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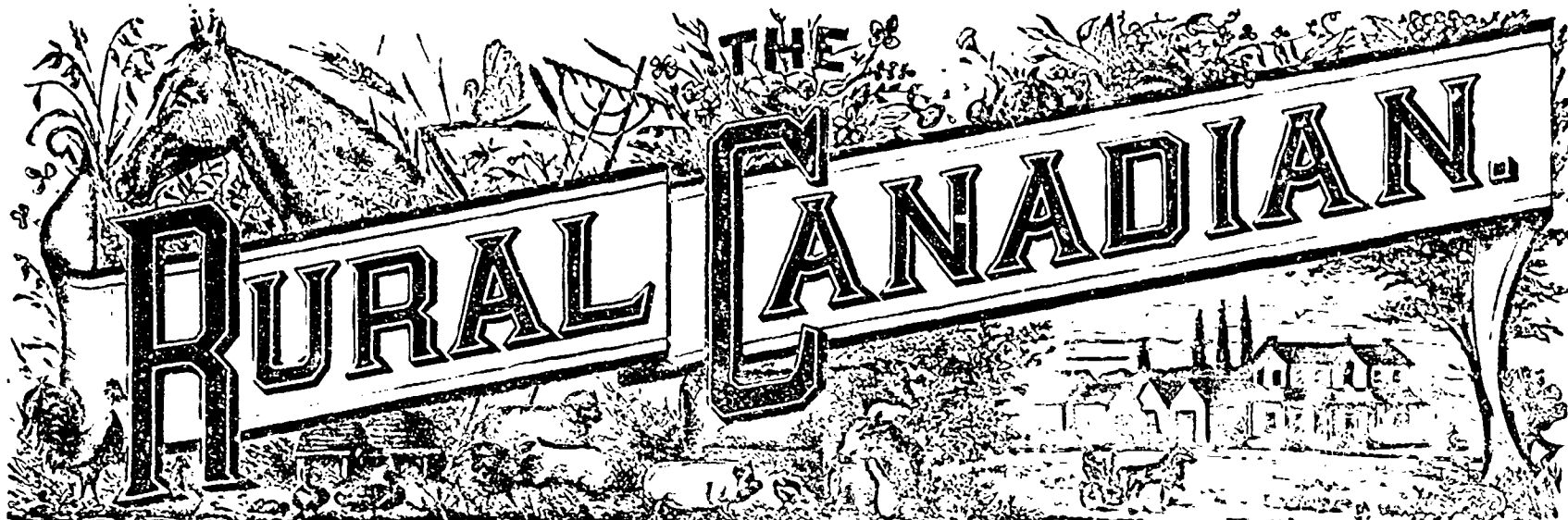
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Incorporated

Vol. VIII., No. 8.
Vol. IV., No. 8—New Series.

Toronto, August, 1885.

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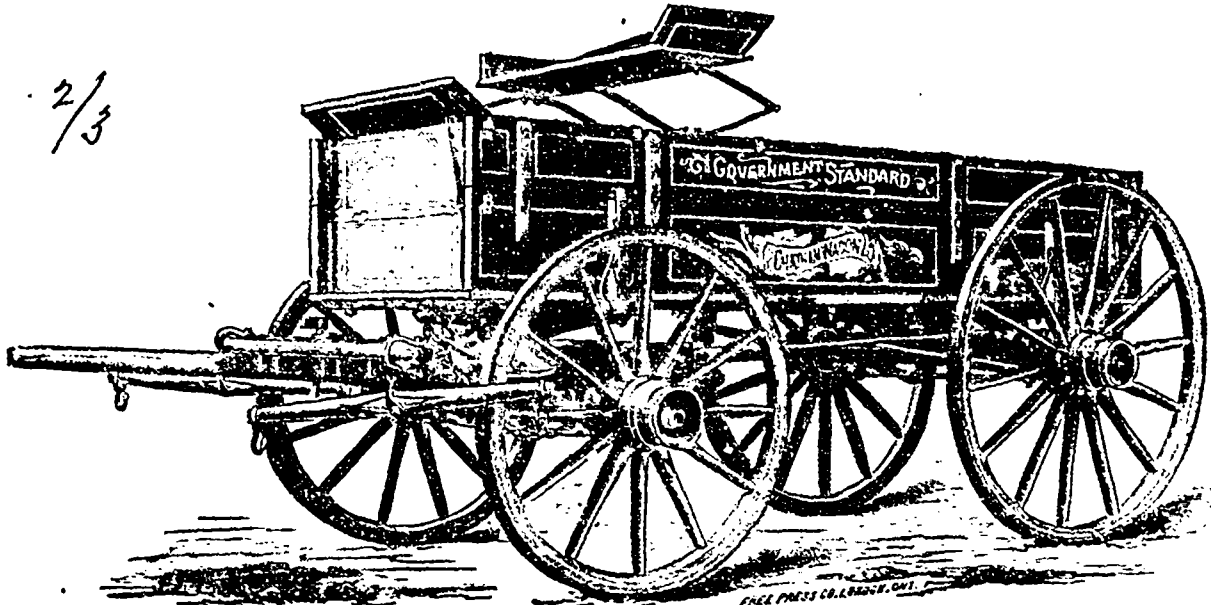
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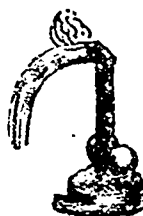
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Rural Canadian and Farm Journal,

WITH WHICH IS INCORPORATED

THE CANADIAN FARMER AND GRANGE RECORD.

Vol. VIII., No. 8.
Vol. IV., No. 8 New Series.

Toronto, August, 1885.

\$1.00 per annum in advance.

RURAL NOTES.

Fruit trees should be carefully pruned of sprouts and suckers about this time of year. If cut now they are not likely to start again this season, and the fruit of the tree gets the benefit of nourishment which otherwise would go to the suckers.

Some experiments in forestry are being made at the Model Farm. Why cannot the attempt be made there to grow one or two specimens of every tree and shrub whose habitat is within the limits of the Province? Such a collection would be a most interesting one.

The best time to destroy weeds is just before they appear above ground. A simple stirring of the soil with the hoe is sufficient then; but if left until they are well started the work is much harder, and the crops are robbed of a portion of their necessary food.

It will be a matter of much interest this year to learn if the pea-bug has failed to appear. Last year, for the first time in a quarter of a century, it did almost no harm and the pea crop was of the old-time sort. From all that we can learn the pest has done no harm this year.

Our Ontario farmers are steadily improving their horses by breeding from large and heavy animals, such as the Clyde and the Percheron. Strong horses are needed for such work as ploughing, harrowing and teaming, and there is real economy in rearing such animals for the farm.

The seed of alsike clover ripens from the first blossoms, and as it shells readily the process of re-seeding usually goes on from year to year. In this way the alsike propagates itself very surely, and it is not uncommon to find it spreading from field to field of a farm, and from one farm to another.

The only way to keep butter or eggs fresh for any length of time is to put them in a cool place, and apart from any fruit, cheese, lard or other articles from which odour arises. It is not generally known, but it is true, that eggs are very active in absorbing power, and their fresh taste is very quickly destroyed in a tainted atmosphere.

It is only when Canadian thistle seeds fall in out-of-the-way places, where the ground is loose, that they are hard to keep under control. The most successful way of destroying them is to smother them by cultivation. It is not enough to cut them down; they should be ploughed under, and the ground sown thickly with clover seed, or seed of almost any crop of luxuriant growth.

In South Russia, as well as in the United States, the wheat crop this year is very poor, great damage having been caused by excessive heat and drouth. The latest reports from the Western States give ground for the fear that the crop will sustain an extra loss from blight and rust. A hot wave extending over Wisconsin, Minnesota and Dakota is proving very destructive to the spring wheat.

The visible supply of wheat in the United States and Canada, on the 25th of July, compris-

ing the stocks in warehouse, on rail and afloat, was 37,540,000 bushels, being three times as much as at the corresponding date last year and twice as much as at the corresponding date of two years ago. There is no doubt but farmers and dealers have been holding on for better prices.

The Agricultural College Convention recently held at Washington, pronounced strongly against the system of distributing seeds through members of Congress. The system has nothing to commend it in a country where every town of a few thousand inhabitants has its seed store, and where the farmers have enterprise enough to get whatever seeds they want and pay for them without any sense of obligation to the politicians.

Common belief is that the Hessian fly was brought to America by the Hessian soldiers who served in the British army during the Revolutionary War; but Dr. Hager, of Cambridge, Mass., shows in a letter to the *Canadian Entomologist* that the insect was known in Pennsylvania long before that period. He has also ascertained that it was known as the Hessian fly ten years before the war began. It has been very destructive in Western New York this year.

The laying season has been very fine this year, and the crop has doubtless been cured and saved very satisfactorily. In some localities timothy is light, and in others it is unusually heavy, but on the whole it seems to be a good average. Farmers who reflect on the long and severe winter of the present year will doubtless make an effort to gather every nook and corner of the farm. So many cattle died last spring, and so many others were brought through in a pitiable condition, that it would be a shame to neglect any provision for their wants.

The rotation of crops adopted by Professor Roberts, of Cornell University farm, is clover, corn, oats, wheat and clover. In seeding down two to four quarts of timothy seed are sown about ten days after the wheat in autumn, and from four to six quarts of clover in the following spring. With this rotation he has obtained forty-seven bushels per acre of wheat, seventy-three bushels of oats, and eighty bushels of corn. Of 120 acres specially devoted to the farm, land not originally fertile has been made to yield about \$6,000 annually in grass products.

The *Irish Farmers' Gazette* says that few people have any idea of the labour that bees have to expend in the gathering of honey. Here is a calculation which will show how industrious the "busy" bee really is. Let us suppose the insects confine their attentions to clover fields. Each head of clover contains about sixty separate flower tubes, in each of which is a portion of sugar not exceeding the five hundredth part of a grain. Therefore, before one grain of sugar can be got, the bee must insert its proboscis into 500 clover tubes. Now, there are 7,000 grains in a pound, so that it follows that 3,500,000 clover tubes must be sucked in order to obtain but one pound of honey.

A New York State farmer gives a record kept by him of the quantity of butter made during a

series of years from native, grade and Ayrshire cows. For one year the average of thirteen natives was 147 pounds; for two years the average of grade Ayrshires (sixteen in first year and seventeen in second) was about 170 pounds; and for six years the average of nineteen Ayrshires ranged from 193 pounds in the lowest year to 218 pounds in the highest. A record such as this is very instructive, and if any of our Ontario farmers are able to supply one, we should be glad to publish it. Such figures for whole herds, and for a series of years, are of great value in determining what breeds are best adapted to the dairy in our country.

The best estimates of the United States wheat crop put the yield at about 200,000,000 bushels less than the average of the last five years. Michigan is the only State in which the fall wheat came safely through the winter, in most of the others it is doubtful if the average will exceed five bushels per acre. As a result of this great failure it seems to be inevitable that the price of wheat must advance. Still the movement may not be immediate. Crops were good almost all over the world last year, and the surplus will take some time yet in finding a market. Three or four months hence will doubtless see a rise in quotations, and farmers who can hold on until then are likely to benefit by it.

Here is an instance which illustrates the importance of taking care of farm implements. One season each of two neighbours bought mowing machines of the same style and make. One gave his machine good care at all times, and at the end of twenty five years it was fitted to do good work in the field. The other used his machine in the haying season, for the rest of the year he left it to rot and rust in the field; and at the end of five years he had to buy a new one. The instance is not singular, for there can hardly be a doubt that with the proper care of the wood and iron work of one machine it may be made to last five times longer than one that is exposed to all the weathers of the year. As a lesson in economy, every farmer will readily see the force of the instance given.

The value of white clover for pasture land is generally recognized; but there are very few people who think of improving their pastures by sowing it. Like the alsike, it perpetuates itself once it gets a footing; yet there are many places in which the trouble is to get a start. Wherever a farmer intends to put a field in permanent pasture, he should sow it liberally with white clover seed, and along with it a mixture of blue-grass seed. There are many in this Province who have no idea that the Kentucky blue-grass can grow here, although it is one of our native grasses and perhaps the very best of them for grazing purposes. In some of the Lake Erie counties especially, large fields if it are grown every year for seed, and any reliable seedsman may be trusted to procure a supply of it. The lawn in front of the Agricultural College at Guelph was seeded a year or two ago with white clover and blue grass, and this year it covers the ground like a carpet. No grazing land could be better than this for the dairyman's use in producing milk and butter.

FARM AND FIELD.

WALKS AND TALKS AMONG THE FARMERS.—NO. XI.

ACCORDING to the noted Dr. W. W. Hall, it is the belief of many eminent medical men, that, with all the vaunted advantages of country life, there is more sickness in farmers' families, and more disease of long standing in proportion to numbers, than in city families. One reason for this, he says, is the practice of eating heavy suppers just before going to bed. He dilates on the evils of this practice in his well-known book, "Health by Good Living," and evidently regards it as the chief cause of ill-health among country people. But I do not think it is the general practice among farmers to eat hearty suppers late in the evening. In summer, "five o'clock teas" were common in the country long before they became fashionable in the city, after which came two or three hours of work in the cool of the evening, and, perhaps, a "piece" before going to bed; but certainly nothing in the shape of a full meal. In winter, supper is usually taken pretty soon after it becomes too dark to do up chores by daylight, after which there is a long evening, with which many farmers and their families are at a loss to know what to do,—“the more's the pity.”

I SUPPOSE Dr. Hall is good authority for the opinion that there is more sickness in farmers' families than in city families, though he may not have hit upon the true cause, and it has often been a puzzle to me why there should be so much ill health in the country. No doubt wrong habits in regard to eating have much to do with it, for most diseases originate in a disordered condition of the stomach. I think farmers generally eat pretty fast, and hurry out to work as soon as the meal is over, both very bad habits. In haying and harvest time they eat too often, lunch being taken in the field in the middle of the forenoon, which sets the digestive machinery at work a couple of hours before dinner and creates a tendency to indigestion. The best authorities on physiology and hygiene lay it down as a maxim that there should be at least five hours' interval between meals, and condemn the practice of eating irregularly and between set meals. Too much fat pork is used, and too little fresh meat. Too few vegetables, and not enough fruit, enter into the farmer's bill of fare. In town, people can get fresh meat in small quantities daily, and if they have not gardens of their own, there is a market at hand where vegetables and fruit can be readily got. Very few farmers "bother" with a garden, and there is a kind of contempt for fruit among country people, except apples. There are orchards on most farms, but they are apt to be neglected, and the supply of fruit is fitful and irregular.

"GAIL HAMILTON" in a book with the curious title of "Twelve Miles from a Lemon," amusingly sets forth some of the advantages of country life. If a glass of lemonade was wanted, the lemon was twelve miles away. But this is not a very suitable text for a homily on the hardships of living a few miles out of town, because lemons will keep for two or three weeks very well, and, moreover, they are luxuries that most people can dispense with; but meat, vegetables, and fruit soon spoil, and they rank among the necessities of life. "Twelve Miles from a Beefsteak" would have been a better title for the book in question. It is well nigh impossible to keep up a regular supply of fresh meat in the country during the summer, although by buying from the butcher when in town, and raising poultry, this article of diet may be kept on the table pretty constantly. But many farmers think it extravagance to buy

fresh meat from the butcher, and as for growing poultry to be consumed at home, they would laugh at the very idea of it. This is mistaken economy, however, and there is a great truth wrapped up in the title of Dr. Hall's book, "Health by Good Living." Farmers and their families ought to make it a point to live well, not in the sense of indulging in luxuries, but in that of having always an abundant supply of good, solid, wholesome, nourishing food.

WHATEVER may be the difficulties connected with obtaining a supply of fresh meat, it is comparatively easy for farmers to provide plenty of vegetables and fruit. They have every facility for procuring these,—land, manure, horse-power, and control of their time. The trouble is to convince them that it is a wise expenditure of time to till a garden. They think it does not pay, which is a grand mistake. It pays in the health, comfort, and satisfaction which a good garden brings to every home that has one. There are those who doubt the healthfulness of a meat diet; but no one competent to judge can advance an argument against the free use of vegetables and fruit. My own conviction, based on a pretty extensive knowledge of the habits of country people, is that there is no class of the community so poorly supplied with vegetables and fruit, all the year round, as farmers and their families; and I am further persuaded that it is one great source of the ill-health which medical men are of opinion prevails more in the rural districts than in towns and cities.

THE error made by most farmers in regard to gardens is that a garden must necessarily be a little 7 x 9 plot, mostly worked with the spade. On the contrary, it should be a roomy area, laid out so as to be chiefly worked with the plough and scuffler. There need be very little hand-labour about a farmer's garden. An acre thus worked and properly managed may be made more profitable than any other five acres on the farm. I know farmers who have made this discovery, and, acting on it, not only supply their own tables with all the luxuries of the season in the way of garden products, but often have a surplus to sell, and by taking pains to get things in early obtain for that surplus the top price of the market. Like early rising, to have a good garden is "the way to be healthy, wealthy, and wise."

I PERSUADED a farmer, some years ago, to plant a lot of strawberries, currants and gooseberries. A fair trial convinced him of the profitableness of so doing, and now he would as soon think of neglecting his wheat field as his garden. Another who believed in vegetables, and even had a fine bed of asparagus, was hard to convince that small fruits were worth planting. The present of a few Brinkley's orange raspberries got him to grow that delicious but rather tender fruit, and this year, for the first time, he has had a crop of strawberries, which has converted him to Dr. Johnson's opinion, that "God Almighty, no doubt, might have made a better fruit than the strawberry; but it is quite certain that he never did." There is one advantage which the grower of vegetables and fruit has over those who go to the market for these things. They are far fresher and nicer if gathered as wanted. No one knows what it is to have a fully-ripe strawberry except he who gets it newly plucked from the stem. Vegetables quickly wilt, and small fruits taken to market must be gathered before they are quite ripe. To get these things at their best, they must be grown in your own garden.

BUT the health of farmers' families is the topic of this talk, and I must return to it, for it is by

no means exhausted. Neglect of drainage is a great source of disease in the country. Many houses are built on low sites where drainage is difficult if not impossible, and in some cases where houses are built on high sites, it is thought no drainage is necessary because the site is a high one. There ought to be no such thing as typhoid disease in the country, but in point of fact, there is a great deal of it, and the cause always is imperfect sanitary arrangements, chiefly in regard to drainage. Sometimes the barn-yard and manure-pile are too near the dwelling, and usually there is no provision against manure-soakage into the ground, whereby the premises are made unwholesome, the well be-fouled, and disease engendered. Many farm-houses have cellars that always have water in them during the fall and spring rains; most of them open directly into the living-room, so that all winter there is the effluvia of decaying vegetables; and generally, the window being stopped up, there is no outlet for the foul air except into and through the house.

NOTWITHSTANDING all that has been said, only a few of the sources of disease in the country have been adverted to. There are many others that have not been, and cannot now be enumerated. Let it be well understood, that for every effect there is a cause, and that most diseases are preventible. They result from some violation or other of the laws of health. Therefore we should study and conform to them, always remembering that an ounce of prevention is worth more than a pound of cure. Many farmers find the doctor's bill the heaviest of all their taxes, and people in the country, who have to pay the most for the visits of a doctor, are great consumers of patent medicines. Life is hardly worth the living when it is little better than one long disease, as it is with not a few, who have become the victims of chronic ailments that might have been prevented by due knowledge and care. The subject, then, is worthy our utmost attention, for it is vital to the efficient and pleasurable discharge of every day duty.

I CANNOT dismiss this matter, without uttering a caution against various imprudencies to which farmers and especially young farmers, are prone. An hour's thoughtless exposure has often resulted in life-long disease. A chill after being overheated may lay the foundation for consumption, or working in a cold rain bring on a rheumatism never to be got rid of. I could cite many examples illustrating the truth of these observations. It is better to err on the side of caution, than on that of recklessness. "Blessings brighten as they take their flight," and we too often learn the value of things by their loss. These proverbs are specially applicable to the blessing of health, than which there is none of a temporal nature more valuable, or more easily lost.

W. F. C.

THE REMOVAL OF FENCES.

A Maine farmer is reported as putting the case thus strongly in favour of the abolition of fences: "If I had my way I wouldn't have a fence on the farm. There are over 64,000 farmers in Maine. Their farms have in the aggregate over 42,000,000 rods of fence, or rising 131,000 miles. This is outside of ornamental fences, and does not include some 2,000 miles or more of railroad fencing. There are 11,000 rods of highway fences, 16,000,000 of partition fences, and some 15,000,000 rods of division fences. Estimating the cost of these fences at \$1 per rod, and that would, I think, be a fair estimate, the total cost of fences in Maine is over \$42,000,000. This

is nearly as much as all their farms and their buildings are worth. It is more than twice and a half the value of all our live stock, and nearly as much as the entire capital of the State invested in manufactures."

We have no means of verifying the statistics here presented, but it is fair to presume that they are measurably correct. The immense saving to agriculture that would follow the removal of fences, as suggested in the foregoing remarks, is surely a matter worthy of consideration. A work of this kind has been going on for some years in small towns and villages where front yard fences have been discarded, and often the rear and side fences as well. In most States the laws in regard to cattle and other animals found at large, if enforced, are sufficient to protect unclosed grounds from depredations from this source. If it came to be the general practice to trust to these laws entirely and promptly punish violations of them it would soon be quite unnecessary to go to the expense of building fences around lawns and gardens. The expense of keeping cattle in bounds, or compelling them to be kept there, would be insignificant in comparison with the amount spent in building fences mainly for the purpose of protection. While it seems idle to talk of dispensing with fences altogether, it appears as though it would be entirely practicable to do away with them except for the purpose of limiting the range of domestic animals. If the grazing lands, yards and pens for cows, sheep, etc., were securely guarded there would seem no longer any need of division and highway fences, nor of partition fences intended merely as such. The farms in many parts of the country are divided up to a much greater extent than is necessary in any case. In places where the ground is very stony, about the only way to dispose of the surplus rocks and cobbles is to build them up in walls, and this may sometimes afford a sufficient excuse for cutting up a farm into a great number of small enclosures. But where such reasons are not to be adduced, it appears like a waste of time and labour to divide up a small farm into three and five and ten-acre lots. It costs money to obtain the material and put up the fences, it costs to keep them in repair, and last but not least it costs time and labour to let down and put up a pair of bars every few rods in going from one part of the farm to another. And there is the waste of land that always goes with fences. If the farmer who computed the statistics we have quoted had added to them the amount, in acres, of land rendered useless by the proximity of fences, and thus practically withdrawn from the area of tillable soil, the results of his computation would have been still more astonishing. Especially so would they be in a district where the zigzag rail fences are still in fashion. But even with the best construction and the most skill and care in cultivation, there is always a wide border of land along every fence that is practically wasted. And to these items are to be added the trouble and annoyance of ploughing small enclosures, the difficulty of ploughing them properly, following all the turns and sharp corners, and the damage to such crops as corn and potatoes that is almost unavoidable where the rows are short and crooked and the planting done close up to the fences. Where a horse cultivator is used in such small fields the growing crop must always suffer more or less damage by trampling. Other reasons than these might be given why fences are often a positive loss to the farmer and a great hindrance to the successful cultivation of his land. Without going so far as to say, with the Maine farmer, that fences as though it would be a measure of wisdom and economy to have as few of them as possible and restrict their use mainly to enclosures for stock and grazing purposes.

HOME PHOSPHATE.

Every farmer should save the bones which accumulate about the premises and on the farm. A great many are foolish enough to let the bone pickers gather them up and cart them to the cities, where they sell them for about a cent a pound, and after awhile the farmer buys them back again mixed with ground rock or pulverized clay, at 2½ cents a pound, in the form of phosphates. This is not business. They are worth more than that in the raw state or as bones, and it is very easy to put them in a form to benefit the land at once. Gather a lot of brush and old wood, and mix the bones with this wood and burn the whole mass. Brush is better than large wood as it will not make so hot a fire or one to burn so long. It does not take much fire to char the bones, and this is all that is necessary to make them brittle enough to break up readily into fine particles. A little of their strength is lost by burning; some of the ammonia and phosphoric acid will pass off, and also the nitrogen in the gelatine and flesh attached to them, but the phosphate of lime, the main constituent, will remain. After being burned they are worth much more than the purchased phosphate. To have all of the constituents, and to put them into a soluble form, and ready for immediate use as plant food, the bones may be dissolved by immersing them in sulphuric acid diluted about three parts with water. Put the bones in a tub, and pour on the sulphuric acid (oil of vitriol) and three times its bulk of water, and then cover the mass until the bones are soft. The sulphuric acid will cause them to crumble, and then, by mixing plaster or loam with them, the ammonia will be fixed and saved, and the mass put in a condition to be utilized. There is nothing better to renovate the old pastures and meadows. Save all the bones and when prepared as we have shown, give the land a sprinkle and the good effects will be seen at once. Sulphuric acid is cheap. It must be handled with care and not allowed to get on the clothing or skin. A potash kettle is a place to put the acid and to dissolve the bones. A whole animal carcass may be dissolved in the same way and the nitrogen in the flesh all saved, and also the ammonia which it will throw off in decay. Mix the mass with fine dry muck, loam, or plaster, and there will be a valuable manure, every particle of which is worth more than the commercial fertilizers, ton for ton. This mass contains all of the properties which the phosphates do, but perhaps not in the same proportion, but in most cases more quantity of the valuable parts. If a farmer won't take the trouble to dissolve the bones as we have shown, they may be burned in the kitchen stove. This is a good way to dispose of all the bones coming from the table, and let them go in the ashes, and by this means they may reach the land. It does not look well to go behind a farmer's house and see the scattered bones of dead animals; nor to take a walk into the woods and be greeted with the stench of a dead animal. It is better to bury them than to do these ways; but the best plan is to get a load of brush and old wood and reduce the flesh and bones into a fertilizer and so clean the farm of all such unsightly sights and unseemly smells.

—Our Country Home.

We would direct the attention of the ladies and our readers generally to the advertisement on another page of the Improved Model Washers. This washing machine, as we may call it, is so simple, substantial and durable that it has won for itself a wide and favourable reputation and is still growing in popularity. The patentee and manufacturer, Mr. C. M. Dennis, is well known and persons may not hesitate to remit monies and rely on square dealings.

HOUSEHOLD HINTS.

Eggs are cheap food, even when the prices are not low. An egg contains very little waste, and is rich in all the desirable elements required for sustaining life. Eight eggs make one pound, and at 25 cents per dozen are cheaper than beef and far more nutritious.

If the varnish is defaced and shows white spots, apply linseed oil and turpentine with a soft rag until the colour returns, then wipe the mixture off with a clean, soft, dry rag. The oil and turpentine should be used in equal quantities, and well shaken, so as to mix thoroughly before using. Dry chamois leather should never be used on varnished or French-polished articles.

If you chance to have sour bread do not throw it away; excellent pancakes can be made of it. Cut the loaf in slices, then crumb it up quite fine. Pour over it boiling water, be sure every piece is wet; let stand and soak until soft. Drain off the water, beat the crumbs lightly with a fork. To one quart of these add one quart of good buttermilk, one quart flour, three or four eggs, two large teaspoonfuls of soda. Bake on a griddle. Stale bread may be used the same way.

Dried bananas are among the latest novelties. They are said to be an entirely new food product, and are certainly delicious. The rind of the ripe fruit is removed, and it is dried without sugar, forming dark-coloured, firm preserve of slightly softer consistency than citron, and having the flavour of a ripe banana. The fruit retains about one-third of its original size and may be either eaten from the hand, stewed or cooked in cake or pastry. Banana fritters from them are superior to the natural fruit, which comes to this market green and is ripened in hot rooms.

Gilt frames may be revived by a mixture of two ounces of white of egg and one ounce of chloride of potash or soda. The frames must be free from dust and then the mixture is applied with a soft brush. Such frames may be cleaned with a solution of a small quantity of salts of tartar dissolved in a wine bottle of water. Soak a piece of cotton batting in the liquid and dab the frames very gently with it; do not rub them, for the gilt would come off if you did. Place the frames so the water may drain from them and syringe with clean water. The mixture must not be too strong.

A CORRESPONDENT of the *Michigan Farmer* says: "I wish to tell those who are suffering from that terrible scourge, felons, of a painless remedy that will effect a perfect cure in twenty-four hours, as I have had occasion to prove within the last three days. A lady came here who had been suffering over two weeks with a felon on the end of her middle finger. I saturated a bit of wild turnip, the size of a bean, with spirits of turpentine and applied it to the affected part. It relieved the pain at once. In twelve hours there was a hole in the bone, and the felon was destroyed. I removed the turnip and applied healing salve, and the finger is well."

If you have not a fruit evaporator do not attempt to dry pumpkin for winter use about the stove, or in the sun. Stew it very dry, strain and spread it on plates and dry in the oven. If you own an evaporator, peel the pumpkin, cut into thin strips about an inch long, and dry. One of the nicest ways to prepare pumpkins for pies is as follows: Cut the pumpkin in half, put it in a dripping pan, skin side down (after the seeds are removed) in a slow oven; bake until all the good can be easily scraped from the rind with a spoon: if it is as brown as nicely baked bread, all the better; mash finely, and to one quart a quarter of a pound of butter, while hot. Then make up after your usual formula.

HORSES AND CATTLE.

CATTLE—WHICH BREED?

Probably within the last ten years there has never been any one period when so many public sales of highly bred beef animals have been successfully held. There are reasons for these sales other than scarcity of money, due to so-called hard times, although as a general rule they have been altogether attributed to these causes. The question arises: Are the times hard? To us it seems evident that when a country is full of provisions, with any amount of money as is now the case in America, the times cannot literally speaking, be termed hard. Doubtless the prices for farm stock have depreciated, and where good prices could formerly be readily obtained for a second rate article, it is now impossible to find buyers at anything like the old figures.

Owing to these circumstances, farmers begin to ask themselves: What shall we do? What shall we breed? Among the numerous breeds of dairy and beef cattle they become perplexed, and are often tempted to lapse into the former customs of their forefathers. Reading from all sources they readily observe that reports and experiences differ regarding any one variety of stock; conversing with their neighbours they find that their results have been vastly different with the same class of animals, the result being that the enquiring farmer is disheartened and ceases to think of improved breeds, and generally ends by saying "the whole thing is a humbug." Within the last few months we have had auction sales of Shorthorns, Herefords, Polled Angus, Galloway, Jersey and Holstein cattle, and still other cattle of different breeds have been sold. These things perplex the farmer, for in looking over his paper he notices that large prices are paid for individuals of any breed he may choose, and he cannot make up his mind which he should decide upon. Let us say right here, it does not matter. Any man who is a thorough stock man, can make a success of any variety of fine-bred cattle, for are they not all good? Fashion has much to do with high prices, but fashion is not what the stomachs of the people want; they require beef, therefore let beef be the aim in buying pure bred stock. Petty jealousies must be left out of the question; prejudice should be forgotten, then buy individuals of any one of the beef breeds, properly care for them, intelligently breed them and the result will be satisfactory. What matters it to the butcher whether prime beef comes to him inside of a red and white, a black, or a red, white and roan skin? So long as it is properly manufactured beef of excellent quality, he will pay an equal price for it all; what then, is the use of fighting over a name, a family, or a fashion? Again, if milk and butter be the object, aim after milk and butter, and do not stop to say: "Where can the animal be found which will produce for me the choicest beef, the richest cream or butter, and the nuttiest cheese, all in the same breed?" Such an animal, or family, or breed cannot be found; the aim must therefore be to produce one thing at a time, for if figs cannot be gathered from thistles, neither should we expect to find all these different products in the same animal. For the man in search of beef there is a large list to choose from: Shorthorn, Hereford, Aberdeen, Angus, Galloway, Devon, Norfolk, Suffolk, Sussex, Long-horn, West Highland, Welsh, all good for beef if properly fed for that end. Then the dairyman has more than one breed to select from, any of which can be made profitable. For milk butter or cheese, Holstein, Jersey, Ayrshire, Kerry and Guernsey cows are all valuable, the only requirement necessary to success being that the purchaser must select one breed, then stick

to it without bothering himself about the others, and in the long run he will come out well.

Contentment is a fine thing in any vocation of life, but nowhere more so than in stock-breeding, therefore let the owner endeavour to be content with the breed of cattle he may possess, and if it be of pure blood, and their owner a "stayer," results cannot but prove satisfactory.

JUDGING CLYDESDALES.

Says the *North British Agriculturist*: Taking the animal as it appears before us we naturally scrutinize it closely and make a general survey of it; have it walked out, and then commence to find out what is wanting, and what points should not be there. The head must be clean out, neat and small; no Roman noses; a bold eye; ears well set on, and not too heavy; head well set on to a good muscular neck, which may be nicely arched, and of a good proportionate length to the animal's body; shoulder should be muscular, with knee joints wide, and strong bone above and below; pasterns nicely arched back from the tip of a good open foot. Avoid thin feet and flat soles. Hair on the legs should be soft and silky, avoiding close matted hair. A good, level short back, with the ribs well arched from it, avoiding flat ribs and narrowness round the heart, and any tendency to lightness of back rib. Hindquarters powerful and short, "coupled" to the back (two great items of strength in a cart horse); all well set on, thighs powerful, with good, open, clean hocks, flat on the inside; hind feet generally longer and narrower than the fore ones. The hind legs should be perpendicular from the cap of the hock to the pastern joint, avoiding "cow hocks." A horse should have good action, with complete flexion of the knees and hocks, the latter of which he must keep well under him when moving. Must not waddle or swing in his movements, and when standing naturally must cover a good length of ground in proportion to the length of himself. Avoid horses that stand forward on their forelegs or back on their hind ones.

The points to be admired most, and hence must be of most value, are a hardy constitution, good all-round action, and good sound feet and legs. It matters little to anyone how good a body he may have. In selecting mares for breeding purposes we must look for long, low, roomy animals.

A few years ago the expression used by a farmer of what might be said to be the old school, when purchasing a horse, struck me as being very suggestive. It was as follows, viz: Must have four good feet and legs; short coupled body, plenty of room to hold its dinner; and to finish with, must be a "crisp mover."

KILLING HEIFERS.

"Is it not almost wicked to kill the heifers?"

The above question stared us in the face from the page of a much respected agricultural paper of a recent date. Our answer on the spur of the moment was: "Well, that depends." And further consideration of the question does not lead us to change our views on it.

If the heifer has an ancestry of deep milkers, or of high butter making qualities; if she in herself shows marks which lead the owner to believe that she will excel the average in any particular line in which it is desired to breed cattle, then perhaps we should answer the question in the affirmative. But if the contrary were true, and we believed that the heifer would fall below the average in its class, then we should not hesitate to answer in the negative. And further, we believe that it would be a blessing if all such should be fitted for the block and not used for breeders.

The motto of the breeder should be onward and upward, and if all the heifers were bred by him we fear that his progress in improvement would be very slow.

BREAKING COLTS.

The time to begin breaking a colt, says the *New England Farmer*, is when it is a suckling by the side of its dam. It should early be taught that it has nothing to fear from the presence of man, and that no harm will come to it from being fondled from head to foot. A very little pains at this period will soon make the colt perfectly gentle and he may then be broken to lead by the halter, and to stand when tied. All his subsequent lessons should be by gradual approaches, the main point being to inspire him with confidence that he will not be harmed. He should be accustomed to the bridle by means of the "bitting rig," before any attempt is made to ride him; and the mounting should always be made by gradual approaches—in the stall or the lot where the colt is perfectly familiar with all the surroundings. When it is desired to break him to harness, the same principle of gentleness and care, to avoid giving fright, should be practised. Place portions of the harness on him at a time, and let him carry it in his stall until he finds that it will not harm him; then lead him out with the harness on, alone, and again by the side of another horse, also in harness. Accustom him perfectly to the use of the lines, then let him make the acquaintance of the sulky, and push it after him, until he has found that it also is harmless. By pursuing this system of gradual approaches with perfect gentleness of manner on the part of the groom or other attendant, there need never be any trouble in breaking the most fiery-tempered colt.

BREEDING FOR SEX.

"C. E. C.," in the *Country Gentleman*, gives his experience on this interesting subject as follows: I kept two service bulls last year, and kept a careful record of all cows served as to time of day. My young bull served thirteen animals, and every one served in the first stage of the heat has dropped a heifer calf, and everyone served in the evening of or last of the heat has dropped a bull calf. My old bull Hindoo 3rd [5685], served forty cows, and all that have calved to date that were served in the first of the heat except three, have dropped heifers, and all but two or three served in the last of the heat have dropped bulls. I should like to know if any other breeder has paid attention to this matter. Before I owned bulls I bred my cows at night after working hours, sometimes as late as eight or nine o'clock, and in two years had bull calves all the time. Some old dairyman told me to breed early in the morning for heifers, and my experience confirms me in the belief that it will work. "An Old Breeder" will please accept thanks for his advice on page 542. I shall try it, and report results. There are several Jersey cows in this vicinity in about the same condition as mine.

IMPORTATION OF NORMAN STALLIONS.

We are just in receipt of the following note from Messrs Dillon Bros., importers of Norman horses:

MR. EDITOR,—Our first importation for this season, eighteen choice Norman stallions, arrived at our stables in Normal this morning. They are black and dark grays, from three to six years old; all in fine condition. They were selected by J. C. Duncan, and are the best that he could find in France. Yours respectfully,

DILLON BROTHERS.

Normal, Ill., July 7th, 1885.

Horses should always be well broken before being put on the market. There is not much demand for unbroken animals in any of our city markets, and if the animals are well-trained drivers, etc., they will meet with much more ready sale at better figures.

WHAT COWS TO BREED.

Honest men differ in opinions, and men who differ often misunderstand each other. Men who own pure bred animals, and especially if they are breeding them for sale, quite naturally fall into the habit of seeing little that is valuable in any other breed than their own. Each sets up a standard suited to his own special wants or tastes, and gauges everything else in the stock line by that standard. The breeder of beef cattle looks down with disdain upon the little "runt of a Jersey," while the breeder of butter cows or of large milkers will talk of the Shorthorns or Herefords as animals requiring "two mothers to bring up one calf." At the same time the great mass of cow owners want a cow that can make milk enough not only to raise her own calf, but a good mess for her owner besides, and one which, when dry, will fatten at a reasonable expense, and yield a good carcass of beef. Such a cow is sometimes spoken of as the "general purpose" cow, and if she is a good one, is a very popular cow with the general farmer. The advocates of pure breeds are apt to deride the general purpose cow, and argue that it is impossible to combine milk or butter production with the ability to make meat profitably.

Mr. A. B. Allen, an early importer of pure bred stock, and a great admirer and excellent judge of good cattle and other farm animals, has done very much during the past fifty years to develop an interest in the improvement of cattle, horses, sheep and swine in this country. Though now eighty-three years old, he continues to furnish the press with some of the best live stock articles published.

To a recent number of the *National Live Stock Journal*, Mr. Allen contributes the following short statement of his views concerning what kind of cows the general farmer should breed. His position is hardly a popular one, yet we believe the views he holds are correct. He says;—

I see frequent assertions by various writers in the agricultural papers that general purpose cows are unprofitable for the farmers, and that they ought not to keep them. If milk and cheese are their specialties, I grant that the Dutch cows, the Ayrshires, and the large milking families of the short horns are best for them; if butter, the Guernseys and the Jerseys. But special dairymen are few in comparison to the great mass of the farmers of the United States, and for them the well-bred—not the poor general purpose cow is the most profitable. For this the Shorthorn cow and her grades, as formerly reared by the Maynards, the Collings, the Stephenson's, the Bates, and other breeders of their day, would be the best for rich pastures; and the Red Polled Norfolk, and Suffolk for those of a poorer quality. The former if properly bred and reared yield in their flush from twenty to thirty quarts of milk per day, making ten to fifteen pounds of butter per week, while the latter yields, in correspondence with her size, say, about three-fourths as much; and both of these hold on in their milk until near the time of calving. When dried off, they fatten rapidly and economically, and make an excellent quality of beef. Their bull calves are of good size, and great favourites with the butchers for veal; and if kept on as steers until two years old and past, they give a highly profitable return when slaughtered.

Now, here are animals of the greatest profit and utility for the general farmer, and they can be rapidly and easily grown up, provided he will pay proper attention to their milking and rearing. There are numerous large milking Shorthorn cows and their grades still living both in England and America. These can be obtained at a moderate price, but the Polled are much fewer in number, and of proportionately higher price at present.

In talking about the general purpose cow, people usually think only of the ordinary native, whose yield of dairy products is not over one-third to one-half as much as is stated above, and when dried off it costs as much food to fatten her as the carcass will bring in market, and the beef is of an indifferent quality. Cows of this sort are unprofitable to be kept either for the dairy or the shambles, and the sooner farmers are rid of such the better it will be for them. Let each one now resolve to mend his ways, and commence an improvement in his dairy stock, which shall be a source of sure pecuniary profit to him instead of a loss, to say nothing of the pleasure of possessing a fine looking, noble race of animals, instead of those of a mean, ordinary sort.

A horse that is to be used for driving or riding should carry no more flesh than is essential to plump muscles and strength, and it should have sufficient exercise each day to harden its muscles and give it good wind.

GREASE HEELS IN HORSES.

This disease is usually brought on by neglect. It is one of those diseases which it is easier to prevent than cure. By an ordinary attention to cleanliness, by an average attention to the necessities of the animal, this may be avoided whenever it is witnessed. It not only argues the human being to whom the animal belongs to be in the lowest state of degradation, but it also testifies to the suffering endured by the poor creatures which are compelled to drag out life in such custody. Grease in the first stage is inflammation of the sebaceous glands of the legs, but it soon extends beyond this, and the deep seated structures become involved. A white leg is more subject to this disease than any other colour, and the fore limbs are almost exempt from this disease. The reason of this is because the anterior extremities are nearer to the centre of circulation, consequently the vitality of the fore legs is more active and the flow of blood more energetic, hence the anterior extremity can resist the disease which is liable to attack the hind ones.

Treatment—Particular attention must be given to cleanliness in every respect, the stable as well as the horse; feed good, easily digested food, and keep the bowels loose; a very good thing is to give the animal a cathartic composed of aloes from six to eight drams, and a teaspoonful of ginger; give this in a ball on an empty stomach, followed by tonics such as powdered gentian root, four ounces, and powdered sulphur three ounces; mix the whole together and give a teaspoonful night and morning on his food. Keep the parts clean and apply some cooling lotion, such as sugar of lead two ounces; sulphate of zinc, half ounce; put into a quart of rain water and apply to the parts three times a day.—*Chicago Herald*.

FREEZING OUT BALKY HORSES.

A correspondent of the *Tribune and Farmer* writes. I know of nothing that can provoke a man more than a balky horse. The animal appears to know where the most true cussedness can be shown, and takes advantage of that knowledge.

One is returning home on a cold, rainy night, and at the foot of the hill, the horse refuses to budge a step or draw a pound. Of course, high temper on the part of the driver does no good, meekness does no good. The only thing to do is to get out of there some way, and I don't propose to suggest, but I will tell you what I did once.

One winter evening when a blinding snow storm was in full blast, I discovered that the wood pile was low, so I hitched up an old balky mare and went to the woods after some fuel. I put on but half a load and started back. Not far had I gone when the old mare came to a dead standstill and I knew very well that no human power could move her, so I hitched her by the halter to a sapling which stood near her head and went to the house.

The storm raged all night, and I gloated all night, and never in my life did I see a horse so willing to pull as was that one in the morning, and that ended her refusal to pull when commanded.

This reminds me of what an old farmer has written. He says he cures balky horses by loneliness. He had a horse that would not pull. He left him standing at night, and in the morning the horse would not draw the load to the barn. At noon he went back to him again and tried to drive the horse to the barn. He would not go, but when the farmer started to leave him, he followed. The old farmer said he had got hungry and lonesome. He was fed well when he got to the barn and did not balk afterwards.

CANADA SHORTHORN HERD BOOK.

Below we give a list of transfers of thorough bred reported from May 20th to July 20th. In the following list the person first named is the seller and the second the buyer.

B. Orpheus 16th [12939]—by 4th Duke of Clarence [4988], [33597], Canada West Farm Stock Association; Ewen Cameron and others, Port.

B. Rob Roy [12940], by Lord Beaconsfield [10142], A. G. Pettit, Grimsby; Beverly Book, Grimsby.

B. Duke of Normanby [12941], by Prince of Wales [9168], Henry Mensor, Elmwood; Henry Lippert, Neustadt.

B. Sir John A. [12943], by Garfield [10964], Geo. Stewart, Valentia; R. Suggitt, Casarua.

R. Bingo Boy [12942], by Garfield [10964], Geo. Stewart, Valentia; Wm. Stewart, Little Britain.

F. Pride of Scugog [14723], by Garfield [10964], Geo. Stewart, Valentia; Alex. Earle, Scugog.

B. Halton Hero [12946], by Hanlan [8679], Robert Aikens, Knatchbull; H. W. Henderson, Yelverton.

B. Lord Haddo [12947], by Rose Duke [9270], Wm. Watson, Nassagaweya; Robt. Aikens, Knatchbull.

B. Darby [12948], by Lord Beaconsfield [10142], J. A. Pettit, Grimsby; J. B. Carpenter, Simcoe.

B. Champion of Louth [12949], by Baron Cambria [6602], Jas. R. R. Secord, Homer; Samuel Gladwell, St. Catharines.

C. Duchess of Berlin [11802], by Elderridge Duke [7049], Rev. Alex. Campbell, Stonewall, Man.; Alex. Matheson, Stonewall.

B. King John [12951], by The Grange Duke [10779]—Mark Ashman, London; John Webb, Masonville.

B. Blake [12952], by Earl of Lobo [11054], James Healey, Strathroy; Joseph Burns, Warwick.

B. Sir John [12953], by Royal John [10449], Jas. Healey, Strathroy; S. D. Barus, Warwick.

B. Duke of Venice [12954], by General Grant [12543], E. H. Morgan, Stanbridge Station, Quebec; Thomas Hunter, Venice, Que.

B. Earl Grey [12933], by Royal Duke [10438], John Hislop, Brussels; John Johnston, Brussels.

H. Lily 3rd [14729], by Erin Chief [12102], Robt. Henderson, Orangeville; Wm. Hawkins, Alton.

C. Lily 2nd [11567], by Prince Bloom [9129], Robt. Henderson, Orangeville; Wm. Hawkins, Alton.

B. Earl of Lambton [12959], by Victor Emanuel [11866], Noah Bricker, Roseville; Albert Duncan, Osborne.

B. Oxford Duke 6th [12961], by Earl of Airdrie [5168], Alex. Robertson, Alton; James Hills, Hanover.

B. Prince Royal [12962], by Lieutenant [7286], John B. Berg, Amulra; Henry Berg, Philipsburg.

B. Duke of Marigold [12955], by Christopher [12534], Geo. Keith, Toronto; Joseph Orr, Clarkson.

B. Royal Butterfly [12963], by Nonsuch [7522], John Routledge, Hyde Park; John Burns, Westminster.

F. Maud Languish [14735], by Harwich Duke [10059], B. S. Soman, Blenheim; W. J. Devereux, Ridgetown.

F. Annie Languish [14736], by Joe Languish [10103], B. S. Soman, Blenheim; W. J. Devereux, Ridgetown.

B. Lord Ashley [12967], by Commodore [9773], B. S. Soman, Blenheim; Wm. Nichols, Blenheim.

B. Halton Pride [12969], by Prairie King [10293], Henry Robinson, Omagh; Amos Kinder, Omagh.

B. Sir Rodger [12968], by Prairie King [10293], Henry Robinson, Omagh; Joseph Watson, Boyne.

B. Dollar King [12972], by Prince of Goodness [10342], W. F. Nichols, Buttonville; Peter Boynton, Dollar.

B. Delta Chief [12973], by Guelph Baron [7153], Alex. Acheson, Philipsville; J. E. Brown, Delta.

B. General Garfield [12974], by High Sheriff 8rd [7189], Rowland B. Orr, Milton; J. S. Williams, Knowlton, Que.

B. Prince of Bolton [12975], by Earl of Stafford [11482], C. W. Bancroft, Knowlton, Que.; J. F. Bryant, Millington, Que.

C. Beauty [14751], by Lord Dufferin 8rd [5579], Henry Robinson, Omagh; John Wales, Omagh.

B. Premature [12978], by Prairie King [10293], Henry Robinson, Omagh; John Miller, Herby.

C. Lady Huron [14755], by Crusade 2nd [8291], Wm. Barbour, Crosshill; Samuel Rannie, Zurich.

B. General Gordon [12982], by Beaconsfield 4th [12892], James Carnochan, Jr., Seaforth; John McKinley, Blake.

B. John Collins [12981], by Beaconsfield 4th [12892], James Carnochan, Jr., Seaforth; W. N. Johnston, B. Igrave.

B. Kenmore [12984], by Marquis of Lorne [8965], J. Hawkins, V.S., Detroit, Mich.; H. G. Arnold, Maidstone Cross.

B. Harlequin [12983], by Marquis of Lorne [8965], J. Hawkins, V.S., Detroit, Mich.; H. G. Arnold, Maidstone Cross.

B. Brampton Champion 2nd [12985], by Young Ned of Rosedale [10657], J. S. Robson, Archibald, Man.; W. Bedford, Calf Mountain, Man.

B. 5th Duke of Huntley [12986], by Lorne [7392], Hugh Gourlay, Huntly, Hiram Blackman, Huntly.

B. British Crown [12991], by Sir Leonard [10500], [45613]—Thos McCullough, Eramosa; John Cole, Mitchell.

B. Duke of Cumberland 2nd [12992], by Duke of Cumberland [9852], James McCutcheon, Seeley's Bay, J. C. Stafford, Lyndhurst.

C. Daisy Duchess 2nd [14767], by Franklin Duke [9977], James McCutcheon, Seeley's Bay, J. C. Stafford, Lyndhurst.

C. Lady Kate [14766], by Duke of Cumberland [9852], James McCutcheon, Seeley's Bay; J. C. Stafford, Lyndhurst.

B. Duke of Chicopee [12995], by Manitoba [11661], Joseph Sanders, Jr., Preston, J. S. Frain, Walker.

B. Duke of Fairmount [12996], by 2nd Duke of Fairview [8898], D. Mackenzie, Hyde Park; John Bell, Crumlin.

B. Village Major [12996], by Athelstane [4719], C. B. Bristow, Rob Roy; David Reid, Bognor.

B. Drum Major [12999], by Sir Richard Booth [11858], C. B. Bristow, Rob Roy; Robt. Hamill, Chatsworth.

B. McNab [13002], by Statesman 1st [9420], [44096], S. C. Isaac, Baltimore; A. H. Rosevear, Coldsprings.

B. Joe Smith [13001], by McNab [13002], A. H. Rosevear, Coldsprings; James H. Rosevear, Cobourg.

B. Pride of Peel [13003], by Young Canada [12221], Robert Fasken, Elora; Rhodes Letson, Alma.

B. Grey Duke [12193], by Torrington [10560], Andrew Gilmore, Huntingdon, Que.; S. McGerrigle & Bros., Ormstown, Que.

B. Dunfield Chief [13010], by Double Famosa Chief [6846], Donald Gillies, Nairn; Henry Boyd, Denfield.

C. Lucy Bell [14777], by Double Famosa Chief [6846], Donald Gillies, Nairn; Duncan Gillies, Nairn.

B. Duke of Oxford [13017], by Oxford Royal, [13016], John Hickingbottom, St. Augustine; D. McIlwain, Nile.

B. Rob Roy [13018], by Fairview Chief [9965], R. D. Dundas, Springville; R. Dowles & Bros., Springville.

C. Lady Cohern [14786], by 2nd Duke of Moundale [13022], E. W. & G. Charlton, Duncrief; John Cohern, Duncrief.

B. Greenholme Prince 2nd [13024], by Christmas Duke [6747], John Rowntree, Thistle town; A. Hoover, Almira.

B. Sir Hilton [13023], by Baron Brawith (imp) [12759], J. W. Robinson, St. Mary's; Henry Belton, Thorndale.

B. Senator Plumb [12488], by Young Clarendon 2nd [10631], Geo. S. Inglis, Belmont, Peter Deans, Belmont.

F. River Blanche [14801], by Duke of Bloom-

ingdale [11988], Jacob S. Snider, Bloomingdale; Joseph Snider, Bloomingdale.

B. Howick Prince [13032], by Duke of Bloomingdale [11988], Jacob S. Snider, Bloomingdale; Isaac W. Weber, Brotherston.

B. Duke of Bridgeport [13031], by Duke of Bloomingdale [11988], Jacob S. Snider, Bloomingdale; Henry Erb, Bridgeport.

F. Louise [14803], by Lorne [3563], Wm. Lackner, Hawksville; Geo. Lackner, Hawksville.

F. Maple Grove Queen [14805], by Lord Morley [13033], Jos. H. Marshall, Masonville, John Rowell, Birr.

F. Clara Belle [14804], by Lord Morley [13033], Jos. H. Marshall, Masonville; Wm. Walker, Ilderton.

B. Lord Morley [13033], by Baron Constantine, [37563], J. & R. Robson, Ilderton; Gibson & Winthrop, Ilderton.

B. Knight of the Border [13035], by Comet [6761], W. Porter, Lloydtown; Charles E. Porter, Wyoming.

B. Lord L. [13036], by Marquis of Lorne [11692], George Donald, Wyoming; John Muskeell, Wyoming.

B. Sir Robert [13037], by Baron Gano 2nd [4578], A. Warnica, Craigvale; N. Jackson, Granger.

B. Young Dixie [13039], by Lord Seaton [8896] Wm. Blanchard, Wingham; Mark Cassells, Wingham.

F. Maple Queen [14811], by Earl of Airdie 2nd [5159], A. Anderson, Newton; Wm. Wood, Tralee.

B. Star of the West [13043], by Lord Monck [8875], by Wm. Dawson, Victoria; Wm. Sawdon, Tilsonburg.

B. Melbourne Duke [13041], by Baron Surmise [6620], Lord Aylmer, Melbourne; Henry J. Gawne, Melbourne.

B. Crown Prince of Benmiller [13047], by Duke of Maitland [10710], James Tabb, Benmiller; Wm. Hill, Benmiller.

F. Regina [14814], by 2nd Crown Prince of Strathallan [13046], Richard Jackson, Londesboro; James Tabb, Benmiller.

B. 2nd Crown Prince of Strathallan [13046], by Crown Prince of Athelstane 2nd [2932], Jno. Miller, Brougham, R. Scott, Londesboro.

B. Rob Roy [13048], by Garfield [9987], A. Aitcheson, Inverhaugh; Frederick Rader, West Flamboro'.

B. Glancer [13049], by Admiral [8061], A. Aitcheson, Inverhaugh; Usher Boyd, Stirton.

F. Copp's Favourite [14816], by Young Doctor [9571], John Cullis, Fenelon Falls; John F. Copp, Fenelon Falls.

B. Woodburn Prince [13052], by Senator [7836], Simeon Lemon, Kettleby; Wm. Segsworth, Monck.

B. Enchanter [13053], by Brampton Hero [6595], J & W. Watt, Salem; Francis Cassidy, Fergus.

B. Rockwood Duke [13050], by Ed. Hanlan [7040], Wm. McAllister, Stony Mountain; Donald Fraser, Emerson, Man.

B. Jolly Jack [13054], by Gambetta [13055], John S. McGilvery, Perth; C. M. Simpson, Aliconte.

B. Gambetta [13055], by Prince Hillhurst 3rd [13056], Dalton McCarthy, Barrie; C. A. Matheson, Perth.

B. Prince Hillhurst 3rd [13056], by Duke of Oxford 35th [9894], Hon. M. H. Cochrane, Compton, Que.; Dalton McCarthy, Barrie.

B. Erie Chief [13061], by Brighton Duke [9719], George Baker, Simcoe; H. M. Barrett, Port Rowan.

F. Jessie [14818], by Earl of Kent [7033], Robt. A. Vance, Mount Forest; Wm. Caulfield, Mount Forest.

F. Rose [7652], by Earl Goodness 2nd [3122], Joseph Watson, Greenbank; D. V. Hicks, Dresden.

F. Lily Languish [13215], by Baron Languish [4584], B. S. Scamon, Blenheim; Wm. Nichols, Blenheim.

F. Lady Elgin [14821], by Blake [9699], B. S. Scamon, Blenheim; Wm. Nichols, Blenheim.

B. Gay [13064], by Earl Minto [7020], Walter Quennell, Newbridge; Samuel Johnston, Fordwich.

CREAM.

A SMALL boy says the leaves of tables are called leaves because you can leave them up or you can leave them down.

"My son, why is it that you are always behind-hand with your studies?" "Because, otherwise I could not pursue them."

"ONLY a match box," remarked Fogg at the theatre the other night, referring to the seats where the young lovers sat.

WHEN an Afghan is tanned by the sun he really doesn't care, but when he is tanned by a Russian it is more than he can bear.

SOME say that a man who would "beat an egg" would be so cruel as to "whip cream," "thrash wheat," or even "lick a postage stamp."

A LITTLE cold cream is good for chapped lips. That's the reason the girls are always leading the footsteps of their beaux to the confectionery saloon.

NIGHT ON THE FARM.

Now all clucked home to their feather beds,
Are the velvet chicks of the downy heads,
In the old Dutch style with the beds above,
All under the wings of a hovering love,
But a few chinked in as plump a wrens,
Around the edge of the ruffled eons.

With nose in the grass the dog keeps guard,
With long-drawn breaths in the old farm yard,
The cattle stand on the scattered straw,
And cease the swing of the under jaw.

And everywhere the pillows fair,
Are printed with heads of tumbled hair,
Time walks the house with a clock-tick tread,
Without and within the farm is abed!

It is a mistake to expect to receive welcome, hospitality, words of cheer, and help over hard places in life, in return for cold selfishness, which cares for nothing but self. It is painful not to meet with the kindness and affection that you think is yours by right. But you cannot extort friendship with a cocked pistol.

"I am sorry, darling, that you are displeased with me, but then you know I cannot help it. I am an emotionalist." "Well, then, I certainly cannot marry you, George." "Why not?" "Well, you know perfectly well that my parents would never consent to my marrying any one but a Methodist," and then she cried.

"I suppose I shall be an old maid all my life," sighed a young woman of twenty-five. "That's a grievous complaint," responded an old bachelor. "Very," again sighed the maiden. "Do you want to cure it?" "Of course I do." "Take me for a husband." "Do you mean it?" "Certainly." "Well, desperate diseases required desperate remedies, and I guess I'll try you." They fell upon each other's necks.

An old lady whose son was sentenced to ten years' imprisonment was greatly surprised and distressed over the sentence. She felt called upon to expostulate, and stepped up before the judge and said, pathetically, "Why, Judge I have known John a sight longer than you have, and I know he won't be contented there a week." But John had to serve ten years with nobody to ask what degree of contentment he was able to enjoy.

THE *National Farmer* says: "Half a pint of sunflower seeds given to a horse with his other food each morning and night will keep him in better health and better spirits than he will be in without it, while his hair will be brighter. When a saddle-horse is required to be particularly sprightly he may be given a pint of sunflower seed with his oats at night and half as much in the morning; he will be found more antic and sprightly during the day, and consequently be more pleasant to the rider. After a little use the horses become very fond of eating sunflower seed."

SHEEP AND SWINE.

FOR THE RURAL CANADIAN.

A CHAPTER ON THE PIG.

The pig, although despised by the Jew, occupies a very prominent position in the practical economy of the Canadian farmer. Piggie is very erroneously supposed to be a very dirty animal; but if you clean out his pen every day as you clean out your horse stable you will find him to be scrupulously clean.

When the sow is within a few days of farrowing you must put her in a nice, airy, warm pen, with a level, dry floor. Nail a narrow piece of board all round the pen so that it will be six inches from the floor and four inches from the sides, in order that when the sow lies down the little pigs will have a chance to get under this board and thus be saved from suffocation. Litter the pen with cut straw. Feed the sow very moderately with nice warm drinks for a few days after farrowing. After four days the feed can be increased considerably, but should be always warmed if the weather is the least cold. When the pigs are about a week old, look at all their mouths, and if black teeth are present break them off with a pair of pincers or nippers. At three weeks old a hole should be made in the pen to let the little pigs out into an apartment by themselves, where they should have a shallow trough with milk so that they can learn to drink. The males may be castrated after they are three weeks old, only do not do it in very hot weather. Wean when they are between four and five weeks old, but all should not be taken from the sow at once.

The sow may be taken to the boar in three or four days after the last of the pigs have been taken from her. A sow, if well taken care of, will raise two litters of pigs every year for four or five years. I had a sow that raised me over ninety pigs before she showed signs of failing vigour. A good many think that it is impossible to give a pig medicine; now this is a great mistake. Provide yourself with a narrow piece of board (the width will depend on the size of the animal); have a hole in the centre of the board to admit the neck of the bottle; after catching piggy back him up in a corner setting his front feet on a box a foot or more high, make your assistant put the board edgewise in the animal's mouth like a bit. Now put the neck of the bottle in the hole and administer your physic; do not pour too fast or too much at a time or you may choke him. At killing time, I take my revolver and shoot them down—a much easier and nicer method than catching. The noise and smell of powder keep the others quiet. SANDY TAMSON.

BREEDS OF SHEEP.

The following by Mr. Elias Hand, of Houghton Farm, appeared in the *Rural New Yorker*: The Leicester, for early maturity, excels all others, provided it gets what it likes. It is nothing uncommon for a shearing wether to weigh 280 pounds. The meat, however, is too fat. The ewes are not prolific, and are rather scanty milkers. The lambs are delicate for the first month, but once started they make very rapid growth. The sheep yield a heavy growth of coarse, long wool, commanding a low price.

The Cotswold is the oldest authentic English breed. The ewes average one and one-fourth lambs a year, are fairly good mothers, and great eaters. Cotswolds hold their wool well and for a longer time than the Leicesters. As mutton sheep they are a little inferior to the Leicesters in weight and rapidity of maturing, but distinctly superior to them in the quality of their meat. They are liable to suffer from rapid changes in

temperature, and, like the Leicesters, they will not thrive in large flocks; there should not be more than twenty five or thirty in one "bunch."

The Southdown, England's favorite mutton, is a breed difficult to overpraise. A flock will yield one and one half lambs per ewe, the lambs coming strong, lively, and able to look out for themselves. The ewes are excellent mothers and excellent milkers, yielding enough for two lambs. The Southdown maintains a regularity or evenness of flesh better than any other breed, while in hardiness and capacity to adapt itself to circumstances it is not surpassed. It yields a fair sized fleece of very fine, medium long wool, which commands at least second best price. Although a medium sized sheep, the shearing wethers, properly cared for, weigh 160 pounds, and the mutton will bring one cent per pound more than that of the long wools. A larger flock can also be pastured together, for these sheep, though incessant eaters, are much livelier in motion and better foragers than the Leicesters and Cotswolds.

The Shropshire Down is a reliable breeder and good mother, will average one and one-half lambs a year, and yields a close, heavy fleece of medium long wool of fairly fine texture. It is a larger, leggier sheep than the Southdown, but has not such good forequarters. When extreme excellence of both meat and fleece is not so much a desideratum as weight of both, then the Shropshire will lead the Southdown.

The Merino, as a wool bearing sheep, stands pre-eminent as well for the fineness as the felting quality of its wool, which is likely always to command relatively a high price. As a mutton sheep it is nowhere, being small and maturing slowly, while the mutton has a woolly, greasy flavour. It is best fitted for the great flocks of the Western ranches, where, on account of the cheapness of the land, sheep can be bred at a profit for the value of the wool alone. A cross of a Cotswold on a Merino is a sheep of considerable merit having a carcass much heavier than that of the Merino and yielding an excellent fleece of combing wool, with a notable improvement in the quality of the mutton. The common American ewe is usually a mixture of the long and short wool breeds, and among such sheep it is quite possible to pick out the nucleus of a flock, well woolled, roomy and of good size, and by crossing these for three or four generations with the thoroughbred sires, the result would be a flock of sufficiently fixed type for all useful purposes.

The present outlook and the future prospect for wool and mutton promise the greatest profit from medium animals, such as the pure Downs, or such animal as will be obtained by the crossing of Down sires on heavier mothers, and it is my decided opinion that the Southdown will be found the most profitable for these purposes. An exception, however, should be made in favour of the long wools where a specialty is made of selling early lambs weighing 40 pounds when three months old, and for which \$10 each may be obtained in the great cities; for, although a new-born Southdown lamb is as heavy as any other, yet the Leicester or Cotswold lamb will outweigh it at the age of three months. For my part I prefer to sell the male lambs as shearing wethers, and to keep the choicest females for breeding purposes; it is out of this latter class that gaps and imperfections in the flock are to be filled up and remedied.

The sheep is exceedingly neat and even fastidious about its food and drink, and hence should have clean grass and clear running water. Though they use less water than other animals, often passing some days without it, it is none the less necessary for their comfort and health that it should be accessible.

HINTS ABOUT WINTER PIGS.

The farmer who is this year making his first experiment in raising winter pigs, would do well to bear in mind that in his zeal to make his brood sow pens snug and cosy, he is every whit as likely to overrun the mark, as the reverse. His anxiety to have everything as warm and comfortable as possible, will be very apt to lead him to close all means of ventilation, to exclude even a proper amount of light, or to give the little strangers no chance whatever for exercise. Then he will probably be astonished to find that his pigs, though seemingly healthy and thriving, suddenly begin to die off. It is not from being lain upon, evidently; it surely cannot be from starvation; and cold is out of the question. There is no apparent cause to his mind for this startling mortality; and yet the explanation is simple enough, viz, vitiated atmosphere, and lack of exercise. Farm animals are not so widely different from human beings in their physical requirements as many are inclined to think. "It's only for the hogs," is an argument that appeals only to the unenlightened. Make your pens as warm and tight as you please, but for pork and profit's sake give them decent ventilation and plenty of light. Give your young pigs a chance to run about and stretch themselves, too. If your pens are in a piggery, let there be a small opening into another and larger pen, where the pigs can scamper around, and pick up a little extra food, thrown in from time to time, or, if they are in your barn, make an opening through which your pigs can get out on the barn floor, and root about among the grass seeds. In either case, it is a good plan to have small, hinged doors, opening outward (to the south, if possible), which you can open on sunny days, and let your pigs out for a run in the open air. Keep them in close confinement, and failure is certain. You can no more expect to raise winter pigs successfully, in a small, stuffy pen, than you can hope to grow Jacqueminot roses in your cellar.—L. C. Miller, in *American Agriculturist*.

A SHEEP has eight front teeth, all equal in size, the first year. The second year the two middle teeth are much larger than the others. The third year two very small teeth appear on both sides of the eight. At the end of the fourth year there are six large teeth. The fifth year all are large. The sixth year all begin to show signs of wear.

The tendencies of the times in sheep husbandry are to the production of more and better mutton, with less attention to the amount and quality of wool. This is proved by the growing popularity of the Southdown and other breeds of mutton sheep; and is justified by the low price of wool as compared with the increased cost of production. Wool growing has often been good business on low priced lands, but as these become more valuable the well bred mutton sheep takes the place of the wool bearer and proves itself one of the best paying animals on the farm.

The long-legged, rangy hog will consume more food in a given time than the improved grades, and yet is difficult to fatten before he is two years old. Even if he consumed no more in two years than the other in half that time, to produce a given weight of pork, the risk of thieves and disease is greater, from the fact that he is kept on hand longer. The cheapest and best pork that can be raised is from spring pigs, forced through the summer and fall, and butchered the following winter. We need a black, slate-coloured or sandy hog in our climate, to avoid the mange. Hogs degenerate, perhaps, more rapidly from "in and in" breeding than any other animal.

POULTRY AND PETS.

MANAGEMENT OF TURKEYS.

Turkeys will not bear close breeding. The male should be changed every year, or at least be an entire stranger to the female. Where fine birds are desired, it is expedient in selecting the cock, to be careful in choosing, inasmuch as the sire gives the stamina of constitution, establishing size and weight, and stamping the plumage with accuracy. It is necessary, also, to be particular as to the choice of hens; in fact, both male and female should be as near perfection as is possible to obtain them. The cock should possess a neat trim build, free from any defect, with a bold, haughty, erect carriage, standing nearly upright when wings are folded, in a straight line from the tip of the beak to the end of the tail, which in this attitude should sweep the ground; the body balanced on the rather long but sturdy, stout legs, and carried well forward, with a round, full, plump, bearded breast.

The body of the hen should be hung in the middle with as much weight behind the legs as is seen in front, with a round full crop, and plump breast. She should also have thick, stout legs, and be rather heavier-bodied, in proportion, than the male.

Both the male and female should be kept gentle and tame, that they may linger about the home premises, and be accustomed to go in and out of buildings. As a general thing turkeys choose the open air, and like a clear, large range. To be profitable, we must in a measure curb their inclinations, and persuade them to adopt, in a measure, the habits of our more domestic birds. When we can do this, the hen will oftentimes drop her eggs in a common nest with the barnyard fowls, which is to be desired at the early season. She will frequently do this when first commencing to lay, continuing, perhaps, until the freezing weather is over, when she will steal a nest by herself in a fence corner or beneath an old rail pile, but the great danger is she will wander too far from the house, and her eggs become the prey of crows, skunks or other mischief-doers, that either prowl in darkness, or lie in ambush awaiting plunder. There is a difference, however, in breeds. The Bronze are very hardy, but possess wild untamable natures, and are great ramblers, and perhaps for beauty of carriage and style head the best, but for size and weight the Silver Grays or Narragansetts compete with them closely, while for quiet, home-like habits, they are greatly to be preferred. Of this (the Narragansett) breed, choose birds with heavy bodies and short legs, with the wing bars perfect, and the whole markings of the plumage well defined. A full grown Bronze cock will travel equal to a horse, and when the brood is massed in the fall there is little power that will control them. They are seldom kept within the bounds of the owner's premises.

At this season, their wild natures come out in strong relief. They are little for the farmer's grain-bin. They find an abundance of wild nuts and insects, upon which they subsist and fatten themselves. They have no objections, however, to a buckwheat patch, which they thresh and clean nicely. They rather appear to prefer their living by theft than otherwise. The Narragansetts are not quite so difficult to control, and if kept well fed, will seldom commit depredations. Turkeys are extravagantly fond of buckwheat, which grain being small is suitable for the young. The chicks cannot even endure quarters subject to that degree of cold and dampness in which the common barnyard chicks will thrive and grow. They require dry, warm weather, and strong, hearty food. When young, they make rapid growth, and should be forced along as fast as

possible, that the body may keep pace with the quick growing wing and tail feathers. As soon as a turkey's back is covered, he is half raised. The aim is to out-grow the gapes, and all other minor ailments peculiar to chickenhood, and which are the result of low condition or carelessness in breeding. It is not natural for birds of any description to be subject to these diseases. They are acquired, or rather brought on by false condition. Good care and proper food will dispel the danger, and more than all, good, strong, healthy ancestorship. Force the growth beyond the disease. Good food makes good blood, and good blood makes body and bone and muscle. The feathered covering is also an animal product, and requires support from the body.

With young turkeys avoid fatigue, which creates unrest; and without the natural rest, the birds dwindle, pine and die. They are also very weak from rapid growth, and easily worried out. Keep an eye on the flocks. In a warm, sunny atmosphere, they will take care of themselves. The damp, cloudy days worry them for the first week or two; but well over this period, with a covering on their heads, they are safe, and can endure quite an amount of drizzling rain. Sudden and heavy showers must be guarded against.—C. B., in *Country Gentleman*.

FEEDING MILK TO POULTRY.

A neighbour of ours whose hens, to our exasperation, kept *laying on* when eggs were twenty-five cents per dozen, while ours persistently *laid off* during the same season, on being questioned, revealed the fact that his hens had a pailful of skimmed (perhaps clabbered) milk each day, and no other drink. On comparing notes, we each found that our management of our fowls was almost exactly alike, with *this single difference*—a difference that had put many a dollar to the credit side of his ledger, while *our own* was left blank during the same period, and this thing had been going on for years, with the results always in favour of a milk diet.

Young chickens should be encouraged to grow as rapidly as possible, both for their own good and the pecuniary advantage of their owner. Sooner grown less feed is a sure rule always. To breeders located in a butter-making district there is no food more of profit for this forcing process than curd made of skimmed milk separated from the whey. J. W. G.

POULTRY RAISING BY BOYS AND GIRLS.

How many boys there are on farms and in villages who, having a natural desire for pets and wishing to indulge their fondness by keeping a few fowl, are stopped short in their plans by a quick answer: "Too much trouble—can't have them here; they destroy more than they are worth," and a hundred other rebukes. Now, in the first place, let us see how we can prove that these are all false assertions. The average amount of eggs laid by a hen in one year is ten dozen, the average price paid is twenty cents per dozen, which is sum total in twelve months, \$2; now, if we are raising fowls for the market, we will have to set an average price, which will be \$3 per dozen; now we have one hen worth to us \$2.25 in one year; but hold on, we have not added the expense of keeping the fowls for one year, and all so the trouble in raising, which is calculated at \$1 per head, which is a liberal price. I dare say that most any farmer would agree to raise and keep 100 fowls for one year at \$1 each, and in our account we find that we have a clear profit of \$1.25 per head; now, what other stock can beat it with the same capital invested?

Fowls ought to be cared for better on the farms, for there is no stock that pays better than fowls.

Most farmers' fowls are fed irregularly (and I dare say some are not fed at all), which is very unreasonable, for no stock will do well without feed; and most are fed on damaged grain, because it is cheap, and have stagnant water to drink; trees, sheds, waggons, or fences to roost on, where they are exposed to wind and rain. These must not be expected to lay well, or even furnish any eggs in winter months. Now, I say, do not refuse your boys and girls a chance to earn their pocket money or clothing by engaging in the poultry business; but rather encourage them, and by so doing they will engage in a profitable enterprise.—*Poultry Fancier, in Indiana Farmer*.

Keep your fowls free from vermin, if you want to succeed.

Keep your chicks dry. Do not let them get wet or you will lose them.

Nests should be in a cool place in summer and a warm place in winter.

Feed judiciously. There is as great danger in overfeeding your fowls as in starving them.

The more nicely and attentively our birds are looked after, the more zealously their little wants are cared for, the more uniformly they are fed and watered, and the more cleanly they are kept, in well-lighted and well-ventilated quarters, the more healthy they will be constantly, the more thrifty in all seasons, and the better returns they will make for such care, nourishment and proper shelter.

FANNY FIELD, in the *Prairie Farmer*, says: "A Beginner" wants to know how poultry raisers manage to make one hen own two broods of chicks—says that she has tried it more than once, but the hen would fight all the chicks except her own. Didn't go to work right, my dear; you must mix the two families before the hen finds out how many children she has of her own, and what they look like. Slip the extra chicks under the hen before she leaves the nest, and in ninety-nine cases out of a hundred she will think that she hatched them all. Or if you take the hen from the nest before she gets ready to leave, give her all the chicks when you put her in the coop. Sometimes a dark hen will object strongly to a single white chick, but if she has half a dozen of that colour she will own them all.

One of the worst enemies of young chickens is the gapes—the result of irritation caused by small parasitic worms, which find their way into the wind pipe, impeding respiration, and finally, if not removed, causing death. The gapes are always most troublesome on moist soil. When a chicken is noticed to be affected, prompt measures should be taken to remove the worms, either by making a loop of horse hair, introducing it into the throat, giving it two or three turns and withdrawing it; but a more satisfactory method is as follows: strip the web of a feather to within half an inch of the end; moisten with coal oil, and insert to the bottom of the wind pipe; then withdraw as before. It is strictly essential that all worms should be burnt, and the bodies of any birds that have died from this cause should, if possible, be burnt or buried in unslaked lime; for even if the worms have been destroyed their eggs may not, and will propagate the evil.

YOUNG MEN! READ THIS.

THE VOLTAIC BELL Co., of Marshall, Michigan, offer to send their celebrated ELECTRO-VOLTAIC BELL and other ELECTRO-APPARATUS on trial for thirty days, to men (young or old) afflicted with nervous debility, loss of vitality and manhood, and all kindred troubles. Also for rheumatism, neuralgia, paralysis, and many other diseases. Complete restoration to health, vigour and manhood guaranteed. No risk is incurred, as thirty day's trial is allowed. Write them at once for illustrated pamphlet free.

GARDEN AND ORCHARD.

FOR THE RURAL CANADIAN.

WALKS IN THE GARDEN.—VIII.

DESPITE the late spring, garden crops of all kinds have done unusually well and, barring that most things are from a week to two weeks later than the average of years, the result so far has been very satisfactory. Showers have been frequent, and the growth has been almost uninterrupted. The severe cold of the winter seemed to kill off a great many insect pests, as there has been less trouble from them than in many other years, and that fertile source of annoyance has been materially reduced. A series of cold winters might possibly banish some of them altogether.

SPEAKING of insects naturally brings up the English sparrow, which, though only introduced a few years ago, has taken very kindly to the country, and increased rapidly in numbers. How the little fellows affect the farmers I cannot say, but I am satisfied they are a friend to the gardener. I know of no garden crop they molest, while any one who watches them closely can see that they are death on grubs of all kinds. I notice in an American paper that an agricultural society in New Jersey has waged determined war on sparrows, offering a prize of \$5 for the greatest number of heads exhibited at the spring fair in strings of twenty-five each. I fancy this is going a little too strong, and the Jersey people may yet regret their crusade against these birds.

I spoke last month of allowing tomatoes to grow at their own sweet will, without pruning or training, allowing the fruit to ripen on the ground. So far it seems very satisfactory, and the vines that have been let alone are doing better than the others. The fruit is larger, and much nearer ripening. I potted quite a number of tomato plants in six inch pots and kept them under glass till the second week in June. By that time a good deal of fruit was set, and the pots were full of roots. When set out in the ground they were given a copious watering, and never showed signs of a check. Early tomatoes are what every gardener strives for, and it is worth while taking a good deal of trouble to anticipate the main crop by a week or two.

THE experience of this season has confirmed my estimate of the Sharpless as one of the very best strawberries for the private garden. It is probably the largest of all the berries, and though its shape is irregular, that is no drawback. The flavour is as good as any. It would never do for shipping; I have seen quite a number of boxes in the fruit stores which were almost mashed into pulp, while other varieties were as fresh and solid as if only taken from the vines. But for home use or sale in the immediate vicinity, the Sharpless is there every time, and critical buyers will willingly pay extra for them. I have a large number potted for setting out during August, from which a very fair crop may be expected next season.

It is hardly possible to make strawberry beds too rich or the soil too light. In my heavy clay soil, I dig in any quantity of sand, ashes and manure, and the large crops show how well it pays.

In the flower garden the old-fashioned hollyhock is again asserting itself, and to my mind there is no handsomer flower. Double ones, of course, I mean. There is considerable range of colour, and they last for quite a time. It is not too late yet to sow seed for next year, though it is better to put it in earlier. Those who have a few

plants already can increase their stock indefinitely by cuttings, with the advantage of knowing just what they are getting. Slips should be taken off after the flowers are gone, and put in pots or boxes. My plan is to hide the pots under the asparagus tops, where they thrive finely, needing no attention till September, when they can be planted where they are to stay. As a hedge to divide the other flowers from the kitchen garden they are useful and very ornamental.

A SINGULAR blight has befallen quite a number of my currant bushes this year. About the end of June the leaves began to look sickly, and soon shrivelled up and died, the fruit following their example. The wood is not injured, being apparently sound and healthy, but the crop is destroyed; a few raspberries are similarly affected. An old gardener friend suggests that they were struck by lightning. That may be a solution, at any rate I can find no other. I should like some of THE RURAL CANADIAN readers who have suffered in the same way to give their theory as to the cause.

AMONG several varieties of cucumbers Rollison's Telegraph has proved a good deal the best. It is of medium size, not over a foot long generally; of very regular shape and good flavour, with few seeds.

STRATAGEM is again at the head of my list of peas. The vines have been loaded, the pods being from four to five inches long, and the seeds of very large size, of a deep green colour. They can be grown without sticks, but are apt to straggle a little and in wet weather may mildew, so a little short brush is an improvement. I am growing a few of Bliss's Abundance and Everbearing—for the original stock of which the late lamented Mr. Arnold, of Paris, received \$1,000 for a scant bushel—but so far see nothing better than the Stratagem.

Don't forget that when crops are growing weeds are coming along too. The fall weeds are the most troublesome, and if allowed to seed will soon turn a nice place into a wilderness. Keep the hoe going, and whenever you see a head chop it off.

KEEP your tools sharp. A dull hoe or spade takes twice as much muscle to work it, and does not do the work half so well. A few minutes' work with a file will pay. Y.

MANURING THE ORCHARD.

That the orchard should be kept well manured is at the present time very generally admitted; but what is the cheapest and best material to apply is as yet unsettled.

Those who have had an opportunity to test the different fertilizers, are as a rule, opposed to the application of large quantities of fresh stable manure, especially to the pear orchard; but if such manure is to be applied it should be applied in the autumn.

That bearing trees consume considerable quantities of both phosphates and potash is conceded by all, and that the application of large quantities of manure rich in nitrogen is not only not necessary, but positively injurious, is the opinion of some very intelligent orchardists. We have seen orchards very much improved by applying wood ashes in considerable quantities, but not as much as when fertilized with a moderate quantity of ground bone, which would seem to imply that the phosphate is needed the most.

Some orchardists apply ground bone and wood ashes, or muriate of potash mixed, with good success, 60 bushels of ashes, and 1,000 pounds of

ground bone, makes a very liberal dressing for an acre of land, and will last a number of years. When wood ashes cannot be obtained, 500 pounds of muriate of potash may be used in its place.

When barn manure is to be used, if only half the usual quantity be applied, and the same value ground bone be applied with it, the result will be much more satisfactory, than if all manure be applied. When an orchard gets grown to near its full size, it is not so desirable that materials should be applied to force the growth of the wood, as it is to force the growth of the fruit; this is a fact that ought not to be lost sight of. An orchard just set will bear more nitrogen and potash than the orchard that is fully grown.

In applying fertilizers to an orchard, it should be spread over the entire surface of the ground, and not applied, as some do only a few feet from the tree. The feeding roots of a tree are at the small ends of the roots, more than at the large end near the tree, and they are also very near the surface, where the land is not ploughed every year, therefore, whatever fertilizer is applied should be spread evenly over the surface, and left but a few inches under it, then the feeding roots will easily reach it.—*Massachusetts Ploughman.*

THE object of thinning fruit upon all kinds of trees is to lessen the quantity so that what is left can be well grown and fine in quality. It is best to leave the thinning till the fruit is well set and then take off all but the best.

A CORRESPONDENT, says the *Prairie Farmer*, gives the following very useful hints to onion growers: "It appears to me that some of our onion growers do not realize that the day for large onions has gone by. A few years ago every one thinned their onions to three or four, or even six, inches apart in the row; but at present the best growers will raise from a dozen to twenty onions in a foot. Small onions are better flavoured than large ones, and I find a better market for them. I allow two or three to grow together on rich soil."

AN Illinois horticulturist last year constructed a fruit house which proved so successful that it is now being taken as a model throughout the country. It is designed on the simplest scientific principles, and costs very little. The walls are double, being composed of two rows of wooden posts boarded within and without. The intervening space, 2½ feet wide, is packed as closely as possible with straw. Above are two sets of rafters three feet apart, with boards on their upper sides and with straw completely filling the space between them. Over all is a cheap board roof. Inside the temperature remains approximately the same the whole year round.

ENGLISH gardeners have been testing sulphide of potassium for destroying mildew and other injurious fungi that attack plants, and, it is reported, with excellent results. The microscopic fungi are far more troublesome in the humid climate of Great Britain than in this country; but we occasionally have seasons during which mildew is quite prevalent upon the grape, gooseberry, and similar garden fruits, as well as upon plants grown under glass. If sulphide of potassium solutions will destroy nearly all the smaller species of fungi, as it is claimed it does in England, it will be worth trying in this country, whenever and wherever an occasion presents. The quantity of the sulphide to be used in a barrel of water is not precisely stated by our English contemporaries; but it is reported that twenty-five cents worth is sufficient for thirty-two gallons of water, which is rather indefinite, as dealers do not all sell articles of this kind at one and the same price.

THE DAIRY

A GOOD DAIRY COW.

What constitutes a good dairy cow, and to what extent does her quality depend upon her owner? In answer to the first question I would say that she should possess the following qualities:

1. She should be gentle. Few men possess enough of the Christian virtue of patience to milk a kicking cow (or one that is nervous and fidgety, and ready to run at the least provocation) and keep the commandments, and it is better to dispose of such a cow as soon as possible by sending her to the butcher. I go on the supposition that the men do the milking, as I think they ought, except under extraordinary circumstances, and if the women milk there is all the more need of gentle cows.

2. She should milk easy. Hard milkers are not as common now as a generation ago I think, but still there is occasionally a cow that milks so hard that she ought to be dried off and fattened as soon as possible.

3. She ought to give a fair mess of milk and hold-out well. Some cows begin to fail in their milk as soon as they are with calf, and will go dry from three to five months in the year. These are not profitable.

4. She should give rich milk. A cow whose milk does not show above ten per cent of cream in the test glass must give a large amount of it if she is profitable to keep.

There are many points in the cow which depend largely upon her owner:

1. He should take pains to see that she is well bred. By which I do not mean pedigree, so much as that his heifer calves from his best milkers should never be parted with without good reasons. If you have a cow possessing unusual good qualities you may hope to reproduce or even improve upon them in her offspring.

2. The calf should be well reared, neither starved nor overfed. I prefer raising the calves by hand and feeding so that they are always thrifty. It is a matter of astonishment how many good calves are injured during their first year, many of them made pot-bellied by over feeding of skim milk when young, or starved through the first winter until spring finds them hide bound and unthrifty. Good cows are not raised in this way. Whether a cow is profitable or not depends largely on how she is wintered. If spring finds her with staring coat and bones showing through the skin, as is alas, too common, a large part of her food will be expended in getting flesh which would otherwise go to increase the flow of milk.

Granted that the cow is well wintered in a warm stable, and is kept in good flesh, still both quantity and quality of milk may be improved by care and intelligence in her food and management. To get the greatest profit from her, she should be full fed, at regular hours, and with as much variety in her food as can well be given. She should always be gently handled, and milked at regular hours, and as far as possible by the same person. It pays to run a cow to her full capacity as well as it does to run a machine in the same way. I think that on a majority of farms where three cows are kept as much milk and butter would result if the food was given to two, and the interest on the investment and trouble of caring for the extra cow would be saved. I am in favour of breeding young, as I think it develops the milking qualities and makes a better cow. The cow will be longer getting her growth, and perhaps will never be as large if bred quite young, but the gain will more than pay for this. I have bred several Jerseys to come in at eighteen months old, and have had them drop a third calf before they were four years old. I

have now a heifer who dropped her second calf at thirty-three months old and she is giving over three gallons of milk a day, and I consider that her milk alone has more than paid for raising her to say nothing of the two heifer calves she has dropped.

I prefer to have my cows fresh in the fall as a rule, rather than in spring, and think that I get a much larger quantity of milk in a year by this plan. It is much easier to keep a fresh cow in a full flow of milk during the winter than one that has been milked all summer, and the cow fresh in the fall will greatly increase in her milk when she goes on fresh pasture in the spring. A fall calf will be much larger at a year old ordinarily than one dropped in the spring, as it will have a long season on grass before wintering and will be six months older at the beginning of winter than the spring calf.—*W. F. Brown, in Indiana Farmer.*

THE TRUE TEST OF A DAIRY COW.

At the Royal English Dairy Show at Shrewsbury, England, heretofore, prizes have been awarded to dairy cows on their general appearance. At the last show, the competing animals, after being passed upon by the judges, were subjected to milking tests. The results of these are given in the *North British Agriculturist*, which publishes an address by Prof. Wilson at the opening of the class in agriculture at Edinburgh recently. He says: "There was a lesson to be learned from this which we hoped people would think about, at all events. There were a great many cows entered, and they were judged by the ordinary mode of judging. Well, sixty of those cows were turned over from the ordinary mode of judging to a scientific test of how far this judgment was correct. The first prize under this test was given to a Shorthorn, but not a thoroughbred one, eight years old, and in her sixth month of milking. She milked 51½ pounds, and the milk was so rich that it contained 12.51 per cent. of solids and 3.26 of butter fat. They gave her 99.95 points, 100 representing perfection. Curious enough, this cow had been passed, totally unnoticed, by the judges. The second prize also went to a Shorthorn, not thoroughbred, five years old, and only one month in milk. She milked 44 pounds and obtained 95.39 points. Now, in regard to the first of those cows, they could assume that she was giving an average, at all events, of five gallons of milk per day throughout the whole period of her lactation, or say 1500 gallons in a year. He ventured to say that the average product of cows on dairy farms was not up to 500 gallons a year. Now, if they could get a cow that would give 1500 gallons, why stick to cows that gave only 300 gallons? The reason was that they had relied too much upon what was called the judgment of men whose judgment could not be relied upon; and they were losing largely every year, for want of applying precise methods of investigation and analysis. The next cow was a thoroughbred Shorthorn, six years old, and four months in milk. She gave 24 pounds and received 76.94 points. A twelve-year-old purebred Shorthorn obtained 73.39 points. A Guernsey cow eight months in milk, gave 20½ pounds, the quality being so good that it yielded 15 per cent of solids, of which 6.28 was butter fat. A Jersey cow gave 36 lbs. but her milk was not so rich. The Guernsey had been placed second by the judges. The Jersey, which obtained 81.42 points, had been left unnoticed. A Welsh cow gave 46 pounds, and obtained 85.66 points. She had got the first prize in her class from the judges. There were no pure Ayrshire and Shorthorn. A six-year-old, one month in milk, gave 37.34 pounds and obtained 81.78 points. A Dutch cow, which had been a prize-taker, and was an extraordinary

cow for development of udder, gave 42 pounds, but the quality was so wretched that anyone selling it might have got fined for adulteration. On the whole, those trials brought out the enormous difference that existed between the milk-producing powers of animals of different breeds, and even of the same breed, fed and kept under exactly the same conditions. This showed how desirable it was that a daily record should be kept of the quantity milked by each individual animal, so that by a careful selection of the offspring of the best milkers, and by judicious crossing, the yield might be largely increased." In 1866, the Professor went on to say, he was sent abroad by the Government to investigate dairy farming, chiefly in Denmark. There he found the farmers kept a rigid account of the product of each cow, and regulated their breeding arrangements accordingly. By such means, in a few years the milk produced could be increased to a very large extent. In course of time it might be raised from 500 to 1500 gallons a year. There were many farmers in the South and West of England who had been carrying out the system most successfully. The Professor concluded by explaining the methods of testing the milk, and exhibiting a simple instrument by which an estimate sufficiently accurate for ordinary purposes could be readily obtained.

HOW TO TEST MILK.

Everyone knows the difference in milk. How to test the milk is thus explained by one who has experimented for himself. It is of no little importance to have a convenient and reliable mode of testing the richness of milk. This is usually done by the mere rule of "guess." There is a more reliable way, within the reach of all, whereby any person may safely govern himself in deciding upon which of any number of milkmen he will patronize, or which of any number of cows he will purchase. Procure any long vessel—a cologne bottle or a long phial. Take a narrow strip of paper, just the length from the neck to the bottom of the phial, and mark it with one hundred lines at equal distances; or, if more convenient into fifty lines, and count each line as two, and paste it upon the phial, so as to divide its length into a hundred equal parts. Fill it to the highest mark with milk fresh from the cow, and allow it to stand in a perpendicular position twenty-four hours. The number of spaces occupied by the cream will give the exact percentage in the milk, without any guess-work.

We tried this experiment several years since, and found it valuable. We gathered the idea long ago from an agricultural paper; but we carried the experiment further, by which we found the percentage of butter in the cream. Set the milk in a large dish, and collect say from one hundred to two hundred ounces of cream; make the butter, and the percentage of butter in the cream can be ascertained by the number of ounces of butter made from it.

As per example: If one hundred ounces of milk give ten ounces of cream, and ten ounces of cream give five ounces of butter, we will have learned that one hundred ounces of milk will give five ounces of butter. Such experiments are worth being made, and made carefully. In no other way can we know what we are buying. In this way, also, we may test the exact nutritive value of different kinds of milk from our cows—a very important matter. Farmers may derive much benefit by making a few simple experiments now and then. They need not interfere with any of the regular duties of the farm, and nothing but a spirit of habitual indolence of thought and action will keep them from doing so. Such experiments often lead to important results, and evoke interesting and instructive facts.—*Field and Stockman.*

SCIENTIFIC AND USEFUL.

PODDING SAUCE.—Beat one egg, the white to a stiff froth, the yolk to a cream, and mix it with one cup of pulverized sugar. Add boiling water till the sauce is of the consistency of boiled custard. Flavour with lemon, vanilla, or with any other extract.

Dropsy, Kidney and Urinary Complaints, the irregularities and weakening diseases of Females are all remedied by the regulating toning power of Burdock Blood Bitters.

D. McCrimmon, Lancaster, had Chronic Rheumatism for years, which resisted all treatment until he tried Burdock Blood Bitters. It cured him.

CRACKER PUDDING.—Soak four crackers in one quart of milk, add the yolks of three eggs, three tablespoonfuls of sugar, and a pinch of salt. Flavour and bake the same as custard; when cooked spread with canned fruit or jelly, put on a meringue made from the beaten whites of the three eggs. Set away to cool.

Chronic Erysipelas and all Eruptions and Humours of the blood, so unsightly in appearance and so productive of misery, may be cured. The remedy is Burdock Blood Bitters.

D. H. Howard, of Geneva, N.Y., took over half a gross of various patent medicines for Paralysis and debility—ho says Burdock Blood Bitters cured him.

INDIAN PUDDING.—One quart of milk, half a teacup of chopped suet, and five teaspoonfuls of Indian meal. Scald half the milk and stir in the meal. To the remainder of the milk add one egg, one tablespoonful of flour, one small teacup of molasses, one small teaspoonful of ginger, and one cup of raisins; mix together; bake slowly two hours; serve hot.

A Good circulation of the fluid of the body is indispensable to perfect health. The Bile, The Blood, The Secretions of the Skin, Kidneys and Bowels are all purified by Burdock Blood Bitters.

Joseph Showfelt, Armour, says that he considers Burdock Blood Bitters a life-saving friend to him. It cured him of debility when doctors failed.

AMBER PUDDING.—One half pound of butter in a saucepan; add to it six ounces of loaf sugar finely powdered; mix well; then add the yolks of three eggs well beaten, and as much chopped and powdered candied orange peel as will give colour and flavour to the mixture. Line a pie-dish with paste, and when filled with the above, put on a cover of paste and bake in a low oven. It can be eaten hot or cold.

IT NEVER FAILS.—Dr. Fowler's Extract of Wild Strawberry will never fail you when taken to cure Dysentery, Colic, Sick Stomach or any form of Summer Complaint. Relief is almost instantaneous; a few doses cure when other remedies fail.

SCALLOPED FRESH FISH.—This is an excellent way to use the fragments of a boiled fish. Take a pint of milk; put in it a piece of butter the size of an egg, and two tablespoonfuls of flour; let it boil a minute, and then add three eggs, previously well beaten. Put layers of fish, shredded and sprinkled with pepper, salt and nutmeg, alternately with layers of the sauce already made, until the dish is full; cover the top with bread crumbs, and bake twenty minutes. Serve hot.

IS IT ACTING RIGHT.—If you are troubled with inactive Liver, your complexion will be sallow, frequent sick headache, aching shoulders, dizziness, weariness, irregular bowels, and many other serious complaints. Burdock Blood Bitters regulate the Liver, and all the secretions to a healthy action.

IVY POISONING.—For dogwood or ivy poisoning the following is said to be an infallible remedy: Boil wood ashes enough to make a strong lye; wash the poisoned parts in this; let it remain a few minutes, and wash off in lukewarm water; when dry, anoint with grease. Repeat this process as the poison develops itself, and one or two applications will cure the most obstinate cases. It acts like magic.

KNOWN BY THESE SIGNS.—Dyspepsia may be known by Heartburn, Sour Eructations of food, Wind Belching, Weight at the Stomach, Variable appetite, Costive Bowels, etc. Burdock Blood Bitters will positively cure Dyspepsia, although in its worst chronic form.

FARMER'S FRUIT CAKE.—Soak three cups of dried apples over night in warm water; chop slightly in the morning, and then simmer two hours or more in two cups of molasses until the apples resemble citron. Make a cake of two eggs, one cup sugar, one cup sweet milk, three-fourths cup butter, 1 1/2 teaspoons soda, flour to make a rather thick batter, spice in plenty; put in the apples and bake in a quick oven. This is very nice.

JUST THE THING.—W. J. Guppy, druggist, of Newbury writes: "Dr. Fowler's Wild Strawberry is just the thing for Summer Sickness. I sold out my stock three times last summer. There was a good demand for it." Dr. Fowler's Extract of Wild Strawberry is infallible for Dysentery, Colic, Sick Stomach and Bowel Complaint.

SURPRISE EGGS.—One dozen eggs, hard boiled; one teaspoonful of vinegar, three small pickles, chopped; one teaspoonful of made mustard, ham, lobster, or chicken, chopped; season with salt, pepper, and melted butter; a little chopped celery; cool the eggs in cold water and remove the shells; cut lengthwise, not quite through; take six of the yolks, chopped meat, celery, vinegar and seasoning, and mix well together; fill the boiled whites with the mixture, carefully closing again. Garnish with celery leaves or parsley.

A QUADRUPLE FORCE.—The reason why disease is so soon expelled from the system by Burdock Blood Bitters is because that excellent remedy acts in a four-fold manner—that is to say, upon the Bowels the Liver, the Blood and the Kidneys, driving out all bad humour, and regulating every organic function.

A WASTED SALAD HERB.—One of the best salad herbs goes to waste as a weed and pest of the garden. Children know enough to eat sour grass with its tender acid leaf. French cooks number it among the most excellent field salads, and doctors say it is soothing for the blood, preventing rheumatic and gouty disorders. It ought to be brought to market by the bushel, for every field has patches of it and it is better than spinach or sorrel for purees and *bonne femme* soups, or it may be stewed with sugar in porcelain as a delicate order of pie-plant.

DO NOT DELAY.—Do not delay, if suffering any form of Bowel Complaint, however mild apparently may be the attack, but use Dr. Fowler's Extract of Wild Strawberry. It is the old reliable cure for all forms of Summer Complaints that require prompt treatment. Ask your druggist and all dealers in patent medicines.

DR. LOW'S PLEASANT WORM SYRUP is a safe and reliable worm remedy for all worms afflicting children or adults.

Take all in all.

- Take all the Kidneys and Liver Medicines.
 - Take all the Blood purifiers.
 - Take all the Dyspepsia and Indigestion cures.
 - Take all the Ague, Fever, and bilious specifics.
 - Take all the Brain and Nerve force revivers.
 - Take all the Great health restorers.
- In short, take all the best qualities of all these and the—best.
- Qualities of all the best medicines in the world, and you will find that—Hop Bitters have the best curative qualities and powers of all—concentrated in them.
- And that they will cure when any or all of these, singly or—combined. Fail!!!
- A thorough trial will give positive proof of this.

4/12
Hardened Liver.

Five years ago I broke down with kidney and liver complaint and rheumatism. Since then I have been unable to be about at all. My liver became hard like wood; my limbs were puffed up and filled with water.

All the best physicians agreed that nothing could cure me. I resolved to try Hop Bitters; I have used seven bottles; the hardness has all gone from my liver, the swelling from my limbs, and it has worked a miracle in my case; otherwise I would have been now in my grave.

J. W. MOREY, Buffalo, Oct. 1, 1891.

Poverty and Suffering.

"I was dragged down with debt, poverty and suffering for years, caused by a sick family and large bills for doctoring.

I was completely discouraged until one year ago, by the advice of my pastor, I commenced using Hop Bitters, and in one month we were all well, and none of us have seen a sick day since, and I want to say to all poor men, you can keep your families well a year with Hop Bitters for less than one doctor's visit will cost. I know it."

—A WORKINGMAN.

None genuine without a bunch of green Hops on the white label. Shun all the vile, poisonous stuff with "Hop" or "Hops" in their name.

LOWN SULPHUR SOAP should be used with every toilet. It is cleansing and healing.

A SINGULAR BOOK.

Intoxicating with Sarcasm and Brilliant with Truth.

New York Correspondence American Rural Home.

Chap. I. "Has Malaria;" goes to Florida.
Chap. II. "Overworked;" goes to Europe.
Chap. III. "Has Rheumatism;" goes to Emu.
Chap. IV. "Has a row with his Doctor!"

The above chapters, Mr. Editor, I find in a book recently published by an anonymous author. I have read a deal of sarcasm in my day but I never read anything equal to the sarcasm herein contained. I suspect the experience portrayed is a personal one; in short, the author intimates as much on page 31. Let me give you a synopsis:

"Malaria" as it states, is the cloak with which superficial physicians cover up a multitude of ill feelings which they do not understand, and do not much care to investigate. It is also a cover for such diseases as they cannot cure. When they advise their patient to travel or that he has overworked and needs rest and is probably suffering from malaria, it is a confession of ignorance or of inability. The patient goes abroad. The change is a tonic and for a time he feels better. Comes home. Fickle appetite, frequent headaches, severe colic, cramps, sleeplessness, irritability, tired feelings, and general unfitness for business are succeeded in due time by alarming attacks of rheumatism which flits about his body regardless of all human feelings.

It is muscular,—in his back. Articular,—in his joints. Inflammatory, my! how he fears it will fly to his heart! Now off he goes to the springs. The doctor sends him there, of course, to get well: at the same time he does not really want him to die on his hands!

"That would hurt his business! Better for a few days. Returns. After a while neuralgia transfuses him. He bloats; cannot breathe; has pneumonia; cannot walk; cannot sleep on his left side; is fractious; very nervous and irritable; is pale and flabby; has frequent chills and fevers; everything about him seems to go wrong; becomes suspicious; musters up strength and demands to know what is killing him!

"Great heavens!" he cries, "why have you kept me so long in ignorance?" "Because," said the doctor, "I read your fate five years ago. I thought best to keep you comfortable and ignorant of the facts." He dismisses his doctor, but too late!

His fortune has all gone to fees. But him, what becomes of him? The other day a well-known Wall Street banker said to me "It is really astonishing how general bright's disease is becoming. Two of my personal friends are now dying of it. But it is not incurable I am certain, for my nephew was recently cured when his physicians said recovery was impossible. The case seems to me to be a wonderful one." This gentleman formerly represented his government in a foreign country. He knows, appreciates and declares the value of that preparation, because his nephew, who is a son of Danish Vice-Consul Schmidt, was pronounced incurable when this remedy, Warner's safe cure, was begun. "Yes" said his father, "I was very sceptical but since taking that remedy the boy is well."

I regret to note that ex President Arthur is said to be a victim of this terrible disease. He ought to live but the probabilities are that since authorized remedies can not cure him, his physicians will not advise him to save his life, as so many thousands have done, by the use of Warner's safe cure which Gen. Christiansen, at Drexel, Morgan & Co's., told me he regarded "as a wonderful remedy."

Well, I suspect the hero of the book cured himself by the same means. The internal evidence points very strongly to this conclusion.

I cannot close my notice of this book better than by quoting his advice to his reader.

"If, my friend, you have such an experience as I have portrayed, do not put your trust in physicians to the exclusion of other remedial agencies. They have no monopoly over disease and I personally know that many of them are so very 'conscientious' that they would far prefer that their patients should go to Heaven direct from their powerless hands than that they should be scolded to earth by the use of any 'unauthorized' means."

And that the author's condemnation is too true, how many thousands doped, and yet rescued, as he was, can personally testify?

WATCH THE KIDNEYS!

They are the most important secretory organs. Into and through the Kidneys flow the waste fluids of the body, containing poisonous matter taken out of the system. If the Kidneys do not act properly this matter is retained, the whole system becomes disordered and the following symptoms will follow: Headache, weakness, pain in the small of back and loins, flushes of heat, chills, with disordered stomach and bowels. You can thoroughly protect the Kidneys by Burdock Blood Bitters, and when any of these symptoms manifest themselves you can quickly rid yourself of them by this best of all medicines for the Kidneys. Burdock Blood Bitters are sold everywhere at \$1 per bottle, and one bottle will prove their efficacy.

12/12
WISTAR'S BALSAM IN OTTAWA.

We, the undersigned, druggists, take pleasure in certifying that we have sold Dr. WISTAR'S BALSAM OF WILD CHERRY for many years, and know it to be one of the oldest as well as one of the most reliable preparations in the market for the cure of Coughs, Colds, and first and Lung Complaints. We know of no article that gives greater satisfaction to those who use it, and we do not hesitate to recommend it. OTTAWA, June 2, 1892.

- A. CHRISTIE & Co., Sparks St.
- H. J. MILLS, 75 Sparks St.
- G. T. O. ELWELL, 123 Sparks St.
- J. S. MCCARTHY, 123 Wellington St.
- H. E. SKINNER & Co., 361 Wellington St.
- W. A. JAMISON, 24 Wellington St.
- WM. A. LLOYD, 1-3 Bloor St.
- R. D. GRAHAM, Medical Hall.
- E. D. MARTIN, 225 Bloor St.
- GEORGE MOCHTIN, Market Square.
- C. O. DACHEL, 37 Sussex St.
- SIDNEY P. COOKE, M.D., Hall, P.O.
- T. A. HOWARD, Aymer, P.O.

USE GOLD SEAL Baking Powder. ABSOLUTELY PURE.

Ladies who are particular about their baking must use it in preference to any other.

ASK YOUR GROCER FOR IT!



FREEMAN'S WORM POWDERS.

Are pleased to take. Contain their own formula. Is a safe, sure, and effectual destroyer of worms in Children or Adults.

CONSUMPTION CURED.

An old physician, retired from practice, having discovered the formula of a simple vegetable remedy for the speedy and permanent cure of Consumption, Bronchitis, Catarrh, Asthma and all Throat and Lung Affections, also a positive and radical cure for Nervous Debility and all Nervous Complaints, after having tested its wonderful curative powers in thousands of cases, has felt it his duty to make it known to his suffering fellow-men. Actuated by this desire and a desire to relieve human suffering, I will send free of charge, to all who desire it, this recipe, in German, French or English, with full directions for preparing and using. Sent by mail by addressing with stamp, naming this paper, W. A. NORRIS, 149 Power Block, Rochester, N.Y.

"The best paper of the kind published in Canada today." — *The New Age.*

THE RURAL CANADIAN,

— WITH WHICH IS INCORPORATED THE —

FARM JOURNAL, CANADIAN FARMER & GRANGE RECORD

An Illustrated Monthly Magazine for the Farm and Home

AT \$1.00 A YEAR.

Alfred Agent wanted for every Village, Town and Township in the Dominion. Liberal and reasonable terms. Apply at once to
G. BLACKETT ROBINSON, — 5 Jordan St., Toronto.

TO ADVERTISE IN:

The already large and rapidly growing circulation of THE RURAL CANADIAN renders it a good medium for reaching a most desirable class of our population. Card of rates mailed to any address on application.

The Rural Canadian.

TORONTO, AUGUST, 1885.

The *Dairyman*, published monthly at Montreal, comes to us improved in form and full of interesting material. Mr. E. B. Biggar has transferred the paper to Mr. James Cheesman who will in future be the editor and publisher. (One dollar per year.)

We have to acknowledge receipt from Mr. Hill, the indefatigable secretary, of the prize list of the Toronto Industrial Fair, to be held in this city, commencing on the 7th of September and continuing until the 19th. Twenty-four thousand dollars in premiums are offered. The programme promises attractions fitted to eclipse any previous exhibition, and well calculated to more than maintain the place the Industrial Fair has already in the estimation of the public.

Young men are often told to "stick to the farm." The advice is good. Too many are allured from quiet country homes by the seeming ease of city life, forgetful of the hard work and numerous failures incident to all kinds of commercial and manufacturing occupations in crowded centres of population. It is true that a large proportion of the young men fail who enter the various avenues of trade. On the other hand the gloom of this state of affairs is sometimes relieved by conspicuous success. We give a case in point. A few weeks ago we visited a large foundry and machine shop at Point Levis, Quebec. The frontage of the building is six hundred and twenty-five feet, and the works give employment to over two hundred men. Less than twenty years ago the proprietors—Messrs. Carrier & Laine—were doing the ordinary work of the farm. Eighteen years ago they commenced a foundry in a small way. By dint of hard work—just as hard we have no doubt as if they had continued reaping, sowing and ploughing—careful management, and persistent watchfulness, their business increased from year to year, until now they can boast of one of the most prosperous concerns of the kind in the country. We spent a profitable half hour in looking through the well-arranged departments, and were especially struck with the labour-saving appliances, the well lighted work shops, and the evident order pervading the whole establishment.

OUR CHEESE AND BUTTER EXPORTS.

The trade tables of the Dominion give us a fairly accurate idea of the growth of the cheese and butter products of the country, although, unfortunately, they do not of the growth of any particular Province. We have no doubt, however, but the great bulk of what is sent from our ports is of Ontario make, and especially our shipments of cheese. The tables for the year ending June, 1884, show that out of a total of 8,075,537 pounds of butter exported only 386,421 pounds are credited to the Maritime Provinces, while of a total of 59,338,974 pounds of cheese their share is only 28,947 pounds. On the other hand, Quebec is credited with an export of 6,611,661 pounds of butter and 54,048,404 pounds of cheese, a very

large proportion of which must be sent from Ontario through its ocean port of Montreal. It is only recently that the manufacture of cheese under the factory system has been entered upon in the Province of Quebec, and it may be doubted if at the present time the total product is much in excess of the requirements of the home market. The Quebec farmers, especially those of them in the Eastern townships, have a good name as butter makers, and it is likely that a fair share of the country's exports of that article is of their production. Taking, however, the totals for all the Provinces, we find that for the last sixteen years the quantity, value and value per pound of the exports have been as follow:

CHEESE.

YEAR.	QUANTITY.	VALUE.	VAL. PER LB.
	LBS.	\$.	CTS.
1869...	4,503,370	519,572	12-20
1870...	5,827,782	674,486	11-57
1871...	8,271,439	1,109,906	13-42
1872...	16,424,025	1,840,281	11-20
1873...	19,483,211	2,280,412	11-70
1874...	24,050,982	3,523,201	14-65
1875...	32,342,030	3,886,226	12-02
1876...	35,024,090	3,751,268	10-70
1877...	35,930,524	3,748,675	10-43
1878...	38,054,294	3,997,621	10-50
1879...	46,414,035	3,710,300	8-16
1880...	40,368,678	3,893,366	9-61
1881...	49,255,523	5,510,443	11-19
1882...	50,807,049	5,500,868	10-82
1883...	58,011,347	6,451,870	11-12
1884...	69,755,423	7,251,989	10-40
Totals.	534,553,842	57,508,298	10-75

BUTTER.

YEAR.	QUANTITY.	VALUE.	VAL. PER LB.
	LBS.	\$.	CTS.
1869...	10,853,268	2,342,270	21-50
1870...	12,259,887	2,353,570	19-20
1871...	15,439,266	3,065,229	19-85
1872...	19,068,418	3,612,679	18-94
1873...	15,208,633	2,808,979	18-47
1874...	12,233,046	2,620,305	21-25
1875...	9,268,044	2,337,324	25-22
1876...	12,250,066	2,540,894	20-71
1877...	14,691,789	3,073,469	20-92
1878...	13,006,626	2,382,257	18-31
1879...	14,307,977	2,101,897	14-67
1880...	18,535,862	3,058,069	16-59
1881...	17,649,491	3,573,034	20-21
1882...	15,161,839	2,936,156	19-36
1883...	8,106,447	1,705,817	21-04
1884...	8,075,537	1,612,481	19-96
Totals.	216,115,726	42,124,350	19-49

The yearly average of the exports of cheese for the sixteen years was 33,409,615 pounds, valued at \$3,594,268, or 10 75 cents per pound. For the last nine years, with the exception of 1879 and 1880, the value per pound has differed but slightly from the average of the sixteen years, and it is not at all likely that this price will be permanently lowered. Of course there will be seasons of low prices, such as the present, when the great staples of food are low; but a rise may be looked for with confidence in the course of a year or two, if not sooner.

The yearly average of the exports of butter for the sixteen years was 13,507,223 pounds, valued at \$2,692,772, or 19 49 cents per pound. It will be observed that the lowest prices were reached in the same years for butter as for cheese, and also that excepting for those years the range from the average price of sixteen years lies within very close lines for the last nine years.

But why has it happened that the exports of butter have shown very little expansion during those sixteen years, while those of cheese have grown to grand proportions? Why is it that the returns of the last two years are only sixty per cent. of the average of sixteen years? We fear the simple answer is that we are not making enough butter of the right quality. In Germany, Denmark, and one or two other countries of the European Continent, butter-making has, in the last twenty years, become one of the agricultural fine arts, and although our butter is probably no

worse than it was twenty years ago, the great bulk of it is relatively an inferior article. Hence it ceases to be in demand in the British markets, and there is little hope for it there unless we can improve its quality, and keep on improving it.

DESTRUCTION OF BIRDS.

These annual visitors to our groves are becoming fewer every year, notwithstanding that there are special Acts of Parliament for their protection. On every holiday, each city, town and village turns out a number of so-called sportsmen, carrying every description of firearm, bent on the destruction of every bird that comes across their path. Taking the whole of the Dominion, the number of shooters on these occasions must number thousands, and suppose that each person only kills say a couple of birds, just think of the immense numbers that are destroyed annually, to say nothing of the prevention of multiplication of the species. Can we wonder, then, at the great increase of our insect pests, when their natural enemies, the birds, are thus ruthlessly destroyed? In addition to the before mentioned pot-hunters, there is the licensed bird destroyer, who does little else but shoot birds and sell them, stuffed, singly perhaps, to adorn the head gear of ladies, or in cases to private individuals, or public museums. Large sums of money are annually made in this manner. We recently read that one gentleman had a collection of 2,000 specimens. To obtain that number, it might reasonably be agreed that nearly double that number must have been destroyed. There are many similar collections in the Dominion, in addition to the number of cases of stuffed birds to be seen in private dwellings. Taking these facts into consideration, is there any cause for wondering what has become of our feathered friends? Each year some species are becoming more scarce, and are still likelier to become so, for let it be known that any of these rare birds are about, then swarms of shooters turn out anxious to obtain them, thus utterly preventing any natural increase. Instead of farmers crying out about the scarcity of song birds, let them remember that they have the remedy chiefly in their own hands by prohibiting any trespassing upon their lands, either by persons carrying firearms or by boys hunting for bird's nests. Let it be known that "No trespassing here" means really what it says, and that none will be permitted. You will very soon be rewarded by the birds assembling on your property, for they very readily find out places where they are not likely to be disturbed.

TWO EXHIBITIONS.

The Provincial and the Industrial are the two great Exhibitions of the Province, and they are now generally recognized as the rivals of each other. The latter has, at least, attained to this measure of success that it has excluded the former from Toronto. In olden times it was regarded as a matter of considerable importance that the Provincial should be held in one of the large cities; not merely because accommodation for visitors could only be provided in these, but because there was an assurance of a large attendance of citizens at the Exhibition and a consequent boon to the treasury of the Association. This is still an important consideration, there is no doubt, and it is some disadvantage to the Provincial Association to be shut out from Toronto. But the Industrial has filled the bill very satisfactorily, and is doing good service not only to the city but to a large circuit of country to the west and north and east of it. In one respect it has the odds on its side as compared with the Provincial institution; its grounds are fitted up permanently,

and very little expense is required to furnish exhibitors with every desirable accommodation. It is largely a business concern, and being managed by business men of experience and ability its finances are usually found to be in a healthy state. The management do not feel that it is incumbent upon them to be extremely dignified, and they do not hesitate to provide attractions for drawing the crowds. Thus far, however, the attractions have been proper enough and the visitors have been well pleased. In such substantial departments as live stock and machinery nothing has been wanting to encourage an exhibition of first class character, and we doubt if in these departments any State or Provincial Exhibition yet held in America has surpassed the Industrial. But there are special circumstances this year which are likely to tell in favour of the Provincial. There is, in the first place, the locality of the Exhibition. London is the centre of the richest agricultural district of the Province. To North, East, South and West it is equally accessible, and nowhere else in Ontario are there better herds of cattle, better fields of grain and roots, or better orchards and vineyards to draw upon for exhibits of first class quality. In its agricultural aspect the Provincial Exhibition is perhaps never so successful as in the year it is held at London, and the present being a good all round year for the farmer we shall be greatly disappointed if in this aspect the Exhibition does not prove to be an extraordinary one. Then, in the next place, the Exhibition of this year is to partake of a Dominion character, the Dominion Parliament having made the Association for that purpose a grant of \$10,000. It is somewhat unfortunate that this grant was made so late in the season that steps cannot be taken to have every Province and Territory of the Dominion properly represented in the exhibit. Yet it is possible to do a good deal in this direction, and we trust that the Directors will spare no effort to make the Exhibition worthy of its name. The grant will enable them to offer some additional premiums, as well as to increase the sums offered for others, and the list of entries is sure to be very considerably extended in consequence. We should like to see the Exhibition thoroughly representative, not only of the Dominion but of every interest and industry in it, and to make it so. The Association never before had circumstances so much in their favour.

ACCLIMATIZATION.

BY G. R. KING, TORONTO.

Acclimatization is a matter so interesting that the wonder is, it is not more extensively practised throughout the world. Considered in its application to the American Continent, which possesses every degree of heat, cold and climatic influence, one is struck by the wide field open to enterprise in that direction, which, if properly taken in hand, could not fail to result in vast additional wealth. In a very few years one little fish alone—the *Dover Sole*, if properly introduced—and there is no reason why it should not be—would add a trade value of millions of dollars annually. In Europe it commands an immense sale, probably no fish being half so eagerly sought after by all classes and conditions of the population, though it is sometimes so scarce as to fetch as high as four shillings (one dollar) a pound. Its flesh is so firm, easy of digestion, and nutritious that it is termed the rump-steak of the sea, whilst its delicacy of flavour causes it to be generally the first dish ordered by medical men for their recovering patients. Its safe introduction into American waters should be determined upon. If the first trial did none. — we ought to try, try,

and, if necessary, try again even to a hundred times to obtain such a treasure. There ought not, however, to be any great difficulty about the matter, when we consider that any visitor to the Westminster Aquarium in London, England, may see them swimming about in a glass tank about eight by six feet in company with cod, plaice, turbot, lobsters, prawns, shrimps, etc. So that surely if they can be kept in health in confinement miles away from the sea, as London is, there would be little difficulty in bringing them across the Atlantic in a tank where they could have fresh sea water to revel in every day. But attention should be paid to the locality in which they are placed when they arrive.

The same remarks apply to the turbot, guard fish, sprat, whitebait, etc., the demand for all of which in England is very great. Mr. Ward, of Leather Lane, London, who contracts to supply the American Hotel, Langham Place, and other large establishments, will often in the season bring up his large four-wheeled vans from Billingsgate, full of sprats, and before the men can unload any they will all be sold retail out of the van to customers anxiously waiting to be served. The van will then be driven off for another and another load to be disposed of in the same fashion. Surely, we ought to possess the sprat. I am not aware that either of the fish mentioned is found in American waters; but I think they should be.

From fish to game is but a step, and I think that the English hare certainly deserves to have his claims considered. Some years ago a gentleman told me that when on his voyage to New York from England the steward of the vessel had on board six English hares which he was taking out as a speculation, and which he sold for two dollars each immediately on landing. Why, then, should we not have the English hare? So also the pheasant and English partridge, of all birds the most toothsome. Each of the above is often kept in confinement in England, so that they could be easily obtained.

Whilst upon the subject of birds, let me say a word in favour of those soul-inspiring consolers of the British labouring man, the British songbirds. And as people generally like to combine profit with pleasure, I will start with a little bird that would be of immense value to the Canadian agriculturist; and, at the same time, delight all classes of society by his sweet song and beautiful, nay, almost gorgeous plumage. Perhaps there is no greater weed pest upon this Continent than the thistle; but why it should be, as it generally is, called the Canadian thistle, I am at a loss to know, for the very same plant in every respect flourishes in Britain, where you may find its roots twisting round and round in the ground like thick string. Doubtless it would be a greater nuisance there, were it not that the brilliant plumaged little songster alluded to subsists in its wild state entirely upon thistle seed if it can procure it, though it will eat lettuce and some other seeds when the thistle is not easily procurable; and yet the song of this little feathered gem, the goldfinch, is generally preferred to that of the canary as being more sweet and not so distractingly harsh. Oh! what a boon he would be to the Canadian farmer, and what a pet with Canadian ladies; yes and gentlemen too, for he is perhaps of all cage songsters the most winsome and lovely.

There is a store keeper in this city of Toronto who had the good fortune to buy of a newly arrived immigrant a little English robin, for which he paid twenty dollars. It hangs in the store to the delight of the customers and profit of the store keeper. This little bird is not so large as a sparrow; but has a most delightful song and soft bill. In the Old Country this pretty, familiar

little bird becomes very tame, and in the winter it will come to the door for crumbs and if not frightened by boisterous children or sight of grimalkin, will often enter the sitting room or the cottage or window of a lady's boudoir. The robin lives chiefly upon worms, caterpillars, flies of the gnat tribe, and grubs when wild.

The British thrush, throstle or mavis—for he is known by each of those names—lives principally upon worms, slugs, caterpillars, grasshoppers, etc., and must be classed amongst the most glorious of beautiful songsters. Often and often, from time immemorial, have all classes and ages of humanity been arrested and compelled to stop in their walks, aye, and drives, at his bidding. Let him but strike up his grand and lovely notes, either at early morn, noon or evening, and anything claiming kindred to humanity within hearing must feel the soul-stirring influence of his notes and, if not pressed by business and possessing ordinary human feelings, will feel bound to stop, still and silent, out of admiring respect to this lovely soloist of nature. Thus for ages has he arrested the labourer, the lover, the citizen and schoolchild. Poet and sage, old and young, all must pay him homage.

The skylark too. Who can do justice to the glories of his lovely carol? See him as he springs from the grassy meadow, twitteringly melodious, taking his flights round and round, higher and higher, louder and more loud, till you see him so high that he looks but a tiny speck to your straining sight, and at last is entirely lost to vision. Yet still you hear his glorious strain higher and higher and yet you see him not. But, by degrees, the notes sound nearer and yet more near and there! yes! there he is descending again, yet he looks but a speck still, and down by degrees and circles he still comes till within two hundred feet, perhaps, from the ground, and of a sudden that glorious song is broken off and with a dive the little songster gains almost the very spot from which he started on his hymn of praise to heaven's gate. This lovely songster in his wild state lives principally on small worms, caterpillars, flies, etc.

The nightingale. How can words at all describe the immense variety, sweetness, aye, and weirdness of his song? Often when sleepless I have laid at night, worried by cares, has this peerless songster drawn off my thoughts to wonder at his astonishing powers of imitating perfectly every other song-bird, and I have closed my eyes in sleep to his glorious lullaby.

Much more might be said in this paper, but have I not said sufficient to warrant the formation of a society to promote acclimatization? In the Old Country I have seen more sparrows die from cold than larks, linnets, thrushes or blackbirds, and yet the sparrow stands the winter of Toronto and Peterborough, and I dare say much further north. Then why should we not try to obtain other more useful birds than the sparrow? Having been a passionate naturalist from my earliest days, I know the habits and food of nearly all British birds and would be willing to answer for their safe transit if desired, as well as give advice as to their location when here. I trust this paper may lead others to take an interest in this subject.

It may be asked: "How can birds obtain worms, grubs, caterpillars, etc., here in the winter?" My answer is: Place them first further south or in British Columbia and they will soon work as far north as they can exist, or they will learn to migrate as other birds do, and depend upon it Nature will take care of them.

The editor of the *Farm, Field and Stockman* was told that a teaspoonful of coal oil poured into the wounds made by peach borers, would kill the insects. He tried; it and found it killed the tree as well as the borers.

Bees and Honey.



OFFICERS OF ONTARIO BEE-KEEPERS' ASSOCIATION, 1884-

President, Dr. Thom, Streetsville; 1st Vice-President, S. T. Pettit, Belmont; 2nd Vice-President R. McKnight, Owen Sound; Secy., Treas. Jacob Spence, Toronto.

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Communications on the business of the Association, and Bee-Keepers' Department of the *Canadian Farmer* to be addressed to the Secretary-Treasurer, 251 Parliament St., Toronto.

FOR THE RURAL CANADIAN.

JOTTINGS FROM STREETSVILLE APIARY.

BY J. C. THOM, M.D., STREETSVILLE.

Well, the honey season of 1885 will soon be as a tale that has been told; and I very much fear that the narrator, if a raiser of that precious nectar, will not wear an overly satisfied countenance. Clover, although abundant, has had much of the nectar washed away by ever recurring rains, just about the time bees began to gather from it. I doubt if there has been any more than eight days' full gathering yet. Basswood, although loaded with blossoms, does not now secrete honey so freely as it did in days gone by, when the forest stood in large unbroken blocks; and indications seem to point that it is not now a very certain source of honey.

Swarming, that great bugbear of the large apiary, has been excessive, and I fear where stocks are left unexamined by the go-as-you-please bee-keeper, many will be left in a weakly condition to face winter's storms. This class would do well to take timely warning, examine hives without delay, and see that they have laying queens or larvae from which the bees may raise them. I have used several different makes of foundation, and, until something better is offered, prefer, as the bees seem to do, the Given make for brooding purposes.

After a trial of queens as nature endowed them, with wings, during the swarming outburst of this season, I am about satisfied there is a better way for large apiaries and shall henceforth resort to clipping. By curtailing her majesty's ancient privilege of flight, we are quite as likely to save the queens, and we certainly shall save time, trouble and the bees belonging to the swarm. One of the many occasions which try that most patient of men, the apiarist, I have found to be when three or more swarms issue simultaneously and alight on the leafy pendant limb of an elm forty feet from *terra firma*, the thermometer meanwhile registering ninety degrees in the shade. Then is the time to wish for a dozen of the invalid old gentlemen and delicate ladies who are so often advised (in the cool retreat of the editor's sanctum, perhaps) to try bee-keeping as an easy pursuit, requiring no particular work, no capital, little brains, not much of anything, you know, as bees ask no wages and board themselves; then it is so nice to have your own honey, costing a mere nothing, of course!

As to hives we are, I am persuaded, on the eve of some very great improvements, notably the adoption of the reversible frame and cases of sections. Subsidiary to this is a practice I am now trying with great promise of success, viz., obtaining larger yields of comb honey. This is secured by contracting the brood-nest of the hive

by withdrawing all frames but five or six, and substituting cases or division boards twenty days after swarming, also hiving the swarms on the same number of fdn. combs, put on section cases, when the bees will at once fill them. In conclusion, I would advise those having honey to sell not to let it go at bottom prices of last year, since all we are now likely to raise will be required before next year.

FOR THE RURAL CANADIAN.

THE HONEY HARVEST SO FAR.

BY S. CORNEIL, LINDSAY.

The indications at present (July 25th) are that this year's honey crop will be a short one. The yield of extracted honey gathered from clover averages about thirty five pounds per colony. For the last two weeks the surplus stored in my yard has not averaged more than one pound per hive daily. Basswood bloom has yielded a little, but since it opened there has been only one good day for honey secretion. This has been a swarming season. Enough honey has been gathered to keep brood rearing going rapidly, but not sufficient to fill up the combs so as to crowd the queens. The consequence is that a large quantity of brood has been raised, which in turn reduced the amount of surplus stored. We have had more swarms from hives run for extracted honey this year than ever before.

We commenced the season with 145 stocks, including good, bad and indifferent. Ninety-one of these are fitted up for extracted honey and fifty-four for sections. We have increased by natural swarming to about 200, and expect to get about that number ready for winter.

TO BEGINNERS IN APICULTURE.

Professor A. J. Cook says: "Everyone contemplating bee-keeping should first study the subject well by use of a good text-book; should procure pure Italian bees, or Carniolans, as these races are gentle and little liable to sting, and should certainly use a movable frame hive. These hives, as now used by the best and most successful bee-keepers, are unpatented and free to all. The Langstroth hive is now used by all our apiarists. It is simple and all that can be desired. There are hives sold as patent hives, which are really the Langstroth with some patented attachment, which is almost always valueless, and often worse than useless. So no one rightly informed will waste one cent on patent hives. Again, one just commencing will not start with very many colonies, even though he may have studied the subject thoroughly. Like all knowledge, the knowledge of bees and their management is not understood very well until "worked on." A few commence apiculture with many colonies and succeed from the start, but far more who attempt this fail. In fact, I think this the common cause for failure. Bee-keeping serves most admirably as an avocation. For only a short time each year are its duties arduous. I know a farmer—one of the best in his region—who owns a good farm, well stocked with cattle, sheep and horses, who commenced bee-keeping as suggested above, about six years ago. His principal object was to get his two boys—one seven, the other eleven—interested in the study of bees and the wonders of the hive. He winters in the cellar, and has never lost a colony since he commenced. He now has seventy colonies. For the last two years the receipts from the apiary have exceeded those from the farm. It is needless to say that this man believes in bee-keeping, especially as he has fully met his original desires. Each of his sons is now competent to manage the bees.

"In almost any business, bee-keeping may be made a pleasant and profitable adjunct. It gives the farmer a delicious food and profit besides; it is specially adapted to be united with poultry keeping or fruit raising, and will often—indeed, has in scores of cases—give health to the professional man, as its duties call him forth into the open air. Mrs. L. Harrison said, in an essay at the recent meeting of the Indiana State Association, that bee-culture offered any intelligent, cautious woman, a good livelihood. Several ladies have come to our college to study apiculture, remaining for two or three weeks. In nearly every case the main object was to secure open-air employment in the hopes to regain lost health. I cannot remember a single case where such persons have failed to achieve success, not only in point of health, but also in the work of the apiary.

"As Mrs. Harrison suggests in the remark above, caution is an all-important requisite to success in this business. To be sure, the labour is hard and trying—even with a large apiary—only for a few weeks; but the bees do need care, which must be given when required. Neglect to grant this is the great enemy to successful apiculture. The easy and infrequent duties of life are the ones most frequently neglected. This proves true in bee-keeping, and is the common cause of failure.

"Thorough preparation, diligent care and persistence will surely bring success."

HOW DOES THE BEE VENTILATE ITS HIVE?

F. H. Church, in the *Bee-Keepers' Magazine*, says: "Though I have not been long in 'bee business,' yet I should like to ask why so many think that the honey bee ventilating its hive fans the air into the hive. I have a new theory (which I will set up for others to knock down if they wish) in regard to the manner in which the bee ventilates its hive, and why I think the existing theory is wrong—first a bee-hive is almost sealed tight, in all places except the entrance; this will keep the air from going out very fast at the top, and the warm air that is inside must remain inside without circulation until it escapes through such small holes as the bees may have (for reasons best known to themselves) omitted to seal.

Secondly, the fact that the warm air must remain inside, until it escapes through these places, will prevent the bees fanning air in from the outside. It will also be very hard for the bees to force the warm air from the top faster than it would naturally go, because they will have to drive out a large body of air through small spaces, by forcing a small current of air against this large body, at the other end from which it is to escape; also the fresh air coming in at the bottom will not rise to the top, only as the warm air escapes; this will prevent the top of the hive having any fresh air. Nature would not make such a mistake.

My theory is this, that as a bee flies he must fan the air down and behind him as he flies, or he would not stay up or go ahead. Therefore, when he is standing on anything it will be most naturally and easy for him to vibrate his wings in the same manner that he would in flying, which will cause the air to pass rapidly behind the bee, because the bee in this case does not move ahead (in the same manner that a steamboat moored to a dock throws the water back when the engine is started ahead), thus the bees inside the hive with their back towards the entrance, and those in the entrance fan it outside, this causes incoming air which is cool to come in at the top (the warmest part of the hive and pass down and out through the entrance—fact that it is cool

will make it pass rapidly down, during which time it will be warmed some, which will tend to keep the hive of an even temperature all through. Anything light put on the alighting board of a hive will be blown off, showing that the draught is from the inside out, and not from the outside in."

BEE PASTURES.

The rapid development of the country, the occupying of open lands, the turning under of the native sod, has so decreased the amount of acreage over which the bees of our early settlers used to roam that it is not uncommon to hear men remark that bees are a failure; that they cannot provide honey enough during the season to keep them through the winter. The reason appears very obvious to most thinking apiarians, and their bees generally come through the winter all right. If you take away during the summer the store the bees put up for winter and neglect to provide late nectar-bearing plants, you may rest assured you will have to feed your bees or they will starve. There is but one way to prevent this, and that is to have bee pasturage. This may be made in many ways. You may have a real pasture of clover, buckwheat or alsike, you can plant rows of nectar-bearing trees along your farm, which, besides furnishing food for the bees, improves your farm twenty per cent. You can plant the linden, box elder, and the honey locust; the latter being quite late in flowering, makes it of especial value and they are all excellent shade trees. For a strictly bee pasturage we think melilot very good, as it flowers from June to August and is rich in the quality and quantity of honey. All of the things mentioned are necessary to make a good bee pasture, and we think when every bee keeper sees this matter in its proper light, realizing how easily it can be accomplished and the rich returns it will net him, that bee pastures will become as common proportionately as cattle and hog pastures.—*Iowa Homestead.*

NOTHS AMONG BEES.

The moth is the colour of old wood, and the wings cross one another, turning up like the tail of a fowl. It may be seen lurking around hives in the evening, trying to gain admittance. Where fowls have the run of an apiary they catch many of these moths on the wing. Persons speak of moths running out bees! It would be as proper to say that weeds run out corn. If from any cause, such as queenlessness, a colony becomes extinct, or nearly so, the moth enters and takes possession, and it is a mistaken idea to attribute the destruction of the bees to the moth.

Comb in frames can be kept over the summer free from the depredations of the larvæ of the bee moth if they are suspended in the light and air and are three or four inches apart. Moths love darkness and uncleanness, and deposit their eggs in cracks and crevices about hives, where bees cannot gain access to them.—*Exchange.*

AMUSING INCIDENT.

An exchange is responsible for the following: "The other day a bee sank from sight in the calyx of a great white lily, when the neighbour's cow, who had just dropped in to see how things were getting along, stepped up and swallowed the lily. The cow thought the lily had been heated in a stove, because it got in its work about eighty times a minute. The cow spoiled that garden in two minutes. It looked like a circus ring after the trick-mules are through, and the cow went out without taking the time to look for the gate. Plunging madly into the first pond, she filled herself with water and drowned the bee. She now leaves flowers alone."

DIVIDING COLONIES.

Artificial swarming or dividing is much preferable to that of natural swarming, when rightly understood; but by those who will not stop to think or learn the laws of instinct by which the bees are governed it cannot be successful. Only a few days ago we were called upon to hear the grievances of a brother bee-keeper, who had almost lost the entire honey crop of this season, by his manner of dividing. The first principle, the key to success, is in keeping the old bees and the old queen in the new hive. That is where the work is to be done and where the working bees and the queen should be put. In making divisions not more than one frame of brood should be taken from the old hive; then move the old hive to the new location, leaving the new hive on the old stand, thus throwing all the working bees in the new hive where the work is to be done.

The few bees left and those hatching will be able to do all the work necessary in the old hive until the advent of the new queen. Our friend mentioned above took exactly the opposite plan and all the old hives with all the old bees commenced throwing off swarms as fast as the young queens hatched.

HONEY GATHERING.

Mr. Allen Pringle, an enthusiastic advocate of bee-keeping, as well as an intelligent writer on the subject, says in a late number of the *Popular Science Monthly* that "when the agriculturist takes his grain to market he takes with it more or less of the fertility of the soil; when he takes his stock and dairy products to market he does the same thing, only perhaps in a less degree. But when he takes his honey to market he does nothing of this kind—he takes none of the fertile elements of his soil along with it." From this we conclude that Mr. Pringle believes that honey is either an excreted product of the plant or produced wholly from the atmosphere. But as honey is composed of grape sugar, gum, mucilage, wax, acid, etc., we can scarcely think they are all useless to the plant producing them. Honey is formed during the early stages of the flowers, for what good purpose is not positively or fully known, but it is quite probable that a portion of it, if not all, is reabsorbed to assist in the production of seed. Many of our farmers assert that the removal of the honey from the flowers of buckwheat seriously interferes with the production of the grain, and it may be true with other plants as well.

TESTING BEESWAX.

When the wax is chewed it should have no disagreeable taste and must not stick to the teeth. In an adulterated wax, the nature of the foreign material can generally be detected by the taste; the addition of fat can generally be readily detected. If it sticks to the teeth the presence of rosin may be assumed. A simple method of detecting the presence of fat in wax consists in melting it, and placing a drop on a piece of woollen cloth. After it is perfectly cold and solidified a few drops of ninety per cent. alcohol are poured on and the cloth rubbed between the hands. The wax will be converted into dust, and will easily separate from the cloth if it contain no fat, and will leave no stain; when it contains fat it will leave grease spots. In examining wax candles, they should be broken to see whether the interior is of the same material as the surface, because adulterations of this kind occur quite frequently.

During fruit bloom is the best time in which to transfer bees, but it may be done at any time before the combs become too full of honey.

HONEY IN THE DAYS OF YORE.

A correspondent in the *London Lancet* remarks as follows on this subject: "Not only the Greeks and Romans, but most of the Asiatic nations, had habitual recourse to honey in the preparation of food. It figured abundantly in their rather composite 'made' dishes, and formed the standing adjunct of simpler fare. Mixed with wine, milk, or even water, it was also in universal demand for beverages; and it was for this purpose that the Scandinavian and Celtic nations used honey while beer was yet unknown, and wines were mainly confined to the countries that produced them. Mead and metheglin are sometimes confounded; but the former was obtained from the combs after the honey had already been taken, while the latter required 112 pounds of honey to produce twenty-four gallons. Both were fermented drinks; but metheglin, the 'honey-wine' of the banqueting table, was rather viciously intoxicating, while mead was chiefly used as a vehicle for the flavouring of fruits and aromatic herbs. Queen Elizabeth was extremely fond of this beverage, and a mead used to be specially prepared for her use, blended with sweet-brier, thyme, rosemary, and bay."

BEES when properly cared for will bring a good return for all time and money expended on them.

WHATEVER you may have to do in the apiary always do it well, thereby saving much valuable time and endless trouble.

ANTS at times become very troublesome around and about the hives. A thorough application of strong salt brine in the nests will destroy them.

Avoid blowing your breath among the bees while handling the combs. They are inclined to resent objectionable features in rather a pointed manner.

ALL excess of drone comb should be removed from the hives. A very small patch is sufficient for all practical purposes, too many drones being a detriment to the colony, acting as only so many idle consumers.

If the bees get cross, do you keep calm. "Whom the gods would destroy they first make mad." If you get excited, angry, and feel like fighting, it is as good a thing as the bees want; they are a host in the fight.

It is said that a larger crop of apples may be grown when a hive of bees is stationed in the orchard. The pollen is rubbed from their bodies against the pistils of thousands of flowers, which thus become fertilized. Many of the strange freaks of hybridizing varieties are due to the agency of bees.

BEES ought not to be allowed to waste time for want of room to store honey. When the combs are built out white, and bees scaly with wax, lose no time, but supply storage room. The farmer who delays to put on surplus boxes until his hay is made and harvest over, will receive little benefit from his winged stock; his bees will be forced to idleness. Do not give too much room at once, for it seems to discourage them, but when one receptacle is filled with bees supply another.—*Prairie Farmer.*

BEES serve as active agents in the fertilization of plants and are not destructive in the smallest degree. They are profitable because they gather and store up that which would be entirely lost without their aid. They work in places that are rarely seen, and the fence corners and neglected spots are often valuable pasture fields for them. Though regarded as resentful in nature, yet they are not aggressive and they can be cared for easily by ladies and the younger members of the family, for, like animals, they are conquered by kindness.

The Grange Record.

OFFICERS OF THE DOMINION GRANGE.

OFFICE.	NAME.	POST OFFICE.
Worthy Master	Robt. Wilkie	Blenheim, Ont.
Overseer	A. B. Black	Amherst, N. S.
Secretary	Henry Glendinning	Manilla, Ont.
Treasurer	J. P. Bull	Davenport, "
Lecturer	Chas. Moffat	Edge Hill, "
Chaplain	Geo. Lothbridge	Strathburn, "
Steward	Thos. S. McLeod	Dalston, "
Ass't Steward	Win. Brock	Ad. lido, "
Gatekeeper	L. VanCamp	Bowmanville "

LADY OFFICERS.

Cores	Mrs. G. Lothbridge	Strathburn, Ont.
Pomona	T. S. McLeod	Dalston, "
Flora	C. Moffat	Edge Hill, "
L. A. Steward	E. H. Hilborn	Uxbridge, "

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Robert Currie	Wingham, "

AUDITORS.

Chas. Moffat	Edge Hill, Ont.
T. S. McLeod	Dalston, "

OFFICERS OF ONTARIO PROV. GRANGE.

OFFICE.	NAME.	POST OFFICE.
Worthy Master	R. Currie	Wingham.
Overseer	Thos. S. McLeod	Dalston.
Secretary	A. Gifford	Meaford.
Lecturer	D. Kennedy	Peterboro'.
Treasurer	R. Wilkie	Blenheim.
Chaplain	L. Wright	Banks.
Steward	Thos. Hoazin	Cashtown.
Ass't Steward	Win. Brock	Adel. lido.
Gatekeeper	J. P. Palmer	Fenelon Falls.

LADY OFFICERS.

Cores	Mrs. C. Moffatt	Edge Hill.
Pomona	G. Lothbridge	Strathburn.
Flora	E. M. Chrysler	Dellit.
L. A. Steward	J. McClure	Williscroft.

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FOR THE RURAL CANADIAN.

TOO MANY WHEELS.

Any one acquainted with the law of mechanics knows that the more wheels in a machine the more will be the friction, the greater the friction the more oil will be needed, and the greater the power required to turn it; the more complicated the machine the more difficult to keep it in order; the simpler and fewer the parts in any machine, the more excellent it will be, not only in durability, but cost of operating. The foregoing is an axiom which no one will deny, and applies to all machinery, agricultural, social, political and financial. Taking a hasty glance at one machine from a farmer's stand-point, we hope to be able to show that the law of mechanics has been disregarded in its construction, that friction has been vastly increased, and is still increasing, contrary to the progressive spirit of the present century and the maxims of true economy. Considering the size, circumstances and population of our Province, everyone must admit that our political machine is too cumbersome for the work to be accomplished. The cost of our government machinery is out of all proportion to the work performed, and the number employed much greater than our population or needs require. We shall not now discuss the quality but the surplus, nor shall we apologize for using *The Rural* for the discussion of this subject, because "it is the farmers' paper," and farmers form the great taxpaying and voting machines of the Province. A few may turn up their noses when called voting machines; but a moment's thought will convince us that not only we but about seventy-five out of the eighty-eight that we send to the local Legislature in Toronto are voting machines, that the real work of legislation is done, and always will be done, by some half dozen members, and the others are there to say Aye or No, at the wish of the leaders. Now, would not a majority of three yeas be as positive or three nays be as negative in a body of ten as twenty-five in a body of eighty-eight members? What need have we for such a long-handled voting machine at Toronto? Are our interests so different and our circumstances so diversified that we need ninety men

from the little Province of Ontario to tell each other what they are? From one agricultural county, which may be taken as the type of the other forty-four, is it necessary to send three to Toronto to tell each other what will be good for them? The thing is ridiculous, and worse, because it brings expense with it. If, as in some of our Maritime Provinces, we had a diversity of trades and interests, and often in one county, there would be some excuse for one to represent each leading industry; but with us, except in a few cities, this is not the case, for our industries and interests are identical all over the Province. What will benefit the farmer in Carleton will benefit him in Bruce, what will help the manufacturer in Hamilton will not injure him in London or Barrie. We are to have a few members more added soon, and, as our population increases, so will the wheels of the political machine be increased, and the public revenue will be insufficient to pay for the useless crowd of representatives who have to be indemnified and banqueted for saying yea and nay. The basis of representation must be changed, and the sooner we talk it over the better. The sooner farmers, who are now silent voting machines, begin to open their eyes, look around and think for themselves instead of being the willing tools of party newspapers and politicians, whose main object is to get five or six weeks at Toronto to the tune of eight or nine hundred dollars a session, the better it will be for the general public, and the longer it will be before we will be called on to pay a direct tax to support this cumbersome and expensive machinery. It will be useless to ask the Legislature to make the change. Such a thing would be silliness. As well might we ask that body to vote for its own annihilation as to ask any member to vote himself away from a good dinner and \$25 a day for simply having heads counted. No; the change must come in the first place, not from the body governing, but from the governed, as the result of the influence of the farmers, mechanics and taxpayers of the Province. By such influence only will the British American Act be amended so as to raise the basis of representation to a standard three or four times greater than at present, except in newly settled districts. Farmers, give your opinions.

June 17, 1885.

S.D.G.

PLANT TREES.

There are portions of every farm, not well adapted to cultivation of the soil, where trees will grow if permitted, says H. N. Howard, in the *National Farmer*. In the clearing up of new farms, instead of the wholesale, sweeping destruction of all forest trees, there are always certain spots where trees may be left where the soil is not worth the trouble of cutting off the timber, and where the timber, if left to grow, would remain a source of profit and income.

On all old farms there are also spots which the plough never reaches, but which, if planted in trees, would reclaim something lost. The rich, alluvial pastures of every farm are best utilized by tilling the soil, while the more sterile portions are more useful for the growth of fruit or forest trees. Such alternation of forest and field is economy of space; it enhances the artistic beauty and picturesque effect of farm scenery. Small fields, amidst forests, are always found everywhere more fertile, other things being equal, than large, open fields without forests. In fact, this system of field and forest is more economical, more picturesque, more gratifying to the senses, and more healthful to man and beast. The farmer who adopts such systems will be regarded as a national benefactor, and will create to himself lasting monuments. Plant trees!

FOR THE RURAL CANADIAN.

SATISFACTORY.

The agricultural statistics of Ontario for 1884 and 1883, furnished by our Bureau of Industries, compared with crop statistics of the neighbouring States, are very satisfactory indeed. Of the eight grain growing States compared, only Minnesota comes near us, and that in oats, rye and barley, while we distance the whole lot in fall and spring wheat by a very decent margin. This is truly gratifying to the farmers of our Province, and should stimulate them to still increase their average, which can very easily be done by underdraining and better cultivation. There is nothing to prevent our fall wheat average being raised to thirty bushels to the acre within a short time, and ultimately to thirty-five, when we can successfully compete with any and all comers, save the prairie farmers of our own North-West, who will overshadow us for many years to come in the production of the staff of life, probably until their virgin prairies come to be partially run down, which may take half a century more.

Egmondville, 15th July, 1885. M. McQUADE.

EXTINCTION OF GREAT BIRDS.

It is a noteworthy fact that some of the great birds most interesting to naturalists have become extinct, apparently, within the memory of man, and even within two centuries. Of these birds perhaps the most famous was the Dodo (*Didus ineptus*), which was the inhabitant of the Mauritius island, and at the time of its discovery in 1598 it was extremely common; but so effectually has it been eradicated that it is now only represented by a few pictures of the seventeenth century and two heads, a foot, a few feathers, and some of its bones that are scattered about among the museums of Continental Europe. From the pictures above mentioned and the descriptions of the early voyagers, it appears that this giant among pigeons was a large bulky bird, weighing 75 pounds. Its bill was long and strong, and the upper part of the mandible was so horny, arched, hooked and ferocious in appearance that its discoverers for a long time considered it a ground vulture. Its body terminated in a rounded extremity, being destitute of true tail feathers, having a tuft of plumes to take the place. From Madagascar we have the remains of eggs that were found among human implements that were a good lift for two men, and that, after being cut in two, were probably used as vessels for holding water, their capacity being several gallons. The hen that laid these monster eggs is unknown to science, but must have been a wondrous spectacle. Two other birds, the Solitaire and Nazarene, have also become extinct within the traditions of man. The former attained a weight of forty-five pounds had feet and beak like a turkey, but in other respects resembled the *Didus* above mentioned. The plumage was of a brownish-gray colour, and according to De Legnat they produced a noise like a rattle by fluttering their wings, which he says were enlarged at the extremity of the bone into a round knob, like a musket ball. The Nazarene had only three toes, and from its bones we judge that it was thrice as large as the *Didus*. Even as recently as fifty years ago a large bird, forty inches in length, called the Great Auk, was occasionally found as far south as Boston, and was quite common in the Arctic regions. To-day not a single specimen is known to exist in the world, having become totally extinct, but by what means will always remain an enigma. Very few specimens of it are known, and only one skin is on exhibition in this country; this was purchased by a gentleman in New York at a cost of \$750 in gold. The eggs alone, market value, will bring \$200 apiece.—*New York Herald*.

TUMBLE DOWN FARM HOMES.

A correspondent of an exchange says: "Of all the dismal and dreary places on earth, deliver me from a dreary farm-house, which so many people call home. Not a shade tree to be seen about the premises. Bars for a front gate, cow-yard close to the door, where manure heaps lie exposed to the sun and rain, bleaching and steaming as you go in and out of the house, food for fowls flung down to be carried into the house on the feet, pig-pens too near, tumble-down walls uncared for. Is it any wonder boys see nothing attractive about such a home, and declaim against farming? No good reason exists why the country door-yard should not be one of the most tasteful and attractive of places; but nowhere is carelessness, shiftlessness and slovenliness more apparent than in many door-yards. The wood pile is in disorder, heaps of old bones, broken bricks, ashes, tin ware, cast away axe and hoe handles, broken crockery of every description, old hats and rags, boot-legs and rubbers, hoop skirt wire, glass and chips lie all about. Used up tools occupy various positions in corners, and look as if they had been tumbled in a hurry where they lie, and had not been touched for twenty years. Some look very old indeed, wheels and hubs of old carts, and pieces of harness, and old iron mixed together. The fences around the house are of all imaginable kinds, refuse pickets with tops broken off, and frequent omissions to let a cow through; a piece of board fence with no two boards alike; with now and then a slab tucked in; then a remnant of some former elegant fence to fill up a gap. The gates off the hinges, and leaning up against a fence. Scenes of door-yards like this may be found without much searching. The owner says he has not time to attend to it, but will straighten it all up some rainy day; that rainy day never comes, so he lives and dies with his door-yard full of all sorts of rubbish. Is it a marvel that his children leave early such a home to swell the crowd of our large cities, where they can earn little more than their board and clothes?"

TAKE HEED TO YOUR WAYS.

Rectitude is one of the very essential qualifications of a successful farmer, and in an editorial comment on this subject the *Farmer's Friend* recently gave the following logical argument which is certainly worth observance, especially by those who are just starting out in life, for it is a solid truth that "as the twig is bent, so is the tree inclined."

"We urge upon Patrons the observance of the injunction 'take heed to your ways.' Be careful that every obligation is sacredly kept and that every promise given is faithfully fulfilled. It is only in this way that we can expect to retain our influence and build up a character that will insure us the respect and honour of the community in which we reside. Never speak a disparaging remark of any member of the Order, be his faults and defects what they may. Stick together, pool your resources and continually work for the accomplishment of a common purpose. And why should we act otherwise, when to do so is to imperil the very interests we hold so dear? We can all do something toward advancing the cause if we but enter upon the work and do that which first comes to hand. There is a proneness among all classes to want to do some great thing, something that will give us prominence and take the gaze of the community upon us rather than upon the work we have done. We cannot all be great nor can we all be leaders; but we can all be workers and do well whatever duty is assigned us to perform. Let us keep steadily in view the work to be accomplished and ever strive to do our whole duty, no matter how obscure our place in life.

AN ENGLISH JAM FARM.

It is well known that the planting of fruit trees extensively in orchards, as so commonly practised in this country, says A. S. Fuller, has always been discouraged by the land owners of Great Britain. There are some counties in England that have been noted as excellent fruit regions for the past 500 years or more, but, as a rule, the owners of large estates have encouraged the raising of grain and meat to the exclusion of articles like fruit, which are usually looked upon as luxuries instead of actual necessities. But the great progress in fruit culture in the United States and the annual shipment of green, dried, and preserved fruits to English ports, has had a beneficial effect upon our English cousins, and some land owners have for several years been encouraging the planting of fruits on an extensive scale.

In the *Pall Mall Gazette* is an interesting account of "Lord Sudeley's Jam Farm," which now comprises 285 acres of arable land, near Toddington. The fruits planted consist mainly of plums, raspberries, gooseberries, and currants; 40,000 plum-trees have already been planted. Of strawberries five tons were gathered in one day last season; 300 pickers are employed during the busy season, and all the fruit goes to a jam factory near by. The proprietors use all the fruit raised on the farm mentioned, and purchase from small farmers and gardeners in the neighbourhood. At this factory the bottles used in a year cost about \$5,000.

The land upon which this fruit farm has been established, required a great deal of preparation before it was ready for the trees and bushes, such as draining, levelling fences, burning of clay, planting hedges for shelter, etc. In addition to the inside hedges planted to protect the small fruits from cold winds, we are informed that the entire farm is surrounded with a row of Canadian Poplar (*Populus Canadensis*). If such screens and hedges are needed in the comparatively mild climate of England, they would certainly be beneficial in most localities in our Northern States.

Another adjunct to this jam farm worthy of note is the addition of an apiary. It has long been claimed that the setting of fruit is greatly assisted by the visits of bees to the blossoms, and in England it is said to be especially true with plums. This apiary consists of 165 hives, under the management of an experienced apiarian, who thinks that under fair treatment and in favourable seasons he will obtain from forty to fifty pounds of honey from each hive annually.

CARE OF IMPLEMENTS.

No farmer can afford to pay for an implement, and then abuse it. Ploughs were not made to be left in the furrow after using; hoes to hang in trees; mowing machines to get shelter under trees, or waggons or carriages left to be exposed to sunshine or rain. We know farmers who have fields under cultivation, in which they take particular pride, and on which they put a great deal of work, and yet they neglect their gardens, and weeds abound. Their stables and work-rooms are in disorder, and tools are left to rust and decay. They may be pleasant and honourable men, but regrettably shiftless. Some are excusable cases but many are not. A farmer ought no more to think of leaving his implements to take care of themselves, than of leaving his purse to take care of itself, and he can afford about as well to do the one as the other. It is not a matter of nicety, but of economy. The best farmer is he who treats that which he possesses in the best manner, be it plough or cow.

GRANGE THOUGHT.

A farmers' club is a useful school, in which every farmer who participates finds instruction and profit. He is both teacher and pupil. What he communicates as the proved result of his own experience is useful to those who hear it, and he, in return, obtains instruction from others who report what they have gained by study and intelligent practice. Nobody will dispute these propositions. But if a farmers' club is a useful school, how much more is a Grange calculated to benefit its membership by diffusion of knowledge, for the Grange has in its meetings farmers, their wives, sons and daughters, each one able to contribute something for the common good of all. A well-conducted Grange has, in the best sense, the character of a farmers' club, with the field broadened, the teaching exemplified, the opportunities extended. Every Grange, when properly managed, is a factor in bringing general prosperity to every agricultural interest, and therefore deserves encouragement from all who may participate in the benefits. It assails no interest. On the contrary, it promotes the general welfare of all industries. The time is coming when intelligent farmers will not deprive themselves of the benefits the Grange offers, for they will not hold aloof, as in the past, restrained by ridicule or calumnies disseminated by enemies of this most useful organization, peaceful in its character, instructive in its exercises, and elevating in its tendencies.—*From the Husbandman.*

MIXED HUSBANDRY.

While mixed husbandry is the true policy for the average farmer, there is such a thing as having it too much mixed—having so many different kinds of crops that it is impossible to give each the attention it needs at the proper time, either in cultivation or harvest. The farmer who should include strawberry growing in his operations, and find a big crop ready for picking at the same time that his broad clover meadows needed cutting, would, unless an extraordinary man and having unusual facilities for obtaining help, be apt to neglect one or the other, and at a loss, while both clover and strawberries are profitable crops when they can be properly cared for. There is sound wisdom in the old maxim about everyone "sticking to his trade." The farmer's trade, so far as raising crops is concerned, lies in having such a variety as naturally fit into or follow each other, giving him ample time to do full justice to each without being hurried or worried over his work. "Too many irons in the fire" is another wise saying. While the farmer should avoid having so many that some of them are liable to be spoiled before he can get around to handle them, he should have enough to profitably employ his whole time. The reverse of this idea is shown in another wise saying about having "all the eggs in one basket." It is better to divide them so that if one basket comes to grief the others may be saved. An Ohio correspondent of the *Country Gentleman*, becoming disgusted with having so many things claiming his attention on the farm, has given up nearly everything except growing potatoes; sold off his cows, hogs, and poultry, given up growing grain, and devotes almost his whole farm to potatoes. According to his showing he has made a financial success, and is saved lots of worry and hard work. But his eggs are all in one basket, and are liable to be smashed any year by the rot of prices below cost of production. His example is scarcely worthy of imitation.—*Farmers' Review.*

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HOME CIRCLE.

THE SHADOW ON THE WALL.

FROM THE FRIENDLY VISITOR.

Mr. Rodney wanted a gardener, and, having but lately settled in the parish of St. Faith's, was a little puzzled to know where to look for a man. Had he not been a stranger he would have applied to some of the more respectable inhabitants to assist him, but he was loth to trouble them on the subject, and made the enquiry of a carpenter who was doing a few repairs to the house he had just purchased.

"A gardener," said the man, musing; "well, sir, the spring is coming on, and most of them hereabouts are in full swing, but I think Ben Carter is at liberty."

"Who is Ben Carter?" asked Mr. Rodney.

"He was one of the gardeners to the squire," was the reply; "but now he only jobs about,—does what he can for a living."

"Why did he leave the squire?"

"I don't want to say anything about it, sir," answered the man, cautiously. "You go and see Ben; then if he likes to tell you about himself he can do so, but it ain't no business of mine, sir."

"Where does he live?"

"In Norman's Cottages, just behind the church there; you are sure to find him, everybody knows Ben; and if he is not at home you will be sure to see his daughter."

In the afternoon Mr. Rodney went to Norman's Cottages and quickly discovered the residence of Ben Carter. The cottages were altogether rather poor and meagre, but Ben's cottage bore the distinguishing mark of being rather poorer looking than the rest. His neighbours, one and all, had made some attempts to brighten their humble homes—a honeysuckle or creeper entwining about the door, or a few flowers in a window, and a bit of white curtain, told of their little efforts; but Ben, although a gardener, had neither paint within nor creeper without, and from the doorstep to roof was written idleness and neglect. The very chimney pot leaned on one side with a sottish air, and broken windows here and there looked blank and dull in contrast to the rest, which shone with tolerable brightness in the rays of the afternoon sun, in spite of the dirt encrusted thereon.

"I am afraid Ben Carter is rather disreputable," thought Mr. Rodney; "but I want a gardener."

He knocked at the door, and Mary Carter, after a brief delay, opened it. Ben's daughter matched the cottage well; she was dirty and slovenly, and her dress was patched and torn, something after the fashion of the windows. Barely seventeen, she, at the first glance, looked thirty. There is nothing like dirt and a scowl to add years to a young face.

She stood waiting for her visitor to speak. Mr. Rodney looked at her, and the unfavourable impression against Ben derived from the outside appearance of the cottage was in no wise removed or weakened.

"Is your father in?" he asked.

"No, he ain't," replied Mary, shortly, with an additional scowl, which put at least another five years upon her.

"Can you tell me where to find him?"

A pause—Mary looking doubtfully at Mr. Rodney.

"What did you want him for?" she asked at length.

"I am in want of a gardener," replied the visitor, "and I wish to see him. If he is at all likely to suit me, I will engage him."

Another pause—Mary's face full of doubt and perplexity.

"If you could wait a minute, sir," she began slowly.

"I will wait with pleasure," interposed Mr. Rodney.

"He won't be long, I know," said Mary; "he said he would be home by one o'clock, and it's now nearly two. He's seldom more than an hour out of a time he names."

"Not more than an hour out!" thought Mr. Rodney as he walked in; "so Ben is unpunctual—a very bad thing in a workman. I am afraid I shall not like Ben."

The inside of the cottage was a little worse than the out; a few old pieces of rickety furniture were scattered about without any attempt at arrangement; the mantelpiece had neither glass nor ornament; the stove was rusty, and the floor was in that condition which tidy housewives stigmatize as "being fit to sow peas,"—a pungent observation which, as my readers are doubtless aware, is intended to be a very bitter sarcastic allusion to the dirt thereon.

Ben's cottage looked none the better for the sunlight which streamed in at the door. A dull day would have left many of its imperfections unrevealed, but the bright spring afternoon searched every nook, and laid bare every sign of dirt, poverty, and neglect.

"Something wrong with Ben and his daughter too," thought Mr. Rodney; "but I won't be in a hurry. Let me see what it is before I judge them too harshly."

He sat for a while in silence—Mary leaning idly against the door, looking out. Presently she turned to Mr. Rodney and said,

"If my father should not come in soon, shall I send him down to see you, sir?"

"I would rather see him to-day if I could," replied Mr. Rodney, "as I am going away to-morrow, and I want to leave him at work. Whose shadow is that?"

Mr. Rodney pointed to the door, on which the sun had thrown the shadow of a man. It was only a shadow—a blank outline of a man—but it told the story of that man's life. There was the bent, crushed hat, the bloated face, the stooping shoulders, and the slouching figure of the sot. Drink was written on every inch of the outline of Ben Carter, and Mr. Rodney knew the class of man at once.

"Is that your father?" asked Mr. Rodney, pointing to the shadow.

"Yes, sir," replied Mary, "but stop a minute. I will go out and speak to him."

She went out before Mr. Rodney could make any response, leaving him with his eyes fixed upon the unseemly-looking outline of Mary's father. In a minute she came back alone, and the shadow was gone.

"My father will call upon you this evening," she said in a hesitating way; "he has something to do just now."

"The worse for drink, I suppose," thought Mr. Rodney; then he added aloud, "Your father need not come; he will not suit me."

"How can you tell that, sir?" asked Mary, with indignation dawning in her eyes.

"He is not the man I want," was the reply; "I do not like his shadow."

Without giving any further reason for his dislike to Ben Carter, Mr. Rodney put on his hat and walked away.

Shortly after Mr. Rodney left, Ben Carter came in. Ben was, as Mr. Rodney guessed, the worse, and very much the worse, for drink; but, like many sots, he had pretty accurate knowledge of anything which concerned himself, and his first words were about the expected situation.

"You—told him, Mary," he said—his voice sounding hoarse and guttural—"you told him I would come?"

"Yes, I told him," replied Mary.

"I'll have an hour's sleep," continued Ben; "and then, if I have a wash, I shall be fit to go down to his house."

"You may sleep and wash as much as you like," said Mary, surlily. "A wash would not do you any harm, but it won't get you the situation. The gentleman doesn't like you."

"Not—not like me!" exclaimed Ben; "why, he never saw me!"

"But he saw your shadow," said Mary, "and he didn't like it."

"It was bad enough for him," continued the girl after a moment's pause, "although it didn't show him the state of your clothes, all torn and stained with beer. He said you would not suit him."

"Not like my shadow!" muttered Ben, with a look of wonderment in his face.

"I don't wonder at people turning from us," Mary went on bitterly. "I am sure neither of us is fit for decent folks. See how changed you are! When poor mother was alive, she kept you from drink, she kept your clothes and house tidy, and it was something like a home."

"Why don't you do the same?" demanded Ben.

"Because I am only a child," Mary replied; "and I was still more of a child when I was first left with you, and like a child I fell into your ways. I am dirty and slovenly, and not a bit like other girls, and I know it. I don't see how it can be otherwise while you go on drinking and spending every penny you get. It breaks my heart. I wish I was dead," and she burst into tears.

Ben sat upon one of his rickety chairs, looking at her in a half-surlly manner; but there was the dawn of something better in his face; remorse was at work—the seed of better thoughts and ways was sown.

"I used to love my father," sobbed Mary, "and I was proud of him; for let them say what they like, you are a good workman when you keep away from drink; but how can you expect me to love you or care for you, or keep your home tidy, when other people turn away from your shadow on the door? What you can see in that dirty public house I don't know."

"And I don't know either," muttered Ben; "but I've got into the ways of it, and there's an end of it."

"But it isn't the end of it," said Mary, looking at him through her tears; "the end of it hasn't come yet; but I can see it getting nearer every day. There is the workhouse for you, and what will become of me? I wished to go into service, but nobody wanted the daughter of drunken Ben Carter. No; everybody turns from me as they turn from you. It would be better for us if we were both dead."

"Don't go on so," said Ben, remorsefully; "I am sure I don't wish to be an unkind father."

"I know you don't," replied Mary; "but is it kind to be always at the public-house, and only coming home to sleep off the horrible drink? How can you expect me to have any heart in my home, or any love for you? Perhaps one day I may run away from your shadow too."

Ben rose up and went out. The words of his child had sobered him; remorse had taken possession of

his heart, and he wished to be alone for a while to think over his position. He turned, as most men do at such a time, to solitude, and made at once for the fields. On his way he passed his favourite haunt, the public-house, and some of his boon companions were lounging idly against the door.

"Hullo, Ben!" cried one, "where are you going? Come and stand a drink!"

Ben turned his head from them and hurried on to the fields; but there was not solitude enough there. The sun was too bright, and the birds sang too cheerily; everything was such a contrast to himself that he could not remain there. Hurrying on, he walked into the wood near, and, sitting down under the shade of an oak tree, buried his face in his hands.

"A man must be very bad when they turn away from his shadow," he thought. "I wonder what I look like? Boots very bad—worn out at the toes, down in heel—no socks; trousers ragged, dirty, stained, and showing bits of my bare legs; waistcoat gone—sold for a pot of beer; coat quite as bad as the trousers, and smelling filthy."

Ben took a long sniff at this garment to assure himself of its unwholesome condition, and was compelled to admit that it was a most abominable article of dress; then he took his hat off and looked it over and over, turning it carefully in his hands, and taking stock of it inside and out.

"As bad as can be," he said; "there's a better one on the scarecrow in the field yonder, I wouldn't mind changing for it a bit. Mary was right; it ain't no wonder that everybody turns from me, even from my shadow; but I won't have any more of it. I'll get rid of these clothes and buy some more—when—when—I've earned—the money."

Very slowly Ben finished his soliloquy, for it was one thing to talk of earning money, and another thing to do it. Ben might now be very ready for work; but were people ready to employ him? His character had been bad for years, and of late had grown worse, for Ben had been guilty of getting, when he could, his wages beforehand, and then neglecting his duty. He ran over the list of those who had casually employed him, and in every case found that he had barred himself from all consideration and hope of relief from his present position.

"When I took the four shillings for Mrs. Maple's geraniums, I meant to buy them," he thought; "but I got to the public, and somehow, every penny went; and I owe Mr. Ripple a day's work, and I borrowed sixpence from Mrs. Teasdale. I'm all wrong, that's what I am, and I don't know which way to turn."

"The strange gentleman who called upon me this morning," he continued, after a pause; "I have not seen him; but he must be very hard to judge a man by his shadow. Oh, I wish I had seen him! but—why not see him now? I'll go and make a clean breast of it. He can only say 'no,' and then I can try something or somebody else. I'll go down to the new villa to-night—no, not to-night, but now."

The resolution was strong upon him, and he went at once, walking quickly through the fields, lest his resolution should flag. When he reached the main road, he avoided the eyes of all he met, fearing that he might fall in with some of his old companions and get led away from the habits he had resolved to forsake.

Mr. Rodney was at home in the front garden, and Ben, opening the gate, went in. Removing his hat he made his best bow and said:

"Good evening, sir."

Mr. Rodney looked at him carelessly, without any sign of recognition; he was mentally engaged in arranging his grounds for the summer. A second look at Ben gave him a false impression of the intruder and he said:

"I never encourage wandering beggars. I have nothing to give."

"I am not begging, sir," replied Ben; "I want work."

"Work!" exclaimed Mr. Rodney in surprise; "work? I should think work and you have long been strangers."

"I own it, and I'm sorry for it," replied Ben, hanging his head; "but I want to do better. My name is Ben Carter."

"The fellow I called upon this morning," said Mr. Rodney. "I did not like your shadow. I told your daughter you would not suit me."

"I shall suit you if you will give me a trial," replied Ben earnestly; "I know my work as well as most men, and I want to get out of my ways and live decently again. I've been a great fool, and worse, sir, but it's all over now, if I only get a chance to live well again."

"But you fellows never reform," said Mr. Rodney, toying with his watch chain; "you all tell the same tale until you get into full work; then you go back to your old ways and run down like an old clock."

"Some do, I know, sir," said Ben; "but I give you my word I won't."

"You see this, too, my good fellow," replied Mr. Rodney, "it is impossible to trust a man who drinks. He may be as honest as the day in his sober moments; but when he has given himself up to his master, away goes his principle. First he gets rid of his own goods, then he gets into debt, and then he begins to finger

the property of his employers. I know it, for I have tried two or three men of your pattern, and they always turned out alike. No, my good fellow, as I told your daughter, you won't do for me."

"This gentleman, who really believed what he said, spoke in a very firm tone, and turned away from Ben as he concluded. The fact was, he did not care to be troubled with men of Ben's class; he had, as he said, given two or three of them a trial, and when they went wrong he lost all faith in his fellowman.

But Ben was firm too. Drowning men catch at straws, and he was truly a drowning man. Walking after Mr. Rodney, he made his last appeal.

"Give me a trial," he said; "and the first time I fail in my duty, or touch a drop of beer or spirits, turn me away. Ask any man who knows me, and he will tell you I can do my work with the best of 'em. My father was the best of gardeners, and he trained me. The squire always said there was not another man like him. Give me a trial, sir."

The gentleman faced about and looked at the appealing face of Ben. Mr. Rodney was not bad-hearted, and the words of the repentant gardener touched him.

"I will give you a trial," he said; "but remember this, if you fail, I shall never listen to another of your class. I abhor a drunkard, and I instinctively turn from one as I would from a pestilence. On you depends whether I shall ever attempt to reform another. You cannot come here in those clothes; but I do not intend to give you any. A man ought to be above charity if he can get work and is able to perform it. You shall have a suit of clothes to-morrow, and I will stop a shilling or two from your wages every week till it is paid. Will that please you?"

"I feel your kindness deeply, sir," said Ben, overcome with joy.

"Say no more," returned Mr. Rodney, "but let your future conduct speak. Be here to-morrow at six o'clock. I will purchase some clothes for you this evening."

Ben went home transported to another life of joy. But he had a scheme in his head, and that was to say nothing to Mary that night. He kept out in the fields until late, thinking over his new prospects, and then stole home and went to bed. Mary had long before retired, burdened with the feeling which had found a partial vent earlier in the day in the presence of her father.

In the morning Ben Carter was up with the lark and at Mr. Rodney's gate full half an hour before the time appointed. A few minutes before six, Mr. Rodney himself appeared, and nodding carelessly to Ben, bade him come in.

"In the tool-house you will find a suit of clothes," he said; "put them on and come to me."

Ben went into the shed or tool-house, and found there a very decent suit.

The grounds belonging to Mr. Rodney were in a very rough state; a path here and there had been planned, but only one carried out, and that led from the main road to the house. Here was a field for Ben—just the sort of thing which suited him—and in a few minutes he had before his master a rough plan for the arrangement of the place.

"I shall want a few frames for cuttings," he said; "and the green-house might be larger, sir; but I think I can make it do this season. A garden never looks well unless you have a storeroom, and a man always ought to be a season ahead with his bedding-out plants. I shall not be able to do much this year but I think I can make the grounds decent, sir."

"I leave it to you," said Mr. Rodney, "not being much of a gardener myself. If you please me, and keep sober, you have work as long as I remain here. If you fail in either, you leave."

Ben had no doubt of himself—none whatever—and he made a very busy morning up to breakfast time, when Mr. Rodney showed the kindness of his nature by voluntarily advancing Ben a few shillings to get necessary food.

He had not time to go home to breakfast, so he purchased a small loaf at a baker's close by. The baker served him, but not knowing Ben in his changed attire, paid no heed to him, which very much astonished and rather grieved our friend, for he considered the novelty of his appearance quite equal to a civil commotion.

A little after one o'clock Mary Carter was sitting moodily in the cottage, with her chin resting in her hand, when the door opened, and a man, presenting the appearance of a respectable mechanic, entered.

"Father's not at home—" she began, and then stopped short.

"She didn't know me," cried Ben in ecstasy; "didn't know her own father!"

"How could I know you?" asked Mary, with a bewildered look. Then a quick change came over her face, and she cried out: "What have you been doing? Is it anything wrong?"

"Ha, ha!" laughed Ben: "is it wrong to go and get honest work, and to have a gentleman giving me a helping hand—eh, Mary?"

"No, father, that's not wrong."

"Then I am right, and now I have come home to dinner. What have you got, Mary? Give me something to eat, and then I will tell all about it."

"There is nothing but dry bread in the house," said Mary, sadly, "and not much of that."

"Good again," cried Ben, half beside himself; "nothing but dry bread! Then it's lucky I brought home a bit of bacon with me, and an ounce of tea. Get a few sticks and put the kettle on. The bacon is cooked and we can eat it cold for once, but the tea must be hot."

Then Ben sat down upon a chair and roared again, rocking to and fro until it gave out signs of dissolution.

"It's very old," he said, rising and looking at the chair, "and it has been badly knocked about, but we will have better ones soon."

Mary made the tea, and Ben washed a plate to put the bacon on; and when they sat down together to partake of the frugal but welcome fare, Ben gave his daughter a full, true and particular account of all that had taken place between Mr. Rodney and himself.

"It is as good as a place for life," he said, as he arose to go back to his work.

"Keep away from drink, father," said Mary, "and you will be all right."

"Never fear," replied Ben, stoutly; "I am all right, I shall never touch it again."

Rash words—delusive self-reliance—as we shall see.

When her father was gone, Mary sat for a few minutes in deep thought, working out something in her mind. Then she left her seat and went into a small wash-house attached to the cottage, where she bestowed a hearty scrubbing upon herself, and with the help of a triangular piece of looking-glass (what is woman without a looking-glass!) put her hair into respectable order. Her father clean and respectable, she could be no less.

After this she scrubbed the floor of the cottage, dusted and arranged the meagre furniture; then she cleaned the windows, and finally washed herself again, made a little fire, put on the kettle, and, as the evening was coming on, she sat down to await her father's return.

He came in about seven o'clock, and, obeying one of the best impulses of woman's nature, she went up to kiss him. Then a new terror came upon her, and she drew back.

"Father!" she cried, "you have been drinking again."

"Only one pint," he pleaded; "I don't think that will hurt me."

"Who have you been drinking with?"

"I met Jim Brown," replied Ben, hanging his head, "and he talked me into having it. He said a little did a man good, that I should never get through my work without it, and I did feel faint, so I went and had one pint, and I am the better for it."

"All a false feeling," cried Mary. "Of course you felt a little faint, but it was caused by the drink yesterday, and not because you wanted any to-day. O! father, this is but the beginning of another bad ending."

"Let me have some tea, and don't preach," muttered Ben, with a surly look.

Mary made no reply, but made the tea and put it on the table; then she took down an old bonnet she sometimes wore, and went to the door.

"Are you going out?" demanded Ben.

"Only for a few minutes," replied Mary, kindly; "I shall be back in time to have some tea with you."

She was not long gone—about ten minutes—and when she came back she took her seat beside him. Ben was half-angry with his daughter for her words about the little he had taken, and he ate his food in silence.

"If I had come back downright drunk," he thought "she might have grumbled; but I left them all and came away because I thought of her."

Mary could see what was working within him, but made no comment upon it; she had resolved to work upon her father another way, and had already taken what she believed to be the best step to save him.

Just as the tea was finished, and Mary putting away the things, the door opened again and the Rev. Mr. Marlow, the clergyman of the parish, came in. Mr. Marlow was well known as an earnest divine, and an excellent friend to the poor. He was also known to Ben, for he had often tried to turn him from his hapless ways; but Ben had shown great obstinacy of spirit and they had not spoken for some time.

"Good evening!" said Mr. Marlow.

"Good evening, sir!" said Ben, in some surprise. Mary drew back, and sat quietly in a corner.

"I have heard good news of you," continued Mr. Barlow, sitting down. "Mr. Rodney has engaged you as gardener?"

"Yes, sir."

"But I hear still better news of you, Carter. I hear that you have resolved to give up drink."

Ben winced and looked at his daughter. Mary's eyes were on the ground, so he was compelled to look again at the clergyman, but he said nothing.

"A resolution of that sort," Mr. Marlow went on, "requires great strength of mind to keep. Men mean well when they make such resolutions, but too often the tempter leads them back again."

"I suppose it is so, sir," replied Ben.

"The reason is that man in himself is weak," said Mr. Marlow, "but he need not fail if he will seek help in the proper quarter."

"And where is that, sir?"

"Above," said the clergyman, solemnly. "Man must have help from the Great Source of all; in the body he needs daily food; in the spirit he needs spiritual help. Without it he becomes the slave of sin, and make what resolutions he may, his feet will go astray."

"I suppose my daughter has been to see you?" said Ben, with a quick look.

"She came to me half an hour ago," replied Mr. Marlow, "and came as a daughter should in such a case, full of love and anxiety for her father. She told me in a few words what had transpired during the past two days."

"And my having a drop this evening, sir?"

"Yes, Carter, she told me of that; and if you wish to live and be a respectable man, that drop must be the last."

"There's no harm in a little, sir," urged Ben.

"You cannot serve God and mammon," said the clergyman; "if a sin is to be really abandoned, it must be put entirely aside. Drink has been your curse; it ruined and degraded you; it kept you in the shadow of want and misery. To have a little is to hover still within its gloom. Look up, Carter—look up from the valley and see the light upon the hill-tops. Look to your Saviour, who sheds His beams of love there, and ask Him for help and He will save you, and keep your feet from falling."

"I've not prayed this many a year," said Ben, sorrowfully.

"The greater need now," said the clergyman. "In all cases prayer is the great helper. In such cases as yours it must be the great power you need. Of yourself you have failed the first day. Turn now to your Creator and place yourself in His hands; He will not fail you."

"But how can such a man as I am dare to pray?" asked Ben.

"Come unto Me all ye who labour, and I will give you rest," replied Mr. Marlow; "so said the Saviour; and He will keep His word. Come, Carter; you have shown yourself open to conviction, the grace of God has given you a knowledge of your sin, and placed before you an opening to a better life."

"You are right, sir, and Mary is right, and I am wrong—I'll drink no more," said Ben, with the light of a better life springing into his face; and if you wouldn't mind praying a little, sir, I am sure it would help me."

The clergyman offered up a long and earnest prayer for the poor fellow, and Ben, with a bowed head and contrite heart, knelt beside him. Mary in her corner knelt too, with her bosom full of joy and hope.

That night Ben voluntarily signed the pledge, and again and again renewed within himself the vows to live a better life. There was more in him too, the fountains of his heart were open; the floodgates of his soul, long choked by vicious courses, were free and he could pray.

About a fortnight after this, Ben was in the garden at work, with Mr. Rodney looking on, when Mary appeared at the gate with his dinner. She was so changed that Mr. Rodney did not know her, and he remarked:

"This daughter is an improvement on the other one, Carter."

"I have only one daughter, sir," said Ben.

"Can it be possible that this tidy, good-looking wench is the slovenly girl I saw at your cottage?" exclaimed his master.

"It's true, sir," said Ben. "When her father was bad it was bad for her, and now, by the grace of God, I've turned again to the right way, it has altered her too."

"I am glad to hear it," said Mr. Rodney, "but I wish you would not talk any nonsense about the grace of God. It's all cant."

"It is not cant, sir," returned Ben, earnestly. "Of myself I failed, sir—failed the first day—and Mary went to Mr. Marlow. He told me of the grace of God and of the need of prayer, and I have found it true. I must pray every night and morning, but every prayer makes me stronger and stronger. It brings God nearer to me, and with His presence comes help. I assure you, sir. But there, I'm an ignorant man, I can't teach a gentleman like you; but you can try it for your-elf, and see if I am not telling you the truth."

Mr. Rodney turned away with an impatient shrug; but the simple words of his gardener kept close to him, and he kept revolving them in his mind throughout the day. He fought against the truth he had learned; but it would not be denied, and knocked again and again at the door of his heart. He had been a worldly man, thinking and caring little for aught else than this life; but now the light of another world began to dawn upon him, the possibility of a future became fixed in his mind.

He made acquaintance with Mr. Marlow, who, in the course of several conversations on the great mission of the Saviour, instrumentally finished the work begun by Ben, and the worldly man became a believing earnest follower of the Lord Jesus Christ.

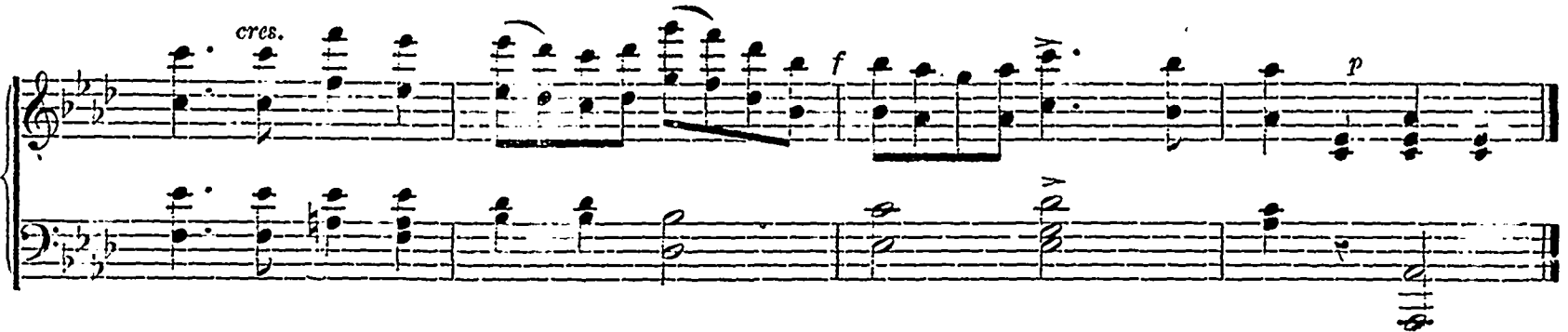
Thus Ben's reformation bore double fruit; master and man lived such lives as honour the Saviour; both were earnest workers in His cause, and their influence lives to this day.

Welcome Home, Brave Volunteers.

Music by F. H. TORRINGTON, Toronto.

Words by JOHN IMRIE, Toronto.

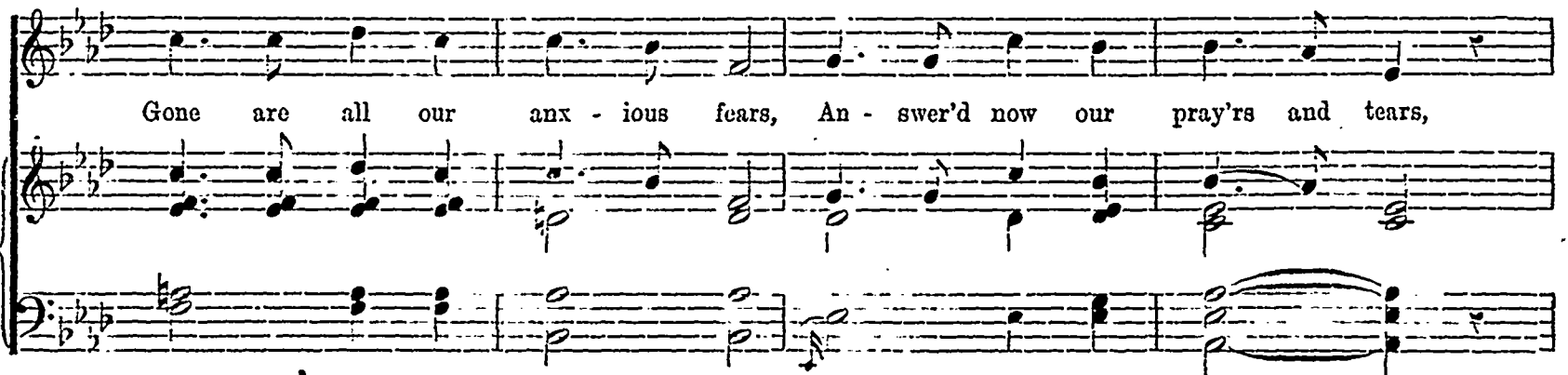
Introduction.



1. Wel - come home, brave Vol - un - teers! Wel - come, wel - come home!



Gone are all our anx - ious fears, An - swer'd now our pray'rs and tears,



cres.

Gone are all our anx - ious fears, An - swer'd now our pray'rs and tears,

cres. *f* *ad lib.*

Wel - come home 'midst ring - ing cheers, Wel - come, wel - come home!

cres.

1
 Welcome home, brave Volunteers!
 Welcome, welcome home!
 Gone are all our anxious fears,
 Answer'd now our pray'rs and tears,
 Welcome home 'midst ringing cheers,
 Welcome, welcome home!

2
 Welcome to our loving arms,
 Welcome to your rest;
 Welcome home from war's alarms,
 Safe from death and all that harms,
 Victory hath crown'd your arms,
 Welcome to your rest.

3
 Canada is proud of thee!
 Soldiers brave and true;
 Thou didst make the rebels flee,
 Thou didst set the captives free,
 Noble deeds were done by thee,
 Soldiers brave and true!

4
 Welcome home, though wounded sore,
 Battling for the right;
 Dreadful marches now are o'er,
 Safe from deadly bullet's pour,
 Silent now the cannon's roar,
 Heroes from the fight!

5
 Welcome home, but some we miss,
 Brave hearts, where are they?
 Gone where noble spirits are,
 Gone beyond the reach of war,
 Sleeping peacefully afar,
 'Neath the sod and clay.

6
 Welcome home our soldiers dear,
 Welcome, welcome home!
 Rebel threats no more we hear,
 War's alarm no more we fear,
 Now we smile and dry the tear,
 As we welcome home!

YOUNG CANADA.

AT GRANDMAMMA DILL'S.

Of all the dear, delightful places to visit, Christie thought Grandmamma Dill's the dearest and most delightful.

For Grandmamma Dill lived in the country, where in spring time were banks of blue violets, apple and cherry and plum trees white with blossoms, singing birds and broods of downy, yellow chickens.

Then in summer there were roses, white and red, climbing almost to the eaves of Grandmamma Dill's little brown house, sweet wild strawberries in the meadow and cherries in the garden; and in autumn there were the birches and maples in the wood lot to shine in dresses of gold and crimson, beautiful to see, and beeches to rattle down showers of tiny nuts, and apples to be gathered, and pumpkin pies, such as nobody could make quite like Grandmamma Dill's to be eaten.

Besides all this there was always Don, the steady old gray horse, to ride after.

It was no wonder that Christie liked to go to Grandmamma Dill's. The only trouble was she never could stay half long enough.

But one day a telegram told mamma that a dear sister in a distant State had been taken suddenly ill.

"I must get ready to start on the morning train," cried mamma, with a bright tear shining in her eye. "But whatever shall I do with Christie?"

"Send her out to mother's," replied papa, promptly. "She will like it, and so will Christie. I'll take her this afternoon."

So Christie, almost wild with joy, watched her mother fill a travelling bag with clean clothes, her very strongest aprons and dresses.

"I shan't want my doll," she cried, spinning about, "there's such a lot to do at gram'ma's. I hope I'll stay a month."

Mamma smiled.

After dinner, papa drove the carriage round, and placed Christie on the seat and the bag under it.

Mamma watched them off, and Christie waved her wee handkerchief so long as she could see the house. Then she drew a deep breath and chattered like a magpie until Jack and Nip trotted up to grandmamma's door, where grandmamma herself stood with her blue checked apron over her head.

"I've come to stay a whole month," cried Christie, scrambling out over the wheel. "Have you got any pumpkin pies, gram'ma?"

"To be sure I have," laughed grandmamma, giving Christie's round cheeks a pat and a kiss in turn. "And Thomas is gathering the Pumpkin Sweetings this very afternoon."

"Oh goody!" cried Christie; and she scarcely waited to say good-bye to papa, before she skipped away to the orchard, where Uncle Tom was picking great, sweet yellow apples, really and truly almost as big as not very big pumpkins.

The afternoon passed happily, and when the sun began to throw long shadows Uncle Tom and Christie went to a delicious supper of pumpkin pie, cut in generous quarters, warm biscuits and honey, and baked sweet apples, and creamy milk. Grandmamma Dill always stirred the cream in.

But after supper—the dark came. In all Christie's little life she had never been away from mamma at dark before.

Grandmamma, with dishes to wash and milk to strain, was busy as busy could be; so Christie cuddled soberly down on the settle, in one corner of the kitchen.

A cricket went "creek-ity-creek" somewhere. Christie could hear the katydids quarrelling in the orchard grass and the cows lowing in the lane.

She began to wonder what mamma was doing, and then a choky something came up in her throat, and, though she shut her eyes very tight indeed, two hot somethings squeezed out and rolled down her cheeks.

Grandma turned from her dishwashing.

"Bless me! she's asleep on that hard settle—tired lamb!" she said. "Why-ee!"

For Christie straightened up with a pitiful pucker to her mouth and little rivers of tears running over her face. "Oh, gram'ma, gram'ma," she sobbed, "I want to see my mamma."

In vain Grandmamma Dill took her in her loving old arms and tried to soothe her. The tears flowed faster and the sobs came thicker.

"Dear, dear," cried grandmamma at last, when Uncle Tom came in, "I'm at my wits' end. I guess you'll have to harness Don, Thomas, and carry the child home."

So Don was harnessed directly and brought round, and Christie was bundled up and put into the buggy, to jog away behind the sober old gray, up hill and down hill, home to mamma.

And mamma wasn't going after all; for a message had come that Aunt Belle was better, and papa had intended going after his little girl next morning.

"But I couldn't wait," sighed Christie.

ALPHABET OF THE FLOWERS.

A is Anemone that trails on the ground.
B is for Bluebell, in moist places found.

C is the Columbine, Cranesbill, Clover.
D is the Daisy, the broad fields over.

E Evening-primrose that opens at night.
F is the Fern, very graceful and slight.

G is for Gentian, the closed and the fringed.
H is Hepatica, trilobed, blue-tinged.

I Indian pipe, or the corpse-plant 'tis called.
J is for "Jack in the Pulpit" installed.

K is for Kalina, whose leaves are like wax.
L is Lobelia, a favourite with quacks.

M is for Mandrake, whose apples we eat.
N is for Nightshade, we call bitter-sweet.

O is for Orchid, producing strange flowers.
P is the Pitcher-plant, catching the showers.

Q Quacking grass in bouquets we admire.
R is the Rose, both swamp and sweet-briar.

S is Spring-beauty—Claytonia's its name.
T is for Thoroughwort, Honeret's the same.

U Uvularia, pale yellow bell.
V is the Vi-let found in the dell.

W Wintergreen, spicy indeed.
X is the Xanthoxylum, but a vile wood.

Y is the Yarrow, that smells very nice.
Z is Zizania, the Indian rice.

SCISSORS AND PASTE.

There is a vast amount of amusement to be derived from the proper use of scissors and paste. Children, especially, may derive from them much of pleasure and profit. Excursions to the attic will generally bring to light old books of various sizes, valuable only for the good they have done, which have escaped destruction for the simple reason that they were "books," and, therefore, should be preserved. They may be made to serve a very useful purpose. The old covers may be brushed and brightened up, and perhaps ornamented with bright coloured pictures, while scraps from the newspaper, carefully cut out and neatly pasted upon the leaves, will make the contents "as good as new." There is scarcely a week that some member of the family does not find some article in the paper that he would like to preserve.

It is a good plan to keep one book for poetry and purely literary matter; another for historical facts and biographical sketches; another for useful information concerning the household, the farm, the garden, and the kitchen. The list may be extended as inclination prompts, and convenience of reference will thereby be secured.

For the children a large book is desirable, in which they can paste pictures, as well as stories, poetry and the little facts that please and interest them. If given a little assistance and advice in selecting and arranging their material, they will derive from the work not only pleasure but instruction. Of course they should be taught to use the paste neatly and to cut the articles carefully from the papers, keeping the edges straight.

Scrap-books may be made varied, interesting and useful, and their contents afford a key to the literary tastes of the compiler. Children should sometimes be busily, happily, and usefully employed. They acquire, by such use of scissors and paste, the habits of observation and wise selection; of employment, neatness and method. A little instruction about the cutting and pasting of the first half-dozen articles will probably be all of direct supervision that is necessary; but the wise mother will always pay due attention to the selections that are made, and give judicious hints concerning the general character of the work.

It is, of course, always possible to buy scrap-books, but in many households the money for such purposes cannot easily be spared. Old account books, or printed books of any kind that have become worthless from age, will answer every purpose. A few leaves should be cut from the book at intervals, to keep the covers from becoming too much distended.—M. E. S., in the *Rural Home*.

BEAVERS AND THEIR HOUSES.

What queer little things beavers are! What strange houses they can build! They make a sort of cabin of branches of trees and mud. The mud answers nicely for mortar. They have large, strong teeth. When they are cutting the branches for use, they gnaw them off with their teeth. They make the sticks just as nearly the same length as they can. They dig up the mud with their paws, for they are great diggers. When they are ready to build their cabin they use their flat tails just as masons use a trowel. With it they pat and smooth the coat of mud as they put it on. The beaver's tail is very short, and well adapted to this purpose. As the wall of the cabin rises higher, it is hard for the builder to reach the top. What do you think he does? Why, he props himself up on it and goes on with his work. These little creatures lead an idle sort of life during most of the summer months, and keep by themselves; but the last of August they form into companies and begin to cut down their timber. The beavers always select a place for building close to a stream of water. To get to the entrance, they must go down under the water. In order to keep the water over the doors just high enough, they make a perfect dam. The dam is also built of branches and mud. For fear the branches might move and get out of place, they fix stones upon them, sometimes of large size, to keep them down. Do you see how they can understand all this? If they did not have a dam, the door of the cabin might be closed up with ice if the water got low in the stream in winter. In this cabin there are two little rooms. They are shaped like an oven. The beavers live in the upper one, and in the lower they store away their food. They eat the roots and branches of different vegetables in the winter. They often lay up food in large quantities.

MISCELLANEOUS.

THE young man that runs often after a sherry cobbler will never get his shoes mended.

A GREAT many builders throw sand into the eyes of the public instead of putting it into the mortar.

"Were you a bull or a bear?" asked an acquaintance of a speculator. "Neither," he replied; "I was an ass."

A CONTEMPORARY praises the Indian hair restorer. He is a fraud. No Indian was ever known to restore any hair.

BE sure you get the genuine Murray & Lanman's Florida Water. There are counterfeits, but if you will hold a leaf of the pamphlet, which is around each bottle, up to the light, you will see in faint letters, water marked in the paper, the words, "Lanman & Kemp, New York," and where you cannot find this, you may be sure the article is not genuine.

"Ah! you flatter me," hissed a dude to a pretty girl with whom he was conversing. "No, I don't," was the reply; "you couldn't be any flatter than you are now."

"CAN you tell the difference between an egg and a cabbage?" asked young Mr. Badger. "I can," responded Mr. Kanter: "I have been on the public platform for ten years."

AN Irish counsel, being questioned by a judge to know "for whom he was concerned," replied: "I am concerned, my lord, for the plaintiff; but I am employed by the defendant."

"Do you think that Brown would fill the place acceptably?" "Splendidly." "But do you know it requires a man of good judgment?" "Then I am sure that Brown is just the man. He has an excellent judgment; at all events it should be never has used it in all his life."

FATHER (getting ready to go down town): "Yes, Robert, my son, bear in mind what your mother has told you, and always say 'please.' It's a little word, my boy, but full of meaning, and the use of it marks the gentleman. Now, wife, my overcoat and hat; and be quick about it."

"CROSSEST MAN IN ALABAMA M.A."

"De crossest man in Alabama lives dar," said the driver as we approached a way-side home, near Selma, Ala., to ask accommodations for the night. At supper, and after it, "mine best" scowled at everyone, found fault with everything earthly, and I was wondering if he would not growl if the heavenly hab didn't fit him, when incidental mention being made of the comet of 1882, he said: "I didn't like its form, its tail should have been fan-shaped!"

But, next morning, he appeared half-dressed at our offering pay for his hospitality! My companion, however, made him accept as a present a sample from his case of pills.

Six weeks later, I drew up at the same house. The planter stepped lively from the porch, and greeted me cordially. I could scarcely believe that this clear-complexioned, bright-eyed, animated fellow, and the man of being of a few weeks back, were the same. He inquired after my companion of the former visit, and regretted he was not with me. "Yes," said his wife, "we are both much indebted to him."

"How?" I asked, in surprise. "For this wonderful change in my husband. Your friend, when leaving, handed him a bottle of Warner's safe cure. He took it, and two other bottles, and now " "And now," he broke in, "from an ill-feeling, growling old bear, I am healthy and so cheerful my wife declares she has fallen in love with me again!"

It has made over again a thousand love matches, and keeps sweet the tempers of the family circle everywhere. Copyrighted and by permission of American Rural Home.

WANTED!

A JERSEY COW YOUNG, KIND, AND GOOD MILKER.

Address, for particulars and price,

CAPT. NUGENT, Office RURAL CANADIAN, Toronto

THE FIRE-PROOF CHAMPION

Most popular Threshing Engine in Canada. More sold each year than all other makes combined. COMPLETE THRESHING OUTFITS SUPPLIED including any of the best Separators manufactured in Canada, at makers' prices.

--BELT FREE WITH FULL OUTFIT-- Come and examine the CHAMPION. We test one every day.



1200 SOLD IN 8 SEASONS

ENDLESS THRESHING BELTS kept in stock - Good, The Best, Heretofore and Standard qualities of Rubber - Watrous Engine Works Co., Brantford, Canada.

BRANCH WORKS - Winnipeg, Manitoba. EASTERN AGENT, W. H. OLIVE - 143 St. James St., Montreal.

THE Great Aeme Penetratix



Positively Burns STUMPS

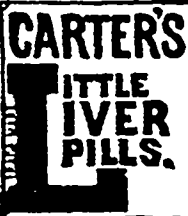
No crude petroleum, sulphur, salt-petre or explosive, but a compound which if put in the stump and set fire to will burn it.

ROOTS AND ALL, Green or Dry.

Sold \$1.00 for enough for 1/2 ratix to burn 12 large or 10 small stumps. Satisfaction guaranteed or money refunded.

Agents wanted.

Address, F. R. HONS, Donnellsville, Clark County, Ohio.



CURE SICK HEAD

Sick Headache and relieve all the troubles incident to a bilious state of the system, such as Dizziness, Nausea, Drowsiness, Distress after eating, Pain in the Side, &c. While the most remarkable success has been shown in curing

SICK HEAD

Headache, yet Carter's Little Liver Pills are equally valuable in Constipation, curing and preventing this annoying complaint, while they also correct all disorders of the stomach, stimulate the liver and regulate the bowels. Even if they only cured

ACHE

As he they would be most precious to those who suffer from this distressing complaint; but few are city town goodness does not end here, and those who once try them will find these little pills to be one in so many ways that they will not be willing to do without them. Put after all at head

ACHE

Is the base of so many lives that here is where we make our great boast. Our pills cure it while others do not.

Carter's Little Liver Pills are very small and very easy to take. One or two pills make a dose. They are strictly vegetable and do not give occasion for any of the gastric troubles which attend the use of them. In vials at 25 cents; five for \$1. Sold by druggists everywhere, or sent by mail.

CARTER MEDICINE CO., New York City.

The Best Yet. - The best blood cleanser known to medical science is Purdock Blood Bitters. It purifies the blood of all foul humours and gives strength to the weak.

FREEMAN'S WORK POWDERS are safe, sure and speedy to remove worms from children or Adults.

Advertisement for D. F. FOWLER'S EXTRACT-WILD STRAWBERRY CHOLERA INFANTUM DIARRHŒA, AND ALL SUMMER COMPLAINTS. SOLD BY ALL DEALERS.

Advertisement for How To Build MODERN LOW-COST HOUSES. Just published. A large book, price 50 cents.

WANTED LADIES AND GENTLEMEN -

A HOME DRUGGIST TESTIFIES.

Popularity at home is not always the best test of merit, but we point proudly to the fact that no other medicine has won for itself such universal appreciation in its own city, state, and country, and among all people, as

Ayer's Sarsaparilla.

The following letter from one of our best-known Massachusetts Druggists should be of interest to every sufferer: -

RHEUMATISM.

"Eight years ago I had an attack of Rheumatism, so severe that I could not move from the bed, or draw without help. I tried several remedies without much if any relief, until I took AYER'S SARSAPARILLA, by the use of two bottles of which I was completely cured. I have since had large quantities of your SARSAPARILLA, and it still retains its wonderful popularity. The many notable cures it has effected in this vicinity convince me that it is the best blood medicine ever offered to the public. E. F. HARRIS, River St., Rockland, Mass., May 13, 1882.

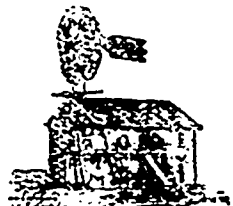
SALT RHEUM.

GEORGE ANDREWS, owner in the Lowell Carpet Corporation, was for over twenty years before his removal to Lowell afflicted with Salt Rheum in its worst form. Its ulcerations actually covered more than half the surface of his body and limbs. He was entirely cured by AYER'S SARSAPARILLA. See certificate in Ayer's Almanac for 1881.

PREPARED BY Dr. J. C. Ayer & Co., Lowell, Mass. Sold by all Druggists, 25, six bottles for \$5.

ONTARIO PUMP CO'Y (LIMITED), TORONTO, ONT.

SEVENTEEN SIZES Geared Windmills From 1 to 40 h. p.



For Pumping Water run on 2 or 4 Cows, Straw Cutters, Root Pulpers, or any other machinery up to a 40 h. p. grid-mill



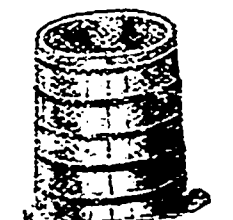
PUMPS. Iron and wood. Force or Lift. Deep well pumps a specialty.



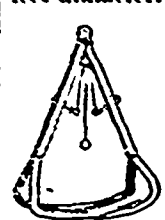
1 X L FEED MILL Guaranteed to grind from 10 to 20 bushels per hour according to size. These mills are the most durable, perfect and cheapest Iron Feed Mill yet invented.



Pumping Windmills From 8 to 30 feet diameter.



TANKS From the smallest up to 2,500 bbls.



Haying Tools. A full line of the Best.

PIPE AND PIPE FITTINGS. In fact a full line of Water Supply Material.

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LIVE STOCK!

FRIDAY, 4TH SEPT., 1885.

A large number and variety of Cattle and Sheep in the new importations, consisting principally of two Bulls and three Shorthorn Heifers; two Bulls and two Hereford Heifers; two Bulls and three Aberdeen Poll Heifers; two Bulls and one Holstein Heifer; two Bulls and three Ayrshire Heifers; one Bull and two Jersey Heifers; and three Guernsey Heifers, along with fine fat Exhibition Steers of Shorthorn, Hereford and Aberdeen Poll crosses, averaging 100 lbs. A number of Cotswold, Leicester, Highland, Cheviot, Oxford, Shrop, Hamp and South Down Rams and Ewes. Twelve fat Shearling Wethers, averaging 20 lbs., and Berks, and Essex Hogs.

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Health Gained,
Long Life Secured,
BY USING

KIDNEY-WORT

It Purifies the Blood,
It Cleanses the Liver,
It Strengthens the Kidneys,
It Regulates the Bowels.

TRUTHFUL TESTIMONY.

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"I suffered day and night with kidney troubles, my water was chalky and bloody, I got no relief from doctors. Kidney-Wort cured me. I am as well as ever."
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It acts at the same time on the KIDNEYS, LIVER and BOWELS stimulating them to healthy action and keeping them in perfect order. Sold by all Druggists, Price \$1.00 Liquid or Dry. The latter can be sent by mail.

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BURLINGTON, VERMONT, U. S. A.
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A MILLION A MONTH

THE DIAMOND DYES,

have become so popular that a million packages a month are being used to re-color dirty or faded DRESSES, SCARVES, HOSIERY, STOKINGS, HIBBONS, &c. Warranted fast and durable. Also used for making ink, staining wood, coloring Photo's, Flowers, Grasses, &c. Send stamp for colored sample, and list of directions.

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IT LEADS ALL.

No other blood-purifying medicine is made, or has ever been prepared, which so completely meets the wants of physicians and the general public as

Ayer's Sarsaparilla.

It leads the list as a truly scientific preparation for all blood diseases. If there is a lurking taint of Scrofula about you, AYER'S SARSAPARILLA will cleanse it and expel it from your system.

For constitutional or scrofulous taint, AYER'S SARSAPARILLA is the true remedy. It has cured numerous cases. It will stop the nauseous catarrhal discharge, and remove the sickening odor of the breath, which are indications of scrofulous origin.

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Physicians told us that a powerful alternative medicine must be employed. They united in recommending AYER'S SARSAPARILLA. A few doses produced a perceptible improvement, which, by an adherence to your directions, was continued to a complete and permanent cure. No evidence has since appeared of the existence of any scrofulous tendencies, and no treatment of any disorder was ever attended by more prompt or effectual results.

Yours truly, B. F. JOHNSON."

PREPARED BY

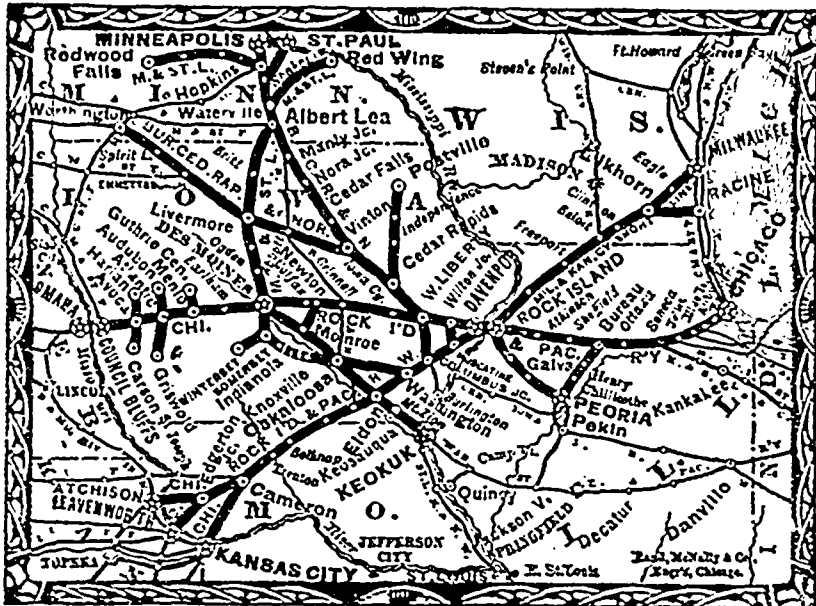
Dr. J. C. Ayer & Co., Lowell, Mass.
Sold by all Druggists; \$1, six bottles for \$5.

ALWAYS REQUIRED.—A good medicinal medicine. National Pills will not disappoint you.

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Being the Great Central Line, affords to travelers, by reason of its unrivaled geographical position, the shortest and best route between the East, Northeast and Southeast, and the West, Northwest and Southwest.

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Cures Dizziness, Loss of Appetite, Indigestion, Biliousness, Dyspepsia, Jaundice, Affections of the Liver and Kidneys, Pimples, Blotches, Bells, Humors, Salt Rheum, Scrofula, Erysipelas, and all diseases arising from Impure Blood, Deranged Stomach, or irregular action of the Bowels.

A GOOD THING TO HAVE AT HAND!

During the hot weather we cannot be too careful of ourselves, if we would be free from such unpleasant companions of summer as

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and one cannot do better than to make assurance doubly sure by having always at hand a little of the old reliable

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which is a sure cure for the above named troubles when taken in time. It has also been a wonderful success in the treatment of that dread epidemic

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IMPROVED BUTTER COLOR

USED BY THOUSANDS of the finest Creameries and Dairies BECAUSE it is the Strongest, the Purest, the Brightest and the Best.

IT WILL NOT Color the Buttermilk or Turn Rancid. It contains no Acid or Alkali. It is not our old Color, but a new one so prepared in the most perfect manner. It is of all other all colors, they are not mixed with the butter. Sold by all Druggists and Grocers. Price 5c. and 10c. To know where and how to get it, write Wells, Richardson & Co., 70 State Street, Boston, Mass.

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The Eagle Steam Washer is the only Washer known in the world that washes a really worn or stiff 1000 yds. of fabric, without the use of a wash-board, can with ease wash 20 to 30 pieces of fabric at one time. It is warranted to last for years. Agents wanted all over the U. S. and Canada. Write for Circulars and Terms. Address: WELLS, RICHARDSON & CO., 70 State Street, Boston, Mass.

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SUFFERERS FROM Nervous Debility, Yeastful Indiscretions, Lost Manhood, BE YOUR OWN PHYSICIAN!

Many men, from the effects of youthful indiscretions, have become a state of weakness that has rendered the general system so much as to require almost every other disease, and the real cause of the trouble is scarcely ever far to seek. They are commonly the victims of the "errors of youth," and the remedy is to be found in the "Errors of Youth" medicine. This medicine is a certain and speedy cure, and hundreds of cases in which the system has been restored to perfect health by its use after all other remedies failed. For every case of nervous debility, the "Errors of Youth" medicine is the only remedy that will cure it. It is a certain and speedy cure, and hundreds of cases in which the system has been restored to perfect health by its use after all other remedies failed. For every case of nervous debility, the "Errors of Youth" medicine is the only remedy that will cure it.

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50 dozen 2 button Kid Gloves worth \$1.00 for 25 cents. 5 dozen Lace Covered Parasols worth 90c. for 60c. 20 pieces Coloured all wool Dress Goods worth 30c. for 18c.

SALES FOR CASH ONLY.

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WHAT IS CATARRH?

From the Toronto (Canada) "Globe,"

Catarrh is a mucous-purulent discharge caused by the presence and development of the vegetable parasite amoeba in the internal lining membrane of the nose. This parasite is only developed under favorable circumstances, and these are: Morbid state of the blood, as the lighted corpuscle of tubercle, the germ poison of syphilis, mercury, toxo-ma, from the retention of the effluvia of the skin, suppressed perspiration, badly ventilated sleeping apartments, and other poisons that are germinated in the blood. These poisons keep the internal lining membrane of the nose in a constant state of irritation, ever ready for a deposit of the seeds of these germs, which spread up the nostrils and down the fauces, or back of the throat, causing ulceration of the throat; up the Eustachian tubes, causing deafness; burrowing in the vocal cords, causing hoarseness; usurping the proper structure of the bronchial tubes, ending in pulmonary consumption and death.

Many attempts have been made to discover a cure for this distressing disease by the use of inhalants and other ingenious devices, but none of these treatments can do a particle of good until the parasites are either destroyed or removed from the mucus tissue.

Some time since a well-known physician of forty years' standing, after much experimenting, succeeded in discovering the necessary combination of ingredients which never fails in absolutely and permanently eradicating this horrible disease, whether standing for one year or forty years. Those who may be suffering from the above disease should, without delay, communicate with the business managers, Messrs. A. H. DIXON & SON, 305 King Street West, Toronto, and get full particulars and treatise free by enclosing stamp.

A New Treatment

FOR THE
RAPID AND PERMANENT CURE OF

CATARRH

Solely by
A. H. DIXON & SON

No 305 KING ST. WEST. TORONTO, CANADA.

What the Rev. E. B. Stevenson, D. A., a Clergyman of the London Conference of the Methodist Church of Canada, has to say in regard to A. H. Dixon & Son's New Treatment for Catarrh.

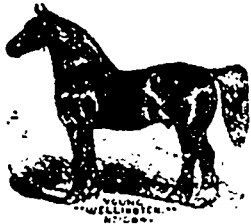
Messrs. A. H. DIXON & SON, OAKLAND, ONTARIO, CANADA, March 17, 1883.
Dear Sirs,—Yours of the 13th inst. to hand. It seems almost too good to be true that I am cured of Catarrh, but I know that I am. I have had no return of the disease and never felt better in my life. I have tried so many things for catarrh, suffered so much and for so many years, that it is hard for me to realize that I am really better.

I consider that mine was a very bad case. It was aggravated and chronic, involving the throat as well as the nasal passages, and I thought I would require the three treatments, but feel fully cured by the two sent me, and I am thankful that I was ever induced to send to you. You are at liberty to use this letter, stating that I have been cured at two treatments, and I shall gladly recommend your remedy to some of my friends who are sufferers. Yours, with many thanks,

REV. E. B. STEVENSON.

The Most Extensive Pure Bred Live Stock Establishment in the World.

New Importations constantly arriving.



Horse Raising and Breeding Excellence and Choice Breeding

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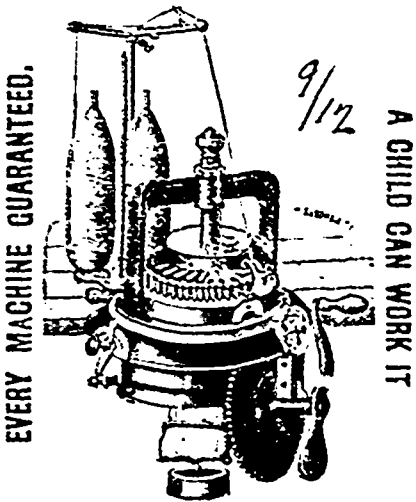
No careful and judicious person will fail to well consider this important fact, in making his purchase. We invite critical inspection of our stock and careful comparison with that of any other establishment.

PRICES LOW! TERMS EASY! Visitors Welcome Correspondence Solicited. Circulars Free.

POWELL BROTHERS,
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Is the only perfect family
KNITTING MACHINE

Simple! Rapid! Easily Worked!



An Eclipse Knitting Machine

will pay in any family. After supplying the family requirements goods can be made for neighbors or the trade. A more profitable use of spare hours could hardly be found. A BOY OR GIRL CAN EARN FROM \$1.00 TO \$2.00 a day on the "Eclipse." MERCHANTS can manufacture all the Hosiery, Scarfs, Mitts, Ties, etc., required in their business, during dull season, and thus keep their clerks employed. FARMERS can manufacture their own yarn into various kinds of goods and realize 100 per cent. more on the wool they raise. The only perfect Knitting Machine is one that has a simple and reliable ribber. The ribber attachment of the "Eclipse" differs in almost every respect from others, and its pronounced perfect construction makes the "Eclipse" the only Machine suitable for Family Use.

Toronto Knitting Machine Co.
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Pat. March 24th, 1892.
Makes Rugs, Ties, Hoops, Mittens, Door Mats, etc.

Light and rapidity. Price only \$1.00. Single machines, with full directions, sent by mail on receipt of price. Agents wanted. Apply for circulars to R. W. Ross, P.O. Box 541, Sole Manufacturer, Guelph, Ont. Also dealer in Rug Patterns.

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Temperance Street, Toronto.

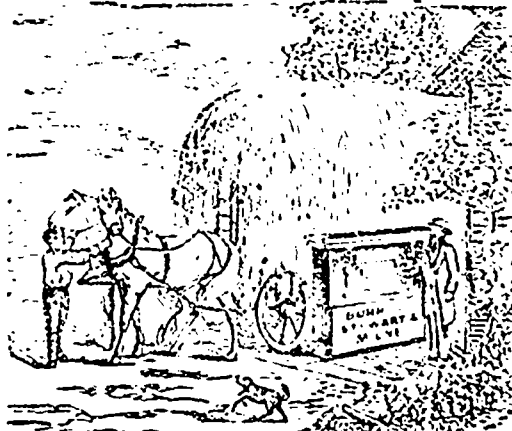
Session begins October 1st. Experienced teachers.
PROF. SMITH, V.S., TORONTO.

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Imperial Standard

SCALE WORKS,

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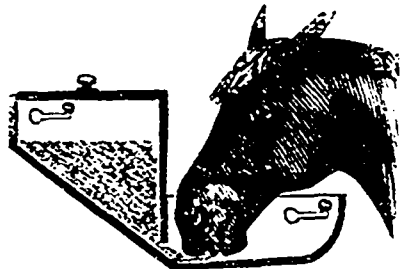


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Wherever our Scales have been exhibited, they have been awarded First Prize, and have never once taken Second Place, and we claim that for accuracy and for quality and beauty of workmanship they are UNEQUALLED. Send for Illustrated Catalogue. Every Scale Inspected, Stamped and Fully Guaranteed.

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MAGIC Patent FEED BOX

Makes no Waste. Saves one-quarter the quantity of oats usually fed. PRICE \$3.50. Discount to parties wanting a number.

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We lead Canada in the manufacture of Iron Stable Fittings.

HOLSTEIN CATTLE!

500 HEAD ON HAND.



Seven heifers of the Netherland family, five of the 2 years old and two 3 years old, averaged 11,550 lbs. 125 oz.

BUTTER RECORDS.

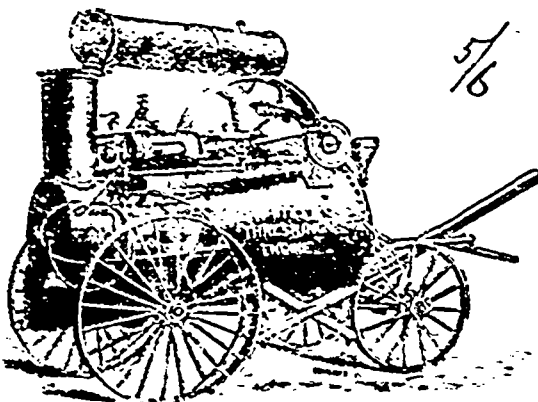
Nine cows averaged 17 lbs 4 oz. per week. Eight heifers, 3 years old, averaged 13 lbs. 4 oz. per week. Eleven heifers, 2 years old and younger, averaged 10 lbs 7 oz. per week. The entire original imported Netherland family of six cows, two being but 1 years old, averaged 117 lbs. 61 oz. per week.

When writing, always mention RURAL CANADIAN, CANADIAN FARMER & GRAZING RECORD.

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Anticville Stock Farm, SYRACUSE, N.Y.

In consequence of the increasing demand for my ENGINES, I have added to my shops and machinery, and shall largely increase the production of Engines for 1895.



It is licensed by all Insurance Co.'s and has proved itself to be the most durable.

The engine for the Northwest is made to burn either coal, wood or straw.

Farmers, procure a Genuine White Threshing Engine at the Forest City Machine Works, London, Ont., Can.

GEORGE WHITE,

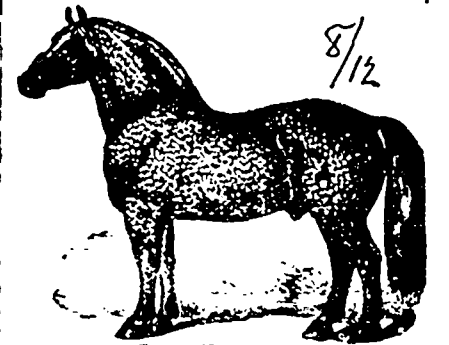
Proprietor and Manager.
H. B. WHITE, Supt. of Machinist Dept.
A. W. WHITE, Supt. of Erecting Dept.
H. B. J. WHITE, Secretary-Treasurer
F. J. WHITE, Assistant-Secretary.

The engines may be seen at Van Tassal's foot bridge warehouse, Belleville. As a proof of the popularity of my Threshing Engines, I may state that three or four other firms have commenced to imitate them, but sensible farmers will see that they get a genuine WHITE ENGINE.

I am now making a larger number than ever before for the coming season.

ISLAND HOME Stock Farm,

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SAVAGE & FARNUM, PROPRIETORS.



Patrole No. 2620 (1167).

Percheron Horses.

All stock selected from the get of sires and dams of established reputation and registered in the French and American stud books.

ISLAND HOME

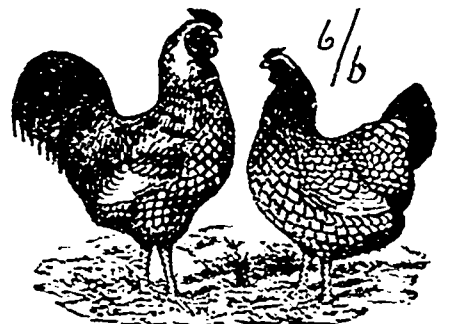
Is beautifully situated at the head of Grosse Ile in the Detroit River, ten miles below the City, and is accessible by railroad and steamboat. Visitors not familiar with the location may call at city office, 52 Campau Building, and an escort will accompany them to the farm. Send for catalogue, free by mail. Address, SAVAGE & FARNUM, Detroit, Mich.

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Choice Land and Water Fowls.

OVER 25 VARIETIES.



Light and Dark Brahmas, Partridge and Black Cochins, Houdans, Brown White and Black Leghorns, Rose Comb White and Rose Comb Brown Leghorns, W. F. Black Spanish, Plymouth Rocks, Bearded S. S. Polish, White Crested Black and White Crested, White Polish, Silver Spangled Hamburgs, Wyandottes, Langshan, Black Javas, Black Sumatras, Silver and Golden Seabright Bantams, Cayuga, Rouen and Pekin Ducks, Toulouse Geese.

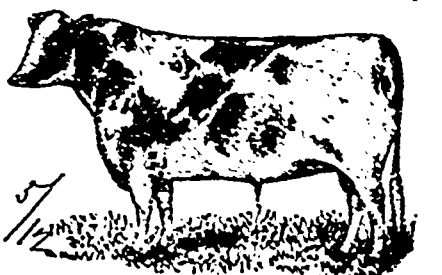
THE GERMAN EGG FOOD

Will largely increase egg production, strength on weak and drooping fowls and promote the healthy growth of all varieties of Poultry. Trial package by mail, 4 lb. post paid, 40 cents. By express, 1 lb. 40 cents, 3 lbs. \$1.00.

POULTRY CUTS, most any size, a very large and rare assortment for sale cheap. Send 25 cents for sample proof sheet.

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HOLSTEIN CATTLE.

The herd consists of Four Imported Heifers and One Harrington Bull. Lady Mel has dropped a fine b. c. This Heifer took First Prize in Holland Milk record 29 lbs. per day. Heifer Jessiline dropped c. c. This herd was imported by B. B. Lord & Son, Cinlairville, N. Y., with a view to secure only the best that could be got. Stock for sale, visitors welcome. For particulars, address as above.

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