grass he damaged. His pigs would be the better the next season, and his fine glossy coat would commend his get to every buyer.

In this case the successful man was securing comfort and abundance of the very best feed for that much-prized boar. Good care and good feed are essential to best success in handling pigs.

Generous feeders are not always wise in the rations furnished. Some overdo the business, and by lavishly feeding young things with only fat-forming feed, as if fattening for the butcher, get the pigs out of condition, and fit subjects for disease. Unless the pigs thus fed are disposed of at an early age, they will likely go back or get out of condition when they are exposed to some unavoidable extreme of heat or cold, or drouth or rain. Once set back, it is almost impossible to bring such pigs or calves back to profitable growth. Had the young things been fed more than mere fat forming feed, and bone and fibre had developed in keeping with the fat put on, vigour and health had been established so that they would have passed through the tax imposed by change of weather and rallied at once, or not have shown any check in growth.

SHROPSHIREDOWN SHEEP.

Comparatively little is known in America of the Shropshiredown sheep. They have been justly styled the "sturdy champions of the medium class." The old favourite, Southdown, has had the monopoly as a mutton sheep, but must divide the honour with the Shropshires. They are not so large as the Oxforddowns, but carry a finer fleece, and are superior as a mutton sheep: indeed, it is asserted that the quality of their mutton is equal to that of the Southdown. The Shropshiredowns are now the popular sheep in England and Scotland, and are becoming quite popular in Canada. They are hardy and prolific, and we find them to be extra good nurses. The average weight of a flock of breeding ewes will be from 140 to 160 pounds, and in good condition should weigh 200 pounds, more or less. Aged rams will weigh 250 to 300 pounds in good condition. A flock of store and breeding ewes will shear from six to eight pounds of wool. The fleece is close and the wool fine, and from five to six inches long. Some say that the fleeces are heavier, but we seldom obtain over eight pounds, except it is from a well-fed dry ewe, or a ram.

The true Shropshire should have prominent hazel eyes, rather thick, short faces, hollow in the forehead, and broad between the ears. Dark brown faces and legs are preferred as a matter of fancy, though black or even mottled faces do not indicate impurity of blood. We added to our flock this season a pair of shearling ewes, which took first prize at Norwalk, England, last fall, and their faces are very dark, almost black, and they have black legs. Longevity is a marked characteristic of the breed. We find them much hardier than the long-wooled sheep which we have bred for many years, and the crop of lambs has been at least forty per cent. better, all having the same feed and care. This breed of sheep has spread throughout Great Britain very rapidly within the last ten years. They prove valuable to cross on the white-faced ewes, improving the quality of both wool and mutton.

THE CHEAPEST TIME TO MAKE PORK.

R. F. asks if a full diet of grass in summer and a full diet of grain in the winter is not the cheapest plan for making pork. This, he thinks, would cost very little in summer, and the chief expense would come in winter.

The chief mistake in this idea which is very prevalent is, that it gives a period of comparatively slow growth, at the very time when the growth should be the most rapid. Grass is a very important food for pigs, and should always be given them in the season; but to let the pig live wholly upon grass is to put it back to the old slow-going condition of nature in the most favourable season for rapid growth. The skilful

feeder should make the best use of his opportunities, and when the temperature is mild it takes so much less food to generate animal heat, and the extra food will produce so much more gain than in cold weather, that every consideration of economy requires that some concentrated food should be given in addition to the grass. The only really profitable pig-feeding requires judicious full-feeding from birth till time of slaughter. One hundred pounds of grain, fed in summer on grass, will produce as much gain as two hundred pounds fed in winter. All this difference is made up in temperature. Pigs do not require heavy feeding in summer to produce a larger gain than they can make in cold weather. A half ration of grain is quite sufficient in summer, and this smaller grain ration will pay twice the profit, according to quantity of that fed in winter.

It would thus appear that with a full ration of grass should be given grain enough to produce rapid gain through the summer, and thus will require much less feeding in winter to reach the same weight. The cheapest way to make pork is to feed full every day of the pig's life until sold. It is very expensive holding pigs with slow growth in the most favourable season—the summer—and then making it up in the most expensive season—the winter.—*National Live Stock Journal, Chicago.*

TAGGING SHEEP.

The attention that sheep get when their products are high is thought by many to be labour thrown away when such products are low. This is wrong. The lower the price, the greater the necessity for placing a good article before the market. I have found tagging the sheep at this time of the year a paying operation. I tag all of them. Tags taken in February and March sell for more than half price. Taken after the sheep have been on grass, they won't sell for anything. Taken off now there will be quite an equal clip as if left on, as the sheep will do enough better to add that much to the weight of the wool. Two hands can make light work of it. My plan is to turn a box, or make a platform, about two and one-half inches high, and large enough for one sheep to lie on. Lay the sheep on its back, and let one hand hold the hind legs, while the other shears where the manure would collect, and the bags of the ewes, and a little from the belly of the wethers. Ewes with lamb must be handled carefully; and all sheep ought to be. In a full-blood Merino flock I find it sometimes necessary to shear around the eyes of the ewes to enable them to see their lambs. Neglecting this tagging job often leads to serious results. Worms will get on to many of them before shearing time, and in large flocks I have known many lost.—*Rural World.*

A WIRE FENCE FOR SHEEP.

The difficulty of making a barbed-wire fence to confine sheep is well known. They will crowd through small openings, if they have to leave their wool on the barbs. The following successful experiment was performed on a large sheep and cattle farm: The fence was first made of three barbed wires placed about the usual distance, with a ridge of earth banked up a foot high or more as a visible barrier. But the sheep were not deterred by this insufficient fence, and they crowded through between the two lower wires. Two common, smooth and cheap wires were then added, by placing one on each side of the lower barbed wire. These smooth wires, although insufficient of themselves to check the animals, operated by crowding their heads against the neighbouring barbs, and the attempt to pass became fruitless.

THE DAIRY.

HOW AN IOWA DAIRYMAN MILKS.

As an example of what absolute cleanliness in the dairy means, we take the following from *The Dairy*, contributed by an Iowa dairyman:—

"It is said that it is as hard to be clean as it is to be good. Well, I think it is not hard to be good, even for a dairyman, if he only does as he would be done by, and just as easy to be clean. This is my way. At five o'clock I am in the cow stables. The feed prepared the night before is put in the feed boxes, which are first cleared of all remnants of former feed, and, if sour, they are scoured out with water and a broom. While the cows are eating, they are thoroughly carded and brushed as well as any well-kept horse, and all over from head to switch. The udder is sponged if necessary, and wiped with a clean towel and not a dungy rag. The gutters are all cleaned out, and the stalls; a common road broom being used to finish after a broad scraper, which draws the manure down to the trap door into the cellar. The floors and the gutters are then littered well with sawdust, when we have no straw. For fifteen cows this takes an hour. Then I go to breakfast. At half-past six the cows are milked, each milker has overalls made of striped ticking, with which he can milk in his Sunday clothes and slippers if he likes, and any lady can go in with a silk dress on and not hurt it. As the milk is drawn it is strained at once into the deep pails that stand on the platform and are kept covered; the milk pails have strainers, and a double strainer is kept in the deep cans, so the milk goes through three strainers. But this is not really necessary, as I would cheerfully drink a glass of milk direct from the cow as I milk it. But out of consideration for my customers who buy my butter and milk, I put the milk through three strainers. As soon as the deep pails are full, they are closed and carried to the milk house and handed to the person who sets the milk in a pool or the creamery, or, if it is put into shallow pans, strains it once more. Now, there is nothing hard to do about this. It is so easy after having begun it and got into the way of it that it would be hard to stop it. And I don't see how it is easy to be cleaner than we are in our dairy."

LIMITING THE FLOW OF MILK.

The highest profit in dairying comes from large yields of rich milk. This being settled, it is sometimes taken for granted that the larger the yield the greater the profit will always be. A large production of milk is certainly a good thing, but it is possible to strain production so hard as to get too much of a good thing. There is a limit to which the flow of milk may profitably be carried. If the secretion is crowded too hard the product becomes vitiated. It will become more watery and will decay sooner. It will contain more fragments of undissolved tissue, the result of excessively rapid decomposition and waste of the substance of the milk glands. There will be more foreign matter in it in a solid form, and there will also be a more frequent sprinkling of blood globules. Scattering globules of blood are of frequent occurrence in large yields of milk, and the larger the yield the more numerous they are apt to be. In cases of very excessive production they can frequently be detected in the bottom of the vessel after the milk stands awhile, as being heavier than the milk they settle to the bottom. Occasionally, at the last end of a milking, the blood will

follow out nearly pure. When this extreme has been reached the secretion is too large, and it may be remedied by leaving back a part of the milk at each milking, till the flow dries down to an amount the food and the vigour of the cow can sustain. Then the severe strain on the mammary glands which excessive production occasions wears them out prematurely. By becoming overdone and debilitated, they become subject to injury and disease from slight causes, which would be safely endured by organs more healthy and vigorous.—*National Live-Stock Journal*.

BUTTER-MAKING A FINE ART.

I look upon butter-making as one of the fine arts. No man or woman can make good butter without the sensitiveness of good taste to recognize what constitutes the excellencies of butter. A's butter comes to me, and I sell it for twenty or twenty-two cents a pound; B's sells a little higher; C's higher still; while D's brings thirty cents regularly. I have been in dairies where the flavour and working of the butter were excellent; but it goes down into the cellar and stands several weeks before it is sent to market. There is a hole in the cellar wall where the air constantly enters; the temperature is constantly changing, and the butter changes, too, or gets tainted. If farmers will make their butter well, then put it where it will keep; it will do much better in the end. Perhaps the soil of a man's farm is low, springy, and wet; then the feed will be sour, and you cannot get nice butter out of that, either dairy or creamery. The flavour of the butter depends largely on the flavour of the feed. In order to make fine butter in the winter-time, the utmost cleanliness must be observed; must wash the cow's udder in warm water and dry with a cloth. If the atmosphere is bad, your milk will be tainted. It depends upon circumstances whether it is safe to set your milk down in an improperly cleaned or an improperly ventilated stable. As soon as the milk comes to the exact temperature of the surrounding air, it absorbs the impurities therein.—*Austin Belknap, President of the Boston Butter, Cheese, and Egg Association*.

FEED AND YIELD.

"With many breeders it has always been an open question which is the better for producing butter—breed or feed. In other words, can the cow be made to greatly improve in the quality of her milk by giving her richer food? We say practically this cannot be done. The only truth there is in it is that by many years of diligent work a cow may be made to increase the butter yield of her milk in a small degree only, and she may transmit this quality to her offspring, and if the rich feed is continued the characteristic of yielding rich milk may be set in the breed or family. This, we presume, is the way in which the Jersey breed was originally created. But the idea that a Shorthorn can be made to yield Jersey milk or a Jersey be made to yield Shorthorn milk, by simply changing the feed on them, is preposterous. It has been tried over and over again with no perceptible degree of change. To be sure, many loose experimenters, and the woods are full of them, have proved that a cow will yield more butter on rich feed than she will on poor feed, but she also gave a much larger quantity of milk at

the same time. The point is that the character of the milk is not changed so far as butter yield is concerned.

"The wisdom of nature's provision against this change is seen when your attention is called to the fact that should a cow change the character of her milk every time she got hold of rich or poor feed, the calf's stomach would be in a constant state of eruption. You may spoil the flavour of the milk by feeding the cow on turnips, cabbage, or onions, but this would have no bad effect upon the calf. Fright or distress will greatly change the quality of her milk, and its effect may be readily seen on the calf, or especially on young children when fed to them. The doctors say nothing can be more injurious to a nursing babe than a sudden and overwhelming grief to the mother as an accident or sudden death in the family. The young animal requires a food of uniform quality, except that it may, as it does with the cow, get richer and richer as the cow advances from parturition and the calf becomes older and stronger so as to require and profit by drinking richer milk. This gradual change is in conformity with the requirements of nature, while sudden and abrupt changes would work great mischief, which is contrary to the law of nature."

TEMPERATURE FOR MILK.

The following experiment, if it does not prove, certainly tends to show, that a low temperature is desirable in deep setting. In each case the milk was skimmed in twelve hours:

Milk, 200 lb.; Cream, 44 lb.; Butter, 10½ lb.; Temp., 40°.

Milk, 200 lb.; Cream, 23 lb.; Butter, 9½ lb.; Temp., 50°.

In this case ice was used to regulate the temperature, and it could not be kept precisely at the figures given.

The same principle does not apply to setting milk in shallow pans—let some philosopher tell us why. In setting milk in a warm room during the winter months, it is well known that the pans upon the higher shelves will give the most cream.

DON'T USE WOODEN VESSELS.

We have always been opposed to the use of wood in the dairy, such as pails, covers to milk pans, and even churns, if it can be avoided. If one of these wooden instruments has been in use in the dairy for a year or two, on a hot day you should take a good smell at it and you will be surprised to find what an old, funky odour there is about it. Crockery ware is not much better, and it has the further objection of being heavy and brittle. Tin or galvanized ware is the only proper material to come in contact with milk, and should not only be thoroughly washed and dried with a cloth, but should be subjected every day to the cleansing power of a jet of steam.

THE editor of the *Dairy* thinks that soiling must of necessity become the common practice on land of a high value. To draw a line, as must be done somewhere, he thinks land worth more than \$20 per acre should not be used wholly for pasturing. That if one cow can be pastured on five acres at this value, then it is clear that one cow should be kept on one acre worth \$100.

THE practice of farmers, who take their milk to cheese factories, of carrying home whey in their milk cans is strongly condemned by an eastern journal. The sour whey contains not only the germs of acidity, but the peculiar ferment of the rennet, which, unless more care than is usual is taken to cleanse the cans, will contaminate the milk when filled again. A barrel can be used for carrying whey, and all danger from this source avoided.

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The Rural Canadian.

TORONTO, SEPTEMBER, 1883.

THE FRUIT-GROWERS' ASSOCIATION.

The summer meeting of the Ontario Association was held this year at St. Catharines on the 30th and 31st ult. About fifty members were present, and the discussions were of an interesting and instructive character. The subjects related chiefly to the best methods of cultivating fruits, and the most profitable varieties for marketing. The opinion was almost unanimous in favour of the proposition that fruit-growing pays in Ontario; but with the qualification that varieties must be chosen with regard to localities, and that skill and knowledge are required in planting out and caring for orchards, gardens and vineyards. It was shown that more money may be made of one or two acres in currants, gooseberries, raspberries and blackberries than many farmers in the Province make of their hundred acre farms. The same remark is true of apples, as instance a statement made by Mr. J. P. Williams, of Bloomfield, Prince Edward county. Mr. Williams has an orchard of twenty acres, and he has already this season sold two hundred barrels of the Red Astrachan variety in the Montreal market at prices ranging from \$4 to \$5 per barrel. With a full crop of apples he would realize at average prices about \$3,000 from the produce of his orchard, taking one year with another. This is very encouraging to fruit-growers, and with the fine soil and climate of many portions of Ontario, there is little doubt that fruit-growing might be conducted profitably on a much larger scale than has hitherto been attempted. This is especially true of the Lake Erie counties, and since the United States Congress has placed fruits on the free list—the amended tariff went into operation on the 1st of July—their opportunities have been widely extended. The canning industry is also a great boon to fruit-growers.

NOXIOUS WEEDS.

Much has been written on the subject of dirty farming, but obviously much more must be written and done before satisfying progress is made in cleaning farms of their noxious weeds. The Canada thistle is perhaps the worst of these, and it seems to be steadily spreading over the face of the whole country. Yet it is not a difficult task to kill off the Canada thistle. A good summer-fallowing of the ground, followed by a thick crop of clover, will usually exterminate it. Clover is indeed a fell destroyer of noxious weeds, especially the Alsike if sown in a suitable soil. But the trouble is that a great many farmers either don't know how to deal with this pest, or are too negligent to grapple with it. Instead of seeding the infected ground with clover, they either abandon it to the thistle or put it under a grain crop. The one is about as great a mistake as the other, and with a new crop of seed ripening every season, it does not take long to cover an entire neighbourhood. The downy seeds are carried by the winds for miles in every direction, and so it comes that the good farmer is made to suffer for the carelessness of the bad. It is true that there is a law to prevent the spread of Canada thistles, but unfortunately it is too generally a dead letter. And the reason of the law's failure is this, that there is no proper system of inspection. The overseer of highways may be anxious

enough for his own sake to check the evil, but he is naturally averse to prosecuting his neighbours in the courts, or to enter upon their lands and destroy the thistles at their cost. What seems to be necessary is the appointment of one inspector for a township, whose duty it shall be to rigidly enforce the law. Nor should the operations of the law be limited to Canada thistles. There are many other weeds hardly less injurious, among them being wild-mustard, ox-eyed daisy, wild oats and rag weed. A law that would apply to these and all other noxious weeds, as well as black knot and any other contagious disease affecting fruit trees, would doubtless do much good. But in any case it is useless to continue the plan of inspection by the overseers of highways. One official for a township—and his appointment should be obligatory on every Council—would give more satisfactory results. Clean farming deserves to be encouraged and protected.

MARKET PRICES.

The prices of grain, the produce of this year's crop, are not yet definitely fixed. The coarse grains especially barley and oats, are not likely to go much higher than they now are, the yield being large and the quality fair. Corn is likely to increase, for both in Ontario and in the United States, the product is almost certain to be considerably less than last year. But, with respect to wheat, it is difficult to make any safe prediction. It has been known for some time that the yield is short of last year's by many millions of bushels, both in Europe and America; and yet the market continues sluggish and prices almost unchanged. Trustworthy reports show that in Ontario the deficiency this year, compared with last year's crop, is 14,000,000. In the United States it is less than last year's by fully 70,000,000 bushels, in England by 11,000,000 bushels, and in France by 80,000,000. In Russia also the fall wheat is a failure, and it scarcely reaches an average in Germany and Austro-Hungary. These figures show a total deficiency, compared with last year's crop, of 175,000,000 bushels. With such facts known to the world it does seem strange that the price of wheat should not advance. It may be, indeed, that there is an uncertainty as to the actual produce, or perhaps that the large dealers are "bearing" the market with a view to future operations. We shall be surprised, however, if there is not an upward movement in the course of the next six weeks. The results of the thrashing season will soon become known, and from information which is now reaching us from different parts of Ontario, it is almost certain that the deficiency will turn out to be greater than has been estimated.

ONTARIO CROP REPORTS.

The following is a summary of the report just issued by Mr. A. Blue, Secretary of the Bureau of Industries:—

WHEAT.

The area under wheat this year is 1,676,545 acres, the estimated produce 26,759,439 bush., and the average yield per acre 15.6 bushels, but later returns will probably reduce this estimate. Last year the area under wheat was 1,775,337 acres, the produce, 40,921,201 bushels, and the average yield per acre 23 bushels. The total area of fall wheat sown, as returned by township assessors for this year, was 1,178,289 acres, of which 88,734 are reported as having been ploughed up or re-sown. The breadth of spring wheat sown is nearly the same as last year.

The return made by farmers on the 15th of June showed that they had in reserve at that date 5,453,485 bushels of old wheat, or fully six months' supply for the whole Province. The quantity held by millers and stored in warehouses has not been ascertained, but it is not large.

BARLEY.

The area of barley is less than last year by 91,000 acres, and the estimated produce by 3,670,000 bushels. In the western counties of the Province it was injured by the excessive rainfall of June and the first half of July, and the bulk of it is not a good sample. In the counties of York, Durham, Northumberland, and Prince Edward a large acreage has been reaped and housed in excellent condition.

OATS.

The acreage under oats is larger this year than last year, and the crop is reported to be an excellent one in all parts of the Province. Like other cereals, it is about two weeks later than usual in ripening. The estimated product is 5,626,000 bushels more than last year, and the average yield is nearly 40 bushels per acre.

RYE.

Rye is only moderately good. The winter variety fared better than the fall wheat, but the spring rye was injured by rains and the stand was light.

PEAS.

Peas has been a good crop in the northern and north-eastern counties, but in the West Midland and Lake Erie counties it was scalded or drowned out by the rains. The area is somewhat less than last year, but the estimated produce is 775,000 bushels more.

CORN.

Corn was planted late, and the wet weather of June and July did great injury to it. In some sections of the Lake Erie counties, where this crop is chiefly grown, it was drowned out by the heavy rains, and excepting on high lands its condition at the beginning of the month was generally very poor. The area of growing crop has doubtless been considerably reduced by the unfavourable weather. The bean crop is in a more hopeful condition, as also is buckwheat. The total area under corn, beans, and buckwheat is shown by the tables to be 313,013 acres, against 276,297 acres last year.

HAY AND CLOVER.

The crop of hay and clover is doubtless the largest ever grown in the country, and the bulk of it has been well cured and safely housed. The area was 2,359,521 acres, and the estimated produce 4,127,419 tons, against 1,825,890 acres and 2,090,626 tons last year. It will be remembered that last year the clover was almost completely ruined by winter exposure and spring frosts, which fully accounts for the smaller area and the lighter yield as compared with this year. The second crop of clover was making fine growth at the beginning of the month, but more recent information gives ground to the fear that in many localities the seed will be destroyed by the midge. This new pest is rapidly extending to all parts of the Province.

ROOTS.

Roots made slow progress in the early part of the season, in consequence of the excess of

rainfall, but the reports show that in the last half of July they made rapid and healthy growth. The chief difficulty experienced has been to keep the weeds in check. The area under potatoes is 167,302 acres, against 160,700 last year; and under carrots, mangolds, and turnip 127,198 acres, against 104,569 last year.

FRUIT.

The fruit crop is to a large extent a failure in all parts of the Province. With the exception of plums and small fruit there will hardly be sufficient for home consumption. The trees are, however, in a healthy state generally, and have made a fine growth of young wood. Black knot is rapidly killing the cherry trees, and in some districts the plums trees also. The total area under orchard and garden this year, as collected by township assessors, is 200,846 acres. Last year's return, which was in part estimated, was 213,846 acres.

AREA OF CLEARED LAND.

The area of cleared or improved land in the Province this year is 10,587,688 acres, of which 7,745,627 acres are under field crops, and orchard and garden. Last year the area of cleared land was 10,172,712 acres, of which 7,326,859 acres were under crops, and orchard and garden. It thus appears that, without taking account of flax and tobacco, twenty-seven per cent. of the improved land is in pasture or fallow this year against twenty-eight per cent. last year.

DAIRY BUTTER.

A return of the dairy butter produce of last year shows that the quantity made was 33,442,123 pounds; but a large number of farmers were unable to fill the schedule under this head, and it is probable that the quantity given does not represent more than seventy per cent. of the actual production—possibly not so much.

CREAMERIES AND CHEESE FACTORIES.

There are in the Province this year twenty-nine creameries, or thirteen more than last year. The produce of seventeen of these from the beginning of the season to the 31st of July was 250,908 lbs., of which 217,855 lbs. sold for \$48,146. The number of cheese factories is 628 which is 151 more than the number reported to the Bureau last year. The produce of 262 factories that have made returns for the same period as the creameries was 10,833,507 lbs., and of this quantity \$,431,372 lbs. was sold, realizing the sum of \$903,310. The quantity of cheese on hand at the 262 factories on the 1st day of August was 2,402,135 lbs.

"YOUR PAPER DID NOT COME, SIR."

We recommend a careful perusal of the following plain statement, from a ten-year-old exchange, both to postmasters and to subscribers:

"The uncertain arrival, or uncertain delivery of papers at country post-offices, is often the ground of complaint against publishers and editors. Many of the offices are poorly supplied with conveniences for taking care of papers, no matter with what certainty they arrive. The papers are jumbled into a few little pigeon holes, or piled upon a desk, box, or barrel, to await the call of subscribers—in

the midst of boots, hats, bridles, horse collars, and other coarse wares, which may be called for during the day by customers. Country postmasters, in most cases, being engaged in some mercantile business, many newspapers find their way into some obscure corner, where they are hid for a time from human eyes as completely as if buried in a mountain cave. In comes the man for his paper, and as it can't be found, of course it didn't come. The indignant subscriber consequently abuses the rascally editor, and perhaps calls for pen, ink, and paper, to write a letter of complaint about not sending his paper punctually, when, if the said paper were endowed with speech, it would cry out 'Here I am, squeezed to death behind this box, or under this barrel.' We have seen just such things at many country post-offices elsewhere as in this country. These remarks have no reference to any particular office, but are meant for all where they will apply."

AN EMIGRANT'S OUTFIT.

It is highly satisfactory to find that Englishmen are beginning to fit themselves for colonial life. The only danger is that the outfit may be too elaborate. In a recent number of the *Nineteenth Century*, Major-General Fielding in an article entitled, "Whither Shall I Send My Sons?" expresses the opinion that the average young Englishman should be the master of fourteen different branches of theoretical and practical education before he leaves for the colonies. In the first place he (1) must be a gentleman with the instincts of duty and honour, and with a tolerable knowledge of Latin and Greek. (2) Must know the theory and be skilled in the practice of farming. (3) Understand the breeding, breaking in, and handling of horses. (4) Be able to construct rough timber bridges, dams, tanks, etc., and must be acquainted with elementary statics, dynamics and hydraulics. (5) Know rough surveying and levelling. (6) A fair practical acquaintance with rough carpentering and the erection of that class of buildings used by settlers on the outskirts of civilization. (7) Fair knowledge of seamanship. (8) Principles and construction and use of the elements of natural and chemical science. (9) An intimate and practical acquaintance with all the many arts and contrivances which enable an experienced traveller to exist in health and comparative comfort, where a man ignorant of them would probably fall into ill health and starve. (10) Practical knowledge of cooking. (11) Use of the woodman's axe. (12) The trades of a wheelwright and harness maker. (13) Geology and mineralogy. (14) Thorough knowledge of book-keeping.

This is a pretty elaborate curriculum, and one which, in the main, can be dispensed with without any serious loss to the young emigrant. If he has a good constitution, if he is willing to work, if he is ready to turn his hand to anything, the English emigrant to the North-West cannot fail to succeed. These are the essentials. Latin and Greek, seamanship, statics and so forth are non-essentials, but no doubt they are useful enough provided the young man is thoroughly equipped with the three fundamentals described. General Fielding, however, cannot fully train his sons in England for colonial life; the best training ground is the colonies themselves.—*North-West Farmer*.

HELPFUL HINTS

TO INTENDING EMIGRANTS TO THE NORTH-WEST.

George E. Walker, an English immigrant who recently settled near Fort Ellice, appears to be very well satisfied with his lot in the North-West, judging from the following letter from him, which appeared in the *Manchester (England) City News*

of date June 29rd. Mr. Walker appears to have been well satisfied also with the treatment he received at the hands of Captain Grahame, Dominion immigration agent at Winnipeg. His letter is as follows:

FARLANDS, BENSARTH, Fort Ellice,
Manitoba, June 1, 1889.

SIR,—In the hopes that it may benefit a large number of intending emigrants to this magnificent country, may I offer a few suggestions from my own experience, which is recent.

In the first place ask the advice of the Government officials, who are both qualified and willing to give any information before you start. Mr. Dyke, of 15, Water street, Liverpool, is a gentleman of much experience and courtesy, and will give advice how to get here, and the most likely districts to look in. All information is willingly given and gratis. On arriving in Winnipeg, the "contro" of the North-West, by all means at once go to Mr. W. C. B. Grahame, a most obliging gentleman, as I well know from my own experience, having found him a friend in need. He will give definite and reliable advice as to the most desirable locality to examine, will assist in the choice of oxen and implements, and see that the new comer does not suffer from sharpers and general want of knowledge in this country. His practical knowledge and genial kindness have endeared him to many of the present settlers, who would have had to pay heavily for their experience had they not met him. Think carefully over the advice he gives, and then take it! Make up your mind to go in one particular locality, after careful inquiry, and then go. Do not waste your time and money in thinking you "will do better" after you have found a reasonably good place; or after you have travelled many miles and spent many dollars. You will return to it in time to find out a sharper man already established on it.

Do not be persuaded that all the land is taken up. My own farm was found in a district "already taken up," according to many interested speculators. Do not imagine you can live with a family on \$20 a year, or that you can make enough to keep you, build a house, stable, and the rest, all the first year if you land in the middle of May. Do not bring your wife and children till you have been to get a place ready for them. It is crucially to do so. Do not drink, do work, take care of your health, never forgetting that cleanliness is closely allied, if not next to godliness, read your Bible, and you will undoubtedly be a successful man. GEORGE E. WALKER.

PROGRESS IN THE COW BUSINESS.

A correspondent writes to a contemporary as follows:—Undoubtedly we do improve in some respects, and it would be a burning shame if we didn't, there is so much chance for it. One very gratifying improvement of late is the prominence given to *milk* in estimating the value of cows.

A few years ago when Durhams, Devons and Herefords were claiming distinguished consideration, their pictures showed fine heads and necks, straight broad backs, the straightest possible hind legs, and a very small tail at the rear end of their exquisite make-up—nobody noticed or cared whether they gave milk or had any place to put it.

It's different now: Jerseys and Holsteins are having their boom, but they don't send round their pictures unless the milk arrangement is about as big as the rest of the body—they may be a little irregular in outline (Durhams never were), their contour may not come up to the aesthetic standards, but a prodigious bag puts everything to rights. This shows progress. We are beginning to take in the grand conception that milk, good milk at that, is the chief end of a cow! Several different cows, now claim to be doing better than any cow ever did before—this is progress of a noticeable sort.

Here we have a Baltimore cow, "Value 2nd," making 25 lbs. 2 and 11-12 oz. of butter in seven days, a Jersey. Others are reported at the same figures. This is four times as much as cows will average. Credit one half to extra feed and care, and there is still a great difference in cows.

BEES AND POULTRY.

WINTER PREPARATION.

Nature provides that the bees shall store their gathered sweets above their brood, in order that the bee just crawling out from its capped cell may find the wherewithal on which to feed; and whenever the weather is suitable the bees may stay on the uncapped brood to keep it warm, but leave it to its fate as soon as it becomes too uncomfortably cold for them to remain. This fact teaches us in what way we should force our bees to place their stores in order to winter with the greatest assurance of safety. I winter on summer stands, and having never put my bees in a special depositary, can give no rules for those who wish to winter in cellars, etc.; but as I have lost but one colony in sixteen years on their summer stands, perhaps my method may be of interest to some who may not desire to take the trouble to move their bees, as they would have to do, to winter indoors.

Nearly all bee-keepers begin preparations too late for wintering. The rule with me is to winter on no more than seven standard L frames, no matter how strong the stock. The stores I cause, either by extracting, or feeding as the frames may be full or empty, to occupy the upper half of all these frames; which gives sufficient stores for the longest winter. Having got the frames in the right condition as above, I, on the approach of cold weather, cause the cluster to occupy one or the other side of the hive, by changing the frames they are on, in order to force them so to do. I then give them about one inch of space in which to cluster, over the tops of the frames, by laying in little strips of pine deal, to support the covering quilt; which quilt I make of light cotton duck, burlap or some other porous material. In the space thus formed between the mat and tops of frames, the bees can cluster, and thus add to their chance for warmth, and also can communicate easily from one frame to another, without obliging us to disfigure the sheets of comb with winter passages through them, after so placing the mat that no bee can possibly crawl up around its edges.

I put on an upper storey and fill it with forest leaves or chaff, pressing it loosely down on the mat. I do not use a chaff cushion, as I find it too compact to allow the moisture generated in the hive to pass off freely. Now a rain-proof cover with a one-and-a-half inch hole in each end covers the bees, and when the entrance is contracted to six or eight inches in length for a strong colony, I consider my bees are safe until the following spring.

I use double-walled and single walled and chaff hives with equal success, and consider that success is achieved more by the manner I prepare my bees, than by the hives in which they are kept. My apiary, I will say, is well protected from wind and storm on the north and west by an osage hedge, and where no protection of that kind is practicable, I think a chaff hive would be an advantage. Much has been said and many arguments made in favour of tall, very tall hives. I think the exponents of tall hives are honest in their belief, although wrong, and have based their faith on unsound principles. That bees in cold weather cluster near the top of the hive as the frames will allow them, anyone can prove during the coming winter, and that the stronger colony will cluster in a space less than eight inches in diameter, they can also prove at the same time.

Now as the bees generate all heat contained in the hive, the problem is simply this: In what form or shape of frame can the bees best economize the heat they generate, when they are at the very top in a cluster eight inches or less in diam-

eter? The answer to me is, one just large enough to contain the cluster, and were it not for the fact that we must have a larger frame than this, I should adopt a frame eight inches square, but it has been found that the hive must be of a certain size in order to give good results, so the problem changes to this form, viz.. What shape or form shall we give to a frame that contains about 144 square inches, in order that a cluster of bees eight inches or less in diameter, shall heat it most economically, said cluster occupying the extreme top part of the hive?

The Rev Mr Langstroth solved this problem to his satisfaction, and to mine, and from the statistics of last season's wintering, I should judge to the satisfaction of the majority of bee-keepers. If there are any who believe still that a tall frame is the warmer under such circumstances, I would advise them to try the experiment of attempting to heat a high room, with a small stove attached to the ceiling overhead. If they don't find a tremendous cold space below, I am much mistaken. With the L frame the cluster reaches from the top to the bottom of the hive. With the tall frame, a space equal to two-thirds the capacity of the hive is below the bees, with cold air constantly coming in at the entrance.

When our bee-keepers forget the traditions of the dark ages, understand that a hollow tree and a modern hive are two different things entirely, and learn to apply science and brains instead of pre-conceived opinions and notions to their business, then will apiculture take a start and go forward with immense strides toward the day when losses in wintering will be the exception, and hardly known in the most rigorous winters of the coldest parts of the world.—*Homes Farm.*

FRESH EARTH FOR POULTRY.

To fowls in confinement fresh earth is just as necessary in assuring healthfulness and vigour as is good food, for the soil in the poultry yards soon becomes packed down so hard and solid as to defy the nails and toes of the birds while their droppings soon foul the earth as to make it objectionable in many ways. In winter as well as in summer, this fresh earth should be liberally supplied, and loam is the best. If there is good sod attached so much the better, as the birds can get some green food as well as fresh earth at one and the same time. As a rule, we have supplied birds in confinement with fresh earth by spading up a little of the yard within their enclosure each day or two, and the way the birds set to and scratch it over is convincing proof enough that they like it hugely. This is well enough the first year, and during summer, or when the ground is not frozen, but when quite a large flock of fowls are kept in a comparatively small space, the soil becomes so impregnated with manure as to be unfit for spading over for the birds, the second or third year, and our advice in this case is to make a new yard and turn the old one into an onion patch. Such a place will raise fine onions, but it must be ploughed well the preceding fall as well as the following spring, to make it as finely broken up as possible. It would be well for some of our extensive breeders to act on this suggestion.

THE POLISH FOWL.

This variety of fowls has not been bred to so large an extent as have nearly all other varieties, and many of our readers are not familiar with this breed nor its merits. There are several different varieties of the crested Polish, though in almost all points, but colour and markings of feathers, they are much alike. The white crested black Polish is better known than any other of the Polish breeds, and there are several breeders

who make a specialty of them. On large farms, or where hawks and other enemies abound, the crested Polish are apt to fall an easy prey to the thieves, as their heavy crests prevent them from seeing the near approach of danger until too late to seek shelter and safety. For medium-sized places, where there are large yards and not any danger from winged enemies, they are desirable and profitable, and especially so where they have to be confined in an enclosure, their range of sight overhead being cut off by their crests, and they thus seldom attempt to fly over a fence of ordinary height—from four to five feet. They are most excellent layers of large eggs, and their flesh is very fine. The black colour of their legs, or rather very dark slaty colour, makes them undesirable for general market purposes, the demand in our large city markets being now principally for birds with bright yellow legs. Under favourable circumstances they are hardy, and produce strong, healthy young. As they do not have any combs to get frozen, Jack Frost does not have much chance to affect them in that quarter, at least. For ordinary farm use we would not recommend them alone, though they are good to run with a flock of others.—*Farm and Fireside.*

BREED CHARACTERISTICS.

One would naturally expect that the larger breeds would outlive the smaller ones, but this is not always the case. These large Asiatics are shorter lived than most of our ordinary poultry, and seem to lose their laying qualities younger than many breeds; in short, they wear out young, but are most profitable while they last. After attaining to about three years of age, they seem to get infirm, take on fat when well fed, and become unproductive, while some breeds, like the Dorkings, are not in their prime till two years old, and keep up their vigour till six or eight years old. Young Dorkings lack the constitution of the Asiatic chickens, but get stronger when full grown. Their principal troubles when young appear to be throat and lung difficulties. After passing a certain stage, they seem to have outgrown this difficulty and become hardy.

Spanish fowls feather quite slowly, and are quite sensitive to wet and cold during their half-naked period. Leghorns, belonging to the same class, feather very quickly, and the browns are remarkably hardy while very young, but are not hardier than most others when adults, being as liable to roup as other breeds. These breeds, having single combs quite large, and large wattles, are peculiarly liable to disfigurement by freezing in cold weather. All the Hamburgs, Games and Bantams are predisposed to roup. The Polish have delicate constitutions, as also the French, of which the Houdans are the hardiest. The Plymouth Rocks, descended from a cross of the Asiatics and Dominiques, seem to have the hardiness of the former against cold added to the general hardiness of the latter.—*Country Gentleman.*

It is said a hen ought to lay six hundred eggs during her life-time. We fear many hens, like most people, fail of their full duty.

DURING his recent visit to the Royal Agricultural Society's Exhibition at York, the Prince of Wales visited the stand which is specially set apart for Canadian exhibits. It was pointed out to him that the Dominion Government were, as far as possible, showing what could be grown in the far North-West, and desired to show its products in order to encourage emigration. The Prince was much interested, and expressed his surprise at the wonderful development of Canada during the last few years, and his regret that at present he was unable to visit it from the pressure of other engagements.

MISCELLANECUS.

JOHN BRISBEN, NOBLEMAN.

Colonel George W. Symonds, in the "Detroit Free Press," says the Governor pardoned John Brisben, a Penitentiary convict, to-day. He was sent up from Bourbon for fifteen years for forgery, and had ten years yet to serve. Our readers are familiar with the history of this case, and the humane action of his Excellency will be generally commended. — *Frankfort (Ky) Yeoman*

I read this little paragraph, and my mind went back six years. I knew John Brisben, and I also knew his twin brother Joseph. I was familiar with the details of the action that placed John Brisben in a felon's cell, and now when the sad affair is brought back to my mind so vividly I must write it out, for never before have I met, in prose or poetry, in real life or in romance, a greater hero than plain, matter-of-fact John Brisben.

The Brisbens came of good stock. I think the great grandfather of my hero emigrated to Kentucky when Kenton's station, between the present city of Maysville and the historic old town of Washington, was the principal settlement on the "dark and blow" ground. He came from Upper Pennsylvania and located about five miles from the Ohio River, on Limestone Creek. He was an industrious, strong-limbed, iron-hearted old fellow, and in a few years his surroundings were of the most comfortable description. One of his sons, Edwin Brisben, once represented Kentucky in the Federal Congress. I think he was the grandfather of John and Joseph Brisben. Their father's name was Samuel, and he died when they were little children, leaving his widow an excellent blue-grass farm and a snug little fortune in stocks, bonds, and mortgages. The widow remained unmarried until her death. Mrs. Samuel Brisben was a good woman, and she idolized her twin boys. Like most twins, the brothers resembled each other in a striking manner, and even intimate acquaintances could not tell them apart. But although the physical resemblance was so strong there was great dissimilarity in the disposition of the twins. Joseph Brisben was very surly and morose, sometimes cunning and revengeful. He was withal a dreamer and enthusiast; a man well learned in books, a brilliant, frothy talker when he chose to be sociable (which was seldom), a splendid horseman, and a most excellent shot. John Brisben, on the contrary, was cheerful and bright, honourable and forgiving. He was a man of high moral principle, intensely practical and methodical, cared little for books and although he said but little, was a splendid companion. He was a poor horseman, and I don't think he ever shot a gun in his life. He saw nothing of the poetry of life, and as for sport, he enjoyed himself only when hard at work. He loved his brother, and when they were boys together suffered punishment many times, and uncomplainingly, that "Jodie" might go scot free. His life was therefore a constant sacrifice, but the object of this loving adoration made but shabby returns for this unselfish devotion.

They were twenty years old when their mother died very suddenly. Joseph made a great pretence of grief, and was so hysterical at the grave that he had to be led away.

John, on the contrary, never demonstrative, took the great affliction with his customary coolness. He said but little, and shed no tears.

The property left to the boys was considerable. The day they were twenty-one years old, the trustees met and made settlement. There was the blue-grass farm, valued at \$50,000, and \$100,000 in well-invested securities, which could be turned into money. Joseph demanded a division.

"You can take the farm, Jack," he said. "I was never cut out for a farmer. Give me \$75,000 in money for my share."

So this sort of division was made. John continued on at the homestead, working in his plain, methodical way, and slowly adding to his share of the money what he could raise out of the profits of the farm. Joseph, with his newly acquired wealth, set up an establishment at the nearest town, and began a life of pleasure of the grosser sort. His brother gave him no advice, for he knew it was useless. Joseph spent his money with great prodigality, and before he knew it he was a beggar. In the meantime, John's \$25,000 had doubled itself. One day Joseph came to him with a full confession of his pecuniary troubles.

"Jack," he said, "I am not only a beggar, but I am heavily in debt. Help me out, like a good fellow, and I will settle down and begin life in sober earnest. With my capacity for business, I can soon make money enough to repay you. I have sown my wild oats, and with a little help I can soon recover all that I have squandered so foolishly."

For an answer, John Brisben placed his name to an order for the \$25,000 he had earned so laboriously.

"Will that be enough, Jodie," he asked, "because I have as much more, which you can have if it is necessary."

"This will be sufficient, old fellow," was the reply. "In two years I will pay it back."

He went back to town, drew his money, paid his debts, sold some of his horses, and discharged several of his servants. Twenty thousand dollars was left out of the loan. He invested this in business, and for a while seemed to have really reformed. John was encouraged to say:

"Jodie will come out all right. He is smarter than I, and in five years he will be worth more money than I could make in a life-time."

In less than three years Joseph Brisben's affairs were in the hands of his creditors, and sheriff's officers closed out his business. Again he turned to his brother for help and sympathy.

"I own that I managed a trifle carelessly," he said, by way of explanation. "Experience is a dear teacher, and the lesson I have learned I shall never forget. If you come to my assistance now I can soon recover myself."

Once more John Brisben placed his name to a cheque payable to the order of his brother, and Joseph entered into business again. In two years he was a bankrupt.

"I shall never succeed in business, Jack," he said. "Help me out of this trouble, and I will live with you on the farm. I shall succeed as a farmer."

It took all of John Brisben's hoard to pay his brother's debts, but he made no complaint, uttered no reproach. He said:

"I am glad you are coming back to the farm, Jodie. You need do no work, and we shall be very happy together."

So Joseph took up his residence at the farm, and remembering his brother's words, devoted his time principally to hunting, fishing, and riding about the country.

In the meantime, John Brisben had fallen in love, and the daughter of a neighbouring farmer, Compton by name, was his promised wife. Being a man of strict honour himself, and having full confidence in his brother, he did not object when Joseph began to pay his affianced very marked attention.

"I am glad he likes her," he thought. "I am so busy on the farm that I have little time for pleasure, and Alice is so fond of amusement."

One night Joseph came to him as the shadows of the evening were beginning to fall. There was a triumphant ring in his voice as he spoke.

"Jack, old boy," he said, holding out his hand, "congratulate me. I think that from to-day I can date the beginning of a new life. Alice Compton has promised to be my wife."

He was too much engrossed with his new happiness to see the effect of this announcement as portrayed on John's face. He did not notice how the strong man's hand trembled in his own.

"Is this true?" faltered John at last.

"Why, of course it is. Are you not glad? We love each other, and shall be very happy."

"We love each other and shall be very happy," repeated John mechanically, and all the sunshine of his life sunk behind the heavy clouds of despair. "Yes, Jodie, I am glad, and I wish you long years of happiness."

He turned away, and staggered, rather than walked to his own room. He did not stir all night. Once a deep, sobbing groan struggled to his lips, and the moonbeams struggling through the window, fell full upon his face, and surprised two great tears stealing down his pale cheeks. He brushed away this evidence of weakness and sorrow, and when the morrow came, no one looking into his calm, serene eyes would have guessed how hard was the battle that had been fought and won in that lonely chamber.

They were married, and the man rejected by the bride and supplanted by the groom was the first to congratulate the newly married pair. A vacant house on the farm was fitted up for their reception and John Brisben's money paid for the furnishing.

"Hereafter, Jodie," he said, "we will divide the profits of the farm. I don't need much, and you shall have the larger share."

Ten years passed away, and John Brisben, an old man before his time, still worked from dawn till dark that his brother might play the gentleman and keep in comfort the large family which the years had drawn around him. It had been necessary to mortgage the old homestead to raise money to pay Joseph's gambling debts, for of late years he had played heavily, and had invariably lost.

One day—it was in the summer of 1871—a forged check was presented at one of the banks of the shire town, by Joseph Brisben, and the money for which it called was unhesitatingly paid over to him. He was under the influence of liquor at the time, and deeply interested in a game of cards for high stakes, which was in progress. The check was for \$2,500 I think. Before daylight the next morning Joseph Brisben had lost every dollar of it. To drown his chagrin he became beastly drunk, and while in this condition an officer arrived and apprehended him for forgery and uttering a forged check. The prisoner was confined to gaol, and word of his disgrace was sent to John Brisben. The latter read the message and a mist came over his eyes. He groaned audibly, and but for a strong effort of the will would have fallen to the floor, so weakened was he by the shock.

"She must not know it," he said to himself, and he made instant preparations to visit his brother. When he reached the gaol he was admitted to the cell of the wretched criminal. The brothers remained together several hours. What passed during the interview will never be known. When John Brisben emerged from the gaol he went straight to the magistrate who had issued the warrant for the apprehension of Joseph Brisben.

"Squire," he said in his slow, hesitating way. "You have made a mistake."

"In what way, Mr. Brisben!" asked the magistrate, who had a high regard for his visitor.

"You have caused the arrest of an innocent man."

"But—" began the magistrate.

"Issue an order for my brother's instant release. He is innocent of the intent to do wrong. I am the guilty man. I forged the name of Charles Ellison to the check which he uttered. He did not know that it was a forgery."

"You!" cried the astounded magistrate. "You a forger—impossible."

"Nothing is impossible in these days," said the white-haired old man, sternly. "I alone am guilty. My brother is innocent."

So stoutly did he aver that he was the forger, that the magistrate reluctantly issued a warrant for his arrest, and at the same time wrote an order to the gaoler for the release of Joseph Brisben.

"My constable will be in soon," said the magistrate, but the old hero picked up both the papers.

"I will not trouble him," he said: "I will execute both papers."

And he did. Handing the gaoler both papers he explained their meaning thus:

"They have made a mistake. It is I who am to be your prisoner. My brother is innocent."

Accordingly Joseph Brisben was released and returned to the farm. John remained at gaol a prisoner. When the extraordinary affair became known, several prominent citizens offered to go on the accused man's bond, but he would

not accept their kind offices. At the trial he pleaded guilty, and was sentenced to fifteen years' imprisonment at hard labour in the penitentiary. Joseph came to see him before he was removed to Frankfort, but their interview was a private one.

Joseph Brisben remained at the farm, but he was a changed man. From the day of his release from gaol down to the time of his death, he was never known to touch a card, and a drop of liquor never passed his lips. Last April he died, and his confession, duly sworn to before a Justice of the Peace, was made public after his burial. In substance, it was this: That he was guilty of the forgery, for which his heroic brother was suffering a long imprisonment.

"It was my brother's wish, not mine," reads the document. "He insisted that he, who had no ties of blood or marriage, could better suffer the punishment and disgrace than I who had dependent upon me a large family."

Noble John Brisben: Of such stuff are heroes made.

NATURE'S LADY.

Three years she grew in sun and shower,
Then nature said, "A lovelier flower
On earth was never sown;
This child I to myself will take,
She shall be mine, and I will make
A lady of my own.

"Myself will to my darling be
Both law and impulse; and with me
The Girl, in rock and plain,
In earth and heaven, in glade and bower,
Shall feel an overseeing power
To kindle or restrain.

"She shall be sportive as the fawn
That wild with glee across the lawn
Or up the mountain springs;
And hers shall be the breathing balm,
And hers the silence and the calm
Of mute insensate things.

"The floating clouds their state shall lend
To her; for her the willows bend;
Nor shall she fail to see
Even in the motions of the stars
Grace that shall mould the maiden's form
By silent sympathy.

"The stars of midnight shall be dear
To her; and she shall lean her ear
In many a secret place
Where rivulets dance their wayward round,
And beauty born of murmuring sound
Shall pass into her face."

THE DIAMOND.

A writer in the London "Chemical News" thinks he has solved the question of the origin and formation of the diamond—it being due, he argues, to the fact that the carbonaceous matter of fossils, such as plants and animal remains, has been dissolved by highly heated water, aided by great pressure existing in the crust of the earth. The fact is well known that highly heated water, aided by pressure, can dissolve silica, as in the geysers of Iceland, etc., where it is formed around the mouth of the vent; and there are also the experimental researches of De Senarmont and others, on the artificial production of crystallized minerals, as quartz, mispickel, corundum, heavy spar, etc., by the prolonged action of water at high temperatures and pressures. On these grounds, therefore, it is urged that no reason exists why highly heated water, or water gas, should not have the power of dissolving the carbonaceous matter of fossiliferous plants and animals, and then, on cooling, depositing the carbon in the crystallized condition, forming the gem known as the diamond.

JACK, THE CHICAGO FIRE DOG.

Jack goes to all the fires, and is first to hear the buzz of the telegraph. If upon the third floor when the call comes, he is the first member of the company down. He never dresses, but goes to the fire as he is. He always manages to run down the first flight of stairs like an ordinary Christian; but in his anxiety to get to the horses, he invariably rolls down the second flight. He drives the horses to the pole, and runs ahead of them barking. Jack is known to thousands of persons, and his barking informs them that there is a fire in the district. He clears the street for the engine better than a man could. He is always first in the building. At night, he looks for a fireman's light; and often when the smoke is thick and he cannot be seen, the men know he is about by hearing him sneeze. If there is a fire and the apparatus does not go out, Jack sits down and howls in his disappointment, and cries as if his heart was broken. Sometimes the horse step on him, but he keeps on three legs and sees the fire out; but, often, when he gets home, he is laid up for days. He has been known to go up and down an iron fire-escape, and walk up and down a peaked roof that was at an angle of forty-five degrees. He will go anywhere the men do. At home he is fastidious, disliking the smell of the smoke when the stove is lighted. When the floor is being scrubbed, Jack goes across the street, where he sets up a howling until the cleansing operation is over. But, at fires, he does not mind the densest smoke or the heaviest shower-baths. — *Inter-Ocean.*

A VERMONT villager has his walk and front yard paved with headstones from a cemetery.

THE recovery of an old parchment manuscript of Deuteronomy dated 800 B.C. from a Bedouin tribe, by the Palestine Exploration Fund, will be very gratifying to all Biblical students.

HOME CIRCLE.

SACRED MONKEYS.

Victor Jacquemont estimates that the Bengal Presidency alone contains 1,600 monkey asylums, supported chiefly by the very poorest class of the population. In the rural districts of Nepal the hanumans have their sacred groves, and keep together in troops of fifty or sixty adults, and, in spite of hard times, these associations multiply like the monastic order of mediæval Europe; but they must all be provided for, though the natives should have to eke out the crops with the wild rice of the Jumua swamp jungles.

The strangest part of the superstition is that this charity results by no means from a feeling of benevolence toward animals in general, but from the exclusive veneration of a special sub-division of the monkey tribe. An orthodox Hindoo must not willingly take the life of the humblest fellow-creature, but he would not move a finger to save a starving dog, and has no hesitation in stimulating a beast of burden with a dagger-like goad and other contrivances that would evoke the avenging powers of the Society for the Prevention of Cruelty to Animals. Nor would he shrink from extreme measures in defending his fields from the ravages of low-caste monkeys. Dr. Allen Mackenzie once saw a swarm of excited natives running toward an orchard where the shaking of branches betrayed the presence of arboreal marauders. Some of them carried slings, others clubs and canespears. But soon they came back crest-fallen. "What's the matter?" inquired the doctor; "did they get away from you?" "Kappa-Muni," was the laconic reply, "sacred monkeys." Holy baboons that must not be interrupted in their little pastimes. They had expected to find a troop of common makagues, wanderoos, or other profane four-handers, and returned on tip-toe, like Marryat's sergeant who went to arrest an obstreperous drunkard and recognized his commanding officer. Unarmed Europeans cannot afford to brave these prejudices. Captain Elphinstone's gardener nearly lost his life for shooting a thievish hanuman. A mob of raging bigots chased him from street to street till he gave them the slip in a Mohammedan suburb, where a sympathizing Unitarian helped him to escape through the back alleys. The interference of his countrymen would hardly have saved him, for the crowd increased from minute to minute, and even women joined in the chase, and threatened to cure his impiety with a turnip-masher.

CRANKY HEALTH NOTIONS.

The way health journals and sanitary publicists taboo agreeable luxuries that have been found innocuous, if not beneficial, for many generations, is "adding new terror to life, if it takes none from death." It is certainly a noticeable feature of the doctrinaires of the hygienic school—the Halls and Dio Lewises and their kind—that they condemn modes of life, kinds of food, fashions of clothing, habits of resting or exercising that have prevailed for years with no visible harm. Day after day they take away something that some of us have been in the habit of eating or doing, or put in something we have not been in the habit of doing or eating, till we feel like Sancho Panza at his banquet at Barataria. "Fruit is too moist," said the doctor of the table, the Dio Lewis of Barataria, "the roast meat increases thirst, partridges are dangerous, stewed coney are a sharp-haired food, vilapodrida is too coarse, therefore eat one hundred rolled up wafers and some thin slices of marmalade." No wonder if we cry out, with the hungry Sancho. "To deny me any victuals, though it is against the grain of

Signor Doctor, and though he should say as much more against it, I say, is rather the way to shorten my life than to lengthen it." The sensible half of the world will say amen to the honest Manchagan. "Never eat a hearty supper before going to bed," say the Baratarians of health journals. But we know our fathers and grandfathers, on their farms, would eat a horse's meal of mush and milk, or johnny cake and beans and cold cabbage, be in bed and asleep in a half hour, and up at daylight, as hearty at sixty as a Baratarian health broker or banker at forty.

Lord Cockburn tells us that Rev. Sir Harry Moncrieff had his supper of roast chicken at eleven o'clock at night all his life, and died at ninety. Ever since Conaro changed from a debauchee to an ascetic and measured out his bread and meat by the ounce and his drink by the teaspoonful, and lived to be over one hundred, there have been fools who believed that one man's meat was all men's health, and one man's doctrine was all men's duty. Dio Lewis lays down the law, and ten thousand men break it every day and live long and well. Others obey and die sickly. The wise law of food is that of the brusque but sagacious Abernethy. "Is venison wholesome, doctor?" asked a nobleman with the gout. "Do you like it?" was the reply. "Yes." "Does it agree with you?" "Yes." "Then it is wholesome." There is no better health law regulating food than that. Let the Baratarians say what they will of "nourishment" and "nitrogen" and "blood-making" or "blood-thinning" qualities of food or drink, the right rule is to eat what you like if it agrees with you, and let the Baratarians go hang. Why, it is but a few weeks since some professor from Sancho Panza's island proclaimed that "walking was not a healthy exercise unless it was very brisk and rapid." The world will never be more healthy for the promulgation of such stuff as that. The great want of most of the world, even of our own part of it, is to get food enough and clothes enough and time enough to sleep, not to repine upon modes and qualities to fit the theories of schools or of "authorities." "Health authorities" are mighty apt to be humbugs.—*Pall Mall Gazette.*

THE HOODED LEOPARD.

In Africa and southern Asia the cheetah or hunting leopard is important to the sportsman. The animals resemble the common leopard in their markings, but are more slender, having long legs and certain external canine characteristics that are very noticeable, so that it was long thought a connecting link between the dogs and cats. In Persia it is called the *yowze*, and they are carried to the field in low cars, whereon they are chained. Each leopard is hooded. When the hunters come within view of a herd of antelopes, the leopard is unchained, his hood is removed, and the game is pointed out to him, being directed in the pursuit by his sight. Then he steals along cautiously and crouchingly, taking advantage of every means of masking his attack, till he has approached the herd unseen within killing distance, when he suddenly launches himself upon his quarry with five or six vigorous and rapid bounds, strangles it instantaneously, and drinks its blood. The huntsman now approaches the leopard, caresses him, wins him from his prey by placing the blood which he collects in a wooden ladle under the nose of the animal, or by throwing to him pieces of meat, and while he is thus kept quiet, hoods him, leads him back to his car and there chains him. If the leopard fails, in consequence of the herd having taken timely alarm, he attempts no pursuit, but returns to his car with a dejected and mortified air.

The Lyons and ounce have also been used in

hunting, while the wild dog of Africa is often in demand. In Asia tiger-hunting would be practised less were it not for the elephants, who seem to enjoy the dangerous sport as well as their riders, who are safely housed on their backs. These intelligent animals are also used in capturing wild animals of their own kind, and are important factors in the training and subduing process that comes later. The horse was formerly used in England to stalk animals. They were trapped so that the rider was concealed, and so feeding along the animal gradually brought the sportsman nearer the game. In the inventories of the wardrobe belonging to Henry VIII. is the allowance of certain quantities of stuff for the purpose of making stalking coats and stalking hose for the use of his Majesty.

IN A RUSSIAN CELL.

There is not much light in them. The window, which is an embrasure, is nearly of the same size as the windows in other prisons. But the cells occupy the interior enclosure of the bastion, that is, the redoubt, and the high wall of the bastion faces the windows of the cells at a distance of fifteen to twenty feet. Besides, the walls of the redoubt, which have to resist shells, are nearly five feet thick, and the light is intercepted by a double frame with small apertures, and by an iron grating. Dark they are even in summer. The outer wall intercepts all the light, and I remember that even during bright days writing was very difficult. In fact, it was possible only when the sun's was reflected by the upper part of both walls. All the northern face of the redoubt is very dark in both stories. The floor of the cell is covered with a painted felt, and the walls are doubled, so to say; that is, they are covered also with a felt, and at a distance of five inches from the wall there is an iron wire net, covered with a rough linen and with yellow painted paper. This arrangement is made to prevent the prisoners from speaking with one another by means of taps on the wall. The silence in these felt-covered cells is that of a grave. I am just now in a cell. But the exterior life and the life of the prison reaches one by thousands of sounds and words exchanged here and there. Although in a cell, I still feel myself a part of the world. The fortress is a grave. You never hear a sound, excepting that of a sentry continually creeping like a hunter from one door to another, to look through the 'Judas' into the cells. You are never alone, as an eye is continually kept upon you, and still you are always alone. If you address a word to the warden who brings you your dress for walking in the yard. If you ask him what is the weather, he never answers. The absolute silence is interrupted only by the bells of the clock, which play every quarter of an hour. The cacophony of the discordant bells is horrible during rapid changes of temperature, and I do not wonder that nervous persons consider these bells as one of the plagues of the fortress. The cells are heated by means of large stoves from the corridor outside, and the temperature in the cells is kept exceedingly high, in order to prevent moisture from appearing on the walls. To keep such a temperature, the stoves are shut up very soon with burning coals, so that the prisoner is usually asphyxiated with oxide of carbon.

LITTLE DUTIES.

Many have a sort of contempt of little duties. They do not perform them because they are insignificant. But if they reflected upon their place in the work of life, they would see that they are not unimportant. When we see the relation of one event to another in history, we see that the little duty is important as well as the great duty.

History is just what it is because the little event and the little duty had their place in the sequence of events and duties in the past. The omission of one little event in the past would have changed the whole after history.

Besides, when little duties are neglected great duties are apt to be neglected. The man who does not pray in secret has no interest in public prayer. If the Bible is neglected at home, its counsels are not sought elsewhere. These are every-day duties, and they are the links in the chain that connect smaller blessings with those that are larger, little events with great events.

The value of little duties is seen when we know the results which have followed their performance. A little girl on her way to read the Bible, led an earnest Christian to think of sending Bibles to Wales, to England, to the world, and from that little event sprung the great British and Foreign Bible Society.

Peabody talked with Hopkins about the joy he had in gathering, and the greater delight he had in using his money for benevolent purposes, and the next day Johns-Hopkins set to work to devise means for the employment of the seven millions of which he was the possessor in benevolent and educational schemes. From that conversation started the hospital and university in Baltimore which bear the name of Johns-Hopkins.

An infidel gave a few dollars toward the repairs of a church. He was attracted to the church to see the repairs, was induced to continue his visits, and after a time became a very useful member of the church.

A man desired to be useful, and condensed a work that had been productive of good by a popular author, and millions of that little work have been published and sold in several different languages.

A sermon on Foreign Missions, by Rev. Dr. Mason, turned Rev. Dr. Spring from the law to the ministry, and the singing of a hymn by a fellow-student brought Dr. John Breckinridge to Christ.

God can make the little act or the little duty productive of good, and for that reason we should not think them insignificant.

THE INGENUITY OF DECEPTION.

"Wooden nutmegs are things of the past, young man," said a grocer. "They have been superseded."

"What has taken their place?"

"Just step around the counter here and I'll show you. Do you see that box of spices? They look very nice, don't they? Now taste 'em, they taste good, too, as spices go. Well, young man, what do you think of 'em?"

"From all appearances I should say that they were a fair lot of spices."

"That is just where your judgment falls short. They are not spices at all."

"What are they then?"

"Just ground cocoanut shells, flavoured with spice extracts. The difference in colour comes from burning the shells. Why do I keep 'em? Because people want 'em. Of course, they are a fraud from beginning to end. But they are cheap, and people want cheap spices, just as they want everything else cheap. Large quantities are manufactured and shipped all over the country. They are sold as genuine spices, but any grocer with a particle of sense knows from the prices that they cannot be the real article. You see, they look, taste, and smell fully as well as the Simon Pure, but put them in food and you will soon see the difference. They do not flavour. A drop of clove extract will smell stronger than twenty pounds of cloves, but I think the twenty pounds would flavour more hot rum, don't you?"

"You have no idea of the ingenuity that is used in getting up these and other imitations. The best chemical knowledge is employed. What do you think of stamping out whole peppers and cloves? It is done, though. Young man, the general grocery trade is extending. With glucose for sugar, oleomargarine for butter, cheese innocent of milk, and cocoanut shell spices, it is becoming a big business."—*New York Sun*.

VIEWS AFIELD.

A jolly farmer I,
For, when I look around,
Fine views I see, that finer be
The more they're ground.

I care not for the world,
Whate'er may come to pass;
I'd smile if all this earthly ball
Should go to grass.

Yet many things there be
Of which I may complain;
When tempests blow, they're apt to go
Against my grain.

And when my hired man—
A careless, reckless pup,
Mowed into me below the knee,
I felt cut up.

Yet, now the wound is well,
A happy man am I;
It makes me gay to see each day
The sun get high.

And when the fields of corn
Show many a waving row,
And tickled earth seems, in her mirth,
To laugh—"Hoe! hoe!"

And neighbours hail me oft,
At work at early morn,
And jokes let fly—I naught reply;
I own the corn.

Kind words I speak at morn
And when my work is through;
At morn, "Good day!" at night I say
"A dew! a dew!"

I'm not above my work,
For, when I look around,
I clearly see none long can be
Above the ground.

A LUDICROUS BLUNDER.

Readers of newspapers are sometimes amused at a ludicrous blunder which the proof reader has failed to correct. But few, however, have ever laughed as heartily over an accidental muddling as did the Parisians one morning during the reign of Louis Phillippe. The morning after the day on which a ministerial crisis had occurred, and M. Thiers had been sent for, there appeared in the *Constitutionnel* the following startling paragraph—

"His Majesty, the King, received M. Thiers yesterday, at the Tuileries, and charged him with the formation of a new Cabinet. The distinguished statesman hastened to reply to the king, 'I have only one regret, which is, that I cannot wring your neck like a turkey's.'"

A few lines lower down there was another paragraph to the following effect—

"The efforts of justice are promptly crowned with success. The murderer of the Rue du Pot-de-fer has been arrested. 'L'3 at once before the Judge of Instruction, the wretch had the hardihood to address that magistrate in terms of coarse insult, winding up with the following words:—

"God and man are my witnesses that I have never had any other ambition than to serve your august person and my country loyally to the best of my ability."

The printer had interchanged the addresses. But the joke was that all Paris knew that there was little love lost between the king and Thiers.—*Youth's Companion*.

THE VICEROY AND THE BABY.

A characteristic anecdote is related of the late Lord Lawrence, when, as the new viceroy, he was returning to the country in which his best years had been passed. He was in bad spirits, partly from sea-sickness, and partly from lack of friends and congenial natures around him, partly from the feeling of the heavy responsibilities which he had assumed in comparatively weak health. A lady was returning to India with her infant child, which she utterly neglected, and the baby took its revenge upon the passengers generally by squalling day and night alike. They complained in no measured language to the authorities. "Steward, throw that baby overboard!" was a cry which came from many a sleepless berth. But the nuisance continued unabated. At last the new viceroy, perhaps because he saw in the child, half-unconsciously, a slight resemblance to his lost Bertie, gave it a large share of his attention, and would take it for hours together on his knee, showing it his watch and anything that would amuse it. The child took to him, as he to it, and to the great relief of the passengers, was always quiet in his presence. "Why do you take so much notice of that child?" asked one of them. "Why, to tell the truth," said the viceroy, "that child is the only being in the ship who I can feel sure does not want anything of me, and so I take pleasure in its society." How much of the kindness and simplicity of a great nature is revealed by this simple story.

DUTIES OF DAILY LIFE.

Life is not entirely made up of great evils or heavy trials; but the perpetual recurrence of petty evils and small trials is the ordinary and appointed exercise of the Christian graces. To bear with the failings of those about us—with their infirmities, their bad judgment, their ill breeding, their perverse tempers—to endure neglect when we feel we deserve attention, and ingratitude where we expected thanks; to bear with the company of disagreeable people whom Providence has placed in our way, and whom He has provided on purpose for the trial of our virtue, these are the best exercises of patience and self-denial, and the better because not chosen by ourselves. To bear with vexation in business, with disappointment in our expectations, with interruptions of our retirement, with folly, intrusion, disturbance—in short, with whatever opposes our will or contradicts our humour—this habitual acquiescence appears to be more of the essence of self-denial than any little rigours or afflictions of our own imposing. These constant, inevitable, but infernal evils properly improved, furnish a good moral discipline, and might, in the days of ignorance, have superseded pilgrimage and penance.—*Hannah More*.

QUAKER WEDDINGS.

The wedding ceremony of the Society of Friends is unique and beautiful. The bride and groom, with their attendants, march into the church at the regular week-day meeting at eleven o'clock, and, after being seated with faces fronting the audience, they arise, and the groom, taking the bride by the hand, says, "Friends, in the presence of the Lord and this assembly I take thee, Mary Jones, to be my wife, promising, with divine assistance, to be unto thee a loving husband until death shall separate us." The bride repeats the same promise, and they are seated. The clerk of the meeting then arises and reads the marriage certificate, and invites the congregation to write their names as witnesses. This ended, after a few moments of silent worship or a vocal prayer, the married couple and their attendants retire to the home of the bride, where there is usually a sumptuous feast, followed the next day by what is termed an "in-fair" at the home of the groom.—*Chicago Inter-Ocean*.

SEND ME A PICTURE OF HOME.

SONG AND CHORUS.

Written by J. HAYNES.

Composed by ALFRED LEE.

Con Espressione.

mf

cresc.

1. Send me a picture of home,	Of the house in which I was born,	And the
2. Send me a picture of home,	With the brook with its ring - ing rhyme,	And the
3. Send me a picture of home,	Of my fa - ther and moth - er so dear,	With our

p

lane with the old, old trees,	And the fields with the stand - ing corn;	I'm
good old church on the hill,	And bells that so mer - ri - ly chime;	In
friends and neigh - bors a - round,	Whose sym - pa - thies brought us good cheer;	How

p

long - ing to see the dear spot,
 fan - cy I see the old green,
 man - y the trou - bles I've seen,

Where I sport - ed my hap - py days,
 With the school - house so plain - ly neat,
 And my heart is hea - vy just now,

'Mid the
 And
 With the

mf

ro - ses and haw - thorns sweet
 hear all the chil - dren at play
 man - y sad cares of life,

Where sing - ing birds war - bled their lays.....
 And pat - ter of swift lit - tle feet.....
 That wrin - kle and fur - row my brow.....

rallentando

Cresc.

CHORUS.

1st Soprano.
 2nd Soprano.
 Tenor.
 Bass.

Send me a pic - ture of home,
 Of the house in which I was born, . . . And the

PIANO. *mf* *cresc.*

lano with the old, old trees, . . . And the fields with the gol - den corn.

decresc.

YOUNG CANADA.

TRUTH.

"Lost your situation? How did it happen, my boy?"

"Well, mother, you'll say it was all my own carelessness, I suppose. I was dusting the shelves in the store, and, trying to hurry up matters, sent a lot of fruit-jars smashing to the floor. Mr. Barton scolded, and said he wouldn't stand my blundering ways any longer, so I packed up and left."

His mother looked troubled.

"Don't mind, mother, I can get another situation soon, I know. But what shall I say if they ask me why I left the last one?"

"Tell the truth, James, of course; you wouldn't think of anything else?"

"No, I only thought I'd keep it to myself. I'm afraid it may stand in my way."

"It never stands in one's way to do right, James, even though it may seem to sometimes."

He found it harder than he had expected to get a new situation. He walked and inquired till he felt almost discouraged, till one day something seemed to be really waiting for him. A young-looking man in a clean, bright store, newly started, was in want of an assistant. Things looked very attractive, so neat and dainty that James, fearing that a boy who had a record for carelessness might not be wanted there, felt sorely tempted to conceal the truth. It was a long distance from the place from which he had been dismissed and the chances were slight of a new employer hearing the truth. But he thought better of it, and frankly told exactly the circumstances which had led to his seeking the situation.

"I must say I have a great preference for having neat-handed, careful people about me," said the man good-humouredly, "but I have heard that those who know their faults and are honest enough to own them, are likely to mend them. Perhaps the very luck you have had may help you to learn to be more careful."

"Indeed, sir, I will try very hard," said James earnestly.

"Well, I always think a boy who tells the truth, even though it may seem to go against him—Good morning, uncle. Come in, sir."

He spoke to an elderly man who was entering the door, and James turning, found himself face to face with his late employer.

"Oh, ho!" he said, looking at the boy, "are you hiring this young chap, Fred?"

"I haven't yet, sir."

"Well, I guess you might try him. If you can only," he added, laughing, "keep him from spilling all the wet goods and smashing all the dry ones, you'll find him reliable in everything else. If you find you don't like him I'd be willing to give him another trial myself."

"If you think that well of him," said the younger man, "I think I shall keep him myself."

"Oh, mother," said James, going home after having made an agreement with his new employer, after such a recommendation from his old one, "you were right, as you always are.

It was telling the truth that got it for me. What if Mr. Barton had come in there just after I had been telling something that wasn't exactly so!"

"Truth is always best," said his mother, "the truth, the whole truth, and nothing but the truth."

HIS MOTHER'S SONGS.

Beneath the hot midsummer sun
The men had marched all day;
And now beside a rippling stream
Upon the grass they lay.

Tiring of games and idle jests,
As swept the hours along,
They called to one who mused apart,
"Come, friend, give us a song."

"I fear I cannot please," he said;
"The only songs I know
Are those my mother used to sing
For me long years ago."

"Sing one of those," a rough voice cried,
"There's none but true men here;
To every mother's son of us
A mother's songs are dear."

Then sweetly rose the singer's voice
Amid unwonted calm,
"Am I a soldier of the cross,
A follower of the Lamb?"

"And shall I fear to own His cause"—
The very stream was stilled,
And hearts that never throbbed with fear
With tender thoughts were filled.

Ended the song; the singer said,
As to his feet he rose,
"Thanks to you all, my friends; good night
God grant us sweet repose."

"Sing us one more," the captain begged;
The soldier bent his head,
Then glancing round, with smiling lips,
"You'll join with me," he said.

"We'll sing this old familiar air,
Sweet as the bugle call,
'All hail the power of Jesus' name,
Led angels prostrate fall.'"

Ah! wondrous was the old tune's spell
As on the singer sang;
Man after man fell into line,
And loud the voices rang,

The songs are done, the camp is still,
Naught but the stream is heard;
But ah! the depths of every soul
By those old hymns are stirred.

And up from many a bearded lip,
In whispers soft and low,
Rises the prayer the mother taught
The boy long years ago.

"GOOD ENOUGH FOR HOME."

"Lydia, why do you put on that forlorn old dress?" asked Emily Manners of her cousin, after she had spent the night at Lydia's house.

The dress in question was a spotted, faded, old summer silk, which only looked the more forlorn for its once fashionable trimmings, now crumpled and frayed.

"Oh, anything is good enough for home!" said Lydia, hastily pinning on a soiled collar; and twisting up her hair in a ragged knot, she went down to breakfast.

"Your hair is coming down," said Emily.

"Oh, never mind; it's good enough for home," said Lydia, carelessly. Lydia had been visiting at Emily's home, and had always appeared in the prettiest of morning-dresses, and with neat hair and dainty collar and cuffs, but now that she was back home again, she seemed to think that anything would answer, and went about untidy and in soiled finery. At her uncle's she had been pleasant and polite, and had won golden opinions from all; but with her own family her

manners were as careless as her dress. She seemed to think that courtesy and kindness were too expensive for home-wear, and that anything would do for home.

There are too many people who, like Lydia, seem to think that anything will do for home; whereas, effort to keep one's self neat, and to treat father, mother, sister, brother, and servant kindly and courteously is as much a duty as to keep from falsehood and stealing.

KEEP THE LIFE PURE.

Once upon a time an Arabian princess was presented by her teacher with an ivory casket, exquisitely wrought, with the injunction not to open it until a year had rolled around. Many were the speculations as to what it contained, and the time impatiently waited for when the jewelled key should disclose the mysterious contents. It came at last, and the maiden went away alone, and with trembling haste unlocked the treasure; and lo! reposing on delicate satin linings, lay nothing but a shroud of rust; the form of something beautiful could be discerned, but the beauty had gone forever. Tearful with disappointment, she did not at first see a slip of parchment containing these words:

"DEAR PUPIL,—May you learn from this a lesson for your life. This trinket, when enclosed, had upon it only a single spot of rust; by neglect it has become the useless thing you now behold, only a blot on its pure surroundings. So a little stain on your character, will by inattention and neglect, mar a bright and useful life, and in time will leave only the dark record of what might have been. If you now place within a jewel of gold, and after many years seek the result, you will find it still as sparkling as ever. So with yourself; treasure up as only the pure, the good, and you will ever be an ornament to society and a source of true pleasure to yourself and your friends."

MOTHER'S TURN.

It is mother's turn to be taken care of now."

The speaker was a winsome young girl, whose bright eyes, fresh colour, and eager looks told of light-hearted happiness. Just out of school, she had the air of culture which is an added attraction to a blithe young face. It was mother's turn now. Did she know how my heart went out to her for her unselfish words?

Too many mothers, in their love of their daughters, entirely overlook the idea that they themselves need recreation. They do without all the easy, pretty, and charming things, and say nothing about it, and the daughters do not think there is any self-denial involved. Jennie gets the new dress, and mother wears the old one turned upside down and wrong side out. Lucy goes on the mountain trip, and mother stays at home and keeps house. Emily is tired of study, and must lie down in the afternoon; but mother, though her back aches, has no time for such indulgence.

Girls, take good care of your mothers. Coax them to let you relieve them of some of the harder duties which, for years, they have patiently borne.

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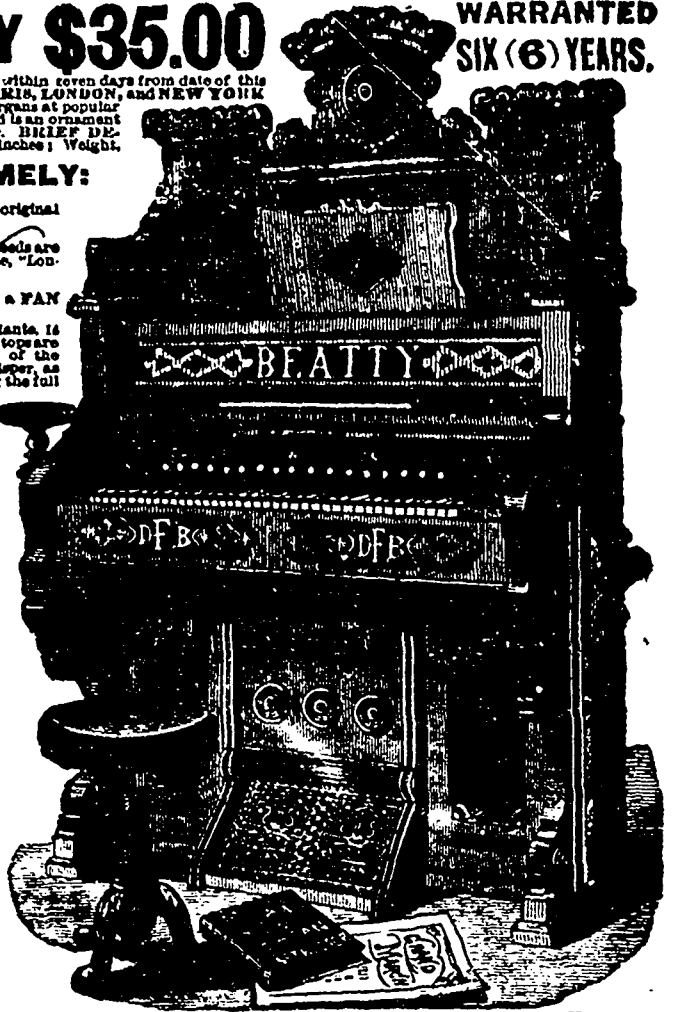
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