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The Farming World



AND CANADIAN FARM & HOME

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YOU WILL BENEFIT BY ORDERING EARLY

The Farming World

And Canadian Farm and Home

Vol. XXIII

TORONTO, 1 AUGUST 1904

No. 15

The "Why" in Agriculture

SO-CALLED higher or scientific agriculture plays a much more important part in the farming of today than it did 25 or even 10 years ago. The vice-awake, energetic farmer of the present wants not only to know how to do things, but why certain things should be done. It is not enough to tell him that he must cultivate his corn or root crop in order to get the best results, but he must be told that by frequent cultivation he not only gets rid of the weeds but also lessens evaporation and conserves the moisture in the soil for the present crop and for the crops of following years. Likewise, the mere statement that a proper system of clovering will help to build up his farm is not sufficient. He wants to know the reason why it will produce this result. He is thus broadening his horizon and reaching out for a deeper hold upon the things connected with his work and his calling.

It is this demand for knowledge of the "why" that is at the basis of the modern agricultural college. The majority of farmers, have, as it were, an inherent knowledge of how to do things, and many, because they have been able to apply this knowledge in the very best way, have been most successful in all their undertakings. But the successful farmer of today must go further and learn the "why" as well as the "how" of doing things. It is only by being thus equipped that he can hope to successfully cope with the various problems of modern agriculture, problems that confront the practical farmer as well as the student of the more scientific side of farming. And this knowledge of the "why" can only be got by education and training. Hence the demand for agricultural education and for such training as can be got at a well equipped agricultural college.

Increase the Market for Beef Cattle

Once more we return to the farm help question. The continued scarcity of labor is inducing many farmers to engage in grazing and fitting cattle for beef. This, if carried on to a very large extent, will mean a greatly increased production of beef cattle in the near future. What about the market for this increase? Will it continue as brisk and active as it is today? That will, of course, depend upon the demand and the facilities at our command for disposing of the surplus cattle to the best advantage.

At the present time the Canadian beef producer is somewhat circumscribed as to outlets for his surplus

stock. After the local market is supplied, the only one open to him is to export the live animal, and have it slaughtered within ten days at the port of entry in Great Britain. Some base their hopes upon the removal of this embargo against Canadian cattle in the near future. Whatever grounds they may have that their hopes in this particular will soon be realized, makes little difference just here. The fact of the matter is the embargo has been on for several years, is still on, and is likely to continue on for several years to come, if we judge from present indications.

The important thing in our estimation and the one that would give confidence to the beef producer and enable the farmer, who contemplates, on account of the labor scarcity, grazing more land and producing more cattle, to do so, without any

ADVERTISERS

The attention of our advertisers is directed especially to the annual Exhibition Number of THE FARMING WORLD which will appear on September 1st. This issue will be larger, more attractive and more widely circulated than any number of THE FARMING WORLD during the year. In addition to our regular subscription list, copies will be freely distributed at the leading Exhibitions and Fall Fairs. Application for advertising space should be made early.

serious misgivings, would be the establishment of the dead meat trade. While it would not be a panacea for all the ills which the beef cattle raiser is heir to, it would certainly place him in a much better position and give the market a stability and continuity that it has not got at the present time.

The importance of the dressed meat trade to the consuming public has been shown during the past few days by the effects of the meat handlers' strike in Chicago. Immediately upon a strike being announced, cable reports stated that London, England, and other centres were afraid of a meat famine, which, if it means anything, means that the dressed meat industry of this continent is a very large factor in supplying the world's meat markets. It is time, therefore, that something were done to establish this industry in Canada. It would help widen the market for our beef

products and enable the cattle raiser to engage more extensively in the business and with the assurance that there would be a market for his product at reasonable prices.

The Law of Auction Sales

A somewhat interesting auction sale case has recently been decided by the Division Court of Scotland, and which may have a far-reaching effect upon the conduct of such sales in future.

In September last at the Perth auction mart, Scotland, a bull was offered for sale and bid up to £44 2s. The owner refused to accept this offer and withdrew his animal. The bidder entered action against the owner and also the auctioneer to get possession of the bull, and for £30 damages. The plaintiff claimed that, as the catalogue of the sale stated that one particular herd was to be sold without reserve and that drafts from certain other herds were to be disposed of, he had bought the bull in question. The court decided against him with costs, basing their decision upon the law of Scotland as it now stands, that "a sale by auction is complete when the auctioneer announces its completion by the fall of the hammer, or in other customary manner; until such announcement is made, any bidder may retract his bid." This being so, the decision given was that the person who puts up the animal for sale has an equal right with the bidder to withdraw his offering. This was the ground of defendant's claim with which the court agreed.

The point in this of most interest to people on this side of the water is what is the status of the words "unreserved sale" in any sale catalogue, and we refer here, of course, to live stock sales? The effect of the decision given above is that the owner has a right to withdraw his animal, providing he does so before the auctioneer announces a sale, whether an "unreserved sale" has been mentioned in the catalogue or not. One of the judges, however, while agreeing with the other members of the court in the decision in point, stated that he was not clear as to the force of the words "without reserve" inserted in a catalogue or announced at the time of sale.

But be this as it may, there is no doubt that the words "without reserve" and "unreserved" are meaningless as used in many sale catalogues and announcements in this country, especially when after events are considered. The person offering live stock for sale at auction, owes it to himself and to the public to deal squarely with prospective purchasers.

If the sale is to be "unreserved" let it be so in every sense of the term. The spirit of such announcement can be defeated in many ways, such as by bidding, etc. But such manoeuvring does not deceive the public who will get even some day. The best way is to deal honestly and squarely and if need be, take the public into one's confidence. If there is a reserved bid on an animal let it be so stated, and if not let the animal be sold for whatever it will bring. The general public have a pretty good knowledge of the value of things and generally the seller will receive fair treatment at its hands and get what his animal is worth.

Large vs. Small Eggs

Persons interested in selling eggs should read our "English Letter" this issue. Our correspondent, in discussing the question of large and small eggs, makes the statement that 17lb. eggs are worth about \$1.00 per 120 or 35¢ cents per dozen more than 13½ lb. In Ireland, egg gatherers in the country districts, carry scales and buy eggs by weight, thus encouraging the production of large eggs.

There is certainly no good ground for the contention that eggs should be sold by the dozen in this country. The producer should be paid the exact market value of his eggs, and this cannot be done unless eggs are bought and sold by weight.

Mutual Farm Insurance

In these days of general advance in the cost of insurance in the large business centres of the country, the farmer may well congratulate himself that he is in a position to obtain protection against fire at a low rate. In Toronto since the big fire, rates have been doubled on all fire insurance within the congested portion of the city. Business men are compelled either to accept this rate or do without protection against loss by fire, and, of course, they cannot afford to do the latter.

The farmer is differently situated. He has within reach one of the best and cheapest forms of insurance that anyone could wish. The local or township mutual insurance company, well managed, provides safe insurance at the lowest possible cost, or, in fact, at its actual cost. The members protect each other and bear each others losses. If the losses by fire are few the rate is low, if the losses are large then the cost will be greater for each farmer, but taking a period of ten years or so never more than half as high as the regular insurance companies charge. We have known of cases where, because of heavy losses and consequently an increased rate in any one year, farmers have gone back on the local company, which has been forced to cease doing business. In doing so they commit a serious blunder. Not one year's cost, but the average for a period of years

should be taken into account. Judged by this standard, any well managed farmers' mutual insurance concern will give insurance at about one-third the cost of the regular insurance companies and just as good security for the payment of losses.

For this and other reasons the farmer should stick to his own mutual company. It costs little for running expenses; losses can be adjusted with greater accuracy; and insurance made on a more true valuation of the property than by a regular insurance company unacquainted with general agricultural conditions and values. In this farmers are a law unto themselves. They know the value of their neighbor's property, and also their neighbor's character, and whether or not an honest deal can be put through for the company. Bad risks are, therefore, very few in a local company well managed, and when loss by fire does occur, the farmer may feel assured that it has been brought on by forces beyond his control. The majority of losses by fire in rural districts are due to the ravages of lightning. A few years ago the steam thrasher was responsible for a goodly number of losses. With increased knowledge of this most useful piece of machinery and better care in its management, the losses from this cause have been comparatively small in number of late years. So we would advise farmers to stand by their own mutual insurance companies. When properly managed they will render good service and provide safe and cheap protection against loss by fire.

Make More Butter

There is a tendency among dairymen to discount the value to the country of the butter-making industry and its possibilities. While cheese is today the important industry in Canada so far as dairying is concerned, it has about reached its limit, and any large increase in the output would "glut" the market. In fact, dairymen are experiencing the effects of over-production even now. Prices were high last year and dairymen could not resist the temptation to make cheese both in and out of season, with the result that the market became overstocked with high-priced goods, bringing with it low values this season. It would be wise, therefore, if dairymen would give more attention to butter than they are now doing.

Great Britain imports annually butter to the value of \$90,000,000, of which amount Canada last season contributed only about \$4,000,000. We should be contributing at least five times that much, or a quarter of Great Britain's total imports of butter. The little kingdom of Denmark exports annually to Great Britain \$40,000,000 worth of butter. Our portion should be half of this at least. With improved cold storage facilities on board ocean vessels, refrigerator cars on railways, and better storage equip-

ment at the creameries, this trade should be advancing instead of receding, as last season's statistics show.

But the real fact of the matter is that our dairymen have not yet got down to consider butter-making seriously and practically as an industry capable of immense development. They have, as it were, only been playing at the business. A little of the same energy and skill that has made Canada pre-eminent in cheese, if applied to the production of butter would soon put us to the front in this particular. Allied closely with butter-making is that of bacon production. Skim-milk is one of the very best foods for producing pork of fine quality. If more of the milk produced in Canada were converted into butter there would be more of this valuable food for bacon production, and as much, if not more, would be added to the country's annual wealth than if it were converted into cheese. More butter and less cheese would be good advice to follow just now.

The Implement-Maker's Opportunity

In the present scarcity of farm labor the maker of farm implements has a splendid opportunity to do an important service for his country. By providing improvements that save labor and increase the efficiency of the horse, the implement maker can greatly increase the demand for his wares and render an important service to agriculture.

A great deal has been accomplished in this direction during the past twenty or twenty-five years. But who will say that there is not room for still further advancement? It has been said: "That necessity is the mother of invention." If so, we can assure the manufacturer that no greater necessity for improved labor-saving machinery ever existed than at the present time. Moreover, we believe that the farm implement maker will rise up to the occasion, as he has done in the past, and that the next decade or two will witness such an advancement in this particular that the farmer on the average farm will be quite independent of the hired man. At any rate, here is the manufacturer's opportunity to do, even more than in the past, to help solve the farm help problem.

Convict Labor for Road Improvement

In the United States 15,000,000 days work a year is performed by convicts. If this were utilized in preparing road material, it would crush and load on boat or train 60,000,000 tons of stone, which would build 60,000 miles of nine-foot wide country road. Road improvers are advocating that this labor be so used.

Goals to England

Mr. W. A. McKinnon, Chief of the Fruit Division, Ottawa, has resigned to accept the position of Canadian Commercial agent at Bristol, England. Mr. A. McNeill, Chief Fruit Inspector, has been made Chief of the Fruit Division in his place.



The Thirsty Farmer and the "Little Brown Jug."

Photo by Sallows.

Our English Letter

Weather and Crops—What a Danish Farm is Like—Cheese and Butter Prospects—Large vs. Small Eggs—Fruit

London, July 10, 1904.

Almost perfect weather has been our lot during the past month, and farming prospects have been greatly improved thereby. Hay has been made under remarkably favorable conditions this year and already a large acreage has been cleared and it needs only the continuation of the present brilliant weather over a further period to see practically all the crop safely under cover. The yield varies astonishingly, in some cases the crops are above the average, while in other districts complaints are made that the grass was found to be very thin when the mower was put in it. Probably the crop is just about an average one, the yield on the lighter lands being better than on the heavier soils, the latter not having fully recovered from the terrible soaking received last year. The corn (grain) crops have greatly improved and all the spring corn will be fully, if not more than, an average crop, but that planted in the autumn is very poor, in fact, almost a failure on a great many acres. Cattle and sheep are healthy and doing well, while there is plenty of keep for their requirements.

WHAT A DANISH FARM IS LIKE

In the report of the deputation which visited Denmark last year on behalf of the Irish Department of Agriculture, an interesting account is given of the type of farm that prevails throughout that country. In shape the farm buildings are square for a farm of 24 acres and upwards, but in smaller farms the buildings are arranged in an L shape. In the square farmsteads, one side is given up to the dwelling house, and though this generally faces the approach road,

the door is at the back, inside the square; opposite the house is the hay and straw barn. On one side are the horse stables and the threshing floor, while opposite these again are the byres and the pig sties. Outside the square, and behind the byre, are generally placed the manure pits, one being for the dry manure, and the other for the liquid. The whole object of farming in Denmark is milk production. The milk cows are almost entirely fed in the house except for about fourteen weeks in the summer, when they are turned out for about six hours during the day.

The manure is considered by farmers in Denmark as one of their largest assets and such importance is attached to farmyard manure that a lot of capital is often expended in order to maintain it on the most up-to-date principles. First, as regards the liquid manure, a channel runs at the back of the cow stalls and in this all manure collects. The liquid manure, however, runs off to traps in the channels and falls in a pipe leading to the liquid manure tank. The tank is roofed to prevent rain falling in and thereby diluting the fluid. The quantity collected is usually sufficient to fertilize the grass and root crops of the farm. This tank of liquid manure does not seem to constitute any nuisance or danger to health. The dung and litter are equally carefully collected in another pit which has sloping sides and bottom, and any fluid is collected in a sump hole and pumped out and used as required. These manure pits are often covered with a roof in order to prevent wet getting in and thus reducing the manural value by dilution. This manure is all carefully preserved and in the early months of the year

is spread over the land and plowed in. By attention to such details the Danish farmer dispenses with artificial fertilizers to a large extent.

CHEESE AND BUTTER PROSPECTS

The market has been principally concerned just lately in a controversy on the question of dear or cheap cheese. The demand for Canadian cheese has again slackened, the trade being disinclined to operate to any extent on the existing basis of values. The attempt to put values up was made at an ill-chosen time with so excessive a weight of stock of old season's goods to carry over; and the new makes coming forward more extensively than had been expected, took speculators completely by surprise. Those who predicted the plentifulness and cheapness of cheese this year have been amply vindicated and with an increasing production in Canada and the States, the only point which yet remains undecided is whether their best Canadian makes will be sold here wholesale as low as about \$13 per cwt. delivered, as it was six or eight years ago. There is little doing in the butter market and prices are practically unchanged with Canadian claiming greater attention as the supplies increase.

LARGE VS. SMALL EGGS

It is believed pretty generally—and more especially on the continent—that "very big eggs" are sold at lower prices per lb. than the smaller ones, and that the production of medium sized eggs is therefore advisable. In this connection it is interesting to note that great efforts are being made to increase the size of Irish eggs. The demand for large eggs is very great at all seasons and according to one authority "the price which they realize is much higher than that received for the smaller grades. About Christmas, when eggs are at their dearest, 17-lb eggs are worth about a dollar per 120 more than 13½-lb. eggs." The probability is that the poultry keeper will still endeavor to produce the

largest eggs possible for it does not cost more to produce large eggs than small, while the former weigh more and consequently yield more profit. In Ireland there is direct encouragement to poultry keepers to produce large eggs, as the co-operative societies send round their carts with weights and scales, to buy by weight and not by count, and this method has already been largely adopted by other dealers also with the result that the producer gets better prices in some cases, the increase being equivalent to 4 cents per dozen.

FRUIT OUTLOOK

The English soft fruit crop has been an exceptionally bountiful one, strawberries being in very large supply.

Literally hundreds of tons have been placed on the market during the past two weeks and naturally all other fruits have been eclipsed. Strange as it may seem, too, the abundance of fruit has put a stop upon business in both the egg and bacon market. The preference for fruit to eggs is sure to prevail for a time, especially if the weather is extra warm, and it is yet somewhat early to speak of the prospects of the home apple crop. A Herefordshire correspondent says, "The apple crop is very disappointing after the splendid blossom, and nearly all the good sorts have nothing on them." This is attributed to the prevalence of insect pests and consequently the results are not likely to come up to early promise.

Correspondence

Rural Free Mail Delivery

Editor THE FARMING WORLD:

Within the past two or three years there has been no subject discussed in our leading farm papers and journals, which will benefit the farmers more than that of rural free mail delivery; and, I think one of the best and quickest ways we can obtain it is by keeping it constantly before the public.

Some time ago I noticed in some of the papers the report that our post-master-general had announced that the country would be ready for rural mail delivery. But I do not agree with him on this particular point, for I think that if he took a vote of all the farmers in the country, he would find that the large majority would be in its favor. Undoubtedly, there would be a great many difficulties in the way and it would involve a considerable expenditure of money on the outset, but if at least one-third of the small post-offices and mail routes were done away with, and each township had, say, one or two central post-offices with mail routes corresponding with the amount of mail handled, considerable money could be saved, which would somewhat lessen the expense.

Within a radius of twelve or fifteen miles of almost every town or city today, there are on an average twenty or twenty-five post-offices, some of which do not more than pay the cost of maintaining them. This emphasizes my statement that fewer of them, with rural mail delivery, would at least increase the mail handled by one-half as much as at the present time, farmers would then be enabled to take more daily papers, and would obtain knowledge of any important event going on, without having to wait a whole week before hearing of it. This would put the farmer on an equal standing with his city brother, who at the present time has the advantage in this respect.

If more of our farmers would write on this subject, through this and other farm papers, and also have it talked up and discussed at Farmers' Institute meetings, I think that our Post-master-General could be induced in time to comply with our demands.

FARMER'S SON,
Petersboro Co., Ont.

Judicious Use of Our Own Fertilizer Resources

Editor THE FARMING WORLD:

We in Canada have as yet been but very little interested in fertilizers, in fact many of our farmers are prejudiced against all commercial manures.

Owing to the fact that we have

been blessed with a rich soil to begin with, which has been kept up to a high standard by stock raising and clovering, we have not as yet felt the need of fertilizers to such an extent as some other countries, but even here on our good soils a judicious use of fertilizers will yield a handsome return for the money invested.

I have often heard farmers and even institute speakers say the time has not yet come when it would pay for us to buy commercial fertilizers. But if the time has not yet come to buy, it has surely come to keep what we have.

It is not to the credit of Canadian agriculture to see in all United States papers, Canada unleached ashes advertised for sale. Also it is a notorious fact that all our meat packing companies depend upon our United States cousins for sale of their tankage.

What would we think of a farmer who would sell at the manure off his farm? How long would it be before he would be sold out by the sheriff? It is just as unwise for a country to sell to foreign nations the material which will feed their crops to be in time sold in competition with our own.

In the ashes is contained the mineral matter of the plant, especially potash, which is necessary to build up a hard, firm grain and a stiff straw. Again, all of the meat packing companies have an enormous amount of waste materials, which are first steamed to extract the fat, afterwards dried and ground, and forms the tankage of commerce.

This is a valuable manure containing varying amounts of nitrogen and phosphoric acid, but is not a complete manure as it lacks potash, and should be balanced up by adding potash, which can be done more cheaply by the use of some forma of potash salts. Refuse products from the packings are largely shipped across the line to help the United States farmer raise better crops and beat us in our own natural market in England. But you may say, I do not understand fertilizers and do not know what my soil needs nor which particular element I should apply. I will show you how Canada can use all her waste fertilizer material to good advantage and never take into consideration the composition of her soil in the slightest.

Prof. Zavitz, in his class at the short course at the Ontario Agricultural College last winter laid great stress upon the importance of the selection of large, plump grain for seed, and stated that a series of experiments had given a much larger yield of grain from the large plump over the small plump grain. When

asked for his reason, he said he thought it was due to the greater amount of nourishment contained in the large grain.

Here, then, is a lesson for us as farmers. If the main difference of the size of the grain will make a difference in yield, surely, as is being proved in the United States every year, a little plant food right in the drill will give grain will increase the yield still more.

We all know the importance of giving the young plant a good start in life and also that just at the time when the young plant has used all the nourishment of the parent grain and has not yet become strong enough to take its food from the soil, is the most critical time in the life of the plant.

We have all seen fields of grain yellow all over, called "out" in the "outing" season, when some cause, such as cold, wet and drouth has interfered with the growth. Frequently fields have received set-backs from which they have never recovered, often becoming a total failure. Now, if from a hundred to two hundred and fifty pounds of a properly mixed fertilizer had been applied, the drill, either with a regular fertilizer attachment or what will answer the purpose, but is not so exact mixed with the grain in the hopper, the young plant just at this critical time would have found a store of plant food immediately at hand and would have made a great gain over unfertilized fields, which would have told at the threshing machine.

For such a purpose, practical experience has shown that a 2-8-6 goods or two per cent. of nitrogen, eight per cent. of phosphoric acid, and six per cent. of potash will give the best results.

It would pay each farmer in Canada to apply this amount to every acre of grain sown without regard to the nature of soil. If this were done our United States cousins would have to look elsewhere for fertilizer material and we would become an importer instead of an exporter of fertilizers. Surely it is time that Canadian farmers woke up to the fact that it will not pay to sell their birthrights for a mess of pottage by selling from the country that which should be returned to soil to provide food for the plant, thereby producing food for the farmer and his family.

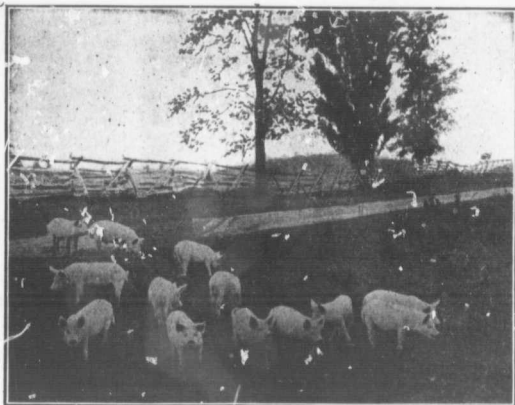
Geo. F. MARSH,
Gray Co., Ont.

Milk Fever

The Bureau of Animal Industry at Washington, D.C., has prepared a short statement describing an important discovery and treatment for milk fever in cows, which, as a matter of fact, is not a fever at all. John R. Mohler, says is not a fever at all. This affection of the udder, which attacks old nursing cows has heretofore yielded in only about sixty cases out of a hundred to what is known as the iodide treatment. The new treatment is simply injecting sterilized air into the udder, an extremely simple and inexpensive operation, but which proves successful in nine-seventy per cent. of the cases treated. It has been extensively practiced by the manager of the Billmore estate and is of general usage in the Island of Jersey of the channel group.

North Bruce Fair

The North Bruce Union Exhibition will be held at Port Elgin, Ont., on Sept. 20th and 30th. For particulars apply to R. Munro, Secretary, Port Elgin.



A College Graduate and Her Pigs

As Told by Herself in *Canadian Good Housekeeping*.

Of course people wonder why I choose such a means of livelihood, especially when they learn that I am a college graduate and took the first prize on my Latin ode. Why should I cast the treasures of my mind before swine? they ask in a manner which implies that I am a disgrace to my alma mater. But one learns by experience that a college education is but an incident in the fight for a living, and some time those who scorn my pigs may be glad to raise them for dollars that pure brains will not bring.

Doubtless I could have made brains pay in time, but so suddenly was I deprived of my means of support that there was no time to wait for a good position, and I could not bear the thought of an ill-ventilated shop.

My vocation came to me as an inspiration, and in this way. While on a drive, I came across a farmer's wife feeding pigs. The pigs were so pink and clean and the woman so wholesome that it looked engaging. Furthermore, a friend remarked that, like Charles Lamb, she doted on roast pig, but would no longer indulge her taste because she could not procure fine, sweet pork, for pigs on the big ranches were fed on city offal. Then, in the still watches of the night, when I was striving to think life out to an issue, it came to me, and I could hardly wait till morning, so keen was I to be up and at it strange new work; for pigs were to save me from the poorhouse!

I at once started to read up on them, and a small sum of money left from the wreck of things was sufficient to buy my first pigs and serve as my support for four months. I owned an old farm in the country, and to this I betook myself, with a sow, a boar, and eight little pink pigs. I had the old pen patched up for the time being, and felt very important when my pigs were established there.

Naturally, I was a source of curiosity to the country people, and the man who delivered my porkers gazed at me with something akin to pity. I wore a fresh pink flowered calico, and he asked me if I expected to feed pigs

in that. He could not understand that it was not something too elegant for work, since it was pretty and clean and fitted smartly, though I had made it myself and it had cost but eight cents a yard.

Such a summer as I had with my pigs! Not a single dull day. I watched and tended them carefully. I cooked their food in the old summer kitchen and carried it in small pails to the clean troughs. I cut clover and made the clean straw beds and kept the pens always clean. Pigs are made dirty by man; they want to be clean, but can't be generally, for all sorts of filth is thrown to them. But I could have eaten all the food mine ate, it was so sweet and clean.

My pigs paid from the first, because I thought things out. Perhaps that was where my college-bred brain power came into play. To begin with, soon after I was established, I had a new sty built, on a little rise of ground, where the water could drain away on all sides, for pigs should not be kept in mud and slush. Concrete forms the base of the sty and extends back from it in a long dry run. Later, when the crops were in, I let my pigs run in the fields and gardens, and such delight as they showed scampering about in the sunshine. I never overfed them, which is another bit of pig wisdom, and never allowed any food to remain in the troughs after they had finished a meal. I fed my pigs regularly twice a day, night and morning, and their food consists principally of grain and middlings, and when I must hasten away from gay functions and my friends protest, I say, "but I have my pigs to feed," and those who do not stare blankly, while I am aware in the secret murmur of my heart about "brave little woman," who always vexes me, for I am not happy any sensible.

I have become greatly interested in my pigs and they care for me, though some people think them without feeling. I gather all sorts of succulent green things and throw them into the troughs, and in the autumn I go off into the woods for acorns for them,

and, having a mission for my walks, I find them enchanting; then coming home I scatter the acorns about the pen that they may hunt for them and thus amuse themselves. Each year I plant a small field with coarse turnips, and when these are half grown I turn my pigs loose in it, and such a revel as they have! I always give my pigs pure water once a day, and let a clean trough of it stand high where they can go to it at any time.

I suppose some people will laugh at me when they see that pigs have temperaments. But they have. Unless they are happy they cannot be properly fattened. A contented pig will fatten as if by magic, but a pig seeing others of his kind at liberty will be very discontented, or if not regularly fed, or overfed, he frets and stays thin. Regularity and contentment, then, are the things to fit a pig for market.

Pig keeping, however, is not all beer and skittles; but so far I have kept my pigs pretty free from disease. I had one case of the much-dreaded cramps or rheumatism, and this I attended to at once and cured. Cramp in most cases comes from overfeeding and insufficient exercise, so I let him into the field to hunt his own food. If, however, the disease gets a firm hold and the pig's legs become contracted, he should be killed immediately and buried, as the case is hopeless and he should not be allowed to suffer. There are other diseases which come to pigs from filthy sties, but mine are not affected, because they are kept clean. The general practice is to select the quietest place on the farm and there put the pig. I have driven through miles and miles of country, stopping at hundreds of farmhouses to examine the condition of the pigs, and none of the sties were ever as clean and neat as mine. Some of the places sickened me, and it is a wonder that people can eat pork at all, when it is so generally raised in filthy and diseased places. But when I attempted to give advice to the farmers, they only grinned and assured me that they had no use for new notions.

When a man buying pigs the farmers sometimes try to cheat me, a mere woman, but they can't do it. I know a healthy pig and I will take none other. A healthy pig has bright, wide open eyes, a closely twisted tail and a clean pink hide, and he will stretch and rub himself against things.

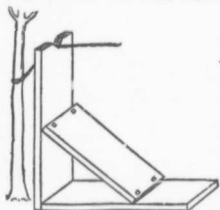
Perhaps some may fancy that I have been successful because I find a market among my fashionable friends who purchase from pity or charity. On the contrary I have been entirely independent and my friends have never had a bit of my pork except as a gift. It is only the way I make presents now and then, and one of my spare-ribs is regarded as more choice than a bit of sterling silverware. When I was ready to sell my pork I sent prices to a few wealthy people without using my name, merely the name of my farm, stating that I had clean, well-fed pork, which was as sweet as butternuts, and I could not begin to supply the resulting demand. I felt wonderfully encouraged and set about more extensive buildings. I ordered more pigs, and now I have them of all ages and I am ready to supply orders at any time of the year. I employ assistants, for I cannot attend to so many pigs myself. But remember, it's a woman's piggery, and my assistants are all strong country boys. My sties contain all kinds of pigs, black, white, blue and spotted, and I am cross-breeding and have become a fancier.

I am making far more money than the average farmer, and, better than all else, I have abounding health.

Farm Implements and Conveniences

Lifting Trees or Stumps

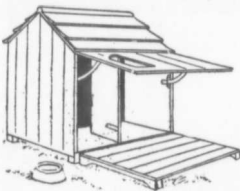
The jacking shown in the illustration is used for lifting out dead stumps and small grubs of all kinds. Any handy man can make one. The upright is 2½ inches long, 3 inches thick and 8 inches wide. Bottom plank is 1½ feet long and same dimensions as upright. Brace is of same material



and is 22 inches long, and put in place as per cut. Cut into upright and base enough to give a good shoulder to brace. Secure same with ½-inch bolts; and if made of good hard wood it will stand the strain of the strongest team. The advantage of jack is that it raises the object to be pulled straight up.

A Dog Kennel

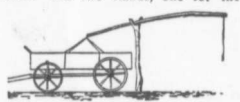
Much attention is given by owners of dogs in England to the comfort of their charges, and, as a consequence, those who cater for the patronage of fanciers put their wits to work to produce suitable kennel requisites. One of the latest productions is the kennel here illustrated, and it will be seen that it is of a form that will be found useful wherever there is a dog kept by



the household. In hot weather the front portion may be raised and used as a verandah. In cold weather the front is let down, and the dog retires for warmth or shelter into an inner apartment. In a climate such as Australia has this kennel should come into common use for the protection of the "yard dog."—Australasian.

To Lift Off a Wagon Box

The accompanying sketch is that of a simple and inexpensive device which will enable one man with ease to handle the heaviest wagon box or hay rack. Fix two stands, one for the



wagon box and one for the hay rack. Make these just far enough apart to back the wagon between. Set a post at end and half way between. Have

good, wide fork, so as to give the pulley ample room for turning. Use four ropes just long enough to fasten in steps of wagon box. Fasten so that the box or rack will balance. The illustration will explain the subsequent operation.

Elevated Spraying Platform

Spraying has become a necessity on every fruit farm. The accompanying cut shows a home-made elevated spraying platform with an extension of 14 feet above wagon platform. This allows trees to be sprayed from above it, is also useful in whitewashing buildings, and in picking fruit of all kinds. This rack should be built of the best unchecked long grained wood.

Bed pieces, a, 2x10 inches x 14 feet, framed with end pieces, b, cut to adjust width to that of standard used. Uprights, c, 2x4 inches x 14 feet; d, 2x4 inches x 16 feet. Bottom frame, e, 2x4; end pieces cut same length as b, side pieces 4 feet, or such lengths as is desired. Guard rails, f and g, of 1½ inches x 3-inch stuff. Bolts indicated



by i, should not be less than ¾ inch, of best grade, well washered, and securely fastened with lock nuts. The adjusting pin, shown at j, should be a ¾-inch rod, run through full length, shouldered on inside to c, and securely locknuted on outside. The cross-pieces, h, serve both as lateral braces and steps to mount the elevated platform. The main frames should be put together with bolts and lag or wood screws, great care being taken to insure absolute rigidity.

Pump Care

To properly care for a pump one must understand its mechanism and the principles involved which cause it to lift water. In mine pumps there are two sets of valves, known as suc-

tion and discharge valves; if either set of valves are out of order the efficiency of the pump will be decreased. The surface of all water exposed to the air has the pressure of the atmosphere upon it; therefore if the end of a tube be closed by a valve, and the other end lowered into water it will be possible to cause the water to rise in the tube by drawing the air out of it. The plunger of the pump, by creating a vacuum in the suction pipe, draws the water up until it passes into the pump through the suction valves. If the suction pipe is not air tight, or if the suction valves leak, the plunger cannot draw water, from which it follows that the efficiency of a pump depends much upon the suction mechanism, and that must be made air tight so that no air enters the suction pipe from above the valves. To illustrate this principle, draw water into a glass tube with the mouth, from a tumbler, and slip the finger tightly over the end of the tube in the mouth. The water will stay in the tube even though it be lifted out of the tumbler. The moment the finger is removed and air allowed to enter the tube from above, the water flows out from below. A similar phenomenon occurs when the suction valves or the suction pipe of a pump leaks. The theoretical capacity of a pump is the volume of water displaced by the plunger multiplied by the length of the stroke; but the theoretical capacity is never realized and falls short from 20 to 40 per cent, according to the quality of the pump. This loss arises from the lift and fall of the valves, from inaccuracy of construction or leakage, and sometimes from there being too much space between the valves and plunger.—Mines and Minerals.

Cost of the Stave Silo

An American firm that builds stave silos gave the following table of quotations as to cost for 1903:

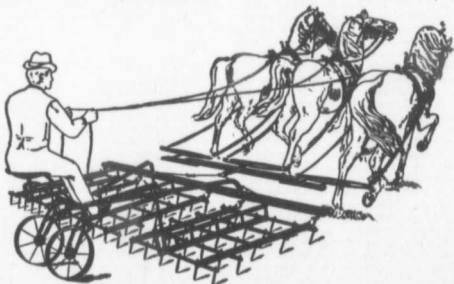
Diameter.	Height.	No. of Capacity Hoops.	In Tons.	Price.
10 feet	20 feet	7	30	\$ 80
16 feet	20 feet	8	80	110
12 feet	24 feet	9	50	105
16 feet	24 feet	9	120	145
16 feet	24 feet	10	150	175
16 feet	30 feet	12	120	160
20 feet	30 feet	15	180	215

To the above prices should be added the cost of foundation, roof, freight and the labor of putting together.

The Most Valuable

THE FARMING WORLD I believe to be among the most valuable papers that come in my home.

WM. E. PARK,
Lincoln Co., Ont.



A New Model Harrow Cart



A Western Canada Wheat Field.

Improving Wheat by Selection

During Royal Show week, at the Farmers' Club, London, Eng., Mr. A. D. Hall, now connected with the Rothamsted Experiment Station, read a very valuable paper on "The quality of English wheat." Attempts have been made to introduce our Western hard wheats, such as Manitoba No. 1, hard, into England, in order to strengthen the quality of home grown wheats. These attempts so far have not been altogether successful, as the following extracts from the address show:

"However, it cannot be said that any of these wheats provide material which can be recommended to English farmers. For spring wheats especially on light soils, Red Fife will probably crop as well as any English variety of Spring wheat, and in seasons like the past, when in many cases men wanted to sow wheat late in March, they could not do better than obtain some No. 1 Hard Manitoba, which consists almost wholly of Red Fife wheat. Several reports have reached us as to the good returns from growing Manitoban seed; without doubt it is the best graded wheat to try here both Northern and Kansas giving inferior results.

"Valuable as the results obtained with these foreign wheats may be, none of them supply the wheat for which we are looking. The English farmer might obtain an extra 2s. per quarter for growing them, but on the whole he would lose money, because of their deficient yield and shortness in straw. The important thing, however, is to notice that they retain their strength under English conditions, that their strength is inherent in the variety and not simply due to climate and soil. Strength then being a factor proper to the variety (and the differing strengths of English sorts also show this) it is a quality upon which the breeder can work, which can be raised by breeding and selection, just as surely as the proportion of sugar in beetroot, or the amount of wool upon a breed of sheep can be improved. The only hope for ultimate success lies in cross-breeding and selection; we must get some of the blood of these strong varieties associated with our English wheats, and then by selection we may hope to obtain a variety combining a measure of the strength of Red Fife with the cropping powers of good straw of sorts like Square Head's Master. For a long time now in raising new English wheats the yield has alone been considered, the wheats have been bred and selected for big, coarse berries and sturdy straw, without any par-

ticular attention being paid to the quality of the grain itself. In the future we must breed for strength in the grain, retaining, of course, the position previously attained with regard to crop and straw."

The important point for Canadians to note in this is the value placed by Prof. Hall on selection. His experience with growing Manitoba wheats leads him to the conclusion that, as these wheats retain their inherent strong qualities, when grown abroad, the plant breeder has something here to work on and can by selection and cross-breeding secure their qualities for their home grown wheats. This is additional evidence that the Seed Growers' Association, recently formed at Ottawa, is on the right track and capable of doing very much for Canada by seed selection.

In discussing Prof. Hall's paper, Mr. Martin Sutton, an English seedsmen of long standing and experience, bore testimony to the value of selection, though he seems to have little faith in the value of cross-fertilization, as follows:

"After much experience of my own in cross-fertilization in other directions, and after watching the cross-fertilization of cereals abroad, I think I ought to tell you that, personally, I have not the slightest hope of any great improvement in our English cereals as a result of that process, at least for many years to come. To mention one difficulty alone, all of us know that to ensure an even sample of grain all the plants of which the crop is composed must ripen simultaneously. This is the result only of the growth of any variety for a long series of years during which any laggard, late ripening wheat plants have automatically been eliminated.

"Meanwhile, there is a far more practical method at our command, viz., the process of selection; and when I remind you that our agricultural roots are the result of selection rather than of cross-fertilization, and that our breeds of cattle originated as the result of the same process, you will, I think, be prepared to agree with me that it is probable more may be done by selection in the improvement of seed-corn than in any other way."

A Wheat Hospital

In Port Arthur, Ont., there is what is known as a wheat hospital. A great deal of the wheat grown in Manitoba and the North West Territories is affected with smut. Smut is a disease that attacks certain kernels, changing the gluten and starch into

a black dust, which, when the grain is threshed, adheres to the sound kernels and greatly depreciates the value of the wheat. The worst form is called "stinking smut" and effects the whole kernel so that it becomes a mass of germs, which absorb all the nutritive part and reduce the kernel to a thin shell. When the shell is crushed, innumerable little spores appear, which emit a fetid smell and ruin any flour or meal made. At this stage "smut" is incurable, and wheat affected by it cannot be rendered fit for human food.

But if the disease at this stage cannot be cured, the grain shipper has a way of cleansing wheat in which the kernel inside the brown skin is not infected, though the outside may be discolored by coming in contact with smut germs. The grain reaches Port Arthur in carloads and is there examined by a government inspector. If found to be suffering from smut, it is separated into three grades, according to the amount of smut adhering to it. That which is least dirty is scoured and brushed until all vestige of smut is removed, while the dirtier grain is thoroughly washed and dried before being cleansed. The scouring machine turns and tosses the wheat so vigorously that every grain becomes highly polished, and is said to be in better condition for milling than ordinary wheat, since it has lost part of its outer integument, which would have to be removed. It is believed the "wheat hospital" has saved many thousands of dollars to the farmers of Western Canada.

Any farmer or owner of grain may send it to the elevator to be treated, the charges being the same as for one for each particular operation. The capacity of the elevator has been increased from time to time. At present, 30,000 bushels can be dried in twenty-four hours and from 40,000 to 100,000 bushels can be cleaned in the same time, according to the condition of the wheat and the amount of work necessary before it can be discharged as "cured." About 2,000,000 bushels are received and treated in a year.

While a great deal of good has been accomplished by this treatment, "prevention is better than cure." The way to prevent smut in wheat is to treat the seed with a formalin solution before it is sown. This plan has frequently been described in these columns. Western farmers should treat smutty seed before sowing.

To Improve Western Wheat

Mr. Jas. Murray, B.S.A., has gone to Winnipeg to take charge under Prof. Robertson, of the Western branch of the Canadian Seed Growers' Association. He is confident that if Western farmers take up seed selection as advised by the Association that a very great improvement in the wheat crop will be effected in a very few years.

About Sugar Beets

American capitalists contemplate the erection of a large sugar beet factory at Calgary at an estimated expenditure of \$800,000.

Trustees have been appointed at Warton to receive money from the Ontario Government and pay it out pro rata to the beet growers of the now insolvent Warton Sugar Company, entitled to it. Representatives from the beet growers will meet to appoint the trustees, in a resolution expressed their entire confidence in the beet sugar industry as a profitable and beneficial crop for farmers to grow.

In the Dairy

Where the Cream-Gathered Creamery Pays

Down in Maine the cream-gathered creamery has obtained a big foothold. There are creameries an operation that have as many as 50 patrons. The farmer there believes in sending nothing but cream to the factory, the skim-milk being retained at home for the calves and pigs. The cream is gathered three times a week. A gatherer will frequently drive 12 miles to get his load and return to the creamery with a couple of tons of cream.

A New Cheese Box

A new cheese box made of tin with a wooden lid and bottom, with heavy hoops to keep the entire box solid, was invented some time ago by Messrs. A. T. McArthur and F. Pablow, of Perth, Ont. Recently a shipment of fifty boxes of cheese was made from an Eastern Ontario factory to Montreal in these new boxes. The box question is a prominent one and the results of this test will be looked for with interest.

A strong feature of this new box, as claimed by the inventors, is that it will withstand the rough usage on an ocean trip. Other advantages are that it ensures ventilation for the cheese no matter in what condition the boxes are packed, and that the parts can be shipped to these factories in small bulk and put together in the factory at a cost of ic. per box. In the inside of the box are four strips of wood, about two inches in width, nailed horizontally to the inside, and in spaces between these slats are four of five perforations to admit a perfect circulation of air.

The Value of the Farm Separator

Speaking of the value of the hand separator an experienced Ohio dairyman says:

"Why is it not better? I used to send my milk to the creamery each morning in summer. Night's milk was held over by cooling; in the morning the new milk and it were mixed in the vat, heated up to 85 degrees and separated, etc. Now the milk goes from the cow and is separated, the cream is cooled and put in the ice chest safe from contact or contamination.

"I am deeply impressed with the belief that in future the dairy work will be done by the hand separator on almost every dairy farm, not only from the scientific standpoint but from the basis of economy. The principles involved in its use on the farm are many and conspicuous. Cash values follow in its wake every day, and every line of work enhances the output in live stock, and in the finished product that leaves the farm. Where the hum of the hand centrifugal is heard there we find advancement, not only in the dairy, but other industries rise up to match the rise and progress of agriculture. Eight to ten cows are enough to demand the purchase of some standard make of hand separator."

Running the Farm Separator

In Bulletin No. 135, on the Cream-gathering Creamery, compiled by Prof. H. H. Dean and J. A. DeFeeters, the following good advice is given on handling the farm separator:

"For those patrons who have six or more good cows, a hand separator is a great help. If some power is available, such as steam, electric or tread, it reduces the labor and expense to have the separator run by

power other than hand. However, these machines are now made so that hand power is practicable. There is no best separator. No one machine has all the good points, and no one is free from all defects. There is, also, in many cases, as much difference between machines of the same make as between those from different manufacturers. The best cream separator is the one which can cream the most milk in a given time, leaving not over five-one-hundredths of one per cent. fat in the skim-milk, and giving a cream testing not less than twenty-five per cent. fat, and at the same time can be purchased at a reasonable price, with a guarantee from the manufacturer that it will do the work claimed for it, or the machine is to be removed without cost to the purchaser.

"The most convenient place for a separator is in a room connected with the stable. The whole milk is then convenient for separating and the skim-milk for feeding. This room, however, as well as the machine should be kept clean. This involves carrying hot water from the house for cleaning, and frequently this is neglected, and the room and the machine are often found in anything but a cleanly condition."

Causes of Tainted Milk

The tainted milk which reaches many of our cheese factories and creameries during the summer is caused chiefly by the following: Undesirable germs that get into the milk during and after milking; the absorption of foul odors; an impure water supply, and by improper feeding.

Every patron should see to it that his milk is not contaminated by any of these causes. Cleanliness in milking and handling the milk; keeping it in a pure atmosphere and providing the cows with pure water and good food will prevent this contamination.

Ripening Butter Instead of Cream

A few issues ago we published the account of some tests made at the O. A. C. by Prof. Dean in cooling pasteurized cream to the churning temperature, adding a pure culture starter and churning immediately without ripening. There were two churnings of the same cream, one ripened in the usual way, and the other treated as described above. When scored, the former scored 41½ in flavor and the latter 42.

In the "Dairy Record," an American butter-maker, who says in this plan a method by which Saturday's cream might be worked up so as to save handling on Sunday, gives his experience as follows:

"I made four churnings with this method, noting the flavor of the butter and the churn yield. Enough starter was put in the vat before starting to separate to make about 20 to 25% starter. The cream was cooled immediately from the pasteurizer to 48 to 50 degs., by running over coils of a Boyd vat and the cream was continually stirred by running the coils. About an hour after the separating was finished the cream was put in the churn and the finished butter was in the refrigerator by a little after noon.

"The butter churned this way had a very mild, sweet taste when first made, and after standing a few days developed enough flavor to compare very favorably with the butter from ripened cream. I kept a sample of this butter with three samples of but-

MELOTTE CREAM SEPARATORS

stand the daily tear and wear to which they are subjected so well that we have never yet had occasion to replace a worn bearing, although these machines have been sold in Ontario, Quebec and the Maritime Provinces for the last six years. This is a unique record, warranting the assertion that the Melotte runs easier, cools seventy-five per cent. less for repairs, and lasts twice as long as any of its competitors.



For close skimming the Melotte is unequalled. WHITE FOR BOOKLET.

R. ALISTER & CO. LTD.
875 & 877 ST. PAUL STREET
MONTREAL.

SPECIAL TO

Interested Readers.

Although the Empire Cream Separator has been on the Canadian Market only a short time it has gained a greater hold on the trade than has any other machine in double the time.

The Empire is known to many readers of The Farming World, and we want those who know it, as well as those who don't know it, to visit our exhibit at the Toronto Exhibition, as well as the Western Fair at London and the Central Exhibition at Ottawa. We shall be glad to show you a Cream Separator that has proved itself entirely superior to all other makes.

If you have any thought of purchasing a Cream Separator our booklets will interest you. Send for them.

EMPIRE CREAM SEPARATOR CO.
TORONTO, CANADA

\$3 A HEN

Every hen in your flock should give you an annual profit of \$3.00. You keep 100 hens. Do you make \$300.00 a year out of them? Why not? Take our course in Poultry Raising by Mail. It costs very little.

Money is easily made when you know how to house, feed and manage your poultry yard.

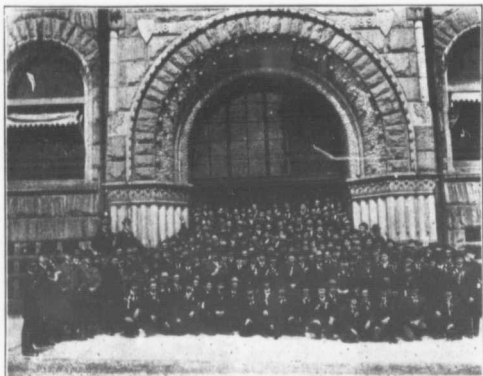
Ask for FREE booklet.

Canadian Correspondence Course, Limited

Toronto, Canada

Walter James Brown, B.S.A., Principal.

Father—"What did I tell you I was going to do to you if I caught you smoking again?" Johnnie—"If you don't remember it, pa, you needn't think I'm going to tell you!"



Representatives of the Empire Cream Separator Co. who met in convention at Omaha.

ter from ripened cream until they were about a week or ten days old and when the samples were mixed I was unable to pick by flavors, or the lack of flavor, which was the butter from the unripened cream. The loss of fat in the buttermilk was, of course, heavy, but the yield on two of the four churnings I made this way was above that of the regular churnings from ripened cream and the other two were the same, so there seemed to be no loss in churn yield."

Influence of Soil on Milk

The Dairy, London, England, has been discussing the effect of soil on the quality of milk. This is not a new question. For a long time it has been known that a variation in soils has some effect upon the quality of milk produced, but the influence has been considered so small that dairy-men have paid little or no attention to it. However, there may be more in it than appears to be by a casual glance at the question, and the matter might well bear further investigation. Dealing with this subject in a recent issue of "The Dairy," Prof. McConnell says:

"For instance, milk produced on a limestone region such as occurs in Derbyshire, will be richer than that from a clay soil like that in Essex, where the cows and treatment are otherwise the same. Again, the limestone milk will keep sweet for one-half longer time than that from the clay soil. Further, in cheese-making the scalding of the curd has to be modified to suit the soil, and we find that on clay the temperature has to be raised to as much as 108 degs. F., while on limestone as low as 100 degs. to 103 degs. is quite sufficient. These differences are not due to management, for if a farmer from the limestone were to bring his herd of cows on to the clay and feed and otherwise treat them the same as before, these differences would be found to show up in one form or another. It is quite a common occurrence for a cheese-maker, who has been successful in one farm, to find that he or she has lost their cunning when transferred to another district, and it is only after careful trial and observation that some modified plan has to be adopted to again make good product. Why these things are so we do not know, but possibly the mineral matter of a

soil affects the crop, which in turn affects the milk. On the other hand we know that not only the soil but also the air over it is full of micro-organisms of various kinds, and it cannot be doubted that these have a tremendous effect on the milk directly, and influence its keeping qualities at least, and probably its cheese-making ones as well. Just as certain soils favor the growth of certain crops or weeds so likewise there is a variation in the invisible "germs" in the same, while in the air above these persist in sticking to their natural habits in spite of the wind and the open ventilation of fields and farm yards."

The Bicycle Pump and Milk Fever

A correspondent of the *Jersey Bulletin* states that he has had good success in curing milk fever with a bicycle pump. He gives his experience as follows:

"I attached a small siphon to it; after inserting in teat began pumping, and when I had one quarter filled with air I could notice a change in her breathing, and when I had filled her udder to its utmost capacity I could see that she was

breathing much easier. In one hour she could raise her head to her side, had the use of her tongue, and could roll her eyes around. Her urine also passed and in five hours she was on her feet and was lead to her stall, where she ate her supper.

"I gave her no medicine whatever and she did well for two days, when she refused to eat or drink and was very weak and showed signs of distress; then I used the bicycle pump again and gave her immediate relief by passing her urine. This treatment I continued once a day for three days and the cow is well and coming back to milk fast."

Buttermilk a Liquor Cure

A buyer for one of the largest liquor houses in Philadelphia who is compelled to sample enough wine and spirits every day to put an ordinary man out of business, says that buttermilk is his salvation. "I not only buy five or six glasses a day at the dairy restaurants or street stands," he says, "but I drink it all the time at home instead of tea or coffee. I never touch beer or anything like that. I keep a stone crock of buttermilk in the cellar and let it just get a little stale. It is better then than if taken fresh. A man who insists on drinking liquor will find very little trouble if he takes plenty of buttermilk. If he wants to swear off, buttermilk will help him. It is a splendid stomach tonic. Two quarts of buttermilk a day will cure any case of nervous indigestion—Rural World."

Condensed Milk Industry

The condensed milk industry in the United States consumes 600,000,000 pounds of fluid milk yearly and makes 5,000,000 cases of forty-eight cans each. There are more than 200 factories in the United States, all using the Borden process, and about seventy of them belong to the Borden Company, situated in different parts of the country. The largest condensed milk plant in the world is at Dixon, Ill., which uses 300,000 pounds of milk a day.

Burning wet or green wood in a cook stove will sour the disposition of the most amiable wife; so if you want a happy home be sure to provide an ample supply of dry, seasoned fuel.



Travelling Representatives of the Empire Cream Separator Co.

Nature about the Farm

Cherry Birds—Tussock Moth—Ants and Aphids

EDITED BY C. W. NASH

BIRD NOTES

I recently had an enquiry from a fruit grower asking whether the Cedar Waxwing, or Cherry bird, as it is usually called, had the habit of feeding upon the unopened buds of the cherry. He states that for a short time this spring the birds were very destructive. If the identification of the birds is correct, this is, I think, an exceptional case, for though I have had the cherry birds under fairly close observation for nearly forty years, I have never found them addicted to this practice. If any of my readers have ever seen anything of the kind I should be glad to hear from them.

There are a few birds which will, in the spring, visit insect food if scarce and before the Dandelions come in blossom, eat buds; among them being the Purple Finch and the House Sparrow. The Purple Finch, however, is never sufficiently abundant to cause any loss, but the House Sparrow, owing to its numbers, may do a good deal of mischief.

The Cedar Waxwing undoubtedly has a fondness for small fruit when ripe, particularly for cherries, hence its common name Cherry bird, but after all, it only attacks cultivated fruits in districts where wild fruit is absent. The natural food of this bird consists of insects and soft berries, wild cherries, elderberries, mountain ash berries, etc., forming the bulk of the vegetable food eaten. Its insect food comprises smooth caterpillars of all kinds, the common canker worm which in its apple trees, greedily devoured when obtainable; leaf-eating beetles are also taken in large numbers. The Waxwing are also very expert at catching hawk moths about after winged insects in the manner of the swallows, though their flight is never long sustained. At other times they dart out from the tree tops after passing insects in the manner of the Flycatchers, and so, on the whole, certainly do more good than harm, for it is only when too many have gathered together in some particular cherry orchard that the damage they do is noticeable at all. The quantity of fruit consumed by each individual Waxwing does not amount to much, but the trouble is that these birds are gregarious at all times and sometimes visit a cherry orchard in such large flocks and remain where they feed to the point of being so long, that they really do seriously reduce the value of a crop. Where a man makes a speciality of growing these small fruits and finds himself visited by an excessive number of Cherry birds, he is undoubtedly justified in protecting his property from destruction. Shooting the birds in the trees is a very unsatisfactory way of getting rid of them for a charge of small shot fired through the branches of a fruit tree will do more harm than very many birds. The best way to protect the valuable fruit is to provide for the birds an unmarketable variety which they like better. This can be done by planting a few Russian Mulberry trees in out-of-the-way places; the birds will feed upon the fruit of these in preference to any of the cultivated fruits we value. In this way the commercial fruit can be well protected and the services of the birds as insect destroyers retained as well.

INSECT NOTES

The following is an extract from a Toronto daily paper: "The Park Commissioner will ask the Board of Control for another \$1,500 to be expended on exterminating the Tussock Moth. The other day Mr. Chambers stated that the pest was practically extinct in Toronto, but this morning he said that the recent hot weather had shown that the moth was very much alive."

I do not know what the Park Commissioner proposes to do at this season of the year with the \$1,500 he asks for, but I surmise that his intention is to go over the trees infested by this insect and spray them. If that is the way the money is to be expended, I can assure the Park Commissioner that he will be simply throwing it away. The caterpillars of the Tussock Moth are now fully fed and are descending from the foliage of the trees, in order to spin their cocoons and enter the chrysalis stage, therefore there remains but one thing to do, which is to carefully gather up all the cocoons possible before next April and destroy them. Briefly, the life history of the Tussock Moth is this: The female, which is a wingless moth, deposits her eggs upon the cocoon from which she has emerged; these eggs hatch early in May and the young caterpillars go up into the foliage of the trees and there feed until full grown. They attain their full growth about the middle of July or a little after, and then cease feeding entirely and enter the pupal stage. Spraying, therefore, with stomach poisons can only be effective during the early part of the season, that is, while the caterpillars are feeding. The life history of the Tussock Moth has been so frequently and so fully written up and the measures to be taken for its destruction have been so often explained that there is no excuse for any ignorance on the subject now. The prevalence of this pest in Toronto would probably not be of very much interest to the farmers of the country, if it was not for the fact that through the culpable neglect of the authorities here, the insect has spread out into the surrounding country and has established itself in all the woods, plantations and orchards, for many miles around the city. Extermination is now impossible and strenuous efforts will be required to keep it in check. So far I have not found the larvae of the Tussock Moth subject to the attacks of parasitic insects. Out of about four hundred chrysalids tested during the last two years, only one was parasitized.

A few days ago I solved a mystery which has been puzzling me since the spring of 1903. On the 24th of April of that year, on taking some soil from my compost heap, I turned over an old piece of tin, the underside of which was covered with snowy-white aphids; under the tin was a nest of very small red ants. These ants had, late in the previous autumn brought the aphids to their nest for protection during the winter. These white aphids live upon the roots of plants underground and are destructive and troublesome to get rid of, so I was anxious to discover what class of plants they were feeding upon, but though I watched them until they all disappeared from the ants' nest, I failed to trace them. Early this spring I again found them in the ants' nest, and again lost track of them, until the other day I happened to notice that some of my Asters looked stunted and I took one up. The roots of this plant were covered with the aphids and the soil all about it was tumbled in every direction by the ants in attendance upon them. Not only were the little red ants there, but many black ones also, evidently obtaining honey dew from these root aphids in the same way as other species of ants obtain it from the green and black aphids which affect the leaves of other plants. After taking up the affected plants and puffing pyrethrum well about the roots and into the soil, I re-planted them, and expect to have no more trouble from that source. Before winter sets in I shall examine the red ants' nest again to see if they have collected any more aphids to carry over winter. The connection between ants and aphids is very curious and this habit of certain species of ants which carry the aphids into their nests and protect them through the winter and then in the spring replace them upon the roots of their food plant, for the purpose of obtaining the so-called honey dew during the following summer, is certainly very marvellous, and is hard to explain if we assume that the lower forms of life are guided by blind instinct alone.

CORRESPONDENCE

H. C. B., Oshawa.—I. You can obtain ferrets from G. Hope, 109 Queen St. W., Toronto. 2. Ferrets are worth from \$2.50 to \$4.00 each, according to quality, age, etc. 3. Doe ferrets are preferred by many people, as being more tractable and keener than buck, but there is really no rule in the matter, all depends upon the individuality of the animal and the care in his management. The best ferret is worth more than one only one month old, unless the yearling has been spoiled by rough handling, or has some bad habits. 4. You had better put away any further questions you want answered specifically; a general treatise on the management of ferrets would occupy too much space to be given here.

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THE HOME WORLD

Good housekeeping is the art of making the home restful, cheerful, comfortable and clean. Of ministering to heart, mind and body in a reasonable, common sense way; giving a variety of carefully chosen, well-cooked food, and making details of meals and service either simple or luxurious, according to the family income.

The Comforts of Home

A sweet little cottage embowered in green;
A lawn edged with flowers of various sheen;
A window with faces that watch till I come;
A door flinging open to welcome me home.
No envy have I for the rich and the great,
My dear little cot is my only estate.
Back, back to that Eden, wherever I roam,
My heart turns with hunger; for that is my home.

When day with its toiling draws near to its close,
I haste to my hearth with its cheer and repose,
And should care and worry have clouded my day,
The sweetness of home-love soon drives them away.

May God in His mercy look down from above
And shield from all danger the dear ones I love,
And guard with His angels, from trouble to come,
My heaven terrestrial, my own dear, dear home.

Housekeeping an Accomplishment

HOUSEKEEPING is an accomplishment in comparison to which, in its bearing on woman's relation to real life and to the family, all others are trivial. It comprehends all that goes to make up a well-ordered home, where the sweetest relations of life rest on firm foundations, and the purest sentiments thrive. It is an accomplishment that may be acquired by study and experiment, but the young and inexperienced housekeeper generally reaches success only through great tribulation. It ought to be absorbed in girlhood. If girls were taught to take as much genuine pride in dusting a room well, or broiling a steak to a nicety, as they felt when they have mastered one of Beethoven's grand symphonies, there would be fewer complaining husbands and unhappy wives. The great lesson to learn is that work well done is robbed of its curse. The woman who is satisfied only with the highest perfection in her work, drops the drudge and becomes the artist. There is no dignity in slighted work; but to the artist, no matter how humble his calling, belones the honor which is inseparable from all man's struggles after perfection. No mother who has the happiness of her daughter at heart will neglect to teach her first the duties of the household; and no daughter who aspires to be queen at home and in her circle of friends, can afford to remain ignorant of the smallest details that contribute

to the comfort, the peace and the attractiveness of home. There is no luck in housekeeping, however it may seem. Everything works by exact rule, and even with thorough knowledge, eternal vigilance is success. There must be a place for everything and everything in its place, a time for everything and everything in its time. Your husband may admire your grace and ease in society, your wit, your school-day accomplishments of music and painting, but all in perfection will not atone for an ill-ordered kitchen, sour bread, muddy coffee, tough meats, unpalatable vegetables, indigestible pastry; and the whole train of horrors that result from bad housekeeping; on the other hand, success wins gratitude and attachment in the home circle, and adds lustre to the most brilliant intellectual accomplishments.

The Absent Minded Farmer

A story is going the rounds of a farmer who is greatly troubled with absent-mindedness.

On the way home from town, so the story runs, the thought came to him that he had forgotten something. He took out his note-book, went over every item, checked it off, and saw that he had made all the purchases he had intended. As he drove on, he could not put aside

I heard once of a merchant who was a thorough master in his line of trade, and who always treated his customers with absolute fairness. He was scrupulously honest. These were the two main secrets of success, you would think. His business did not prosper, however, but grew smaller and smaller, until he was forced to close his shop. The reason was that he was surly, unobliging and cross-tempered, and when people found that he could not deal politely with them, even if he dealt very honestly, they passed him by.

Politeness is one of the essentials both of business success and of personal friendship. It is the sugar that sweetens all our intercourse with others. It need be in no way inconsistent with honesty, but may be made its greatest aid. Without honesty politeness becomes flattery, and without politeness honesty is unattractive.

Pills for Blind Eyes

In the diary of a cultured gentleman who lived in England in the sixteenth century, he speaks of a threatened loss of eyesight, and pathetically mentions some of the efforts made to prevent the growth of the blinding cataract. He entrusted his case to an oculist in London, who prescribed, as a sure remedy, a certain kind of pill!



How They Learn Housekeeping at a Cooking School.

the feeling that there was something missing. He took out his note-book and checked off every item again, but still found no mistake. He did this several times, but could not dismiss the idea that he must have forgotten something. When he arrived at home, and drove up to the house, his daughter came out to meet him, and with a look of surprise, asked, "Why, where is maw?"

Honesty Sweetened with Politeness

There is not the slightest doubt that honesty is the best policy so far as it goes; but honesty alone will seldom bring success. It is a very important part, but it is not all.

Let us be thankful, first of all, that we live in a day when the human body and its ailments are better understood than they were then, and that science has made the saving of life so much easier. But also, can we not see in this picture of those persons who seek to satisfy their souls with things that are not at all suited to them? Treating blind eyes with pills is not a bit more absurd or impossible than feeding our mind and souls with food that has no lasting virtue in it. Trashy reading, for example, is poor food for a soul that is made for better things. Good health demands right treatment of our bodies; true happiness and success in life demand right care for our natures.



Hickory

A Tale of the Lakes

By Eric Bohn

Author of "How Hartman Won."

[COPYRIGHT]



CHAPTER XXIII.—(Continued).

Tom looked round with amazement, when he saw what was literally piled upon the clean white spreads that covered so daintily the green boards. He thought he had supplied abundantly, but there were many things here that he knew nothing of; and the questioning look which he gave his mother, met with a proud response.

"It's all the girls' doings," she cried. "They are as good as gold; and when asked to come, every one of 'em made up their minds that they would bring something."

Tom felt like frowning, but he could not. So, bright glances and merry peals of laughter greeted him on every side. Already the girls, in gay toilets of blue, or pink, or white, were chaffing with the men, as they good-humoredly took their seats around the tables. A grateful feeling gradually stole over him.

"Yes, mother, you are right. They are just as good as the men," he answered, "and a better lot of fellows could not be found anywhere."

"They say they have cleared up your fellow finely, Tom."

"Yes, every stick of it. Not a log left."

"Did Jim work well?"

"He could not have done better."

"I am so glad."

"So am I. Jim" he called out, as his brother came up among the last from the pump. "Take the head of this table, please. I will take the other."

Jim looked surprised but he did as desired. Next to him sat Robert Thornton, while seated by Tom was the teacher.

"That's a stunning pair of girls," said Thornton, in an aside to Jim a little later. "They are the belles here tonight, and folks say, the handsomest in the township. Which is it to be?"

"I don't catch on. What is which to be?"

"This place is not being fixed up handsomely for nothing. Tom's sweet on one of those girls. Which is it?"

"I'm bliss if I know," said Jim, absently. "Sometimes I think it's one—sometimes the other."

"If I were older, and a marrying man, I believe I'd go in for one of them myself." Robert was scarcely out of his teens.

"It mightn't be very safe to try," drawled Jim.

"Are they hard to catch?"

"I reckon so," said Jim, closing his eyes to a slit, and looking very far off. "I know a fellow who plumped for each of 'em and lost both."

"Too bad!" said Robert, sympathetically.

"I didn't say who it was," snapped Jim, sharply.

"Of course not."

Elsie, Genie, and a dozen other girls were flitting up and down dispensing tea and good things to the hungry men; and many a smart word and ringing laugh helped to make them merry.

At the other table, Tom and Armstrong were talking.

"It is not every man would dismiss his school to get blackened at a logging bee," said Tom, in genuine gratitude to his old teacher.

"That depends upon the man who has it," replied Armstrong, seriously. "When one of your old boys returns—the dead back to life again—how can you help it?"

"That was a curious story. It was a wonder people believed it," commented Tom.

"Not so wonderful, when you remember that you were never heard from."

"In attendance I must take up for it all, if I can."

"You have made a good commencement," said the teacher.

Armstrong was not a jovial fellow. Long years of teaching have given a dignity to his bearing that was foreign to the rough usage of a logging field. But he had an object in coming, besides that of assisting at the bee.

"This is to be my home, and I intend to do my best," said Tom, in a quiet tone. His eyes were following the movements of Elsie, who, in serving the men, was coming towards them. Armstrong noticed it, and his lips tightened.

"Here is some of my mother's cordial," said Elsie, with a smile, as she approached. "You men worked so hard that perhaps a cooling draught will be grateful."

"It is like nettle fit for the gods," said Tom, quaffing off his glass.

"Or wine fresh from the Orient to make the heart glad," said Armstrong, as he took the goblet from his lips.

"Nothing but raspberry julep," commented Elsie, laughing. "Dr. Hartman says it acts as a sedative, for it slows the pulse."

"Give me another glass, then, Elsie," cried Tom. "My heart goes like a sledge hammer. Cannot you hear it?"

"Of course," laughed Elsie, as she tripped away to wait on someone else.

But Genie was coming toward their end of the table with something more substantial.

"I think it was just splendid for you and Robert Thornton to come to the bee," she said, addressing Armstrong.

Tom's eyes were still following Elsie.

"It indicates appreciation of character."

As a new school teacher, she was diligently increasing her vocabulary.

"I am glad it meets your approval, Genie," smiled Armstrong. "I was telling Tom what I thought of his efforts. As for his character, we know what that is."

"Don't be too sure," said Tom.

"You should ask the girls and boys for their opinion," cried Genie.

"Why should we, when they turn out and work as they have done today?" added Armstrong, his eyes still following Tom's look.

After supper the older men scattered to their own homes, but the younger ones rubbed what they could of the black from their clothes, and remained a little longer, to walk home with the girls.

Armstrong lingered beside Elsie for a time, but his offer to drive her home was declined, for she had promised to help Mrs. Potter to put things in order before she left for the night. Tom, too, had signified his wish.

They must have their talk out, and now was the opportunity.

By-and-by they were alone. All had gone; and instead of the bustle of numbers and the ring of many voices, there was the stillness and solitude of the evening hour.

Tom led the way to the little grove again. The sun was dipping beneath the horizon. But a shad of gold spread like a spangled crescent over the western sky. Jewelled battlements stood out in bold relief upon the pallid blue beyond, while little slets of silver seemed to float on the bosom of an infinite sea.

"How glorious!" said Elsie.

"Yes, it is dreamland," was Tom's echo. "A beautiful place where there is neither sin nor sorrow, nor labor nor pain—simply a temple for the holy to dwell in."

"You are getting poetic, Tom—see how transient it is—fading away already."

"That's where it differs from life. Dreamland can never guide. It can only soothe. In the sterner world, one's duty is to live and extract the best and purest from everything."

"Do we always try?" Elsie asked. "Is there good in everything?"

"I am not so sure of that. Life is such a riddle—never easy—often hard. Won't you help me to solve it, Elsie?"

They were seated on the hickory bench again. Suddenly he clasped her hand in his, and drew her toward him. There was a fond look in his eyes and, though unresisting, her face was troubled.

"Do you still think you should keep your secret?" she asked, "and never let the world know?"

"No good could come of revealing it," was his reply. "The deeds of the other men are public enough now. Why should I publish mine?"

"Are you not eluding the law, Tom?" she asked timidly, while she clasped his strong arm with both her hands.

"Perhaps the law, but not the right," he answered seriously. "As a sailor, I performed nothing but a sailor's duty—for which I received a sailor's wages.

These wages I saved, and with them bought this place to make a home for you, Elsie. Don't you see that whatever wrong there was in the start, there was none in the end?" he pleaded, more passionately than he had ever done before.

"I hope and pray you are right, Tom," she said, still doubtfully.

"Such a prayer will do no good now," he returned, a sterner look coming over his face. "The deed is done. If bad, prayer won't make it good, but under the conditions of my life, I don't believe

Continued on page 555.

RED ROSE TEA

Is GOOD TEA

THE BOYS AND GIRLS

Eating Crusts

The awfulest times that ever could be
They had with a bad little girl of
Dundee.

Who never would finish her crust.
In vain they besought her,
And patiently taught her,
And told her she must;
Her grandma would coax,
And so would the folks,
And tell her the sinning
Of such a beginning;
But no she wouldn't,
She couldn't, she shouldn't,
She'd have them to know—
So they might as well go.
And what do you think came soon to
pass?
This little girl of Dundee, alas!
Who wouldn't take crusts in the reg-
ular way,
Sat down to a feast one summer's
day;
And what did the people that little
girl give?
Why a dish of bread pudding, as sure
as I live!

Tom, the Tempter

O H! Daddy, please!"
"I am afraid I couldn't, Dick.
You must remember that you are only
a little man, and that Broncho is very
frisky."

"I know, Dad, but Tom got a pony
for Christmas, too, and he can ride any-
where he chooses."

"You forget that Tom is twelve, while
you are not yet ten. I am willing that
you should ride when William can go
with you, but you must not go alone."

So young Dick Wilmer tried to be
contented, although there was a sore
spot deep down in his heart. All of
his chums rode, and not one of them
had to have a horrid man trotting along
behind. It wasn't right that he should
be treated like a baby, when he was
fully as tall as Tom and the other fel-
lows. No one could guess that he was
nearly three years younger. He went
sorrowfully to Broncho's stall, and put
his own curly head against the soft
dark mane of the young thoroughbred.

For several weeks after his father's
mandate had gone forth Dick turned
a deaf ear to all of Tom's entreaties,
and endeavored to forget the neat little
footman while dashing through the long,
winding country roads. But a day came
when all of Dick's good resolutions
were thrown to the winds.

It was Saturday. Mr. Brown, his
tutor, had just left the house, and the
lesson books were put away until Mon-
day. So, with a free heart, Dick bound-
ed downstairs, buckled on his high rid-
ing boots, slipped into his coat and set
his scarlet cap well back on his curly
head. Mr. Wilmer had gone to the
city on business, and Mrs. Wilmer was
out calling. Dick knew by experience
that it would probably be dark before
she would return, and it was too lone-
some in the house. Even Mr. Brown,
who had been expected to stay, was
telegraphed for, as his wife was taken
suddenly ill.

So when left alone Dick ran down to
William's room, over the stable. His
hand was on the knob, and he opened
his mouth to call the groom. Just then
Tom's mocking voice came:

"Go on, baby; call your nurse!"

Dick wheeled around, his deep blue
eyes all ablaze with indignation.

"I am not a baby, and you know it,
Tom Stimer!"

"Then why do you always have him,"
pointing a disdainful finger toward the
closed door, "lagging after you? When
you are a man you'll have a keeper, I
suppose!"

"I won't have you talking that way
to me. I'm not a baby, and you know
I don't want William—and I only have
him because Dad said I must!" cried
Dick, sturdily.

"Don't you ever expect to have a mind
of your own? I dare you to go today
without him," taunted Tom.

"Dad said I mustn't!"

"William isn't there; he went out just
as I came in, so he can't go, and you
know Henry is driving your mother's
horses."

"What shall I do, then?" Dick stood
for a moment debating. It was a glori-
ous day, cool and clear, except for a
heavy bank of clouds slowly rising in
the north. It was too lovely to stay
stuffed up in the house all the afternoon.

"It won't hurt you. I'll take care of
you, and we'll only go on the nearby
roads. Come on, Dick," tempted the
visitor.

"I ought not to," said Dick, slowly.
It was so hard to refuse, for he wanted
so much to go.

"Do as you like," said Tom, "I am
going." And he carelessly threw him-
self on the waiting pony.

Just at that moment a low, sorrowful
whinny came from Broncho's stall.
That decided Dick; he would not be
gone long, and he would be very care-
ful—oh, very careful.

At first his conscience pricked him
a little, but once out in the soft warm
sunshine, and galloping swiftly down
the long roads, he forgot his scruples
and never before had he enjoyed a ride
so much. It was strange that neither
of them noticed when the sun sank be-
hind the clouds until they found them-
selves almost completely in the dark
and a storm rising.

"Come, Tom, let's hurry home," called
Dick, frightened at the thought of the
hour.

"It's jolly now—I am not going yet,"
laughed Tom.



Two Little Indian Girls of Quebec.

"I tell you it's going to be a bad
storm. I am going home now, Tom, and
you can come when you please." Dick
whirled his horse around as he spoke,
and galloped in the opposite direction.

"Hi, I say, Dick, come back!" called
the older boy, but he was already out of
hearing. Tom shrugged his shoulders
and rode merrily on.

It was dark when Mr. Wilmer reached
home and found his wife in tears, and
nearly wild from anxiety. Between her
sobs Mrs. Wilmer told him that Broncho
had just come home with the saddle
torn.

Mr. Wilmer did not hesitate an in-
stant. There was only one boy with
whom Dick could have gone, and very
soon the anxious father was catechising
Tom Stimer.

"Dick hasn't got home yet?" Tom
asked, a terrified look coming over his
face.

"No. Did you make him go?"

Tom looked down. There was no use
in denying it. Suppose Dick was lying
hurt in the woods.

"Yes, sir; I asked him to go, but I
didn't think it would hurt," said Tom
slowly.

"Come with me, sir, and show me
where he left you," commanded Mr.
Wilmer, sternly.

It was not an easy task, for the blind-
ing snow made them almost lose their way
in the most familiar roads. Hours were
spent in the search, and Mr. Wilmer, Mr.
Stimer, their servants and the neighbors
looked about until they were discour-
aged.

Suddenly a joyful yelp from Dick's
dog, a great mastiff, brought the little
band together, and the dim lantern light
shed a faint red glow upon a small
figure, lying half buried in the snow,
while beside him, with head drooped,
stood the mastiff.

Tenderly the father lifted his uncon-
scious boy and carried him home. No
one suffered as much as Tom during the
doctor's consultation, huddled up in a
little heap outside Dick's door. Hours
were by, and still no sound from the
room. At length the door softly opened,
and the kind old family physician came
out.

"Why, Tom, what are you doing
here?"

"Is he—is he—dead?" sobbed Tom.

"No, my boy; he is very much alive,
and in a few weeks he will be as well
as you are. Was it you who took him?"

"Yes, doctor," said Tom, manfully;
"I despise myself for it; he didn't want
to go, and I taunted him into it. I am
much older than he is, too. Don't you
think he will always hate me?"

"I think, on the contrary, that you and
Dick will be better friends than ever.
You have learned that the way of the
transgressor is not an enviable one,"
remarked the old doctor, sagely.

And the doctor's prediction came true,
for in their boyhood, university and
manhood days, Dick Wilmer and Tom
were inseparable.

A Good Start

Two natives of the soil in a New Eng-
land village were overheard discussing
the prospects of one Jim Means, who
had forsaken a factory for agricultural
pursuits.

"I hear that Jim has gone to farmin',"
said one of the village worthies.

"Yes, he has," was the drawing rep-
ly, "but he ain't went into it very steep
yet. He has hired a hoss for the season
an' rented a keow an' borrowed a hen to
put a settin' of eggs under an' his folks
has give him a peeg, but he ain't farmin'
it on the scale I hear they do out West."

"No," assented the other; "still, he's
got considerable of a start, an' ort to do
well if his eggs hatch, an' his peeg
thrives an' the keow is a good butter-
maker."—Lippincott's.

IN THE KITCHEN

Some Kitchen Hints

WEIGHTS OF GROCERIES.

Ten common-sized eggs weigh one pound.

Soft butter the size of an egg weighs one ounce.

One pint of coffee and sugar weighs twelve ounces.

One quart of sifted flour (well heaped) weighs one pound.

One pint of best brown sugar weighs thirteen ounces.

Two teacups (well heaped) of coffee and sugar weigh one pound.

Two teacups (level) of granulated sugar weigh one pound.

Two teacups of soft butter (well packed) weigh one pound.

One and one-third pints of powdered sugar weigh one pound.

Two tablespoonfuls of powdered sugar or flour weigh one ounce.

One tablespoonful (well rounded) of soft butter weighs one ounce.

One pint (heaped) of granulated sugar weighs fourteen ounces.

Four teaspoonfuls are equal to one tablespoonful.

Two and one-half teacups (level) of the best brown sugar weigh one pound.

Two and three-fourths teacups (level) of powdered sugar weigh one pound.

One tablespoon (well heaped) of granulated or best brown sugar equals one ounce.

One generous pint of liquid, or one pint of finely chopped meat packed solidly, weighs one pound.

NEW USES FOR POTATOES.

Grated potatoes soaked in water in the proportion of two medium-sized potatoes to the quart make an excellent liquid for sponging woolen goods or for washing delicately colored fabrics.

A slice of potato will clean oil paintings without injury, and dipped in baking soda will brighten silver.

Chopped potatoes and a little soda or ammonia will remove all cloudiness or discolorations in carafes or vinegar cruetts.

Brighten the zinc under the stove by rubbing with raw potatoes.

If quickly done, raw potatoes will remove spots from a polished dining table. Finish with equal parts of turpentine and melted beeswax.

USES OF COAL OIL.

A few drops on your dusting cloth will brighten your furniture, as well as prevent dust from flying from the cloth.

One tablespoonful added to each boilerful of water will lessen labor, as well as whiten your clothes when washing.

A few drops added to your boiled starch will make ironing easier.

A few drops on a hinge or roller which has formed the bad habit of squeaking will insure a speedy cure.

A few drops added to the water with which windows are to be washed will save time and labor.

Dip the fingers in the oil, and rub the throat, to give relief from sore throat.

Saturate a cloth in the oil, and rub the rollers, to clean a clothes-wringer quickly.

Saturate a cloth with the oil to clean the sink, bathtub or basin which has become greasy and discolored from use.

Seasonable Recipes

CANNED CORN.—Turn the corn into the colander and pour water through it for a moment. Heap a cup of milk

with a tablespoon of butter, a teaspoon of salt and a little pepper, mix with the corn and cook two minutes. Or, put it in a buttered dish and bake in the oven. Many people do not wash corn, but it is better to do so.

GOOSEBERRY CONSERVES.—Six quarts of green gooseberries, two pounds of seeded raisins, five pounds of granulated sugar, five oranges, fruit of all, peel of three. Remove the stems and the berries and chop the raisins rather coarsely. Cut the oranges into halves and remove the juice and pulp, discarding the seeds. Cook the peel of three of them until soft in enough boiling water to cover, changing the water once or twice. Drain, remove the white part from the peel by scraping off with a spoon, then cut it into narrow strips, using a pair of scissors for this purpose. Put the berries, sugar, raisins, orange pulp, juice and rind together into a granite kettle, heat slowly to boiling and boil twenty minutes, or until the syrup is thick. Put into small jars and seal.

TOMATO PRESERVE.—Four pounds of yellow pear tomatoes, three lemons, four pounds of sugar, one orange, one-half ounce of ginger root. Peel the tomatoes, add the sugar and let them stand over night. In the morning pour off the syrup, let it boil until quite thick, then skim. Add the tomatoes, and the lemon sliced in rounds and the seeds removed, the orange juice and the ginger. Cook until the tomatoes look clear, then put into jars and seal.

Sweets for the Children

Nearly all children, especially if they be normal, healthy children, crave for sweets. A great many parents without any thought or reason in the matter deny to their children all kinds of sweets. They do this for some pre-conceived notion that sugar and candy and cakes are bad for the children. Other parents go to the opposite extreme and indulge their children in all sorts of confectionery, from the cheapest to the most expensive, allowing them to eat: rich, indigestible cakes, jams, candied fruits, preserves, etc.

They both are making a mistake. Children should be allowed to eat sweets—but the proper kind of sweets. Cheap, nasty confectionery should never be given them, neither should they be permitted to have too much jam nor any of that indefinable hodgepodge of stuff that masquerades under the name of cake. Beware of cheap painted candies; they are poisonous.

But give the children sweets in the form of pure chocolate, honey and syrup made up from fruits. A lump of sugar or a stick of good candy now and then will not hurt them. Let them eat molasses, but be sure it is a good quality. Fruit jellies, if unadulterated, and plain cookies that are not too sweet are good for children.

After using a frying-pan for onions or fish it is sometimes hard to remove the smell; but it is imperative that this should be effected, otherwise the next article cooked in the pan will undoubtedly have an added taste. Vinegar is one of the best things for removing the unpleasant odor, it should be put in the frying-pan immediately after use, and allowed to heat over the fire.

Steamed Eggs.—We are very fond of steamed eggs as a breakfast dish, and I have found that a convenient way to serve them is to break them into a well-buttered china salad dish, place them in the steamer and then, when done, bring them to the table direct from the steamer. In this way they are served hot.



Sunlight Soap will not injure your blankets or harden them. It will make them soft, white and fleecy.

7B

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Via the Chicago, Union Pacific and North Western Line, from Chicago, Aug. 15th to Sept. 10th. Choice of routes going and returning. Correspondingly low rates from all points in Canada. Two trains a day from Chicago through without change. Daily and personally conducted tourist car excursions. Write for itinerary and full particulars regarding special train leaving Chicago Aug. 18th and 25th. B. H. BENNETT, 2 East King Street, Toronto, Ont.

Considered Cheap at Price

Brookville, Nova Scotia, Dec. 18, 1902.
The Lawrence-Williams Co.,
Cleveland, O.

You will find enclosed \$1.50 in payment for another bottle of your liniment, GOMBAULT'S CAUSTIC BALSAM. I consider it the best and cheapest liniment I ever used.

DANIEL G. FRASER.

HEALTH IN THE HOME

Headache

There are many things that produce headache, among them being long continued straining of the eyes, sudden excitement, bad air and want of ventilation, alcoholic drinks and a variety of other causes. Another fruitful source of headache in men is the absurd fashion of hats which society now imposes. Tight boots and shoes will also cause headache and destroy comfort, grace of motion and happiness. They prevent the flow of blood to the extremities and cause slight congestion of the brain. Tea drinking is often an unsuspected cause of headache, causing, as it does, exhaustion of the nervous system, and coffee the same thing. This is a drink which people are very apt to abuse, and those who find it injurious should discontinue its use. Going without sleep or taking too little sleep produces headache. Most people require eight hours out of twenty-four for sleep in order to perfectly restore the nervous system. The headaches of old age are generally caused by taking too much food—more than is required by the work done and more than can be digested. The remedy for this is moderation, for as the powers of life wane they should not be taxed more than is absolutely necessary.

A Great Surgeon on Drink

At a banquet in New York during the visit of Dr. Lorenz, the great surgeon, he was reported in the newspapers to have said: "I cannot say that I am a temperance agitator, but I am a surgeon. My success depends upon my brain being clear, my muscles firm, and my nerves steady. No one can take alcoholic liquors without blunting these physical powers, which I must keep always on edge. As a surgeon, I must not drink."

But why should not every man's brain be clear, and his muscles firm and his nerves steady? If liquor makes these blessings impossible for a surgeon, it makes them impossible to men who are not surgeons; and what right have they, in God's sight and in justice to themselves, to muddle their brains, to weaken their muscles, and to unsteady their nerves? A man should be the best man he can be, and not indulge in what impairs his manhood.

Removal of Splinters

A splinter is a very little thing, but capable of creating a great deal of mischief, discomfort and pain. Every mother of small children should provide herself with a pair of sharp-pointed forceps for this emergency, says the Chicago News. When the splinter is imbedded in the flesh of hand or foot the point of a small pair of scissors—a manicure pair will very well answer—should be inserted directly over and following the path of the splinter, and a small incision made.

If there be any bleeding stanch it by a little pressure, then open the wound by stretching it a little, and with our forceps pick out the offending object.

When the splinter is under the nail cut a V-shaped piece out of the nail, and with the forceps the splinter is easily removed. Protect the cut made with a little collodion or a finger-cot.

The simplest things become great when God requires them as; they are small only in themselves; they are always great when they are done for God and when they serve to unite us with Him eternally.—Fenselon.



Totally Eclipsed

That ancient relic, the Washboard, is totally eclipsed and entirely displaced by this up-to-date product of modern labor-saving ingenuity—**The New Century Ball Bearing Washing Machine.**

The New Century brings light into many a home that was formerly dark and gloomy on wash days. Pocket giving full description will be mailed on application.

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ROYAL YEAST CAKES

MOST PERFECT MADE.

**SOLD AND USED
EVERYWHERE.**

**E. W. GILLETT COMPANY
LIMITED
TORONTO, ONT.**

SUNDAY AFTERNOON

Holliness, not Happiness

The gospel of Jesus never says, Be happy. The gospel does not deal in little ironies. But the gospel of Jesus says, Be holy; aim at the highest, all happiness will come. Forget it; trust in God; do the next duty; go round by Calvary, if the road lies there. And like sweet music falling among the hills, or like a fragrance wafted we know not whence; like the springing of water where we never looked for it; like the shaft of light breaking the cloud above us; like an angel unbidden, happiness will come. Like it, Lord, we shall find it when we sought it not. "Seek happiness first," says Jesus, "and be baffled. But seek ye first the kingdom of God, and all these things shall be added unto you."

"Lo, I Am With You Always"

Art thou with me my Savior?
The night is dark,
I feel the billows tossing
Around my barque;
No moon nor star is shining
Above the sea,
But I will rest and fear not;
Thou art with me.

My kind, lifelong Companion,
I know thy voice,
And hearing through the tempest,
I can rejoice:
But even if thou speak not,
My heart is glad;
With thee the deepest silence
Is never sad.

I will not heed the darkness;
Is the hour late?
And will it soon be sunrise?
Yet I can wait:
Dear Lord, I am not troubled
By fear or quest;
Above the restless waters
I have sweet rest.

I sail and see nof whither,
But, if thou steer,
I know the lighted haven
Not far, but near;
No need to wake the sailors
On land or sea,
I am content forever
Alone with thee.

Showing Forth the Risen Life

Your business is to trust the risen Lord with your secret hearts; to be believing in His perfect righteousness, and by faith to be clothing yourselves with His nature. Your business is to be fighting, as your forefathers fought, against all the temptations to distrust, cowardice, baseness, which are besetting you on every side. By simplest acts of daily obedience, by continual efforts to be true, to speak truth, to follow truth, you are to prove that Christ's word is speaking to you, speaking in you: you are to show forth His risen life.

Remember

That is not enough to keep the poor in mind; give them something to keep you in mind.

That men often preach from the housetops while the devil is crawling in at the basement below.

That life's real heroes and heroines are those who bear their own burdens bravely, and give a helping hand to those around them.

That hasty words often rankle in the wound which injury gives, and that soft words assuage it; forgiving curses, and forgetting takes away the hurt.

IN THE SEWING ROOM

May Manton's Hints

BLOUSE OR SHIRT WAIST 4781.

Box plaited effects are exceedingly fashionable and any combination of those of full length with shorter tucks is sure to make a satisfactory waist. The full length plaits give the long lines that all ways are desirable while the shorter tucks provide becoming fullness. This very excellent model is adapted to a wide range of materials but is shown in white mercerized madras the collar and cuffs being of the material unished with fancy stitches. The back as illustrated is bloused slightly over the belt but can be drawn down snugly whenever preferred.



4780 Nine Gored Walking Skirt, 22 to 30 waist.

4781 Blouse or shirt waist, 32 to 40 bust.

The waist consists of the fitted lining, fronts and back and is fitted by means of shoulder and under-arm seams. The effect of the box plaits is obtained by wide tucks which are turned one outward and one inward in each group and the closing is made invisibly at the centre front. The sleeves are wide and full below the elbows but tucked to fit snugly above and are finished with straight cuffs. The novel stock is a feature and is adapted not to this waist alone but also to the separate ones which are always in demand.

NINE GORED WALKING SKIRT 4780.

The walking skirt that flares with perfect freedom about the feet yet is snug over the hips is a favorite of the season and is likely to retain all its vogue for a long time to come inasmuch as it is eminently graceful and becoming as well as comfortable. In the case of the model each alternate gore is different, the front, centre-side and back gores being plain while the intervening ones are made in two sections each, the lower portions being box plaited. All materials suitable for street wear and heavy enough to be made in tailor style are appropriate, linen, the more substantial velvets, cheviot and all the familiar cloths, taffetas and the like, but the original is made of brown canvas veiling stitched with corticelli silk and trimmed with bands of silk headed by fancy braid.

The skirt is cut in nine gores. Those at side front and side back are made with plain upper and box plaited lower portions and at the edge of each plain gore is a narrow plait which conceals the seam.

GIRL'S DRESS 4784

Simple frocks are always smart for little girls and those of the one-piece sort, or made with waist and skirt in one, are peculiarly well liked for play time and school wear. This one includes a big sailor collar, which is always becoming to childish figures, and can be

made from a variety of materials, being quite appropriate to simple wools as well as linen and cotton fabrics, but as shown the material is blue linen chambray, the collar and shield of white with trimming of blue and white braid.

The dress is made with fronts and back and shaped by means of shoulder and under-arm seams. The box plaits are laid for its entire length and at each under-arm seam are additional inverted plaits in the skirt that provide the necessary fullness. The neck is finished with the collar and the shield is attached beneath, the right side being stitched permanently, the left buttoned into place. The sleeves are tucked to form box plaits to the elbows and form full puffs below and are gathered into straight cuffs.

CHILD'S FROCK 4782

Nothing suits the small child more perfectly than the frock that hangs in straight lines from the shoulders to the hem. This one is peculiarly attractive, because of its novel epaulettes which give breadth to the shoulders, and can be made with either low or high neck, with the yoke or without. The model is made of Persian lawn with trimming of embroidery and beading threaded with ribbon, but all the materials in vogue for children's dresses are equally correct, white for the more dressy frocks, color for those designed for morning wear. This one is finished with hem and tucks which always are pretty, but the tucks can be omitted and the hem alone used whenever desirable.



4782 Child's Dress, 1, 2 and 4 yrs.

4784 Girl's Dress, 4 to 12 yrs.

The frock consists of the front and backs of the yoke, front and backs of dress, epaulettes and sleeves. The dress is gathered at its upper edge and again on two succeeding indicated lines, and is either joined to the yoke or stayed by means of a straight band of insertion. The epaulettes are tucked and arranged over the shoulders on indicated lines while the sleeves are simple full puffs held by straight bands.

The price of each of the above patterns postpaid is only 10 cents. Send orders to The Farming World, Morang Building, Toronto, giving size wanted.

Woman's Work

Nothing is more thoroughly mistaken than the idea that a woman fulfills her duty by doing an amount of work that is far beyond her strength. She not only does not fulfill her duty, but she most singularly fails in it; and the failure is truly deplorable. There can be no sadder sight than that of a broken-down, overworked wife and mother—a woman who is tired all her life through.

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J. A. TOUSAW,

Secretary.

BELLEVILLE, CANADA.

J. FRITH JEFFERS, M.A.

President.

—If silver is washed every week in warm suds containing a tablespoonful of ammonia the polish can be preserved for a long time.

Fine Salt

The crystals of Windsor Salt are as pure and white as flakes of snow—and they dissolve easily. Butter makers who have been using salt said to be "just as good" as Windsor Salt, will see the great difference at once, if they will use it.

Windsor Salt

FITS

Lebig's Fit Cure for Epilepsy and kindred affections is the only successful remedy, and is now used by the best physicians and hospitals in Europe and America. It is confidently recommended to the afflicted. If you suffer from

EPILEPSY, FITS, ST. VITUS' DANCE or have children or relatives that do, or know a friend that is afflicted, send for a free trial; bottle and test it. It will be sent by mail prepaid.

Lebig's Fit Cure brings permanent relief when all else fails. When writing mention this paper, and give full name and address to THE LEBIG CO., 179 King St. W., Toronto, Can.

CURED

Please Mention The Farming World when writing Advertisers.

Some Live Farm Topics

Harvesting and Cleaning the Bean Crop

A few beans are still pulled by hand, some cut off with a knife, which is attached to a plow, but the greater part of the beans are cut off with two-horse cutters. The bean cutter is attached to a common two-horse cultivator. It has two knives which pass about one inch below the ground, cutting the roots off and throwing two rows into one. They are then forced into small bunches, being careful to shake all the dirt off the roots, and afterwards turned into wind rows. When sufficiently dry they are taken into the barn. Great care must be taken to have them dry before putting in the barn, so if there are frequent showers during harvest the beans must be turned often in order to let them dry properly.

The beans are threshed with a bean separator, which has a capacity of from six hundred to one thousand bushels per day. The threshing machine also crumbles up any lumps of earth, that may be among the beans. Some of the latest machines clean the beans in such a manner that they are fit for market without any further cleaning. The yield per acre of beans varies from fifteen to thirty-five bushels; they usually overrun the standard weight, which is sixty pounds to the bushel.

For marketing, the beans that have not been cleaned by the threshing machines are run through the fanning mill, then put into bags, and taken to a bean factory where they are further cleaned, graded and hand-picked before being shipped. The largest warehouse in the Dominion for handling, grading, and storing beans, is situated at Blenheim, Ontario. It is a building some fifty feet square, strongly built and four stories high, with a cellar for storing whole bushels. The storage capacity is fully fifty thousand bushels, and the weekly shipment is from two to four thousand bushels of hand-picked beans. In the cellar is situated the boiler engine, and also bins for receiving the beans before they are elevated to the upper stories.

The first floor is used for receiving the beans from the farmers' wagons. When the beans are taken from the wagons they are first weighed and then dumped into a hole in the floor, and elevated from below into the bins on the upper floors. This floor is also used for bagging and barreling the beans which have been hand-picked and are ready for market.

On the eastern half of the second floor is a large, light, airy room, which is occupied by the pickers. There are over fifty machines, and each machine is controlled by a female operator, who, with quick fingers, and sharp eyes, picks out any remaining discolored or split beans, as they slowly, but steadily pass before her on a canvas screen.

The western portion of this flat and also the next flat is occupied by large storage bins.

In the upper story is the grader and cleaner. The beans are elevated up to this story and run through the grader and cleaner at the rate of one hundred and fifty bushels per hour. After having passed through this machine, but little dirt and very few small or split beans remain. The beans from the grader run into the large storage bins, and from these bins the pickers are supplied. After having gone through the pickers' hands, they are barreled or bagged, and marked hand-picked.

The building described above, although one of the largest factories, is but one of a number of similar establishments in Blenheim, Chatham, and other surrounding towns.

The price of beans has varied greatly, as high as two dollars and a half per bushel has been received, while on the other hand they have been as low as fifty cents a bushel. The average price for the last thirty years would perhaps be about one dollar and a quarter per bushel.

The United States may be said to be the chief consumers of Canadian beans, at least one-third of the total crop is shipped to Boston, New York, St. Louis, and other large cities of United States. The remainder of the crop goes to France, South Africa, West Indies, the Maritime Provinces and British Columbia.

J. O. LAIRD,
Kent Co., Ont.

Why Alfalfa Will Pay

It, being a legume, is a nitrogen fixer, and leaves the soil in a better condition than it found it.

Rooting very deeply, it gathers potash and phosphoric acid from sources not available to other plants, and leaves the soil in a more porous, and, therefore, better physical condition than it found it.

A ton of good alfalfa hay contains one-tenth more protein than a ton of wheat bran.

When once established on inoculated soil, it produces, perennially; its period of productivity being practically unlimited.

It produces three or four crops per acre, from three to six tons per acre.

When plowed under, the roots and stubble leave a large amount of valuable humus in the soil.

Alfalfa has been grown successfully on hardpan land 180 feet above water.

In view of these facts, will it not pay to make an effort to grow alfalfa?

Value of Clover Sod

In a press bulletin recently issued from the Ontario Agricultural College, Prof. C. A. Zavitz bears most striking testimony to the influence of clover on the soil, increasing the yield of grain crops fully 50 per cent. more than if grown on a grass or timothy sod. He says:

"We have conducted a series of experiments at the Agricultural College, Guelph, on three different occasions, in order to ascertain the comparative value of clover and grass sod for crop production. We first grew clovers and grasses upon separate plots and removed the crops, after which the land was plowed and other crops were sown. The results, therefore, show the influence of the roots remaining in the soil upon the productiveness of crops following the clovers and the grasses. In 1902, barley was sown after each of four varieties of clovers and three varieties of grasses in four different plots in our experimental grounds. The average results of the four tests in pounds of barley per acre were as follows: Red clover, 1,516; lucerne, 1,450; alsike clover, 1,427; mammoth red clover, 1,408; meadow fescue grass, 1,068; orchard grass, 1,015; and timothy, 946. It will therefore be seen that the red clover sod gave an increase over the timothy sod of 570 pounds, or nearly 12 bushels per acre.

"In another experiment which was completed in 1900, in which winter

wheat was sown on both clover and grass sods, it was found that an average of 3,194 pounds of wheat per acre was obtained from the clover sod, and only 2,300 pounds from the grass sod.

"In 1899, a mixture of oats and barley was sown on clover sod and also on grass sod. The results were very marked, as an average of 2,256 pounds of mixed grains per acre were obtained from the clover sod, and only 1,078 pounds of mixed grains per acre from the grass sod.

"By averaging the results of these three grains, we find that the crop grown on the clover sod gave an increase over the crop grown on the grass sod by fully 50 per cent.

"The results of these experiments help us to appreciate the beneficial influence on the soil from growing clover. It also indicates the suitability of a properly cultivated clover sod as a preparation for winter wheat or for spring grains."

Orchard Cultivation

There is a danger that on account of the wet weather, orchards will not receive their usual cultivation, which is urgently needed to destroy weeds, aerate the soil, and conserve soil moisture for future use. If the ground is not stirred it bakes, cracks open and evaporation goes on rapidly. By starting the soil through frequent cultivation, thus keeping a loose mulch on the surface, capillarity is broken up and moisture retained. As soon as it is possible, therefore, to get on the ground after a rain, the cultivator should be started in the orchard and kept going on as steadily as time and weather will permit.

To Keep Off Worms

Mr. T. R. Patillo, of Bridgewater, N.S., sends the Fruit Division, Ottawa, a novel preventive for the currant and gooseberry worm. He takes the twigs of the White Pine, inserts them in and out through the bushes when in bloom, and asserts that after several years' trial he has perfect confidence in this preventive. He is also of the opinion that it works equally well in keeping off the cucumber and squash bug.

A. MCNILL

New Strawberry Varieties

The Ohio Experiment Station has been investigating the varieties of strawberries and recommend the following new kinds as giving satisfactory results:

EARLY VARIETIES—August Luther, Canero's Early, Excelsior, Johnson's Early, Thompson's Early.

MISSISSAUGA VARIETIES—Kittie Rice, Marie, Miller, Parson's Beauty, Sample, Senator Dunlap, Haverland, Warfield, Pokomoke, Greenville.

LATE VARIETIES—Yant, Brandywine, Gandy, Lester Lovett, Robbie, Nettie.

For the home garden the following are named because of excellent flavor: August Luther, Marshall, Brunette, Kittie Rice, Nettie, Robbie, Corsican, Granville, Yant.

The following prolific varieties are especially suited to near market: August Luther, Kittie Rice, Marie, Parson's Beauty, Sample, Haverland.

For long shipment and for canning the following are suitable: Warfield, Senator Dunlap, Granville, Gandy, Cardinal, Excelsior, Lyon, Marie, Parson's Beauty.

Deacon (severely)—Do you know where bad boys go who go fishing on Sunday?

Tommy (eagerly)—Yessir. Up Jones's creek.—Princeton Tiger.

A Page About Live Stock

Soiling Crops for Horses

To what extent soiling should be practiced with the different kinds of live stock is difficult to determine. The experience of successful farmers and the work of experiment stations show that it is the most practicable with cattle, sheep and swine. However, Peer, in his book on Soiling, claims great advantages for it for horses, especially in the case of colts and brood mares. But farmers know that horses, in order to do their best work must be fed largely on dry feed, and not food that will tend to make them "soft" or laxative. But with brood mares and colts it is different. Peer recommends keeping mares and colts in loose boxes during the day and allowing them to run in open paddocks at night, and feeding them on green succulent feed often during the day. Rye, clover, peas, oats and corn are the crops which he considers best for horses.

Then it is a question whether a great deal more might not be done with soiling in making beef in summer and fattening sheep and lambs in the fall. Peers is strongly in favor of fattening sheep and lambs in the fall by pasturing them on rape. This plan shows a great profit over ordinary grass pasturing and feeding grain in the winter.

A. P. McVANNEL,
Perth Co. Ont.

Selecting a Ram

To those who have to buy rams for service this fall we say do it early; you will have a better choice and be able to get them in better condition for service when the time comes. A ram should be fed on good concentrates for at least sixty days before he is used. A mixture of oats and bran is as good as two pounds a day, half and half. He should also have exercise in a paddock or large yard. Feed him some cabbage, turnips, or a little rape daily. And get him broke to lead so he should be quite tame. The shape of a mutton sire should be oblong; he should be twice as long from the front of shoulders to tail as his body is high and wide; his top and bottom lines should be parallel, his ribs well sprung, his head and neck should be set on his shoulders, not in his breast; his legs, both in front and behind, should stand well apart, showing good shoulders and hams. He should have bright, full eyes, and a proud carriage. Such an animal will suit one who is in the mutton business. It should be remembered that size, other things being equal, is the measure of power, so get as large a ram as you can, of the breed you choose with all organs well developed, and you will be likely to get an animal that will be satisfactory in all respects. It is not alone the number of lambs that is desirable, it is their quality, vigor, strength and size.—Shepherd Boy.

Beef Production

Prof. Mumford, of the Illinois Experiment Station, has recently concluded an experiment in feed steers, the results of which may be of interest to Canadian beef producers. One hundred and thirty-six steers were purchased on the Chicago market at a total cost laid down at the Illinois Station of \$4,654 per cwt. They cost on Chicago market \$4.26 per cwt.

The steers were divided into ten lots and were fed the following rations:

Lot 1 (10 Steers)—Silage, corn

meal, gluten meal, oil meal and clover hay.

Lot 2 (15 Steers)—Ear corn, gluten meal, oil meal and clover hay.

Lot 3 (15 Steers)—Ear corn and clover hay.

Lot 4 (15 Steers)—Corn meal, gluten meal, oil meal and clover hay.

Lot 5 (15 Steers)—Corn meal, gluten meal, oil meal and clover hay. The hay was chaffed and mixed with the grain.

Lot 6 (15 Steers)—Corn and cob meal, gluten meal, oil meal and clover hay.

Lot 7 (15 Steers)—Corn and cob meal, gluten meal, oil meal and clover hay. Hay was chaffed and mixed with the grain.

Lot 8 (10 Steers)—Shock corn, ear corn and hay, with oil meal added during latter part of feeding period.

Lot 9 (10 Steers)—Shelled corn, oil meal and clover hay. This lot was fed in an ordinary dirt and mud lot.

Lot 10 (10 Steers)—Shelled corn, gluten meal, oil meal and clover hay. This lot was fed in a paved feed lot for comparison with Lot 9.

The steers were put on feed gradually; they were started on 7 pounds of corn and 15 pounds of clover hay each per day and about six weeks were consumed in getting them on full rations.

The following table shows the average gains, made by each lot from November 28, 1903, to May 28, 1904:

Lot	Weight, Avg. lbs.	Weight, Final lbs.	Average Daily Gain, lbs.	Gain, Total lbs.
1.....	1014.6	1450.0	2.39	
2.....	1045.3	1462.0	2.29	
3.....	1008.8	1382.3	2.05	
4.....	968.8	1418.0	2.39	
5.....	1038.8	1460.7	2.32	
6.....	1022.6	1438.7	2.29	
7.....	1000.0	1446.3	2.45	
8.....	1037.5	1444.5	2.06	
9.....	1020.3	1390.5	2.00	
10.....	1020.3	1382.0	1.94	

The price for which they sold and the net profit per steer have not been published yet. Of course the success of the experiment will depend upon this. At the present price of beef, it should show a good profit.

A Tribute to the Canadian Bacon Hog

The following from that great connoisseur of hog flesh, George Pratt, head hog buyer for Armour & Company, Chicago, as reported in a recent issue of the "Breeders' Gazette," is well worth reproducing. No better tribute to the high quality of the Canadian bacon hog has ever been published. Asked as to whether the good health of the American hog in recent years was due to improved methods of the hog grower, Mr. Pratt said:

"Emphatically no! The great majority of farmers treat their hogs no better than 20 years ago. The prevalent immunity from disease is due solely to scarcity of corn. That article of feed has been scarce for three years in succession and it has been given to hogs sparingly in consequence. Give us a bumper yield of corn and it will be thrown to hogs as recklessly as ever and the mortality will increase rapidly. Canada never has sick hogs, for the simple reason that they are not starved with corn."

To another question as to whether the bacon hog has a future in the United States, he said:

"It has, but not in the great corn growing States. Texas will produce bacon hogs, and the same type will

find favor in Wisconsin, Minnesota and the Dakotas, but in the principal corn States the fat hog will always hold its own. I see no reason why the Northwest, including Wisconsin, should not raise bacon hogs equal to the Canadian product and Canada grows the best bacon hog in the world. The Corn-belt farmer, however, is not satisfied unless he can make them weigh around 300 pounds before marketing. Poland-Chinas and Duroc-Jerseys suit his purpose better than the bacon breeds. Texas will be a bacon hog State by reason of its wealth of alfalfa and the uncertainty of its corn crop. Consumption of bacon is increasing rapidly. We have not been able to accumulate a stock ahead in recent years and at seasons of the year light hogs enjoy the premium. While the bacon hog is rare, there is always an impetuous element which ships light-weights because the money is needed and insures a bacon supply. Other sections, Missouri for instance, pursue the policy of marketing their hog crop light, climate enabling them to dispose of two crops each year. Ultimately the bacon manufacturer will depend on Texas, Wisconsin, Minnesota, the Dakotas and possibly the inter-Mountain States for his supply."

Crop and Other Conditions in Nova Scotia

The crops generally are looking well throughout the province, but a point has been reached when rain is very urgently required. The rainfall during June and July was light and unless the drought be soon broken, crops will suffer. They have stood the dry spell, so far, very well, as the spring was late and cold and the moisture was retained in the ground much longer in consequence. The crop of cultivated strawberries, which is an important one at some points in the Annapolis, has been a light one and the berries mostly small in size. The lowest price at which they have been retailed in Halifax this year is two boxes for a quarter. Wild strawberries have been common in the market in many larger quantities than for many years.

The production of butter this season shows a marked increase. In many localities the creameries have doubled their output, while there has also been a big increase in the production of dairy butter, which is very undesirable, as the market is overstocked. The price is low and there is very little demand for anything but gilt-edged stock.

All the old hay in this province and New Brunswick has been picked up at from \$12 to \$14. Farmers began haying early in July. The early promise of a good yield was in many cases realized. There has been quite a drop in milfeeds, which are now from dollar to two dollars a ton cheaper. There is very little demand for these at present.

The fisheries, which were above the average up to a couple of weeks ago, have all fallen off. The Nova Scotia bank codfishery fleet did very well on the spring voyage, and the price is holding up well. Fishermen receiving in no case less than four dollars per quintal at the wharves here. The shore fisheries have been hampered for lack of bait and there is little or nothing now doing. This has been a great season for lobsters. The catch was larger than for several years previous, and high prices ruled throughout. The mackerel and herring fisheries have been almost a total failure, but better things are hoped for from the midsummer run.

J. B., Halifax Co.

QUESTIONS AND ANSWERS

Colt Cut by Barbed Wire

I have a filly that got lacerated on a barb wire fence, in front of the hock joint. It occurred about the first of June, run matter for about three weeks, then got it pretty well healed up, when it swelled, got very painful, and now the colt is going around on three legs, can hardly put its foot to the ground, the hock is three times its natural size and the hip seems to be shrinking in size. Leg is very much swollen down to fetlock. Do you think that the colt will live or do any good, and what would you recommend? Are barb wire wounds poisonous? About ten days ago wounds broke out again and run matter for a few days, but it healed up again and is getting more painful.—A Subscriber, Lanark.

Wounds of this nature are often difficult to deal with. Its position makes it all the more serious as the constant working of the joint, especially when swollen, tends to keep up irritation. Wounds made by barb wire fence are generally poisonous, and slow to heal. The swelling should be bathed with hot water, but the case seems to be a rather serious one, and a veterinarian should be called to see the colt at once as blood poisoning is liable to set in any time. The shrinking of the side of the hip is due to the animal not using the limb, and will come all right.

Sweeney

I would like you to tell me what to do for a valuable mare that is badly sweened.—J. H. Cole.

Sweeney is a strain of the muscle, which plays over the shoulder joint, and which afterwards wastes rapidly away. In the first stages when there is heat, swelling and tenderness, a wet rag and complete rest will tend to allay the inflammation. Light exercise on smooth ground and active rubbing of the wasted part will stimulate circulation and help build up the muscle. Light blisters will also help. A good blister for this purpose can be made by taking one part of ammonia to two parts of oil. One part of Spanish fly and twenty-five parts of alcohol, steeped for twenty-four hours and when strained make another good plaster. A good plan would be to turn the mare on the grass, but bring her in every evening and bathe her shoulder well with cold water and salt and wipe dry and work the skin well with the hand as it will stimulate circulation.

ABOUT RURAL LAW

In this column will be answered for any paid-up subscriber, free of charge, questions of law. Make your questions clear and to the point. This column is in charge of a competent lawyer, who will, from time to time, publish herein notes on current legal matters of interest to farmers. Address your communications to "Legal Column," The Farming World, Toronto.

Collecting Money

Q.—There are two lawyers here in my county, who have been doing business for me for several years. They have several hundred dollars of my money in their hands which they have

collected. 1. How am I to proceed to get it from them? I got judgment against two men jointly about three years ago. About one year ago I told these lawyers to bring these men up on judgment summons. They did so. I was not at court that day. They say the judge made an arrangement with the defendants to pay half the judgment in ten monthly payments of ten dollars each. The lawyer said he did not consent for me, and that the judge could not do that without my consent. They have paid the money into court, and I have got it. 2. Have I to lose the other half of the judgment? If not, how am I to proceed to get it?—R. McC., Ontario.

A.—1. Demand payment, and if they refuse to pay you, you can sue them for the amount, if you know what it is, or for an account, or you can apply to have their names struck off the roll. 2. No, you will not have to lose half the judgment unless your lawyer or some one on your behalf, and authorized by you, consented to the arrangement. The judge has no power to release the defendants from payment of half the judgment unless with your consent. Your proper course would be to issue execution against them if they have any property, and, if not, have them up on judgment summons again.

Water from Stream

Q.—I own some land adjoining that of a man through whose land a stream of water runs. I have made an arrangement with this man to let me pump water from the stream to my dairy to cool my milk. The water then flows back through another pipe into the stream. The man who owns the land farther down, says I have no right to so use the water and that the man who gave me the privilege has no right to, and he threatens to bring on action to restrain me from doing so?—No, if the same quantity of water is returned and it is not polluted in any way.

Cattle Killed by Train

Q.—My cattle are allowed to roam at large on the road near my home. They strayed from the road to the adjoining land, which is owned by the government, and from there they got on to the railway track, which is not fenced at all in this district. I think there is a by-law of the Township which provides that cattle may roam at large on the streets. My cattle were killed by the train. I can I make the railway company pay for them?—J. L., L.

A.—1. If there is a by-law such as you speak of, yes, since the cattle were lawfully at large. We assume that they were not killed at or near a crossing.

Injury on Account of Snow

Q.—Last winter I was travelling along the road with a team of horses and a wagon. I came to a place where the road had for some weeks become impassable on account of drifted snow for a distance of more than half a mile. At the side of the track between a ditch and a farm fence, there was a side track made and used by the travelling public during the block of the highway. The pathmaster of the township was aware of the condition of the road, but did nothing towards opening it up. It was thawing on the day in question and it had been thawing for two or three days previously. When I tried to use this side track the horses broke through, and the wagon was in danger of being upset. I got out to help the horses and was injured by one. I

Can I sue and recover damages from the township?—D. M. S., Ontario.

A.—1. Yes, it was the duty of the township to have opened a way through the drift sufficient to enable vehicles such as you were driving to pass in safety along the highway, and the pathmaster should have seen to this. We would think, however, that unless you have already taken steps to sue the township, it would now be too late for you to do so, as by law you would have to give notice of action within thirty days from the date of the injury.

Covenant for Renewal of Lease

Q.—I hold a lease of a farm from B for four years with a provision in the lease that at the end of that time B is to renew the lease for four years or pay for the improvements made by me. 1. Can I compel him to renew it?—A. G. G.

A.—1. No. The option is A's. He can either renew the lease or pay you for your improvements, whichever he chooses.

Right to Seize Crops

Q.—A, who was in difficulties, agreed to purchase a lot of land in the name of B, who had no property of her own. The farm was worked by the husband as his own, and the only money paid for the farm was paid out of the profits of the farm. There is a crop now growing on the farm which was sown and taken care of by the husband and labor paid for out of the profits of the farm. 1. Can the husband be seized for debts of the husband?—G. L. G.

A.—1. Yes. The crop would not be the separate property of the wife under these circumstances.

"HICKORY"

Continued on page 558.

it was bad. I tell you what it is, Elsie, a man cannot follow a life like mine without learning a good deal about the lives of other men. Though the world is full of beauty, like this little scene before us, we live in a world of conflict. I do not want to justify evil; but there are scores of men today, occupying positions of honor and trust, who have made their wealth by greed; who have squeezed widows and orphans out of their little savings; who have crowded small, honest dealers to the wall; who have wasted their stocks and made their millions out of the earning of the poor; who have pressed the shares of little railroads so tightly that the holdings bought by the holders of hard-working men and women, have tumbled to pieces, and their owners have been ruined. What these men have done is known to the world in all its ignominy and sin, yet they remain unrepentant and even honored if they give a portion of their ill-gotten gains to the so-called charities of the needy. But if I, honest in all my little savings, were known to be one of the crew of that ill-fated smuggler, jail and disgrace would be the result.

"At last, I see it. You are right, Tom, after all," she almost sobbed, as she buried her face in her hands. For some moments he did not answer her, then he drew them gently down, and held them closely.

"Thank you, Elsie, for the word. But loving my secret—and knowing how I love you, why you share my life?" he pleaded again.

"You have told me so much, I have not told you anything," she said, but her head was on his shoulder.

"As you like, sweetheart," he whispered. "The five years were something to you."

"Yes. They were years of struggle to keep true to the man who had never even let me know that he lived."

"I know it," whispered Tom.

"But there was one who did care. He was noble and tender-hearted, and after word came that you were dead, things seemed different. For a while he left me to myself in my sorrow. He was very gentle, no one could have been more so; and after a time his gentleness won me. If you had not come back—yes—it might have happened."

"And could you have loved him, Elsie?"

"It would never happen if I did not."

"And do you love him now?"

"For a moment there was silence. It was getting dark. A whip-poor-will darted past, and lighting on a linden tree near by, repeated over and over again his melancholy note. Strong emotion was manifest upon Tom's face. His hand did not hide it, but the struggle for self-conquest was of brief duration."

"I have more to say," he commenced in low tones, as he rose to his feet, "and whatever comes of it, I want to be a man I know of whom you speak. He is just and honorable, and no touch of calumny, true or false, can ever tarnish his name. In this he towers above me. He has a ripe education, which I have not. He has means and an income that would make your life comfortable and free from care. If you love him Elsie, all I can say is, take him. I must have your whole heart or none. Do not take me to save me. But, Elsie, I have always loved you, ever since I dragged you in your little frocks on my sled to school. No man could love you as I school. You are my heart's sweetest treasure; and I am ready to lay at your feet both my love and my life."

The battle in Elsie's heart was not long, for, as he resumed his seat, she nestled down closer to his side.

"You have my heart, Tom, every bit of it," she whispered at last. "You always had; and this cloud, sad as it is, we will bear together. You are my only love."

The gloaming deepened. The whip-poor-will sang on, but his strains seemed brighter—the melancholy cadence had taken on a joyous inflection—as in sympathy with the lovers he repeated in gayer mood the notes of his song; while Tom pressed his loved one passionately to his heart in that little grove of hickories.

"And what of your name?" Elsie gently asked, looking in joyous timidity upon his face. "Is it not at last to be mine—the one you bore for those long years on the Concord?"

"No, dearest! never!" was his answer, as he stooped to fondly kiss her lips. "It is buried out of sight forever, as deep as Lake Erie can hide it."

THE END.

✽

The Food Value of Sugar

Experiments conducted at the Minnesota Agricultural Experiment Station with sugar as a human food, show that 98.9 per cent. of the total energy of the sugar was available to the body. The addition of five ounces of sugar per day to the rations of working men proved beneficial. It increased the available energy of the ration 25 per cent. and did not affect the digestibility of the older foods with which it was combined. The report says: "Without underestimating the value and importance of the protein in a ration, it is evident that the carbohydrates, as sugar and starch in flour and cereals, have a characteristic value, as they supply the body with more than half its total available energy."

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All the large creameries of Minnesota, Iowa, Nebraska, and all the dairy states pay one cent per pound more for cream that contains from 35 to 50 per cent. butter fat than they do for cream testing less than 30 per cent. butter fat. The cost of shipping cream testing 40 per cent. is only half as much as the cost of shipping cream that tests 20 per cent.

This cream retains more of the milk than rich cream, and as the milk becomes sour first the thin cream is the hardest to keep sweet. By skimming a rich, thick cream, you retain all your skim milk at home, and you will find it a valuable feed for young stock.

Many separators on the market cannot produce thick cream and are therefore unprofitable to buy. The U.S. Cream Separator makes thick cream and gets all the butter fat out of the milk.

Holds World's Record for Close Skimming

Write for catalogue.

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FINANCE ON THE FARM

Buying and Selling By Mail

Buying and selling by mail is one of the chief features of modern business methods. As standards of business integrity become elevated, and people's confidence in one another increases, exchanges of all kinds multiply, to the advantage of all who participate. It is important, however, that these facilities should improve and the commercial interests that arise from them attain to higher proportions. The farmer should be most interested in this advancement as he will benefit most by the extension of the facilities that will make buying and selling by mail more easily accomplished.

This system of buying and selling has grown enormously in the United States in recent years. A Wisconsin exchange, in dealing with this subject gives the following sound advice:

"In making purchases of any kind by mail, it is as essential for the buyer to make due allowance in favor of the seller as it is for the seller to deal honorably and in a business-like manner with his customer. It takes time for the order to reach its destination; circumstances over which the dealer has no control may cause delays in shipping, and the carrier may further retard the arrival of the shipment while an impatient consignee is chafing under what he regards as an unreasonable delay. This is a frequent and sometimes just cause for complaint. Other possible occasions are errors in reading or construing the purchaser's letter; receipt of several orders for the same animal or description of article; unfavorable weather at the place of shipment; sickness of the dealer or his help; unavoidable accidents or interruptions and a thousand contingencies which human foresight or the most acute analysis could hardly forecast."

"We always see our own side of a question, but it is not always easy or possible to see the other side. It is, therefore, a good rule, if we are not familiar with all the general conditions under which a line of business is done, and the special circumstances surrounding the individual with whom we are dealing, to make large allowances for mistakes which he may honestly make. Certainly we should not lay at the door of the other party the results of our own negligence. In short, the golden rule should be observed; and, remembering the complexity of modern business conditions and the multiplicity of the possibilities of honestly made and unavoidable errors, we should exercise due patience at all times and under all circumstances."

The evolution of business is rapidly eliminating the cunning and tricky dealer from the field of competition. Business must now be done on a large scale and the building up of a business is a matter of years. He who does not deliver the goods he advertises is soon lost in the struggle, and those who remain in the field do so because they give adequate service and an honest equivalent for the purchaser's money. It is, therefore, only fair that, when the buyer is disappointed in his purchase he promptly reports the fact to the seller, who should with equal promptness rectify the error, shortage or mistake, or explain why he cannot or should not do so. A disposition to do all that is right, or more, and to consider questions from all sides, will usually bring best results and make business pleasant as well as profitable.

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In the Poultry Yard

Ode to a Hen

A great American poet has composed the following ode to a hen, which she richly deserves:

Cackle, cackle, Plymouth Rocks,
Ye can have the wagon box,
'N' the smokehouse, 'n' the barn,
Take 'em—we don't care a darn.
Cackle here and cackle there,
Lay your eggs just anywhere
Every time ye lay an egg,
Down the mortgage goes a peg.
Cackle cackle all the day,
Who kin find a better way
Fer to git ahead again
Than to cultivate the hen?
—Exchange.

Rearing of Turkeys

In order to successfully rear turkeys, a dry soil and shelter from cold east winds are essential. It is a mistake to attempt to rear them on tainted ground, or on the same land year after year; nor should they be reared together in large numbers unless very extensive grass runs are available.

Turkeys are more often hatched and brooded by natural than by artificial methods, and the former system is generally to be recommended. The young birds require more careful brooding for the first few weeks, and this can best be obtained from a natural mother.

The general treatment required for young turkeys is very similar to that for chickens, except that for the first few days closer attention must be paid to them. For twenty-four hours after hatching they require no food. During the following four days, hard-boiled eggs and bread crumbs may be given, for which, after the second day, oatmeal, barley meal, or biscuit meal, mixed with sweet milk may be partly substituted. Boiled rice is a useful addition to the diet and prevents diarrhoea. The young turkeys must be fed very frequently during this period.

At the end of a fortnight grain may be gradually introduced into the diet. Small wheat is very suitable, but should be given in limited quantities. Mixed mash, consisting of ground oats, barley meal, wheat meal, and pollard, should, however, be the chief food until the birds are three or four months old. Skimmed or separated milk is better than water for mixing the meals. No food, especially during the first few weeks, should be given in a very wet or sloppy condition, as this causes diarrhoea in young birds.

Turkeys require more flesh as food than do chickens. Boiled fresh meat or liver, finely chopped, is most suitable. From the first week turkeys should receive an abundance of green food, such as cabbage, boiled onions, or boiled young nettles, chopped up fine and mixed with the meals.

There is great danger in allowing the birds to run about amongst long wet grass or on heavy rain until they are five or six weeks old. It is best to keep them confined in a limited grass run for the first four weeks, the grass being kept short, and if the run becomes foul, to move the birds on to fresh grass. Large, roomy coops are suitable for housing, but these should have wooden floors; the coops also give shelter on wet days. In addition to the coops one or two extra shelters should be provided. When the young turkeys are given their liberty the mother, if a turkey hen, will take them away to the fields, and they then thrive remarkably well, chiefly because of the new ground and the abun-

dance of insect food obtained. All through the summer and until fattening commences, the turkeys should be fed in the fields and encouraged to stay there. An airy, well-ventilated house should be provided for them. They should be fed liberally with soft foods, consisting of a mixture of meals and boiled vegetables or roots in the morning and a feed of hard corn at night.

A constant supply of grit is even more necessary for turkeys than for fowls. It should be given during all periods of growth, commencing with fine chicken grit, and later supplied in some coarser form. The importance of this item cannot be over estimated. —English Rural World.

Sell the Old Hen

It is most profitable to dispose of old hens before the moulting period. There is then a ready market for fowls on account of the scarcity of chickens. If the hens are held until fall they will not realize as great a profit as they will, say, during July, owing to the reduction of the market price for fowls and the loss of flesh in moulting. Hens should be sold when they are two years old. All male birds should be sold in the summer and cockerels used for breeding the following season.

The Cost of Eggs

The following, from the Utah Experiment Station, will be of interest to egg producers:

"That there is money in eggs will not be denied in the face of the evidence given, for although the fowls undergoing the test did not lay an extraordinary number (358 being the highest average), the food cost per dozen amounted to only six and one-third cents, notwithstanding the food eaten by the poor layers was included in this average, which of course brings the cost much higher than it otherwise would be, and clearly suggests that the poor layers should be weeded out. The average number of eggs laid was 1,350. The pens which averaged 157 eggs produced them at a cost of but 4.7-1 cents per dozen. Another pen producing but 130 eggs, did so at a cost of 5.3-10 cents per dozen."

Curing Egg-Eating

Take an egg and puncture a small hole on the side, take a small piece of stick about the size of a match, stick it into the egg and churn the egg with it, constantly dipping the stick into a little red pepper and mustard, until the egg is thoroughly impregnated with the egg and mustard, then put it in the nest where the hen usually lays, with the open side up, and let the hen get at it as soon as she wants. She will never trouble the eggs again, and it will not injure the hen one bit. I have cared several in that way, and it will stop the habit, in the most inveterate egg-eater in Canada.—American Poultry Journal.

Toads in the Garden

Toads are valuable friends to gardeners. In Europe they are advertised for sale, and gardeners buy them in large numbers. Boys capture them in nets, which is easily done in evening twilight. When placed in a garden they seldom leave, but soon find a burrow under a board or stone, or at the root of tree or shrub, and make themselves at home. Their value is in the fact that they destroy many damaging insects.



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TORONTO - - - ONT.

PURE-BRED STOCK

NOTES AND NEWS FROM THE BREEDERS

These columns are set apart exclusively for the use of breeders of pure-bred stock and poultry. Any information as to importations made, the sale and purchase of stock and the condition of herds and flocks that is not in the nature of an advertisement will be welcomed. Our desire is to make this the medium for conveying information as to the transfer of pure-bred animals and the condition of live stock throughout the country. The co-operation of all breeders is earnestly solicited in making this department as useful and as interesting as possible. The editor reserves the right to eliminate any matter that he may consider better suited to our advertising columns.

The Farming World Man on the Wing

Haying time has come round again and the hum of the mower is once more to be heard in the land. The crop in most parts is this year unusually heavy. There has been an abundance of rain and the growth has been very rapid and strong. The fear is ever present that the haying time will be a wet one, and the croaker is still predicting that when the grass is heavy it very dry happens that it can be cured and stored in good condition. The hard winter has damaged the wheat beyond full recovery in many parts, but in some places exceptionally heavy crops are to be seen, and so far, in very few cases are there any indications of rust. Root crops of all kinds are rather poor, owing not only to the wet spring, but to the coolness of the season as well, and the Farming World Man on the Wing has yet to see a first-class crop of corn. There is still good hopes for the turnip crop, as many are sowing them over again, and good crops of turnips have been grown when sown as late as 12th of July. So, with a light crop of corn, it is probable that the humble "neez" will be counted on to a considerable extent for both fall and winter food, and the zealous cheesemaker will, as he used of old, have to be on his guard against "turnipy" milk. Quite a number of farmers are utilizing their silos to store grass in, to feed later in the season, or to keep for winter use as "silage," and should the latter part of the summer prove as dry as the first part has been abundant in rain, this addition to the fall forage will be a welcome one. On all sides the scarcity of labor is proving the worst enemy of the dairying industry, and farmers are turning their attention to beef instead, and the offerings on the bulletin boards from the different cheese factories are so light that the large output of last fall should not long continue to maintain the downward tendency of the market. The oat crop is everywhere exceptionally fine and heavy, though in some cases the season has proved rather wet for peas on low or undrained land. In many parts of Ontario the encroachments of various kinds of weeds is noticeable, despite improved machinery and methods of working. There is no doubt that in the case of many of these pests their rapid encroachment is due to the neglect that has been accorded to one of the most effective weed killers of all, the too much despised sheep. However, this is a fact that is becoming appreciated, and there are very many farmers to be met who have for years had no sheep on their farms and are now de-

termined to keep at least a few of them in the future. Much needed and long delayed legislation on the importation of wool and shoddy might give an impetus to this tendency, though, too often, at the present time where sheep are kept, can be seen orchards, lanes and even pasture fields infested with weeds of all kinds, and the sheep that would, if afforded the opportunity, eat these off close first, and then look for grass, are allowed to run at large on the roadsides, and compelled to hustle for their living as best they may. Wire fencing is being taken the place of the old rail fence, adding much to the appearance of the country, and the writer feels quite like an old timer when he sees, after a stormy night, the farmers talking of pursuing the routine of the farm, and remembers how he used to turn out at daylight and start by getting soaking wet chasing the cattle out of the rain-laden wheat and oat fields, and then take the hired man for half a day digging among tall weeds and bushes for slippery rails, piling them in place and locking the corners carefully so that they would stay in place until the next rainstorm. The writer remembers well a somewhat philosophic character who used to say that the consolation of a wet morning was that the old wooden pump used to work easier, and the cattle drink less on wet mornings, anyway. But the wire fence and the windmill are fast taking the place of both, and with their advent at least half of the temptation for the youth to leave the farm ought to be gone too. What a large percentage of the daily "chores" it was to grab the long wooden handle of the old wooden pump and to oscillate it energetically, and with elbows that ached for three-quarters of an hour or so, to the end that the hot and absorptive internal machinery of forty or fifty head of cattle should be lubricated and cooled. Agricultural conditions are fast changing. The average farm is no longer the mere home of drudgery and solitude, but offers to intelligence and intellect, a life of easy competence, where industry is combined with interest, and where a sufficiency of recreation is within the reach of all. The intelligent city man no longer affects a patronizing air towards the farmer. His advancement has been fast, but not too fast to be assured and solid, and a few generations will undoubtedly see the life of the farmer recognized as the ideal life of the gentleman. *****

Mr. W. Nichol, of Brussels, Ont., has long been known as the leading breeder of Yorkshire swine in the township of Grey. He is still to the

Sir Wm. Van Horne's Farm Manager says:—

NEEDS Stock Food.

IS THE BEST.

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The Great French Veterinary Remedy.
A SAFE, SPEEDY & POSITIVE CURE.



SUPERSEDES ALL CAUTERY OR FIRING.

Impossible to produce any scurf or hemorrhage. The safest foot dressing ever used. Takes the place of all treatments for mild or severe action. Removes all Bunches or Blisters from Horses or Cattle.

Is a HUMAN REMEDY for Rheumatism, Sprains, Bone Throat, etc. It is Invaluable.

WE GUARANTEE that one table-spoonful of Caustic Balsam will produce more actual results than a whole bottle of any liquid or ointment cure mixture ever made. Every bottle of Caustic Balsam contains 100 Warranted Genuine Cure Mixture ever made. Prepared by Dr. Gombault, of Paris, at 150 Avenue de la Republique, France. Price, 25c per bottle, charges paid, with full directions for its use. Send for descriptive circulars, testimonials, etc. Address:

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Lump Jaw

Save the animal—save your hard-earned money—your time—your peace of mind. Disease is fatal in time, and it spreads. Only one way to cure it—use

Fleming's Lump Jaw Cure

Not painful—no tithing. No risk—no money back if it ever fails. Good for seven years. Buy mostly all the big stockmen. Free illustrated book on Lump Jaw and other Diseases and Remedies of Horses. Write for it today!

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Most successful Vet. Institution in America.
Prof. A. Smith, F.R.C.V.S., Principal,
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DE LOACH PAT. SAW MILL

Save Power and Repair. Make Smooth Lumber Sailed to 4 ft. up for the farmer on the lumber man. Also Shingle Mills, Lath Mills, Fuel Mills, Planer and Hay Presses. Catalog FREE 100 Lines. De Loach Mill Mfg. Co., Box 507 St. New York.

BUCHANAN'S UNLOADING OUTFIT

Works well both on stacks and in barns, unloads all kinds of hay and grain either loose or in sheaves.

Send for catalogue to
N. T. BUCHANAN & CO., Ingersoll, Ont.

DAVID McCRAE, Jansfield, Guelph, Canada. Importer and Breeder of Galloway Cattle, Clydesdale Horses and Cotswold Sheep. Choice animals for sale.

KILMARNOCK STOCK FARM

Orkney Shires, and a fine lot of pure Scotch and Scotch mixed Shires for sale. Also individuals of Perth, Aberdeen, Lerwick, Red Bone, and other local breeds. Also Scotch and other purebred Shires, and other size of choice Scotch breeds. See catalogue of both sexes for sale. Write or call on W. H. T. This P. O. and Station G. T. R.

HILLHURST FARM.

Napoleons from Shires, the coming line, direct importations. Scotch topped Shorthorn from imported sires and dams of deep milking strains. JAS. A. CUBBERLE, Hillhurst Station, Compton Co., P. O.

"NETHER LEA" AYRSHIRES

Offering this month 4 bulls, 15 mos.; 3 choice bull calves, 5 mos.; bull and heifer calves just dropped. Napoleon of Aberdeen type, all head of herd, whose dam writes record of 72 lbs. per day. Prices low. T. D. McCALLUM, Inaville, Que.

FOR SALE

Ayrshires, all ages. Eggs for hatching, from Leghorns, Hamburgs, Dorkings, Chickens, Ducks and Turkeys. Also five pure Collie pups. For further particulars write to W. STEWART & SON, Menlo, Ont.

A FEW GOOD CANADIAN BRED

Stallions and Fillies
Some of the gets of such horses as McQueen from fine registered mares. Also a number of good geldings.
A. TORRANCE, - Markham, Ont.

FOR SALE

ONE SHORTHORN BULL GOLF AND ONE TWO-YEAR-OLD HEIFER
At the Glenavon Stock Farm
They are from good milking strain. Write or call.

W. B. ROBERTS, Prop., Sparta, Ont.
Station St. Thomas, C. P. R., G. T. R., M. C. R.

Shannon Banks Stock Farm

W. H. THAW, Proprietor.

BREEDER OF AYRSHIRE CATTLE AND YORKSHIRE SWINE

Choice young animals of both breeds and sexes for sale.

Cedar Grove P. O., Ont. Locust Hill Sta., C. P. R., 1 mile. Markham Station, G. T. R., 4 miles.

VALLEY HOME STOCK FARM

Breeder of Scotch-topped Shorthorns. Herd contains the fashionablest strains such as Minas, Ury, Clippers, of straight Scotch breeding, and the best kind. Both sexes for sale. Correspondence invited. Visitors welcome.

NEIL DOW

Tara Sta., G. T. R., P. O. and Tel.

Pleasant Valley Shorthorns

Herd of leading Scotch families, such as Pitts, Orange Blossoms, Myrles, Killbuck, Bonnie (Campbell), Nonparils, Clementines, Roschold, Golden Drops, Handed by (Imp.) Old Lancaester. Write your wants or visit personally.

GEORGE AMOS & SON,

MOFFAT STATION P. O., C. P. R.

Choice Yorkshires

Young Stock from Fine Imported and Home Bred Boars and Sows

Young Boars fit for service and Sows ready to breed or already bred. Boars and sows red skin. Prices right. Write or call on

J. A. RUSSELL

Precious Corners P. O. Cobourg Sta., G. T. R.

BRANT STOCK FARM

OXFORD DOWNS

Yearling rams, ram lambs, aged and yearling. Ewes and ewe lambs from imported and prize-winning stock. Choice lot for sale. Come and see them.

Burlong telegraph, telephone and P. O.

J. H. HILL & SON,

Breeders and Importers.

front with a large number of fine bacon swine of the medium bacon type. His present herd boar, King David, was purchased from the well known herd of Mr. J. E. Brethour, of Barford, Ont. and is a good representative of that breeder's type of hog. Three sows from the same pens, but of different strains of pedigree, are also in the herd, and are producing litters of piglets large in number and of a uniformity of type that should recommend them to purchasers as young breeding stock that will do the same in turn. He is also beginning to breed Shorthorn cattle and has on the farm a few registered Clydesdales of the right kind. This is a section where the breeding of pure-bred stock has not received the attention it ought to, and Mr. Nichol is setting an example that it is hoped that many will follow.

R. Corby, Belgrave, Ont., proprietor of the Clover Leaf Lodge, and a splendid herd of Shorthorn cattle, has recently purchased the fine imported bull, Scottish Challenge, from Jas. Douglass, Caledonia, Ont. This bull is a fine, thick, sappy fellow, red and white in color. He was bred by Robt. Turner, Cairnton, Scotland, and is sired by Daybreak, of which animal W. D. Platt remarked that this was one of the best he saw there. His dam is Hoyns Lady, of noted prize winning strain.

Shorthorn cow Lady Ethel, Silver King; dam traces to Imps. Beauty. To be sold by Brantford by T. A. Cox, August 10th.

Mr. Robt. Shaw, of Brantford, the wellknown Galloway breeder, is getting into shape to do things at the shows this fall. His herd is in fine bloom, and one of the best of them all is "Little Toronto Maid," calved last year at the Toronto show, and photographed for THE FARMING WORLD.

E. C. Atrill, Goderich, is going to turn out a splendid herd of Shorthorns this fall. His young stuff is particularly fine, and under the able superintendence of Mr. A. Marr, can be depended upon to add a few of the prizes. The death of his fine Clydesdale stallion, Cor-sack Squire, was a serious loss that Mr. Atrill suffered a short time ago.

The sale of pure-bred stock to be held by Mr. T. A. Cox, August 10th, at his farm near Brantford, is an event that should not fail to interest stockmen and horsemen generally. A large number of pure-bred Clydes and Hackney horses, Shorthorns, Holsteins and Galloway cattle and Berkshire swine, of prize-winning quality, will be sold under the hammer, and the opportunity to obtain some of them is one that should not be missed by breeders and others. A fine Clydesdale stallion, Prince Robert, 4 years of age, will be among the offerings. He is a good, solid, stylish horse, dark bay in color, good at the ground and a good worker. He is

MAPLE CLIFF DAIRY AND STOCK FARM

Breeders of Clydesdales, Ayrshires, Tamworths and Berkshires.

For Sale.—One Clydesdale Stallion, 3 years old; one Tamworth Sire, 1904 to imported boar; two sows and two boars, 7 months old, Imp. in dam; two Heavy purebred sows, 12 months old. Write or call on R. REID & CO., Sta. and P. O. near Ottawa. Hintonburg, Ont.

Woodroffe Dairy Stock Farm..

Six grand young bulls still on hand will be sold here, if taken before June 1904 to imported

SEED FOR CATALOGUE OF STOCK.
September Testimonials ready for shipment.

J. G. CLARK, Proprietor, OTTAWA, ONT.

Champion Berkshire Herd

OF CANADA

For several years back the York Lodge herd of Berkshires has won the championship at Toronto Exhibitions, besides a number of other prizes. All hogs show great growth and size, being pigs from the best prize sows and boars for sale at reasonable prices.

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BURNEDNETT STOCK FARM
Breeder and dealer in Canadian and imported Clydesdale Horses and Berkshires Swine.

Address or call at Unionville Sta. and P. O.

Yorkshire Swine Clydesdale Horses

A large number of fine Yorkshires to choose from. A few good registered Clydesdales. Choice lots and sows from grandly bred sires and dams. Good prices to quick buyers.
A. E. HOBBS, OSBORNE STN. AND P. O., ONT.

CLOVER LEAF LODGE HERD OF SHORTHORNS

Choice young stock from grandly-bred Scotch topped cows. A number from choice milking strains. Well-bred Lincoln Swine. Also Barred and White Rock poultry and Broom Turkeys.

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Belgrave P. O. and Sta., G. T. R. Wingham, Ont. C. P. R.

FOR SALE

7 Ayrshire Bulls from 1 to 16 months old. Good individuals from high class stock. Prices right.

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MAPLE LODGE STOCK FARM

Scotch Shorthorns, Choice Milking Strains, Prize Winning Leicesters. Young Stock for sale—imported and home bred.

A. W. SMITH, Maple Lodge, P. O., Ont.

ABERDEEN-ANGUS GRADES

have topped the highest markets for beef in North America for 15 years in succession, through good times and dull times. Now is the time to secure real good ones by using pure-bred sires. We have a grand lot of young bulls coming on, sired by Canada's Champion Aberdeen Angus Bull, Prince of Burton. Come and make your selection early.

JAMES BOWMAN, Elm Park, GUELPH

Ayrshires and Yorkshires.

Calves carefully bred for Milk and Show Ring. Other ages. A November Boar. Several Airt Jags. All prices reasonable. Write, or come and see.

ALEX. HUME & Co.,

Menlo P. O.

FRONTIER FARM, Lewiston, N.Y.

BREEDERS OF REGISTERED

Polled Jersey Cattle, Red Polled Cattle

..Cheviot Sheep..

Now for sale, one Polled Jersey Bull, 3 yrs. old, Red Polled Bulls, one 3 yrs., one 18 mos., and one 2 mos. 10 mos. and 10 mos. good at the ground for registered Jersey, Fries and Hereford.
A. MOHR, Lewiston, N.Y.

Farming Pays

In NEW ONTARIO

Write for descriptive pamphlet and maps
Algoma,

Thunder Bay,

Rainy River,

Nipissing,

Temiskaming

— TO —

Hon. E. J. Davis,
Commissioner of Crown Lands, Toronto.

Glenview Stock Farm

Only two first-class Hackneys remain unsold.

Another consignment of imported Clydes bred except about September 1st.

W. Colquhoun, Mitchell, P.O.
and Station, G.T.R.

Dentonia Park Farm,

COLEMAN, P.O., - ONT.

FOR SALE—During the next six weeks—young stock of both sexes

JERSEYS, GUERNSEYS

and **AYRSHIRES**

Our prizes won at Toronto and Ottawa this year give only a fair idea of the quality of the stock. Our prices are consistent with such quality. Correspondence solicited. Photo graphs and full particulars will be sent on request.

JOHN H. DOUGLAS,

BREEDER OF

SHORTHORN and

AYRSHIRE CATTLE

YORKSHIRE SWINE

Young stock of all ages and both sexes for sale.

Warkworth, P.O.

CAMPBELLFORD STA., G.T.R.

Waverly Stock Farm

HACKNEY STALLIONS

AND

FILLIES

Choice young stock, imported and home-bred.

R. BEITH,

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LINDEN FARM OXFORDS

Choice lot of 3-year Yearlings and Lambs, imported and home-bred. Name B to head any pure bred flock. Also a few good Shorthorns.

R. J. HINE, Dutton P.O.,
Elgin Co., Ont.



ROCK SALT for horses and cattle, in ton and car lots. **Toronto Salt Works, Toronto**

sired by the grand sire Macara, a get of McGregor's, and his dam is K. Holloway's famous mare Cherry Sweet, by renowned Cedric. Among the Hackneys will be a splendid 4-year-old ch. stallion, All-Fours, sired by the celebrated champion Pandango, dam Mischief, by Matchless of London. He is a young horse of great promise in every way. Jubilee Performer, now three years of age, will be sold. His breeding need only be mentioned to commend him to all. He is by Jubilee Chief, the horse who made Hackneys popular in Canada, and the champion mare of repeated seasons in Canada, Miss Baker, the dam of Hillhurst Sensation who has made so much Hackney history for Mr. Yeager. He has more than his breeding to recommend him, too, for he is in conformation, substance and manners all he ought to be.

Beautiful Nell, 6 years old, is a fine Hackney mare that will also be sold. She is by Courier, dam Trinker, by Fireway. A fine foal by All-Fours will be sold with her. Leading Lady, another of her fillies, 3 years of age, by Stampede, a son of Wildfire, will be sold also. A fine standard-bred filly whose dam is by Capt. Hunter and whose sire is Dr. John, by Oro Wilks, should call for some spirited bidding.

Among the Shorthorns will be the herd bull, Fame of Oak Ridge, of straight Miss Ramsden breeding and sired by Golden Fame. He is 2 years of age. Lady Ethel is a beautiful roan by Silver King, and traces to imp. Beauty on dam's side. Trout Creek Dorothy 3rd is a 3-year-old by Gladiator Nonpareil, on dam's side, and is in calf to Fame of Oak Ridge.

The Holsteins comprise some good ones. The two-year bull, Canary Calamity Paul A., is a vigorous looking fellow by Calamity Jane's Paul A. and his dam was Canary Beauty. Gipsy De Kol is a fine 2-yr. heifer by Lord Blake, dam Maggie Ters, De Kol Cecelia, same age, same sire, dam Cecelia Mink Mercedes. Colanthus Queen De Kol, same age and sire, dam Dora Colanthus, who will also be sold. Minnie De Kol is a 3-year-old daughter of Winnie R's Gem and Homestead Albino De Kol. Pauline Pietrtje De Kol is 5 years old, by Sir Paul De Kol Clothilde, dam Lady Pietrtje de Kornjin. Blake Irma is 4 years old, sire Sir Pietrtje Mercedes, dam Lady Blake. She has a fine heifer calf at foot. Gipsy De Kol, 3-years, is another daughter of Maggie Ters, by Lord Blake. De Kol's Cecelia is 3 years of age, is also by Lord Blake, dam Cecelia Mink Mercedes. The Gallowsays comprise a number of good ones. Rose 7th of High Park, 3 years old, is fit for any showing.

Among the Berkshire swine will be imp. Starlight, first at Toronto one year ago, and another fine young boar, bred by Teasdale, imp. Lady Columbus, full sister to "Combination" sweepstake boar at Chicago, will be offered with a litter of her pigs. Fashion 3rd and 6 of her litter, and her daughter by Baron Lee, good enough for any show, 1 year of age, and a number of sows and boars under six months, will comprise the offering. The sale will be held at the farm, 3 miles from Brantford and 1 mile from the street car line. Bids may be wired to W. A. Almas, auctioneer; Jas. A. Smith, or R. McNaught, Brantford, Ont. Catalogues of sale on application.

Stock Gossip

Mr. J. B. Kitchen, Superintendent of Dentonia Park Farm, writes:

"We have recently sold the following:—Male calf from our sweepstake

Sauble River Stock Farm

Offers for sale a number of pure-bred Shorthorns.

G. HINDMARSH,
Alton Craig P.O. and Sta., Middlesex Co., Ont.

SHORTHORN CATTLE and LINCOLN SHEEP For Sale at Maple Avenue Stock Farm

If you want either, write us today.

F. H. NEIL & SONS,

Box 35, Lucan, Ont.

Telegraph Post Office I.R.L. Station

IMPORTED

Clydesdales and Shorthorns

Messrs. Smith & Richardson, Columbus Ont., Importers of Clydesdale Horses and Shorthorn Cattle, STATIONS—Oshawa and Brooklin, G.T.R. Myrie, C.P.R. Forty miles east of Toronto. Long-distance telephone at residence, near Columbus. Telegraph, Brooklin.

GRAHAM BROS., CLAREMONT, ONT.

Canada's leading Horse Importers

Clydesdales and Hackneys Stallions and Mares.

Farm one mile from station on C.P.R.

Write for Catalogue.

T. H. HASSARD, V.S.

DEALER IN

**CLYDESDALE,
COACH AND
STANDARD
BRED
STALLIONS**

My last importations were taken directly from the boat to the Toronto Spring Station Show, where they won highest honors.

MILLBROOK, - ONT.

TROUT CREEK

SHORTHORNS

SPECIAL OFFERING:

Two imp. bulls with superior breeding and individual merit. Also a few imported Scotch heifers and home-bred bulls and heifers.

Send for catalogue.

JAMES SMITH, W. D. FLATT,
Manager, Hamilton, Ont.

Live Stock Auctioneers.

T. N. ROBSON,
Live Stock Auctioneer,
ILDERTON, ONT.

GEO. JACKSON,
Auctioneer, PORT PERRY, ONT.
Live Stock a Specialty.

RIDGEWOOD PARK STOCK FARM
Pure Scotch Shorthorns
Clydesdale, Shire,
and Hackney Horses

E. C. ATTRILL, Mgr.,
 Goderich, - - Ont.

Ayrshire cow, Lady Sterling, to Mr. F. R. Trotter, Antigonish, N.S.; two Guernsey heifers to I. W. Paisley, Chilliwack, B.C.; one Guernsey male to Mrs. G. M. Slipp, Jacksonville, N.B.; one Guernsey heifer to Mr. J. N. Clute, Berwick, N.S.

"Our man has just returned from Strathcona, N.W.T., where he delivered a carload of Jersey stock which included the following:—Seven females and three males to Mr. W. F. Cameron, Strathcona; one female to James Greene, Strathcona; five females to William Ross, Strathcona; two females to Arthur Davis, Strathcona; one heifer to Alexander Cameron Rutherford, M.P.P., Strathcona; one female to Mrs. Miller, Innisfil, Alberta; two females to Thomas Allen, Strathcona; two females to Robert Ritchie.

"The cattle arrived in Strathcona in time for the Edmonton Fair, and the cow and heifer that Mr. Davis purchased won sweepstakes in the classes at this fair. Some of our very best stock went in this carload and we now have booked some eight or ten head for future shipment."

Alex Hume & Co., Menie, Ont., in sending in a change of advertisement, say:

"We fully intended to send you a list of sales but just now we are in the midst of a heavy crop of hay and grain, which is keeping us busy. We expect to again exhibit at Toronto and other exhibitions with what we think a stronger lot than usual. We are quite pleased with your paper and wish you every success. We hope soon to have a little leisure time to write more fully."

F. H. Neil & Sons, Lucan, Ont., write: "We have a carload of choice young ewes for sale. We have also choice rams for flock breeders, also two carloads of large, strong yearling and two-year-old rams for the ranch trade, also a lot of beautiful lambs of both sexes. In Shorthorns, we have cows, heifers and young bulls, sired by the imported Scotch bulls, Prime-minister, Guardman, Fragrant Duke, Red Duke, Sir Wilfrid Laurier, Scotchman, and Chief of Stars. We have also several sired by Canadian-bred bulls from imported Scotch and English stock and intending purchasers would do well to either write us or come and see our stock before buying elsewhere. We wish you every success with your valuable paper and hope to have a longer visit from your representative in the near future."

A Great Dispersion Sale

Farmers and stockmen should bear in mind the great dispersion sale of pure-bred stock to be held at Brantford, Ont., on August 10th next. One of the proprietors is Mr. T. A. Cox, a noted breeder of many years' standing, and we can assure our readers that he will have some choice stuff to offer on that date.

The sale will take place on the farm three miles from Brantford. A street railway runs within one mile of the farm. Lunch will be served and the sale will begin immediately after luncheon. Bids may be wired to Jas. A. Smith, Township reeve, or to R. McNaught, Brantford. Write for catalogue at once. Welby Almas, auctioneer, Brantford.

OAK LODGE YORKSHIRES

Years of careful breeding have made the Oak Lodge Yorkshires the Standard of Quality for IDEAL BACON HOGS.

The Championship against all breeds has been won by this herd for 5 years at the Provincial Winter Fair, on foot and in dressed carcass competition. Prices are reasonable.

J. E. BRETHER, - - BURFORD, ONT.

H. CARGILL & SON,

Importers and Breeders of SCOTCH SHORTHORNS

Present offering SEVEN GRANDLY BRED BULLS. Also a large number of grandly bred young heifers, imported, imported in dam and home bred. Call on or write to

JOHN CLANCY, Mgr.

H. CARGILL & SON,
 Cargill P.O. and Sta. G.T.R.

Ontario Live Stock Co., Ltd.

UNIONVILLE Sta. and P.O., ONT.

Offer for sale 30 young Berkshire Pigs from imported stock, and 30 young Yorkshire Pigs, also from imported stock.

Price \$5.00 Each, F.O.B. Unionville.

Order at Once.

H. POWERS, Mgr.



The Wheel You Want.

For Farm and General Work.

ALL IRON.

Any size. Any width of tire. Made to fit any axle. Strong and durable. Costs nothing for repairs.

Dominion Wrought Iron Wheel Co. Limited, Orillia, Ontario



Our **QUEEN CITY HANDY WAGON** with iron wheels, strong and of light draft, low and convenient to load and unload, a perfect wagon for the farm, carries Five Thousand pounds. Write for catalogue of both wheels and wagons.

THE WONDER OF THE AGE

ALL EYES ARE ON THIS INVENTION

Patented 1890-96 and 1903.



The Genuine Tolton Pea Harvester with New Patent Buncher at Work.

1. Harvesting in the most complete manner from eight to ten acres per day.
 2. Harvesters to suit all kinds of mowers.
- Every Machine Warranted. Our Motto: "Not how Cheap, but how Good."**
 No drilling holes in Mower Bar or Inside Shoe. A wrench is all that is required to attach it to any mower. Give your orders to any of our local agents, or send direct to

TOLTON BROS., Limited - GUELPH, ONT.

Market Review and Forecast

The Trend of Markets—Supply and Demand—The Outlook

Toronto, July 25, 1904.

General wholesale trade continues quiet, being affected by the usual mid-summer lull. The money market rules steady at about last quotations.

WHEAT

Though there have been fluctuations, the wheat market has ruled strong and active during the past ten days. There has been much speculative buying due to crop damage reports and a large decrease in the available supply on both sides the Atlantic. Though there have been large decreases in the total world's wheat supply in sight during the past few weeks, still it shows an increase of 9,720,000 bushels as compared with this time a year ago. The American crop report for July shows little improvement in fall wheat conditions over that for June. Conditions for present prices being maintained for some time are favorable, and some good authorities predict that we shall not see lower prices for wheat for considerable time. Locally, the market rules firm at 97 to 92c. for red and white; 78c. for goosie, and 85c. for spring; at outside points, shippers' quotations.

COARSE GRAINS

The market for coarse grains rules steady at quotations. There will likely be a big oat crop and a fair one of barley and peas. Corn, during the recent hot weather, has improved considerably, yet the crop will depend altogether upon the fall. The American corn crop is about up to average condition, though the chances are that we shall not see very cheap corn the coming winter.

HAY AND STRAW

Canada has been blessed with another good hay crop, though a rather prolonged dry spell may lessen the output in some of the Maritime Provinces. The one difficulty that farmers have had is in saving the crop in good condition. A large amount of the Western Ontario crop has been well saved but the proportion grows less the farther east one goes. In some of the states, very bad hay weather has prevailed and well cured hay will be hard to get. The English hay market rules quiet. On this side the market rules steady at quotations.

POTATOES AND BEANS

Potatoes are likely to be a good crop, though a great deal will depend upon the weather from this on. The market rules steady. New Canadian are offering here at \$1 to \$1.10 per bus. Old stock is quoted at 70 to 75c. per bag.

Essex and Kent counties, from reports, are likely to have a bumper bean crop. A big yield is now assured and if suitable harvest weather prevails, bean farmers will have a good year. The market is somewhat on the easy side.

EGGS AND POULTRY

Eggs still rule high. It is expected that the total output in Canada will be less than last year. As Ontario points fresh stock is quoted at 14 to 14½c. f.o.b. in case lots. Arrivals here are light and prices rule firm at 16 to 16½c. in case lots.

Poultry receipts are light and prices rule here at 20c. per lb. for spring chickens and 17c. for older ones.

FRUIT

Apples, generally speaking, promise an average yield, especially in Ontario and Quebec. Reports from the States are rather conflicting and it is too early to speak definitely. England is likely to have a good average crop this year. At Montreal, raspberries sell at 10 to 13c. per box; black currants at 40c., and gooseberries at 35c. Receipts of raspberries are fairly large here. The market is active at 10 to 12c. Red currants are easier.

DAIRY PRODUCTS

Cheese prices maintain the low level of the past few weeks. There seems little activity, and a quiet feeling prevails. A factory is very fortunate if it can get a bid at all near 8c., though none have reached it. There seems to be little inclination on the part of English buyers to take hold. They seem to be able to buy their home make to better advantage. Prices at the local markets range from 7¼ to 7 9-16 with occasional higher prices at a few points.

Butter continues dull. The export demand is limited and the English market is dull. There has been a large increase in the British supply. Buyers do not seem to want butter. Locally, the market is easy.

WOOL

The wool markets rule steady and prices seem to have an advancing tendency. Canadian mills are still buying the new crop. Montreal quotations are 12 to 13c. for unwashed, and 19 to 20c. for washed. Here the market rules steady at 19 to 20c. for washed; 14 to 15c. for rejections, and 11½ to 13c. for unwashed.

LIVE STOCK

Trade in live stock has been fairly active, with slightly lower values for export cattle and higher for hogs. The run of cattle has fallen off considerably at the city market, white that at the Junction market has increased. Exporters rule at \$3 to \$5.35 for choice well finished lots. Choice export bulls

sell at \$3.75 to \$4, and medium at \$3.50 to \$3.75 per cwt. Export cows sell at \$3.50 to \$3.75 per cwt.; choice picked lots of butchers' cattle, equal in quality to the best exporters, sell at \$4.75; good cattle, at \$4.25 to \$4.50, and common to medium at \$3.25 to \$4.25 per cwt. Feeders weighing 950 to 1,050 each, of fair quality, sell at \$4 to \$4.25 per cwt. In stockers, choice yearling calves sell at \$3.25 to \$3.50, and other grades at \$2.75 to \$3 per cwt. Milch cows and springers sell at \$25 to \$50 monthly. Calves sell at \$3 to \$8 each, or \$3.50 to \$5 per cwt.

Export sheep sell at \$3.05 to \$3.75 for ewes, and \$3 to \$3.25 per cwt. for bucks. Spring lambs sell at \$3.25 to \$4.25 each.

Hogs have advanced to \$5.40 for selects, and \$5.15 for lights and fats. A weaker feeling is reported. The "Trade Bulletin" cable of July 21st quotes the London bacon market as follows: "The market dull and 6d. lower, and holders are pushing sales."

TORONTO JUNCTION

The run of cattle at the Union Stock Yards has largely increased during the past few months of the year. For the week ending July 23rd, there were 173 cars made up of 3,430 cattle, 284 sheep, 87 hogs, 37 calves and 5 horses. Prices rule about the same as at the city market.

Prince Edward Island

Warm weather. Very little rain during the latter part of June up to the 13th of July. The crops were beginning to suffer from the drought, and the grub was industriously at work in the turnip fields. Many fields have been re-seeded. Very early, or very late in the season appears to be the best time to sow turnips in order to escape being destroyed by the grubs. On the night of July 13th we had some beautiful showers, which were warmly welcomed by every farmer. Hay is reported rather light in some sections of the country. Some fields are almost covered with daisies.

Potatoes blossomed early and look well. There is promise of an abundant crop of apples.

The market was well attended on July 15th. Offerings were large and sales brisk.

The Canadian Produce Markets at a Glance

The highest quotations of prevailing prices for standard grades of farm produce in the leading markets on the dates named. Poorer stuff lower.

Date	Toronto	Montreal	St. John	Halifax	Winnipeg
	25	25	15	25	22
Wheat, per bushel.....	\$ 0 92	\$ 0 95	\$...	\$ 91 ½
Oats, per bushel.....	32 ½	37 ½	41	42	39
Barley, per bushel.....	41	49	50	50	42
Peas, per bushel.....	61	71	74	73
Corn, per bushel.....	45	57	55	57
Flour, per barrel.....	3 70	4 05	5 00	5 00	4 15
Bran, per ton.....	15 50	15 50	18 00	18 00	16 00
Shorts, per ton.....	19 00	18 00	20 50	20 50	17 00
Potatoes, per bushel.....	70	60	49	50	60
Beans, per bushel.....	1 10	1 30	1 50	1 80
Hay, per ton.....	9 00	10 00	13 00	14 00	10 00
Straw, per ton.....	5 50	6 00	7 00
Eggs, per dozen.....	16 ½	15 ½	15	15	16 ½
Chickens, per pound, d.w.....	15	18	18	20	16
Ducks, per pound, d.w.....	15	18	18	20	17
Turkeys, per pound, d.w.....	15	16	14	14 ½	16
Geese, per pound, d.w.....	10	11	12	14
Apples, per barrel.....	5 00	4 75	3 25	4 50	5 75
Cheese, per pound.....	18	17 ½	19	20	16
Butter, creamery, per pound.....	13	14	15	16	12
Butter, dairy, per pound.....	5 35	5 40	5 25	5 25	4 00
Cattle, per cwt.....	3 75	3 50	4 25	4 25	4 75
Hogs, per cwt.....	5 40	5 00	5 50	5 50	4 75
Veal Calves, per cwt.....	5 00	5 25	5 00	5 00

CHARLOTTETOWN MARKETS

Beef, small, 10 to 14c. per lb., per gr. 6 to 9c.; pork, 5½ to 5¾c.; lamb, 10c. per lb.; fowl for export, 8c. per lb.; chickens per pr., 40 to 60c., not in brisk demand for export; butter, fresh 17 to 18c. per lb., tub 16 to 17c.; eggs, 13 to 14c. per doz.; potatoes, 25c. per bus., in poor demand, very little export trade; oats, 40c. per bus.; hay per cwt., 60 to 65c.; flour per cwt., \$2.20 to \$2.50; oatmeal, 4½ to 3c. per lb.; wild geese each, 80c. to \$1; little pigs, ½ to 4c. per pr.; mackerel, fresh 10c. each; codfish, 10 to 12c. each.

SUMMERSIDE MARKETS

Barley per bus., 40 to 45c.; beef carcass per lb., 5½c.; butter, 16 to 17c.; calf skins, 4c. per lb.; eggs, 12c. per doz.; hay, \$10 to \$10.30 per ton; flour per cwt., \$4.80; oatmeal, per cwt., \$2.25; oats, black, 35c., white, 34c. per bus.; pork, 5½ to 6c. per lb.; wheat, 75 to 80c. per bus.; potatoes per bus., 20c.; hay, \$10 to \$10.50; turnips per bus., 15 to 16c.; buckwheat, 10c. per bus.

About 2,500 boxes of strawberries were taken over by the Princess on July 12. It is true that the berry industry on the island is growing fast.

Henry McGregor, lot 48, recently bought a 3-year-old MacQueen filly from Peter Stewart, Mount Albion, for \$140.00.

John Green, Kingston, has refused \$135.00 for a 1-year-old MacQueen filly.

The Dominion Packing Co. were paying 4½c. per lb. for suitable bacon hogs on July 14.

Numbers of tourists are visiting the island.

The cheese board met on July 8. Orwell 125, and Stanley Bridge 160 sold to Carvell Bros. at 7½c.; Union 160, Kensington 250, and Hazlebrook 122, did not sell, and all the other cheese boarded sold to Dillon & Spillets, at 7½c. The Board of Trade Point 50, Lakeville 112, St. Peters 73, East River 44, Red House 73, New Perth 175, Cornwall 90, Dundas 150, Gowan Brae 88, and Kirkcra 120.

The P.E. Island exhibition will be held in Charlottetown, Sept. 27 to 30, inclusive. A large attendance is anticipated. A.R.

Attractions at Ottawa

At the Canada Central Fair this year the chief spectacular attraction will be a reproduction of the Battle of Inkermann, one of the decisive events of the Crimean war. This event, and the magnificent fireworks display will be in charge of the T. W. Hand Company, a guarantee of their effectiveness.

Investigating Flax Culture

Mr. A. L. McCredie, specialist, is in Waterloo, making an enquiry into the process of flax culture there, with a view to finding out how the Ontario flax fibre may be improved, should it be found desirable to cultivate it for fine manufacturing purposes.

The Western Fair

Sept. 9th to 17th, 1904.

The members of the farming community who attend the Western this year—and all progressive tillers of the soil find it to their advantage to set apart one or two days for a visit to Canada's Greatest Agricultural Exhibition—will be particularly interested in the changes wrought in some of the departments.

For instance, there will no longer be a cramped up dairy hall, with insufficient room for the exhibits of cheese and butter, and machinery, as well as the "Butter-making Contests" which are of

such vital importance to every farmer's wife and daughter.

In place of the old hall a new dairy building, to cost ten thousand dollars, is being erected, and it will be found that the exhibition has needed for so many years. In the preparation of the plans the greatest care has been exercised to include everything, even to the smallest detail, to make the structure of the best possible class for dairy purposes. What will attract great attention will be the series of butter-making contests, for which good prizes are to be given.

Another great change will be in the Agricultural and Horticultural Hall. A portion of this building was heretofore used for dairy purposes, but the erection of the new dairy building has resulted in the space being given over to agricultural and horticultural purposes, thus avoiding the crowding found necessary in the past.

Military Horses at Local Fairs

Supt. Cowan has been informed by the Militia Department that four troopers and a sergeant will be permitted to attend a circuit of fall fairs in Western Ontario, chiefly in Lambton county. The men will be equipped with horses of the type farmers should raise for military purposes, and expert judges will give addresses on the subject. Incidentally the soldiers will give exhibitions of work in riding, sword using, etc.

American Breeders' Association

The American Breeders' Association organized at St. Louis last spring, is progressing favorably. Everyone interested in plant and animal breeding is being urged to become a member. The Secretary, Prof. W. K. Hays, St. Anthony Park, Minn., to whom all remittances are made, reports daily increases in membership. The fee is only \$1 per annum, and is within reach of all.

Scottish Clydesdale Stud Book

The twenty-sixth volume of the Scottish Clydesdale Stud Book has been issued. The animals registered number 779 under the head of additional produce, 557 under the head of mares with produce, and 425 under the head of stallions. These numbers compare with 611, 444, and 405 in last volume. The chief cause of the increased entry was the enhanced foreign demand during 1903, the number of export certificates granted in that year being 411 as against 266 in 1902 and 167 in 1901. The 411 exports were distributed as follows:—Canada, 275; Russia, 68; U.S.A., 34; South America, 10; Italy, 8; South Africa, 6; Germany, 6 and New Zealand, 40.

Patent Report

For the benefit of our readers we publish a list of patents recently granted by the Canadian Government through the agency of Messrs. Marion & Marion, Patent Attorneys, Montreal, Canada, and Washington, D.C. Information regarding any of the patents cited will be supplied free of charge by applying to the above named firm.

James Gardiner, Neepawa, Man., belt guide; Joseph A. Moraw, Portage la Prairie, Man., extensible bonnet; Edward Bell, Teeswater, Ont., beet choppers; Arthur Labelle, Montreal, Que., snow plow; Alexander A. Wilson, Montreal, Que., fish way; Louis Boudrias, Montreal, Que., shears for cutting bolts, rivets, etc.; John T. Crossley, Bytheswood, Ont., tiling machine; Messrs. Harbottle & Robson, Gainsborough, Assa., shock loaders.

The Farming World

Devoted to Country Life in Canada

J. W. WHEATON, B.A., Editor

D. T. MCANISH, Manager

The Farming World is a paper for farmers and stockmen, devoted to country life in Canada, published on the 1st and 15th of each month, with illustrations.

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Kinochtry Stock for the Guelph College

The Hon. John Dryden, Minister of Agriculture for Ontario, and Prof. Day, of the Guelph Agricultural College, Canada, have just visited Kinochtry and Fictonhill, and have selected for the stocks there some representative specimens of A-A, cattle and Border Leicester sheep for the College. A beautiful and promising Heather Blossom yearling bull, by the 350 guinea bull Eclador, and a Queen Mother three-year-old cow with calf at foot have been taken. The sheep are five stylish and typical shearing ewes, accompanied by a first-class shearing ram, sired by the Nicholson champion of the Aberdeen "Highland." This ram has retained his shape and quality, and will likely stand amongst the best of them at Perth next week. It is a high compliment to Mr. Ferguson that animals from his flock and herd should have been selected for the stocks of the world-famed Guelph Agricultural College.—North British Agriculturist.

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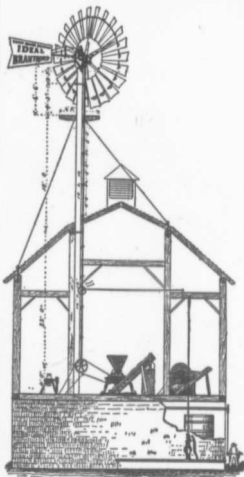
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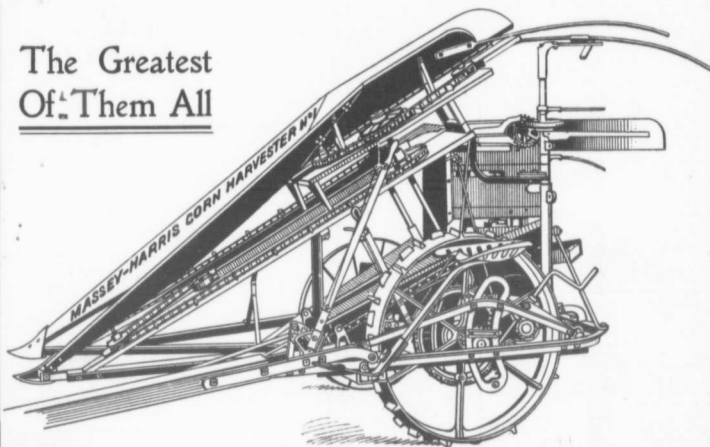
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