

**PAGES  
MISSING**

## BRUCE'S RECLEANED FARM SEEDS

The Seed Control Act of 1905, an Act respecting the inspection and sale of seeds, which took effect on the 1st of September last, makes it a criminal offence to sell or have in possession for sale, for the purpose of seeding in Canada, any seeds of Cereals, Grasses, Clover and Forage Plants, unless they are free from the seeds of certain noxious weeds, which are enumerated in the Act. The Act admits that absolute purity in respect to the seeds of the weeds named is not possible of attainment, and provides a minimum standard of purity under which seeds cannot be sold without the seller being held liable to the penalties imposed by the Act. Under the conditions named we have been scrupulously careful in selecting the best qualities obtainable, and with our excellent facilities for recleaning our seeds our patrons' interests will be carefully safeguarded. Our Clovers and Timothy Seeds will be sent out in sealed bags, and samples of the seeds we offer have been tested in the laboratory of the Seed Department at Ottawa.

We offer for immediate orders, as market fluctuates, subject to being unseed, prices here, as follows:

SEED GRAINS, ETC.		SEED GRAINS, ETC.		CLOVER SEEDS.	
Per bushel.		Per bushel.		Per bushel.	
Barley, Improved, 6-rowed.....	\$0 70	Oats, Mortgage Lifter.....	\$0 65	Alsike, Extra Fancy.....	\$10 00
do Mandacheuri.....	75	do New Silver Mine.....	65	do Fancy.....	9 50
do Success.....	80	do Waverley.....	65	do Choice.....	9 00
do Hulless, white.....	1 20	do American Banner.....	60	do and Timothy, Mixed.....	4 50
do Hulless, black.....	1 20	do Australian White.....	65	do and White Clover, Mixed.....	8 00
Beans, white, hand-picked.....	2 10	do Giant Swedish.....	65	Crimson, Fancy.....	9 50
do Marrowfat, hand-picked.....	2 40	do Holstein Prolific.....	65	do Choice.....	9 00
do Soja or Soy.....	8 60	do Ligowo.....	65	do Red, Extra Fancy.....	9 50
Buckwheat, Common.....	80	do Siberian.....	60	do do.....	9 25
do Silverhull.....	85	do Sensation.....	65	do do.....	9 00
Corn, Compton's Early.....	1 25	do 20th Century.....	65	Mammoth, Fancy.....	9 50
do Angel of Midnight.....	1 25	do Blue Prussian.....	1 20	do Choice.....	9 00
do Canada Yellow.....	1 25	do Golden Vine.....	1 00	White, Extra Fancy.....	15 00
do White Flint, North Dakota.....	1 25	do Grass, Bug-proof.....	1 00	do do.....	13 50
do Longfellow.....	1 25	do Potter.....	1 15	Yellow, Fancy.....	7 50
do King Philip.....	1 25	do Marrowfats.....	1 50		
do Mortgage Lifter, New.....	1 10	Potatoes, Extra Early, Ohio.....	1 10	GRASS SEEDS.	
do Butler Dent.....	1 10	do Bruce's White Beauty.....	1 10	Per 14 lbs.	
do Improved Leaming.....	1 10	do Early Six Weeks.....	1 10	Blue Grass, Canadian Fancy.....	\$ 1 25
do Cloud's Dent.....	1 10	do Pride of Aroostook, New.....	2 00	do do Kentucky Fancy.....	2 25
do Cuban Giant.....	1 10	do Noroton Beauty, New.....	5 00	Bromus Inermis, Fancy.....	2 10
do Mastodon.....	1 10	do Early Bovee.....	1 10	Meadow Fescue, Fancy.....	2 10
do White Cap Dent.....	1 10	do Sir Walter Raleigh.....	1 00	Orchard Grass, Fancy.....	2 80
do Wisconsin White Dent.....	1 10	do Rye, Spring.....	1 25	Red Top, Fancy.....	2 10
do Selected Red Cob.....	95	do Speltz, per 40 lbs.....	90	do Common.....	1 25
do do Mammoth White.....	90	Tares, Black.....	1 75	Lawn Grass, Bruce's.....	2 80
do do Yellow Dent.....	85	Vetch, Hairy.....	5 50	Per bushel.	
do Evergreen Ensilage, 40 lbs.....	1 60	Wheat, Wild Goose.....	1 25	Hungarian.....	\$ 1 00
Cow Peas, Whippoorwill.....	2 10	do Manitoba Red.....	1 40	Millet, German.....	1 50
do do Mixed.....	1 85	Flaxseed, Screened.....	\$3 00	do Common.....	1 00
Oats, Scotch, Black Tartarian.....	1 20	do Meal, pure.....	3 25	do Japanese.....	3 00
do Canadian Black Tartarian.....	70	Oil Cake, fine ground.....	1 75	do Pearl of Pencilaria.....	3 00
do Black Goanette.....	80	Rape, Dwarf Essex.....	6 00	Timothy, Extra Fancy.....	3 00
do Daubeney.....	85	Sugar Cane, Amber.....	6 00	do do.....	2 75
do New Scottish Chief.....	85	Kafir Corn.....	5 00	do Choice.....	2 50
				do mixed with Alsike.....	2 50

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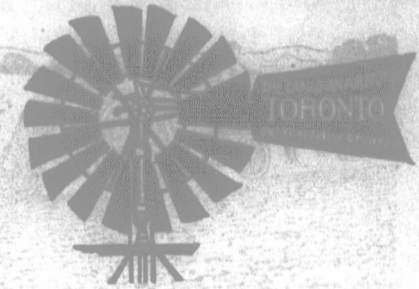
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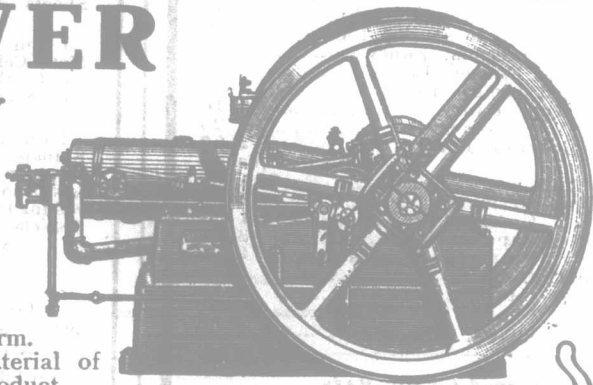
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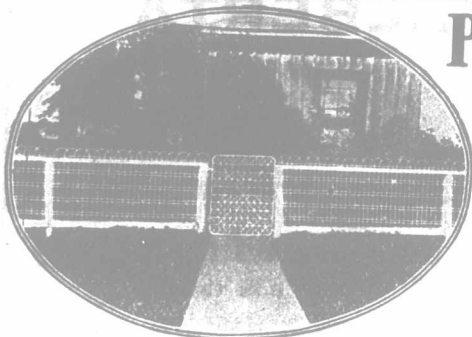
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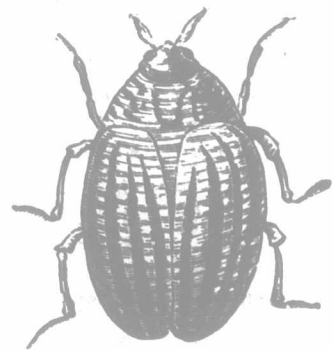
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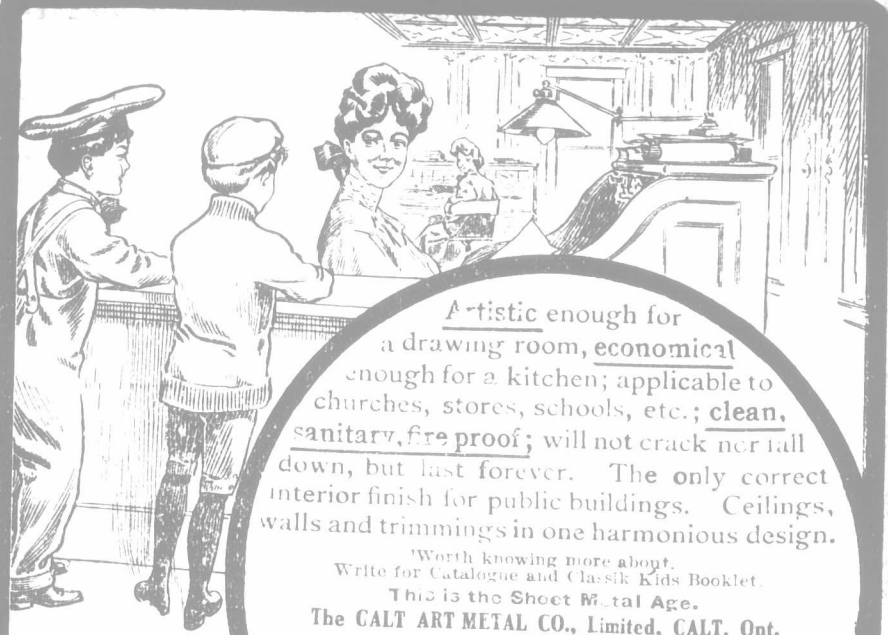
## SPRAY, BROTHERS, SPRAY

(Canadian Potato-Growers' Song.)

Quickly when comes the growing-time.  
The potato plant grows and the potato bugs climb;  
Soon as the blossoms have fallen down,  
The codling-moth gets a big hustle on.  
Spray, brothers, spray, the "bugs" grow fast,  
And the fungi strike like a baneful blast.  
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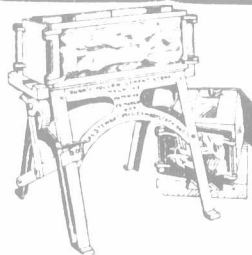
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# The Farmer's Advocate and Home Magazine

"Persevere and  
Succeed."

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1866.

VOL. XLI.

LONDON, ONT., AND WINNIPEG, MAN., MARCH 22, 1906.

No. 704

## EDITORIAL.

### Prepare for Seeding.

The progress of seeding operations, which will soon be in season, depends so much upon being prepared and ready to push the work just as soon as the land is in fit condition, it may be in order to remind the more easy-going of the importance of economizing time, now so precious, owing to the scarcity of suitable help on the farm. Early sowing, it is conceded, generally ensures the heaviest yields of grain and the surest catch of grass seeds, and if the land is in workable condition at all, especially in the case of clay soil, the seed-bed is more easily prepared when slightly moist than later, when it may become too dry, and breaks up in lumps or flakes, requiring extra work to reduce to a fine tilth. In order to be prepared to make the best possible use of the time when seeding commences, it is important that the seed be provided, cleaned and measured in advance, and the teams, the harness and implements be all in the best condition to do their work well, and do a good share of it every suitable day.

The gospel of good seed has been so persistently preached through these columns, and the soundness of the doctrine so well demonstrated in various and repeated experiments, there should be a general observance of greater care in the selection and preparation of the seed, clean, sound, plump seed only being sown. To this end, it will be well to take time by the forelock, and be ready with well-cleaned seed before the time for seeding arrives. The series of articles by successful, practical farmers appearing in the farm department of this issue may, it is hoped, prove helpful in the way of hints to some who are undecided as to the best varieties to sow, and the best methods of cultivation, but at the same time it is scarcely necessary to remind experienced farmers that much depends upon the character of the soil, the climatic conditions of the district, and other circumstances, and that judgment must be used in the adoption of new methods, while new varieties, as a rule, had better be tried first on a small scale.

The great value to the farmer of clover as a fertilizer, as well as one of the best of stock foods, has been so fully proven it is of the utmost importance that if it be freely sown, not only as part of a regular system of rotation of crops, but wherever there is a fair prospect of a catch, even if the land is to be plowed in the fall of the first season of its growth, as the pasturage it will afford after the harvest of the grain crop, and its fertilizing value to the succeeding crop, will generally more than compensate for its cost.

It goes without saying that great care should be observed in the purchase of clover and grass seeds, that only sound, tested seed, free from the seeds of noxious weeds be sown, for these robbers multiply rapidly enough without paying for their seed and cultivating them.

A word of caution as to the management of the teams may not be out of place here. If the horses have not been doing regular work during the winter, their muscles and the skin of the shoulders will be soft and tender, and if the weather be warm, they should be carefully driven and not overworked, as from sweating the shoulders are liable to get chafed and sore, making it uncomfortable for both horses and driver. For the first few days it is wise to not feed or water heavily, or overdrive, in order that they may get used to their work by degrees. This applies especially to young horses that have not been accustomed to work. The neglect of these pre-

cautions may result in a disabled horse and serious delay of the work. Care should be observed that the collars fit comfortably, and that the draft comes equally on the shoulders, and not unduly on the point of the shoulder or the top of the neck. Then, in warm weather, causing much sweating, a short rest should be given occasionally, the collars being pulled up from the shoulders to allow them to cool; the shoulders should be washed every evening with salt water, to harden them, and the collars should be dried and-scraped, or brushed clean. Sweat pads are now on sale which may be used to advantage to prevent chafing of the shoulders, and for all they cost, it may be a good investment to secure and use these, since so much depends upon the teams being kept in sound condition.

### In the Extra Lies the Profit.

The aphorism that stands as the caption of this article embodies a principle which has long been realized by merchants and manufacturers, but which to the farmer has been somewhat obscured by the fact that he is usually his own manager, his own laborer, and oftentimes his own rent collector and tenant, hence a larger proportion of his sales receipts is straight income than in the case of the ordinary city business man. Add to this that he seldom keeps books, and also that his business and living are not divorced, as with the financiers of other industries, and it is not surprising that his ideas of profit are sometimes not very clear-cut. Yet, all will admit it is most important that we should make accurate analysis of our returns if we are to aspire above the level of mere wages, with which a good many seem content. If farmers generally were to cast up accounts, take an inventory, figure out compound interest on the farm investment, allow themselves and their families reasonable wages, and deduct a fair cash value for living expenses, how many could show a dollar profit? Some who have studied the matter have despaired of making such a showing, contenting themselves with the compensating advantages of health and independence afforded by their calling, and concluding that farming is not sufficiently remunerative to satisfy all the factors of the economist's equation. We grant there is ground for the opinion, but yet, when all is said and done, is the smallness of the farmer's profits due wholly to parasitism by other classes, or must something be charged to a looseness of the principles on which his business has been conducted? If so, this should be our first concern, and it is a material service any farmer renders the community who produces a higher quality and a greater quantity of goods with less labor and at smaller expense.

Strong emphasis should be laid on quality. There is a limit to the amount of food per head the world can consume, and mere increase in quantity might glut markets and depress prices. In this age, the tastes, not only of foreigners, but of our own city consumers, are yearly becoming more fastidious; they demand better, more uniform and finer-finished goods, and an increasing class is glad to pay cheerfully an extra price for an extra article. We sustain a loss that profits no one when we sell for 15 cents a pound butter which, prepared with a little more care and skill, somebody would have been pleased to buy at 20 cents. There will always be money for him who will take the pains, make the effort, and use the intelligence to produce an extra quality.

We sometimes hear certain progressive methods disparaged as hardly worth while, because they do not result in striking increases of crop or values. This is not the right view of the matter,

The bulk of the returns from any legitimate business proposition go to offset the cost of production. It is the little extra return that yields the profit, and it may easily transform a loss into a gain. It is the extra pound of meat produced from a given amount of feed, the extra bushel of grain from a given area of land, the extra half-acre of plowing accomplished by using a third or fourth horse, the extra ton of crop produced by a little better rotation, the extra pound of milk per day as a result of a daily milk record, and more important still, the extra dollar obtained for produce by reason of its superior quality—wherever we turn, in all the ramifications of our business, in the extra lies the profit every time. The world is full of ordinary men, marketing ordinary stuff at ordinary prices. The one who prospers amid this competition is the one who can do just a little bit better than his neighbor. Such a one not only bettera himself, but, since small profits are all we have any reason to expect, we should multiply these by increasing our turnover. A large turnover is made possible by a close study of margins. The man who produces ninety cents' worth of goods at a cost of one dollar cannot afford to borrow capital and hire labor to increase his output, for the more he hires the more he loses. His best plan is to conduct his business on a small scale, with a view to affording opportunity for himself and family to earn wages. The ten per-cent. business loss will, of course, come out of their wages, but that is better than suffering the corresponding loss on a double volume of business. On the other hand, the man who produces a dollar's worth of goods for ninety cents can afford to extend his operations, and the farther he extends—within limits, of course, for farming does not lend itself advantageously to vast extension—the more money he will make. A difference of ten per cent. in cost of production may easily mean the difference between the possibility of a large, profitable business and the necessity of a small, unprofitable one. It pays to study margins closely. It would pay to build a silo, for instance, even if it reduced the cost of producing \$500 worth of meat and milk by only five per cent. each year. A little gain here and there, a little spreading of cost and selling price, is well worth looking after. A very few such gains bulk into a respectable dividend. The great American meat-packing enterprises have paid enormous dividends by effecting small economies on large turnovers. On a smaller scale, and to a less extent, similar principles apply in farming. Let every reader ponder this question, and ask himself whether he could not make various little savings here and there. Am I making the very most from my cows? Am I making every possible cent out of my steers? Am I raising as much feed as I might? Am I employing my hired man's and my own services to the best advantage? Can I afford to work a two-horse team? Can I afford to waste a load of manure? Could I increase my revenue by keeping a flock of sheep? Can I afford to sow poor seed? Can I afford not to keep books and take an annual inventory? Such questions are calculated to arouse thought and stop leaks. Meantime, let each man nail up in his barn, or frame as a motto in his house, that they may come to be emblazoned on his memory, the words: IN THE EXTRA LIES THE PROFIT.

There are two effects modern invention should have: It should lighten the husbandman's toil, permitting him to devote less time to the mere struggle for existence, and more to the improvement of himself, family and home; and it should enable him to produce goods that will command a higher price.

## THE FARMER'S ADVOCATE AND HOME MAGAZINE.

THE LEADING AGRICULTURAL JOURNAL IN THE  
DOMINION.

PUBLISHED WEEKLY BY  
THE WILLIAM WELD COMPANY (LIMITED).

JOHN WELD, MANAGER.

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### Our Western Letter.

What is the West doing in the early spring days of 1906? Growing. That is the answer to the question. Growing as never before, and preparing for a season's immigration that will throw all previous records in the shade. As an illustration of the progress of a Western city, let me tell you the story of a lot.

It was only a small lot, with a frontage of 50 feet, and extending back 130 feet. In 1881 it was sold for \$50, in 1882 for \$100, in 1884 prices soared and the lot changed hands at the magnificent price of \$500. Six years later \$2,500 was paid for the property, and in 1903 it was sold for \$7,500. You might think now that the price was fairly high, but someone thought otherwise, and the same year it again changed hands, this time at \$12,000. For two years the last purchaser held the property, and then, in 1905, he sold it for \$16,000, and the new man resold the same year for \$24,000. Is the story done? No. A few days ago it was sold for \$30,000. That is the story of a city lot in Western Canada. What town was it in? I won't tell you, but it was in the new Provinces, and it is only typical of what has occurred in other towns in the West. It is not a boom; it is due to legitimate demand for a good business location; it is the result of the advancement of Canada and of the Canadian West. Here is the sequel to the story:

Twenty-five years ago the cattle trade of the West totalled twenty-five head. Now there are over nine hundred thousand animals pastured in Western Canada. One-half of these are cattle, and the rest are sheep and horses. Over twenty-five thousand brands appear on the Northwest Government records. That is only one side to the question.

Five years ago there was in wheat a total area of 412,864 acres; in 1905 the area was 1,149,558 acres. Meanwhile, the increased area devoted to other crops has kept pace. These figures apply to the two new Provinces alone, but

they are eloquent with the story of the progress of the Last West. All wealth comes from land; commerce and industry have followed the extension of the agricultural area, and that is how a lot worth \$50 twenty-five years ago is worth \$30,000 to-day. The Dominion Commission of Immigration is responsible for estimating our wheat crop in 1921 at 700,000,000 bushels. This may seem optimistic, but who can tell? Five million acres of virgin soil will be taken up by the incoming tide this year. The West is alive to its unfolding possibilities, and certainly things do move.

A few weeks ago I travelled over the wheat plains of Western Saskatchewan. They seem limitless. North, south, east and west to where the sky line blends with the whiteness of the prairie's winter coat lies a vast area of rich and level land. Here and there a settler's home upon the broad openness of the far-flung plains. A few months more, the golden grain fields, an open sea of wheat—a mine of untold wealth, for at times it almost seems that even the recklessness of the wheat-growing land-robber is powerless to exhaust the soil of its fertility, and that present conditions may continue for many, many years to come. But even in the very center of the wheat country they are building more solidly than upon wheat alone, and in this they are adding to the stability of their agriculture.

R. J. DEACHMAN.

## HORSES.

### Stay with the Right Kind of Sires.

Editor "The Farmer's Advocate":

I am much interested in reading the different articles in your paper on horse-breeding and selection of sires. At the outset, may I ask the question, in the selection of sires, who are we to believe, the importer with his champions, the salesman, general gossip, or the market, or where are we to learn these very important lessons? In writing of this, I refer to draft horses. In the first place, two-thirds of the horses imported should have been castrated, then the market would have very few more good geldings on it. The trouble is, in Scotland anything of a horse colt that they can scrape up a pedigree for is kept for a sire, and goes into the hands of the dealer, and with every good horse you select they put two poor ones on you, or, you can't have the good one unless you pay an outrageous price. In the second place, things will need to take a change or we will lose our draft horses, for if we are foolish enough to be led by the lessons of the recent shows, and take their champions as an example, to breed good geldings and mares, I am afraid the market will turn a deaf ear.

We want a horse with lots of size, quality and thickness, with good large, sound feet and lots of bone, not horses with their breaching and stifles all screwed up and their front legs both driven in the same hole, with no padding of flesh on their back and coarse coats. I will say here, again, let us stay with the good thick-stamp horses, with well-developed quarters, that, when we harness and hitch them, pick up our lines and mount our wagons, we have something to look at. Then, in the third place, we can't believe the salesman, or general gossip, for we get too many opinions. And, in the fourth place, if we want to make our breeding operations profitable, we must stay with what the market demands. It does not matter when we go to market with a good thick, quality gelding, weighing around 1,800 pounds and up, whether he is of any popular strain. There are lots of good strains which, if they had money influence at the back of them, would do our Canadian breeding operations heaps of good and create a demand they are not enjoying. Don't let us lose our draft horse for any popular craze. We hear this voiced on every hand. Some one may say the breeding of good geldings is not the whole tip; we want some good mares. Well, if we get them, so much the better, as long as they are of the type described. We will have more mares to do our work, and raise the kind we want, both of geldings and mares.

Coming back to the importing and selecting of stallions, we must not blame the importer too much for bringing out too many second- and third-class horses, for I believe it is out of this class of horses they make most profits, for too many men, when they go to buy a stallion, get a horse to suit their pile, and, as long as he is imported and registered, he is all right to run at \$10 to \$12, but they can't afford to buy a horse at \$1,800 to \$2,000, and run him at the usual fee. Now, here is where breeders are to blame. When a man buys a really high-class horse, and asks \$15 or more for his use, how many men will pay it? Instead, they will go and use the \$10-horse, and seem to be prejudiced against the good

horse. I don't know why, but it is the case the world over, that a great many men will never use a neighbor's horse, even if he was the best in the world. There are not many who make money out of the horse business. You show me one man who has made money, and I will show you ten who lost about all they had; that is, if they depend on service fees, but if a man has a few good mares of his own he may pull out. In conclusion, I would say, if we are going to breed draft horses, don't use a horse unless he weighs 1,900 pounds and up, of the right kind, with some stamp about him. Too many of our stallions only weigh 1,500 to 1,600 pounds; we want geldings to weigh that, and more. Give the man with the good thick, quality horse (don't forget that) a chance, encourage him, give him a deposit at time of service enough to defray expenses, and enough at collecting time to pay for his horse; and if he proves successful, and makes a little money, don't ask the horseman to always play marbles for fun and pay all expenses. I hope those who are interested in the business will try and help it out.

R. B. YOUNG.

Wellington Co., Ont.

### The Farmer's Horse.

Editor "The Farmer's Advocate":

In briefly outlining our opinion on the above subject, it becomes necessary to take a backward look, and see whether, with the stallions in use during the past twenty years, we have made any progress, or are just simply marking time. Twenty or twenty-five years ago every farmer raised his own horse, and besides, generally had a horse to sell every year. Previous to that date there was a very good, serviceable class of Clydesdale stallions doing service in the Eastern part of Nova Scotia and Prince Edward Island. At the present time those stallions would be considered too light to meet the requirements of the trade. They would weigh from 1,400 to 1,600 pounds, and were active, trappy-gaited fellows, and bred to the common mares of the country, got colts that were eagerly picked up at remunerative prices by American buyers, and also made a splendid farm horse, were just what was wanted for the plow, harrow or mowing machine, and would carry a large load to market, take the farmer and his family to church or to a picnic at a fair rate of speed.

Every summer American buyers came here and took away every sound horse that could be spared off the farm, and right here was where the mistake was made—selling our best mares that should be kept for breeding purposes. Instead of doing so, if those mares were kept and bred to the Clydesdale stallions that have come into the country since, and their progeny again bred to the stallions of the same breed, that are being imported at the present time, then we should have a class of horses second to none on earth. Colts that could be hitched alongside their dams at 2½ years of age, and made to own their own living by doing the ordinary work on the farm until ready for market.

Now, instead of having this style of horse, what do we find? A mixture of everything—Standard-bred, Thoroughbred, Hackney, English, French and German Coach, Clydesdale, Shire and Percheron, and a buyer would have to travel the length and breadth of the county, we might almost say Province, before he could get a carload of any.

Let it not be understood that we have any fault to find with any of the above breeds. There are good horses among them all, and men have made money out of all the different breeds, but the average farmer wants to avoid horses that need a professional trainer to fit them for market. He wants, also, to avoid fads. At the present time the craze is for big, overgrown horses; everything is sacrificed for size. A horse that weighs a ton, or thereabouts, is now considered the right thing to breed to, just because there is a limited demand in the big cities for such a horse, and ignoring an unlimited market right at our door for a quick-moving, active draft or express horse that will weigh from 1,200 to 1,400 pounds—heavy enough for all kinds of farm work, and active enough to pull a load of produce to market at an eight-mile-an-hour gait, and would bring, when sold, from \$150 to \$175. To breed such a horse, it is not enough that the stallion we use should be a Clydesdale, although we are firmly convinced that the Clydesdale is pre-eminently the farmer's horse; still, not every stallion of that breed will fill the bill. We want to select him for his action, quality of bone and conformation, rather than for his size; and, by refusing to sell our best mare colts, we could in a very few years have a class of horses, farm horses in particular, that would make Canada famous, and be a source of pleasure and profit to the individual breeder.

Paton Co., N. S. ANDREW McPHERSON.

Do not try to contradict and confute, nor to belittle and take for granted, but to weigh and consider.—[Paton.]

Management and Care of Stallions.

What I have learned by thirty years of experience, relative to the care and management of stallions, I am willing others should know, and should it prove of service to any one, I shall feel well paid for the trouble I have taken.

A few things that I consider of great importance are, first, before using the stallion to mares let him get some age. No colt will breed as well as an old horse, from eight to sixteen years old, provided the horse has been properly taken care of. Next, avoid all pampering, both as to care and feed. Feed and work him as you would any horse, not overheating or overexerting him. If not situated so you can work or drive him, have a good roomy yard where he can run and exercise at his own free will. There are three things that should be remembered that are not conducive to fertility in the stallion, or to soundness, strength or longevity in his progeny, viz.: Idleness, pampering with unhealthy food, and putting him to service when too young. If these matters are observed, and you will limit your horse to the proper number of mares, you will get good results.

As to feed, we would give him a liberal quantity of oats and bran, two parts oats and one of bran, twice a day, and once daily through the mare season a good feed of boiled barley, with a little flaxseed cooked with it; mix with bran, and feed hot at night. This, with good timothy hay and sufficient grass to keep the bowels open, should constitute his daily feed, with perhaps a few ears of corn occasionally. Avoid feeding hay in the morning and giving large quantities of water, for, by observation, you will soon learn that no horse serves well when his belly is distended with hay and water. To prove and demonstrate this, take your horse out and let him serve a mare before feeding him; then, the next morning give him all he can eat and drink, and note the difference. This may not appear upon the face of it like a matter of great importance, but I maintain it is, as it saves the horse a good many services and extra labor. By following these few simple rules you will have as good results as though you had read all the books written on this subject. Remember this one important matter, keep your horse healthy and as near a natural condition as possible. To do this, you must feed and exercise him properly. This must be continued all through the year. The man who keeps his horse right just through mare season, and then confines and keeps him in an unhealthy state all the rest of the year, will find himself with an unprofitable stallion in a short time.—(F. C. Warren, in Wis. Exp. Station Bulletin.)

Foaling Time.

As the foaling season is now approaching, pregnant mares should receive a little special attention. It should not be forgotten that a mare in the advanced stages of pregnancy has, in addition to sustaining herself, a nearly matured foetus to sustain, and as this calls largely upon her resources, she should be fed and cared for accordingly. Her food should be plentiful, of first-class quality, and of an easily-digested nature. She should be fed liberally on bran, with a reasonable percentage of chopped or crushed oats, in addition to good hay. A cupful of linseed meal and a carrot or two daily, tend to aid digestion and prevent constipation, and, at the same time, are relished. The too-common practice of feeding solely on dry hay and oats, while giving good results in working horses, is not by any means the best for breeding mares. The bran and succulent food mentioned tends to keep the digestive organs normal, and also stimulates the lacteal apparatus to the desired activity. While pregnant mares should receive some special care, they should not be pampered and kept in idleness, from the too-common idea that sustaining themselves and foetuses is sufficient labor. They should have regular but gentle exercise. Ordinary light farm work is much better than idleness. Of course, they should not be required to perform heavy labor that will entail excessive muscular or respiratory exertion, as there is danger of such producing abortion; but the mare that is kept in fair condition and regularly exercised or kept at light work will, with few exceptions, produce a stronger foal than her sister that has been pampered and kept in idleness during the whole or greater part of her period of gestation. This applies particularly to the last few months of gestation. If it is not practicable to give her exercise in harness; she should be turned out in a yard or paddock for at least a few hours every fine day, when the ground is not too slippery. Care should be taken to not turn her out with strange or vicious horses that might worry or kick her, but some safe means of forcing regular exercise should be observed, and continued until she shows signs of approaching parturition. As the period of gestation is variable in different animals, and even in the same animal in different years, we cannot tell with reasonable certainty when the parturition will take place. In round figures, we may say that 11 months is the average

period, but observation teaches us that this is by no means constant, and that the period varies from ten to thirteen months, and, in rare cases, we may notice a greater variation. Hence it is wise to be prepared for the event at any time after the tenth month. When in the stable, she could be kept in a large, comfortable box stall that contains no boxes or mangers in which the foal may drop in case she stands, as sometimes mares do during parturition. It is unsafe to allow a mare to foal while tied in a stall, as she is unable to give the foal the necessary attention, and it may perish from this cause, or, if it be a strong one, and is able to get up and walk around without any attention from either dam or man, it is as likely to walk into the stall of another horse as that of its dam's, and, in its endeavor to get nourishment, is liable to be injured or killed. The box in which the mare is kept should be cleaned out regularly, and a liberal supply of short dry straw given daily. It is a mistake to allow manure, both solid and liquid, to accumulate, as it heats and vitiates the air, as well as favors the multiplication of microbes of different kinds. In support of this practice, it is claimed that the presence of manure upon the floor prevents it becoming slippery, and thereby avoids accident to the mare from this cause, but we find that if the stall be thoroughly cleaned out daily, and especially if a little slacked lime be scattered over the floor regularly, it will not become dangerous in this respect. The lime performs a twofold function—it keeps the floor dry, destroys and prevents the formation of odors, and destroys microbes, which, if present, may cause trouble in the foal. The most dangerous of these microbes, present in stalls which have not been properly looked after, is that form which gains entrance through the umbilical opening of the foal, and causes that serious and usually incurable disease known as navel-ill or joint-ill. When the usual symptoms of approaching parturition, with which all breeders are familiar, appear, the mare should be carefully watched. There are many reasons why a mare about to bring forth young should be watched. We will discuss these in a future issue.

the manure remains to enrich the fields. Cases are cited, by way of example, where men have received more than twice as much per bushel for their barley, plus the manure, when sold in the form of hogs, than if sold on the ordinary market in bags.

IMPORTANT QUESTIONS.

But will the demand for animals and animal products continue? Can increases be reasonably expected? Should farmers generally still devote their chief attention in this direction. We are satisfied that affirmative answers to these questions are logically correct. Our export trade to Great Britain in animal food products has been steadily increasing, and we see no good reason why it should not continue, with the intelligence and resources at our command. Competition there is keen, but Canada ought to be able to hold her own in that conflict. With the turn of population and industry Canadaward, the home consumption is bound to increase enormously.

WHAT THE MARKETS SHOW

Our readers are familiar with our output of live cattle and of bacon to Great Britain. As another illustration, let us look at the trade done last year on the Western Cattle Market, Toronto.

[Note.—The market days here are Tuesday, Thursday and Friday, but so little business is transacted on the latter that it may be left out of account. The lessee of this market is Mr. Wm. Hunter, who pays the city a rental of \$36,000 for the year.]

The receipts for 1905 were reported as follows: Cattle, 127,476 head; sheep, 150,136 head; hogs, 128,475 head; calves, 16,619 head.

These figures give very little idea of the number of hogs handled in Toronto, because under modern conditions they have been going direct to such establishments as the Wm. Davies Packing Co., and Park, Blackwell & Co. (the latter handling a proportion of beef, as well as their staple, hogs). The Harris Abattoir Co. last year dressed for the Wm. Davies Co., who have some 50 meat stores in Toronto, besides many others scattered throughout the Province, some 80,000 cattle, 40,000 sheep, and 5,000 calves. Then there are the Wm. Leveck and Puddy Bros' establishments, besides, perhaps, a score of smaller ones. In the matter of hogs, it is estimated that not over ten per cent. of those dressed in Toronto now go through the market. With regard to the bacon-hog supply question, it might be remarked, parenthetically, that there appears to be keen competition for supplies, but the records of one of the large concerns referred to indicated a very steady decline in the percentage of the top class of their four bacon grades since last November. At a recent date those in the best grade had declined to about 30 per cent. of the hogs dressed in the week, while the lower grades increased. The manager attributed this to a holding of the hogs too long for better prices, resulting in their becoming too fat. He did not think it was a result of breeding a different type of hogs, as probably ninety per cent. of those looking in were more or less of Yorkshire blood. Any change of breeding policy on the part of farmers was not yet apparent to him, but we fear it will be felt later on. However, this is on the side.



Revelanta (11876). Clydesdale stallion; brown; foaled July, 1901; winner of first prize in the open class for aged horses, Scottish Stallion Show, Glasgow, 1906.

LIVE STOCK.

Shall the Farmer Grow More Live Stock?

At occasional intervals the complaint reaches us that "The Farmer's Advocate" devotes an undue proportion of attention, by articles and by illustration, to the pure-bred live-stock interests of the country. But right on the heels of an observation of this kind comes a reverse assurance from a man who travels from one end of Canada to the other, and whose opportunities to judge are as good as they are wide, that our plan of campaign has been the correct one, and that it has resulted in very marked improvements. With out the blood of the pure-bred, progress would speedily become retrogression. Well-bred stock costs no more to raise than inferior stuff, while the returns in satisfaction and cash are vastly greater. Furthermore, the rearing and feeding of live stock on the farm, while it requires a decidedly higher grade of farming in order to succeed, still it enables the farmer to obtain a better price for his coarse grains sold in the form of meat or other products, and, at the same time,

NEW MARKET DEVELOPMENTS.

Out at Toronto Junction there is accumulating evidence of the faith of business men in the possibilities of Ontario to produce raw materials to feed humanity. The new Union Stock yards, equipped after the most up-to-date fashion, with covered areas and brick floors, can, if necessary, handle daily some 4,500 cattle, as many sheep, and some 3,000 hogs, and the company have land, so that these facilities can be almost indefinitely increased. They have excellent railway facilities, both by the C. & N. R. and C. P. R. These yards began business under very considerable handicaps in the summer of 1903, and not taking into account calves, the business of the past two years has been as follows:

Table with 2 columns: Item and Quantity. Cattle 122,000, Sheep 112,218, Hogs 128,475.

During January and February the run of cattle per month has been between 6,000 and 7,000 head, besides the quota of sheep and hogs. Monday is the big market day of the week at the Junction. The future of this market is assured. With the growth of packing-house and abattoir interests immediately adjacent to the yards, the manager, Mr. H. H. Hodgson, realizes a redoubled assurance for the future.

#### NEW PACKING ESTABLISHMENT AND ABATTOIR.

Two large establishments on St. Clair Street, facing south, and overlooking the Union Stockyards, are to be completed about June of the present year. One of these is the Levack & Martin Abattoir Co., who are covering nearly 1½ acres with a modern dressed-meat and fertilizer establishment, with a capacity for handling some 3,000 cattle and probably 8,000 sheep and lambs per week. Five hundred head of cattle per day can be killed, and there will be hanging space for 3,000 carcasses of dressed beef. Mr. Levack is the well-known Toronto live-stock and meat trader, and Mr. Martin is an American, who is at the back of a similar new big concern in Montreal. Mr. W. H. Thurlow, of Baltimore, is the engineer in charge. This establishment approximates an outlay of some \$200,000.

One lot further west is a still larger, and, we understand, more costly, concern, that of the old and successful Toronto house, Gunn Co., Ltd., that will cover probably two acres, capable of disposing of 5,000 hogs per week, and 200 head per day each of cattle and sheep. Judged by the work, as in progress, it will be a model institution.

#### THE GENERAL OUTLOOK.

With the foregoing and existing establishments in full swing, there would seem to be every reasonable assurance that the Ontario farmer, in whose favor Nature has provided everything with a generous hand, should increase the number and quality of his herds and flocks, in order that he may take full advantage of the opportunities developing at his door, providing that the prices and cost of production can continue to be so adjusted as to leave him a fair margin of profit. As yet the labor problem is an uncertain element from the farmer's standpoint, and there is no doubt room for the application of more thoroughgoing and closer business methods in many quarters on the farm in live-stock rearing. Men of a conservative turn of mind, well versed in the present trade in Ontario meat products, consider an early increase, to the extent of 80 to 40 per cent. in animal food products, as a not unreasonable possibility.

#### Our Scottish Letter.

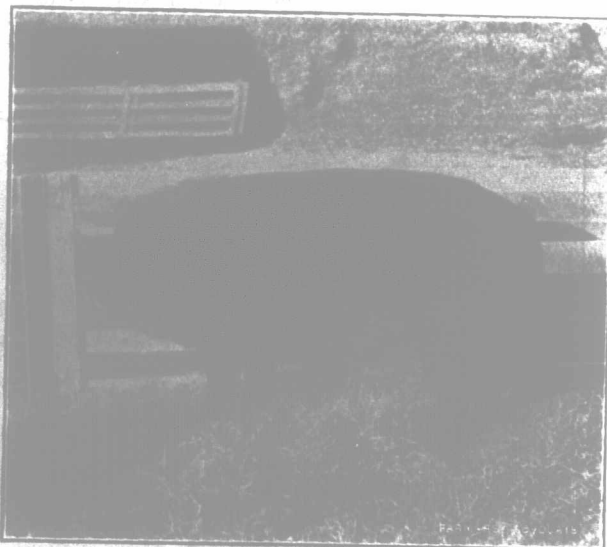
The spring bull sales are over for another year. Shorthorns had a top price of 1,500 gs.; Aberdeen-Angus a top price of 270 gs.; Highlanders, a top price of £121; and Galloways, a top price of 41 gs. It seems like a dream, but the facts are all there, and the one prosperous department of British agriculture to-day is the breeding of pedigree stock. The Perth Shorthorn sale of 1906 constitutes a record. Never before have such prices been recorded for yearling bulls, and the grand average of £84 1s. 5d. for 251 bulls is something to boast about. Last year the corresponding figure was £49 11s. 11d., but prices which then made men wonder were this year nothing accounted of. The outstanding averages were made by Lord Lovat, whose Beaufort Castle herd in Inverness-shire has a world-wide fame; and the two James Durnos, in Aberdeenshire, Jackston, and Westertown. Lord Lovat got an average of £471 9s. for eight yearling bulls. His first-prize group of three made an average of £864 10s. The first-prize single yearling, calved before 1st March, 1905, was Broadhooks Champion, a great fleshy red, which Mr. Miller took off to Buenos Ayres at 1,500 gs., or £1,575. The fifth- and the ninth-prize winners also went to Buenos Ayres, their buyer being Mr. Donald MacLennan, and their respective prices, 410 gs. and 360 gs. The first-prize bull in the younger class—that is, calved after 1st March, 1905, was Diamond Earl, from Westertown, Rothie-Norman, which the Earl of Moray managed to keep at home at 700 gs., or £735. The average made by the Westertown second-prize group of three was £539. Mr. James Durno, their plucky breeder, had an average over head of £232 18s. 6d. for 12 head, certainly a very remarkable figure. The whole dozen were got by the Uppermill-bred red bull, Diamond Mine, which has proved one of the best breeding bulls known in this country for a long time.

Mr. Durno's relative and namesake, who owns the Jackston herd, also near to Rothie-Norman, beat him for average, but had fewer animals. The Jackston return is £262 10s. of an average for five yearling bulls. Mr. Stewart, Millhills, Crieff, came up well, with £246 8s. for three, and Mr. H. M. S. Mackay, Burgin, Forres, £236 5s. for two. A noted Aberdeenshire herd, that of Mr. Reid, of Cromleybank, made £185 1s. 3d. for four, and Mr. Napier, of Dallachy, had £146 14s. 9d. for an equal number. Sir John Gilmour, of Montrave, Bart., met a full trade for his heifers, making the splendid average of £71 13s. 3d. for eight yearlings. Altogether 314 Shorthorns, of which 251 were bulls, made an average of £74 10s. 2s. at the Perth sales.

Macdonald, Fraser & Co. (Ltd.) had made record

arrangements for judging this magnificent lot of young Shorthorns. The bench consisted of two Scotsmen and two Englishmen, Messrs. A. M. Gordon, of Newton, and William Duthie, Collynie, Tarves, representing the north, and Messrs. John Handley, Greenhead, Milnthorpe, Westmorland, and George Harrison, Gainford Hall, Darlington, the south. The Beaufort cattle have a dash of Bates blood in them, which has always come out in the stock. The late Mr. Lawson, the expert manager at Beaufort Castle, was the first who successfully blended Bates and Cruickshank blood. The Aberdeen bulls selected by him crossed well with the cows on the Bates foundation; and, again, the Underley cross came on in Royal Star. Some times in the past the pronounced red of the Lovat cattle was regarded as a drawback, especially when it happened to be conjoined with a "fleck" of white, as sometimes happened. But the reds are now in demand, and the 1,500 gs. Broadhooks Champion is simply an ideal bull for the South American market. No home buyer got a chance to bid for him. The Argentine men kept that wholly in their own hands, and it was all over in 1½ minutes. The presiding auctioneer was Mr. Tom Paton, who also sold the Kinnaird Castle Highlanders at record prices in August last.

As things stand this year, none of the other breeds makes a good second to the Shorthorn. Of course, the A-A black polled breed comes next, but it is after a long interval. The average price of 276 bulls at Perth was £27 16s., as against £26 3s. 5d. for about the same number in 1905. At Aberdeen, in the same week, 199 yearling bulls made £21 0s. 9d., and 11 yearling heifers, £13 17s. 9d. Mr. Escher, from Iowa, did a good deal to make the sale as good as it was. He bought whatever he wanted, and any competitor who essayed a fall with him got the worst of the fight. Ballindalloch again easily outdistanced all competitors, taking the highest price, 270 gs., or £283 10s., the buyer being Mr. Donald Macrae, Stenhouse, Dumfries, and the animal a beautifully level specimen, named Everlasting. Like nearly all the other highest-priced animals at the sale, he is of the renowned Trian-Erlea



Improved Essex Boar.

Owned by J. Featherston & Son, Streetsville, Ont.  
A good representative of the modern type.

tribe. The Ballindalloch average for eight bulls was £164 19s. 8d., and the first-prize group of three made £178 15s. Trade for the blacks was certainly better this year than in 1905, but the "black" men are never satisfied unless they are upsidest with the Shorthorn men. It will easily be seen that they have a long run to travel before they reach that goal. The Argentine buyers do not greatly favor the blacks, although more buyers from that quarter have been operating this year than in the past, and Irishmen are also very cautious in dealing with black polled stock. In the case of the Argentine it is said the blacks do not settle well on the treeless prairie in hot weather, and the objection taken in Ireland is that they are not dairy cattle. The Irish farmer depends on dairying and calf-rearing. He cannot do the one without the other.

Highlanders have been receiving recognition from the American Bureau of Agriculture. There is an elaborate article on the breed in the recent issue of the Reports of that Department for 1904. The article is well illustrated, and there is not much more to be said about the breed than appears there. This year there were too many bulls at the Oban sale, and the demand for yearlings was very slow. The highest-priced bull, Fearabhata of Atholl, was champion of the show, as he has been first for the past two years, 1904 and 1905, at the H. & A. S. Shows. He is a grand lengthy, heavily-fleshed bull, and made £121 to Colonel McDonald, of Logan, Straunraer, a gentleman who, in the center of the dairying industry, fancies the picturesque Highlander. The average price made by 71 Highland bulls was £25 3s. 10d. Galloways come far behind these breeds. The highest price at the Castle-Douglas sale was 41 gs., paid by Mr. Colwell, a spirited patron of the breed in the North of Ireland, for the first-prize bull stock, which was bred by Mr. David Brown, Stenpod, Dumfries.

With such a good demand for breeding stock, readers will readily understand that considerable anxiety exists among cattle-breeders with regard to the intentions of the new Government in respect of the agitation for the

amendment of the Act, 1896, so as to admit Canadian store cattle. A very emphatic protest against any interference with the status quo was recorded at Perth, by the great gathering of breeders, feeders and exporters who there assembled. The hand of the Government is to be forced by one of their own supporters, Mr. Cairns, of Newcastle-on-Tyne, who has been lucky in the ballot, and has put down the second reading of a bill to amend the Act for 6th April. Cattle-breeders here have organized, and a National Cattle-breeders' Association has been formed, while the President of the Board of Agriculture is to receive an agricultural deputation on the subject on Tuesday, first. It is not likely he will give the Government approval, but sometimes one may read between the lines. There can be little doubt that any modification of the existing law would kill the export trade in pedigree stock, and with every desire to be fair to Canadian sentiment, I am persuaded that any alteration of the existing law would do Canada more harm than good. As matters stand, everybody knows the law of Great Britain, and can frame their trade policy in some way to meet it. Under an amended law the cattle interest on both sides of the Atlantic would be at the mercy of any disease scare that might be brevited, and the President here would be bound to close the ports on the first indication that disease threatened. I cannot see how that would be a desirable policy for anyone.

Clydesdales are being shipped weekly to your side. Mr. William Colquhoun, Mitchell, Ont., shipped seven stallions a fortnight ago, and a week later Mr. F. Mowle, Didsbury, Alta., shipped two stallions and four fillies, and Mr. Dugald Ross, Streetsville, Ont., shipped eight fillies. Most of these were bought from Messrs. A. & W. Montgomery, Kirkcudbright, and although Mr. Colquhoun picked up about one-half of his contingent at different centers from breeders, all were useful animals, of which Canada has no cause to be ashamed. They will command a ready sale on your side. Mr. Soderborg, Osco, Ill., sailed along with Mr. Colquhoun, having 12 horses, bought from Messrs. Montgomery.

The Shire Horse Show has been held this week. I have seen it for the first time for four years, and observe a clear reversion in everything but color to the type of animal fancied by the Shire men twenty years ago. The two supreme championships were won by Messrs. James Forshaw & Sons, Newark-on-Trent, for a big dark-brown horse, Present King II., and the gray mare, Sussex Blue-gown. Whether Clydesdale men are right or wrong in their ideas, there can be no doubt at all that their idea of what a good draft horse ought to be is very different from that entertained by the breeders in the South, who like the type of Present King II. and Sussex Blue-gown.

The enthusiasm among breeders of Clydesdales is great. Mr. Marshall has let his two horses, Baronson and Memento, for the season of 1907 on high terms. The former goes to the Scottish Central Horse-breeding Society, and the latter to the Rhins of Galloway Society. In that district sixty years ago the service fees for the best horse were 20s. at service, and 2s. 6d. to the groom.

"SCOTLAND YET."

#### A Study of Breeds of Swine.

##### THE ESSEX.

The Essex, an English breed, native of the County of Essex, are black in color, and of medium size. They are said to be the outcome of crossing the Neapolitan upon the old Essex breed, which were black and white, large and coarse in build. The Neapolitans were first imported from Italy by Lord Western, in 1830, and for some time the progeny were designated Essex-Neapolitan. The effect of the cross was to change the color to black, reduce the bone, shorten the leg and snout, improve the general form. This work began about 1840, and was chiefly effected by Fisher Hobbs, one of Lord Western's tenants. In Britain they are found most numerous in the Counties of Essex and Suffolk. They were imported to the United States and Canada about 1850, but have not been very numerous bred in either country, as they were formerly regarded as one of the smaller breeds, but they have been, by selection and good management, considerably enlarged and given greater length of late years in Canada, so that, as shown at the fairs now, they conform to the bacon type to a very satisfactory degree, and have proved valuable for crossing with some of the larger and coarser breeds, producing an early-maturing class, of excellent quality and profitable to raise. Because of their contented disposition they are good grazers and easy feeders, and, when well fed, may be marketed at almost any age. The quality of their meat is juicy, tender, and well-flavored, and is especially adapted to family use and to a select trade. In general appearance the Essex are neat and smooth in form, nicely turned at the shoulders and hips, symmetrical and handsome.

#### Great Value in Paper and Premium.

I received your valuable premium, and I am more than pleased with it. My friends that have seen it say it's a dandy. I am also more than pleased with your paper. I don't know how you can give such a good premium with such a good paper for so little money. I will help your paper all I can. Wishing you success.  
Geo. C. O'Neil.

ALEX. FINDLAY.

Feeding Screenings.

From "The Farmer's Advocate and Home Journal," Winnipeg.

During the last year the interest in the destination of the screenings from cars of wheat shipped by the farmers of the West has become much keener, owing to the increase of such hitherto wasted material, and the interpretation of clauses of the Noxious Weeds Act, by which it was made to appear that the farmer unfortunate enough to grow weed seeds was also to be mulcted of those seeds when grown. From time to time advice has been tendered as to how the weeds are to be eradicated, but until recently few attempts were made in Canada to utilize either the weed seeds

fall, to the extent of some thousands, and the project, from all appearances, promises to be successful, the only fly in the ointment being the question of a market for the finished product.

Considerable care has to be observed in the feeding of sheep on screenings, especially at the start, overfeeding, and the subsequent loss from indigestion, being sufficient to render the venture an unprofitable one; in fact, to use a technical phrase, "care has to be exercised in getting the sheep onto feed," a week or more being allowed to elapse before the sheep are allowed to take their fill at the self-feeders, and even then the screenings are selected, and, as seen by us, would not contain more than a dozen grains of wheat of any kind in a handful of the screenings, which were made up of weed seeds and short straws a

In one yard was noticed a bunch of 2,000 lambs, range-bred, carrying considerable Merino blood, but with a dash of some of the blood of the British mutton breeds, the Shropshire being shown markedly. Ninety to one hundred days are calculated as the feeding period, the lambs being put in about the end of November, put onto feed a week later, which is gradually increased. During February shearing is done, after which the lambs just jump ahead in the matter of gains, being relieved of the fleece and the ticks. The shearing machine is used, as with such large numbers, hand work with the shears would be out of the question.

Sheep and lambs were being fed in open sheds at the time of our visit—beginning of February—and, as may be judged, the temperature at that



In the Feeding Yards of the North-American Live-stock Co, Port Arthur.

The open sheds are the only shelter.



Desirable Types of Lambs for Feeding

Note also the self-feeders (large) and the hay racks (small).

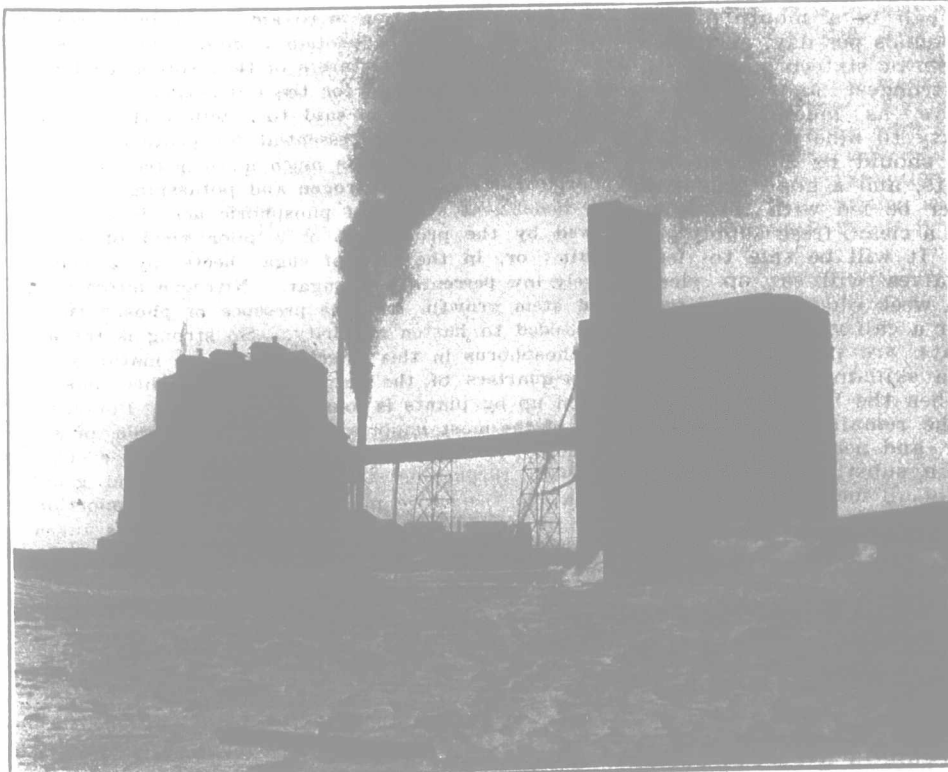
or the screenings to advantage, what quantities there were available at the big elevators at the head of the Great Lakes being shipped across the line to Minneapolis and St. Paul, where such were purchased by the feeders, after paying freight and duty, bringing the screenings up to a cost of \$11 to \$12 a ton—duty \$1.50, freight \$3.50, the net price at Port Arthur being \$6.00.

The North American Live-stock Company was organized at Port Arthur, to turn the screenings into mutton on the spot, the head of the Company believing in the maxim, "take stock to the feed, not feed to the stock," and, with the annually increasing quantity of screenings, it requires no extra quality or prescience to imagine that Port Arthur will yet be a great, possibly the greatest, feeding and finishing point for Western Canada. Sheep were first stocked up with last

couple of inches long. From the appearance of these screenings, we assume that the dockage from the farmer's wheat is subjected to a grading process, the screenings, as fed to the sheep, being the low-grade stuff, and a pertinent query is, "what becomes of the high-grade stuff made up of small wheat?" As \$6.00 a ton is obtained for the low-grade screenings, considerably more, it is fair to assume, will be obtained for the higher-grade stuff, and the only conclusion any fair-minded person can come to is that, so long as the farmer shipper has to pay freight to the lakes on the dockage, for which he receives nothing, great injustice is done him—in plain English, he is being robbed! The dictionary does not contain a word descriptive enough of the toll usually taken by the local elevator or millmen from the farmer who markets by the load on the street.

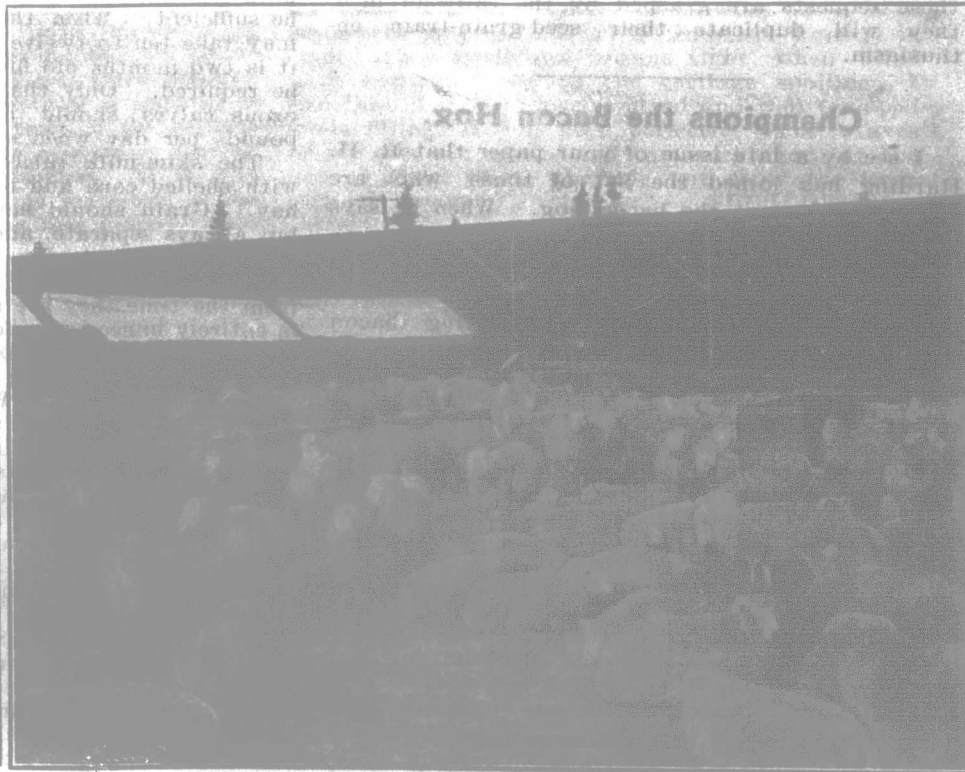
time was the reverse of sultry, but the weather was ideal, being dry and sunny.

The desirable type of sheep for the open feeding yards are the close-woolled, compact grades, the result of crossing some of the Down breeds on the Merino grade foundation. The more open-fleeced sheep do for feeding in closed sheds, but they are not suited to cold and snow. The compact-woolled sheep also yield a heavier fleece than do the others, the difference being sometimes as much as ten to three. Objection has been made to the shearing machine by some sheepmen, on the ground of "sunburn" on the sheep, but the experience of the Oregon men is distinctly in favor of machine clipping, as many as 125,000 being shorn by one firm at a cost of 8 cents a head. The opinion of men competent to pronounce is that the clip the second year after the machine



Where Some Screenings are Cleaned Out.

King's Elevator, Port Arthur.



Some Range-bred Ewes Being Fed Screenings.

Merino blood predominates.



is used is improved over that where the shears are used.

In conversation with the foreman of the feeding yards, a man who has had considerable experience at the Twin Cities, he stated that screenings were cheaper here than on the "other side," where they could pay, on the average, \$9 a ton and come out all right on the deal, but that two things here caused the venture to be more or less an experiment, namely, the difficulty of getting sheep to feed, and finding a market for the muttons. Considerable difficulty was experienced in securing the sheep on feed. The manager, Mr. Jaffray, a Canadian with experience in feeding and marketing sheep and cattle at Minneapolis and Chicago, is of the opinion that more sheep should be raised in the West. The wool would pay the running expenses, the lambs being the gain. As can be seen, two crops are obtained; but in Manitoba, Saskatchewan and Alberta, where sheep may be kept under range conditions, winter feed and shelter must be provided or the range ewes will be weak at lambing time. Lambs were bought in the late fall at \$2 per head, a car (double deck) holding 250, and of shorn sheep (shearlings or older) 200.

Prospects for the sheep-raiser are bright. There is in America a shortage of 15,000,000, and wool is going up. Mr. Jaffray says: "I have noticed many men go into cattle-feeding and lose, turn to sheep and recoup themselves thereby. At Port Arthur the feeding is done in the open, although, as can be seen by the illustrations, a high-board fence surrounds the yards; self-feeders are used for the screenings. A car of hay, costing \$8 a ton, lasts the feeding yards ten days. It is Western prairie hay, but clover would be preferred. Plenty of salt—stock salt, imported from Duluth—is kept in the troughs all the time, and to that the foreman attributes much of their freedom from loss by sickness. For successful feeding, the opinion holds that a cold, dry, sunny climate, such as Western Canada possesses, is ideal; but, as already mentioned, the bare-legged, open-fleeced sheep need sheds, whereas the others—Merino grades, with a dash of Shrop. or other Down breeds—will do well in the open.

Men qualified to pronounce, say that screenings make a fine quality of mutton, and that once the consumer gets well-fed and well-bred mutton he wants more. Not only so, but mutton is said to be superior to beef as a flesh diet, not having the tendency to produce uric acid, that "bete noir" of gouty and rheumatic people, which beef is said to have.

One thing the Grain-growers' Association could well afford to give attention to, when amending the Grain Act, is to have a clause inserted to provide that, as railroads retain the screenings, the freight on the dockage (screenings, etc.) from the shipping point to the terminal elevator should be remitted him, by deduction from the freight bill. It would not be possible to return each farmer the proceeds from his screenings, and no corporation, government or individual has any right to penalize the farmer for growing weed seeds, by confiscation of the screenings. The livestock men, in conjunction with their grain-growing brethren, could well afford to agitate for a feed-in-transit arrangement, so that sheep or cattle might be brought from the ranges to the farms and feed-yards of Western Canada, so that the coarse feeds and waste grains and seeds might be utilized, and their valuable fertilizing effects be employed for the benefit of our farmers on Canadian land. Once the significance of these requests are grasped by the railroad men, they will duplicate their seed-grain-train enthusiasm.

### Champions the Bacon Hog.

I see by a late issue of your paper that R. H. Harding has joined the list of those who are prejudiced against the bacon hog. When he says the extreme bacon type is not a profitable hog to raise we agree with him, but when he slings mud at the ideal type, I take objection to his statements. What first started me breeding bacon hogs was a thorough test made of the different types and breeds, selected from the best breeders of the country. The results that I got from this experiment made me pin my faith to the bacon hog. Mr. Harding is and has been a breeder of Chester Whites for some time, and, having had some experience at our leading shows, where all classes of hogs compete, he should be able to answer almost any question that would be of interest to hog men. Now, Mr. Harding, please tell us how many first prizes during the last ten years, when in open competition with other breeds in the bacon classes, has the pure-bred Chester White won? Second, will you also tell us if all the farmers of this country bred the class of hogs you pin your faith on, how long would we hold our present position in the best markets of the world? I would say, if the hog producers of our fair Canada could hold this trade by breeding and raising any kind of hog he happened to take a liking to, by all means let him do it; but bacon hogs of the right type must be raised if we wish

to be able to compete with other countries and stay in business.

Let the chips fall where they may, I must be plain, and say there is no credit due any of the lard type of hogs for the fifteen to seventeen millions of dollars that come from England annually and go to help swell the bank account of the Canadian farmer.

The packers and the farmers have no time for petty squabbles. It will require all the good judgment they both have to hold our present high position in the English market. The farmer must produce the best article possible, and the packer put it in a superior form, to meet the demands of a high-class market.

Let us breed good bacon hogs, and not go back, as some would like us to do, where we left off twenty years ago.

D. C. FLATT.  
Wentworth Co., Ont.

### Feeding Calves.

The calf, in order to become a profitable steer, writes Prof. Curtiss in Successful Farming, must be born of good ancestry. Calves of inferior breeding are not worth raising. It may be regarded as settled at the outset that an ordinary or even a good grade cow cannot be profitably kept the year round on high-priced land for the calf she raises, even though it be a good one.

The hand separator has many advantages. On some farms, however, milking is objectionable. Where that is the case, the Scottish farmer's policy may be adopted, namely, a good cow is required to suckle two calves for about five months. At the end of this time the two calves are taken off, and a young calf is put on for about five months longer. To do this a cow must be a good milker. If she is not a desirable cow to keep she is fed liberally, so that by the time the last calf is weaned she is ready for market.

The use of the hand separator, however, furnishes the prevailing system where the object is to increase the returns from the cow. It is entirely practicable to raise good calves on skim milk when the milk is separated on the farm. Skim milk, properly handled, and fed warm and fresh from the separator, is a valuable feeding product that is not yet fully appreciated. It contains all of the elements of growth essential to young animals, and, properly supplemented with grain and hay, affords almost an ideal ration for growing young stock. There is only one better product obtainable, and that is nature's ration—whole milk—but that is too expensive for ordinary feeding.

Separator skim milk should always be fed fresh from the separator in wholesome condition. It should retain the natural body temperature of the cow as far as possible, and be fed at a temperature of not less than 85 to 90 degrees. It should always be of uniform condition. Irregularity is expensive, and always fatal to the best results. The regularity must extend to time as well as to condition and quantity of product. The quantity is highly important. Over half the ills of skim-milk feeding with calves is due to over-feeding at the outset. The calf should have new milk for the first week or ten days. The change from new to skim milk should be made gradually, and to cover a period of about ten days. Then comes the critical period. The great danger is in overfeeding and consequent derangement to digestion. For the first two weeks of skim-milk feeding, three to four pounds at a feed will be sufficient. When the calf is a month old it may take ten to twelve pounds per day, and when it is two months old fifteen or sixteen pounds will be required. Only the strongest and most vigorous calves should have as much as twenty pounds per day when sixty to ninety days old.

The skim-milk ration should be supplemented with shelled corn and oats, and a good grade of hay. Grain should never be fed with the milk, but always separate, and a clean, fresh supply put in the boxes each day. It will be safe to feed daily as much as the calves will eat up clean from the time they are a week old. Ground feed is entirely unnecessary for a calf under six months of age. Corn and oats are preferable to oil meal for supplementing a skim-milk ration, and much less expensive. When the fat has been removed from the milk, the remaining product is unusually rich in protein, and needs a starchy or carbonaceous product as a substitute for the fat removed. The addition of oil meal would furnish a product containing an excess of the protein which is already abundant in skim milk. In three experiments conducted at the Iowa Experiment Station, larger gains and cheaper gains were made from corn and oats, in supplementing skim milk, than from oil meal. Six calves, averaging ten days old, at the beginning made a gain of 857 pounds in ninety days on a ration of this kind, at a cost of 2 cents a pound for the feed consumed. Where oil meal was used in supplementing the milk, the cost of gain in live weight was increased about one-third.

The hay used in feeding calves should always be clean and bright, and of the best quality. It is especially important to have good hay in cali-

feeding. The quarters should be kept clean, well ventilated and wholesome, and should be located where they will get direct sunlight each day, and, in addition, the calves should have access to a lot or paddock for daily exercise. The pens should be cleaned and freshly bedded daily. Much of the so-called epidemic disease in calves is due primarily to unwholesome and unsanitary conditions. During the first one hundred days calves should make a gain of one pound and a half a day on a cost of two cents a pound or less, when fed on a ration of separator skim milk, grain and hay. During the next one hundred days the increase in live weight will cost about three cents a pound. These figures apply to calves intended for baby beef. Of course, heifer calves, intended for the dairy need not be fed grain so heavily.

## THE FARM.

### The Function of Plant Nutrients.

(Continued.)

A continuous supply of all the essential elements of plant growth is absolutely necessary, for it has been fully demonstrated that in order to produce normally-developed plants each and all of the nutrients required must be present. If one constituent is present in insufficient quantity, no matter what amount of the other nutrients is available, the plant cannot be fully developed; consequently, just as a chain is only as strong as its weakest link, so the crop-producing power of a soil is limited by the essential nutrient present in relatively the smallest quantity. When a mere neutralization of acids is involved, potash or lime may be replaced by soda, or when incrustations of a tissue is necessary for protection, the place of calcium carbonate may be taken by silica. But in the purely physiological functions of a chemical nature, not even a partial substitution is possible.

Fortunately, of the ten essential plant nutrients only four are likely to be present in insufficient quantities, and are, therefore, the only ones requiring special attention. These are nitrogen, potassium, phosphorus and calcium. Chemically considered, these are the substances we estimate in determining the fertility of soils, the value of farmyard manure and of fertilizers.

In the absence of nitrogen, a plant makes no appreciable growth. With only a limited supply, a plant begins its growth in a normal way, but as soon as the available nitrogen is used up, the lower and smaller leaves begin gradually to die down from the tips, and all the plant's energy is centered in one or two leaves. Nitrogen is one of the main constituents of proteins, which are present in all plants. It is also a constituent of chlorophyll, the green-coloring matter of plants, hence with a limited supply of nitrogen the leaves will have a sickly yellow color. Plants with large, well-developed leaves, of a rich green color, are not suffering for nitrogen. An over-abundance of this substance may, however, produce a very rank growth of leaf and stem, and retard the maturity of the seed. Therefore, when crops, such as the cereals, tomatoes, potatoes, etc., are to be matured, an over-supply of nitrogen may be injurious, but with crops such as mangels, cabbage, etc., which are harvested in the green condition, an abundance of nitrogen will insure a large, strong growth. It is hardly necessary to point out here that the nitrogen is most economically supplied by the growing and plowing down of leguminous crops.

Phosphorus, in the form of phosphates, is found in all parts of the plant, but tends to accumulate in the upper part of the stem and leaves, and particularly in the seed. Its function is to aid in the production and transformation of the protein bodies. The nuclei are said to be the manufacturers of the protein matter, and phosphorus is essential for the full action of the nuclei. The phosphoric acid is said to "follow the proteins," and it seems to be so essential for protein production that the yield of grain is much more increased by phosphoric acid than by nitrogen and potassium compounds. An insufficient supply of phosphoric acid is always followed by the production of a poor yield of shrunken grain; or, in the case of sugar beets, by a comparatively low percentage of sugar. Nitrogen forces the leaf and stem growth, and the presence of phosphoric acid is needed to hasten maturity. So strong is the action of phosphorus in this direction, that at maturity about three-quarters of the total amount of this constituent taken up by plants is found in the seed. Potassium is one of the most important and least variable of all the elements in the ash of plants. It is quite evenly distributed throughout the growing plant, and generally occurs in the entire plant in the largest proportion of any of the essential ash constituents. It is taken up in the early stages of plant growth, and is always present where the production of plant tissue occurs. The function of potassium is apparently to aid in the production and transportation of the carbohydrates. Potassium also appears essential for the formation of protein, and thus indirectly aids in the formation of all organic matter. It doubtless has much to do in the way of regulating the acidity of the sap, by forming salts with the organic acids developed during the growth of the plant.

Calcium is a constituent of the straw rather than the grain, and seems to impart hardness to crops. It has long been noticed that soils containing an abundance of lime usually produce well-nourished crops that are

more capable of withstanding unfavorable climatic conditions, as drouth and early frosts, than are crops not so well supplied with lime. The exact function of lime is not clearly understood, but it does seem to aid in the construction of the cell walls. According to some authorities, its absence is felt in less time than either potassium or phosphorus. It is claimed that a supply of lime is just as essential to the plant, in order that it may form cell walls from starch and sugar, as it is for the formation of bone in animals.

There can be little doubt that a proper balance in the supply of these important plant nutrients has a decided influence on the nature of the crop produced. Each one has its own particular work to do, and the absence or deficiency of any one of them will cause the death or the incomplete development of the plant. Added to the fact that these substances are absolutely essential, we find that they are absorbed during the early stages of growth, and that with cereals this gathering period is very short one. It is thus plain that, struggle as may, a plant cannot make a normal development and mature its seed unless it has a full supply of a well-balanced diet placed within its reach.

R. HARCOURT, Professor of Chemistry.

Ontario Agricultural College.

The Farmer's Wood-lot.

Editor "The Farmer's Advocate":

As there is considerable agitation on at present regarding reforestation, I thought that I would pen a few suggestions in connection with the subject for the consideration of those that are interested in the subject.

Now, there are a few points in connection with this subject that might be taken up and considered by the Governments of the country, as well as the various municipalities. The Provincial as well as the Dominion Government are now spending considerable money, and justly so, to encourage tree-planting and a better care of the farmer's wood-lot. A nursery has already been established at the Ontario Agricultural College, and a School of Forestry is talked of, and the annual Dominion convention was held at Ottawa a short time ago to discuss the best means to adopt to further the work. All those are right and proper, but could not the Government do something in the way of granting the township municipalities the power of exempting the wood-lots that are not pastured from taxation? This, in my opinion, would encourage the farmer to be more interested in the project of reforestation. But as it is at present, the timber lands are being taxed at a higher rate than the cleared land. This, of course, has a tendency to cause the farmer to make haste to get rid of his bush. I have drawn the attention of the farmers to this at some of the Institute meetings, but some have objected to this on the ground that it should not be extended to parties holding timbered lots for speculation, but acknowledged that it would be a great benefit to the farmer who is holding his timber for fire-wood only, or general use on the farm. Now, there is another side to this question, and a great many lose sight of it, or have not considered it of so much importance as wood for fuel; that is, the influence the timber lands have on the growing crops and climate. This, in my opinion, is of vital importance, and should not be lost sight of, and I think the Governments could not do better than pass an act so that all unpastured land in timber, owned by farmers, may be or should be exempted from taxes. This would be quite an inducement for farmers to take better care of their wood-lots. I trust that the agricultural papers will take up the question and give the idea wide circulation.

Bruce Co., Ont. A. E. SHERRINGTON.

Wm. Lees, Percy, Sask: "The Farmer's Advocate" is the paper of the day."

How Shall we Apply Farmyard Manure?

Editor "The Farmer's Advocate":

It still remains a very practical question for the agriculturist to decide, whether the farmyard manure should be applied to the fields in winter while in the green state, the fields thus deriving the full benefit of the manure, or whether it should be applied in the summer or fall months after it has remained in the yard, subject to an extensive loss by fermentation; a loss of great moment, which all manure undergoes in the heap, and the direct loss by leaking which has drained from the yard. Our manure is applied to the land we intend for hoed crops—a good liberal dressing—and is applied throughout the stabling season just as it is made. We have practiced this system of handling our manure for a number of years, and for many reasons we would not adopt a different system. By the application of farmyard manure we are in one way able to build up the store of fertility that our farms have been depleted of by the primitive methods of cultivation of the pioneer, and to supply the constant drain by the crops we are growing at present. In order that the farmer may apply manure intelligently, it is necessary that he understand the elements that constitute this by-product, and the chemical changes these elements undergo before the manure is of its greatest value to the soil, and at what times and under what conditions manure loses the greatest amount of its most valuable ingredients. By applying while green throughout the stabling season, I claim we offset many detrimental effects that would surely follow were it allowed to accumulate in a pile, and often we find this pile under the eave of a large barn—which is so much the worse.

On the soil upon which manure has been applied in winter, we find it very easy to prepare a deep, mellow seed-bed, containing abundance of moisture, and a large amount of available plant food in soluble form. Such conditions as these are very favorable to the growth of plants. Seeds germinate more quickly, and the plants, owing to their early growth, can endure drouth better. By applying manure while in the green state, a larger percentage of the liquid excrement is saved and applied to the land, and as the liquid excrement contains the most important ingredients, such as broken-down animal tissues, slight traces of phosphoric acid and more nitrogen and potash than the solid excrement, it is very important that it should all be saved as far as possible, and right here winter manuring very strongly recommends itself.

When manure is placed in a heap, let it be ever so small, there is constant fermentation going on, and this is always accompanied by a loss of nitrogen, in the form of ammonia. Bacteria are constantly at work in a manure heap, and while at first they aid the process of nitrification, later they attack the nitrates, which are all soluble, extracting the oxygen, and the ammonia, which contains a great deal of nitrogen, passes off. I shall not enter on a full discussion of the process of nitrification and denitrification as it goes on in the manure pile. Another advantage that should appeal to every farmer is the great saving of time, and, consequently, the saving of labor; and, also, that this work can be done better in winter, when we are not so rushed as in seed time—a greater area can be covered, and covered more evenly, than it could be with the same manure after it has remained in the farmyard all summer. By dropping the manure from the litter-carrier on the spreader in fall and spring, and on the sleigh in winter, while the snow is deep, one handling is saved, and the manure is always out of the way; and if this advantage were all, it would be worth something.

When applying it in winter, I would strongly advise spreading the manure on the snow instead of putting it in piles. When it is in piles there is sure to be a loss from fermentation, and then the good ingredients of the manure will leach through, and the field will be unevenly fertilized. From manure heaps, where fermentation is extremely rapid, large quantities of ammonia is being evolved, carrying with it much of the valuable nitrogen; afterwards this manure presents a scorched appearance, and is practically worthless. It is true that green manure contains a large proportion of unavailable plant-food, but if it has been properly cared

for, and contains all the liquid excrement of the animals, it will contain sufficient available plant food for the present requirements of the crop, while the remainder will gradually ferment in the soil, and become available for the succeeding crops.

As a result of investigation up to date, the eminent authority, Prof. R. Warrington, deduces the following conclusion: "The original voidings of the animal have a far greater manurial value than the final product of the manure heap, which the farmer carries to his fields. In the whole process, from the stable to the field, the loss is going on. This loss is falling on the most valuable constituent of the manure, and resulting finally in a residue of comparatively inert matter." So we conclude, so far as economy of plant food is concerned, actual practice proves and science backs up the advisability of hauling manure as soon as practicable. CLARK HAMILTON, Dundas Co., Ont.

How Best to Apply Manure

Editor "The Farmer's Advocate":

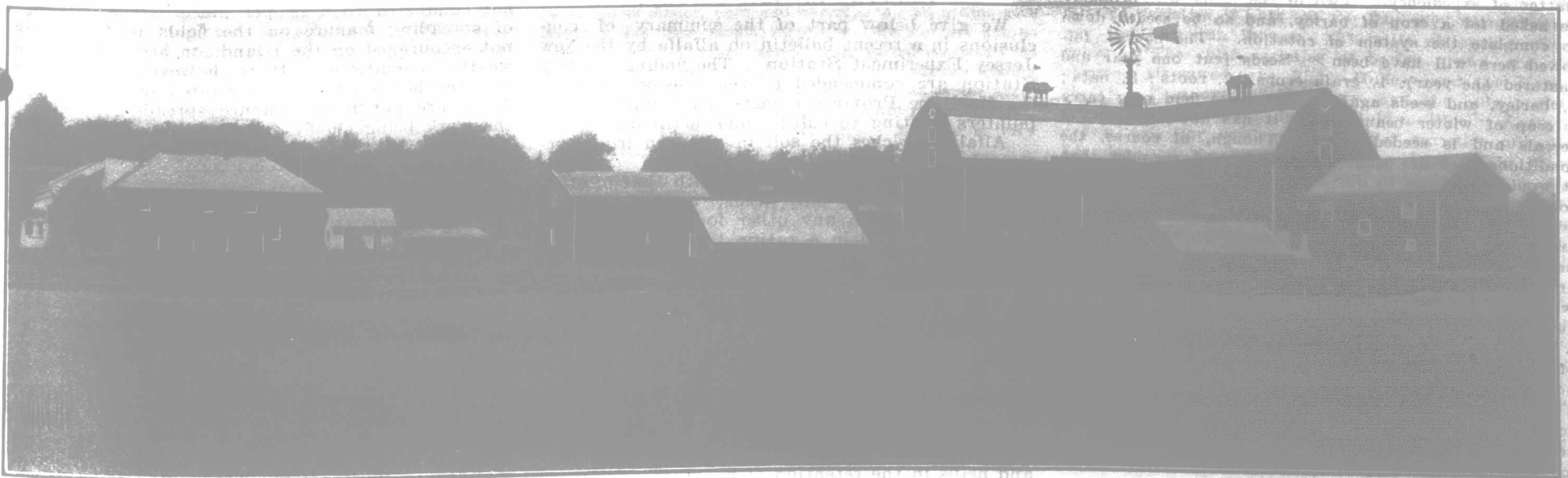
I have been interested in the discussion on this subject of late, and I think it is a very important question—one not very easy to solve. Your correspondent, Mr. Lawson, in Feb. 22nd issue, criticized Mr. Thompson on what I consider the most important point in manuring. Most farmers can arrange to manure for corn, potatoes and roots satisfactorily, as the season for planting same is not so rushed, and if we can prevent fermentation of manure intended for those crops we have made no mistake; but Mr. Thompson was writing of manuring for spring cereals, and for these it is difficult to know how best to apply the manure. If we haul and put in heaps, if heaps are not large enough to ferment, they will probably hold the frost in spring and prevent early manuring, although, if manure was intended for field purposes to be sown last in our seeding operations, it might be successful, as we are generally most rushed, then to finish. Manure, to be worked in with cultivator or disk, must be spread with spreader, unless straw has previously been cut, which is not practiced on every farm. My experience in manuring is to put on in spring with manure spreader as soon as conditions will allow. I have worked it when the ground was frozen, but it is very hard on machine. I keep my hog-cattle and horse manure separate, as I think, where there are any number of hogs kept it is a waste to apply such rich manure for roots, which require a heavy coat. I apply hog manure for barley, to be seeded, at the rate of three to six loads per acre—50-bushel loads. I then work in with cultivator, and sow first thing in spring. Simcoe Co., Ont. J. H. MESSING.

Stave Silo Satisfactory

Editor "The Farmer's Advocate":

I noticed a paragraph in one of the January numbers, recently, condemning the stave silo in many ways. I thought that some intending builder might be discouraged by this account, so if you do not think I am taking up too much space in your valuable paper, I will give you my experience. The faults that the Norfolk farmer drew our attention to were: "Silos blowing down, hoops getting loose in summer, ensilage spoiling round the outside, and staves decaying." Well, I may say I have had a stave silo (16 ft. by 26 ft.) for seven years, and never had anything but the very best results. I built a very light frame building around the tub right at first, and this did away with any danger of blowing down, and while the staves shrink in summer when it is empty, they swell and become tight when filled with ensilage. As to the ensilage spoiling, I find that if it is properly mixed and well tramped while filling, it will keep perfectly. The staves of my silo are spruce and tamarack, and at the end of seven years, they do not show the least sign of decay. SUBSCRIBER.

Lanark Co., Ont.



Farm Buildings and Home of M. A. Bonesteel, Hastings Co., Ont.

**Permanent Pasture for Outlying Fields.**

Editor "The Farmer's Advocate":  
I have read with interest your editorial in "The Farmer's Advocate" of the 15th ult, on rotation of crops, and heartily endorse the system for the general farmer. There may be reasons why the rotation indicated should not cover the whole farm; say an outlying portion, with a running stream, would be suitable for pasture. This might be seeded with perennial grasses and clovers suitable for pasture, which should be renewed every few years, by plowing shallow in spring, rolling and harrowing, followed by cultivating and harrowing at intervals of about two weeks, until July, then reseed with perennial grasses and clovers, without a nurse crop. The orchard might be seeded with alfalfa, and plowed shallow every third year, thoroughly cultivated until July and then reseeded with alfalfa, about 12 pounds per acre, without a nurse crop. A few acres of alfalfa, fed as a soiling crop twice every day, will be sufficient for a herd of 20 to 30 dairy cows from June 1st until October. The equivalent of this should be returned to the orchard in the shape of farmyard manure.

WM. RENNIE, Sr.

[Note.—The pasture idea is an excellent one, but alfalfa in an orchard is better for the land than for the trees. A growing crop of lucerne deprives them of needed moisture, which is just as essential for their well-being as is plant food, and which no amount of manuring can wholly make up for.—Editor.]

**English and Canadian Rotations.**

Editor "The Farmer's Advocate":  
Referring to the editorial on crop rotation, in your issue of February 15th, I may say that it is a subject which I have found very interesting during the few years in which I have turned my attention to agricultural matters, and more particularly so during my stay in England last winter. In that country, conservative as they may be in regard to the adoption of anything new, they certainly have learned the principles of crop rotation, necessitated by inter-cropping and intense cultivation, and, except in certain districts, where the proportion of arable land is considerable, the bare summer-fallow is almost a thing of the past. At the same time, wheat has become a much less profitable crop than it was formerly, and its place in the various systems of rotation has largely been taken up by potatoes, and to a lesser extent by other "truck" commodities. In many cases, where a farm is let on a long lease, the conditions of tenancy require not only that the farm shall be kept "in good heart," but also that it shall be farmed on the four-course system, one of the courses being one or another of the many varieties of clover generally sown with other seeds. The mixture most common in the West Midlands is one of red clover and Italian rye grass, with sometimes the addition of a small percentage of some other variety of clover. The whole is generally spoken of as "seeds," and is usually sown at the rate of from 12 lbs. per acre and up, to as much as 24 lbs. per acre. This mixture gives excellent results, the hay produced being equally suitable for horses or cattle, and also makes splendid pasture, more especially for sheep.

A good system of rotation does not necessitate that one should strictly adhere to the same order of crops. For instance, H. W., one of the most successful all-round husbandmen I have ever met, had 40 acres of roots, in three fields, taken off in the fall of 1904, and the land plowed, and three fields of "seeds" he had plowed about the same time. On 12 acres of root ground and about 28 acres of "seeds" he put barley, and the balance all went into oats. This year he will follow the barley with oats in two of the fields, and the third will probably get a light coat of manure, and give a crop of potatoes and "truck," such as carrots, and, perhaps, white table turnips, the latter sown broadcast. An alternative in the case of one of the fields spoken of as having been in with roots, is to seed down when sowing the barley. What follows the oats is a matter of expediency. Two of the fields will probably be asked for a crop of barley, and so be seeded down to complete the system of rotation. The course followed here will have been: Seeds (cut one year and pastured one year), 1, grain crops; 2, roots; 3, oats; 4, barley, and seeds again. The third field may carry a crop of winter beans before it has another crop of cereals and is seeded down. Though, of course, the conditions here are somewhat different, I consider that it would be vastly to our advantage to definitely adopt some system on the same well-established principle. In far too many cases there is no kind of system pursued, and I know of farms here in Ontario where some fields have been cropped with oats and barley, roots, barley and oats, right ahead for seven and even nine years, with only the aid of a couple of light dressings of manure. Nothing but a clay soil could stand it and give a crop. There is, of course, an almost entire absence of humus, and to plow there is no easy task for man or horse. Such land, more than any other, needs clover. The great trouble is on a farm of, say, one hundred acres, to arrange a system of rotation in such a manner as to produce a balanced crop year by year, for one must have pretty nearly the same proportion of each kind of crop each year.

Supposing a farm to contain ten fields of about equal

size, the following table will show how the crops may be arranged to fall into a fair system of rotation of hoe crops, grain and "seeds," which would keep the land clean and in good heart. A hoe crop stands, of course, for a coat of manure. In the case of a summer-fallow, one may either have a bare fallow or plow in a crop of rye in the green state:

1st year.	2nd year.	3rd year.	4th year.	5th year.	6th year.
1st field..... Oats	Hoe crop	Barley	Clover	Clover	Wheat
2nd "..... Summer-fallow	Wheat	Oats	Peas	Barley	Clover
3rd "..... Hoe crop	Barley	Clover	Wheat	Oats	Peas
4th "..... Barley	Seed clover	Oats	Hoe crop	Barley	Oats
5th "..... Clover	Oats	Hoe crop	Barley	Peas	Summer-fallow
6th "..... Peas	Barley	Wheat	Oats	Hoe crop	or Barley
7th "..... Wheat	Peas	Barley	Pasture	Oats	Hoe crop
8th "..... Oats	Summer-fallow	Wheat	Oats	Clover	Barley
9th "..... Pasture	Pasture	Peas	Barley	Oats	Pasture
10th "..... Barley	Oats	Pasture	Summer-fallow	Wheat	Barley

Reading across this table you get the crops to be put into each field year by year; reading down the columns you find each column gives a crop for one of the years, allowing a hoe crop each year—two fields each of barley and oats and one each of peas, clover, hay and pasture. Whilst there are four summer-fallows in the six years, one of which must be followed by wheat and clover; or, in place of summer-fallowing, one may put in barley and seed down. Obviously, the land is in better shape at the end of the sixth year than at the commencement of the first; at all events, I would not fear to rent a farm on a long lease to a tenant who followed such a scheme of rotation.

Now for a good word for "The Farmer's Advocate." We have a neighbor on the next line who is a successful farmer and has his place in good shape—a big place it is, too. When he came here some six or seven years ago he was a good enough mechanic, but did not know (so I am told) the first thing about farming, but from the start he has "farmed by 'the Advocate'" (and left the moon strictly alone), thus he has attained to success.

E. S. SANDERS.

**Lucerne in New Jersey.**

We give below part of the summary of conclusions in a recent bulletin on alfalfa by the New Jersey Experiment Station. The findings of this Station are commended to the consideration of the Maritime Province readers, particularly those pointers relating to culture and fertilizing:

Alfalfa enriches the soil in nitrogen from bacteria inhabiting tubercles on roots.

In comparing food nutrients with that of other farage plants and mill feeds, alfalfa contains more protein than any other fodder, and, therefore, can be used in a ration to take the place, in part, of mill feeds rich in protein.

Large yields of green forage or hay can be secured—sixteen to twenty-six tons of the former, and three to six and a half tons of the latter, per acre.

It is permanent, a well-established field producing good crops for several years.

A well-prepared seed-bed ensures a good start to the young alfalfa plants.

A liberal application of lime neutralizes acids in the soil, assists the assimilation of plant food, and helps in the retention of moisture.

Alfalfa responds readily to an application of

mineral fertilizers, phosphoric acid and potash, and requires but little applied nitrogen.

To inoculate new fields, apply soil from a well-established field, or treat the seed with prepared cultures.

From feeding experiments it was concluded that, when purchased feeds average \$25 per ton, alfalfa hay is worth \$16.50 to feed with corn silage, and if the cost of production is \$6.00 per ton, and an average of four tons per acre is secured, the net gain per acre a season will be \$42.

The result of this experiment agrees quite closely with results from similar experiments conducted by the Experiment Station.

Three experiments with alfalfa hay versus purchased feeds, gave an average net gain of 28.3 per cent. and 27.0 per cent., respectively, in milk and butter, from the alfalfa ration.

**Manuring in P. E. Island.**

Editor "The Farmer's Advocate":

The soil of Prince Edward Island, for the greater part, is a red, sandy loam, being easily cultivated and fairly rich, makes the Island an ideal spot for agriculture. It was originally covered by great forests of beech, birch and maple, but by the steady stroke of the hardy settler's axe these are reduced to mere groves, and a great part of the people are burning coal instead of wood. What the Island most needs, in order to grow bountiful crops, is plenty of manure, and this can be obtained from different sources. Owing to its being all surrounded by water, large quantities of seaweed are annually washed on its banks, which makes an excellent fertilizer. The decayed oyster beds, containing from five to twenty feet of shells, are also another great source of wealth.

P. E. Island farmers are beginning more and more to see the advisability of feeding all the grain and fodders grown on the farm, and returning it to the land in the shape of manure. Some however, still persist in exhausting the soil of its original fertility, by selling the greater part of their grain and hay. This can be carried on for a time, but the soil will ultimately fail unless the ingredients carried away by the crops are restored. The importance of returning as much as possible to the soil in the shape of manure, cannot at all be questioned, and it is very necessary for all farmers to rightly use this fertilizer. Without manure, farming could not at all be carried on for any length of time; the soil would become so exhausted that it would not pay to crop it. But some farmers say it does not pay to feed grain and hay to cattle; that if we charge the market price to the stock fed (let it be fat cattle), we feed at a loss. And yet, these farmers that feed all they raise, either for the production of milk or beef, are generally successful ones, simply because the land is kept in good condition, and crops can be produced much more cheaply.

Air and water are both necessary to the proper keeping of manure. If it is allowed to get too dry it gets fire-flanged, and a lot of the most valuable parts escapes into the air. The temperature should not exceed 80 degrees F. The excessive heating may be prevented by allowing stock to trample over it, or by adding water. Horse manure is the most inclined to heat, and if left in a pile by itself will very soon lessen its weight and value. The best way is to mix all different kinds of manure together, and in this way it can be better preserved. Some farmers keep their manure in sheds; this is the best way, if the heating process can be controlled properly. Another way of wasting manure is by allowing excessive supplies of water to wash out the very essence of it. This is most liable to occur under the eaves of barns where the water is not conducted to a proper place. The practice of spreading manure on the fields in winter is not encouraged on the Island, on account of the weather conditions. It is, however, often piled in large heaps where it is wanted in the spring. There are not many manure spreaders here yet, the work being chiefly done by hand.

East Prince, P. E. I.

JAS. STEWART.

**So Easy to Forget.**

How about those new subscribers you were going to send us this winter?

With the sugarmaking now on, and spring close at hand, you are apt to overlook us in the hustle and bustle of the next few weeks. Now is the time to get them, before they are "too busy to be bothered." So, having thus reminded you of your good intentions, we will now daily expect to hear from you with a good-sized list. We still have some excellent premiums which we give in return for sending new names. Our premium Knife is a winner. It sells regularly for one dollar, but we are giving it for only one new subscription. Better get one while they last. Don't put it off any longer.

**Percolation as Applied to Manure.**

Editor "The Farmer's Advocate":

Very few realize the loss that is annually accruing from not making the most of the manure. When to apply it so as to avoid this waste, has been ably set forth both by H. B. S., page 82, issue Jan. 18th, 1906, of "The Farmer's Advocate," and likewise by Mr. John Lawson, in issue of 22nd of Feb. I should say that the latter's system is about perfect. There is one thing that we should remember, which is: No matter how much loss there may be from either the escape of the gases or by percolation in the barnyard, the expense of hauling is practically the same. There are some losses it is very hard to estimate. It is so with manure when it is piled, or rather wheeled out into the barnyard, and exposed to the sun, rain and snow. We know that there is a loss; just how much we cannot say, but always some, and sometimes considerable. If we really knew how much loss there was, I am sure so many would not allow it to continue. For example, if, after two or three days of rain, you should find one side of your manure washed away, equal to one-tenth of the whole, it would surprise you, and if this occurred again, and every rain that came took another slice off, you would, I think, take immediate steps to prevent it. For the manure represents largely the profits of your winter's work, perhaps in some cases all, and no small profit is it, either. Now, if the loss occurred in the way I have mentioned it would be much better, for one would have that much less work hauling. It is for this reason that, if by giving away one-fourth of your manure, the remaining three-fourths contained as much strength as the whole, you would be money in pocket. Not many farmers would think of selling their manure, not even a part of it, who allow it to be lost in other ways. As I said before, it is difficult to estimate the loss, but am safe in saying all the way from 1-10 to possibly 1-3, from percolation alone. That you may better understand how this comes about, I will take you into the laboratory of any up-to-date drug store, that you may see how the medicinal strength is extracted from roots, herbs, etc. You will notice a glass affair resembling a funnel, only not so tapering, except near the bottom. The one in the bottle, we will suppose, contains ground aconite-root. Now, the medicinal properties of aconite are only soluble in alcohol, so this is poured on, sufficient to saturate it. If it were stable manure we wished to get the strength from, we would put on water instead, as kind Providence has made the available properties of manure plant-life soluble in water. Now, to get the strength out of this aconite we simply pour on more alcohol, which forces out the first alcohol put on, and that now contains the medicinal part of the root. Now, the

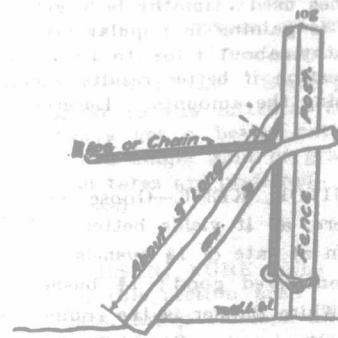
first that comes out is carefully preserved, as one drop of this is worth, maybe, twenty drops of what comes off a little later. Now, knowing this, you will better understand what is going on with the manure pile out there. It comes from the stable saturated with liquids (or should be), and is piled up in uncertain depths, depending on the room there is and the determination of the worker not to spread it too much. As it is not an easy matter wheeling up hill, the manure pile does not usually get very high. Now, this manure pile is one large percolator, and all we have to do to get the soluble strength from it is to pour on water, and this virtually happens every time it rains. Now, if your manure was saturated with liquids when taken from the stable, as it should be, then every drop of water that goes on top, after deducting what passes off in evaporation, forces out just that much soluble matter from that manure, and, as in the case of the aconite, the very best is that which comes off first. I have seen it, and so have you—a heavy, dark liquid, the very essence of that manure, and so little is this valued by many that a ditch, or what answers to that, is made to carry it away. Unless, however, you have a cement bottom under your manure pile, you will never know how much is lost in this way, so do not go away with the impression that all that is lost is what you see. In some cases you may see very little. You can only judge what is lost by what goes on top. If you want a pailful of that concentrated liquid manure, all you have to do is to put a pailful of water on top, and, whether you want it or not, this is what occurs after every rain that is more than sufficient to stimulate that portion on top that may be dry. You may ask am I sure that the water put on top does not get through without loss in this way? We will go back to the aconite once more, and find that when we cease pouring on liquids on top then it ceases to drip below, and when we pour more on it immediately begins again. That it is not the liquid we put on after it is once saturated that comes off, but that this is forcing the other before it, is easily proven. In case of the aconite, we saturate it with alcohol and pour on the prescribed quantity. Now, to get this alcohol all out, we have simply to pour on water. When we have reason to believe all the alcohol is out, we can easily tell by applying a lighted match, because water will not burn, you know. Now, there is something more about the rain and snow that may fall on your uncovered manure pile that you have probably never thought of; it is this: Except what passes off in evaporation, every ounce of it over and above what has been sufficient to go to the bottom of that pile has to be taken out along with the manure, making that much extra labor for more than nothing. That pail of water you thoughtlessly threw on that manure has not only to be taken to the field, but has forced out that much of the very best of it. If this percolation was allowed to continue, I would not go so far as to say that your manure would be of no value, but not for a time at any rate, and then

possibly not worth the drawing. It very seldom reaches this stage, though sometimes it may. You must have noticed, when drawing out manure than has been exposed to rain and sun, that much of top is light and dry. Perhaps, like myself, you have consoled yourself with the thought that the strength from this will be down below. It has gone below, it is true, but in doing so has displaced some a little better, which in turn has done the same, until it has got down to the bottom and out. How much good manure has been lost by surface draining, and disappeared in soakage, in many a barnyard, will never be known. If it, say, averaged one-fifth of the manure thus exposed, what a sum it would be! In some cases it would pay the taxes. "The Farmer's Advocate," and a half a dozen more good papers, and still have some to the good; or, if it had been properly cared for, think of the extra hay and the bushels of grain and the pounds of butter there might have been. If you cannot keep the manure under cover or draw it out and spread it at once, at least pile up as you would build a stack, and the deeper the better, packing it by tramping of horses or other stock, to prevent fermentation and escape of ammonia.

G. A. DEADMAN.

**Handy Fence-post Puller.**

For a handy device to pull old fence posts out of the ground, find a crooked-tree limb or fork like the letter Y, about 8 feet long. Lean the



fork against the post; loop log chain around the post at the ground, then up the post, through the fork; hitch team to other end of chain, and you have a lifting power here that will pull any post as fast as you can hitch to it.—[N. W. Cook, in Practical Farmer.

Byron Newman, Spencerville, Ont., writes: I am pleased to inform you that I highly appreciate the educational influences of the "Farmer's Advocate and Home Magazine." I believe every department to be doing noble work. I wish to thank the writer of the Quiet Hour Department for many helpful things written, but especially for "Coincidences: Are they accidental or Providential?"

**Varieties and Kinds of Farm Crops.**

The matter of kind and varieties of farm crops to sow is always an important one at this season. Selection of seed, to secure large, plump kernels from prolific parent stalks, may be still more important in the long run than choice of varieties, but variety plays a large part in yields, and the best results are secured by those who first get the best varieties possible, and then practice their selection on these. In choosing varieties, local adaptability must largely govern us. The Dominion and Provincial Experimental Farms and the Ontario Exp. Union are doing a great work, but their findings do not always accord perfectly with the results obtained by farmers. In this issue of "The Farmer's Advocate" will be found a symposium of the experience of practical farmers in various sections of the country, in reply to a circular letter asking the following questions:

1. Name the two or three varieties most favored in your section, of spring wheat, oats, barley, peas, corn, mangels or sugar beets, turnips, carrots and potatoes.
2. How much seed of each is used per acre?
3. What varieties of oats and barley are preferred for sowing together?
4. What other mixtures of grain, if any, give best satisfaction with you?
5. Does it pay better to sow mixtures of grain than to sow the various kinds singly?
6. Do you get as good catches of grass and clover seeds with mixed grains as with one variety alone?
7. What crops are sown for summer feeding?
8. What grasses and clovers are sown for seeding down?
9. What amount of seed is used per acre?
10. Is lucerne displacing clover to any extent in your section?

**ONTARIO.**

W. A. ESMOND, HASTINGS.—In this section the varieties most favored are: Spring wheat, Red Fife and

Colorado; oats, Egyptian and Siberian; barley, common six-rowed and Mandcheuri; peas, Canadian Beauty and White Wonder; corn, White Cap Yellow Dent and Compton's Early; mangels, Evan's Mammoth Sawlog and Giant Yellow; turnips, Purple Top, Mammoth, Buckbee and Grand; carrots, Victoria Long Red and Sutton's Matchless White; potatoes, Rural New Yorker, American Wonder and Early Puritan. Seed used per acre: Wheat, 1 1/2 bushels; oats, 1 1/2 bushels; barley, 1 1/2 bushels; peas, 2 bushels; corn, 1 peck; mangels, 2 lbs.; turnips, 2 lbs.; carrots, 1 1/2 lbs.; potatoes, 10 bushels. Varieties of oats and barley sown mixed are common six-rowed barley and Siberian oats. Other mixtures are of wheat, oats and barley. Mixed grains give larger yields than single varieties. We do not get as good catches of grass seeds with mixed varieties as with a single kind of grain. Crops for summer feeding are peas and oats, clover and corn. Grasses for seeding down are red clover (small), timothy and alsike, sowing from 10 to 12 lbs. per acre. Lucerne is very little grown.

ROBT. MCKAY, GLENGARRY.—Wheat, Red Fife and White Fife, 2 bushels per acre. Oats, Sent Action and Banner, 3 bush. Barley, chiefly Mandcheuri, 2 bush. Peas, a complete failure; farmers have quit trying to grow them. Corn, Compton's Early, Leaming and Yellow Dent, 25 pounds per acre. Owing to the scarcity of farm help, roots are not grown to any extent, and the farmers who do grow them mostly plant such varieties as the Improved Purple-top turnip, the Short White carrot, and the Long Red Mammoth Mangel. I am unable to give you the quantity of seed used per acre in the root class. Potatoes were a complete failure in this section in 1903 and 1904, owing to rot, so they had to be brought from other places in car lots, and it was not a case of getting varieties of choice, but taking what we could get. As this section is adapted for dairying, the farmers indulge more in the growing of

crops suitable for feeding purposes. Oats and barley are the two principal grain crops, and they are always sown singly. Lucerne is not grown at all, but clover is grown very extensively. The grasses and clovers used for seeding down are timothy, red clover and alsike, and the quantity used per acre is about 10 lbs., containing 5 parts timothy, 3 parts red clover, and 2 parts alsike. Summer feeding is rarely indulged in, and the few that do so feed meal until the corn crop is matured enough to use.

C. R. GIES, WATERLOO.—In this section the favored varieties of oats are the Daubeney, the Siberian and the American Banner. There is no spring wheat grown. The chief varieties of barley grown are the common six-rowed, the Black Hulless and the Mandcheuri. Peas are rarely grown, and the only variety found in this section is the Golden Vine. Corn is grown only for ensilage; the chief varieties are the Leaming and the White Cap Yellow Dent. The Mammoth Long Red and the Yellow Intermediate are the two chief varieties of mangels. In turnips, the most favored varieties are the Improved Purple Top and Hartley's Bronze Top. Carrots are rarely grown, but when they are grown the Giant Short White carrot is the favored variety. The two most favored varieties of potatoes grown in this section are the Empire State and the Rural New Yorker. On an average the following amount of seed is sown to the acre: Oats, 60 lbs.; barley, 70 lbs.; peas, 90 lbs.; corn, 28 lbs.; mangels, 8 lbs.; potatoes, 800 lbs. The only mixture grown is that composed of Daubeney oats and Mandcheuri barley. It has been my experience that it is more profitable to sow mixtures of grain than it is to sow the various kinds singly. I get as good catches of clover and grass seeds with mixed grain as with one kind of grain alone. In this section there are no crops sown for summer feeding. The grasses and clover sown for seeding down with are timothy and the common red

clover, about 12 lbs. seed is sown to the acre. Lucerne is not grown in this section.

W. B. McKILLICAN, PRESCOTT.—For several years past many of the farmers in this district have quit growing wheat, but those who still grow it seem to favor White Russian and the old Black Sea variety, but several other kinds are grown. Oats are largely grown and many varieties used; White Siberian and Banner seem to lead, but many sow the common White Canadian oat. The common six-rowed barley is the kind mostly used, but the Mandscheuri is a great favorite where used. Peas are very seldom grown, as they have been a failure for some years. Among the varieties of corn most successfully grown and giving the best results in feeding, Compton's Early, Saltzer's North Dakota, Longfellow and the early Dent varieties lead. Mangels, turnips and carrots are not largely grown. Potatoes do well in most places in this district, and of varieties grown, Legion Blush, White Star, American Wonder, are among the favorites. About 1½ bushels wheat is sown per acre, 2 of barley, 8 of oats; 8 bushels of potatoes has given good results, but most people plant 12 to 20 bushels per acre. Oats and barley are seldom sown together, but a small quantity of peas is sown with oats. Mixture seems to be profitable, but is more difficult to harvest, and not so good to seed down with, as timothy and clover seed do better with the one variety. Very little is sown for summer feeding, but corn is sometimes used; timothy is largely used in seeding, but clover is gaining in popular favor, and is now sown with timothy, about 4 lbs. to 10 or 12 of timothy, but it is a question if better results would not be secured by reversing the amounts. Lucerne is not grown here.

FRANK SUITOR, KENT.—Goose wheat is the general cropper here, as it yields better and is less liable to blight; sown at rate of 1½ bushels to the acre. Red Fife is also considered good; 1½ bushels to an acre. The American White Banner is the commonest oat sown; 2½ bushels to the acre. Black Tartarian are grown here, giving good results; 2½ bushels to the acre. White Siberian are doing well; clean, strong straw, and free from rust; 1½ bushels to the acre. The six-rowed Canadian is the leader in barley. Mandscheuri is also a good yielder. Mensury is liked by many; sow 2 bushels to the acre. The Crown peas are the favorite. Golden Vine are also good; 3 bushels to the acre. Reid's Yellow Dent corn, Early Leaming, Illinois, White Dent, and White Cap. Flint varieties: Crompton's Early, Eight-rowed Canadian Yellow and White Flint; 3 quarts to an acre. Mangels, Yellow Giant, half-long, for stock; 10 lbs. to acre. Of sugar beets, thousands of tons are grown here for the Wallaceburg and Marine City, Mich., factories, and are displacing the growing of corn. Seed comes from Europe; 15 lbs. to the acre. Carrots, Giant White for field and stock; Guerande, half-long, for table; 4 lbs. to the acre. Potatoes, Crown Jewel, Six Weeks (for early), Sir Walter Raleigh and Rural New Yorker; 13 bushels to the acre. Mixed grain, Mandscheuri barley and Ligowo oats, sown one bushel of each to the acre. Oats, barley, goose wheat and flax also give good satisfaction, and increases the yield at least one-quarter. I decidedly would say no to the question, "Do you get as good catches of clover and grass seeds with mixed grains?" One kind preferred. Lucerne, rye and corn are grown for summer feeding. Timothy, 4 lbs.; red clover, 10 lbs., is sown for seeding down with. Lucerne is the coming feed, when understood; sow 15 lbs. per acre.

G. W. COATSWORTH, ESSEX.—There is very little spring wheat grown in this section. Oats—The Banner and Black Tartarian. Barley—Mandscheuri and Canadian six-rowed. Corn—White Cap Yellow Dent and Improved Leaming for dents; the White and Yellow Flint is used for late planting. Peas are not grown to any great extent, as the pea weevil or bug is very bad in this section. We have to get our seed from the northern counties. The small blue pea is used generally. Mangels—The Mammoth Long Red and Yellow Globe, for feeding purposes. Turnips—Not many grown, as a small fly or worm eats the leaves. Potatoes—For early, the Bovee and Early Ohio; for late, the American Wonder, Elephant and Rural New Yorker. The amount of seed used per acre for peas, oats and barley, from 2 to 2½ bushels; corn, about 7 lbs. per acre; potatoes, from 7 to 9 bushels per acre. There is not much mixed grains sown here, as the difference in ripening is so great that we prefer sowing them separately; if oats and barley are sown together, the barley will ripen sooner than oats, and is likely to fall or truckle down and waste before the oats is ready to harvest. We have not had any experience with clover and grass seeded with mixed grains. We generally get best results sowing with fall wheat or barley. Corn and clover are used for summer feeding principally.

some oats and peas are also used. Common red clover and timothy and some alsike are used for meadows. From 10 to 12 lbs. per acre for clover, and 5 to 6 for timothy and alsike. Lucerne is coming into use, although it is not displacing the red clover to any great extent, but where a good seeding has been secured it is giving good satisfaction. Those who have it are well pleased with it.

A. W. PARTRIDGE, SIMCOE.—Spring wheat—White Fife and Wild Goose; sow from 1½ to 1¾ bushels per acre. Oats—Sensation, Siberian, Bavarian, Twentieth Century and American Banner; 1½ to 2 bushels. Barley—Mandscheuri and common six-rowed; 1½ to 2 bushels. Corn—Compton's Early, Saltzer's North Dakota, Longfellow and Leaming; from 1 to 1½ pecks. Peas—Golden Vine and Ontario Vine; 2½ bushels. Mangels—Yellow Intermediate and Mammoth Long Red; sow from 2 to 3 lbs. per acre. Turnips—Sutton's Champion and Kangaroo; sow from ¾ to 1 lb. per acre. Carrots are very little grown. Potatoes—Empire State, American Wonder, Late Beauty; sow from 8 to 10 bushels per acre. Oats and barley are seldom sown together. Oats and spring wheat have given good results; sow 1½ bushels oats and 1 peck wheat per acre. This, when ground, makes good horse feed. Oats and peas are often mixed; sow 1½ bushels oats and ½ bushel peas, and cut with the binder; or sow 2 bushels peas and ½ bushel oats per acre, and cut with pea-harvester. If there is sufficient wet to drown the peas the oats will fill their place. Some sow oats, peas, barley and goose wheat with good results. If the grain is to be used for feeding hogs or cattle, I prefer a mixture. For seeding with grass or clover seeds, a mixture of oats and either barley or spring wheat is, I think, as good as oats alone, but spring or winter wheat or barley should, if possible, be used for this purpose. Very little summer feeding is done here. A mixture of peas and oats or corn are the only crops used. Six pounds red clover, one pound alsike and two or three pounds timothy per acre is considered good seeding here. This will cut well, either one or two seasons, as desired. Lucerne is very little grown here. It is not displacing red clover to any extent.

W. B. ROBERTS, ELGIN.—Very little spring wheat grown here; I do not know of any this year. Oats—American Banner and Siberian; I think the Banner is the best, and used the most. Barley—The only variety grown here is the Mandscheuri. Peas—Very few grown till last year. Corn—Compton's Early and the Smut Nose. I think the Compton's Early is the best. Mangels—Yellow Intermediate and Globe varieties are both good. Very few sugar beets; only the Danish varieties for feed. Turnips grown are Swedes, variety Purple Top. Carrots—Very few grown, as labor too scarce to hoe them; I have not grown any for years. Potatoes—Early New Yorker for early potatoes; Empire State for main crop. Quantity and seed per acre—Spring wheat, 2 bushels; oats, from 1½ to 2 bushels; if seeding with oats, 1½ best; barley, from 1½ to 2 bushels; if seeding with barley, 1½ best; peas, 2 bushels; corn, ½ bushel for hills; ½ bushel to ¾ bushel for drills; mangels, 4 to 5 lbs.; sugar beets and turnips, the same; carrots, 2 lbs.; potatoes, in hills, about 10 bushels; in rows, about 20 to 25 bushels. Banner oats and Mandscheuri barley are very good for sowing together; better still, Daubeney oats and Mandscheuri barley. I know of no other that gives any better satisfaction than the above. Mixture sown at the rate of 3 to 5 bushels of barley to bushel of oats, and sow 2 bushels of mixture per acre. Yes, it pays to sow mixtures of grain better than to sow singly, specially barley and oats. I have not found any difference in good catches of grass and clover seeds sown with mixed grains or with one kind of grain alone. Very few crops used in this district for summer feeding; if any, it is corn. Timothy and red clover and alsike. About 4 lbs. of timothy, 7 lbs. of red clover and 3 lbs. of alsike; sow 12 lbs. of the mixture per acre. Lucerne is not displacing red clover very fast in this district.

N. STEVENSON, PERTH.—Spring Wheat—Wild Goose. Oats—Irish White, Daubeney, Newmarket, Banner and Ligowo. Barley—Mandscheuri, Mensury and Black Japan. Peas—Mummy and Crown. Corn—Compton's Early, Huron Dent, Smut Nose. Mangels—Golden Tankard, Yellow Intermediate, Giant Yellow Globe. Turnips—Good Luck, Skirving's Purple Top, East Lothian. Carrots—None grown. Potatoes—Burpee's Early, Early Rose, Rural New Yorker. Quantities of seed sown: Oats, 1½ to 2½ bushels per acre; barley, 1½ to 2; peas, 2 to 2½; corn, in drills, for siloing, ½ to ¾ bushel, for feeding stalks, about double that quantity; mangels, 3 to 4 lbs.; turnips, 1½ to 2 lbs.; potatoes, 8 to 12 bushels. Mixed grains, Mands-

cheuri barley and Daubeney oats, 1 bushel of barley to 1½ oats. A mixture of peas, oats, barley and spelt gives great results in a dry season, but in a moist season go down and are hard to harvest, and generally unsatisfactory. By the increased yield per acre of feed, mixed grain pays, but with clean soil it may pay better to grow singly, as there is always a market for clean seed of the best varieties. The catch of clover and grass seeds is less sure with mixed grain, as it is usually sown thicker, but if sown thin enough, I see no reason why it should not do as well; but barley and fall wheat are our favorite crops for seeding down with. Very little of any kind excepting corn is grown for summer feeding, which entails labor, which is scarce and dear. Pasture land can be had reasonably, and the question of does it pay comes in here. Timothy, alsike and red clover are the principal varieties of grasses sown. There is quite a difference of opinion on this question, how much seed? We sow 10 lbs. of the best red clover seed per acre, cut two crops the next year, then plow up again. Those who sow mixed seeds use all the way from 8 to 12, and some as much as 15 lbs. per acre. Lucerne is not grown here to any extent.

JOHN JACKSON, WENTWORTH.—There is practically no spring wheat grown in our locality; if any, it is the Goose variety. Of oats, the Banner and the Improved American are favorites. Barley, Mensury and common six-rowed are grown; Mensury has quite the advantage, giving more straw, with a larger yield of good heavy grain. A few years ago peas, except grass peas, were not grown, on account of the pea bug or weevil. Grass peas for a time did well, but a blight came over them so bad that farmers were forced to quit them. For the last two years the round pea has done well, and is free from bugs; the Golden Vine takes the lead. Corn, for husking, the eight-rowed Yellow Flint and Compton's Early do well; for ensilage, Compton's Early and Red Cob Ensilage. Amount of seed sown per acre: Peas, 2 bushels; barley, 1½ bushels; oats, 2 bushels. Mangels, the Mammoth Yellow Intermediate, Mammoth Long Red, Half-long White Sugar Beet, in the order named, sown on the flat, 28 to 30 inches between rows, about four pounds seed per acre. In carrots, the New White Intermediate do well. Turnips, very few grown, land being heavy clay. Potatoes, the Early Ohio, American Wonder, Sabeau's Elephant, etc. For a mixed crop of grain, Mensury barley with some early kind of oats. Barley, oats and peas is perhaps a better combination. It pays to sow mixed grain to be fed on the farm, as more feed will be obtained per acre. I don't think a mixed crop good to seed down to grass with. For summer feeding, vetches and rape for sheep, mixed for early feeding, and rape alone for late. Corn is especially good for dairy cows. Timothy and red clover are the principal grasses sown. Alsike is going out of favor. Five pounds of timothy and 6 to 10 pounds of red clover should give a good stand. Lucerne does well on high, dry land, makes the very best of hay when cut very green, will not do on low-lying land. Don't think it is displacing the clover crop to any extent.

A. W. VAN SICKLE, BRANT.—Goose wheat is about the only spring wheat of any value grown here. Siberian, American Banner, Sensation and Joannette oats are grown mostly; Sensation are best when sown early. Of barleys, the Mandscheuri and common six-rowed are grown. The Mandscheuri is fast displacing all other varieties. The small white pea is generally sown; some are growing the Prussian blue with good results; grass peas have proved a failure. The Red Glazed or Smut-nose and eight-rowed yellow corn are grown for husking; for the silo, White Cap Yellow Dent and Essex-grown Leaming are favorites. The Mammoth Long Red, Giant Yellow Intermediate and Golden Tankard mangels, Westbury Swede turnip and Improved White Intermediate Carrot are grown in this locality. Of potatoes, the Rural New Yorker No. 2, Empire State and Welcome are leading varieties. Seed sown per acre, of spring wheat, 1½ bushels; oats, from 1½ to 2½ bushels; barley, 1½ bushels; peas, 2 bushels; corn, 1 peck; mangels, 5 to 6 pounds; turnips, 2 pounds, and carrots, 3 pounds. Two-rowed barley and American Banner or Siberian oats are being sown together. A few are sowing Mandscheuri barley and Daubeney oats, with good results. Some add peas to above, and others sow 6 quarts Goose wheat with oats; when ground, makes good meal. It will pay to sow mixed grains if varieties ripen together. If varieties ripen unevenly there is much loss. I do not think there has been any difficulty getting a catch of clover with a mixed crop, when the soil is in good condition. Rape, corn and alfalfa are grown for summer feeding; alfalfa is gaining favor rapidly. Red clover, alsike, alfalfa and timothy are sown for seeding down. The amount of seed of red and alsike clover is 10 to 12 pounds per acre, and 15 to 18 pounds of alfalfa. Lucerne is being grown more year by year. If cut when about one-eighth in bloom, and properly cured, it is considered equal in weight to bran, and is a very valuable food used with corn ensilage.

H. J. DAVIS, OXFORD.—Spring wheat is not generally sown here. Banner, Prolific and Australian oats are most popular, sown from two to three bushels per acre. Mensury barley and the two-rowed variety are mostly grown; seed per acre on good soil, 1½ to 2 bushels per acre. Peas have not been grown of late years to any great extent on account of the bugs. Last year there were no bugs, and a larger acreage will be sown this year. The grass pea was not a success, and the best variety has been the Golden Vine, which is the common-sized pea. Two bushels are usually sown per acre. Corn is being cultivated in a variety of ways. Hill planting is rapidly coming in favor, on account of easier and more thorough cultivation with the horse hoe. One and one-half pecks per acre when sown in drills, one peck when hill sowing is practiced. Mangels are grown nearly on every farm, Intermediate Yellow being the leading variety; Mammoth Long Red and Yellow Globe are good croppers. Flat cultivation, using the common seed drill, sowing about 2½ lbs. per acre, after which the roller is used, making the seed germinate earlier; a light harrowing before the plants appear makes the soil free of small weeds. Danish sugar beets are grown for feeding purposes; cultivation same as for mangels. Turnips—Champion, Hall's Westbury, East Lothian, are good standard varieties; 1½ lbs. is more than required per acre. Carrots are not much used now, the white varieties are most common. Potatoes that have withstood the rot are mostly sought after; the Rural New Yorker has been one of the best varieties, the Uncle Sam one of the best early varieties, and the late Rose one of the heaviest croppers. The Mensury barley and Banner oat are preferred for sowing together. If the grain is intended for feeding, a larger yield of pounds per acre can be secured from barley and oats. Mixed grains usually grow more thickly and shade too much for successful grass seeding. Alfalfa or lucerne is sown for summer feeding. Lucerne and red clover and timothy are used for seeding down; 12 to 15 lbs. Lucerne clover is on some farms an unknown thing, but is fast coming in favor, and once used it will come to stay, and this year a considerable acreage will be sown.

W. L. DIXON, GREY.—In this part of South Grey the varieties most generally grown are: Spring wheat, Preston and Fife. Oats, Banner, Siberian and New Zealand. Barley, Mensury and Mandscheuri. Peas, Golden Vine, Prussian Blue and Crown. Corn, Saltzer's North Dakota and Leaming. Mangels, Mammoth Long Red and Danish Sugar Beet. Potatoes, Empire State, Early Rose, White Elephant. Turnips, Bangholm, Carter's Elephant, Greystone, and Hartley's Bronze Top. Most of the farmers sow about 2 bushels per acre of wheat, oats, barley and peas. When the peas are large, more seed is required. Some recommend sowing oats thinner, as they stool out more and produce as much. The writer grew 39½ bushels Banner oats on about 1½ acres, from 24 pounds of hand-selected seed, sown out of every alternate drill hole. Corn requires about ½ bushel of seed per acre, but some sow more. Potatoes require 16 bushels, and turnips about 1½ to 2 pounds per acre. For mixtures of grain, the Banner or Siberian oats are sown with Mensury barley, but a later variety of barley would be better. Many sow oats 2 bushels, to peas 1 bushel, for mixed grain, with good results; others add barley with good results. Oats and barley in equal parts, or less barley in a wet year, give a better yield than when sown separately. Hence it is thought that it pays better to sow mixtures when the grain is needed for feeding purposes. It is thought best to seed down with barley or wheat. A heavy crop of mixed grains is not favorable to a good catch. For summer feeding, the following have been grown with success: peas and oats, oats and hairy vetch, oats and tares, fall rye and hairy vetch. Early Amber sugar cane has been tried with oats and vetches, but it did not add much to the yield. Prussian Blue peas are good in mixtures either for grain or summer feeding. Fall rye and hairy vetch come in early for a hog pasture in the spring. We generally seed down with red clover or Mammoth clover, timothy, and sometimes alsike, from 10 to 14 pounds per acre. Lucerne is not grown very extensively, and is not taking the place of red clover to any extent. Corn is not grown for the silo, as farm help is too scarce and high. A little is grown to be fed in the autumn and early winter. The land is gradually getting into fewer hands; many are selling out and going to the West.

F. BIRDSALL, PETERBORO.—Spring wheat is grown less and less every year in this vicinity, the general opinion being that it does not pay to grow it. What is sown is mostly Colorado. Large quantities of oats are grown, the Siberian and American Banner seeming to yield the best; sown 1½ to 2 bushels per acre. Barley is not grown to such an extent as in former years. The variety mostly sown is the Mandscheuri, 1½ bushels per acre. A large acreage of peas is sown and cultivated each year. As fancy peas for seedsmen, 1½ bushels small peas, 3 bushels per acre of Marrowfat. The variety sown for feed is mostly the Golden Vine. Corn is grown as a fodder crop and for ensilage purposes, this being a dairying district. The

Southern Sweet, Golden Leaming and White Cap give great satisfaction. In mangels, which are grown to a greater extent than formerly, the Yellow Globe is the favorite. The Giant Yellow Intermediate in mangels, and Danish Improved and Royal Giant in sugar beets, are, I think, the favorites. In Swede turnips, the favorites are the Kangaroo, Rennie's Prize Purple Top, Rennie's Improved Elephant. In carrots, the shorter varieties are gradually taking the place of the White Belgian. I think nearly every kind of potato named in the catalogues is grown in this county. One of the favorites is Burbank's Seedling. In sowing oats and barley for mixed crop, the Banner or Siberian oat and Mandscheuri barley are sown, two-thirds of oats and one-third of barley, at the rate of 2½ bushels per acre. Peas and oats are also sown for crop and green fodder, about the same proportions being sown at the rate of 2½ bushels per acre. My own experience is that it pays better to sow the crops singly. In seeding with a mixed crop, we do not have as good results, owing to the thickness of the standing grain smothering and crowding out the seeding of clover. As I said before, this being a dairying district, a great variety of crops are sown for summer and fall feeding. Oats sown at the rate of 2½ bushels per acre, and cut green; peas and oats, as mentioned above; corn broadcast, at the rate of three bushels per acre; corn in drills, at the rate of ½ to ¾ bushels per acre (this crop is cultivated). More clover is sown with oats, to be pastured off in the fall and then turned down. My own opinion is that from 2 to 4 lbs. of clover per acre should be sown with all the grain crops except peas. Red clover and timothy, in the proportion of about 9 pounds of clover to 4 of timothy, and sown at the rate of about 13 pounds to the acre, and sown with barley, which should not be sown over 1½ bushels per acre, is the favorite seeding. In low lands, 3 pounds alsike clover would be substituted for the same amount of red clover in the above mixture. There is very little lucerne grown, although what has been sown, if it was gotten over the first winter safely, and well manured by top-dressing with fine horse-stable manure, has given good results. We have grown lucerne for years, mostly in a mixture known as permanent pasture, its permanency consisting in one grass coming on after another, so that we have the first bite in the spring and the last in the fall for the sheep. We sow about 3 pounds of rape per acre with some of our oats for fall pasture for young cattle and sheep, and have good results.

QUEBEC.

CYPRIEN BELANGER, TEMISCOUATA, answers, in brief, as follows: Oats, Banner. Potatoes, Prolific, Chiff. Sow 3½ bushels of oats an acre, and 25 bushels of potatoes. Mixed grains are not used. Peas and oats are sown together as a mixture for green feed. Pays best to sow various grains separately. Seed with timothy and clover; 1½ gallons an acre. Lucerne is scarcely used.

GILBERT MATTHEWS, ARGENTEUIL.—Wheat is not much sown in this section, as it is a very uncertain crop; the varieties sown mostly are Early Preston and White Fife, about 1½ bushels to the acre. Oats are sown in great variety; Banner and Early Siberian are the best. We have the Improved White Banner, which is, I think, hard to excel; about 3 bushels to the acre as a general rule is sown. Barley does well here; the Mensury cannot be excelled for quality and quantity; I find 2 bushels to the acre sufficient. Peas are little sown, as they do not seem suited to this district. Indian twelve-rowed and great quantities of Western corn is grown in this section of country. Mangels, turnips, carrots and potatoes are not grown to any great extent, and vary as to variety. The Banner oats and Mensury barley do very well when sown together, but we are commencing to sow wheat, oats, barley, peas and spelt all together, and find a better yield than anything we have ever tried. I think it pays to do this; but when you are going to seed down a field, by sowing either wheat or barley singly, you get a better catch of either grass or clover seed. Corn is almost universally sown for summer feeding; also small quantities of tares and rape. Timothy seed for grass, and alsike or Vermont for clover, are in preference, and farmers are beginning to see their mistake of sowing too little of these to the acre; 1½ gallons of timothy and 8 to 10 pounds of clover is about right. Lucerne or alfalfa is just being introduced into these parts, and people are anxiously awaiting results.

W. L. DAVIDSON, PONTIAC, QUE.—In reference to best paying crops in this section of the Province of Quebec, I will give my own experience. Varieties—Wheat, Red and White Fife, yielding from 20 to 25 bushels per acre; sow of good seed from 6 to 7 pecks per acre. In barley the varieties I sow are the Mensury and Duckbill; the latter is best for mixed grain, being stiff in the straw will stand better. Seed, from 2 to 2½ bushels per acre, according to the condition of soil and time of sowing. In oats, the Banner is a good variety; seed, 3 bushels per acre. Corn for ensilage, Compton's Early, Leaming and Longfellow mature well in this section, and also Western Beauty; a new variety, very leafy, ears well, and is good for green feed. Mangels, Long Red and Yellow Globe pay better than sugar beets, giving much larger yield. Turnips, Purple Top Swedes are the best variety I have sown,

yielding 800 to 1,000 bushels per acre on clean land in good condition, properly thinned and well cultivated. Carrots, Medium Long White and Half-long Yellow give good crops. In potatoes there are so many varieties I do not know which is the best, but any variety may be improved by selection. To select in the field from the most productive hills is a good plan. Seed about 12 bushels per acre. A good plan is to mark the most promising hills, and save them to plant as a foundation crop for future years. In mixed grain, Banner oats and Duckbill barley ripen fairly well together, but a mixture of Banner oats, Duckbill barley, peas and wheat generally give the best satisfaction. Seed, 1½ bushels oats, 1 bushel barley, 1 peck peas, 1 peck of wheat. The wheat and barley, having a stiff straw, help to keep the crop from lodging. We generally get as good catch of clover and grass seed with mixed grains as with one kind of grain alone, wheat excepted. Summer feeding—A mixture of peas and oats, or vetches, sown early makes good feeding for milch cows when pasture fails, as it comes in before corn is sufficiently matured for cutting.

NEW BRUNSWICK.

B. H. CORMIER, GLOUCESTER.—The best varieties of wheat are the White Russian and Red Fife. The favorite oats are White Banner and Ligowo. The six-rowed barley is the most favored in this section. Peas, the Prince Albert. Corn, none sown, frost being too frequent. Mangels, the Yellow Globe. Turnips, for table we prefer Swedes, but for cattle use the Purple-top Aberdeen and Yellow Aberdeen. Potatoes, the Silver Dollar has been planted with great success, but now the market changes, so we plant White Giant and Snowflake, American Wonder and Rose. We generally sow two bushels of wheat per acre, 4 bushels of oats, 1½ bushels of barley; potatoes, we generally plant 4 barrels of seed per acre. The best variety of mixture for feeding is oats and peas. Some prefer black tares. It will pay better to sow mixtures than to sow kinds singly. I always get a better catch of clover and grass seeds with a single kind of grain. For summer feeding, oats and tares are preferred. We tried lucerne, but did not succeed.

JOHN FERGUSON, YORK.—The varieties of grain most favored in this section are: Of spring wheat, White Fife. Oats, Early Triumph and Banner. We do not grow much barley; we grow buckwheat. Peas, common small field. Corn, for ensilage, White Cap, Yellow Dent and North Dakota; for grain, the old Indian yellow (name not known). Mangels and sugar beets are not much grown here. Turnips, Purple-top Swede. Carrots, White Intermediate and White Belgian. Potatoes, Delaware, Early States and Gem of Aroostook. The usual quantity of seed used per acre is: Wheat 1½ bush., oats 2 bush., peas 2 to 3 bush., corn in hills 5 to 7 quarts, turnips 2½ lbs., carrots, 2 lbs., potatoes 10 bushels. We do not sow oats and barley together. In sowing mixtures of grain, peas and oats are the most satisfactory with me. I have not tried sowing mixtures of grain enough to know if it pays better than sowing each kind singly. I never get as good catches of clover and grass seeds with the peas and oats, mixed as with the oats alone, because the peas usually grow very rank, and smother all smaller plants. For summer feeding, I prefer peas and oats, fodder corn and clover. For seeding down, I use timothy and Peavine or Mammoth Red clover, mixed, and sown at the rate of 4 pounds timothy and 8 pounds clover per acre. Lucerne has not yet displaced clover to any extent in this section.

PRINCE EDWARD ISLAND.

THOS. S. WAUGH, PRINCE.—The varieties of wheat mostly sown in this section of the Island are White Fife and White Russian, the latter being best adapted to our soil and climate, as it is a vigorous grower on land of ordinary fertility, and also a hardy variety. White oats are largely grown, the leading varieties are Banner, Danish Island, Sensation and Early Gothland. In the black variety, Tartarian are the most prolific. Two-rowed barley of the common variety is sown with oats and wheat for feeding purposes. Peas only sown with oats as a green summer feed. Corn, for ensilage, Longfellow generally used. Mangels mostly grown are Mammoth Red and Yellow Globe. Turnips, Haszard's Improved, largely used for winter feeding. Carrots, White Intermediate for feeding purposes. Potatoes, Beauty of Hebron and Green Mountain, but the staple variety is McIntyre's, a blue potato, of superior keeping qualities. The quantity of seed sown per acre is as follows: Wheat, 2 bushels; oats, 2½ to 3½ bushels; corn, 1 to 1½ pecks; mangels, 5 lbs.; turnips, 2 lbs.; carrots, 1½ lbs.; potatoes, 8 to 10 bushels. For sowing together, I would prefer Early Gothland oats and two-rowed barley. In raising grain for feeding purposes, it pays to sow the various kinds together rather than singly. You may not get as good a catch of grass and clover with mixed grain as with one kind of grain alone, for this reason: too much seed is sown per acre, preventing the air and sunshine from reaching the grass plant. For summer feeding, oats, sown with vetches or with peas, give good satisfaction. The grasses commonly used for seeding down to hay are timothy, Mammoth late red and alsike, also White Dutch clover. The amount of grass seed used per acre in general is: Timothy, 8 to 10 lbs.; late red clover, 2 to 3 lbs.; alsike, 1 lb. Lucerne is not grown in this section.

**Ontario Experimental Union Results.**

Following are the tabulated results of the 1905 experiments with select lists of various farm crops, conducted all over the Province by members of the Ontario Experimental Union. It must not be assumed, necessarily, that because a certain variety is not mentioned in this list that it is not equal to some that are. For instance, American Banner, one of the most popular varieties of oats in Ontario, is not mentioned here. The results published, however, will give a good general

idea of the relative standing of the varieties mentioned, which in most if not all cases are among our most meritorious sorts, being mainly chosen for experiment on account of having done particularly well in the Experimental Department at the Ontario Agricultural College. The first column in the table gives the rating on the several varieties, embodying a summary of the answers of all the experimenters, and yield is not the only consideration in this column. In this column 100 represents the most popular variety, and the rest are rated in proportion:

**GRAIN CROPS, FIELD ROOTS AND FODDER CROPS.**

Experiments.	Varieties.	Comparative value.	Yield per acre.	
			Straw.	Grain.
<b>Oats (120 tests)—</b>				
	Joanette .....	98	1.59	53.58
	Siberian .....	100	1.48	48.45
	Daubeny .....	78	1.30	45.88
	Tartar King .....	95	1.45	45.46
<b>Six-rowed barley (28 tests)—</b>				
	Mandscheuri .....	100	1.22	37.73
	Oderbrucker .....	68	1.10	34.32
<b>Hulless barley (13 tests)—</b>				
	Black Hulless .....	100	1.40	24.63
	Guy Mayle .....	86	1.35	23.13
<b>Spring wheat (24 tests)—</b>				
	Wild Goose .....	100	1.98	34.87
	Red Flie .....	97	1.91	22.69
<b>Emmer and spelt (19 tests)—</b>				
	Common Emmer .....	100	1.39	39.94
	Red Spelt .....	69	1.34	31.90
<b>Buckwheat (7 tests)—</b>				
	Japanese .....	100	3.78	37.50
	Silver Hull .....	100	3.26	32.58
<b>Field peas (19 tests)—</b>				
	Early Britain .....	100	1.22	28.32
	New Canadian Beauty .....	85	1.70	27.51
<b>Field beans (20 tests)—</b>				
	New Prizewinner .....	100	.58	27.21
	Marrowfat .....	77	.77	22.80
	California Pea .....	66	.71	22.35
<b>Soy beans (2 tests)—</b>				
	Early Yellow .....	100	1.85	18.33
	Medium Green .....	85	4.30	17.33
<b>Winter wheat (14 tests)—</b>				
	Dawson's Golden Chaff .....	100	1.57	23.16
	Imperial Amber .....	76	1.82	22.22
	Michigan Amber .....	76	1.78	21.71
	Buda Pesth .....	38	1.58	21.08
	Turkey Red .....	38	1.87	20.05
	Banatka .....	43	1.79	19.40
<b>Corn for grain (17 tests)—</b>				
	Compton's Early .....	100	10.38	56.74
	Salzer's North Dakota .....	95	9.04	53.37
	King Philip .....	69	9.25	49.17
<b>Mixtures (11 tests)—</b>				
	Daubeny oats, 34 lbs. per acre.....	100	2.04	2,073
	Mandscheuri barley, 48 lbs. per acre.....	71	2.24	1,858
	Siberian oats, 34 " " .....	58	2.20	1,767
	Chevalier barley, 48 " " .....			
	Siberian oats, 25 " " .....			
	Chevalier barley, 35 " " .....			
	Wild goose spring wheat, 22 lbs. per ac.			
<b>Mangels (8 tests)—</b>				
	Yellow Leviathan .....	100		33.57
	Sutton's Mammoth Long Red .....	95		33.18
	Steele-Brigg's Giant Yellow Globe.....	63		28.47
<b>Sugar beets (7 tests)—</b>				
	Giant White Feeding .....	100		35.65
	Royal Giant .....	81		32.71
<b>Swede turnips (2 tests)—</b>				
	Sutton's Magnum Bonum .....	100		18.04
	Hartley's Bronze Top .....	85		16.64
	Kangaroo .....	85		14.54
<b>Fall turnips and kohlrabi (2 tests)—</b>				
	Red Top White Globe .....	100		34.53
	White Egg .....	80		27.43
	Early White Vienna Kohlrabi.....	50		13.75
<b>Carrots and parsnips (8 tests)—</b>				
	Mastodon White Intermediate .....	100		24.56
	Bruce's Mammoth Intermediate.....	76		23.18
	Buckbee's New Sugar Parsnip.....	40		15.62
<b>Fodder corn (7 tests)—</b>				
	Henderson's Eureka .....	85		17.48
	Leaming .....	85		12.94
	White Cap Yellow Dent.....	100		11.44
<b>Millet (2 tests)—</b>				
	Japanese Panic .....	100		16.72
	Japanese Barnyard .....	85		16.00
	Hungarian .....	72		12.02
<b>Grass peas and vetches (3 tests)—</b>				
	Grass Peas .....	86		10.00
	Common Vetches .....	100		8.93
	Hairy Vetches .....	100		8.65
<b>Rape (1 test)—</b>				
	Dwarf Essex .....	100		17.82
	Dwarf Bonanza .....	85		13.75

**THE DAIRY.**

**A Nova Scotia Dairyman's Milk Records.**

Although it has been our practice for the past four years to weigh the milk and take samples three days each month during the summer, we had not done so during the winter. Our failure to do so during the winter was due to the fact that we had no tester, and could only have the samples tested at our creamery during the summer season.

Last April we began a test, to be followed throughout the whole year, which is, briefly, as follows: On three consecutive days we weigh the milk of each cow, and take a small sample from each milking, six in all, thus making a composite sample, which is then tested. This weighing and sampling is repeated as near the same dates each month as possible throughout the entire year. The result of each test is recorded on sheets for the purpose, which are similar in form to the following:

Name or No. of cow.	Total weight of 3 days' milk.	Test.	Lbs. fat in 3 days.
Date of test .....			

The two first columns of this sheet are filled out at home, and the sheet sent with the samples to the creamery, where they are tested, the result of the test being placed in the column for the purpose. The last is either filled out at the creamery or after being returned.

Each of these monthly sheets is preserved until the end of the year, or such time as is convenient to calculate the total yield of milk and butter-fat for the month which they represent, the total amount for each month being transferred to another sheet similar in form to the one represented below:

Cows' names:	Cherry.		Rosy.	
	Milk.	Butter-fat.	Milk.	Butter-fat.
Months.				
April.....	760	28.		
May.....	687	27.9		
June.....	710	34.		
July.....				
Total.....				
Total butter				

From the first sheet the totals for each month are easily obtained, e. g., if a cow, for the three days tested in June, gave 100 pounds milk and 3.4 pounds fat, for the month she would give 100 times 30 divided by 3, or 1,000 pounds milk, and 3.4 times 30 divided by 3, or 34 pounds butter-fat.

During the past year our number of cows varied from 6 to 10, according to the season, the majority being Guernsey grades. For ten months, from April 1st to January 31st, we have estimated that, of our five cows dropping their calves the latter part of March or the beginning of April, the poorest, which was then a heifer two years of age, gave us 220 pounds, and the best 260 lbs. butter.

While we cannot yet give actual figures for the production of those dropping their calves in the fall of 1905, we can say the indications are that they will do considerably better than those that calved in the spring. The time required to make a test is small, that required to make the last one being only about a minute a day per cow. This includes weighing the milk, recording the results, and taking a sample. At the end of the year, the time required to make out a sheet and record the previous year's work is also small, and all may be done in one or two evenings.

We think that keeping a daily milk record would result in largely increased yields from a given herd, especially when practiced for a number of years. The method practiced, while not furnishing us with the exact returns per cow, is such that it enables us to ascertain which are the good cows in a herd and which the poor. Thus, we are able to weed out our poorer cows, and raise heifer calves from the best. In conclusion, we would strongly urge that some method of keeping milk records be adopted by all dairy farmers, and, while our method is by no means perfect, we would recommend it to consideration. Pieton Co., N. S. D. G. MACKAY.

J. H. Williams, Simcoe Co., Ont.: "We like 'The Farmer's Advocate' very much."

**Little Trouble to Keep Milk Records.**

Editor "The Farmer's Advocate":

In 1903 I saw that blank forms for keeping milk records would be sent free to any one who would fill in a monthly report and return it to Prof. Gridale, Experimental Farm, Ottawa, so I started, and have kept on ever since. I keep it about six or eight months every year—just in cheese-factory months. I test about twice in the summer—just enough to weed out the poor cows. We are paid by the hundred pounds in our factory, so the test doesn't amount to much so far as the factory is concerned. I don't find it much trouble weighing the milk since I have got used to it. I don't miss the time. I have a shelf for the milk about the center of the stable, and at the end of this shelf, only 18 inches higher, I have a little desk, with my blank form on it, with an elastic around it to hold it. I have my spring scales hung from the ceiling with a little chain. I have the tinsmith make my pails to the even pounds' weight with solder, and I know at a glance how much milk there is. I also have the lead pencil hung on a string, so it is always ready. I think about one minute to each cow every day is about all the time it takes. The hardest thing I find about it is making out the monthly report. I think about one hour each month will make it out. Some think it would do to weigh it three days in a month and take the average, but I don't take the same interest in it that way; I would rather weigh every milking.

I think it pays in two or three ways. You take more interest in the good cow and feed her better, and the other cow you make beef of. I have not a very big herd. I will send a copy of eight months of 1903. The cows are numbered, instead of named:

No.	Lbs. Milk.	Test in June.	Value Milk.
1.....	5,755	3.4	\$61.85
2.....	3,106	3.2	33.38
3.....	3,052	3.3	32.80
4.....	3,268	3.7	35.13
5.....	4,695	3.3	50.47
6.....	4,791	3.0	51.50
7.....	6,066	3.6	65.20
8.....	5,355	3.4	57.56
9.....	3,015	3.4	32.40
10.....	3,080	3.5	33.11
Total.....	42,183	Av. test 3.4	\$453.40

Average selling price, 10½ cents for pound cheese.

In 1903 one milk can would hold all my milk in a day, and in 1905, with only two more cows, it took two cans to hold the milk, and they were good and full, too; but I have changed about half the cows in that time. They are grade Holsteins and grade Ayrshires. I have no pure-breds yet, but hope soon to have. My best cow is a grade Holstein, No. 7.

The reason I have no later statement than 1903 is that I was changing the cows so much that I did not make them up as I ought. But as long as I milk cows I shall always weigh and test. I know in the fall what each cow is worth to me; and "The Farmer's Advocate" is worth a pretty good cow to me every year. I have the Breeder's Memorandum that came out in May 15, 1903, "Farmer's Advocate" framed and hung up in the stable. It is the handiest picture I ever had framed. D. A. KENNEDY.

Russell Co., Ont.

**Straining Milk Before Separating.**

Editor "The Farmer's Advocate":

A few weeks ago I noticed in an article in your columns some one advocating that it was not necessary to strain the milk before putting it through the separator, and the plea was that the cloth or strainer used was often only a source of further contamination to the milk, instead of a benefit to it.

We have to admit that frequently the strainer cloth is not cared for as it should be, but that is due entirely to carelessness. I have in mind two women I saw washing strainer cloths. One rinsed hers in the dirty dish-water, and hung it on a nail at the back of the stove. The other woman washed hers, first in clean, tepid water, then thoroughly scalded it and pinned it on the clothesline, where it hung from one milking time to the next. This latter method was as it should be.

To advocate or practice not straining the milk is contrary to the best principles. The sooner the dirt is strained from milk, the better the flavor and keeping qualities of it. While a separator removes some dirt, still, at the same time, the longer the dirt is in the milk, the more soluble it becomes, and no separator can then remove it. Moreover, not straining the milk previous to separating it, is apt to close or partially clog the skim-milk outlets, and so interfere with thorough skimming. LAURA ROSE.

**Test the Cows.**

If you test your cows one day each week during the milking period, and on the same day of the week, or will test them, say for a week, when they have been in milk for a month, and take this for an average of nine weeks, four weeks before the week test and four after, you will find out enough about your cows to induce you to make more full and complete tests hereafter.

If, however, you will not go to the trouble of getting a Babcock test, you certainly can get yourself a pair of scales, a piece of paper, a pencil and a Mason fruit jar, with some tablets—to be had at any drug store—to drop into the jar to keep your milk from souring. Put into this jar a gill of milk from each milking, after it is thoroughly stirred. Do this for a week, and send it to your creamery, whether you sell your milk locally or at a distance, and have them find out for you the per cent. of butter-fat. If you have the pounds and per cent., your small boy will tell you how much butter-fat there is in your milk. You are not doing a safe business if you undertake to sell milk without knowing what it is worth on the market.—[Wallace Farrer.

B. d'E. Boden, Saskatchewan: I firmly believe that the keeping of records is the only reliable means of improving herds by selection, and it is with this object in view that we have started to keep a record.



**Bonshaw's Royal Delight —17337—, Imp.**

Three-year-old Ayrshire bull. First-prize two-year-old, 1904; second in aged class, 1905. Central Canada Exhibition, Ottawa. Exhibited by J. H. Black, Genoa, Quebec. Now owned by J. A. Wood, Genoa.

**Careful Milking.**

Every milker thinks he knows how to milk, but if the cows could express their opinions they would probably intimate that a few lessons in the gentle art were not unnecessary. It is not fair treatment to sit down to a cow and tug and haul on her until she steps around in the stall and acts as if she were badly hurt. Sometimes a cow will stop eating and wait until the ordeal is over before she will resume her meal. The cow that does that is not comfortable, and an uncomfortable cow will not do her best for her owner. Some men have a way of milking that so pleases the cow that she clearly shows she enjoys it. These are the men whose method should be copied. Observing them, we see that they never shout at, strike, nor otherwise ill-treat their cows. They sit down quietly, take hold of the cow's teats gently, no matter how much of a hurry they may be in, and begin to draw the milk without pressing too hard, for they know they are touching her at a tender point; then they keep steadily at it until the last drop is out. It pays to milk carefully.—[Massachusetts Plowman.

**A Trio.**

G. R. Munroe, Richmond Co., P. Q.: "Many thanks for the premium. Will try and send you some more subscribers. Wish you every success."

C. N. Mighton, Wellington Co.: "The Knife is all you represent it to be."

Geo. Dolphin, Bruce Co.: "The Knife is a dandy."

**GARDEN & ORCHARD.**

**Draining a Fruit Farm.**

My experience has been somewhat extensive, as I have practically all my own fruit land—two hundred acres—thoroughly underdrained, most of it 30 feet apart, 2 feet 9 inches deep. I would say that on all of the flat land you cannot expect to grow a first-class article of fruit, nor can you expect to make fruit-growing profitable without a thorough system of underdraining. It frequently will not pay to drain such land for ordinary field crops, as the expense is considerable, but it certainly will never pay to grow fruit without it. On rolling land, of course, there is not so much necessity. I do not drain the hills or high, dry ground, especially if set with grapes or pears, as these fruits seem to be able to stand a much greater amount of stagnant moisture in the sub-soil than peaches, plums or cherries. These last three, and particularly the last two, and most particularly of all cherries, are bound to be failures on land having stagnant water in the sub-soil for any considerable length of time at all, and this is the condition of undrained land with a clay bottom during a portion of every year. A man only wastes his money planting cherries or peaches on land not most thoroughly drained, either naturally or artificially. I have lost considerable quantities of peach trees in the nursery on land that was low and flat, even though drained 30 feet apart; such draining on such soil was not sufficient, but, of course, such soil is not the sort of land to put a peach orchard on. These nursery rows, running across the field, were run over this flat ground, thinking that, being thoroughly underdrained 30 feet apart, they might succeed, but such was not the case.

Now, with regard to the system of laying out, of course that depends upon the slope in the field. One must place the main drain along the lower level. For a ten-acre field, where there is a good bottom, a 3-inch main, with 2-inch laterals, is quite large enough; many people use larger sizes, and, of course, larger sizes are necessary if the drain is badly laid, or the bottom is springy or is of quicksand, because in that case one has to allow for a certain amount of sagging

and filling up of the tile, but on a clay bottom, and the tile well laid, there should never be any filling up. I have had some fields laid now for over twenty years, and have never had to take a tile up yet, except where there happened to be a quicksand spot. Sometimes these are difficult to manage. Where very bad, I lay boards in the bottom and lay the tiles on these boards, driving the boards down into the sand solidly. Most of my drains have been laid 2 ft. 9 in. deep, which I consider below the frost line, and not much more. For orchards, however, I believe still deeper draining is advisable. I lay my drains midway between the rows of trees in each alternate space. I have never had much trouble with roots of trees getting into tiles, except where there is a spring of water running most of the summer; in such a place there is bound to be a great deal of trouble which is not easy to overcome. If you cement or close the joint of tile so the roots cannot get in, you also prevent the water from getting in to a large extent, though I believe a considerable portion of the excess of moisture in the soil would be absorbed by the tile, it would go through the pores of the tile. I have never tried this method yet, but intend to in springy spots.

I tried ditching machines many years ago, of the best patterns then available, and found them too expensive a luxury. Not only is the first cost of the machine heavy, but the constant repairs are very expensive. I do all my draining now with a subsoil plow, followed by men with shovels throwing out the loose earth. A subsoil plow, drawn by two strong horses, one on each side of the drain, will loosen the soil to any depth required, by lengthening the chain connecting the doubletree with the plow. This reduces



the cost by half over digging by hand, and is at least as cheap as any machine can do it. My experience of cost is, that with the lateral drains 2 feet 6 inches deep, with clay subsoil, sandy top soil, and with the mains of varying depths, sometimes running through ridges 4 to 5 feet deep, the average cost of laying eleven miles of tile, which we laid one season on one of my farms, was 20 cents per rod. This included all labor, but not the cost of the tile. The tile itself cost about \$7.00 per thousand for 2-inch, \$9.00 per thousand for 2½-inch, and \$11.00 per thousand for 3-inch, at kilns here. So far as laying the tile, we have never used any instruments, but have always tested with water when in doubt; it is safe and sure, and does not cost much. For many years I laid all the tile myself, but I got a real good, steady, honest man thoroughly drilled into the job, and he has laid all my tiles since that time. It is a job that cannot be trusted to a dishonest man. The laying of tile carefully and correctly is the whole essence of the matter. One tile out of place, or a depression in the fall below the level, of course, reduces the size of the tile by just that much, as the depression will immediately fill up with silt. E. D. SMITH.

Wentworth Co., Ont.

### Pruning Fruit Trees.

By Linus Woolverton, Grimsby, Ont.

#### THE APPLE (Continued).

**PRUNING FOR FRUIT.**—In the bearing orchard, the great object in view is, of course, the production of fine fruit, and plenty of it. The neglected orchard yields only scrubs, and is a loss to the owner and an eyesore to passers by.

The importance of thorough pruning, in order to produce good fruit, has impressed itself more than ever upon me of late, by observing the difference in quality between the fruit borne in those parts of my orchard thoroughly pruned, and that from the trees which had been neglected. I believe that sunshine has an influence on the formation of fruit buds, as well as in painting the cheek of the apple with brilliant carmine; therefore, it is that too much brush wood on a tree is like weeds in a garden, which choke it and make it unproductive.

To thin out all parts of a tree equally needs patient and careful work. It is easy enough to go from tree to tree, cutting out here and there a large limb, and flatter oneself that the work is done. But, alas! it is not done at all, there is simply less tree remaining than before the cutting. It is quite another thing to go over the bushy tops and thin out the smaller boughs until each has room to mature its share of leaves and fruit.

The best tools for pruning are: (1) A double-edged pruning saw, with a coarse and a fine edge. This, if kept well filed, will do quick and effective work. (2) A pair of pruning shears, with short handles, which are especially useful for thinning out young wood. (3) A pair of grape pruning shears, for thinning out the smaller extremities. Armed with such tools as these, a man will go over a good many trees a day, especially if the work is done annually, as indeed it should be.

A great mistake is made by some pruners, by cutting off all the fruit spurs along the main limbs. In my opinion an apple tree should bear fruit on all parts of its surface, from the trunks to the outer branches; and if the main limbs are covered with fruiting spurs this will be the case. If these are removed, they cannot be easily replaced. They can be easily recognized, from their slow, drooping habit of growth, in distinction from the upright habit of the so-called sprouts. These latter need not all be removed either, for if there is an open space one should always be allowed to fill it, and in a year or two these vigorous young sprouts will produce the very largest and finest apples. I had this experience once in my old early harvest apple orchard, which was planted by my great-grandfather in 1798. The old limbs were much riddled by the red-headed woodpecker, which was either searching for borers or was fond of the sweet sap beneath the bark. In some instances large limbs were almost girdled by the holes made by this bird, and, as a result, vigorous young sprouts began to grow from below the injury. Some of these I permitted to grow. In a couple of years these were the finest portions of the tree, and yielded the very finest harvest apples, many of them double the size of those borne on the old wood.

An additional reason for close pruning is found nowadays in the necessity of spraying. We have fungi and insects both to fight if we would succeed in our work, and we must spray with lime, sulphur, whale-oil soap, Bordeaux, kerosene emulsion, etc., etc., if we would grow fruit of the best quality. Spraying is not worth very much unless every inch of wood is covered with it, and if head of a tree is a dense mass of brush, how can you reach every part; besides, what a waste of time and material there is if a lot of unproductive and useless wood be left to be covered with these expensive mixtures?

So important have these operations become, that our co-operative fruit-growing companies have, in some cases, made it a rule that every member must properly prune and spray his orchard, or he must lose the privileges of the company.

#### THE PEAR TREE.

Since the pruning of the standard pear is somewhat similar to that of the apple, we may speak of it in the same connection.

As a rule, the top should be formed lower than that of the apple tree, because of its upright habit of growth. For the Bartlett, the Tyson, the Buffum, the Gifford, the Louise, varieties more or less upright in habit, I think three feet of trunk will bring the top high enough to be well out of the way in tillage. In the case of some other varieties, which are more spreading, such as Flemish Beauty, Anjou, Boussock, Diel, etc., perhaps four feet, or even five, might be advisable, according to the after treatment of the branches.

Heavy pruning of the pear tree should always be avoided, because it is followed by young and succulent growth, which seems to favor the attacks of the blight.

The chief work in pruning the pear is to thin out the top, so that it may not be too thick, and to prevent limbs from crossing each other. If any of the limbs grow too long without sending out side branches, or if the tree is reaching up too high, all such limbs must, of course, be topped, so as to keep the tree within proper bounds; otherwise, a standard pear tree will need less pruning than an apple tree, and may be allowed to follow pretty much its own habit of growth.

The fire blight has always been the terror and the despair of pear-growers. In a most unaccountable way it suddenly attacks the finest pear trees, the pride of the orchardist, and leaves them looking as if scorched by fire. Of late scientists tell us that one means of carrying the germs is the visits of bees in blossoming time, taking them from the flowers of a diseased tree to the flowers of a healthy tree. If this is so, pear-growers should be most careful at this season of the year to cut out all blighted or half-blighted wood from their trees. The blackened bark is easily discerned, and often traceable much farther than first supposed. This should be cut off about a foot below the lowest trace of blighted bark, so that no diseased wood may escape. The prunings should not be left to lie and scatter their spores, but should be gathered and burned.



Fig. 1—A Dwarf Pear Tree.

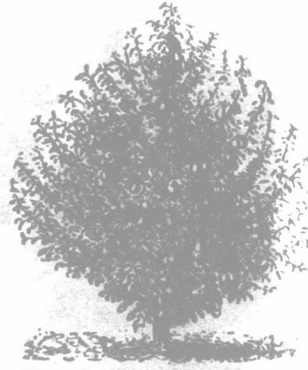


Fig. 2—Dwarf Pear Tree in Fruit.

The Dwarf pear tree needs different treatment from the Standard. It is budded on the quince root, a slow-growing stock, which needs encouragement by close pruning, and in some cases by potash or phosphate fertilizers, but seldom by nitrates. The quince root being a surface feeder, and not rooting deeply, is another reason for close pruning, for if the top reaches up too high the whole tree may be uprooted and blown over by the winds. Besides, I think that close spur pruning of the dwarf pears tends to improve the size and quality of the fruit, for while close pruning of a standard would result in too much wood, the same treatment of a dwarf only gently stimulates the wood growth, and imparts the energy thus conserved into the fruit buds as well.

I am trying to train all my dwarf pears to the pyramidal form, because it makes a beautiful and a symmetrical tree. To do this it is, of course, necessary to begin with a young tree from the nursery that has been allowed to branch from the ground. Indeed, it is always best to buy a dwarf pear with branches well formed.

By careful pruning with the grape pruning shears each year, the young dwarf pear tree may, in a few years, be made to assume somewhat the form shown in Figure 1.

In addition to shortening back the main limbs to keep the form shown, the leader must be topped at the proper height, and thus the tree will not increase very rapidly in size. The laterals should be cut back to within two or three fruit buds of these main limbs—more or less, according to the size and vigor of the tree. A well-proportioned dwarf should have its diameter about two-thirds of its height.

A dwarf pear orchard, pruned in the pyramidal form, will be an attractive feature of the orchard or fruit garden, which the owner will have pleasure in showing his friends, and inviting them to partake of the luscious fruit.

From the results obtained on 100 trees, set apart since 1902 by the Maine Experiment Station for specific experiments in old-orchard renovation, the Horticulturist, Prof. W. M. Munson, feels warranted in stating that, with proper care and food, there need be no "off year," even with Baldwins. As might be expected, better results were obtained from the application of a complete fertilizer than from the use of any one or two of its separate components. The severe winter of 1904-5 injured many trees, but where good cultivation and feeding are practiced the trees are rapidly recovering.

### Southern Ontario Fruit-growers.

Editor "The Farmer's Advocate":

The fruit-growers in that important fruit belt between Hamilton and Grimsby have organized themselves into an association, under the above title. Mr. Jonathan Carpenter, of Winona, was elected president, and Mr. Egbert Smith, Secretary-Treasurer. The directors are to be representative; instead of being elected by the meeting, they are to be elected by local clubs of not less than ten members. The membership fee is 50 cents per annum. The object is to discuss problems of practical interest to fruit-growers.

The first meeting was held in the new hall at Stony Creek, on Friday, February 23rd. "Peach Culture" was introduced by Mr. Wesley Smith, of Winona; "The San Jose Scale," by Mr. Smith, an official of the Department of Agriculture; and "Grape Growing and Pruning," by Mr. L. Woolverton, of Grimsby.

The second meeting was held at Grimsby, on Friday, March 2nd. At this meeting much time was spent discussing practical questions, such as "Transportation of Fruit, Both Express and Freight"; "Sizes of Baskets and other Fruit Packages"; "Co-operation Among Fruit-growers," and other subjects. Mr. H. L. Roberts, of Grimsby, outlined a very practicable scheme, looking to small local organizations of fruit-growers, which in time might themselves co-operate, and thus avoid the present reckless method of selling fruit on commission, by which the grower is the constant loser.

This Association promises to be one of the strongest and most influential in Ontario, being composed of some of the most progressive and best-informed fruit-growers in the fruit district.

L. WOOLVERTON.

### POULTRY.

#### Get Ready for Spring.

These are days when the farmer is getting ready for the breeding season. There is no better time than the present for preparing for a thorough cleaning of the poultry premises. As far as possible every crack should be cleaned out, and all dust swept down. The litter should be removed, and if any suggestion of foul smell remains, abundance of lime should be used. The roosts should be taken down and scalded, and the dropping boards thoroughly cleaned. Then the whole premises should be carefully sprayed with coal oil. A good hand spray answers this purpose very well, provided the operator is careful to see that the oil reaches every crack and cranny. This done, the whole henhouse should be carefully whitewashed with the best of new lime. The hens themselves will be the better of an occasional dusting with sulphur. These precautions are recommended on the principle that an ounce of prevention is worth several ounces of being sorry that dirt and disease have come with the warm spring days. Then, again, it will be wise for those who use incubators and brooders to look their machines over, and test them, so that there will be no disappointment when the time comes for their being put to use. Those who still use hens for brooding purposes should see that nests are ready against hatching time. If one intends hatching eggs from his own flock, it will be well to separate the cockerels from the hens till a short time before fertile eggs will be in demand. If eggs from another flock are sought, they should be spoken for, in order than an early hatch may be secured. The poultry business yields a fair profit, provided care is taken and judgment is used. If one aims to have his hens lay next December, this is the time to make preparations.

C. J.

#### Believes there is Money in Ducks.

For the second year we have given considerable attention to ducks, having raised during the season some 200, some of which were sold as dressed birds, and a number of which were kept for breeding purposes. White Pekin, Indian Runner and Rouen are the breeds which we have at present. The demand for "green ducks" in Nova Scotia is yet rather small, but it is a growing one. As there are no birds which grow more rapidly, and no more economical feeders, we are decidedly of the opinion that it will pay to raise a much larger number than have heretofore been raised in our Province. We marketed the most of our birds when they were ten weeks old, at which time they averaged in weight from 4½ to 5 lbs. Many persons believe that ducks cannot be successfully raised unless they have access to a pool or running stream. That this is a mistaken idea, the writer ascertained for himself when he visited a farm in Massachusetts where some 3,500 ducks were raised annually, and yet there was not a stream or pool of water within a radius of three miles.—(J. P. Landry, Poultry Manager N. S. Agricultural College, in his 1905 annual report.)

**Rearing Turkeys.**

Part II.

**LAYING AND HATCHING.**

Boxes so constructed that young turkeys cannot get out of them when hatched should be fixed in nearby fence corners and outbuildings the latter part of March for nests, as a turkey will be on the lookout for a nest some time before laying, and having them prepared early will often save the annoyance of watching for a nest in a back field. Chaffy straw will make good nesting material, but should be renewed when the turkey is set. Turkey hens lay anywhere between 10 and 30 eggs before becoming broody, and as each egg is laid it should be gathered and kept in bran in a cool room, turning same at least twice per week. When the turkey egg is taken from the nest a hen's egg should be left in its stead, or the turkey may leave that particular nest. When you are sure the turkey has become broody, give her the eggs—never more than 20—and in doing so, don't neglect to give the nest a thorough dusting with fresh purchased insect powder. The nest should be made pretty flat, otherwise the eggs will crowd towards the center, and if the turkey is of fair size will break many eggs. I allow the turkey to come off the nest when she pleases, but if down where dogs or skunks can get at her, close her on at night. Make sure that she can find water when she comes off, and that is all that is required, for she will hunt her own food and dusting place. About three days before the young turks are due, shake a goodly quantity of the insect powder over the hen on the nest. Don't spare it at this time, for a start free from lice is one of the important points in turkey-raising. I have never had to grease a young pout for lice, and I give the credit all to insect powder applied at this time. I have known many young turkeys killed by a too liberal use of lard and sulphur. At the best, it makes a dirty job of them, and, further, the less handling they receive the better. If you are going to place the hen in a coop that has been used the previous season when taken from the nest, the coop should be given a thorough whitewashing at the same time you dust the hen, so that it will be perfectly dry when required.

**CARE OF THE YOUNG.**

It is not advisable to bother the hen much when the poults start hatching, as the most quiet turkey becomes cross and "fussy" when she hears them chirping. I try to leave them alone for about 12 hours after I think hatching has commenced, but I then go as quietly and quickly as I can and remove the hen from the nest, by running my hand under her from the back, if possible, balancing her fairly on same and throwing her off. There is no use coaxing or delaying in doing this, for every moment spent in this endeavor only increases the chance of her squashing a pout. The shells are removed, and if all are hatched they are marked in the web of the foot with a small poultry punch, picking the small scale off the end of the bill at the same time. The latter, I fancy, causes them to pick crooked until it falls off, if not removed. I allow the hen to return to the nest for another 12 to 24 hours, depending upon how far hatching has progressed. At this stage the condition of the weather influences my next move. If very cold or wet, I take the hen and her family to a large dry-goods box, placed on the south side of a building, and cover with loose boards, so that I can open them to admit light when feeding. They are seldom kept here more than two days, as these storms generally run their course at this time of year in that time. They are then taken to the coop; in fact, it is only seldom I use the box, for if the weather is moderately warm I take at once from the nest to the A-shaped coop without bottom, and slatted front, the slats being crosswise, about four inches apart. The back is boarded solid. The boards that make the sides are 3 feet 6 inches in length, and the coop 3 feet in depth; the bottom is pretty wide, as this keeps the hen mostly in the center, thereby preventing her trampling the young. This coop is placed upon short grass away from other fowl, and a goodly quantity of fine gravel is placed alongside of same, as well as some road dust in a hollow nearby. It will surprise many to know that they will look for these luxuries as soon as they commence to eat. I should not say luxuries, because they are a necessity.

A broad board to prop against the front of coop at night, and a "scarecrow" nailed to a large plank, so that it can be moved to a different position each day, will be required. The former will keep out cats and skunks, and the latter will fool the hawks and crows, generally, though not always. I am aware that many give the hen and flock their liberty after the first few days, and have fair success, but when a rainstorm approaches they have to run and get them in, or the loss of the weakest is the result—not from the rain itself, but the running through the long wet grass afterwards. Besides, the chances of loss from crows and hawks is increased by their going so far from the buildings. I had that by confining the hen in coop, and letting the young run in and out through the slatted front at will, they will roam as much as is good for them (daily taking in a larger area), and they will go in the coop of their own accord when it rains sufficiently to harm them. However, there is one point in connection with the coop, and that is to never neglect moving the coop the breadth of itself each day, for young turkeys will surely sicken and die if compelled to hover upon the same spot night after night. I keep the hen in the coop from four to five weeks. If the weather has been favorable she can be liberated in four weeks, and

with her flock allowed to roost on the trees and fences near the outbuildings. Many turkeys are lost through the folly of driving them into some small building every night when young to protect them from enemies. These buildings have no ventilation, and are seldom cleaned. Avoiding this is probably the main advantage in using the coop. I should possibly state that no pains are taken to have tight joints in constructing these coops, as it is not required. W. J. BELL.  
Simcoe Co., Ont.

**An Ideal Poultry Plant.**

During the past winter Prof. G. M. Gowell has kept some 2,000 Barred Plymouth Rock pullets at his poultry farm, established last spring at Orono, about half a mile from the University of Maine. While the plant is owned by the gentleman, he makes use of it in his work as Professor of Animal Industry, for it is a practical application of the principles taught at the College.

The main poultry house faces the south, and is 400 feet long by 20 wide, with walls 7 feet high in front, 5½ in the rear, and a roof with a short south side. A platform, at an elevation of some 2½ feet, extends the length of the building on the front, outside.

The house is divided into compartments 20 ft. square and about 8 feet high at the ridge, sealed with matched boards, and separated by board partitions, with doors swinging each way, enabling a tram car with overhead truck to traverse the entire 400 feet. Each compartment has a grass run on the front side, 26 by 100 feet, and it is proposed, the coming summer, to construct similar runs at the rear of the building, the two runs to be used alternate weeks.

At the right hand as you enter is the roosting closet, the platform of which is elevated 3 feet from the floor. This is scraped clean every morning. Canvas doors, above which are ventilators, drop from above by hinges, closing the birds into their sleeping apartments at night, and are buttoned to the ceiling during the day. On the left of the entrance are the nests for laying, while on the left of the exit are slatted closets which may be used as prisons to confine sitters or quarrelsome cocks.

Realizing the importance of plenty of light and air where so many birds are kept, a large space on the south side is left open for the admission of these germ-destroying mediums. Wire fencing prevents the escape of the birds. Canvas doors, 9 1-3 feet by 3½ feet, opening in, and held up to the ceiling by a button, permit a free circulation of air, while in addition, 12-pane windows on each side admit sunlight. The canvas door is closed at night and during storms that beat into the henhouse on that side. Below these are doors admitting to the run on the south side.

Charcoal, grit and shell are kept in long, triple-compartment boxes, with slant roof and slatted sides, placed against two walls of the room, and are never allowed to get empty, as at all times the hens must have access to these elements. The charcoal acts as a regulator to the bowels. On the front side is a similar single-compartment box, holding a bushel, in which the dry mash is kept. This, also, is replenished each day, and is never allowed to get empty. Large galvanized-iron pails are filled twice a day with clean warm water. The floor is covered with a layer of sand an inch deep. Above this is a generous litter of straw, which is removed every two weeks. In each breeding-pen are 100 pullets and six roosters.

Each morning four quarts of cracked corn are scattered in the litter of each pen; at noon, two quarts of oats and two of wheat. The dry mash is always before them. It is composed of two parts bran, one linseed, one middlings, one corn meal, one beef scraps, and one ajax flakes or brewers' grain. Cut clover, at the rate of 3½ pounds to every hundred birds, is given dry every day.

During January 800 eggs were produced daily, collections being made every few hours. February saw an increase of 200 eggs per day.

In a little house, erected for the purpose, these eggs are sorted with reference to size and color, packed, and shipped by express to the fancy family trade of the Boston markets, shipments being made daily, and no egg being over one day old when sent to market.

Three years ago Prof. Gowell bought this land—some thirty acres—for a poultry plant. In order to have it in the best possible condition for ranging chicks, he followed it one summer, and then planted it to potatoes, raising 3,000 bushels of the tubers. Now the crop from that land, instead of being potatoes, is chickens and eggs. Wentworth Co., Ont. M. B. A.

**Would Not Take a Dollar for the Knife.**

I received my premium, the Knife, all O. K. It is a beauty, far ahead of my expectations. I would not take fifty cents, or even a dollar, for it. Thank you very much. I will try and get some more subscribers for your valuable paper. Wishing you and your paper every success. Carleton Co., Ont. CLARENCE D. MILLS.

**THE FARM BULLETIN.**

"A bounty on tree-growing would be of far more benefit to the country at large than a bounty on beet sugar," writes S. B. Elliott, discussing woodland taxation in "Forest Leaves."

**Lectures at the Eastern Ontario Live-stock and Poultry Show.**

The meetings and lectures in connection with the above show, the live-stock classes of which were reviewed last issue, were presided over by President G. C. Creelman, of the O. A. C., Guelph. Wednesday afternoon (March 7th) session was devoted to sheep. A. W. Smith, of Maple Lodge, a well-known, practical sheep-breeder, discussed the advantages and profits of sheep-raising. From a lifetime's experience, he was prepared to say that no branch of farming on the average yielded more profitable returns than sheep-raising. He had always kept pure-bred sheep, and believed the opportunities for the man who raises pure-breds greater than those of the man breeding for commercial purposes only. He not only came out ahead financially, but was a benefit to his neighbors and his country.

**PROFITS IN SHEEP-RAISING.**

Mr. Smith designated the profits as the material advantage. It required less capital to equip buildings suitable for the protection of a flock of sheep than any other kind of farm stock; the comparative cost of feeding was less, and the care of sheep was not an expensive and laborious occupation. He contended that sheep would carry from 25 to 35 per cent. more weight per acre than cows, and could be produced at least one cent per pound cheaper, instancing in support of this his own experiences. He spoke briefly upon the care of sheep for exhibition purposes. He believed that sheep should not be housed during the summer months, as he had found outdoor feeding more economical, and had achieved better results than when he practiced housing. He referred to the usefulness of sheep to destroy weeds, at the same time deriving nourishment from them. Mr. Smith pointed out in conclusion that it was possible to defray the entire cost of keeping a flock of sheep from the sale of the wool, leaving the receipts from the lambs clear profit. In reply to a question from John Campbell, as to the proper time for marketing sheep, Mr. Smith advocated holding them until Christmas and Easter, as from one to three cents more per pound could be realized on them than if marketed in the fall. If kept over, however, they must be handled and fed very carefully to insure this profit.

Prof. G. E. Day spoke upon the "Desirable and Undesirable Points in Mutton Sheep," and had in the ring a most excellent type for demonstration purposes. He asserted that all classes of animals must be viewed from the breeder's, feeder's and butcher's standpoints. All were, however, united in one definite aim to please the consumer. The butcher considers the most valuable part along the back, ribs, loin and leg of mutton, and desires a long, broad back, broad loins and well-proportioned leg of mutton. The breeder desires good constitution, or an animal with broad chest, large heart-girth, good length of rib and large barrel, which indicates feeding capacity. Breeders should select sheep with good constitution and desirable type, in order to secure a profitable type of progeny.

In the discussion which followed, John Jackson advised trimming sheep properly before sending them to market or the show-ring. It was in his opinion a perfectly legitimate practice, as it was done merely for the purpose of improving the appearance of the animal. Competent judges could not be deceived by this practice. Mr. Miller said the way to judge the amount of flesh carried on the back was by the thickness of the dock and thickness and strength of neck. English experts judged entirely by this method.

John Campbell, of Woodville, discussed the best markets for sheep, and how to supply them. Three markets were open to the farmers of Ontario, viz., British, Canadian and American, ranking in importance in the order mentioned. Our export trade had fallen off, owing to our not supplying sufficient numbers, and the quality on the whole not being up to the standard. This could be rebuilt, as the present demand for a superior quality of mutton would insure a ready market at a profitable figure. The Canadian market was a good one, specially for early lambs. The Dorsets were well adapted to meet the requirement. Lambs could be disposed of at the most profitable figure in the American markets about this season of the year. Mr. Campbell reiterated what Mr. Smith said regarding marketing lambs at Christmas or Easter. He referred with pride to the record Canadian stock had recently achieved in the American markets, and noted that from the twelve carloads of live stock recently sent from the Guelph to Chicago International Live-stock Show, Canadians returned with over 90 per cent. of the prize money awarded in the classes in which they were competing. He complained that the Government was giving sheep-breeders little recognition as compared with dairymen, and were not giving them the protection they were entitled to from the dog nuisance.

C. W. Bowman, manager Montreal Packing Co., Montreal, who addressed the meeting on "Some Mutual Interests of the Packers and Hog Producers," said that although the business of the farmer and packers were quite different, there was a great deal of mutual interests. While they had been exporting bacon for thirty

years, however, it is only since improvement in packing and improvements by producers in the production of a desirable type of bacon hog, that pork production had become a profitable industry. Canadian trade as compared with Danish in the English market was comparatively small, and our Danish competitors were receiving from one to two cents per pound more than we were. Danish bacon hogs were of a uniform type, and he advised all breeders to stick to the bacon type through depression and prosperity. Occasionally a panic goes over the country which causes breeders to sell their hogs before they have reached the proper weight. This not only has a depressing effect upon the market, but they found when these pigs were slaughtered that they produced from 10 to 20 per cent. less Wiltshire side than if they were properly finished and weighed 180 lbs. Another point of mutual interest to both farmers and packers was the regular supply of hogs. When the world's supply was greater than the demand, farmers stopped raising hogs. In the course of a few months things right themselves, and we find there are no hogs to market, and we lose our export trade. If the Canadian farmers would supply packers with a steady and desirable type of bacon hog, the Canadian producer could get ahead of the Danes, as the English market demands the best that can be produced, and will pay the price. "What about the restrictions placed on American hogs?" was asked. Mr. Bowman replied that he did not believe it would do the farmer any harm, and he believed the situation would soon right itself if the packers would let American bacon alone.

Prof. Day said his experience with stock foods led him to believe they were a negative quantity. There were some which would possibly act beneficially as a tonic if pigs were out of condition, but he advised all feeders to think twice before they paid out hard cash for stock foods which the agents refused to give the composition of.

Mr. H. Glendinning discussed "The Importance of the Bacon Trade to the Canadian Farmer." Many farmers had inquired from him during the past winter for the thick, fat hog. Should we go into the production of this type of hog, we would immediately have to meet the competition of the American pork, and reduced prices. Asked as to what was keeping up the price of the fat hog, Mr. Glendinning stated that the bacon hog was carrying the fat hog along with it, an assertion in which the majority present concurred.

Mr. Thos. McMillan took up the discussion, and stated that if we were going to keep up the fertility of our soil we must engage in a system of stock-raising. The Province is more prosperous now than ever before, and he attributed this largely to the increase in trade, specially live stock. He advised farmers to go into the business of hog-raising, as the capacity of the packing houses in Canada was over 60,000 per week, and we were only able to supply 15,000.

Thomas McMillan, Seaforth, discussed the finishing and marketing of beef cattle, pointing out the necessity of following the market closely throughout the year. He had found August to October the best time to buy steers for feeding, and April and May the most profitable time to dispose of them. In buying for feeding purposes, select animals that have been well done for up to the time of purchasing. Regularity in feeding, cleanliness and gentle treatment were prime essentials to successful feeding. The average cost of feed for fifty steers bought in the fall and sold in June, was \$18 per head. This was reckoning the ensilage at \$2.00 per ton; straw, \$1.50; grain, \$1.00 per hundred, and clover hay, \$6 per ton. In reply to an enquiry as to what was a good average gain from November to May, Mr. McMillan stated that fifty steers wintered by him made an average of 275 to 300 lbs. each.

Mr. Glendinning gave an address on the dairy female from birth to maturity. He advised allowing the calf to suck for a day or two to eliminate the possibility of over-feeding, which often proved fatal. A dairy calf need not be fed whole milk after it is one week old. When feeding separator milk, however, add a small handful of ground flaxseed to take the place of the fat separated from the milk. Feed the calf milk until it is six months old. Breed the heifer when she is 18 to 21 months old. During this first period of pregnancy is the critical period of her life, and attention and extra feed, specially during the last four months before parturition, will give very profitable returns. He advised raising calves from old cows which have proven their worth by performance.

D. Drummond advocated handling and rubbing the heifer's udder—but never drawing milk—the last few weeks of pregnancy, as it would develop it. Milk her during the first period of lactation nearly one year, as it would tend to form the milking habit.

#### Forest Reserves for Dominion.

The Canadian Minister of the Interior will introduce a bill this session of Parliament for the creation of forest reserves on Dominion lands. In the reserves proposed to be set aside there are about seventeen thousand square miles, and the principal forest areas are: Moose Mountain, Saskatchewan, 160 square miles; Beaver Hills, Saskatchewan, 267 square miles; Rocky Mountain Park, 4,500 square miles; Turtle Mountain, Manitoba, 110 square miles; Spruce Mountain, Manitoba, 255 square miles; Riding Mountain, Manitoba, 1,685 square miles; Duck Mountain, Manitoba, 1,307 square miles; Long Lake, British Columbia, 118 square miles. It is proposed that any order-in-council creating a forest reserve shall have all the permanency of an Act of Parliament, and cannot be amended or repealed save by order of the House.

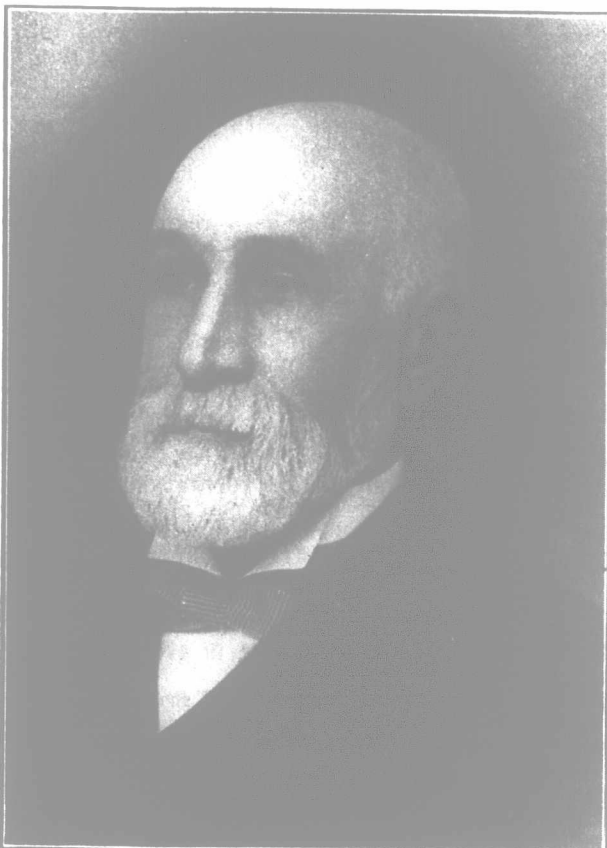
#### Two Pioneer Agricultural Society Officers.

Few Agricultural Society officers can boast a longer tenure of office than the two whose halftone portraits appear on this page. Mr. W. E. Roxburgh has, owing to ill health, resigned the position of Secretary-Treasurer of the East Peterborough, Ontario, Agricultural Society, after holding the office for 38 years. Mr. Frank Birdsall was elected President of the same society 38 years ago, and has been an officer ever since. For some years past he has been President repeatedly, and holds the office again for 1906.

From a struggling little show that used to travel



Frank Birdsall.



W. E. Roxburgh.

from one village to another, and with a total list of 577 entries, these gentlemen, always backed by the board of directors, have lived to see and helped to centralize it at Norwood, and now the number of entries runs over 2,000, with a prize-list of over \$1,500. Too much credit cannot be given to Mr. Roxburgh, the retiring Secretary, as he has helped by his genial manner to make the show the success that it is now. For many years, when the funds were low, Mr. Roxburgh, as Secretary-Treasurer, served without reward.

#### Disagrees, but Will Not Part.

Your paper is well worth the subscription money, even if we should disagree on some minor topics. I look upon it as one of the best publications of its kind, a credit to any other country. Beaver Lake, Alta. HENRY DERBY.

#### The Ottawa Dairy Test.

An interesting 48-hour milk test for pure-bred cows, conducted under the supervision of Mr. Thomas Goble, at the Eastern Ontario Live-stock Show at Ottawa, resulted in favor of Maid of Colantha, a Holstein cow, owned by N. Sangster, of Ormstown, Que. Her total number of points was 138.1, and her total number of pounds of milk in six milkings in the two days was 144 pounds. Prizes were awarded on the basis of 20 points for each pound of butter-fat, 4 points for solids not fat, and a point for each ten days in milk after the first 30 days. The following is the order of merit of the other breeds represented: Ayrshire, Shorthorn, Guernsey and Jersey. The first prize in each instance was \$25. Comparing the points made by the best pure-bred cows with those of the best grades, the grades came out ahead by one point. Results of the tests in all classes were very satisfactory, and in many instances eclipsed all previous records made here.

#### The Globe Favors Wood-lot Exemption.

Discussing editorially J. P. Downey's Bill, reintroduced into the Ontario Legislature this session, to enable municipalities to exempt from taxation unimproved woodlands, subject to certain limitations as to area, etc., the Toronto Globe quotes a committee appointed by the Massachusetts Legislature to consider the laws relative to the taxation of forest lands. This committee has made a report strongly favoring such exemption as that proposed in Mr. Downey's Bill. The report states that the most objectionable feature of the present system is that "it provides for taxing the value of the growing crop as well as the land upon which it grows." It says further, that "the growing crop is taxed, not only once or twice, but year after year, at an increasing valuation until it is cut, when the valuation is reduced to that of the land without the crop."

The Globe itself strongly favors the principle of Mr. Downey's Bill, and concludes its article with the statement that optional exemption of wood-lots will be a move in the direction of a sound economical policy towards private enterprise in forest reproduction.

#### The Mutual Fire Underwriters' Association of Ontario.

At the annual convention, held in Toronto, February 27th and 28th, between forty and fifty Mutual Companies were represented by sixty-eight delegates.

The address of the President, Levi Stauffer, was a brief resume of the work done, and the place occupied by the Association, being the Mutual Fire Insurance Companies of the Province, organized for mutual helplessness. Excellent addresses were given by Jas. McEwen, Drayton; J. N. McKendrick, Galt; and Frank Haight, Waterloo. The report by the Ex-Com. on "Power in Farm Barns, and Commensurate Rate Applicable Thereof," was a clear setting forth of the increased hazard caused by the introduction of power in farm barns. The following rates, additional to the ordinary premium note of a company, was recommended and unanimously adopted:

1. Portable steam or gasoline engines, for threshing only, ordinary rate.

2. Portable gasoline or steam engine, used for other purposes than threshing,  $\frac{1}{2}$  per cent. additional on rate of premium note.

The engine to be placed at least 25 feet from any building or stack of straw or grain. Gasoline engine to be of the latest and most approved pattern—ignition by electric spark, gasoline supply to be pumped from container not less than 20 feet distant from the engine, and 45 feet distant from any building or stack of straw or grain, the restrictions governing the use of steam engines for threshing, adopted by the several companies, to apply.

3. For gasoline or steam engine, stationary, or power windmill erected on barn, 1 per cent. additional on premium note; the engine to be placed at least 40 feet distant from the barn, and enclosed in a first-class engine-house, communicating with the building by belt or shaft. Gasoline engine to be of the latest and most approved pattern—ignition by electric spark, gasoline to be supplied by pump from underground supply tank, at least 30 feet distant from the engine-house, and same distance from any building.

4. For gasoline engine placed inside the risk, 2 per cent. additional on premium note; the engine to be placed in a metal or brick-lined compartment, no communication to the main building except by closely-fitting shaft or belt, door opening to the outside only, the compartment to be thoroughly ventilated at bottom and top to the outside air. Same conditions as to engine and care of the gasoline as in Clause 3.

The introduction or installation of any power means the introduction and installation of four other conditions, viz.: First, more machinery is employed; second, heavier machinery; third, the machinery is all driven at a higher rate of speed; fourth, the machinery is more constantly in use. The report was signed by F. R. Maxberry, chairman of committee, and unanimously adopted.

The Executive Committee also by report recommended that the Government be asked to compile a report, gathered from the annual returns of Fire Insurance Companies, showing the causes of fire losses, the amount of the loss under each head and the total loss for the last five years, and publish the statement for public information, and also that the Government would take and publish the registration of all fires. The report and recommendations were heartily approved, and unanimously adopted.

**Timber in Temiskaming.**

This country as yet, practically speaking, is a timber country, with immense quantities of excellent timber, commencing at the Temagami forest reserve, which is one of the richest assets held by the Ontario Government. There are, also, great quantities of valuable timber that is not in this reserve in Temagami. Coming north on the railroad from North Bay, as you pass the Montreal River, you will at once perceive that you are in the midst of a great lumbering district, commencing at Latchford, a station north of the Montreal River, which is central to two large timber limits, which are worked by the Gillies Bros., and the Lumsden & Booth Timber Company. At this station they have two large saw and shingle mills, and also a planer. One of these sawmills will be capable of manufacturing 150,000 feet of lumber per day, and will need 100 men to run it successfully.

The most of the timber is white pine; there are also large quantities of cedar. This part of the country is rocky; it lies in the immediate vicinity of the great mining district, and the prospectors are anxiously waiting for the time when the limit will expire. As you proceed north, when you are getting near to the town of Haileybury, you will perceive that the timber and the land are changing; instead of rocks you will begin to see land that is free from rocks, and you will also see more varieties of timber. As you are nearing the town of New Liskeard, you may be sure that you are certainly starting in the great clay loam belt of Ontario.

I will now give you a description of the timber on this belt. In some places, especially along the rivers and large creeks, which are capable of floating the timber, there has been a large quantity of the pine, spruce, tamarack and cedar already culled. These are the kinds of timber that will float. Every one of these lots will have the birch, balsam of Gilead, balsam, etc., yet uncult, as these last-named will not float. There is also a great quantity of excellent timber that has never been culled; too far from the rivers and streams to get out with profit. But now the only plan with this timber will be the use of mills, portable and otherwise. There are now several sawmills being put in at the several stations on the Temiskaming and Northern Ontario Railway, that will make it handy for the settlers within a radius of four miles; but there will be a large quantity of lumber that will need the portable sawmill, the timber to be afterwards drawn to the railroads for distribution. I believe by the advancement of this country that all the timber that can be manufactured will be needed right here. As yet there is not sufficient lumber; but next summer, after all the sawmills get started, they will likely keep pace a great deal better. We can supply every farm in Ontario with cedar fence posts, if we could get better freight rates. This will be an important question to lay before the Railway Commission, which is advancing the interests of the railways. Give us proper rates and every farm in Ontario will be benefited, and the railways will have a large revenue for drawing this cedar out, and it will also leave a large revenue to the settlers of this country. In some places you will find large quantities of gray elm, black ash, white oak and hard maple, but where the white oak and the hard maple are found you will also find a rocky ridge. N. A. E.

**New Liskeard, a Thriving Town in New Ontario.**

New Liskeard is considered the most central town in this country. It is built on a most beautiful slope overlooking the bay, which is an accessory of the picturesque Lake Temiskaming. The town is divided by the Wabigoon River, with a bridge to cross from one part of the town to the other. When I landed here, in the year 1901, there were only three general stores in the whole place, no hotels, one or two boarding houses, which were filled. We now have a most progressive town, composed of nearly every kind of business houses, including two incorporated banks—the Union Bank of Canada and the Imperial Bank of Canada—each of which is doing a live business. We have also a mining broker, who buys or sells any inspected claim, and two law offices, which are capably filled, several real-estate offices, four first-class barber shops, a photograph gallery, and two up-to-date drug stores. The mercantile part of the town is run by a large list of excellent general stores. We have two first-class hardware stores, two lumber yards, three tailor shops, and several millinery and dress-making establishments. There is also a large post office here, and two printing offices, the Temiskaming Herald and the New Liskeard Speaker. I might mention also four good general blacksmiths, and several implement salesrooms, two butcher shops, three excellent bakeries, a planing factory, and another door and sash factory under construction, two brickyards, two yards for making concrete blocks—which are now in great demand for building—one greenhouse, and several fruit and confectionery stores. There are several supply stores that sell by wholesale as well as retail. I must also mention a large reading room and library, ice-cream parlors when in season, three hotels, six or seven restaurants, besides numerous boarding houses. The religious part is supplied quite acceptably by clergymen of the following churches, Baptist, Presbyterian, Methodist and the Anglican. There is also the Salvation Army, which has a very respectable place for worship, and a Roman Catholic church. I must not forget the public schools. There are two now under construction in town,

one large schoolhouse suitable for all children in town, with several rooms, the estimated cost of which is over ten thousand dollars. I must also mention the station and freight house, which the Government has built, and A. R. McDonnell's large office, used by the officials for the railroad under construction. We are having a grand winter, with snow about twenty inches deep. Temiskaming.

NEIL A. EDWARDS.

**Think We Should Strike while the Iron is Hot.**

Geo. W. Wilcox, Oxford Co., Ont., writes "The Farmer's Advocate," suggesting that part of the surplus accumulated in the Dominion treasury last year might be applied to providing a system of free rural mail delivery. He says in part: "This twelve million dollars' surplus would send the rural free-delivery man to every farmer's home in Eastern Canada without another dollar of outlay on the part of the Government or anyone for five years straight. But if we farmers and country people in old Canada, who number at least seven-tenths of its population, stand around with our hands in our pockets and fail to take advantage of the financial conditions that exist at Ottawa at this time, and not insist upon the instituting of rural delivery, we deserve to go down from our position of prosperity, intelligence and freedom, as did ancient Greece, to poverty, ignorance and bondage." We do not know whether Mr. Wilcox's calculations will commend themselves to the Postmaster-General and the Minister of Finance, but free rural delivery is bound to come sooner or later, and it is just as well to keep the pot simmering away.

**A Successful Seed Fair at Guelph.**

On March 10th a successful seed fair was held in Guelph, under the auspices of the South Wellington Farmers' Institute and Puslinch Farmers' Club. There were over thirty exhibitors in all, and an extra fine lot of grain was on exhibition. The largest number of entries were made in oats and barley, although the classes in peas and potatoes were very strong. In spring wheats the class was represented by about a dozen entries of the wild goose variety only, a fact which would seem to indicate that farmers were well satisfied with this variety. The chief aim of the society is not only to award prizes for the best exhibits, but to encourage the sale and exchange of seeds of the very best quality. The importance of using the best seed is not yet appreciated to the extent that it should be. If seed fairs were more common, farmers would have a better chance to keep abreast with the times, and would endeavor to change the variety of the seeds which they sow, and, as a result, a great improvement in the yield would be manifested. Experiments in using good and poor seeds have shown astonishing results. Why are there not many more fairs of a similar nature over the Province? A. E. Whiteside, Foreman of Experimental Department at the College, who acted as judge, penalized several samples of apparently good seed for the reason that it was not properly cleaned, and refused to give prizes to varieties not correctly named. MacV.

**Will the Embargo be Repealed?**

Canadians, whether west, east, or centrally located, will watch with interest the efforts of a considerable faction of Old Country politicians and cattlemen to secure the abolition of the British embargo on Canadian cattle. The supporters of the measure have so far advanced their case as to have introduced in the British Parliament a Bill to repeal the law of 1896. This Bill is in the hands of Mr. Thos. Cairns, Newcastle, and Mr. Hamar Greenwood, York, a Canadian by birth and education, and is backed by strong representation of cattle-feeders. As we said before, the disposition of the embargo is essentially within the jurisdiction of the British Government, but, as it has so direct a bearing upon the Canadian cattle-raising interests, the British treatment of it will be closely followed. The Bill, which proposes to abolish the embargo, is slated to come before the House of Commons on the 6th of April, for debate upon its second reading, and there is quite a general impression that it will carry, since the present personnel of the Government party is so decidedly representative of the farming and commercial classes, who are more generally politicians of expediency rather than of tradition, in which respect the present House of Commons differs widely from the average. Difficulty, however, is expected for the Bill in the House of Lords, who are more conservative in their views, and more strongly wedded to the theory of the unalterableness of British laws.

**Trade Expanding by Leaps and Bounds.**

For the eight months of the current fiscal year up to February 28th, Canada's foreign trade amounted to \$358,277,966, a gain of \$51,517,264 over the corresponding period of the previous year. Domestic exports increased nearly \$30,000,000, and imports \$16,000,000. In the exports, agricultural products increased by \$14,840,733, and animals and their products by \$4,362,207.

Notwithstanding our repeated caution, enquirers frequently omit name or address. Sometimes we hold such questions for a time in hope of hearing from the writer again. We do not like to slight anyone's request, still we must, in fairness to subscribers and ourselves, insist upon our rules being absolutely complied with. If "York County Subscriber," from Ringwood, will forward name with address, we will attend to his questions.

**Immigration Figures.**

The total immigrant arrivals into Canada for the eight months of the current fiscal year, ended February 28th, were 62,693, a net decrease of 621 when compared with the same period of the previous year. The arrivals at ocean ports numbered 40,537, and from the United States 22,156, a decrease of 241 in the former and an increase of 1,780 in the latter. There were 3,179 arrivals in February, a falling off of 74 compared with the same month last year. British immigrant arrivals numbered 1,892, or 133 more than in February, 1905.

No need to worry over the slight decrease. There is lots of time to give our lands away. One would think sometimes, from the strenuous efforts we have put forth to secure immigrants, that our Western lands were a burden, to be disposed of gladly, instead of a priceless heritage that will be increasingly valuable as the years roll by. Nothing is more patent than that Canada possesses the last great land area peculiarly adapted to settlement by the Caucasian race. Why be in haste to give it away to the riff-raff of the world? Let us discriminate severely in our admission of immigrants, and not be in haste to boom Western settlement in order to expedite returns to land speculators, who are, in an economic sense, one of the very worst parasites upon industry and national wealth.

**Eastern Dairy School Final Examinations**

The long course at the Eastern Dairy School, Kingston, Ont., closed on March 2nd. The written examinations included dairy science, cheesemaking, buttermaking, cream separators, milk testing, dairy bacteriology and dairy chemistry. The last named was a subject added this session for the first, and the lectures by Dr. Goodwin, which were very practical and helpful, were much appreciated by the class. In addition to the written examinations, the students were required to take practical examinations in the different departments of the school. Twenty-six students in all wrote on the final examinations, twenty-two out of this number being successful. This is a somewhat larger number than that of last year. The following is a list of the successful candidates, arranged in order of their general proficiency:

	Total.
Maximum .....	1200
<b>First-class Honors.</b>	
C. J. Brennan.....	1075
A. E. Keays.....	1027
J. A. Murray.....	1017
R. T. Jones.....	1016
Thos. Isbister.....	1014
H. Greatrix.....	990
G. Valteau.....	980
C. R. Lloyd.....	933
W. Irwin.....	900
<b>Second-class Honors.</b>	
C. V. Jones.....	886
J. R. McIntyre.....	877
W. J. McDonald.....	867
John O'Shea.....	861
A. Miller.....	859
A. McKinley.....	857
J. Charbonneau.....	840
S. H. Bishop.....	813
H. G. Fleming.....	757
J. A. Morphy.....	749
H. Gour.....	740
D. V. Rady.....	734
C. Curtis.....	720

J. W. MITCHELL, Supt.

**The Live-stock Commissionership.**

(Ottawa correspondence.)

There seems but little probability of the appointment of a Live-stock Commissioner to succeed F. W. Hodson until some time next summer. Though his ultimate retirement is an accepted fact, Mr. Hodson is still in office, for he has not yet been gazetted out of the public service, and, indeed, it is understood that he will supervise the live-stock branch until the middle of July. In his absence from the office the details are being attended to by J. B. Spencer, Deputy Live-stock Commissioner. Naturally the choice of a successor to Mr. Hodson is being anticipated by the many interested in agriculture. Talk in departmental circles turns upon two names, that of J. H. Grisdale, Agriculturist of the Experimental Farm, and J. B. Spencer, Mr. Hodson's deputy. It is thought by many that Mr. Grisdale's services in his present position are so valuable that the Government will be reluctant to transfer him, and it is this consideration that has focussed attention upon Mr. Spencer. However, as previously stated, the matter is a waiting one, and not likely to be dealt with until the heavy work of the session is over.

**New Accountant to National Record Board.**

F. M. Wade has, since the nationalization of the Live-stock Records and the establishment of the Record Office at Ottawa, acted as Accountant to the National Record Board, in addition to his duties as Registrar for the Clydesdale, Shire and Hackney Associations. Owing to the large increase in the number of registrations, he will hereafter devote his entire time to the work of recording. Mr. Wade has been associated with stock records in Canada and the United States for more than twenty years, and is well versed in the work. John W. Brant, of the Live-stock Branch of the Department of Agriculture, has been appointed Accountant by the National Record Board.

**Is it All Worth Reading?**

An item of Ottawa correspondence, dated March 14th, reads: "Evidence taken before the Tariff Commission, consisting of nine volumes, containing eight thousand odd pages of typewriting, was presented to the House to-day." No wonder the tariff revision is postponed!

County Councils.

A Bill is before the Ontario Legislature having for its object the amending, or, rather, changing, of the Act respecting the constitution of County Councils.

county as it was before the change of 1896. Those who have had experience as councillors under the old and the new systems, are in the best position to judge as to whether the proposed change is likely to prove an improvement, and these are the men who would appear to be best qualified to discuss the question intelligently on its merits.

Oxford County Farm Notes.

During this month of March we endeavor to have all the grain in the granary cleaned up, putting that intended for seed twice through the mill, and have it all in readiness to bag up when seeding time comes.

Live hogs were selling at \$6.85 last week. There seems to be quite a demand for newly-dropped calves; I suppose to be used in the canned-chicken business.

International Sheep Records.

At a conference of representatives of Canadian and United States Sheep-breeders' Associations, held at Buffalo, N. Y., March 17th, satisfactory agreement was made with the American Shropshire Association for the conduct of International Records along the lines laid down at the Chicago conference in December last.

During 1905, 4,899 mallein tests for glanders were made in Canada, and 2,113 animals were destroyed, the owners receiving from the Government \$147,851 by way of compensation.

MARKETS.

Toronto.

LIVE STOCK.

Export Cattle—Choice quoted, \$4.60 to \$5.15; good to medium, \$4 to \$4.50; others, \$3.75 to \$4; bulls, \$3.50 to \$4, and cows, \$2.75 to \$3.50.

Butchers' Cattle—Picked lots, \$4.60 to \$4.85; good to choice, \$4.25 to \$4.50; fair to good, \$3.50 to \$4; common, \$2.50 to \$3; cows, \$2.75 to \$4; bulls, \$3 to \$4; canners, \$1.50 to \$2.

Stockers and Feeders—Active demand for good short-keep feeders, \$4 to \$4.50; heavy feeders, \$3.85 to \$4.15; medium, \$2.50 to \$3.50; bulls, \$2 to \$2.75; good stockers run at \$3 to \$3.65; light, \$2.75 to \$3; rough to common, \$2 to \$2.75, and bulls, \$1.75 to \$2.50.

Milch Cows—\$30 to \$60 each. Calves—Fairly-good demand for good veals; 3½c. to 6½c. per lb.

Sheep and Lambs—Export ewes, \$4.75 to \$5.25 per cwt., and bucks, \$3.50 to \$4.50. Grain-fed lambs, \$6.75 to \$7.25, and mixed, \$5.50 to \$6.50.

Hogs—\$6.85 per cwt for selects, and \$6.60 for lights and fats, fed and watered.

HORSES.

The local horse market was seized by a rather weak spell during the past week, and prices have reflected recessionary tendencies, though there have been no pronounced declines. The reactionary disposition was there, however, and it was accompanied by a contraction in the volume of business.

BREADSTUFFS.

Bran—\$20 bid, bags included, at Toronto. Barley—48c. bid No. 2 at 78 per cent., freight points, C. P. R. Peas—77c. bid, outside. Oats—Ontario—No. 2 white offered at

THE CANADIAN BANK OF COMMERCE

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HEAD OFFICE, TORONTO

B. E. WALKER, General Manager ALEX. LAIRD, Asst. Gen'l Manager

BANK MONEY ORDERS

Table with 2 columns: Amount and Rate. \$5 and under... 3 cents; Over \$5 and not exceeding \$10... 6 cents; \$10 " " " \$30... 10 cents; \$30 " " " \$50... 15 cents.

These Orders are Payable at Par at any office in Canada of a Chartered Bank (Yukon excepted), and at the principal banking points in the United States.

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They form an excellent method of remitting small sums of money with safety and at small cost.

36½c. track, Toronto, 34½c. outside; 35c. bid for No. 2 mixed, Toronto. Rye—No. 2, 68c. bid, outside. Buckwheat—Offered at 49c., outside. Corn—No. 3 yellow American, 48½c. bid at Toronto, 49½c. asked, 49c. bid, to arrive Toronto.

COUNTRY PRODUCE.

Butter—Creamery, 25c. to 26c.; solids, 23c. to 24c. Dairy lb. rolls, good to choice, 18c. to 19c.; large rolls, 17c. to 18c.; medium, 16c. to 17c.

Cheese—Firm in tone, and quoted at 14c. for large, and 14½c. for twins. Eggs—Firm; demand active; 16c. for new-laid, and 13c. for storage.

Poultry—Market quiet, and receipts are light. Choice, dry-plucked: Fat chickens, 11c. to 12c.; thin, 7c. to 8c. Fat hens, 8c. to 9c.; thin, 6c. to 7c. Ducks, 12c. to 13c.; thin, 6c. to 7c. Geese, 10c. to 11c. Turkeys, 14c. to 15c. for choice small lots.

Potatoes—Ontario, 65c. to 75c. per bag, on track here; 75c. to 85c., out of store; Eastern, 70c. to 80c., on track, and 80c. to 90c., out of store.

Baled Hay—Quiet and easy in tone at \$8 per ton for No. 1 timothy, on track here, and \$5.50 to \$6 for No. 2. Beans—\$1.75 to \$1.80 for hand-picked, \$1.65 to \$1.75 for prime, and \$1.25 to \$1.50 for under-grades.

Honey—\$1.25 to \$2 for combs, per dozen; 7c. to 8c. per lb. for strained.

HIDES AND TALLOW.

E. T. Carter & Co., 85 East Front St., wholesale dealers in wool, hides, calf skins and sheep skins, tallow, etc., quote: Inspected hides, No. 1 steers, 10c.; inspected hides, No. 2 steers, 9c.; inspected hides, No. 1 cows, 9½c.; inspected hides, No. 2 cows, 8½c.; country hides, flat, 7½c. to 8c.; calf skins, No. 1, selected, 72c.; sheep skins, \$1.45 to \$1.55; horse hides, \$3 to \$3.25; tallow, rendered, 4½c. to 4¾c.; wool, unwashed, fleece, 15c. to 16c.; wool, washed, 25c.

FARMERS' MARKET.

(Retail Prices.) Dressed hogs, light, cwt., \$9.25; heavy, \$8.75. Butter, 25c. to 28c. Eggs, 22c. to 25c. Spring chickens, dressed,

12c. to 14c.; live, 10c. to 11c. Old, dressed, 10c.; live, 8c. to 10c. Turkeys, dressed, 15c. to 20c.; live, 12c. to 14c. Geese, live, 10c. to 11c.; dressed, 10c. to 12c. Potatoes, per bag, 85c. to \$1. Beef, hind quarters, 7c. to 8c.; fore quarters, 4½c. to 5½c. Veal, 3½c. to 10c.; carcasses, 6c. to 7c. Mutton, 8c. to 9c. Lambs, 10c. to 11c.

Detroit Bean Prices.

H. E. Botsford & Co. say: "The market on pea beans has been dull and dragging for the past three weeks, with a decline of about 15c. a bushel. The unseasonable weather has had, no doubt, a great deal to do with the decline. For the proper consumption of beans, we need good cold weather. Lately there has been a noticeable improvement in the demand, and the market is now much stronger than it has been for some time. Farmers are not bringing in beans to market, and the stocks that are held by dealers are held firmly, and are not for sale at these prices. Stocks in leading receiving markets are very light, and everything points to higher values. We quote C. H. P. P. beans, \$1.35 to \$1.38 per bushel, f. o. b., Michigan points."

Chicago.

Cattle—Common to prime steers, \$3.85 to \$6.40; cows, \$3.65 to \$4.60; heifers, \$2.75 to \$5.25; bulls, \$2.60 to \$4.30; calves, \$3 to \$7.75; stockers and feeders, \$2.75 to \$4.75.

Hogs—Choice to prime, heavy, \$6.20 to \$6.45; medium to good, heavy, \$6.15 to \$6.35; butchers' weights, \$6.20 to \$6.40; good to choice, heavy, mixed, \$6.15 to \$6.35; packing, \$5.80 to \$6.35.

Sheep and Lambs—Sheep, \$4.25 to \$6.15; yearlings, \$5.50 to \$6.40; lambs, \$6.25 to \$6.85.

British Cattle Market.

London.—Cattle are quoted at 10½c. to 11½c. per lb.; refrigerator beef, 7½c. per lb.; sheep, dressed, 12½c. to 13½c. per lb.; lambs, 11½c., dressed weight.

Montreal.

Live Stock—Local market steady last week. Choice cattle, 5c. to 5½c.; good to fine, 4c. to 5c., and medium, 3½c. to 4c.; common, 2½c. to 3½c. Sheep, 4½c.; lambs, 6c. Calves, \$2 to \$5 for inferior cattle, and up to \$10 for choice. Hogs, 7½c. to 7¾c.

Horses—Coal-cart horses, weighing 1,350 to 1,450 lbs. each, sell at \$175 to \$225 each; express horses, 1,100 to 1,300 lbs., \$150 to \$200 each; light draft, 1,400 to 1,500 lbs., \$175 to \$225 each; heavy draft, 1,500 to 1,700 lbs., \$250 to \$300 each; choice saddle or carriage horses, \$300 to \$500 each; old, broken-down animals, \$75 to \$125 each.

Butter—New-milk butter now arriving sells at 22½c., wholesale; October choicest, 22c.; choicest winter makes, 21½c. to 21¾c.; inferior ranging down below 20c.; dairies sell at 16c. to 17c. Tone of market somewhat heavy.

Cheese—13c. to 13½c. Some business has been put through lately.

Eggs—Fresh-laid about 16½c., wholesale, single cases running up to 18c. or 18½c.

Dressed Hogs—9½c. to 10½c. for fresh-killed abattoir stock, and 8½c. to 9½c. for country-dressed. Barrel pork, \$19.50 to \$22.00 per bbl., demand being fair.

Potatoes—Stock offered at 60c. to 65c. for 90 lbs., carloads on track.

Seeds—Dealers say that nearly all the red clover seed is in, and they have raised their prices for it to \$7.25 or \$7.75 per bushel, country points. Alsike quoted \$4.25 to \$6.50, paid at country points. They are paying \$2.50 to \$3.50 per cwt. for timothy, country points.

Hay—Demand small. Dealers paying \$8 to \$8.50 per ton for No. 1 timothy, \$7 to \$7.50 for No. 2, and \$6 to \$6.50 for No. 3, or for clover mixed.

Grain—Oats have been lower, prices not expected to advance for some time. No. 3 oats, 37½c.; No. 2, 38½c.

Hides—Dealers paying shippers 11c. for No. 1 hides, 10c. for No. 2, and 9c. for No. 3, f. o. b., Montreal, and selling to tanners at an advance of ¼c. per lb. Calfskins are quoted at 12c. for No. 1, and 10c. for No. 2. Lambskins are scarce at \$1.10 each. Horse hides are steady at \$2 each for No. 1, and \$1.50 for No. 2. Rendered tallow is 4½c. per lb., and rough is 1½c. to 2½c. per lb. Demand for tallow rather dull.

Feedstuffs—Market fairly active. Prices are \$19 per ton for bran, and \$21 for shorts, in bags.

Flour—Steady at \$1 per bbl., in bags, for Manitoba strong bakers', and \$1.50 for patents.

Buffalo.

Cattle—Prime steers, \$5.50 to \$5.85; shipping, \$4.85 to \$5.40; butchers', \$4.40 to \$5.25; heifers, \$3.50 to \$4; cows, \$3 to \$4.50.

Veals—\$5.25 to \$8.50; a few at \$8.75. Hogs—Heavy and mixed, \$6.55 to \$6.70; Yearlings, \$6.50 to \$6.65; pigs, \$6.30 to \$6.50; roughs, \$5.75 to \$6; stags, \$4 to \$4.50.

Sheep and Lambs—Lambs, \$6.25 to \$7.00; a few, \$7.20; yearlings, \$6 to \$6.25; others, \$5.75 to \$6.15; ewes, \$5.50 to \$5.75; sheep, mixed, \$3 to \$3.75; Western lambs, \$6.90 to \$7.20.

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QUESTIONS AND ANSWERS. Miscellaneous.

PRINCE OF WALES.

Could you tell us if a horse, called Prince of Wales, bred by Jonathan Booth, Onéida, was recorded? If so, please give pedigree and number.

A. D.

Ans.—There are many horses named Prince of Wales recorded in the Canadian Clydesdale Studbook, but not one bred by Jonathan Booth.

LOCATING A LINE FENCE.

In putting up a line-fence of wire between my neighbor and myself, what is lawful, to put posts on line and wire on my side, or what is right?

Ontario.

Ans.—The matter is one usually regulated by a well-established custom of the locality, but in the absence of such a custom, we would say that you may lawfully place posts and wire as you suggest.

FOWLS ELIGIBLE FOR EXHIBITION.

1. Are all pure-bred Barred Rocks and Buff Orpingtons eligible for show birds, or is it necessary for them to have a certain number of points? For instance, is it necessary for them to have a certain number of feathers in their wings, a certain number of notches in their combs, etc.?

2. Have a few Barred Rock pullets from which I wish to get some eggs for hatching. These pullets have been mated for some time with cockerels of the same hatching and of the same strain. I intend getting another cockerel to mate with these pullets. For how long will this cockerel have to be mated with the pullets in order that the prospective chickens will be of the same strain as this latter cockerel?

SUBSCRIBER.

Ans.—1. Pure-bred Barred Rocks, or, in fact, any other breed, are eligible for show purposes; in fact, many birds that are not pure-bred are shown. If birds have the characteristic type and feathering, it is sometimes hard to tell whether they are pure-bred or not.

2. You had better remove the cockerel you have with your pen at once, and usually about two weeks afterwards the influence will be removed, and when introducing the other cockerel, the eggs could be used for hatching any time after the first week. In fact, sometimes eggs are fertile after the first day or two.

F. C. ELFORD, Chief of Poultry Division.

HOW HE MADE VINEGAR OUT OF APPLE CIDER.

Editor, "The Farmer's Advocate":

I noticed a question in March 1st issue asking how to convert apple cider into vinegar. I will give you my experience in this matter: In October, 1904, I made two barrels of cider for vinegar. In June, 1905, it was ready for use, being about eight months old. I selected a good barrel, put in the cider, leaving plenty of room in the barrel to shake well, also add some mother, if possible. Go to the swamp, dig up some roots of the skunk cabbage, wash well, let lie in the air a day or so, then put two or three good handfuls into the cider; shake well once a week, and you will soon have first-class vinegar. Try it. O. E.

APPORTIONING LINE FENCE.

A and B own adjoining farms; A sells part of his farm to C. The part that A sells takes in all of B's line fence, as well as part of A's. There is still a strip of line fence between A and B, which all belongs to A. As it stands at present, about two-thirds of the line fence between B and C belongs to B. This, of course, must be divided, so that each has half. Now will C have to buy part of B's fence, or will B have to give it to C? All of the line fence between A and B belongs to A, which must be divided now. Will B have to buy half of A's fence, or will A have to give it to B to replace what B has to give to C?

SUBSCRIBER.

Ans.—A, B and C should endeavor to agree upon a reapportionment of the line-fencing; but in the event of their being unable to come to an agreement, the way—and, practically, the only way—by which the matter can be legally and satisfactorily disposed of, is by calling in the fence-viewers and obtaining an award.

BARN VENTILATION AND ELM SILO.

I like "The Farmer's Advocate" very much, and cannot speak too highly of it.

1. At present, I am very much interested in the barn plans which appear almost every week. I am preparing for a barn 70 x 80 feet. Have decided to have a galvanized roof (corrugated). I have an idea of my own about ventilation. It is to have openings through the walls, and have a box, say about 10 x 12 in., run across the stable, fastened to the summer sill—perhaps, two or three of them. These have holes here and there through the stable for the air to enter the box, and the cold air going through from the outside would carry the foul air out. Would like to have your opinion on this plan through "The Farmer's Advocate." I also intend to build a silo.

2. I think I will build it of elm scantling 2 x 3 in. (octagon shape), 14 feet inside, and about 30 feet high. Will either board or lath-and-plaster inside and board on the outside. (Give your opinion on this plan. J. W. A.

Ans.—1. We know a barn which has ventilating boxes such as you speak of, but they are for the inlet of fresh air only. Instead of having holes, these have the under board nailed on in such a way as to leave a quarter-inch crack, or opening, the whole length of the box. For exit of foul air, there are box flues running up inside the walls, and with a turn at the plate continuing under the roof nearly to the ridge, where they discharge the heated moist air. On the ridge, there is a cupola ventilator. By means of homemade wooden dampers in the flues and boxes, the currents of air coming in and going out can be regulated. The owner speaks highly of his system. In your plan, as we understand it, with no other opening in the stable than those in the boxes, we fear that the cold air would come in at some of them, and foul air go out at others, and that both ventilation and temperature would be uneven.

2. We believe this would make a very efficient silo, but think that the greatly-increased cost over that of a round stave silo would not be warranted by the results. T. B.

Shorthorn breeders will be pleased to learn that Mr. Wm. Duthie, of Collynie, Tarves, Aberdeenshire, has accepted an invitation to officiate as judge of the Shorthorn class at the Canadian National Exhibition at Toronto, the first week in September next.

GOSSIP.

The catalogue of Shorthorns and Clydesdales, property of W. J. Shean & Co., Owen Sound, Ont., advertised to be sold by auction on April 4th, is issued, and shows a lot of excellently-bred stock in both classes, to which further reference may be looked for in our next issue. In the meantime, send for the catalogue, which is full of information.

Mr. John Jackson, Abingdon, Ont., writes: "I wish to correct an error in your report of the Eastern Live-stock Show at Ottawa. In Southdowns, your report says, 'Telfer Bros. got the majority of firsts.' The fact is, Telfer Bros. got two firsts and one third. J. Jackson & Son got three firsts, two seconds, a third, and a fourth. A difference that would be very misleading to your readers."

THE WOODSTOCK CLYDESDALE SALE.

The important importation of 40 Clydesdale mares and fillies, selected by Messrs. Prouse & Innis, to be sold as advertised at Woodstock, Ont., on April 6th, are now on the ocean, and some particulars regarding the individual animals may be looked for in our next issue. We are informed that special care has been exercised in the selection of this consignment, and that they will be found to be of an extra good class.

LOVAT CHAMPION SOLD.

Mr. A. Chrystal, Marshall, Mich., has sold the noted Shorthorn bull, Lovat Champion (imp.), to the Flynn Farm Co., Des Moines, Iowa. Lovat Champion was bred by Lord Lovat, from the Cruickshank Broadhooks tribe; and is by Royal Star, the sire of Alistair, champion at the West of England shows in 1904, and his dam is by Proud Duke, bred at Collynie. Lovat Champion was selected by Mr. Duthie in 1899 for service in his noted herd, and was purchased at a high figure by Mr. Chrystal.

SHIRES SELL WELL.

At the auction sale of stallions and mares, held in connection with the annual London (England) Shire Horse Show, 60 stallions found purchasers at an average of £98 16s. (\$495), the highest price being £280 (\$1,400). Five hundred guineas (\$2,629) was paid for one mare, and \$1,500 for a filly in more than one case. The majority of the stallions were purchased by home breeders and societies, but a good many found buyers privately, and at good prices, for export to America, Germany and other countries. It looks as though the Shires are coming into general favor, and they are most appreciated where best known.

SHROPSHIRE SPECIAL PRIZES.

The American Shropshire Sheep Breeders' Association has appropriated \$1,225 as special prizes for Shropshires at State, Provincial and International Shows in 1906. The Chicago International gets \$500; the Canadian National, Toronto, \$100; the Ontario Winter Fair, Guelph, \$100; Indiana State Fair, \$150, or one-third as much as the State association gives for Shropshire prizes. Mortimer Levering will give a \$25 prize at Toronto to the shepherd showing the best fitted and conditioned Shropshires; all sheep entered in competition to be shown. Mr. Wardwell will give two prizes of \$15 and \$10 to the shepherd showing the best lot of breeding sheep; owners or part owners barred.

Settlers' Low Rates West.

The Chicago and North Western Ry. will sell low, one-way, second-class settlers' tickets, daily from Feb. 15th to April 7th, 1906, to points in Colorado, Utah, Montana, Nevada, Idaho, Oregon, Washington, California, and British Columbia. Rate from Toronto to Vancouver, Victoria, New Westminster, B. C., Seattle, Wash., or Portland, Ore., \$42.25; to San Francisco or Los Angeles, Cal., \$44.00. Correspondingly low rates from all points in Canada. Choice of routes. Best of service. For full particulars and folders call on, or write, B. H. Bennett, General Agent, 20 East King St., Toronto, Ont.



## Life, Literature and Education.

### Our Debate.

Below you will find the four essays selected as the best amongst those sent in for our debate; also the replies sent by the leaders of the respective sides. This last matter we effected by sending typewritten copies (bearing neither the name nor address of the writers) of the essays selected as best to the leaders, or "first-prize" winners, of the opposing sides.

Now, as mentioned before, the decision in this debate rests wholly with you, the readers of our journal. If you have taken no active part, and intend to take no active part (other than that of being an interested reader) in our Literary Society, you can surely find time to figure in this. All you need to do is to write the word "Affirmative," or "Negative," as you may decide, on a post card, with your name and address, and send it to us (addressed to the "Literary Dept.") so that it may arrive at this office by March 31st. This surely will not be much trouble, and will be the only means of helping us to secure a popular vote. When the vote has been given, and the decision announced, we shall give another prize for the best criticism on the essays submitted in the debate. By "criticism," of course, we mean a criticism with reference to the favorable as well as the unfavorable points.

Now, just a word as to the general quality of the essays received. We may, perhaps, express our opinion of them in the fewest words by saying that we were "proud of them." In fact, we felt like awarding a score of prizes, rather than just four, but could not break through our precedent. Our Honor Roll, had we space, would be a very long one indeed; but as space is a very necessary consideration, we are obliged to reduce it to the names of the five who most closely combated for a place with the prizewinners. "X. Y. Z." sent a very fine essay, which, however, was ruled out of the contest, since X. Y. Z. (W. J. Way) won a prize last time.

In consideration, then, of all the facts, we think no one should be disappointed at not receiving a prize. As we have said so often before, the mental exercise is the main thing; and you have had that, and the satisfaction, besides, of hearing from headquarters that your work was creditable. We did not receive a single poor essay. So don't be discouraged, but try again. Next time you may come out at the very top.

The prizewinners this time are: Affirmative—Agnes Hunt, Nipissing, Ont., and C. M. M., Middlesex Co., Ont. Negative—"Olivia," Simcoe Co., Ont., and "A Spectator," Peel Co., Ont.

The Honor Roll.—X. Y. Z., Chester Nicholson, Margaret Earle, Sandy Fraser, J. D. Taylor, Frank Small.

If we have a regret at all in connection with our debate, it is that so few of our Maritime Province or

Quebec people were represented. We shall hope for a better showing next time.

### SUBJECT.

Resolved that a High-school Education Qualifying for a Teacher's Certificate is of More Advantage to a Farmer than an Education Qualifying Him for a Diploma from a Business College.

#### Affirmative—Essay I.

A farmer should be one of God's most perfect men, with all parts of his mind as well developed as the muscles of his stalwart form. Not a mere machine, mechanically doing the work put before it, but a living, thinking man, with intellect clear and keen, fully alive to the reality of his life-work and the forces with which he has to deal. To fit him to become such, the High-school Education, to my mind, is emphatically preferable. Reasons:

1. The Business-college Course requires but a few months, hence it cannot be so thorough as years of High-school training.

2. It teaches but few subjects, while the High School educates along many lines, and in a broader sense.

3. Business College fits a man for the higher and more difficult branches of business life, but bookkeeping, as taught in the High School, gives all that is necessary for the farmer's work.

4. The High School turns out good penmen. The cramped hand of the hard-working farmer cannot master the extra flourishes of the Business College.

5. In arithmetic, the farmer needs to know more about the measurement of land, lumber, grains, vegetables, capacity of bins, tanks, etc., as well as parts of commercial arithmetic, while the Business College deals most fully with the latter.

6. Stenography and typewriting are not required on the farm, but think, on the other hand,—

7. Botany opens his eyes to plant life, and he is enabled to classify his enemies, the weeds, and cope with them the better.

8. The sister sciences, physics and chemistry, get him down to fundamental truths regarding mother earth, the air, water, and forces of nature. He understands the value of different gases, and the elements with which he has to deal.

9. History and geography acquaint him with the wide world and its people, and give a store of useful knowledge.

10. Literature cultures, educates, refines, and, combined with No. 9, makes him feel himself not a whit inferior to up-to-date, well-read men, with whom he will find it delightful to mingle.

11. Composition and grammar make him master of the English tongue, both spoken and written.

12. Drawing, like penmanship, trains the hand and eye, and develops aesthetic tastes; but, trace its teachings in the planning of lawns, the architecture and placing of buildings, and you see a further value.

13. The languages, ancient and modern, if taken up, open to him the best literature of the ancients of other lands, and give a better under-

standing of the English language and our own literature.

14. Algebra and euclid (which should have been mentioned after arithmetic), and help him grapple with knotty farm problems.

15. My own personal experience in changing from public-school teacher to farmer's wife, shows me that nearly everything mastered in the High-school education comes useful daily. What Business-college graduate can say as much?

AGNES HUNT.

#### Affirmative—Essay II.

It has been said that the High Schools are educating our boys away from the farm, giving them desires and ambitions for other callings in life. The reason for this tendency is in the fact that the boy's desires are wrongly moulded before the High-school education begins. But if a young man enter High School with farming in view as his calling in life, no greater influence is exerted to lead from the farm than if he entered Business College. Wherein are the superior advantages of a High-school education? And, in answer, we combine its utilitarian and aesthetic features:

1. Giving a broader basis for mental development through a wider curriculum, a more symmetrical mind and nature are produced in the student, while the specialized education of the Business College is not neglected.

2. This wider curriculum opens the way to the study of sciences the student sees exemplified in farm life and work: Botany, enabling him to familiarize himself with the different forms of plant life and their manner of growth; Physics, assisting in a better understanding of the movements of air and water in the soil, and the application of forces in connection with his farm work; Chemistry, giving a basis for further study in its many relations to agriculture.

3. A sufficiently thorough knowledge of mathematics and bookkeeping is given to enable him to solve any problem he may meet in the financial side of his business.

4. The field of literature and history is opened up to him, and in that he learns of the men who have faced the realities of life, sees how they have overcome its difficulties, and better understands how the realities of the past help to make real the ideals of his life.

5. Through this wider education he is better fitted to take his place in society, to apply his mind to the many-sided problems he may have to deal with, to hold his own in public debate on matters pertaining to church and state, than if his education were specialized on the basis on which a Business-college Education is usually founded. It may be interesting to state here that the basis for admission to our Agricultural University, at Guelph, for the four-years' course, is not a Business-college diploma, but the equivalent of a teacher's non-professional certificate, and every student is urged to spend at least one year in High School before entering the O. A. C.

6. The farmer, as well as other men, needs to feel that the chief end of life is not simply to transact business, but to leave an influence for

good on all with whom he comes in contact. A special education whose only object is development along the line of too greatly existing commercialism cannot serve this purpose as well as a wider one. Agriculture combines profession, trade and business, and demands an education on all these lines, not on one.

C. M. M.

#### Negative—Essay I.

The Business Education is of more value to a farmer than that of the High School, since it is more practical, more concise, and requires less time for its completion.

We will consider that in both lines the graduation from the public School, with an Entrance certificate, is the starting-point. The boy has thus already secured a very good general education, and, having decided upon his life-work, requires special training along that line.

Since, as a general rule, a young farmer cannot spend as much time in school as a boy who is preparing for a profession, he will find the business education more advantageous, since he can secure this training in a six-months' course, while it would take him at least two years to become qualified for a teacher's certificate. This is a saving in time and in money—two important considerations. He can also enter at any time, which is a great convenience. If engaged in any other occupation, he can even attend night school in the Business College.

The general education the boy has started with gives him an insight into the different lines of thought and study, and he is placed upon a good footing to make further researches for himself to broaden out his mind for general purposes. Instead of continuing this general education, as in the High School, it would be more profitable for the young farmer to have his attention directed to those subjects especially adapted to his calling. In the Business College his whole time and attention are focussed upon those subjects which will be of use to him afterward.

Here he will not be compelled to spend time upon what he will forget when he leaves school, but his attention is devoted to that which will be of practical use to him in his everyday work. In arithmetic, he is taught how to calculate rapidly problems relating to weights, measures, etc. Stress is laid upon mental arithmetic, and he can quickly work out problems in grain and lands. He is also taught to realize the importance of keeping accounts, and he learns such bookkeeping as will fill his requirements in farm work. In commercial law, he secures instruction about leases, mortgages, and the laws governing hired help, etc. A knowledge of law is extremely helpful to a farmer, as he can thus settle many disputes quietly, and without expense. Stress is also laid upon good penmanship, and the student learns to draw up proper notes, cheques and drafts.

The very fact that so many Business Colleges have sprung up through private enterprise, proves that the High School is not qualifying men for a business life. The education is not sufficiently practical, and so students have sought for help else-

where. This is an age of such keen competition that our men must be qualified for their special calling. So, for other than a professional life, the Business College is preferable to the High School. OLIVIA.

**Negative—Essay II.**

When a boy enters the High School he studies history, literature, and very often languages, for four years. How will he who intends farming profit by this when he leaves school? Granted that every one should know the history of the country and empire to which he belongs, he does not need to spend four years at a High School to learn it. The various libraries throughout the country make it possible for almost every farmer to read books on this subject, if he cares for it; if he does not, then few of the facts will be remembered a year after leaving school. In this way the best literature is within the reach of any one who wants it. Many of those who write for a teacher's certificate take Latin. Only those who go to the university ever use it, and certainly not the farmer. Euclid is studied faithfully, and often fearfully, for three years, never to be used by ninety-nine farmers out of a hundred. Bookkeeping is studied in most of the High Schools for two years only. Now, the average farmer needs his bookkeeping every time he buys or sells anything. He also needs to be a clear writer. Many pupils say they wrote better before they went into the High Schools than when they came out, as incessant scribbling will spoil anyone's penmanship.

Now, it seems that most of the subjects in the High-school course are useless to a boy who intends farming. Very few of them are required to work out a cube-root or a circulating decimal, while all of them need to know how to draw up a draft or note, and sum up a bill, and work out a question in interest. A business man will tell you that a High-school graduate cannot keep his books, but must learn over again. Farmers have to deal with business men, not High Schools.

After a course in a Business College, a boy can write more clearly, draw up a note, etc., and do a problem in arithmetic with more speed than he could after four years at a High School. In the time he has been at a Business College he has been able to see how a business is run, and the value of system; how money increases by careful investment, and how well-spent money will double itself in time. All these things will be of use to a farmer in every branch of his work. Surely a course at a Business College will prove of more practical use. And if such a training were given to a would-be farmer, would not the farmers of Canada be vastly improved at the end of fifty years? "A SPECTATOR."

**Reply by Leader of Affirmative.**

Replying to the arguments advanced by the Negative, I would say: They claim their course saves time and money.

This is, indeed, an age of keen competition, and the farmer should be able to compete with other men intellectually, and if more money and time are required, are they lost?

The boy, left to himself on leaving public school, seizes on light, sensational fiction, rather than history or travel. He will, however, seek information regarding "law," so I claim he should go on with his general rather than business education. The High School teaches bookkeeping enough for any farmer's requirements. He learns well how to draw notes, cheques, etc.

I personally am acquainted with several teachers who keep books for business men during holidays.

No one can master arithmetic in six months as he can in four years. The Negative side forget it is not the

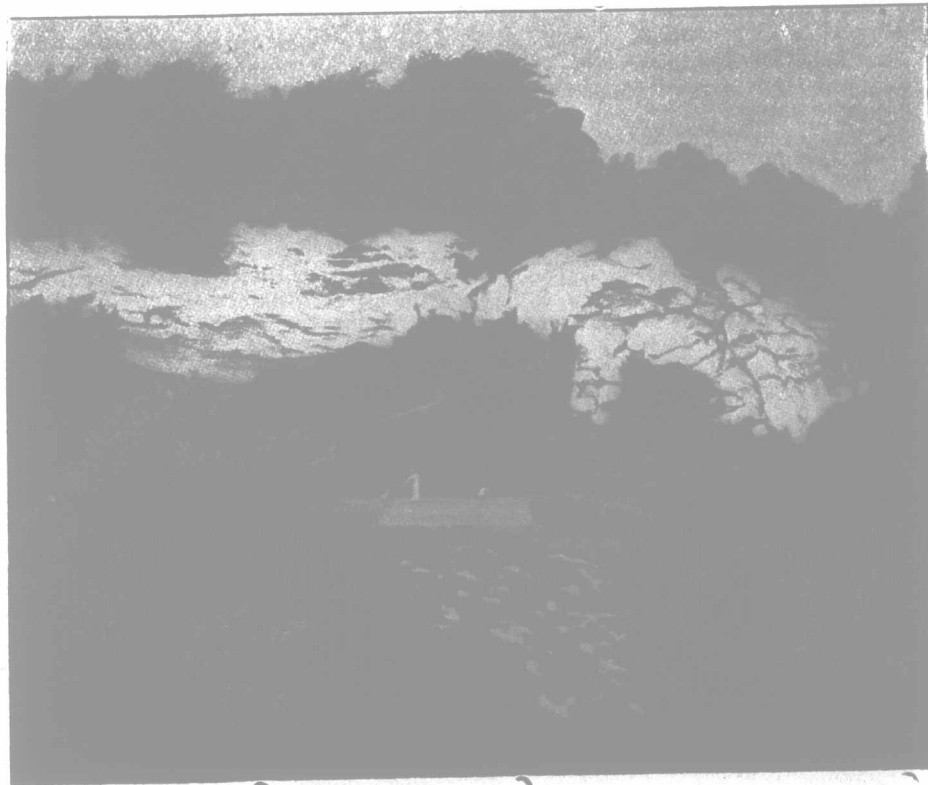
mere knowledge acquired in arithmetic, algebra and Euclid that makes them useful (though we do not underestimate its value), but rather the training in logical reasoning, concentration of attention and mental effort. This fits a man to deal with weighty questions intelligently, making him self-reliant, not a puppet in others' hands, or a reed shaken by winds of public opinion.

Business Colleges turn out as many stenographers and typewriters as bookkeepers. May that not account for their increase? Submitting these few points, we await your decision. Yours respectfully, AGNES HUNT.

**Reply by Leader of Negative.**

Nos. (1) and (2): The farmer has not time for years of High-school training, whilst the so-called few subjects of the Business College are especially adapted to his requirements.

Nos. (3), (4) and (12): With the changed curriculum, there is no Departmental Examination on bookkeeping, penmanship and drawing, so the training here is very limited, whilst in the Business Col-



Sir Ed. J. Poynter, Bart., P.P.A. **A Surrey Chalk Pit.**

lege special stress is laid upon bookkeeping and free-hand business writing, without the extra flourishes.

Nos. (5) and (14): Arithmetic, algebra and Euclid are also taught in the Business College, with special attention to the farmer's needs in regard to measurements and weights.

[Note.—The Principal of a prominent Business College informs us that he knows of no Business College in which Euclid and Algebra are taught. We note this with no intention of throwing weight on the Affirmative side, but as a mere statement of a fact. There may possibly be exceptions, but as a general rule, Algebra and Euclid are not on the Business-college curriculum.—Ed.]

No. (6): The business student is not required to study stenography and typewriting.

No. (7): Botany does not help him to eradicate the weeds, which is the essential in successful farming.

No. (8): He is not taught the chemistry of the soil or any sciences especially helpful to agriculture.

Nos. (9) and (10): His public-school education has already given him an insight into these subjects, and laid the foundation for further researches. To remain up-to-date and well-read, he must continue to read for himself, and not rely upon past education.

No. (11): Composition and grammar are also taught in the Business College.

No. (13): The languages are not of sufficient practical benefit to the farmer to compensate for the time spent upon them.

No. (15): Personally, as a farmer's daughter, with a High-school education, I nevertheless say that the practical and concise business education is preferable for the farmer, with its special training in keeping accounts, practical arithmetic and commercial law.

OLIVIA.

**A Surrey Chalk Pit.**

One so well known as Sir Ed. J. Poynter, President of the Royal Academy, Principal of the Art Training School of South Kensington, and Director of the National Gallery, needs no personal introduction. His subject is a somewhat weird one in print; but, with the light and shade, the dazzling white of the cracks of crumbling chalk, crowned and interlaced by trees of many shades of green, which artistic coloring alone can give, there is a charm about an old Surrey chalk pit well worthy of an artist's brush. Its still life is relieved by the figures below. The little lad having successfully scrambled down through the brushwood, is off in hunt of

**News of the Day.**

**Canadian.**

Canada has been anxiously watching Dr. Haanel's experiments at the Sault in smelting iron ore by electricity, and the announcement of his success has caused great satisfaction. Every year opens up new mining areas in Canada, and the cheapening of the smelting process by the new system will greatly facilitate the promotion of the iron industry in every branch.

The cobalt industry at Cobalt has received a new impetus from the fact that agents of Thomas A. Edison are on the spot, and are taking all the cobalt that can be obtained at 35 cents a pound. Mr. Edison is using the mineral for a new kind of storage battery which he is perfecting.

Mr. P. M. Murdoch, a mining expert from South Africa, has found near Cobalt, an agate of a species only met with in diamondiferous soil or drift. His discovery gains more weight from the fact that indications of a diamond-bearing area in Northern Ontario have been noticed repeatedly by scientists during the past year or two.

The first railway in Canada to be operated by motors run by gasoline generating steam, is to be built from Port Credit to Guelph, Ont.

The first Legislature for the new Western Provinces was opened at Edmonton, Alta., on March 15th.

**British and Foreign.**

M. Sarrien, the new Premier of France, has reconstructed the Cabinet.

The Chamber of Deputies has voted \$100,000, and the Miners' Association \$40,000, for the relief of the families of the men, 1,212 in number, who lost their lives in the recent mining disaster at the Courrières Mine, Lens, France.

Three villages in the Samoan Islands have been destroyed by eruptions from the volcano Savaii.

It is stated that China intends to have a constitutional government, modelled on that of England.

M. Sarrien, who has succeeded M. Rouvier as Premier of France, is a moderate Republican. He was born in 1840, at Bourbon-Lancy, of which town he was afterwards mayor. In the war of 1870-71 he served as a Captain of Militia. He was elected to the Chamber of Deputies in 1876, became Minister of Posts and Telegraphs in 1885, Minister of the Interior in 1887, Vice-Pres. of the Chamber of Deputies 1896-98, Minister of Justice in 1898. He was a candidate for the Presidency of France in the recent contest, in which he was defeated by M. Fallieres.

The prospect of a general election in the near future, has by no means poured oil on the troubled waters of Russia. In Moscow a large proportion of the workmen have refused to take part in the election at all, and proclamations are being scattered about declaring that the revolutionaries will blow up the electoral offices as soon as the election begins. In the meantime, the Minister of Justice at St. Petersburg is hurriedly drafting laws to prevent election abuses, and it would appear that the election itself must only bring the present discord to a crisis.

**March.**

A half-wild creature cast from Winter's lap;  
A vagrant reveler in Nature's courts;  
With wind-disheveled hair she wildly sports  
With twig and bough, surcharged with rising sap.  
In scant and freely flowing raiment drest,  
Her slim brown arms upflung to greet the rain,  
She screams her challenge to the silent plain  
And makes of every day a crazy jest!  
She rushes fiercely down the hillside steep,  
And dastles through forsaken forest aisles  
Where last year's leaves lie deep in slobber piles,  
And gaunt-limbed trees their endless vigils keep,  
And so for days her reckless reign extends;  
Teased and tormented Nature groans outright;  
Until, at last, the madcap thing takes flight,  
And gentle April comes to make amends.  
—Edwin Carlisle Litsey, in Everybody's Magazine for March.



**Cheerfulness in the Home.**

Louisa M. Alcott, after telling that her mother's motto was, "Hope, and keep busy," related a most touching little incident in their family history, one illustrating the perfect faith, love and thankfulness which characterized their lives. To a beautiful content with whatever might, in God's Providence, befall them, was added a sense of humor, an unflinching cheerfulness, which enabled them, in the words of the worthy Mrs. Wiggs, to believe "that the sun is a-shinin', even when the clouds is thick enough to cut." The incident was as follows:

"One snowy Saturday night, when our wood was very low, a poor child came to beg a little, as the baby was sick and the father on a spree with all his wages. My mother hesitated at first, as we also had a baby. Very cold weather was upon us, and a Sunday to be got through before wood could be had.

"My father said, 'Give half our stock, and trust to Providence; the weather will moderate, or wood will come.'

"My mother laughed, and answered in her cheery way, 'Well, their need is greater than ours, and if our half gives out, we can go to bed and tell stories.' So a generous half went to the poor neighbor, and a little later in the evening, while the storm still raged, and we were about to cover our fire to keep it, a knock came, and a farmer, who usually supplied us, appeared, saying, anxiously:

"I started for Boston with a load of wood, but it drifts so I want to get home. Wouldn't you like to have me drop the wood here? It would accommodate me, and you needn't hurry about paying for it."

"Yes," said father; and, as the man went off, he turned to mother with a look that much impressed us children with his gifts as a seer; "Didn't I tell you wood would come

if the weather did not moderate?"

"To which the mother added, with laughing eyes, 'Yes. Cast thy bread upon the waters, and after many days it will—come back buttered.'"

Amelia Barr puts this opinion in the mouth of one of her characters in "The Hallam Succession," and truly it is one of general application: "Ben Craven is good at home. You may measure a man by his home conduct; it's t'right place to draw t'line, you may depend on't." And of them both the wife says: "Neither Ben nor I are made of stuff that'll shrink in t' wetting, you can count on that, Miss Hallam."

Sometimes when a life seems to be narrowed down to household cares and anxieties, these assume an undue importance, the grinding of one's own little mill absorbing all the faculties, whereas it is good to get out into the "open," to climb to the rising ground and take in the fair

beauties and inspirations of a wider outlook. I read, somewhere, that, "Our own acts are our attending angels, in whose light or shadow we walk continually. . . . It is good sometimes to get above our own high-water mark, to live for an hour with our best ideas."

"We can't none of us help what traits we start out in life with," was another saying of Ben Craven's wife, "but we kin help what we end up with." The home that is full of good cheer, in spite of its many limitations, is the best recruiting ground for any country. The children which come forth from it will not be weak-kneed citizens, or nerveless pioneers, should they choose to strike out new paths for themselves. They are far more likely to be rejoicing Christians and helpful comrades, inasmuch as the keynote of their busy home lives had been cheerfulness, their atmosphere that of sunshine, and their outlook hope.

H. A. B.

**Make Your Life Beautiful.**

The desert shall rejoice, and blossom as the rose.—Isa. 35: 1.

"Give me this day, dear Lord," I cried,  
"Some blessed station near Thy side!  
Some work in very deed for Thee,  
That I may know Thy need of me."  
Thus pleading, praying, up and down  
I wandered, searching field and town,  
Intent on task, the very best  
Eluding still my eager quest.

And morn to noonday brightened; night  
Drew slowly toward the fading height,  
Till I, low kneeling at the throne  
With empty hands made weary moan.  
"Thou hast not any room for me!  
No work was mine, dear Christ, for  
Thee!"

Then sudden on my blurring sight  
Swept majesty and love and light—  
The Master stood before me there  
In conscious answer to my prayer!  
He touched my eyes. In shame I blushed,  
In shame my weak complaining hushed.  
For joy! all day, the swift hours through,  
The work, Christ-given, for me to do  
In mine own house had slighted been.

And I, convicted so of sin,  
Could only lift my look to His;  
The grace of pardon ask for this:  
That I had wandered far and wide,  
Instead of watching at His side;  
That I had yet to learn how sweet  
The home tasks at the Master's feet.

—Margaret E. Sangster.

I wonder how many of our hard-working Canadian readers feel, sometimes at least, the desire to do great things with the wonderful life they have received as a sacred trust from God's hands. Am I wrong in thinking that you are all stirred with that feeling very often? Do you not often chafe against the restrictions of your scanty opportunities of reaching out into the great world, almost as a warhorse might grow restive if forced to drag a plow when he heard the sound of the bugle. There seems to be something in each of us which will not let us settle down unconcernedly to lead colorless lives. This desire is a great gift of God, and should be cultivated rather than repressed, educated rather than destroyed. No one wants to live a commonplace life, and God surely cannot wish any of His children to do that which is so contrary to their highest ideals and aspirations. But let us never make the mistake of thinking that our lives are outside of us, that the greatness or littleness of a life is a matter of circumstances. Of course, it is absurd to fancy that a man's life, which is so much a part of his personality—if it is not his personality itself—can be outside of him; and yet that very absurd notion is only too common. We hear people saying, or, if they don't say, they think: "I could do so much good if I



were only rich, or clever, or beautiful, or had that mysterious power of influencing others which has been called 'animal magnetism.' Or they may think they could help their fellows more if they only had time; but each day is so crowded with little, trifling duties that don't seem to accomplish anything lasting. They read of glorious deeds of heroism, and feel rather disappointed because no opportunity comes to them. They know that God's saints are standing nobly and patiently for Him in the fire of pain, or sorrow, or terrible temptation; but no severe testing comes their way. Their lives, like the lives of most of their neighbors, seem tame and insignificant. At a superficial glance one might think the lives of millions were factory-made, turned out by the thousand, all exactly alike. Of course, we know, as a matter of theory, that no two lives are exactly the same, even in outward circumstances, but they are similar enough to seem uninteresting if only looked at from the outside. Here and there we find men with "five talents,"—men of influence of various kinds; and there are also men here and there with "one talent"—ignorant, destitute, or hopelessly stupid. If we have no right to class ourselves with the first, it is very unlikely that we shall care to rank ourselves with the last. If, as is most probable, we stand between these two classes, we must take our place as servants to whom the Master has committed "two talents"; for, in the well-known parable of the Talents, there is no mention of anything between two and five.

It is possible for the average person—for us—to satisfy the God-given desire to make this everyday life beautiful, grand and glorious, with the material God has placed in our hands. It is in our power to do a wonderful piece of gardening, to make the desert blossom as the rose.

Certainly there is nothing grand in sitting with folded hands, dreaming of the great things we should do if only we "had the chance." One day our Master will return, and we shall have to give account of the two talents He left with us, left to be used for Him. Then it will be useless to say that we wanted to do a great deal to show love and loyalty to Him, but that we had no opportunity. Such an excuse for spiritual sloth is a very flimsy one, even now, and those who try to take refuge behind it know all the time that it will not bear examination. You can make your life grand and beautiful wherever you may be, whatever are the talents God has placed in your hands. The beauty of a life does not lie in its circumstances at all. Jezebel was a queen, and the mother of our Lord was only a poor village maiden; yet the one stands for all time as a terrible warning of how unlovely a woman's life may be, while the world will always gaze in reverent admiration at the womanly beauty of the

second. Nero was an emperor, but that fact certainly did not make his cruel and cowardly life grand or glorious. Jesus of Nazareth was only a village workman, and yet He has inspired men and women ever since. We know all this, it is acknowledged by everyone, and yet, in spite of all our knowledge, there is too often the feeling in our hearts that a life spent in plowing or sowing, in milking cows or threshing grain, in cooking, sweeping, scrubbing, or washing dishes, cannot be grand or beautiful.

I only know one way of making it beautiful and soul-satisfying, and that way is so simple that any child can understand and practice it, and yet so infinite in its far-reaching possibilities that it needs all eternity to develop in. We all know this elixir of life—in theory—but theory can accomplish nothing unless it is transformed into action. It is grand to come to our Master continually and receive from His hand the talents He wants us to use. It is a glorious thought that the days are His, that the work is His, that He is helping us to do it, and—most wonderful thought of all—that we are allowed to help Him in His great work of perfecting mankind. The most influential missionaries in the world are the men, women and children who walk along with joyous faces uplifted to the Face of the King, doing the tasks He sets them gladly and faithfully, finding every little act of service a fresh delight because it is done for Him. It may be the giving a cup of cold water, or only the washing of the cup afterwards; it may be the pouring of precious ointment on His head, or only the commonplace act of filling water pots with water. Either, or both, it is all a joy, for the Master is always near, and each separate act of service is an opportunity of ministering to Him. Think what it would have been like to have had the high honor of working with Him in the carpenter's shop, to have been thrilled with an occasional touch of His hand as you held a board in position for Him. That high honor of being a fellow-worker with God may be yours every day if you will only take and treasure it. You may really, though spiritually, touch His hand as you take each separate duty from Him, you may walk always in the sunshine of His approval, your little acts of self-sacrifice are never overlooked or forgotten by Him. He is intensely interested in every one of your small battles against selfishness or crossness, and is very patient with your efforts to make your prayers real and earnest. He can see the love which makes your offerings worth accepting, though you know only too well how tarnished and stained with self-seeking and self-glorification they too often are. He is always helping the best that is in you to grow, encouraging that desire for holiness and reaching upward that, like the life of a plant, defies the power of gravitation to keep it down. The image

of God is in each child of man, and the soul is never commonplace, it is infinite in its longings and possibilities. Though we may be only average people, receiving, like millions of others, only two talents from our Master, the fact that we have received them from Him, and are directly responsible to Him for them, brings us into a special relation with Him, which redeems any life from the danger of being uninteresting. When we realize that Christ is deeply interested in our fight and work, we must become interested too.

It is a very strange kind of Christianity that is sometimes preached—the doctrine that a life consecrated to the service of Christ is hard and dreary, the doctrine that His servants have to wait for happiness until after death. No one who had really tried to serve Him wholeheartedly would dream of saying anything so untrue to fact. You have only to look into their faces to see for yourselves that they are anointed with the oil of gladness above their fellows. Of course, those who only give Him half their heart—attempting the impossible and heartbreaking task of serving two masters—find life hard and disappointing, and are almost ready to declare that it is not worth living. But the life of the average person is worth living—grandly worth living—each day is crowded with glorious opportunities of serving Christ through the men, women and children who are within our reach. I know a poor woman who is totally blind, and yet she seems to enjoy everything. I found her doing the family washing the other day, and she said she always ironed the plain things—and she seemed to think that such work was "having a real good time." Her life is beautiful, and so may yours be—and beautiful not only in God's sight. Though He alone may notice each separate act of love, though only He can look at the beauty of a soul which is a fitting temple for His dwelling place, yet men are very quick to know when anyone is walking with God in secret. The secret is revealed unconsciously in a joyous face, in gentle tones, in kindness to everybody. We certainly can make our lives beautiful—are we doing it?

"Master, to do great work for Thee, my hand  
Is far too weak! Thou givest what  
I may not do,  
Some little chips to cut with care  
mine,  
Or tint, or grave, or polish. Others  
stand  
Before their quarried marble, fair and  
grand,  
And make a life work of the grand design  
Which Thou hast traced; or, many-  
skilled, continue  
To build vast temples, gloriously  
planned,  
Yet take the tiny stones which I have  
wrought  
Just one by one, as they were given by  
Thee.  
Not knowing what came next in Thy  
wise thought,  
Let each stone by Thy master-hand of  
grace  
Form the mosaic as Thou wilt for me,  
And in Thy Temple-vestment give it  
place."

HOPE.

**The Essay Competition.**

So many good essays have been sent in that I wish we had a dozen prizes, instead of only three. But those who get honorable mention must not be discouraged. Any of you might have taken the prize, if there had not been another essay just a little better. Don't let anyone get ahead of you the next time. Almost all the essays sent in were worthy of being printed, but we have only room for the very best.

Prize in class 1, girls under 16—Lois McKinlay, age 14, Charlottetown, Prince Edward Island; prize in class 2, boys under 16—G. C. M. Duff, Cookstown, Ont.; prize in class 3, under 12—Bessie Hardey, age 9, Kent Bridge, Ont. Honorable mention, class 1—J. Sexsmith, J. McDonald, M. Wilson, G. Nixon, G. VanNest, M. Shipley, E. Johnson, N. Barker, N. Ross, I. Grills, M. Morrison, W. Field, E. Eaton, C. Greenwood; class 2—N. Wardlaw, F. Eaton; class 3—Pearl Jose, E. Rayeroff, C. Rayeroff, C. Hutchinson, G. Brownell, C. Johnson, R. Henry.

Address all letters for Children's Corner to COUSIN DOROTHY, 52 Victor Ave., Toronto, Ont.

**A Book I Have Read.**  
(PRIZE ESSAY.)

A book of which I never tire is Beautiful Joe. It is the autobiography of a dog, who as a pup was owned by a brutal milkman and cruelly mutilated by him. From this life he was, however, rescued, and became the property of a kind clergyman, in whose home he lived very happily. Joe describes many thrilling adventures which he has experienced, and makes us love him from the first. I like this story because it tells so much about animals, and gives such wonderful examples of their intelligence. I also like it because the author is a Canadian.

LOIS MACKINLAY (age 14), Charlottetown, P. E. I.

**A Book I Have Read.**  
(PRIZE ESSAY.)

The name of the book upon which I am going to write is called "Spectre Gold." It tells how a man in England has had a fortune left to him in America. He comes over to America only to find that it has gone. He then makes friends with another man, and the two go out seeking the fortune. However, the man is nearly killed by his supposed friend. He finds his fortune at last, and goes back to England a rich man.

The reason I like the book is because of its adventures and hair-breadth escapes.

G. CLARKE M. DUFF, Cookstown, Ont.

**A Book I Have Read.**  
(PRIZE ESSAY.)

Of all the books that I have read, I like "Paul and Virginia" the best. I like it because it is a sad story. Monsieur de la Tour went away to seek his fortune, and got married unknown to his



wife's father. They sailed over to Port Louis, and he got sick and died. She was all alone then—she and her slave. They cultivated the soil in a place where there was a friend called Margaret, and this friend, with her slave, Domingo, came to live with Madame de la Tour in her little hut. Margaret had a child, and so had Madame de la Tour, both born on the same day. The priest named Margaret's child Paul, and Madame de la Tour's child Virginia. Virginia grew up to be a very handsome girl, and Paul loved her very much. But one night Paul went to visit the priest, and on his return, Virginia had gone to France. When she was coming home, the ship was wrecked, and Virginia was drowned, and Paul died of a broken heart. Margaret and Madame de la Tour died mourning the loss of their children.

BESSIE HARDEY (age 9), Kent Bridge, Ont.

**The Man from Glengarry.**

A book I have taken much pleasure in reading is "The Man from Glengarry," written by Ralph Connor. I like it most for its simplicity, brightness, and sweetness to nature. The author must have been a true Scot, for how clearly he has brought out the bravery and loyalty of his Scotch heroes, who would risk any-

thing to save one of their friends; and, such is his skill, that one is almost forced to believe that he has dwelt among them and witnessed their mirth-provoking and brave acts alike. Altogether, one may take much pleasure and profit from the scene the story brings up.

JENNIE SEXSMITH (age 15), Ridgeway, Ont.

**"The Prospector"**

The book I shall speak of is "The Prospector." It was written by Rev. W. C. Gordon, who writes under the pen-name of Ralph Connor. It tells the story of a young man, Shock, the hero of the football field, going out to the Northwest, and of his earnest efforts to better the lives of his fellow men in that country. I liked the story because it was true, and all the characters were natural—not the impossible characters one sometimes reads of. I liked it also because it encourages us to better work, by showing what one person can do to brighten the lives of others.

JESSIE C. McDONALD (age 16), Aberdeen, Ont.

**David Copperfield.**

I like Dickens' books because they are natural, witty, and, withal, pathetic. Of all his books, I think I like David

Copperfield best. David Copperfield is the son of a widow, who marries a hard, austere man. David, on rebelling against his tyranny, is sent to school. On his mother's death, he comes home. He then goes to London to work. All his possessions are stolen there, so he goes to his only living relation, Betsy Trotwood. She sends him to school. Afterward he marries a wealthy lady. She dies, and he marries the daughter of his former master.

MERNE WILSON (age 15), Chatsworth, Ont.

**Uncle Tom's Cabin.**

To thoroughly understand slavery, read "Uncle Tom's Cabin." After living peaceably in his little cabin for some time, Tom was sold (to help clear his master of debt) to a traitor, who immediately sold him to a kind gentleman, whose little daughter became greatly attached to Tom. The death of this gentleman, a week before freedom papers were drawn, caused Tom again to be sold to a brutal man, who, by whipping, killed him, just as his first master's son came to free him. The cruelty suffered by Uncle Tom and others is terrible to read of.

MARY R. SHIPLEY (age 15), Falkirk, Ont.

**Ten Nights in a Bar-room.**

"Ten Nights in a Bar-room" is an excellent book. It tells of many highly-respected young men who have been degraded through liquor. Simon Slade was once a kind-hearted and industrious miller in Cedarville, and was liked by everyone. He started to keep a tavern, and in ten years his wife was in the asylum, and his son occupied a prison cell, charged with the terrible crime of murdering his father. My reason for liking this book is that it shows plainly the effects of drinking, and is a warning to all young people to abstain from strong drink.

ELIZABETH JOHNSTON (age 15), Norwich, Ont.

**Swiss Family Robinson.**

The French Revolution, 1789, when Louis XVI. and his queen were murdered, spread misery and want over all Europe. This book describes the effect of the Revolution, not on the State, but on one Swiss family. A poor pastor (Velti, by name), his wife and four boys were driven from their beloved home. Escaping to England, he went as a missionary to Port Jackson, but was shipwrecked and deserted by the sailors. By means of a raft, they reached a small island, part of which was inhabited by savages. Here they lived for four years. They had a great many comical and interesting adventures.

Reasons for liking the book: (1) It is full of adventures. (2) It is instructive. (3) It has a good moral.

Headford, Ont. NELLIE BARKER.

All letters intended for the Children's Corner should be addressed to Cousin Dorothy, 52 Victor Ave., Toronto, Ont.



"Chums"

**About the House.**

**Seasonable Recipes.**

Eggs on Toast.—Put the whites of the eggs in a bowl, and keep the yolks entire. Beat the whites stiff, and pile on slices of toast which have been dipped in hot milk. Make a depression in the top of each pile, and drop into it the yolk. Season lightly, and cook in the oven three minutes.

Eggs and Cheese.—Lay on a buttered baking-pan several slices of buttered bread. Cover with grated cheese. Beat up as many eggs as required; season, and pour over the bread. Sprinkle more grated cheese over the top, and bake until the eggs are set.

Poached Eggs.—When poaching eggs, never let the water more than simmer, and keep tightly covered. Serve on toast with cream sauce, if you choose. Eggs are also very nice poached in milk.

Cupped Eggs.—Place some cups in a pan of hot water. In each cup put a tablespoonful of cream. Break an egg into this; add pepper and salt and a few bits of butter. Bake ten minutes.

"Boiled" Eggs.—Put in a warm pan on back of stove, pour boiling water on

cover, and let stand 10 minutes. Eggs cooked this way are much more digestible than when boiled three minutes.

Scrambled Eggs.—Pour half a cup sweet cream in a buttered frying-pan. Pour hot, turn in six eggs. Cook slowly, stirring constantly. Season, and serve hot.

Egg Omelette.—(1) Butter a small frying-pan. Beat up in a cup one egg and one tablespoon sweet cream. Pour on pan, and cook. Do not turn. When done, roll. Repeat until enough eggs are cooked. (2) Six eggs (beaten separately—whites and yolks), ½ pint sweet milk, 6 teaspoons cornstarch, a little salt, ½ teaspoon baking powder. Add the whites last. Put in buttered pan, and cover. When cooked, roll, serve.

Devilled Eggs.—Boil hard. Split in two, lengthwise. Mash yolks with minced cooked ham, butter, seasoning, and mustard. Refill the whites, and serve cold, or brown in oven.

Scalloped Eggs.—Boil hard; chop roughly, and mix with a cream sauce.

Curried Eggs.—Make a sauce as follows: Slice 1 onion, and grate 1 tart apple. Put in a pan, with 2 ozs. butter or dripping, and cook gently. Add 1 pint milk, and thicken with 1 tablespoonful flour, blended in a little milk. Cook, adding 2 dessertspoons curry

powder and the juice of half a lemon. When cooked, mix with 1 hard-boiled egg (chopped), and pour into a shallow dish. Now cut the other hard-boiled eggs, as many as necessary, in two, lay gently in the sauce, with the yolks showing, and serve with a border of boiled rice.

**Spring Housecleaning Hints.**

Matting.—Allow six inches at ends for turning under, and hem. Spread newspapers and carpet-lining under to make it wear well. Matting may be cleaned with dry corn meal. If very dirty, wash with weak salt and water, and dry well with a dry cloth.

To Clean Carpet.—Beat, and sweep out of doors, damping the broom in clean cold water at frequent intervals. Brooms for sweeping carpet should be wet in boiling suds once or twice a week. This toughens them, and helps to keep them from cutting the carpet. When sweeping the carpet, salt or almost dry tea leaves sprinkled over it are good. The sweeping should always be done along with, not across the pile. Mixtures of ammonia and water (2 teaspoons ammonia to the gallon), and vinegar and water (a cup of vinegar to a pint of water) are often recommended for brightening carpet.

Both are good, but for different colors. Before using, it is well, if possible, to try a little of each on a turned-under portion, and use the one that is most effective. To clean spots on carpet get ten cents' worth soap-bark; steep a few bits in hot water, and rub the soiled spots; rinse with clear warm water, and rub until nearly dry. If the carpet is very dirty, beat, and clean as above, and tack down. Take a bar of laundry soap, and shave in enough water to dissolve (a pint or more); let melt on stove; remove, and, when cool, add half an ordinary bottle ammonia. Apply with a stiff scrubbing brush, and wash off with a cloth wrung out of clear water, using as little water as possible. See that the carpet is not walked on till dry. When "laying" carpet, place on floor, and tack along the ends of the breadths at one end of the room. Now, stretch, and tack along the opposite end, leaving the sides until the last.

To Clean Wall Paper.—Rub downward with dough or stale bread. To remove grease spots, rub gently, once or twice, with spirits of wine, or apply a paste of pipe clay and water; let dry, and brush off. Blotting paper and a warm iron are also often effective in removing grease spots.

## Glengarry School Days.

A STORY OF EARLY DAYS IN GLENGARRY.

By Ralph Connor—Rev. C. W. Gordon.

CHAPTER X.—Continued.

"He's making for the Big Swamp," said Don, and on they went, with eyes and ears on the alert, expecting every moment to hear the snort of a bear, or to meet him on the further side of every bunch of underbrush.

For an hour they went on at a steady trot, over and under fallen logs, splashing through water holes, crashing over dead brushwood, and tearing through the interlacing boughs of the thick underbrush of spruce and balsam. The black dogs never hesitated. They knew well what was their business there, and that they kept strictly in mind. Fido, on the other hand, who loved to roam the woods in an aimless hunt for any and every wild thing that might cross his nose, but who had never seriously hunted anything in particular, trotted good-naturedly behind Hughie, with rather a bored expression on his face.

The trail, which had led them steadily north, all at once turned west, and away from the swamp.

"Say," said Don, "he's making for Alan Gorrach's cabin."

"Man!" said Hughie, "that would be fine, to get him there. It's good and open, too."

"Too open by a long way," grunted Don. "We'd never get him there."

Sure enough, the dogs led up from the swamp and along the path to Alan's cabin. The door stood open, and in answer to Don's "Horo!" Alan came out.

"What now?" he said, glowering at Don.

"You won't be wanting any dogs to-day, Alan?" said Don, politely.

Alan glanced at him suspiciously, but said not a word.

"These are very good dogs, indeed, Alan."

"Go on your ways, now," said Alan.

"These black ones are not in very good condition, but Fido there is a good, fat dog."

Alan's wrath began to rise.

"Will you be going on, now, about your business?"

"Better take them, Alan, there's a hard winter coming on."

"Mac an' Diabhoil!" cried Alan, in a shrill voice, suddenly bursting into fury. "I will be having your heart's blood," he cried, rushing into his cabin.

"Come on, Hughie," cried Don, and away they rushed, following the black dogs upon the trail of the bear.

Deeper and deeper into the swamp the dogs led the way, the going becoming more difficult and the underbrush thicker at every step. After an hour or two of hard work, the dogs began to falter, and ran hither and thither, now on one scent and then on another, till, tired out and disgusted, Don held them in, and threw himself down upon the soft moss that lay deep over everything.

"We're on his old tracks here," said Don, savagely, "and you can't pick out the new from the old."

"His hole must be somewhere not too far away," said Hughie.

"Yes, perhaps it is, but then, again, it may be across the ridge. At any rate, we'll have some grub."

As they ate the bannocks and cheese, they pictured to themselves what they should do if they ever should come up with the bear.

"One thing we've got to be careful of," said Don, "and that is, not to lose our heads."

"That's so," assented Hughie, feeling quite cool and self-possessed at the time.

"Because if you lose your head you're done for," continued Don.

"Remember Ken McGregor?"

"No," said Hughie.

Didn't you ever hear that? Why he ran into a bear, and made a drive at him with his axe, but the bear, with one paw knocked the axe clear out of his hand, and with one sweep of the other tore his insides right out. They're mighty cute, too," went on Don. "They'll pretend to be almost dead just to coax you near enough, and then they'll spin round on their hind legs like a

rooster. If they ever do catch you, the only thing to do is to lie still and make believe you're dead, and then, unless they're very hungry, they won't hurt you much."

After half an hour's rest, the hunting instinct awoke within them, and the boys determined to make another attempt. After circling about the swamp for some time, the boys came upon a beaten track which led straight through the heart of the swamp.

"I say," said Don, "this is going to strike the ridge somewhere just about there," pointing north-east, "and if we don't see anything between here and the ridge, we'll strike home that way. It'll be better walking than this cursed swamp, anyway. Are you tired?"

Hughie refused to acknowledge any weariness.

"Well, then, I am," said Don.

The trail was clear enough, and they were able to follow at a good pace, so that in a few minutes, as they had expected, they struck the north-east end of the swamp. Here again they called a halt, and tying up the dogs, lay down upon the dry brown leaves, lazily eating the beech-nuts and discussing their prospects of meeting the bear, and their plans for dealing with him.

"Well, let's go on," at length said Don. "There's just a chance of our meeting him on this ridge. He's got a den somewhere down in the swamp, and he may be coming home this way. Besides, it'll take us all our time, now, to get home before dark."

"I guess there's no use keeping the dogs any longer. We'll just let them go." So saying, Don let the black dogs go free, but after a little skirmishing through the open beech woods, the dogs appeared to lose all interest in the expedition, and kept close to Don's heels.

Fido, on the other hand, followed, ranging the woods on either side, cheerfully interested in scaring up rabbits, ground-hogs and squirrels. He had never known the rapture of bringing down big game, and so was content with whatever came his way.

At length the hunters reached the main trail, where their paths separated; but a little of the swamp still remained, and on the other side was the open clearing.

"This is your best way," said Don, pointing out the path to Hughie. "We had bad luck to-day, but we'll try again. We may meet him still, you know, so don't fire at any squirrel or anything. If I hear a shot I'll come to you, and you do the same by me."

"I say," said Hughie, "where does this track of mine come out? Is it below the Deepole there, or is it on the other side of the clearing?"

"Why, don't you know?" said Don. "This runs right up to the back of Fisher's berry patch, and through the sugar-bush to your own clearing. I'll go with you if you like."

"Oh, pshaw!" said Hughie. "I'll find it all right. Come on, Fido." But Fido had disappeared. "Good night, Don."

"Good night," said Don. "Mind you don't fire unless it's at a bear. I'll do the same."

In a few minutes Hughie found himself alone in the thick underbrush of the swamp. The shadows were lying heavy, and the sunlight that still caught the tops of the tall trees was quite lost in the gloom of the low underbrush. Deep moss under foot, with fallen trees and thick-growing balsam and cedars, made the walking difficult, and every step Hughie wished himself out in the clearing. He began to feel, too, the oppression of the falling darkness. He tried whistling to keep up his courage, but the sound seemed to fill the whole woods about him, and he soon gave it up.

dog in his sensitive parts, he descended to meet his advancing foe, and reaching down, hit him a sharp blow on the snout. With a roar of rage and surprise the bear let go his hold, slipped to the ground, and began to tear up the earth, sneezing violently.

"Oh, if I only had that gun," groaned Hughie, "I'd get him. And if he gets away after Fido again, I believe I'll try it."

The bear now set himself to plan some new form of attack. He had been wounded, but only enough to enrage him, and his fury served to fix more firmly in his head the single purpose of getting into his grip this enemy of his in the tree, whom he appeared to have so nearly at his mercy.

Whatever his new plan might be, a necessary preliminary was getting rid of Fido, and this he proceeded to do. Round about the trees he pursued him, getting farther and farther away from the birch, till Hughie, watching his chance, slipped down the tree and ran for his gun. But no sooner had he stooped for it than the bear saw the move, and with an angry roar rushed for him.

Once more Hughie sprang for his branch, but the gun caught in the boughs and he slipped to the ground, the bear within striking distance. With a cry he sprang again, reached his bough and drew himself up, holding his precious gun safe, wondering how he had escaped. Again it was Fido that had saved him, for, as the bear had gathered himself to spring, Fido, seeing his chance, rushed boldly in, and flinging himself upon the hind leg of the enraged brute, held fast. It was the boy's salvation, but alas! it was Fido's destruction, for, wheeling suddenly, the bear struck a swift downward blow with his powerful front paw, and tore the whole side of the faithful brute wide open. With a howl, poor Fido dragged himself away out of reach and lay down, moaning pitifully.

The bear, realizing that he had got rid of one foe, now proceeded more cautiously to deal with the other, and began warily climbing the tree, keeping his wicked little eyes fixed upon Hughie.

Meantime, Hughie was loading his gun with all speed. He emptied his powder-horn into the muzzle, and with the bear coming slowly nearer, began to search for his bullets. Through one pocket after another his trembling fingers flew, while with the but of his gun he menaced his approaching enemy.

"Where are those bullets?" he groaned. "Ah, here they are!" diving into his trousers pocket. "Fool of a place to keep them, too!"

He took a handful of slugs and bullets, poured them into his gun, rammed down a wadding of leaves upon all, retreating as he did so to the higher limbs, the bear following him steadily. But just as he had his cap securely fixed upon the nipple, the bear suddenly revealed his plan. Holding by his front paws, he threw his hind legs off from the trunk. It was his usual method of felling trees. The tree swayed and bent till the top almost reached the ground, but Hughie, with his legs wreathed round the trunk, brought his gun to his shoulder, and with its muzzle almost touching the breast of the hanging brute, pulled the trigger.

There was a terrific report, the bear dropped as a sap iron, the tree, and Hughie was hurled violently to the ground some distance away, partially stunned, he raised himself, to see the bear's sagging up to a sitting position, and gnashing his teeth, and bellowing and foam from his mouth, began to drag himself toward him. He was conscious of a languid, numb onset, and found himself wondering how long the bear would take to reach the distance.

But while he was thus cogitating there was a sharp crack, and a great black shadow fell at the bear's throat, and the fierce brute to the ground.

Drawing his knife, Hughie sank back to the ground. Hughie sank back to the ground, and the sound

of a far-away shot in his ears and darkness veiling his eyes.

He was awakened by Don's voice anxiously calling him.

"Are you hurt much, Hughie? Did he squeeze you?"

Hughie sat up, blinking stupidly.

"What?" he asked. "Who?"

"Why, the bear, of course."

"The bear? No, Man! It's too bad you weren't here, Don," he went on, rousing himself. "He can't be gone very far."

"Not very," said Don, laughing loud. "Yonder he lies."

Hughie turned his head and gazed, wondering, at the great black mass over which Don's black dogs were standing guard, and sniffing with supreme satisfaction.

Then all came back to him.

"Where's Fido?" he asked, rising. "Yes, it was Fido saved me, for sure. He tackled the bear every time he rushed at me, and hung on to him just as I climbed the tree the second time."

As he spoke he walked over to the place where he had last seen the dog. A little farther on, behind a spruce tree, they found poor Fido, horribly mangled and dead.

Hughie stooped over him. "Poor old boy, poor old Fido," he said, in a low voice, stroking his head.

Don turned away and walked, whistling, toward the bear. As he sat beside the black carcass his two dogs came to him. He threw his arms round them, saying, "Poor old Blackie! Poor Nigger!" and he understood how Hughie was feeling behind the spruce tree, beside the faithful dog that had given him his life.

As he sat there waiting for Hughie, he heard voices.

"Horo!" he shouted.

"Where are you? Is that you, Don?" It was his father's voice.

"Yes, here we are."

"Is Hughie there?" inquired another voice.

"Losh me! That's the minister," said Don. "Yes, all right," he cried aloud, as up came Long John Cameron and the minister, with Fusie and a stranger bringing up the rear.

"Fine work, this. You're fine fellows, indeed," cried Long John, "frightening people in this way."

"Where is Hughie?" said the minister, sternly.

Hughie came from behind the brush, hurriedly wiping his eyes. "Here, father," he said.

"And what are you doing here at this hour of the night, pray?" said the minister, angrily, turning toward him.

"I couldn't get home very well," replied Hughie.

"And why not, pray? Don't begin any excuses with me, sir." Nothing annoyed the minister as an attempt to excuse ill-doing.

"I guess he would have been glad enough to have got home half an hour ago, sir," broke in Don, laughing. "Look there." He pointed to the bear, lying dead, with Nigger standing over him.

"The Lord save us!" said Long John Cameron, himself the greatest among the hunters of the county. "What do you say? And how did you get him? Jee-ru-piter! he's a grand one."

The old man, the minister and Don walked about the bear in admiring procession.

"Yon's a terrible gash," said Long John, pointing to a gaping wound in

the breast. "Was that your Snider, Don?"

"Not a bit of it, father. The bear's Hughie's. He killed him himself."

"Losh me! And you don't tell me! And how did you manage that, Hughie?"

"He chased me up that tree, and I guess would have got me only for Fido."

The minister gasped.

"Got you? Was he as near as that?"

"He wasn't three feet away," said Hughie, and with that he proceeded to give, in his most graphic style, a description of his great fight with the bear.

"When I heard the first shot," said Don, "I was away across the swamp. I tell you I tore back here, and when I came, what did I see but Hughie and Mr. Bear both sitting down and looking coolly at each other a few yards apart. And then Nigger downed him, and I put a bullet into his heart." Don was greatly delighted, and extremely proud of Hughie's achievement.

(To be continued.)

I am delighted to see that some of our Maritime Province people are at last coming to the fore. Now, Quebecers, wake up! I am also so glad that two among our shut-ins have come to us this week. Only once before did a shut-in write to us. We hope she is better now, and able to be out. It is so hard to be obliged to stay in month after month through illness, and yet how often do the cheery faces of those under such conditions prove a reproach to us who are able to go about—and still complain! We are glad if our shut-ins find pleasure in reading the Ingle Nook, and a little writing to it, and I am sure all of the other Chatterers will, with me, give them a hearty welcome.

DAME DURDEN.

**Take Notice!**

In future, at most but two or three answers to any question, and not more than one unless the methods differ very materially, will be published; hence, when writing the answer to a query, put in a little letter too, about something else, so that if your answer is left out your letter may still be published. D. D.

**From an English Woman.**

Dear Dame Durden,—Is your very cordial invitation for Canadians only?—or may I draw up my chair into your cosy corner too? I don't want to sail in under false colors, and I am "only English," so hesitate, doubtful of my reception.

I tried your "Scotch Roll," and we all liked it very much.

Lime in Kettles.—This is how I clean mine: I fill the kettle with cold water and put in two heaped handfuls of common washing soda, let it boil a minute or two, empty, and tap sharply on outside of kettle with hammer (a wooden potato masher I use if kettle be tin, but if iron, hammer), rinse, and usually find it quite free. If, however, there is yet lime on kettle, I would repeat process, and this invariably frees it quite.

Do you think "Banberry" should have read "Barberry," which is a small red fruit, so acid that birds will not eat it, but boiled with sugar makes a nice jam or jelly, and could be used for tarts? It makes a nice sweetmeat preserved, is a pretty garnish, and is also good pickled in vinegar. If it is the barberry tart Young Housekeeper wants, I will be pleased to tell what I know of it. This is, of course, if I am allowed to come in, and if I were in the Circle, I would ask for a nice menu for a simple farm men's supper for six, with true Canadian dishes.

I would like a simple menu because I am alone; my help left just before Xmas, along with the extra hands, and I would not like to attempt more than would be a success. Is this imposing on your good nature too much? and especially as I am a NEW CHUM. York Co., Ont.

Bar you out because you are English? Aren't you joking? Don't you know we



Canadians are British to the backbone? I know of a Canadian who settled in Los Angeles, but who invariably signed his name "John ———, BRITISH SUBJECT!" Was he "humptuous?" Perhaps; but when hearing of him one feels a tickling of the British blood, which makes one feel like shouting, "Hooray for him!" Welcome, and come again, with your barberries. We've done our best, but are ready for barberries. See? I could have made some shift at writing you out a menu, but have thought it more interesting to leave the question open for our Chatterers to answer. Do you mean a supper for six men who are working on the farm, or for six men at some special function? This is not quite clear to us. Send a line right away, will you, please? Then the matter will be open for discussion.

**A Shut-in Answers Forget-me-Not.**

Dear Dame Durden,—I've long been a delighted reader of your Ingle Nook Chats, and am so glad every week to read the interesting letters and the help they give. May I come in for a wee chat too? We have taken "The Farmer's Advocate" over a year, and were delighted with the nice letters, especially of the "City Farmer's Wife," of April 15th, 1905. I wished to write then, but poor health stopped me, for I have been a shut-in for many years. I sincerely thank you for the beautiful poetry, especially some, and hope again to see the poetry of the "Li'l Brack Sheep." Can you some time write it again? It is cheering to us shut-ins to know that the Good Shepherd cares for us so tenderly, and shields us from harm if we trust Him. I hope your paper will continue on in the good way of trying to cheer us along.

In February 15th issue, I see Forget-me-Not asks for receipt for good pudding sauce. This way I find is lovely: You put in a cup of brown sugar and a piece of butter, say a tablespoonful; put in a granite dish on back of the stove, where it will melt and get brown, but do not burn it. Stir well, and when it is nicely browned, pour a pint of boiling water on the melted sugar and butter, then add 2 tablespoons of cornstarch, wet with a little cold water. When all boils nicely put in a little salt. I hope you can understand how it is made, it is so simple and good. When you bake pies, instead of greasing pie tins, rub a wee bit of dry flour over the tins; it is far ahead of greasing them. Try it, won't you?

Please can you tell me what to put in flour for salt-rising bread? In my young days I made it often, and we like it for

a change, but have forgotten how it is made. Can you help me out?

I trust my letter is not too long to publish, and will close for this time, wishing your Ingle Nook every success. A LANKSHIRE LASS. Wellington Co., Ont.

Will publish "Li'l Brack Sheep" as soon as I have time to look it up. Can anyone send a good, tried recipe for salt-rising bread?

**New Brunswick to the Fore!**

Dear Dame Durden,—Do not think the Ingle Nook Chats are not appreciated in New Brunswick. Mother and I enjoy them so much, and it is the first page we read on the arrival of "The Farmer's Advocate." I wrote a short letter about a year ago, when the breadmaking discussion was at its height, but have been silent ever since.

I wonder where Polly (N. S.) has gone, and all the boys who were starting house-keeping? Have the latter laid their burden on fairer shoulders?—as a few new housekeepers have written lately. We will have to hold a grand reunion around the hearth.

The plan of asking information in Ingle Nook is splendid. Many, I think, will come who, otherwise, thinking they had nothing to say, would be silent, but now they are really helping others by writing. I am sorry, Dame Durden, I cannot help you with your difficult problems, and hope I will not be adding to them by asking if you can give me a recipe for making and cooking dumplings for soup. I have tried so often, and they are always like balls of lead.

You ask for a good recipe, and these cookies are splendid. The first I make in summer, and the last in winter, when eggs are on the top shelf:

Sugar Cookies.—1 cup of butter, 2 cups of sugar, ¼ cup of water (scant), 3 eggs, 2 teaspoons of cream of tartar, 1 teaspoon of soda, nutmeg. Sift about a cup of flour, soda and cream of tartar together; rub the butter into this till thoroughly mixed, then add eggs, water and spice, and enough flour to roll out very soft.

Buttermilk Cookies.—1 cup of butter, 2 cups of sugar, 1 cup of currants, 1 cup of buttermilk, 2 teaspoons soda, a little cinnamon and ginger. Mix the same as Sugar Cookies.

Hoping these may be useful to some of our friends.

A NEW BRUNSWICK GIRL. King's Co., N. B.

These dumplings are really good, but you mustn't let the soup boil at all after

they go in, or they will go to pieces. Just keep it simmering: 2 small cups flour, ¼ lb. finely-chopped suet, 1½ teaspoons chopped herbs (sage, parsley, etc.), a little pepper and salt, ½ teaspoon baking powder. Make into a stiff dough with cold water; make into balls; drop into soup and cook one hour, turning over at times.

Your suggestion about a reunion is a good one. Perhaps we can work it up for Empire Day.

I think our boys are silent, not because they've all given up housekeeping, but because we've neglected them a little lately. Perhaps they'll come back. We don't want to shut them out of the Ingle Nook. By the way, have you read Tenyson's Princess?

**The "Paw" from P. E. I.**

"An Extended Paw" writes that she can no longer let the "Ontarioans" do all the chattering. She sends recipes for Banbury tarts and lime in kettles, which we do not insert, because so many other recipes had come in before hers, but we thank her all the same. Our members will be interested—and sympathetic—at knowing that our P. E. I. friend has been in bed over a year. Now for a bit from herself:

"This is the first time I have ever written to any paper, although I am always glad to read letters from others who have done so much for my benefit in your much-esteemed journal. . . . And here I may add a little confession. I am lying on my back doing all this scribbling. Just now I told the nurse I have about cleaning a bottle about the shoulder inside with the salt and vinegar which I read about a short while ago in "The Farmer's Advocate." She took it out of my sight, and said "no." I then asked her to hand it to me. I got her to put 1 tablespoonful vinegar in, also coarse salt, and let it soak in a basin. In half an hour I had all clean; I let it lie only about ten minutes, then took a small piece of cotton, fastened a cord to it, took a small, limber piece of hardwood, cleaned it out to all the corners. My hand is trembling so I will stop.

"AN EXTENDED PAW."

P. E. I.

**Cleaning Straw Hats—Chocolate Icing.**

Dear Dame Durden,—Although this is the first time I have written to the Ingle Nook, I have been a reader of the Chats for over two years, and have been interested. Would you kindly tell me a way how to clean a white straw hat that has been worn and become soiled; and also a recipe how to make chocolate icing?

AUNT CLARA.

Huron Co., Ont.

Brush the hat well, rub with lemon juice, then with sulphur, let dry, and brush well again. Repeat if necessary. For the icing, grate half a cake of chocolate fine, add two-thirds cup sugar, half a cup of sweet cream. Boil and beat to a paste. When half cold put on cake.

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### Re Dahlia and Canna Seeds.

"Amateur," Cambridge, Ont., writes: "Dear Florist.—Thank you very, very much for your help when I consulted you some time ago. May I ask you one thing more? In the seed catalogues, I have seen advertised the seeds of Dahlias, Cannas, Lily of the Valley, and other tuberous-rooted plants. Can they be grown successfully from seed, or is it better to buy the roots?"

"Perhaps this will help some frequenter of your corner: Last spring in an angle formed by a south wall and a west one, where the sun came only a few minutes in the morning, I planted climbing Nasturtiums. The seed was started in the house, in eggshells filled with earth and placed in a box. It is a very good plan for starting large seeds. The Nasturtiums bloomed all summer long, and were visited by humming birds from morning till night. They were a little trouble to keep in order, but were worth it, as they brightened up an otherwise dark corner, where few other things would grow."

Ans.—Canna seeds may be started in late winter in flats (shallow boxes), with a good bottom heat, or in a hotbed. Sandpaper each seed off on the end opposite the germ until the white shows, then soak an hour or two before planting. When large enough to handle, transplant, very gently, into thumb pots, and put in a warm, sunny window. Shift as often as necessary until all danger of frost is past, then set out in deep beds of well-manured muck. At all times give plenty of water and good drainage. Seed sown in February or March should give blooming plants by the end of June.

Dahlias also may be started from the seed in flats, or in a hotbed. Plant in drills, two inches apart, and cover with about a quarter of an inch of soil. Keep warm and damp. Transplant when ready, and plant out in the open when all danger of frost is past. Dahlias also require plenty of water and good drainage.

Both Cannas and Dahlias are quite easily started in this way, and often give surprises by appearing as quite new varieties. It is well, though, for fear of mishaps, to plant a few of the tubers also.

### Vines and Border Plants for Sunny Veranda.

In answer to a correspondent, "Chin-wag," Grey Co., Ont., who wrote re vines for a sunny veranda, we would say that Virginia Creeper, Grape and Trumpet-vine are good old stand-bys that will grow with little care, and almost in any situation. The first, however, has the disadvantage of losing its leaves early, and the last of branching out well above and leaving bare stems below. To overcome this difficulty, when these vines are used, some other kind should be planted to intertwine among them. Of these, none is more suitable than the beautiful Clematis Paniculata, with its delicate foliage and clusters of white star-like blossoms.

All of these vines grow rather slowly, hence while waiting for them to develop to make a good showing, Balloon Vine, Canary Creeper, Cobaea Scandens, Cinnamon Vine, Madeira Vine, and Moonflower may be planted, with Nasturtiums twining below. Sweet Peas should do well in such a situation, if given a very deep, rich seed-bed and plenty of water. They should, however, be planted very early in the spring; just as soon, in fact, as the ground is workable.

By "border plants" for the veranda, we presume you mean a border to go just outside of the vines. White Perennial Phlox, which keeps its foliage fresh and green until snowfall, should be admirable for this, and will grow up year after year with little care. Along with it, almost any of the "easy" annuals or perennials may be planted—Cornflowers (blue), Gypsophila (feathery white), Asters (white, mauve or pink), Lilium Auratum (white, dotted crimson),

Lilium Candidum (pure white), Caladium Esculentum (foliage plant), Salvia (scarlet), Tulip Poppies (scarlet), Shirley Poppies (white to crimson), Coreopsis (yellow and crimson), Crimson Flax, Perennial Delphinium (blue), Cosmos (blooms late, but is valuable for feathery foliage), Summer-flowering Chrysanthemums (white to yellow). The colors which harmonize must, of course, be chosen.

Outside of these again, for the lowest edging, we would recommend Candytuft, Alyssum, Mignonette, Ageratum (blue), Dusty Miller (white foliage), Feverfew (yellowish-green foliage), Dwarf Asters, Dwarf Nasturtiums, Geraniums.

For veranda or window boxes, Trailing Nasturtiums, to droop outside, with Geraniums, Heliotrope, Ageratum, White Verbena, will be found to do well with a southern exposure. For eastern exposure try Tuberous Begonias, Nasturtiums, Heliotrope, Fuchsias, Maurandya, White Antirrhinum; for northern, Caladiums, Fuchsias, Ivy Geranium, Begonias, Asparagus, Boston Fern, Manettia Vine, Leopard Plant.

### Paper Bags for Seedlings.

Are the editors of "The Farmer's Advocate" told so often that the magazine is getting better and better all the time that they are getting tired of hearing it? However, it is the truth about it, especially the parts that most particularly interest women. How these bright days remind us that our paint and paper, and our household furniture generally, are getting shabby, and we are rather impatiently waiting the coming of spring so we can rejuvenate the inside of the house so as to be more of a match for the freshness of things outside. How many make small paper boxes—I use newspapers—in which to plant delicate seeds that must be started in the house? Take pieces of paper, about four inches square, fold up in the shape of a box, and tack at the corners. When you want to put the plants out in the garden, they do not have to be disturbed, as the box can be planted. The damp earth soon rots the paper, so that the roots can go through without difficulty. Some day, when the children want amusing, and there is nobody around to do it, look up a calendar of last year, or earlier, cut it apart in the fashion of sliced animals, and give it to them to put together. They, the children, will be safely off your mind for the next hour. With best wishes,

### CANADA FIRST.

The foregoing letter from "Canada First," as well as the preceding query from "Chin-wag," was sent to the Ingle Nook, but has been forwarded to this department. The suggestion re paper boxes is good. Eggshells, as noted in "Amateur's" letter, small cotton bags, cans, burnt until the bottoms come off then tied with strings, are all similar devices which are very valuable for starting young plants. . . . Will correspondents who wish to talk about plants, kindly write that portion of their letters on separate slips so that they may be more conveniently placed in the "Flower" department?

### Recipes.

Black Cake.—One and three-quarters lbs. "Five Roses" flour, 1½ lbs. brown sugar, 1 lb. butter, 1½ lbs. raisins, 1½ lbs. currants, 4 eggs, ½ lb. lard, 1 pint milk, 1 nutmeg, and mace, 1 teaspoon baking powder.

Cream Tea Cakes.—Two lbs. "Five Roses" flour, 1 cup butter, ¼ pint sour cream, ¼ teaspoon soda, a little salt. Make into small cakes, and bake 15 or 20 minutes.

A doctor prescribed rest and change for a small girl, saying that her system was quite upset. After he had gone, the little girl said, "I knew I was upset, mamma, because my foot's asleep; and things must be pretty bad when you go to sleep at the wrong end."

A Traveller.

By Clinton Scollard.

Into the dusk and snow One fared on yesterday; No man of us may know By what mysterious way.

—The Outlook.

"He married beneath him—an impossible person." "Ah, I see. A mesalliance, eh?" "No, a Miss Smith, I believe."

MENDING MATTERS.

"Had you the audacity, John," said a Scottish laird to his servant, "to go and tell some people that I was a mean fellow and no gentleman?" "Na, na," was the candid answer.

A school teacher wrote the following sentence on the blackboard for the benefit of the young grammar class: "The horse and cow is in the lot."

She waited quite patiently for some one in the class to tell her what was wrong with the sentence. Finally, little Sammy, in the back row, held up his hand.

"Well, Sammy, tell us what is wrong with the sentence." "Please, ma'am, you should put the lady first," was the reply.

OBJECTION TO "REGENERATION."

"What is the meaning of 'regeneration, Tommy?" asked a teacher, in the north, of one of his most promising pupils.

"It means 'to be born again,' sir." "Quite right, my man. Would you like to be born again, Tommy?" said the examiner.

"No, sir, I wadna," replied the heretical youth, boldly.

"Indeed, laddie, and wha for no?" inquired the astonished preceptor.

"Because, sir," answered Tommy, "I'm fear'd I might be born a lassie?"

A FAMILY LIKENESS.

Some soldiers, quartered in a country village, when they met at roll-call, were asking one another what kind of quarters they had got. One of them said he had very good quarters, but the strangest landlady he ever saw—she always took him off.

A comrade said he would go along with him and take her off. We went, and offered to shake hands with her, saying, "How are you, Elspa?"

"Indeed, sir," said she, "ye hae the better o' me. I dinna ken ye."

"Dear me, Elspa," replied the soldier, "'d ye no ken me? I'm the devil's sister's son."

"Dear, save us!" quoth the old wife, looking him in the face; "mon, but ye're like your uncle!"

RED NECKTIES ON TRAINS.

"Red neckties are always worn by foreign brakemen and conductors. Ever notice it?" said a railroader.

"No. Why is it?" "As a safety device," was the reply.

"These red neckties that flash upon your gaze on the railroads of Italy, France, Germany and England are not a sign that the people have a gay taste, but that they are cautious and prudent."

"The neckties are supplied free by the railroad companies for use as danger signals in emergency. Thus, no matter when or where an accident may happen, there is no need to search or scramble for a red flag, but the brakeman whips off his red necktie and waves it frantically aloft."

HEALTH IN THE HOME.

By a Trained Nurse

Invalid Cookery.

The problem of diet in the sick room is always a matter of more or less anxiety in every home, especially where the illness is of long duration and the appetite is fitful and capricious.

In considering the diet of any patient, no matter what disease he may be suffering from, there are two essential features to be studied. The first feature is, or should be, the nutritive value of the food. The aim of invalid cookery is to build up and repair the waste which is going on in the system during illness. Therefore, food must be given which will assist nature in her efforts toward restoration.

The second feature is the preparing and serving of the food. It should be served in small quantities, and in as attractive a manner as possible. The linen should be spotless, dishes dainty chinaware, if practicable, and always whole—not chipped and cracked, as we see sometimes. High seasoning should be avoided, also extremes. In the preparation of the food, it must be given the stipulated time for cooking. Nourishment plays an important part in the recovery of a patient, and the value of this branch of nursing cannot be overestimated.

It is the purpose of the writer to give a few "dietetic" recipes for our most common disease, consumption, with the hope that they may help those who are taking care of their loved ones in the home, and whose brains are often racked trying to think of something new which will not only tempt, but benefit the patient.

CONSUMPTION.

The treatment of consumption has received much attention and study by all the greatest minds in the medical world. By careful dietetic treatment a great deal may be done to arrest its progress.

Fresh air, exercise, and cold-water bathing are invaluable.

Diet.—Avoid starchy foods, an excess of sugar and eggs, if there is any tendency toward gastric catarrh.

Fats and oils may be given, in the form of olive oil, salads, cream, bacon, nuts and marrow.

Cod-liver Oil has long been held to be of eminent value, as it possesses all the advantages of food. Oil should be given at first in small quantities.

Malt extract may be given, although it is inferior to oil.

RECIPES FOR CONSUMPTIVE PATIENTS.

Creamed Sweetbreads.—Soak the sweetbread in cold, salted water, throw into boiling water and boil fifteen minutes. A little lemon juice or vinegar added will whiten the bread. Drain, and cut into dice. Make cream-white sauce with 1/4 cup cream, or 2 tablespoons of milk and 2 of cream, 2 tablespoons butter. Blend flour and butter, add 2 tablespoons flour, cream, and let boil. Pour sauce over meats, sprinkle with bread crumbs, and brown in oven.

Pudding, Suet.—One-quarter cup suet, 1/4 cup molasses, 1/2 cup milk, 1 cup flower, 1/8 teaspoon soda, 1/2 teaspoon spice. Put into pudding-cup, and steam three-quarters of an hour. Serve with a cream sauce.

Bacon Dressing.—Fry thin slices of bacon. Strain; add to quantity of fat one-third quantity of vinegar, thickened by adding flour. Serve as a dressing on grape fruit.

Mayonaise Salad.—Equal parts of celery and chicken. Walnuts may be added. Dressing: One egg yolk, 1 cup olive oil, 1 teaspoon salt, pepper (cayenne), mustard and sugar to taste, 2 tablespoons vinegar or lemon juice. Beat egg with olive oil, added drop by drop, then mustard and sugar, salt and pepper; add vinegar to thin. Chill.

Cream Toast.—Toast bread, drop in boiling salted water. Pour over a thin cream sauce and serve.

Caramel Ice Cream.—Caramel used in place of sugar to prevent fermentation. One quart scalded cream, 1 cup sugar, 1/4 cup caramel. Freeze.

Orange Bavarian Cream.—Grated rind of 1 orange, juice of 3 oranges, 1/2 cup sugar, 1 cup cream, 2 tablespoons gelatine. Method of making: Whip cream, set on ice; soak gelatine in 1/4 cup cold water; dissolve gelatine in 1/4 cup of boiling water; add juice and rind of oranges, and sugar; stir until dissolved, then partially chill; when nearly cold add whipped cream; beat until thick, put in mold, and chill.

Banana Cream.—Three bananas cut into small pieces, 1 cup water, 6 tablespoons sugar, 1/2 rind of lemon; cook ten minutes, remove rind, add 1/2 tablespoon hydrated gelatine, 1 cup whipped cream, juice of one lemon. Mold and chill.

Egg Chocolate.—To be served as soon as made: Two squares chocolate, 1/2 cup sugar, 1/2 cup water, 2 cups milk added a little at a time, vanilla. Cook to a paste, stir constantly, let boil five minutes, remove from fire, beat in two whites of eggs, whipped.

Velvet Cream.—One-quarter box gelatine, 1/2 cup cold water, 4 tablespoons lemon juice, 1/2 cup sugar, 1 cup cream, whipped. Soak and dissolve over hot water, add lemon juice and sugar, set on ice to cool. When it begins to harden add cream, beat until thick, mould and chill.

Coffee Cream.—Two tablespoons gelatine, 1/2 cup strong coffee, 1/2 cup sugar, 1/2 cup cream. Soak gelatine, add coffee and sugar, cook. When it begins to thicken add cream, beat, mould and chill.

Nuttet Cream.—Three tablespoons gelatine, 1/2 cup cold water, 2 cups cream, whipped, 1/2 cup almond nuts, 1/2 cup boiling water, 1/2 cup powdered sugar. Dissolve gelatine, mix nuts, sugar and cream, add to gelatine, stir constantly, mould and chill.

Meat Puree.—One tablespoon of scraped meat, 4 tablespoonsful of bouillon. Scrape meat with a dull knife, put in bouillon and heat, season with pepper and salt.

Meat Puree.—Scraped meat, mix with cream, season with salt and pepper, form in balls, and pan-broil.

Sherry Jelly.—(Will ease dry, parched lips): One-half cup water, 1/2 box gelatine, 4 tablespoons sherry, rind and juice of one lemon.

When eggs can be eaten without disturbing patient, or where there are no signs of gastric catarrh, have found the following much relished:

French Omelet.—Separate one white and yolk, beat white until stiff, beat yolk until lemon color, add one tablespoon water to yolk, add salt and pepper, let butter (teaspoonful) melt in pan, fold white into yolk and cook one minute; reduce the heat, try with knife lightly, fold and turn into platter. Serve at once.

Creamy Omelet.—Beat up whole egg, add tablespoon cream, heat and butter the pan, pour egg into pan, and constantly lift from center of pan till cooked. Serve at once.

MARION DALLAS.

A WOMAN'S PRIDE IS A PERFECT COMPLEXION



If your face is covered with pimples, filled with unsightly blackheads, cheeks sunken and hollow, you should use the GEM COMPLEXION BULB... It prevents and removes wrinkles, pimples, blackheads, freckles, makes skin soft, white and velvety. Blackheads in many instances are banished in a few minutes. The speed with which it clears the complexion is almost beyond belief. A single soothing application produces remarkable results. May also be used in developing the bust. Women who own one of these wonderful devices need have no further fear of wrinkles or blackheads. The regular price is 50c. In order to get other good things before you, we will send the Complexion Bulb with full directions for thirty-five cents. You cannot afford to miss this bargain.

THE GEM COMPLEXION BULB CO. Toronto, Canada. Box 402.



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25 minutes to wash a tubful of clothes by hand. 5 minutes to do it better with the

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There's no rubbing—no keeping the hands in steaming, dirty water. Simply fill the tub half full of hot, soapy water, put in the clothes, turn the handle, and the "NEW CENTURY" does all the work.

Let us send you a book about this new way to wash clothes. It's free. The Downwell Mfg. Co., Limited, Hamilton, Canada.

THE MORGAN INCUBATORS AND BROODERS



Cash or time. Every Machine GUARANTEED. You run no risk. All kinds of Poultry Supplies Catalogue free. A. J. MORGAN, London.

"Whew! What! Lottie Brown engaged? That proves what I've always said, that no matter how plain and bad tempered a girl may be, there's always a fool ready to marry her. Who's the poor man?" "I am."

Women Angrily Aroused ALL OVER THE DOMINION

Information from various Provinces of Canada points to the fact that many women have been deceived and induced to use the weak and adulterated package dyes put up by unskilled and unscrupulous manufacturers to imitate the popular DIAMOND DYES.

Our Canadian women, thoroughly aroused, after loss of time, money and valuable materials through the use of muddy, blotchy and weak dyes, have directly laid the blame for their losses on the retail merchants who sold them the deceptive dyes.

This action of indignant women has caused many of our retail and wholesale dealers to pack up and return to the manufacturers responsible, their worthless and dangerous dyes.

MORAL: When ladies decide to do home dyeing work, it pays to use the celebrated and popular DIAMOND DYES, which have been the home friends of the ladies for over 25 years. When buying, see that each package handed to you bears the words DIAMOND PACKAGE DYES. Users of DIAMOND DYES soon become experts in the fascinating work of home coloring, and find that a ten-cent package will renew the life of any faded and dingy suit, dress, skirt, blouse, jacket, cape or husband's or son's coat, vest or trousers. "Allow no dealer to offer you the something he calls 'JUST AS GOOD.' No other dyes equal the DIAMOND DYES.

Send your name and address to Wells & Richardson Co., Limited, Montreal, P. Q., and you will receive, free of cost, new Dye Book, Card of Dyed Cloth Samples and Booklet in verse, entitled 'The Longjohns' Trip to the Klondike.'

# The Penalty of Overeating

THE LIVER FIRST TO SUFFER, BUT KIDNEY DISEASE COMES LATER—GOOD RESULTS FROM THE USE OF

## DR. CHASE'S KIDNEY-LIVER PILLS

Few people realize that it is not what they eat, but what they digest and assimilate that goes to form new blood and repair the waste effected by the act of living.

Hurried eating and lack of proper mastication of the food are among the most common causes of indigestion, and overeating is undoubtedly the beginning of trouble with the liver and kidneys.

Kidney disease and rheumatism are not usually the first indication of a deranged system, but these troubles follow unheeded headaches, constipation and bilious attacks.

Because of their direct and combined action on the liver, kidneys and bowels, Dr. Chase's Kidney-Liver Pills are effective in whatever stage of such derangements they may be used, except when the structure of the kidneys has been wasted away by Bright's disease.

What we would emphasize, however, is the advantage of beginning this treatment at the first indication of trouble with the liver. It is the liver which first feels the result of overeating, because of its difficulty in filtering the blood. Keep the liver right by the timely use of Dr. Chase's Kidney-Liver Pills and you not only prevent headache, biliousness and constipation, but entirely escape derangements of the kidneys, which are at once so dreadfully painful and fatal.

Reliability is the word most frequently applied to Dr. Chase's Kidney-Liver Pills, as well as to his other medicines, for people have come by experience to know that, as a means of ensuring the regular and healthful action of the kidneys, liver and bowels, there is no medicine to be compared to this.

With these filtering and excretory organs in health, indigestion and bodily pains are unknown, and one runs little danger of contracting colds or contagious diseases.

Dr. Chase's Kidney-Liver Pills, one pill a dose, 25 cents a box, at all dealers or Edmanson, Bates & Co., Toronto.

# MILBURN'S LAXA-LIVER PILLS

are mild, sure and safe, and are a perfect regulator of the system.

They gently unlock the secretions, clear away all effete and waste matter from the system, and give tone and vitality to the whole intestinal tract, curing Constipation, Sick Headache, Biliousness, Dyspepsia, Coated Tongue, Foul Breath, Jaundice, Heartburn, and Water Brash. Mrs. R. S. Ogden, Woodstock, N.B., writes: "My husband and myself have used Milburn's Laxa-Liver Pills for a number of years. We think we cannot do without them. They are the only pills we ever take."

Price 25 cents or five bottles for \$1.00, at all dealers or direct on receipt of price. The T. Milburn Co., Limited, Toronto, Ont.

**\$9,000 Poultry Catalogue**  
40 kinds Turkeys, Geese, Ducks, Chickens, fowls and eggs cheap. 100 grand pictures, 20 house plans. We make less lay, cure disease, etc. Send 10c for mailing catalogue. Incubators 30 Days Free Trial. J.R. Brabazon Jr. & Co., Box 21, Delavan, Wis.

When Writing Please Mention this Paper

### QUESTIONS AND ANSWERS.

1st.—Questions asked by bona-fide subscribers to the "Farmer's Advocate" are answered in this department free.

2nd.—Questions should be clearly stated and plainly written, on one side of the paper only, and must be accompanied by the full name and address of the writer.

3rd.—In veterinary questions, the symptoms especially must be fully and clearly stated, otherwise satisfactory replies cannot be given.

4th.—When a reply by mail is required to urgent veterinary or legal enquiries, \$1 must be enclosed.

#### Miscellaneous.

##### ROYAL SCOTT.

What are the numbers of a Clydesdale stallion called Royal Scott; also give age and three of his ancestors on the sire's side?

ADVOCATE MAN.

Ans.—We do not find a horse of that name in the Canadian Clydesdale Stud-book.

##### PARTIAL PARALYSIS IN SOW.

My sow had a litter of pigs, and when they were weaned, she was removed to another barn. The weather was very cold, and she was exposed for about half an hour. Two days afterwards, she refused food, unless driven to it, and seemed to have partially lost the power of her hind quarters. She was given salts, and has improved sufficiently to have an appetite for her food. This occurred three weeks ago, and she is yet stiff in the hind quarters.

OLD SUBSCRIBER?

Ans.—This was probably caused by a chill, and may have been a case of partial paralysis. Treatment recommended is the free application of spirits of turpentine or of mustard.

##### RINGING A BULL.

Please state the best method of ringing a bull.

SUBSCRIBER.

Ans.—Probably the most convenient article for ringing a bull is a trochar, an instrument used for puncturing cattle in case of severe bloating. This instrument, which may be obtained from dealers in veterinary supplies, or through a veterinary surgeon, has a sharp, three-cornered point, and fits into a brass shield called a canula, the point of the trochar extending beyond the end of the shield, so that when puncture is made, the shield is left in the opening for the escape of gas in the case of bloating, and in the case of ringing a bull, is left in the nose, one end of the ring being inserted in the hollow shield while it is gently withdrawn, the ring following into its place. With this instrument, the writer has ringed many a bull in five minutes, with no help or attendance. There are bull punches on sale, made in the form of pinchers, which cut a clean hole through the gristle of the nose, taking out the piece, but we have not seen them advertised in this country, and are not aware where they can be obtained.

##### SHEEP LOSING WOOL.

Some of our sheep are losing their wool. At first they seemed very itchy, and upon examining them we found a greasy substance on the hide, and when wool comes out, it dries up, and leaves a little roughness on the skin. The wool is very wet, as though snow had melted. J. H. G.

Ans.—From the description, we should judge the sheep have been kept in too warm a place, and have been sweating. Sheep require dry, airy quarters, with good ventilation. An open-faced shed, with free access to a yard, suits best. If they have not ticks, they may have small white lice, which are quite as troublesome. If there is a dry, hard scab, it may be what is known as sheep scab, a very troublesome malady. In any case, we would advise treating them with a solution of Zenoleum, or one of the other sheep dips, pouring it warm from a collop into openings along the sides and back, and spreading it over the surface of the skin by rubbing. If the sheep are in good condition, and the ewes due to lamb late, we would shear on some warm days, and then wash or dip with the solution, keeping them closed in a comfortable place for a few days after shearing. All sheep should be treated for ticks and lice in late fall, and in spring at shearing time. It pays many times over in the health of the sheep and the growth of wool. If the symptoms are of scab, the scabs must be well soaked and broken up with the nails to let the solution (of strength stated on cans) well into the bottom of the sores, which are caused by a parasite.

### MUSCOVY DUCKS.

Where could I get Muscovy ducks, and at what price? Could you say anything as to the quality, size and laying qualities of these ducks?

F. W. W.

Ans.—Those having these ducks for sale should note this inquiry. Business will come to those who advertise. As a rule, Muscovy ducks are not so large as Pekins, but are fairly good layers.

### TOAD FLAX.

How can I exterminate a plant we call "butter and eggs"? It has too much start to dig it out. Would several hoe crops in succession be any use?

W. A. K.

Ans.—Butter and eggs, or toad flax, can be subdued by continuous cultivation. It is not reckoned a very serious weed. Be careful not to spread roots in cultivating.

### STALLION NUMBERS.

I would like if you would send the numbers of the horses called Barnfordy and Gleaner, and how many crosses on the sire side before you can register.

SUBSCRIBER.

Ans.—Baron Fordie [1396], imported in 1882; owned by Jas. Hutchison, Queen Hill, Ont. Baron Fordie 2nd [1397]; foaled 1889; bred by Wm. Mackintosh, Burgoyne, Ont., got by Baron Fordie (imp.). Gleaner [4194]; foaled 1886; imported by D. Jeffrey, Port Elgin; sire Go-Bang; dam by Darnley.

### LUMP VS. GRANULATED CALCIUM CARBIDE FOR ACETYLENE-GAS MACHINES.

Will a given weight of lump carbide, used in acetylene-gas machines, produce more gas than a like weight of rice or granulated carbide, and, if so, what per cent increase might be expected, approximately?

Ans.—If calcium carbide is equally pure in the lump and rice or granulated condition, the same amount of acetylene gas will be produced from each. Because of the finer condition, and the greater surface exposed, the rice or granulated carbide will give quicker and stronger flow of gas; but will not produce any more gas pound for pound.

R. HARCOURT.

Ontario Agricultural College, Guelph.

### BROADCASTING OR DRILLING SPRING GRAIN.

What is the best for spring grain, hoe drill, shoe drill or broadcast seeder? Last spring my grain, sowed with shoe drill, was light. With hoe drill, seed is left on a soft seed-bed. With shoe drill, shoe is pressed into the ground, leaving seed on solid ground, in which it would be difficult for tender plants to take root. Prefer a shoe drill to hoe, if as good crops can be grown. What about broadcast seeder? Are crops as good when sown in this way? W. A. K.

Ans.—The results of our experiments in sowing grain with a drill, as compared with sowing broadcast, indicate that, taking one season with another, about as large yields will be obtained from one method of seeding as from the other, providing the land has been well prepared and the broadcast sowing has been very carefully done, so as to give an even distribution of seed. It is difficult, however, to get the seed evenly distributed when sowing broadcast; besides, with this method, the seed is not covered to such a uniform depth, nor does the field look nearly so well. In addition to these facts, it may be said that it is easier to regulate the amount of seed sown per acre when a drill is used. As to the comparative merits of the hoe drill and the shoe drill, they are suited to using under different conditions. The shoe drill is extensively used in the Canadian West, where the soil is loose and where there is generally a good deal of stubble left on the land. Where there is much stubble, sod, coarse manure, or other such material, in the land, the hoe drill is inclined to clog, while the shoe drill will pass over these obstructions without difficulty. Where the soil is naturally loose, the pressure exerted by the shoe drill will not compact it to any injurious extent, but, if the soil contains a large percentage of clay, there might be some objection to the use of such a drill. If the soil is naturally stiff, and where there is no sod or other material to clog the drill, I think the ordinary hoe drill will probably give better results.

J. BUCHANAN.

Exp. Dept., O. A. C., Guelph.

### Beware of Imitations!

If You Make Butter for Profit Use

## WELLS, RICHARDSON & CO.'S IMPROVED BUTTER COLOR.

Never allow a merchant or dealer to foist on you some poor substitute when you ask for Wells, Richardson & Co.'s Improved Butter Color. When you use Improved Butter Color your butter will command the highest market price. The Government creameries of Canada use Wells, Richardson & Co.'s Improved Butter Color; the prize buttermarkers of Canada and the United States will not allow any other kind in their creameries. No Mud or Impurities in Wells, Richardson & Co.'s Improved Butter Color. It gives the true June tint at all seasons.

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## Are You DEAF?

I was deaf myself for 25 years. I perfected and patented a small, invisible ear drum in order to help my own hearing. It is called "The Way Ear Drum," and by the use of these drums I can NOW HEAR WHISPERS. I want all deaf people to write me. I do not claim to "cure" all cases of deafness, neither can I benefit those who were born deaf. But I CAN HELP 90 per cent. of those whose hearing is defective. Won't you take the trouble to write and find out all about me and my invention? Tell me the cause of your deafness. Geo. P. Way, 321 Majestic Bldg., Detroit, Mich.



After a fight on James Island, South Carolina, in 1862, there was among the wounded a young fellow suffering intensely and making an unusual amount of noise. General Williams, in command, when passing through the hospital quarters approached the soldier, and in a gruff voice asked: "What's the matter with you?"

The soldier, pointing to his foot, replied: "I'm wounded."  
The General said: "Stop your noise! Stop your noise!" There are men lying around with their heads knocked off and not saying a word.

## Tobacco Habit.

Dr. McTaggart's tobacco remedy removes all desire for the weed in a few days. A vegetable medicine, and only requires touching the tongue with it occasionally. Price \$2.

## Liquor Habit.

Marvellous results from taking his remedy for the liquor habit. Safe and inexpensive home treatment; no hypodermic injections, no publicity, no loss of time from business, and a cure certain. Address or consult Dr. McTaggart, 75 Yonge street, Toronto, Canada.

QUESTIONS AND ANSWERS. Miscellaneous.

DRAINAGE ACT.

Can you tell me where I can get a copy of the Drainage Act, and what will it cost? P. W.

REGISTERING A CROSS-BRED.

Will a mare, whose dam is registered in the Clydesdale Studbook, and sired by Bay Prince, a Shire horse, owned some seven or eight years ago by one W. Ray, near St. Mary's, register in the Godersich book? If so, would like to know his number. J. N.

Ans.—No. There is no Bay Prince registered in either the Shire or the Godersich book, and if there were your mare would not register in the Clydesdale book.

SHARE OF BUTTER FOR MAKING.

Could you tell me what share of butter would be fair to give a woman for the milking and doing all the work in connection with a small dairy on a farm where her husband is foreman? J. C.

Ans.—No definite answer can be given to this question, as so much depends on number of cows, facilities, etc. The best way is for the woman to run the dairy a week or so, estimate the time required, and then ask such share of the total make as will compensate her for the time and labor at 10c an hour, depending upon how badly she is in need of work, and how much she can make otherwise. We do not believe in women working for nothing.

SICK SHEEP.

In my flock of sheep, I have had two get sick, and stand with their heads up as high as they can get them. I bled one in the ears, and one got better, but the other is not. Hoping for answer, and wishing "The Farmer's Advocate" every success; I would not be without it for ten times its cost.

PEEL SUBSCRIBER.

Ans.—It is difficult to decide what is the cause or the nature of the ailment. It may arise from indigestion, or from grub in the head. For the former, a purgative of 1/2 lb. salts and a teaspoonful of ginger, given in a pint of water, carefully, as a drench. For grub in the head, it is doubtful if any treatment will succeed. Some claim that filling the nostrils with tobacco juice, causing violent sneezing, has dislodged the grubs and given relief.

HATCHING TURKEY WITH CHICKEN EGGS—INCUBATORS AND BROODERS—PULLETS EGGS FOR HATCHING.

- 1. Can turkey eggs be hatched in same incubator and at same time as hens' eggs?
2. Can one put 50 eggs in a 200-egg incubator, then a week later 50 more, and so on until two hundred, so that all one's chickens do not hatch at one time?
3. Is it possible to raise chickens without a commercial brooder? This is my plan: to have boxes fitted up like hovers, and put chicks in them in evening, and place same under or near a stove that will heat all right. Then remove them in the morning to a warmed and well-ventilated apartment for the day.
4. Are pullets' (10-months-old birds) eggs good to hatch? P. M. L. P. Q.

Ans.—1. Turkey eggs require four weeks to hatch; chicken eggs, three weeks. They don't work well together.
2. No, most of them would not hatch at all.
3. Yes, it is possible. It depends a good deal on how handy you are at rigging up homemade contrivances, and your care in maintaining proper temperatures. In most cases it would be wiser to have a commercial brooder.
4. Eggs produced near the end of the laying period are not usually so strongly fertile as those laid earlier. If pullets begin to lay early, and have laid continuously ever since, their eggs might not hatch well, otherwise they are perfectly good.

REGISTRY NUMBERS.

Please give studbook numbers of the Shire stallion, Prince Thomas, and Clyde stallion, Shamrock, and the names of Shamrock's sire and dam and their numbers, through the columns of your valuable paper. SUBSCRIBER.

Ans.—We do not find Prince Thomas in the Shire Studbook, Shamrock (imp.) [1954] (4013); foaled 1882; imported, 1884, by Graham Bros., Clarendon; owned by Kelly & Ritchie, Brechin; sire Duke of Hamilton (2074); dam Jess (3480), by Prince of Wales (673).

UNTHRIFTY PIGS.

I have a lot of small pigs about six weeks old. In one lot of 12 are 4 or 5 that do not thrive like the rest of the litter. They look black in the skin, like as if pepper was sprinkled over them. They have been kept warm, dry and clean, and the sow has plenty of milk. She is fed plenty of mangels (pulped), barley meal and bran. Could you tell me the cause of their not doing as well as the rest of the litter? Is it a disease, and what will remedy it? J. C.

Ans.—We should not judge that this is a disease. Probably the sow has not sufficient milk for all. We would advise dividing into two lots, weaning the stronger ones, and feeding separately, giving the smaller ones warm sweet milk and sifted oat chop, throwing out the hulls.

POULTRY AND PIGPEN SEPARATE OR IN BARN?

I intend to build a henhouse and pigpen in the near future. I could build it in connection with the barn, with a straw-house overhead for convenient bedding, or I could build it a safe distance from the barn, and use a feed cooker to cook feed for both hens and pigs. I would have to burn coal. Which would you advise, or would the expense of cooking overrun the profit? A READER.

Ans.—Great claims were made a few years ago on the advantages of cooking food for pigs, but of late years the practice has been abandoned largely. It has been found by experiment that, except for potatoes and, possibly, turnips, the cooking of food gives it no greater feeding value. Though we say this, yet we would advise a separate building for the pigs and poultry, but on other grounds. Unless the location was in the south side of barn, where fowls could have abundant sunlight, they would not lay so well as in an outbuilding, and, also, hen lice, of which there are so many kinds, are certain, sooner or later, to give trouble, and if in barn they might infest other stock, and their complete extermination from such a position is almost impossible, while it can be done in separate building.

WINTER REMEDY FOR SHEEP TICKS—MINING QUERIES.

- 1. What wash would be best to use in winter to kill ticks on sheep?
2. What reward will the Government of Canada give a man who finds a coal field?
3. Are coal and iron found near one another?
4. Is coal found near the surface? W. M.

Ans.—1. Part the fleece systematically along back, flanks, legs and head, and pour in solution of sheep dip, or dust with insect powder.
2. No reward has been offered by this Government for the finding of coal fields in Ontario. A workable coal field, within easy distance of means of transportation, would be its own reward.
3. Coal and iron are frequently found in proximity, but there is no necessary connection between the two classes of deposits. Iron is found abundantly in some parts of the world where there is no coal, as, for instance, Norway and Sweden, Ontario, etc.; on the other hand, coal often occurs where there is no iron.
4. Coal beds sometimes protrude at the surface, or are exposed in the valleys of rivers, or on the sides of mountains. Very often, however, coal seams are found at considerable depths, and this is the case with the majority of working mines.
Questions 2, 3 and 4 answered by Thos. W. Gibson, Director, Bureau of Mines, Toronto, Ont.

TRANSPLANTING PEONIES.

Would like to know how, and when, to transplant Peonies? M. S.
Ans.—See article in our "Home Magazine" department, Feb. 15th.

CLYDESDALE NUMBERS.

Please give studbook number of imported Clydesdale stallion named Honest Sandy, also Colston Leader. A SUBSCRIBER.
Ans.—Honest Sandy (imp.) [67] (387); foaled 1871; imported in 1874 by C. E. Mason, Brucefield. We do not find Colston Leader in the Canadian studbook. We find Colston Prince [1336] (7599); foaled 1887; imported, 1889, to Toronto by Wm. Mackie, Colston, Scotland.

PAYING OFF A MORTGAGE.

A has a mortgage on B's property for a stated term of twenty years. Can B close this mortgage at the end of five years, or any succeeding five years, or must the mortgage remain in force for the term as originally fixed? TRULY RURAL.

Ans.—B is entitled to obtain a discharge of the mortgage at any time after the expiration of the five years, by paying principal, interest to date of payment, three months' additional interest, and cost of discharge.

MEDICINES AND FEEDS FOR IN-FOAL MARE.

- 1. Is saltpetre and copperas, mixed in equal quantities, safe to feed a mare in foal?
2. Should a colt be haired at nine months' conception?
3. Is wheat bran safe to feed a mare in foal? W. W. S.
Ans.—1. Neither of these drugs in proper doses is injurious to an in-foal mare.
2. At nine months the hair would be very short and very fine.
3. Certainly, there is no safer grain feed than wheat bran for any kind of farm animal, except, perhaps, hogs, in almost any condition.

OWNERSHIP OF AN ANIMAL.

A sold B a mare last summer, and was to wait until January for his pay. In February B brought mare back to A, and said he would not pay for her. A told B before witness that unless B paid A within three days he would sue for price of mare. B paid full price, but told A he did not want mare, and said A could do what he liked with her. The mare is in A's possession. What procedure will A follow so as not to become liable if he disposes of the mare? Ontario.

Ans.—We do not see that A is called upon to take any legal steps. It appears to be a case of abandonment to him by B of the animal, and he is, accordingly, in a position to deal with her as he pleases.

MIXING SWEET WITH SOUR CREAM.

- 1. Is it good practice to put sweet cream in with sour cream, or is it better to let it get sour before putting together? We have a separator, and would like to know. We take "The Farmer's Advocate," and always enjoy reading it.
2. What is the cause of butter going in little lumps when it comes? M. S.

Ans.—1. Separator cream should be immediately cooled by setting in cold water and stirring frequently. When cold, add to the cream-crock, and stir thoroughly. It is not well to add the morning's cream the day of churning.
2. I do not quite understand the question. Butter always comes in small particles before it gets into larger ones. We draw the buttermilk when the granules are the size of wheat grains. If, however, the butter is in very fine particles, and refuses to get larger, it is a sign the cream has been poor in butterfat and the temperature too low. When such a condition exists, first try churning slowly. If this does not answer, add several quarts of water, a little above churning temperature. Churn a few times. Let churn stand a minute or two, then draw off half the buttermilk, and churn slowly. In a stubborn case, it may be necessary to draw off still more buttermilk. LAURA ROSE.



Poultry and Eggs advertisement text describing various breeds and services.

Barred Plymouth Rocks advertisement text.

Barred Rock eggs advertisement text.

Barred Rocks advertisement text.

Buff Orpington advertisement text.

Barred Plymouth Rock eggs advertisement text.

Choice Barred Plymouth Rocks advertisement text.

Eggs for hatching advertisement text.

Eggs for hatching advertisement text.

Eggs for hatching advertisement text.

Eggs for hatching advertisement text.

For sale advertisement text.

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### QUESTIONS AND ANSWERS. Veterinary.

#### STALLION SLOW TO SERVE

Stallion refuses to serve young mares. He proves sure when he can be induced to serve. He stands for service at his own stable. I think he masturbates, and I keep a shield on him. W. M. P.

Ans.—Characteristics of this nature, whether from congenital weakness of the genital organs, or from other idiosyncrasies of the stallion, are hard to overcome. Medicines do no good; certain medicines will increase the venereal appetite by causing irritation to the genitals, and will probably have the result of causing the stallion to apparently perform the functions of a sire, but he will not produce foals under such conditions, and the practice is injurious, hence we never prescribe drugs. Feed moderately well on good hay and oats, with a carrot or two daily, and a feed of bran with a little linseed meal twice weekly. As soon as the grass grows, allow him to have some every day. Give him regular exercise, of not less than 8 to 10 miles daily, and do not require him to serve more than one mare on any day. V.

#### BLACK QUARTER.

Healthy two-year-old steer began to swell on his shoulder, and was lame; the swelling increased, and was sore to pressure. He died inside of 24 hours. Is it contagious, and is there any cure? SUBSCRIBER.

Ans.—The symptoms given indicate black quarter, for which there is practically no cure. It is caused by young cattle pasturing on or eating hay that grew on low-lying pastures. Prevention consists in keeping stock away from infected fodder, hence (provided my diagnosis is correct) you should cease feeding the hay you fed to this one. Immunity can be given with reasonable certainty, although it may not act in all cases, by using anti-blackleg serum or vaccine, which, with instructions and the necessary instruments, can be procured from manufacturing chemists. All carcasses should be burned. Of course, this steer may have received a severe injury to the shoulder that caused death. If you have any more trouble, call your veterinarian. V.

#### LAME HORSE.

While plowing last May, my horse commenced to step short with left fore foot, and was a little lame. Next morning, he was very lame and swollen on the side of the neck. I called a veterinarian, and he said it was probable an abscess was forming. He got very thin, but no abscess formed, and he commenced to recover, and got all right in three months. I started to work him again, and he went all right until September 20th, when he again went lame, and has remained so. His shoulder has fallen away, and so have the muscles of the leg. I blistered for sweeny without results. He appears unable to fetch the leg forward without trouble. T. H.

Ans.—The horse has sprained the muscles of the shoulder, causing a bad case of sweeny. It will require a long time for recovery to take place. You will, in all probability, have to give him several months' rest, and blister the shrunken muscles once every month. Details for blistering are given in this issue in answer to question by S. A. M. V.

#### ENLARGED HOCK.

Filly got kicked on hock. The joint oil escaped freely. It has healed, but the joint is greatly enlarged and seems to contain fluid, and she is very lame. S. A. M.

Ans.—It is seldom a case of open joint like this recovers. If the swelling really contains fluid, it will break out again. If it has not broken by the time you see this, blister it with 1½ drams each, biniodide of mercury and cantharides, mixed with 2 ozs. vaseline. Clip the hair off, tie so that she cannot bite the parts. Rub well with blister daily for two applications; on the third day wash off and apply sweet oil. Let head loose now, and oil every day. Repeat the blistering once monthly, and it is probable you will reduce the enlargement, but it is not probable it will ever regain its normal size. If it breaks again, flush the cavity out twice daily with a five-percent. solution of carbolic acid. V.

#### INVERSION OF VAGINA AND RECTUM.

Two-year-old filly strained so hard that she caused the womb to protrude as large as a 7-inch ball. The rectum also protrudes. It has been out as much as two feet. We called a veterinarian, but he said he could do nothing. J. K.

Ans.—The womb is not inverted; it is the vagina. The excessive straining must have been caused by constipation or impaction of the colon. It is very probable she will be dead before you get this, as the case was so bad when your veterinarian saw it that he could do nothing. Treatment consists in thoroughly washing both vagina and rectum with warm water with ten-per-cent. laudanum, then dressing with alum water, 2 ozs. to the pint, removing all faeces from the rectum, returning both viscera and applying a truss to prevent reinversion. The truss consists of a piece of leather or other substance placed against the anus and vulva, and kept there by ropes tied to a collar on the filly's neck. A man must exercise his own ideas in securing the truss, as its shape and mode of keeping it in place will depend greatly upon the form of the patient, the idea being to apply sufficient pressure to prevent reinversion. She should be given about 1½ pints of raw linseed oil to act gently upon her bowels, and the truss must be removed occasionally, say every five or six hours, to allow her to defecate, and after defecation a little of the alum water, heated to 100 degrees Fahr., should be injected into each passage. Careful treatment will effect a cure in mild cases, but in such a case as you describe, where there is double inversion, and that of the rectum so extensive, it is not probable that recovery would result from any treatment. V.

#### BURSAL ENLARGEMENT.

Clydesdale mare has bursal enlargement. I have blistered several times, without result. T. J. M.

Ans.—Chronic bursal enlargements are very hard to reduce, and when repeated blistering does not effect a reduction, other applications often fail too. Try a liniment composed of 4 drams each resublimed iodine crystals and iodide of potassium, and 4 ounces each glycerine and alcohol. Rub a little in with smart friction once daily. If this fails, an operation might be successful; but the advisability of operating will depend largely upon the nature and situation of the enlargement. V.

#### FATALITY IN PIGS.

Sow farrowed in January, and when about three weeks old, the pigs failed away, got very thin, panted for breath, and all but four died. Another sow farrowed fifteen pigs on February 15th, and they are going the same way. I feed the sows on barley and oat chop, and let them out for exercise every fine day. F. J. G.

Ans.—The pigs die from constipation. Change the sow's food. Give a mixture of 1 part finely-chopped peas, and three parts bran mixed with milk. Give all the raw roots they will eat, and see that the young pigs, as well as the sows, get regular exercise. Give each pig about ½ ounce castor oil, and if this does not cause a free action of the bowels, repeat the dose next day. V.

#### STALLION REFUSES TO SERVE.

Hackney stallion, 8 years old, kept at owner's stable for private use, and who is never bred to more than 20 mares in a season, will often refuse to serve. I keep a shield on him when in the stable. He produces a large percentage of foals from mares that he serves. M. P.

Ans.—It is probable this stallion does not get sufficient exercise. Keep him in moderate condition, on good food, as hay and oats, with a carrot or two daily, and a feed of bran twice or three times weekly. Give him regular exercise, say 8 to 10 miles daily, in harness or on the halter. Get him in good condition this way, and it is probable he will give better satisfaction. Some stallions have this peculiarity, and while the venereal appetite can be increased by the administration of certain drugs that cause an irritation to the generative organs, it is injurious to the horse, and he will not produce foals under these conditions. V.

## Plymouth Gold Medal

Let us know by post card if

**Plymouth Binder Twine**

is NOT represented in your district. Agents wanted. Territory given.

Works: Plymouth, Mass. Welland, Ont.

Address: PLYMOUTH TWINE, 53 Colborne St., Toronto.

### WANTS A FUR SALE

Advertisements will be inserted under this heading, such as Farm Properties, Help and Situations Wanted, Pet Stock, and miscellaneous advertising.

TERMS—Three cents per word each insertion. Each initial counts for one word and figures for two words. Names and addresses are counted. Cash must always accompany the order. No advertisement inserted for less than 50 cents.

AGENTS WANTED for two great books. Just published. Exclusively territory given. Write now. William Briggs, Publisher, Toronto.

FOR particulars of Nanton farm lands, write Loree & Campbell, Nanton, Alta.

FOUR SCOTCH COLLIE DOGS. Eight months. Big beauties, by Wishaw Hero (Imp.). \$5 each during March. H. E. Graham, Ailsa Craig.

FOR SALE—The right to manufacture fruit drier; works in connection with stove or register; handy, simple and effective; will last a lifetime. Particulars, Geo. McKay, Kilsyth.

FARM FOR SALE or rent. 160 acres—all cleared. Good buildings. Good soil. Fine lying farm. Well watered. Three miles from Kenilworth station. Richard Wright, Kenilworth.

FARM for Sale—100 or 50 acres; under good cultivation. Geo. M. Smith, Haysville, Ont.

FARM to rent in Red River Valley—640 acres; all fenced; 300 in cultivation; good buildings, good water, plenty of wood; within three miles of railroad station. Tenant must provide all his own equipment. Long lease to satisfactory tenant. Apply Box 44, Farmer's Advocate, Winnipeg, Man.

GATE LATCH, with adjustable keeper; patented in Canada and United States. Send 75 cents for sample, complete, except three common bolts. Reduction made on quantity. Alex. Murray, Woodstock, Ont., box 812.

HERDSMAN WANTED for small herd of Shorthorn cattle. Also a good teamster and farm hand, both single. None but honest, sober, industrious men need apply. References required. Scotchmen preferred. Apply to M. D. Ketchen, Sewickley, Pa.

IMPROVED farms for sale in the Edmonton district. Candy & Co., Edmonton, Alta.

TWO men going West (Calgary) would take charge of cattle in exchange for fare. McNab, Toronto.

WANTED—MEN—Railroads in Canada, passenger brakemen, firemen, electric motor-men, conductors. Experience unnecessary. Particulars for stamp. Dept. 75, Inter. Ry. Inst., Indianapolis, Ind., U. S. A.

YOUNG Englishman, aged 19, desires work on a good farm; accustomed to horses and milking; has been six years in Canada. Apply H. Farmer's Advocate, London.

200,000 Strawberry plants for sale. H. T. Stevens, Hillcrest Fruit Farm, Norwich, Ont.

3 PER DAY selling the "Auto Spray." Best automatic hand sprayer made. Sample machine free to approved agents. Covers Bros., Galt.

AYRSHIRE BULL, KING CUP, three years old, No. 16916, Vol. 13, for sale. F. F. FYLES, "Riverdale," Abercorn, Que.

There was a piece of cold pudding on the lunch table, and mamma divided it between Willie and Elsie. Willie looked at his mother's empty plate.

"Mamma," he said, earnestly, "I can't enjoy my pudding when you haven't any. Take Elsie's."

WANTED Wanted persons to grow Mushrooms for us at their own homes. Waste cellar space during winter, and out-house or shed room during spring and summer, can be made to yield an income of \$17 to \$20 per week. No earth required, only manure, which, when treated according to instructions, emits absolutely no odor. Send stamp for illustrated booklet and full particulars. MONTREAL SUPPLY CO., Montreal.

## THE REPOSITORY

Corner Simcoe and Nelson Streets, TORONTO. ONTARIO. BURNS & SHEPPARD, Proprietors



### Great Special Auction Sale

## SHIRES

Stallions, Mares and Fillies

ON Wednesday, March 28, '06

At 1 p.m. Sharp.

By instructions from MESSRS. MORRIS & WELLINGTON, Props. Fonthill Stock Farm, Fonthill, Ont., we will sell on the above date a special importation of Shires stallions, mares and fillies, selected with great care by a competent judge, with a view to meeting the requirements of the Canadian markets. Included in the shipment are some extra choice registered Canadian-bred animals.

Catalogues containing full descriptions and pedigrees may be had on application to

BURNS & SHEPPARD, Toronto.

C. A. BURNS, General Manager and Auctioneer.

### BOOK ON BREEDING, ETC.

Do you keep in stock a book on "Breeding and serving mares, and how to handle a stallion during the season?" G. V. S.

Ans.—I do not know of any work on this subject. Particulars to be observed during service can be obtained from any stud groom. During the season the stallion should be well fed on good hay and oats, with a feed of bran with a cupful of linseed meal at least twice weekly; a carrot or two daily is also good. When grass can be obtained he should get a little daily. He should have regular exercise, at least eight miles daily, and should not be bred to more than 50 mares in two months, and not to more than two any day. V.

GOSSIP.

Volume 28 of the English Hackney Studbook has, through the courtesy of the Secretary, Mr. Frank F. Buren, 12 Hanover Square, London W., been received at this office. It is a substantial volume of 500 pages, containing pedigrees of stallions numbering from 9,077 to 9,515, and mares from 17,075 to 17,872, inclusive, and much other information, together with illustrations of champion stallions and mares.

The London Live-stock Journal Almanac or Yearbook for 1906, beautifully illustrated with cuts of prize stock and other features, has been issued and may be had for one shilling by addressing Vinton & Co., Ltd., 9 New Bridge St., Ludgate Circus, London, England. It contains 386 pages, choke-full of useful information regarding the various breeds of live stock, poultry and dogs.

A YORKSHIRE SALE.

Attention is called to the advertisement, on another page, of the auction sale, on April 4, by Geo. M. Smith, Haysville, Ont., of 55 head of registered Improved Yorkshires, and the 100-acre farm. The Yorkshires are bred from the imported sires, S. H. Dalmeny Topman 2nd and Dalmeny Emperor. The dams are imported and Canadian-bred—Dalmeny Lassie 4th, Summer Hill Stella, Woodstock Lassie and others of equally good breeding and quality. The young sows, safe in pig, are bred to a very promising young boar, Summer Hill Gladiator, bred from imported stock.

The farm offered is lot 28, con. 3, Block and Wilnot Tp., Waterloo Co., rich sandy loam, under good cultivation, all fall plowing done, 20 acres fall wheat, 35 acres meadow, 10 acres hardwood timber, good young orchard, artesian well, 1-acre never-failing spring creek, bank barn (55 x 60 feet), frame house and other out buildings, convenient to school, churches, post office and railway stations (New Hamburg and Bright, G. T. R.).

THE LONDON SHIRE SHOW.

At the London (England) Shire Horse Show, February 27th to March 2nd, the prizes in the aged stallion class, 16 hands 2 in., foaled in 1897 to 1901, went as follows: J. Forshaw & Sons' seven-year-old black horse, Present King II., by Coming Prince, got first award by decision of the umpire, his superior action counting for much in carrying him to the front. The brown six-year-old, Tatton Friar, by Conquering Harold, exhibited by Earl Egerton, of Tatton, was second, and Lord Rothchild's Girtton Charmer was third. Messrs. Forshaw, Carleton-on-Trent, Newark, were also first in the other two classes of aged horses, namely, for stallions over 4 and under 10 years, and under 16 hands 2 in., with Raydon Duke, and also in the class any height, over 10 years old, with Bay Thumper. In the former class, Childwick Harold, shown by Alfred Nuttall, was second, and R. W. Hudson's Celtic, third. In the old class, Sir Walter Gilbey's Blythwood Conqueror was second, and Mr. Humphrey's Hendre Baronet, third. In the class for four-year-olds, the King's entry, Ravenspur, was first; Capt. Duncombe's Duke Albert of Waresley, second, and Messrs. Forshaw's Hargrave Harold, third. In the three-year-old class, Lord Rothchild's Childwick Champion was first. Mr. Victor Cavendish's Holker Menestrel II. was second, and Mr. Barr's Nailstone Romulus, third. In two-year-old colts, Earl Egerton had first place with Tatton Dray King; Frank Farnsworth, second, with Ratcliffe Forest King, and J. H. Bryars, third, with Dunsmore Commander. For yearling colts, F. Farnsworth was first with Ratcliffe Conquering King. R. Craig, second with King Forest, and Lewis Dodd, third with Rustic Friar.

The gold challenge and champion cups went to Present King II. The cup for best stallion in the three younger classes went to Earl Egerton's Tatton Dray King. The challenge cup for best mare or filly went to Messrs. Forshaw's gray mare, Sussex Bluegown. The championship for mares in the three classes, one to three years, went to Dunsmore Fuchsia, another gray, shown by Sir P. A. Muntz.

The Farmer and Stockbreeder Yearbook for 1906, the 42nd year of issue, has been received at this office, and, as usual, is brimful of first-class pictures of prize animals and useful information regarding the various breeds of stock and the state of trade in each at home and abroad. It contains 290 pages, and is sold for one shilling (25 cents). The address is 6 Essex Street, Strand, London, England.

Mr. S. G. Carlyle, Chesterville, Ont., writes: "I received six answers to my advertisement in 'The Farmer's Advocate' of Clydesdale stallion, Dundonald (4954), and succeeded in selling him (March 8th) to Mr. Neil McLeod, of Laggan, Glengarry Co., at a good figure. Mr. McLeod is to be congratulated on getting such a good colt, as Dundonald possesses quality to a high degree. He has good feet, good, clean, flat legs, broad chest, well-sprung ribs, short, strong back, closely-coupled, and style and action that cannot be surpassed."

Mr. R. R. Ness, Howick, Que., writes under date of March 14th: "I am sailing this week for Scotland to import a large number of Ayrshire cattle, and will be pleased to attend carefully to any orders sent to me. My address, while there, will be: Care of A. Mitchell, Esq., Barcheskie, Kirkcudbright, Scotland. Business has been brisk in Ayrshires. Can't get bulls enough to supply the demand, and I intend importing a number. We will also land a number of Clydesdale mares and a few stallions about May 1."

A GREAT SALE OF SHIRES.

Our readers are again reminded of the unusually important auction sale, on March 28th, of imported and home-bred Shire stallions, mares and fillies, property of Messrs. Morris & Wellington, of Fonthill, Ont. The catalogue contains the pedigrees of 10 stallions, one to five years old, and 18 mares and fillies. Three of the stallions and 18 of the mares are imported, nearly all the balance being bred direct from imported sire and dam. The sale will commence at 1 o'clock on Wednesday, March 28th, at the Repository, corner Simcoe and Nelson Streets, Toronto. These horses and mares are exceptionally well bred, and are the big, heavy class, with good flat bone and strong constitution. The matured stallions have proved very sure and good getters, while the mares are the right class for work and breeding the high-selling sort of horses now in great demand, and sure to be for many years wanted in large numbers. Send for the catalogue to the auctioneer, Mr. C. A. Burns, the Repository, Toronto, or to the proprietors, Morris & Wellington, Fonthill, Ont.

Mr. Wm. Smith, Columbus, Ont., writes: "I have recently sold the following Shorthorn bulls: 'To Joe. Barnett, Brooklin, Ont., a fifteen-month-old calf, sired by Ben Lomond (imp.) (80468) =45160=, dam Daviot Beauty (imp.), by Craibstone (66885). In this calf, Mr. Barnett gets something that should be heard of later. To J. M. Gardhouse, Weston, Ont., Dalmore, a real good sort, sired by Brooklin Boy =44919=, out of Wedding Gift 19th =47402=. Mr. P. Christie, M. P., Manchester, Ont., got a very thick, low-set calf, much like his sire, Imp. Ben Lomond, who is at present at the head of our herd. The dam of this calf is Lady Strathallan Hillhurst 3rd, of the reliable Rose of Strathallan family. Two other bulls were also sold, both having Wedding Gift dams, of the right breeding kind. One sired by Ben Lomond (imp.), the other by Brooklin Boy. At the present time, we have three very nice bull calves, six, seven and eight months old; also a choice bunch of heifers, all sired by Imp. Ben Lomond and Joy of Morning (imp.), belonging to the Wedding Gift, Strathallan and Crimson Flower families."

Inquisitive Lady: "How long have you been married now, Mrs. Jardin? It will be drawing near your golden wedding."

Mrs. Jardin: "Oh, no, mum. I've only been married forty years; but my 'usband 'as been married twenty years more."

Inquisitive Lady: "Impossible! How can that be?"

Mrs. Jardin: "You see, mum, 'e's my second, an' I'm 'is third."

Advertisement for Wm. Ewing & Co. featuring a large illustration of a basket of produce (corn, wheat, etc.) and text: "ESTABLISHED 1886. 'Everything for the Garden, Greenhouse and Farm.' GOVERNMENT STANDARD TIMOTHY, CLOVER and GRAIN. Sow EWING'S Reliable Seeds. 'NO Surer Way of Acquiring Best Results.' We shall be pleased to mail you our '06 Illustrated Seed Catalogue. WRITE NOW—IT EXPLAINS. Wm. Ewing & Co. SEEDSMEN. 142-146 McGill Street MONTREAL."

Advertisement for William Weld Co., Limited, featuring the text: "Have You Heard of Our Plan for raising money quickly and pleasantly? If not, you should lose no time in filling out the accompanying blank, and forwarding same to us for particulars. For church workers, ladies' aid societies, and, in fact, any club wishing to raise funds, it is an ideal plan. The old style of 'begging' done away with. Start to-day by getting full particulars from us. If you want to raise money for any SPECIAL CAUSE, let us know all about it, and we will gladly inform you as to how it can be done. We can solve the problem." Includes a coupon form with fields for Name, P.O., Name of Society, Denomination, and Date, and a diagonal banner: "FILL OUT THIS BLANK AND SEND IT TO US FOR PARTICULARS."



**Light From Above**

The ordinary lamp wherever used spoils all lighting effects by its downward shadow. Replace it with

**The Angle Lamp**

and the improvement will surpass belief. "No under-shadow" is a great feature. But for the quality of its light alone it is superseding gas and electricity in city and country homes. Its light has all of their power with none of their glare and unsteadiness—soft, mellow, eye resting, and absolutely free of the smoking and offensive odors of ordinary lamps, either. There is nothing like it for convenience. It lights and extinguishes like gas, without removing globe—one fitting burn 16 to 23 hours, costing about 18 cents a month for oil. Compare that with the monthly gas and electric bills, or even the cost of that troublesome, smoky, smelly lamp you are using. For quality of the light, economy and satisfaction for all lighting purposes, there can be no comparison. It is the cheapest and the best kind of illumination.

**30 DAYS FREE TRIAL**  
to show its superiority. You are sure to buy it if you know it. Write at once for our book which explains all. Ask for catalogue No. 20.

**THE BACH SPECIALTY CO.,**  
355 1/2 Yonge Street, Toronto, Ont.

**Sharples TUBULAR CREAM SEPARATORS**

**21 POUNDS MORE BUTTER PER WEEK**

Barnesville, Ohio, June 20, 1905: We were milking ten cows May 19. That day we took a Tubular separator for trial. We used it one week and got 21 pounds of butter that week. The week before we used it, we got only 65 pounds. The week after the agent took it away we got only 64 pounds. We felt we ought to have it. Later we arranged to buy it. We recommend the Tubular to anyone interested in cows. It surely will pay any one to buy a Tubular. (Signed) Lora and C. W. Acron.

Write for catalog Y-193. It explains fully.

**THE SHARPLES SEPARATOR CO.**  
WEST CHESTER, PA.  
TORONTO, CAN. CHICAGO, ILL.

Customers are pleased with

**HULL'S**

New Everblooming W. F. Rose (Baby Rambler), Trees, Shrubs, Roses, Small Fruits, etc., and why? Because they are shipped direct from the Nursery, and the best that grow. No agents to pay; hence all is fresh and clean and up-to-date. By mail, express or freight. Send for new catalogue; description and prices are so plain. Choice seed potatoes.

**A. G. HULL & SON,**  
Central Nurseries, St. Catharines, Ont.

The politician was addressing his constituents in a frenzied speech, but each eloquent proposition received wild response. Judge Dolan, one of the auditors, said he was reminded of the Irish leader who was cheering his men on to battle. "Min," he says, "we are on the verge of battle, an' I want to ask ye, before ye start, Will yez fight, or will yez run?" "We will," says they. "Which will ye do?" says he. "We will not," says they. "Aha, thank ye, me min!" says he. "I thought ye would."

**DODD'S KIDNEY PILLS**

**CURES RHEUMATISM BRIGHT'S DISEASE DIABETES BACKACHE**

FOR ALL KIDNEY DISEASES

Do not discontinue the use of any medicine until you have received a full course of treatment. The public may be misled by cheap imitations. Sold only in boxes.

**GOSSIP.**

Mr. A. Edward Meyer, Guelph, Ont., writes: I have recently sold to Mr. A. Smith, of Durham, Ont., the choicely-bred Cruickshank Mysie bull, Radium. He is by Prince Ramsden (imp.), out of Martha 12th, by Marengo's Heydon Duke (imp.); grandam Martha 11th (imp.). He is a mellow handling red, with beautiful head and horn, grand top and good bone, and his breeding leaves nothing to be desired. To Mr. James McIntosh, of Egmondville, Ont., the young Cruickshank Bellona calf, Rosabell's Lad, sired by Prince Ramsden (imp.); dam Rosabell (imp.). This calf is a mossy-coated roan, with well-sprung ribs and good quarters. He is of the same family as the \$10,000 Choice Goods. To Mr. James Cleghorn, Guelph, the six-months' Cruickshank Mysie calf, Mysie Duke, a dark roan, with beautiful head and horns, strong top, deep and smooth throughout, with plenty of bone and handles to perfection. He was sired by Prince Ramsden (imp.), and is out of Martha 11th (imp.), a seventeen hundred-pound cow in ordinary condition. He will head Mr. Cleghorn's nice bunch of pure-bred females. This is the last of my calves on the market, thanks to the advertising strength of "The Farmer's Advocate."

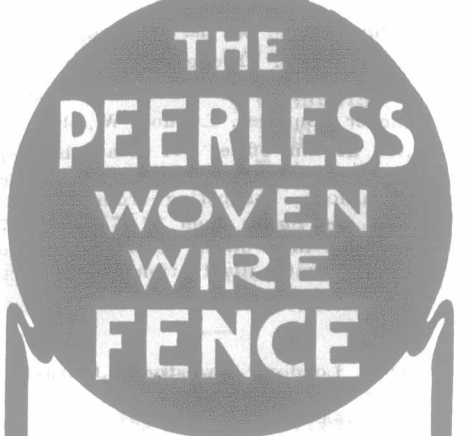
Our correspondent, D. M., of Wellington Co., Ont., writes the pedigree of the Shire horse, Dunsmore Wellington Roy 13021, referred to on page 1707, in our issue of Nov. 30th last: "I am truly surprised at the writer stooping to such means to substantiate his assertion, and concerning also the pedigree of the Shire filly, Dunsmore Fuchsia, in your issue of July 20th last. But one can read between the lines the reason for making such an assertion. That the writer had some particular reason can easily be seen. I do not wish to use any strong language in this case, but if the Shire Studbook is to be ignored, what, may I ask, are we poor ignorant Shire men to do? I, for one, do repudiate such a statement, and will say that to-day the purest heavy-draft breed is the Shire. He has no alien blood in his veins. Not so with the Clyde, which breed has, or had, two studbooks. I leave those interested in the latter to find the reason, but it is well known the reason, or rather the necessity, for Clydes having the second studbook. Were a Shire man to make any such assertion as to the Clyde breed, he would have the whole army of Clydesdale men about his ears in a short time. All I crave for the Shire horse is simply justice. He will then hold his own in any company. The assertion of Scotland Yet has brought to memory a case which took place at St. Austle, Cornwall, England, about the year 1850. A Mr. Brown showed a steer in the grade class at the fat-stock show, and won first prize. One of his opponents, a Devonshire man, asked how the beast was bred. Mr. Brown replied, 'He is a Durham, all but one-eighth.' Whereat the Devonshire man exclaimed, 'And that eighth gave you the prize.' So it is with Scotland Yet in judging draft horses. If an outsider asserted that such a horse had one-sixty-fourth part of Clyde blood in his veins, and he was an extra good horse, Scotland Yet would, doubtless, exclaim, 'And that 64th enabled him to obtain the prize.' I should wish to ask one or two questions in conclusion, viz.: Who, or by what authority, was Scotland Yet appointed as reviser-in-chief of the Shire Horse Studbook? When has he undertaken the task of his own free will out of sympathy for those interested in the poor docile Shire breed? I think it is no very difficult task to discern who writes under the nom de plume of Scotland Yet, judging from the tenor of his communications. If I am not much mistaken he is the Secretary of the Clydesdale Studbook."

**INTERNATIONAL SCALE OF POINTS FOR AYRSHIRES.**

A matter affecting considerably the dairy interests in Canada, England and the United States was discussed by breeders at the Ottawa Winter Fair. It is the adoption of a uniform scale of points by the Ayrshire breeders of the three countries. The question was brought up at a meeting of representatives of the Canadian Ayrshire Breeders' Association and of the Ayrshire Breeders' Association of the United States, those present being: For Canadian Association—Robert Hunter, Maxville, Ont., President; J. G. Clark, Ottawa, 1st Vice-President; W. F. Stephen, Huntingdon, Que., Secretary; J. W. Nimmo, Ottawa, Registrar. American Association—William George Ballou, New York City, President; J. C. M. Winslow, Brandon, Vermont, Secretary. The result of the conference was the acceptance, with a few minor changes, of the scale of points printed in the latest Canadian Ayrshire Breeders' Herdbook. A letter to the Ayrshire Cattle Herdbook Society of Great Britain and Ireland was drafted, and will be presented by Mr. Robert Hunter, who is going over to Scotland to secure some new stock for his sons. Mr. Hunter's position in the Ayrshire world is so well established that he carries with him the hearty approval of American breeders in his mission to the mother country.

**THE MANOR SHORTHORNS.**

The Manor stock farm is the beautiful home of Mr. J. T. Gibson, of Denfield, Ont., the well-known importer and breeder of Scotch Shorthorn cattle and Lincoln sheep. At the present time there are 40 head of imported and Canadian-bred Shorthorns, an exceedingly high-class lot, at the head of which is the richly-bred show bull, Proud Gift (imp.), sired by the Marr-bred bull, Golden Gift, a son of Spicy Robin; dam Goldie 39th, by Captain of the Guard; grandam by Lord Lavender. Proud Gift is not only bred in the purple, but is a show bull of a very high order, pronounced by competent judges to be one of the evenest-built bulls in Canada, besides being an exceptionally nice handler, and is covered with a wealth of hair that stamps him at once as being an extra good doer, and one look at his get, with their long silky coats and even, thick carcass, will at once convince anyone at all conversant with Shorthorn character that as a sire he needs no other recommendation. The females of the herd, several of which are imported, represent such fashionable strains as the Miss Ramsdens, of which there are seven daughters and granddaughters of Imp. Duchess, by Matador, dam Mabel 3rd, by Duke of Fife, and are the get of Imp. Prime Minister and Imp. Governor-General; Cruickshank Clippers, of which there are five daughters and granddaughters of Imp. Clipper 2nd, by Christmas Cup, dam Clipper, by Free Trade (they are the get of the present stock bull and Imp. Governor-General); Cruickshank Jays, of which there are four, progeny of Juno (imp.), by Cornelius, dam White Rose, by Salisbury (they are the get of the stock bull and Scottish Actor, imported in dam); Minas, of which there are six, the progeny of Mina Lass, by British Chief, a son of Imp. Indian Chief, dam Gipsy Lady, by Imp. Windsor (they are the get of Imp. Vice Counsel, Imp. Prime Minister, Josephlyn, and Imp. Proud Gift); Matildas, of which there are two, one got by The Baron (imp.), the other by Prince Ramsden, imported in dam. Another of the good ones is Imp. Rosemary 137, by Cypress, dam by Prince of Fashion 2nd. Still another is Lady Fanny (imp.), by Baron Buttercup, dam Fanny, by Bachelor of Arts. This cow is of the Undine tribe, and is now suckling a heifer calf, by Imp. Nonpareil Duke. Mr. Gibson reports the demand for bulls as exceedingly brisk. There are only three on hand, and all of them under six months, but they are a rare nice trio, and should make very choice animals. There are several extra good heifers for sale, among them show stuff. The Lincolns are looking in fine shape, and the new crop now coming on are frisky and happy, and will certainly be on hand next fall to add fresh honors to this noted flock.

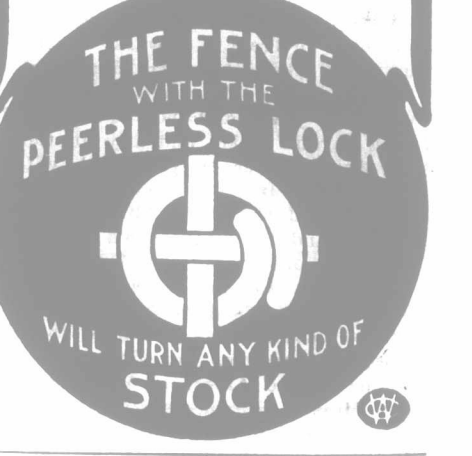


has achieved such remarkable success in the U. S. that we have acquired the sole right for its sale in the Dominion. The farmers of the States are shrewd judges of farm equipment, and the enormous sales of Peerless Fence is one of the best proofs that it is a fence of unusual merit. But we don't expect to sell you Peerless Fence on the endorsement of American farmers. If we can get you to read how it is constructed, read what kind of material goes into it, see the fence itself, we know you will want none other. It is a practical fence—a durable fence—a common-sense fence. Simple in construction, needs no repairing, because it's made right.



Peerless Fence is made of big, heavy Galvanized Hard Steel Wire of perfectly uniform size throughout, which, with the famous Peerless Lock, will turn any kind of stock and give long wear. Note the picture below—how securely, firmly it holds the upright and lateral wires—they can't be rooted up—nor shoved down—nor spread sidewise—it's locked to stay locked. That means stability—long wear, almost everything desired in a fence. Suppose you send for our fence book and get all the good points about this really good fence. They mean money, time and pleasure to you. A postal card brings it.

**The Banwell Hoxie Wire Fence Co., Ltd.,**  
DEPT. B Hamilton, Ont.



**JOHN R. GREEN.**  
Moose Jaw, Sask. Real-Estate Dealer. I have been in this district 18 years, and can put you right.

I HAVE A CHOICE HALF-SECTION OF unimproved land close to Pasqua Junction, near Moose Jaw. There is nothing finer in the Moose Jaw district.

ALSO 80 ACRES PARTIALLY IMPROVED, with buildings and cultivation, 3 1/2 miles from Pasqua. This is A1.

ANOTHER HALF-SECTION JUST WEST of Pasqua, unimproved, nice smooth, level prairie, in the big crop district.

SEVEN THOUSAND ACRES ON KIRKELLA branch, near Lipton, for sale, en bloc or retail. Write me for particulars. There is big money in this. Will send government surveyor's report on request.

TWO HUNDRED RESIDENTIAL LOTS IN the growing city of Moose Jaw; also several good business sites.

**SEED OATS FOR SALE.**  
Scotchman's Pride, \$3 per bush; in bag lots \$2.50 per bush., bags included. Yield 85 bush. per acre; test, 45 lbs. per bush. Write

**John A. Govenlock, Forest, Ontario.**

# RENNIE'S SEED NEWS

## Eight New Vegetables FOR 50c.

- BEEF, NEW INTERMEDIATE**—  
Extra early; excellent for slicing, rich, dark red color. Pkt. 10c; oz. 20c; 1/2 lb., 35c; lb., \$1.
- SPINACH BEET**—  
One of the most useful vegetables. May be used Summer and Fall. Pkt., 10c; oz. 20c.
- BEANS, NEW ROUND POD, KIDNEY WAX**—  
Very tender and meaty. Pkt. 10c. 1/2 lb., 18c; lb., 30c; 5 lbs., \$1.20
- CABBAGE, DANISH BALL HEAD**—  
Original strain from Denmark; sure header. Pkt. 5c; oz., 25c; 1/2 lb., 75c.
- CORN, EARLY WINDSOR**—  
Earliest, finest flavored Table Corn. Pkt. 10c; 1/2 lb., 20c; lb., 35c; 5 lbs., \$1.45
- LETTUCE, RENNIE'S SELECTED NONPAREIL**—  
Is hard, tender and crisp. Pkt., 5c; oz., 20c; 1/2 lb., 50c; lb., \$1.50.
- ONION, EXTRA EARLY RED**—  
Hardest Onion grown; specially adapted to North-west. Pkt., 5c; oz., 20c; 1/2 lb., 60c; lb., \$2.
- PEAS, DWARF TELEPHONE**—  
Remarkable for its large pods; English marrow flavor; second early. Pkt., 10c; 1/2 lb., 20c; lb., 35c; 5 lbs., \$1.50.

## ROOT SEEDS

- RENNIE'S GIANT SUGAR MANGEL**  
The most profitable root for stock feeding. Contains high per-centage of nutritive value. 1/2 lb., 20c; lb., 30c.
- RENNIE'S DANISH SUGAR BEET**  
A wonderful yielder. Greatest milk-producing root. Seed tested for purity and germination. 1/2 lb., 20c; lb., 30c.
- TANKARD CREAM SUGAR BEET**  
Is of exceptional value for feeding to cattle, horses, sheep, hogs and poultry. 1/2 lb., 30c; lb., 50c.; 4 lbs., \$1.80.
- CARROT—MAMMOTH WHITE Intermediate**—  
Flesh solid, crisp and pearly white. Easily harvested. 1/2 lb., 15c; 1 lb., 25c; lb., 50c.
- SWEDEN TURNIP—Rennie's Prize Purple Top**—  
A sure cropper. Nice, clean roots, always gives satisfaction. 1/2 lb., 18c; lb., 30c; 4 lbs., \$1.10.
- MAGNUM BONUM SWEDEN**—  
Is remarkable for its hardness, fine shape and enormous weight per acre. 1/2 lb., 18c; lb., 30c.
- IMPROVED ELEPHANT SWEDEN**—  
Fine grained and of best quality. A great cropper; specially selected seed. 1/2 lb., 18c; lb., 30c; 4 lbs., \$1.10.

## Bulbs for 50 Cents.

Should the weather be cold, do not be impatient if the Bulbs and Plants are not forwarded immediately; we assume all risk and guarantee everything to reach you in good condition.

- 30 GRAND SUMMER FLOWERING BULBS FOR 50 CENTS.**—1 New Yellow Calla Lily, 1st prize Tuberosus Begonia, 1 Giant Gloxina, 1 Beautiful Spotted Calla, 6 Giant Summer Hyacinths, 6 Superb Childs Gladioli, 7 Rare Montbretias and 7 Pretty Oxalis. Regular price \$1.40, for..... 50c
- 6 BEAUTIFUL DAHLIAS FOR 50 CENTS.**—6 Grand Dahlias (field-grown roots), no two alike. Regular price \$1.08, for..... 50c
- 8 RARE PLANTS FOR 50 CENTS.**—1 New Ever-Blooming Tea Rose, 1 Profuse Blooming Fuchsia, 1 Weeping Lantana, 1 Asparagus Sprenger Fern, 1 New Ageratum, 1 Beautiful Geranium, 1 Giant Chrysanthemum and 1 Sweet Carnation. Regular price \$1.15, for..... 50c

### We Send Free

If your order amounts to \$1 or over, Novelty Package of Trial Seeds. Ask your friends to order with you.



## DODDS' NEW, HANDSOME PROLIFIC WHITE OATS

4,752 POUNDS PER ACRE

A genuine agricultural trophy and prizewinner. Is the best thing offered for a long time. Has yielded as much as 4,752 lbs. of cleaned seeds per acre. The large, white grains are immense, plump and handsome. Ripens early, straw is stiff and stands up well. We recommend it in strong terms. Lb., 30c; 3 lbs., 75c, postpaid; bushel, \$2; 5 bushels, \$9.50, f.o.b. Toronto.

## Fifty-Pound Black Oats

Just what its name implies—weighing 50 lbs. to the measured bushel. Is a first-class cropper, with strong, stiff straw and heavy side heads. Freezing weather, protracted drought, heavy rain nor hot wind seem to have any effect upon its growth. Lb., 30c; 3 lbs., 75c, postpaid; bushel, \$2.50, f.o.b. Toronto.

## PURE SEEDS

IN SEALED BAGS. ASK YOUR DEALER. RENNIE'S XXX CLOVER AND TIMOTHY SEEDS are acknowledged by leading authorities to be the highest qualities obtainable. Sold at a moderate price. Guaranteed to pass the highest standard set by the Government. BUY RENNIE'S XXX—TAKE NO OTHER.

## NOR'-WEST VEGETABLES

Specially Selected, Earliest Kinds 13 distinct sorts in all.

Regular Price, \$1.45; for, by Mail, \$1.

- Beet—Round, 1 oz.
- Beans—Earliest, 1/2 lb.
- Cabbage—Early and Extra, 1 pkt. each.
- Carrot—Early, 1 oz.
- Cauliflower—Snow, pkt.
- Lettuce—Early and Head, 1 pkt. each.
- Onion—For Soups, 1 pkt.; for boiling, 1 oz.
- Parsnip—Long white, 4 pkts.
- Parsley—Curled, 1 pkt.
- Peas—Extra Early Dwarf, 1/2 lb. Medium Early Dwarf, 1/2 lb.
- Radish—Early round, 1 pkt.
- Sage—1 pkt.
- Tomato—Earliest, 1 pkt.
- Turnip—Round table, 1 oz.

## GEM VEGETABLES—TO SUIT EVERYBODY

- Beans—None of which require staking; wax pod, 1/2 lb.; green pod, 1/2 lb.; bush Lima, 1 pkt.
- Beet—Round red, 1 pkt.
- Cabbage—Early, 1 pkt.
- Carrot—Early red, 1 pkt.
- Corn—Early Sugar, 1/2 lb.
- Cucumber—Slicing, 1 pkt.
- Lettuce—Best head, 1 pkt.
- Onion—For slicing, 1 pkt.; for boiling, 1 pkt.
- Parsley—Curled, 1 pkt.
- Peas—Earliest Dwarf, 1/2 lb.; medium early, 1/2 lb.; dwarf late, 1/2 lb.
- Parsnip—Long white, 1 pkt.
- Radish—Early round red, 1 pkt.
- Squash—Marrow, 1 pkt.
- Tomato—Early smooth, 1 pkt.
- Turnip—White table, 1 pkt.

REGULAR PRICE, \$1.40; FOR, BY MAIL, \$1.

## Low - Priced Assortments.

- 12 SUPERB VEGETABLES FOR 25 CENTS.**—Beets, Carrots, Onions, Lettuce, Cucumbers, Radishes, Parsnips, Cabbage, Celery, Tomatoes, Musk Melons, and Watermelons. Regular price 75c, for..... 25c
- 12 ATTRACTIVE FLOWERS FOR 25 CENTS.**—Asters, Phlox, Sweet Mignonette, Pansy, Double Pinks, Sweet Alyssum, Poppy, Petunia, Nasturtium, Sweet Peas, Balsam and Morning Glory. Regular price 70c, for..... 25c
- 12 LEADING VEGETABLES AND FLOWERS FOR 25 CENTS.**—Onion, Cucumber, Beet, Lettuce, Carrot and Radish; Asters, Sweet Mignonette, Pansy, Petunia, Sweet Peas and Wild Garden. Regular price 65c, for..... 25c

## HEAVY YIELDING FODDER PLANTS.

- EARLY SOY BEANS**—  
Of extra value for stock feeding. 1/2 lb., 15c; 10 lbs., \$1.40.
- JERUSALEM CORN**—  
Best and surest crop for dry countries and seasons. 1/2 lb., 15c; 10 lbs., \$1.40.
- THOUSAND HEADED KALE**—  
Eagerly sought and eaten by sheep and cattle; has given excellent results. 1/2 lb., 12c; 1 lb., 20c; lb., 35c; 4 lbs., \$1.20.
- COW PEAS (Whip-Poor-Will)**—  
The earliest maturing variety, valued for fodder and reclaiming worn-out land; 1/2 lb., 15c; 10 lbs., \$1.30.
- JAPANESE MILLET**—  
Also known as "Billion Dollar Grass." Yields well and threshes easily. 1/2 lb., 15c; 10 lbs., \$1.30.
- SIBERIAN MILLET**—  
New and very productive forage plant. Hay and fodder; very nutritious and well liked by all kinds of stock. 1/2 lb., 15c; 10 lbs., \$1.30.
- LATHYRUS SYLVESTRIS**—  
May be cut twice in a season. Vast amount of rich hay secured from small area. Lasts fifty years without reseeded. 1/2 lb., 90c; 1 lb., 30c; oz., 10c; pkt., 6c.
- SAND YETCH**—  
Yields immense crops. Prospers in barren soils. Is the earliest crop for cutting; perfectly hardy. 1/2 lb., 20c; 4 lbs., 75c; 10 lbs., \$1.75.
- HUNGARIAN GRASS**—  
When cut before seeding produces hay relished by cattle. 1/2 lb., 15c; 10 lbs., \$1.
- SUNFLOWER**—  
Russian Giant Egg-producing Food. 1/2 lb., 15c; 10 lbs., \$1.40; pkt., 5c.

We Deliver Free to Any Post Office in Canada (Excepting Oats by the Bushel)

# WM. RENNIE COMPANY, LIMITED, TORONTO.

Western Branches: WINNIPEG and VANCOUVER.



GOSSIP.

THE OTTAWA SHORTHORN SALE. The provincial auction sale of cattle, held at Ottawa during the week of the Eastern Ontario Live-stock Show, was regarded as fairly satisfactory, 38 head being sold at an average of \$76; the 21 bulls averaging \$74, and 17 females, \$79. The highest price, \$140, was made by Nonpareil of Struan, contributed by N. S. Robertson, Arnprior, and purchased by Joseph Barnett, Brooklyn, Ont., Mr. Thos. Irving, of Winchester, officiated as auctioneer.

THE COATICOOK SALE.

This is the last call for the dispersion sale, on March 28th, of the herd of 16 head of Shorthorn cattle and 10 horses, including 2 brood mares and 3 registered Clydesdale fillies, owned by Mr. C. C. Hanson, Coaticook, Que. The herd bull is Fine Goods =48639=, three years old, and weighing about 2,500 lbs. in show trim. He is a son of King of Buenvista, by Roan Stamp, and on his dam's side is of the good Scotch Syme family. The females are of the low-set, thick-fleshed sort, and of the excellent milking Lavinia family. The Clydesdale fillies are daughters of the World's Fair champion and sire of champions, Macqueen, and should be well worth looking after. Conveyances will meet morning trains, and catalogues will be furnished on day of sale.

Mr. W. F. Stephen, Huntingdon, Que., writes: "My herd of Ayrshires is coming through the winter in fine condition. Several cows and heifers have dropped calves to Lessnessock Crown Prince (Imp.) 19508, which for quality and strength and vigor of constitution exceed any calves I have owned previously. My heifers from Comrade's Last of Glenora 13474 are coming in now, and are doing remarkably well at the pail. Some of them have given as high as 38 lbs. of milk per day. I am sold out of last year's bulls, and am now booking orders for this season's calves. I have a very fine bull for sale, Glenora's Fancy 15790, four years old, quiet to handle, as he has been used on a tread power. This bull has proved himself to be a grand stock-getter."

H. Cargill & Son, Cargill, report the following recent sales of Shorthorns: To Joseph Monk, Malcolm, Ont., Lord Blossom =59625=, out of the Ballochibred cow, Imp. Parena Blossom, and sired by the Dutch-bred Missie bull, Lord Mistletoe (Imp.) (81522); to F. W. Brown, Portage la Prairie, Man., the red bull, Lord Annandale =59624=, out of Lady Ann 12th (Imp.), and sired by Lord Mistletoe (Imp.), also the roan heifer, Floretta C, out of the imported Brawith Bud cow, Floretta, and sired by Imp. Choice Korral. This is a choice pair, and if all goes well with them in the capable hands of Mr. Brown, they will be heard from in the West. To Moses Bilger, Walkerton, Ont., two choice heifers and the white bull, Flowerman =59618=. The heifers are Red Rose C =67276=, out of Imp. Red Rose, by Lucky Prince, a son of Prince of Archers, and sired by Lord Mistletoe (Imp.) (81522); Patience C =69271=, out of Patience 31st (Imp.), and sired by Lord Mistletoe (Imp.) (81522)."

A SHIRE STALLION BEING EXPORTED TO ENGLAND.

We hear that Mr. Clement Keevil's representative in Canada has bought for him the three-year-old Shire stallion, Blagdon Majestic 22123. This horse was sold by Mr. Keevil for considerably over £100 after winning first and champion as a foal at Leighton Buzzard. Since in Canada he has been successfully exhibited. His sire is Childwick Majestic 17254; his dam that good mare, 23281 Chant of Batsford, by Menestrel 14180; and his grandam was 252 Chance, admitted by most Shire men to be the best female of her breed ever exhibited. The late Mr. Lawrence Drew, of Merryton, who owned the famous Clydesdale stallion, Prince of Wales (this sire's fee was £40)—who was a man among men with draft horses—said at the Royal Show at Windsor in 1879, when Chance was shown in the same class as Starlight, also a Royal and London champion: "She is the best I ever saw. Why! look at Starlight, she only looks like a wee bit dropped off her side."—[Live-stock Journal.]

# IMPORTANT AUCTION SALE

OF IMPORTED

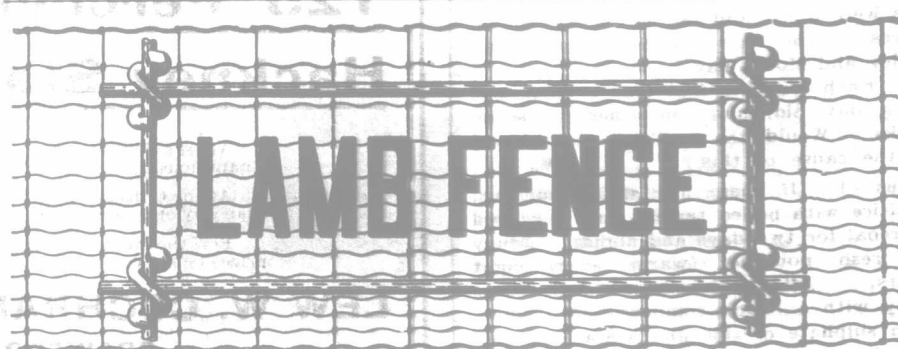
## Clydesdale Mares and Fillies

At the Royal Hotel Stables, in the City of Woodstock,

### FRIDAY, APRIL 6th, 1906.

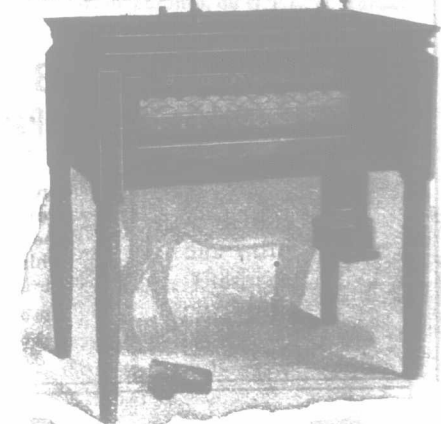
40 Imported Clydesdale mares and fillies, carefully selected for size, quality and breeding by one of the proprietors. Sale to commence at 1 o'clock sharp. For catalogues apply to owners

S. J. PROUSE, Ingersoll, Ont. J. W. INNIS, Woodstock, Ont.  
Auctioneer: T. E. Robson, Ilderton.



The H. R. Lamb Fence Co., Limited, London, Ont. Green Ridge, Manitoba.  
Dear Sir,—I beg to state that your fence has given the best of satisfaction, and must say it is a most effectual hog fence.  
I must tell you of an incident that occurred on the night that we finished erecting it: a team got away from my son while he was closing a gate, with half a load of hay on the rack, and ran into this fence. I saw it happen, as I had just driven the last staple. I thought "there goes my fence," but imagine my surprise on running up to find both horses over the fence, one with her hind legs through the wires; the top strand, which was barbed wire, was broken, three posts driven two feet in the ground bent right over, but your fence held out a wire or stay broken, although we had put up a very light fence—in fact, so light that I was afraid I had overdone it. Trusting the day is not far distant when I shall have my farm fenced with this wire, and wishing you every success, I remain, Yours truly,  
(Signed) R. BREWSTER.

Write for printed matter and samples of wire—they are FREE.  
LONDON, ONT., or Box 423, WINNIPEG, MAN.  
**THE H. R. LAMB FENCE CO., LIMITED,**



Something to Grow About!  
**THE HAMILTON**  
WE consider we are manufacturing the Best Line of Incubators and Brooders built in Canada today. We have received hundreds of letters from our many customers congratulating us on their success with the Hamilton. Give the Hamilton a trial and you will be pleased.  
All goods sold under a guarantee.  
We also manufacture the famous James' Patent Elevator, for unloading Hay and Grain.  
For catalogue and price lists write  
**The Hamilton Incubator Co., LIMITED,**  
HAMILTON, CANADA.



### Our Model Incubators and Brooders

are the only PANACEA for failure—past, present and future. Just take a few minutes and read the following one of many hundreds of unsolicited testimonials from our customers:

Dear Sir,—  
Masonville P. O., Ont., March 5, 1906.  
After trying an incubator for two years, and spoiling eight hatches of eggs, I threw the incubator away in disgust, never meaning to try again, knowing that it was not the fault of the eggs, as I raised over 400 under hens. Last December I read Chas. A. Cyphers' book, "Incubation and Its Natural Laws," after which I ordered a Model, which I had to work under trying conditions. First, I only had eggs from pullets mated with cockerels, mated up only five days before I set incubator. Second, the location in a room that varied from 65 to 28; for two days and nights the temperature was at 30 to 33, and your Model only lost one-half degree—from 100 to 103. The results are just grand. Out of 71 eggs I got 65 of the strongest chicks I ever saw. All came out on the 26th of February, 1906, within five hours of each other. Two of the eggs I broke. The other four must have died about the 16th day (weak germ). They are now all safe in a Model Colony Brooder, and all 65 as healthy and well as though it were summer. Temperature inside brooder steady night and day at 90. Outside blowing and snowing as hard as it can.  
R. H. CRUMP.

Send for our catalogue, and get the same treatment and results Mr. Crump has got. Manufactured by

C. J. DANIELS, TORONTO, ONT  
196-200 River Street,

For Sale: A grand registered CLYDE STALLION, 6 years old. Two white feet. Sound and sure foal-getter. Come and see his stock. Apply to Ryan Bros. & Switzer, Riceville, Ont.

For Sale: Clydesdale stallion, Prince Oria (Imp.) (4693) (QIMCO), prizetaker in this country and in Scotland. WM. DUNCAN, Stroud, Ont.

Advertisement for 'Warrant' or similar product, featuring a portrait of a man and text describing its benefits.

### Alberta and Saskatchewan FARM LANDS

Improved and Unimproved  
Town and city properties in choice locations. For terms and information apply to  
**N. F. HARBOTTLE & COY.**  
P. O. Box 93, EDMONTON, ALTA.

### Ranches and Wheat Farms FOR SALE

Cochrane Land Company, COCHRANE, ALBERTA.  
Correspondence solicited. H. H. T.

### For Sale Seed Corn

That will grow. Genuine Smit Nose, all home-grown and tested. On the cob or shelled. Prices right. Send for prices.  
W. B. ROBERTS, Sparta, Ont.

### CLYDESDALE COLT

Earl of Columbus (5692), Bay, rising two years; sire Pearl of Burnhead, Imp. (3743) (10890). In good growing condition, clean bone, good disposition. Write or call on T. C. O. WATSON, Brooklin Stn., G.T.R., Myrtle, C.P.R.

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Clydesdales, Shorthorns and Gotswoods. 41 prizes won at World's Fair at St. Louis, 11 firsts, 5 champions. Will now offer my entire flock of rams and ewes at prices according to quality.  
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### Imported Clydesdale Stallions and Fillies

Also Hackney Stallions for sale. At reasonable prices. Come and see them, or write to  
**Adam Dawson,** Cannington, Ontario.

For Christopher, Imp., =28859=, no sale, five and six. Registered in Dom. and A. S. H. B.'s. Also a few choice Shorthorn females. Write  
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No matter how old the blemish, how lame the horse, or how many doctors have tried and failed, use

### Fleming's Spavin and Ringbone Paste

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Ninety-six pages, durably bound, indexed and illustrated. Covers over one hundred veterinary subjects. Read this book before you treat any kind of lameness in horses.

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handy in case of a Bruise or Strain. This remedy is rapid to cure, pleasant to use, and you can work the horse. No blister, no hair gone.

**ABSORBINE** cures lameness, always pain, removes any soft bunch quickly. \$1.00 per bottle delivered or of regular dealers. Book 6-B Free.

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cures lameness, splint, curb, thrush-colic, founder, distemper, etc. Standing offer, good everywhere. \$1.00 for a bottle where we say it will cure. "Veterinary Experience" rec. 100 pages, the perfect horse doctor. Write for a copy

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From such noted champions as Baron's Pride, Hawatha, Marcellus, Macgregor, Baron's Fashion and Lord Lothian, etc. Inspection invited.

For fuller description and prices, write

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## \$500 Reward

Offered for the conviction of the party or parties that blistered my horse, Knight of Glamis, at recent Spring Stallion Show, held in Grand's Repository.

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My motto: "The Best is None too Good." Imported and home-bred Clydesdale and Shire Horses, Scotch Shorthorn Cattle, Leicester Sheep. A choice lot of reg. fillies and Shorthorn calves to choose from. Our stock exhibited have won the highest honors at the largest shows in America.

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**J. M. GARDHOUSE.**

**23 IMPORTED CLYDESDALE STALLIONS** for sale; also 6 Hackney Stallions. Inspection invited and prices right.

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**No more blind horses**—For Specific Ophthalmia, Moon Blindness and other sore eyes. **BARRY CO., Iowa City, Iowa,** have sure cure.

**Shire Stallions (imp.)**—A few stallions of this excellent breed for sale. Easy terms. These horses are great individuals, immense weight, and the best blood in England.

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**KEWTON'S Heave, Cough, Distemper and Indigestion Cure.** A veterinary specific for wind, throat and stomach troubles. Strongly recommended. \$1.00 per can, mail or express paid.

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**DR. McAMEY'S HEAVE CURE** for Broken-winded Horses. The only medicine in the world that will stop heaves in three days, but for a permanent cure it requires from one-half to one bottle used according to directions. Price, 50¢ per bottle. **The Dr. McAMEY Medicine Co., Remptville, Ontario.**

### QUESTIONS AND ANSWERS. Veterinary.

**LUMP JAW.**  
Steer has lump as large as an egg just below his ear. It broke and discharged matter, and is now growing hard. It is not attached to the bone.

**W. T. B.**

**Ans.**—This is lump jaw. Get your veterinarian to dissect the lump out carefully. This can be done, as the bone is not involved. Then give the iodide of potassium treatment, which consists in giving the drug three times daily. Commence with 1-dram doses, and increase the size of the dose by 10 grains daily, until he refuses food and water, tears run from the eyes and saliva from the mouth. When any of these symptoms appear, cease giving the drug. Repeat treatment in two months, if necessary.

**SCRATCHES—WEAK FOALS.**

1. I have a pair of Clydesdale mares in foal. They had scratches this winter, and they keep stamping their feet as if legs were itchy, and the hair comes off in places. They are fed boiled oats and barley and clover hay.

2. Each lost her foal last season, one at a day old, and the other at seven weeks. Would the mother's bad blood be the cause of this?

**W. S.**

**Ans.**—1. If there are still eruptions, poultice with boiled turnips and powdered charcoal for two days and nights. Apply a fresh poultice (warm) every eight hours. After this, dress three times daily with a lotion composed of 1 ounce each sulphate of zinc and acetate of lead, and 1 dram carbolic acid to a quart of water. Dress the itchy parts of the legs twice daily with corrosive sublimate, 40 grains to a quart of water. Feed no more barley. Give each 4 drams hypsulphite of soda twice daily.

2. Feed moderately well, and see that they get daily exercise or light work, and it is probable the foals will be strong. The weakness in the foals is hard to account for. Mares that work during pregnancy usually produce stronger foals than those that run idle.

**BRUISE—FATALITY IN HORSE.**

1. Swelling appeared on cow's jaw, and increased until she could not open her mouth. This is the fourth day, and her head is swollen very large; her tongue hangs out of her mouth, and there is a rattling in her throat.

2. Horse refused feed. In a few days his tongue and mouth were very dark. He was very thirsty. The next day, his mouth and tongue became nearly black; he became uneasy, and died. A post-mortem revealed the mucous membrane of the intestines the same as that of the mouth.

**C. B. S.**

**Ans.**—1. I am of the opinion that the cow got cast, and in struggling bruised the head severely, and the swelling is the result. The application of heat is about all the treatment that can be adopted until the swelling commences to subside; but, no doubt, she will be either dead or better before you see this.

2. The horse ate something that irritated the mucous membrane of the intestinal tract, which became so sore he could not eat. The fever produced caused excessive thirst for a time, and the inflammation caused death. It is impossible to say what caused the trouble without being thoroughly conversant with local conditions.


**Miscellaneous.**

**FLAXSEED FOR HORSES.**  
Please answer the following questions in your paper:  
Is flaxseed meal good feed for work horses—a handful on their oats once a day?  
**J. A. P.**

**Ans.**—Yes; but the soaked and boiled flax is better.

**FERRY'S SEEDS.**—The seed firm of D. M. Ferry, of Detroit and Windsor, is well known to every reader of "The Farmer's Advocate." It is now the largest house of the kind in the world, having grown to that position by producing and selling seeds of absolutely standard quality. You will make no mistake if you buy Ferry's seeds. Send for their free seed annual.

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That you get your money's worth at **OAKLAWN**. At Avery's sale last week Bosquet (sold by us to them last year) was auctioned off for \$2,825. This was the only Oaklawn animal in the sale, so far as we know, and sold for \$1,825 more than any other stallion in the sale. It is only fair to add that Mr. Avery had the use of this horse last season, and has now sold him at a large advance over what he paid for him here. Where else can you buy to such an advantage as this? Consult your own interest and visit Oaklawn before purchasing. See the finest

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in the country. Horses right, prices right, guarantee right.

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At the Chicago International, 1905, I won more first prizes than any other exhibitor.

For the next 90 days I will sell the best in America at prices below competition.

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OFFICE: CRAWFORDSVILLE, IND.

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Shires, Clydes, Percherons, Hackneys and Spanish Jacks.



My latest importation includes 45 head of Shire stallions and fillies, Clyde stallions and fillies, Hackney and Percheron stallions and Spanish Jacks, many of them prizewinners in England, Scotland and France. This is a gilt-edged lot and the best we ever imported, combining size and quality.

Stables at **WESTON, ONT.** Telephone connection.

**J. B. HOGATE, Proprietor.**

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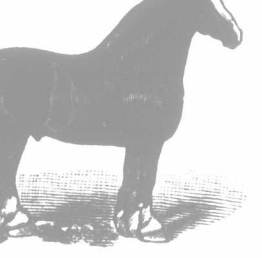
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Established 30 years, and winners at all large shows in Canada and United States. Best of stock always on hand for sale. New importation of Royal winners just arrived.

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CLYDESDALES and HACKNEYS



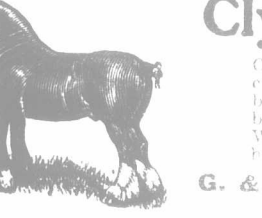
Our Clydes now on hand are all prize-winners, their breeding is gilt-edged. Our Hackneys, both stallions and mares, are an exceedingly high class lot. We also have a few high-steppers and carriage horses. Yonge Street cars pass the door every hour. Phone North 483.

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Our new importation of Clydes (stallions and fillies) combine size and quality to a marked degree. Their breeding is unsurpassed. Their individuality cannot be duplicated on the continent. Come and see them. We sell cheaper than any other importer. Also, we have a few gilt-edged Hackneys on hand.

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A few miles from Ottawa.



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Bushnell, Illinois.

## Shire, Percheron, Belgian and Hackney Stallions.

Before buying a stallion of either breed, we respectfully ask that you write and let us know your wants. Special inducements for the next 60 days. We can save you money. Our prices and liberal guarantee will astonish you. Our record in the show-rings is evidence that we keep nothing but the best. Our barns are full of prizewinners, and they are all for sale. We insure stallions against death from any cause, if desired. Write for illustrated catalogue of our horses. Importations arrived, July, September and November, January and March, '06.

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Have just arrived, Aug. 16, 1905, from Great Britain and France with our new importation of high-class stallions, many of them prizewinners in their native lands, bred by the best breeders. The Percherons are large blocky fellows, 3 to 5 years old, descendants of such noted champions as Brilliant, Besique and Romulus. Blacks and dark dapple greys, weighing from 1,600 to 2,100 lbs., with the right kind of legs and feet, and can go like trotters. We personally selected every horse ourselves, using extraordinary caution to select nothing but good sound serviceable horses that will do our customers and the country good. The French Coaches, Hackneys and Clydes are also of the best breeding, some of them prizewinners in England, Ireland and Paris. We will sell you a better stallion for less money than any other importers in America, with a guarantee as good as gold. Intending purchasers should visit our stables before buying elsewhere. Inspect our stock and get our prices. Terms made to suit purchasers. Hamilton & Hawthorne, Simcoe, Ont. 62 miles S.W. of Toronto, on G.T.E. & Wabash

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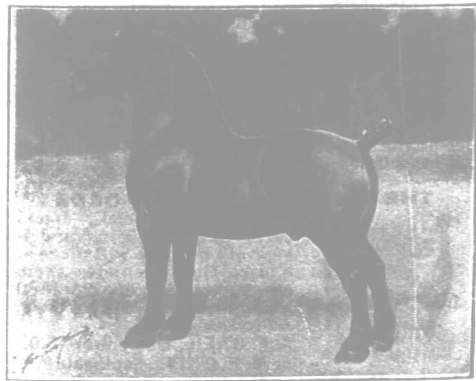
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New importation of CLYDESDALE STALLIONS represent such noted blood as: Baron's Pride, Hiawatha, Sir Everard, Up-to-time, Pride of Blacon, The Dean, Prince Fauntleroy and Lord Stewart. They were selected with great care; combine size and quality. They are an A1 lot. All head to choose from.

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**SHORTHORNS.**—Steer, 2 years and under 3 years—1, R. Reid & Co., Hintonburg; 2, Shortreed, Black & Armstrong Co., Fergus. Steer, 1 year and under 2—1, Jas. Rennie & Son, Blackwater; 2, R. Reid & Co.; 3, 4 and 5, S., B. & A. Co. Steer, under 1 year—1, Rennie & Son; 2, 3 and 4, S., B. & A. Co. Cow or heifer, 3 years and over—1, N. S. Robertson, Arnprior. Heifer, 2 years and under 3—1, N. S. Robertson. Heifer, under 2 years—1, S., B. & A. Co.; 2 and 3, N. S. Robertson.

**HEREFORDS AND ANGUS.**—Steer or heifer, 2 years and under 3—1, S., B. & A. Co., Fergus. Steer or heifer, 1 year and under 2—1 and 2, S., B. & A. Co. Steer or heifer, under 1 year—1, S., B. & A. Co. Cow or heifer, 3 years and over—1, S., B. & A. Co.

**GRADE OR CROSS.**—Steer, 2 years and under 3—1 and 3, Jas. Leask, Greenbank; 2, S., B. & A. Co.; 2, R. C. Sparrow & Sons, Antrim. Steer, 1 year and under 2—1, 3 and 5, S., B. & A. Co.; 2 and 4, Jas. Leask. Steer, under 1 year—1 and 3, Leask; 2, S., B. & A. Co.; 4, A. H. Foster, Twin Elm. Cow or heifer, 3 years or over—1 and 4, Rennie & Son; 2 and 5, S., B. & A. Co.; 3, Leask. Heifer, 2 years and under 3—1 and 2, Leask; 3 and 4, S., B. & A. Co. Heifer, under 2 years—1, Leask; 2, Jas. Rennie & Son; 3, R. Reid & Co.; 4 and 5, S., B. & A. Co.

**THREE EXPORT STEERS.**—1, Jas. Leask; 2, Jas. Rennie & Son; 3, 4 and 5, S., B. & A. Co.

SHEEP.

**COTSWOLDS.**—Wether, under 1 year—1, 2 and 3, S. J. Lyons, Norval; 4, W. E. Wright, Glanworth; 5, A. G. H. Luxton, Milton. Three wethers, under 1 year—1, S. J. Lyons. Ewe under 1 year—1, 2 and 3, S. J. Lyons.

**LINCOLNS.**—Wether, under 1 year—1, 3 and 5, L. Parkinson, Eramosa; 2, 4 and 6, Shortreed, Black & Armstrong Co. Three wethers, under 1 year—1, L. Parkinson; 2, S., B. & A. Co. Ewe, under 1 year—1, 2 and 3, L. Parkinson; 4, S., B. & A. Co.

**LEICESTERS.**—Wether, 1 year and under 2—1 and 2, A. W. Smith, Maple Lodge. Wether, under 1 year—1, 2 and 3, A. W. Smith; 4, A. G. H. Luxton, Milton. Three wethers, under 1 year—1, A. W. Smith. Ewe, under 1 year—1, 2 and 3, A. W. Smith.

**OXFORDS.**—Wether, under 1 year—1, W. E. Wright, Glanworth; 2, J. A. Richardson, South March. Ewe, under 1 year—1 and 2, W. E. Wright; 3 and 4, J. A. Richardson.

**SOUTH DOWNS.**—Wether, 1 year and under 2—1, Telfer Bros., Paris. Wether, under 1 year—1, 2 and 3, John Jackson, Abingdon. Three wethers, under 1 year—1, J. Jackson. Ewe, under 1 year—1 and 3, Telfer Bros.; 2 and 4, J. Jackson.

**DORSETS.**—Wether, under 1 year—1 and 3, R. H. Harding, Thorndale; 2, A. G. H. Luxton. Ewe, under 1 year—1 and 3, Harding; 2, Luxton; 4 and 5, Richardson.

**HAMPSHIRE AND SUFFOLKS.**—Wether, 1 year and under 2—1 and 2, Jas. Bowman, Guelph. Wether, under 1 year—1 and 2, Telfer Bros.; 3, 4 and 5, Bowman. Ewe, under 1 year—1, 2 and 3, Telfer Bros.; 4 and 5, Bowman.

**GRADE OR CROSS.**—Wether, 1 year and under 2—1, A. W. Smith. Three wethers, under 1 year—1, A. W. Smith; 2, L. Parkinson; 3, A. G. H. Luxton. Wether, under 1 year—1 and 2, A. W. Smith; 3, Parkinson; 4 and 5, Luxton.

SWINE.

**BERKSHIRES.**—Barrow, 6 months and under 9—1 and 2, S. J. Lyons, Norval. Barrow, under 6 months—1 and 2, Lyons; 3, R. Reid & Co. Sow, 6 months and under 9—1 and 2, Lyons; 3, Reid & Co.

**YORKSHIRES.**—Barrow, under 6 months—1 and 3, J. E. Brethour, Burford; 2 and 4, J. Featherston & Son, Streetsville. Sow, 6 months and under 9—1 and 2, Brethour; 3 and 4, Featherston & Son. Sow, under 6 months—1, 2 and 4, Brethour; 3 and 5, Featherston & Son.

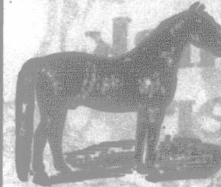
**TAMWORTHS.**—Barrow, 6 months and

(Continued on next page.)

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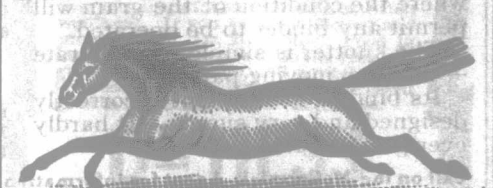
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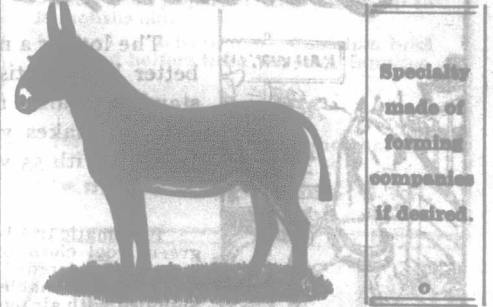
Ridgewood Danegilt—100—rising four years, first at Western Fair, London, 1904 and 1905, sire Langton's Danegilt, dam by Barthesse Performer (Imp.).

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Deaford Marquis (Imp.), first at Western Fair, 1904 and 1905, a proved sire of quick-selling stock at highest prices.

These will be sold well worth the money, as the owner, Mr. E. O. Atwell, is giving up farming. For prices, apply to **Mr. Chas. Garrow, Agent, Goderich, Ont.**

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I have landed one of the best importations of the

**CLYDESDALES, SHIRES and HACKNEY STALLIONS,**

males and fillies ever landed in America. They are got by such sires as Baron's Pride, Everlasting, Up-to-Time, Marcellus, Pride of Blacon and others, Scotland's greatest sires. Mares and fillies all bred in Scotland to the best and I will sell them cheap.

am offering these at just one half less than other importers are asking for theirs. For full particulars write **DUGALD ROSS, Streetsville, Ontario.**

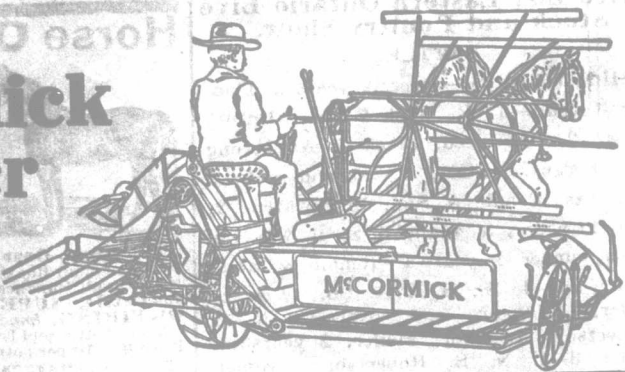
## CLYDESDALES

Imp. Stallions and Fillies. The get of such nobles as Baron's Pride, Prince Alexander, Moncrieffe Marquis, The Dean, Montrose Mac and Battle Ace; they combine size and quality, their breeding is unsurpassed, and I will sell them cheap. **GEO. G. STEWART, Howick, Que.** Long-distance Phone.

**For Sale** Two choice imported Clydesdale Stallions, rising four and five years—one 2,100 lbs. Both choicely bred, sound and sure getters. **Wm. Mahoney, Russell, Ontario**



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It is made in either right or left hand cut.

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And it's pretty hard to say which is better

When we first put out the NEW FROST LOCK, we considered it an improvement over any other lock in the world. Privately, we still think so. But some of our old customers tell us they want FROST WEDGE LOCKS on the fences they are ordering. It's like trying to decide which is better—Holstein or Ayrshire cows.

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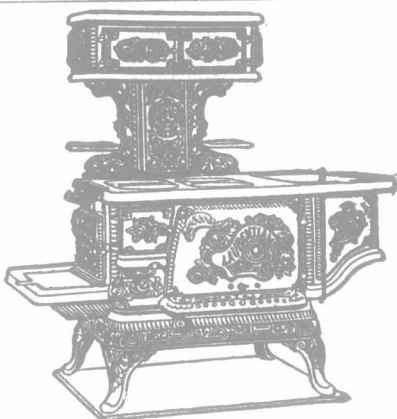
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(Continued from page 477.)

under 9-1 and 3, R. Reid & Co.; 2, W. H. & A. H. McNish, Lynn Barrow, under 6 months-1 and 2, Reid & Co.; 3, McNish. Sow, 6 months and under 9-1, McNish; 2, 3 and 4, Reid & Co. Sow, under 6 months-1, 2 and 4, Reid & Co.; 3, McNish.

**EXPORT BACON HOGS.**—Three pure-breds-1, 3 and 5, J. E. Brethour; 2 and 4, Featherston & Son. Three grades or crosses-1 and 5, Featherston & Son; 2 and 3, Brethour. Three best export bacon hogs-1, J. E. Brethour.

**GRADE OR CROSS.**—Barrow, 6 months and under 9-1 and 2, Featherston & Son; 3 and 4, Brethour. Barrow, under 6 months-1 and 3, Brethour; 4, Featherston & Son; 2 and 5, McNish.

### BACON HOG CARCASSES.

**PURE-BREDS.**—1 and 5, J. Featherston & Son; 2 and 3, J. E. Brethour; 4, R. Reid & Co.; 6, J. A. Richardson.

**GRADES.**—1 and 3, J. Featherston & Son; 2 and 4, J. E. Brethour; 5, R. Clark, Ottawa.

Sweepstakes—J. Featherston & Son.

### SHEEP CARCASSES.

**COTSWOLDS.**—1, S. J. Lyons; 2, W. E. Wright; 3, A. G. H. Luxton.

**LINCOLNS.**—1, L. Parkinson; 2 and 3, Shortreed, Black & Armstrong Co.

**LEICESTERS.**—1, A. W. Smith; 2, A. G. H. Luxton.

**SOUTH-DOWNS.**—1, J. Jackson & Son.

**DORSETS.**—1, A. G. H. Luxton.

**SUFFOLKS.**—1, J. Bowman.

**GRADES.**—1, A. W. Smith; 2 and 3, A. G. H. Luxton.

### BEEF CATTLE CARCASSES.

**PURE-BREDS.**—1, 2 and 3, Shortreed, Black & Armstrong Co.

**GRADES.**—1, 2 and 3, Shortreed, Black & Armstrong Co.

### DAIRY TEST.

**SHORTHORNS.**—Cow 42 months and over-1, R. Reid & Co. Heifer under 42 months-1, A. H. Foster; 2, E. Baker, Winchester.

**AYRSHIRES.**—Cow 42 months and over-1 and 2, J. G. Clark; 3, R. Clark. Heifer under 42 months-1, J. G. Clark.

**HOLSTEINS.**—Cow 42 months and over-1, 2 and 3, Neil Sangster, Ormstown, Q. Heifer under 42 months-1 and 2, Neil Sangster; 3 and 4, R. Reid & Co.

**JERSEY OR GUERNSEY.**—Cow 42 months and over-1 and 2, S. J. Lyons. Heifer under 42 months-1, S. J. Lyons.

**GRADES.**—Cow 42 months and over-1, Neil Sangster; 2, T. A. Spratt; 3 and 4, R. Reid & Co.; 5, S. J. Lyons.

Heifer under 42 months-1, R. Reid & Co.

Holstein special for cow 42 months and over-1, 2 and 3, Neil Sangster.

Holstein special for heifer 42 months-1 and 2, Neil Sangster; 3 and 4, R. Reid & Co.

### GOSSIP.

"There is nothing better than to master anger." This is a wise saying, for pain follows anger, as it does when one has been scorched with fire.—Sayings of Buddha.

A registered Clydesdale stallion, rising two years, in good growing condition, sired by Imp. Pearl of Burnhead [2743], is advertised for sale by Jos. W. Holman, of Columbus, Ont., near Myrtle Station (C. P. R.), and Brooklyn or Oshawa (G. T. R.).

We call the attention of our readers to the advertisement of Mr. W. Houlton, Broadfield Farm, Northleach, Gloucester, England. Mr. Houlton is a breeder of Cotswold sheep. He has won prizes at the Royal, Bath and West of England shows, and, in fact, is one of the leading exhibitors of the breed in the Old Land to day. He was the breeder of some of the prizewinning stuff at the St. Louis Exposition, and is thus in a position to supply the Canadian and American public with really first-class animals of that breed. Further particulars may be had direct, or on application to Mr. S. Houlton, of the well-known real estate firm of Benson & Houlton, Calgary, Alberta, Canada.

### Difficulty in Churning.

When butter "won't come" there is serious trouble, and oftentimes when it does come, there is more trouble because it "won't gather." Away back in the old days of superstition, witches were blamed for the trouble. The witch theory is now too ridiculous for serious discussion, and yet how many who have difficulty in churning are aware of the real cause. In this article we propose to set forth the real cause, and to point out a sure remedy, and they who allow prejudice to stand in their way in the matter are little better than they of old who refused to discard the witch theory.

The cause of the trouble is the imperfect assimilation of winter food by the cows. The cause of the imperfect assimilation is the lack of aroma and flavor in the food. In the spring, Nature overcomes the difficulty by supplying this aroma and flavor in the tender grass and blossoming plants of the pasture. Spring pasture is Nature's cure. Herbageum, when fed regularly, overcomes the difficulty in the same way that Nature overcomes it. It supplies the flavor and aroma that is necessary for the perfect assimilation of the winter food, and with perfect assimilation there can be no difficulty about the coming or the gathering of butter. We could give many testimonials in support of the foregoing, but we prefer that any readers who have trouble with their churning would try one package of Herbageum, feeding it according to directions, and note the results, not only in overcoming the difficulty in churning, but also note the increase in the quantity of milk.

### LANDSCAPE GARDENING

Plans for Parks, Cemeteries, Public and Private Pleasure Grounds made by Chas. Ernest Woolverton, Landscape Gardener, GRIMSBY, ONT.

Drawings made to a scale, so that any gardener may carry them out. Correspondence solicited.

### ABERDEEN-ANGUS

Females; all ages, with calves at foot and safe in calf again. All bred by the leading sires and dams. Correspondence invited.

GEO. DAVIS & SONS, Glengore Stock Farm, Aiton P.O. and Station, C. P. R.

Aberdeen-Angus cattle and Chester White Hogs. Principal prizewinners at Ottawa and Sherbrooke. Breeding stock and young things for sale. Write for prices. A. G. SPAFFORD, Compton, Que.

### ABERDEEN ANGUS CATTLE

For sale: a few good females of all ages, by imp. bull. Will sell right.

WALTER HALL, Washington, Ontario, Drumbo Station.

### FIVE NICE, SMOOTH HEREFORD BULLS FOR SALE.

Two about 16 months and three from 8 to 10 months old. Priced right to do business.

W. BENNETT, Chatham, Ont. Box 428.

### ONTARIO'S LARGEST AND FINEST HERD OF HEREFORDS.

We sell our beauties to breeders all over Canada, because we sell our stock at much below their value. Come with the rest and get some of the bargains in 35 bulls a year old and over, 35 heifers and 30 cows, or write to have us save you some. (Farm inside the corporation of the town.) A. S. HUNTER, Durham, Ont.

### THE SUNNYSIDE HEREFORDS

Twelve high-class bull calves and 4 yearling and 2-year-old bull, we will place at a price that will move them quick. Some choice cows and heifers are yet left for sale.

Address: A. F. O'NEIL, Maple Grove P.O. or M. H. O'NEIL, Southgate P.O. Elderton Sta., L. H. & B.; Lucan Sta., G. T.

### BROXWOOD HEREFORDS

I have one bull 20 months old for sale; also two beautiful bull calves, all from imported dams and sires. Will exchange calves for first-class registered heifer calves. All entered in the A. H. R. and C. H. H. B.

R. J. Penhall Nober P. O., Ont.

### HEREFORDS

We are now offering a few thick, smooth young bulls and a number of females—a low-down, even, beefy lot. If in want of something—extra good, correspond with us. We can please you. J. A. LOYERING, Coldwater P.O. and Sta.

GREAT CLEARING SALE

OF IMPORTED AND HOME-BRED

Shorthorns and CLYDESDALES

W. J. SHEAN & CO., Props., Rosevale Stock Farm, Owen Sound, Ont., will offer for sale on

WEDNESDAY, APRIL 4th, 1906,

Their entire herd of Scotch Shorthorns and imported and home-bred Clydesdales. All Shorthorn females of breeding age have been bred to or have calves at foot by the great imported stock bull Derby.

Catalogues forwarded on application.

W. J. SHEAN & CO. Owen Sound, Ont. Box 856.

QUEBEC HERD SHORTHORNS

FOR SALE BY AUCTION.

C. G. HANSON, of Coaticook, Que., will sell by public auction, at his farm, near Coaticook, on the Portland Division of the G. T. R., on

WEDNESDAY, MARCH 28th, 1906,

His entire herd of Registered Shorthorn Cattle, 15 head of that grand old Lavinia strain. Also a lot of grade cattle and 10 horses, including three registered Clydesdale fillies, by Macqueen. The above stock will be sold positively without reserve, as the farm is let. Conveyances will meet morning and noon trains on day of sale. Sale commences at 1 o'clock.

Terms: One year's credit on approved notes, at 6 per cent.

EDWIN HOWE, Auctioneer.

C. G. HANSON, Prop., Coaticook, Que.

FARM LABORERS

Farmers desiring help for the coming season should apply at once to the Government Free Farm Labor Bureau. Write for application form to

Thos. Southworth Director of Colonization, Toronto.

SHORTHORNS & CLYDESDALES FOR SALE

Bull in service: Scotland's Fame = 47897 =, by Nonpareil Archer (Imp.) (81778) = 45202 =, dam Flora 51st (Imp.), (Vol. 19.) Present offerings: Two heifers rising 1 year old, two bulls rising 1 year old; also young cows and heifers of good quality and breeding mostly well gone with calf. Also stallion rising 1 year old, sired by the well-known Macqueen, dam from imported sire and dam, and one filly rising one year, sired by King's Crest (Imp.). Will sell at a bargain if taken soon.

LAKEVIEW SHORTHORNS.

Spicy King (Imp.) at head of herd. Young bulls for sale reasonably. For prices, etc., apply to

THOS. ALLIN & BROS., Oshawa, Ont.

High-class Shorthorns—We are now offering 5 young bulls and 3 heifers, two, three and four years of age. Maribolds the eldest, a daughter of Imp. Royal Member, has a calf at foot by Sailor Champion. This is an extra good lot.

THOS. REDMOND, Millbrook P.O. and Stn.

PROSPECT STOCK FARM. For sale: 4 Shorthorn Bulls, including Gold Mine (Imp. in dam), also some choice young females. Stations: Cooksville and Streetsville, C.P.R.; Brampton, G.T.R. Peel Co. F. A. Gardner, Britannia, Ont. o

Oak Grove Shorthorns—Present offering: Several Imp. cows, heifers and young bulls, all sired by Imp. Nonpareil Duke and out of Imp. dams; also the stock bull, Imp. Nonpareil Duke, a choice offering. Prices right. W. J. ISAAC, Cobourg Station, Harwood P. O.

SCOTCH SHORTHORNS FOR SALE Two young bulls 19 and 16 months old, both royally bred; also fifteen heifers and cows, most of them in calf to a son of Lord Gloucester, No. 26995. DR. T. S. SPROULE, CHESTNUT FARM, Markdale P.O. and Station

Advertisement in the Advocate

Scotch Shorthorns

HOLLYMOUNT STOCK FARM

Young bulls and heifers from imported sires and dams for sale at reasonable prices. For particulars, write to

W. J. THOMPSON, Mitchell, Ont.

Spring Grove Stock Farm Shorthorn Cattle and Lincoln Sheep

First herd prize and sweepstakes Toronto Exhibition, 2 years in succession. Head headed by the imported Duthie-bred bull, Rosy Morning, and White Hall Ramdam. Present crop of calves sired by Imp. Prince Sunbeam, 1st, Toronto, 1905. High-class Shorthorns of all ages for sale. Also prize-winning Lincolns. Apply

T. E. ROBSON, Iderton, Ont.

MAITLAND BANK SHORTHORNS.

Imp. Broadhocks Prince 55003 at head of herd. Five young bulls and a number of females, got by Imp. bull, and some of them out of Imp. cows, all of choice Scotch breeding, for sale at lowest prices for quick sale.

DAVID MILNE, ETHEL, ONT.

ELM GROVE SHORTHORNS

We have for sale some good young cows and heifers, of the Fashion and Belle Forest families, in calf to Scottish Rex (Imp.) or Village Earl (Imp.), our present herd bull. For prices and particulars address

W. G. SANDERS & SON, Box 1133, St. Thomas, Ont.

Shorthorns and Yorkshires—A few good Yorkshire pigs, either sex, from Imp. sire and dam. Also a few young Shorthorns, at reasonable prices. W. J. MITTON, Thamesville Sta. & P.O. Maple Park Farm.

EVERGREEN Scotch-Topped Shorthorns STOCK FARM Young stock of either sex by Imp. sire at reasonable prices. For particulars write to DONALD McQUEEN, Landertin P.O. Mount Forest Sta. and Telegraph.

Sunnyside Stock Farm—8 superior young Shorthorn bulls for sale. All from Imp. bulls, four from Imp. cows. Good enough to place at head of any herd. Apply JAMES GIBB, Brookdale P.O. and Telephone.

GOSSIP.

The Glenhudson Company, Myrtle, Ont., write: We have enjoyed a splendid trade in Yorkshire pigs from the many enquiries coming in answer to the advt. We are completely sold out of boars, but have a nice lot of sows from four to eight months old, and can fill a good many orders yet. Our entire stock have come through the winter in splendid shape.

D. Milne, Ethel, Ont., reports the following recent sales of Shorthorns: To Edmund Tonnison, Waubano, Ont., the young bull, Gloster Prince; to James Thomson, Owen Sound, Canadian Victor, also the cow, Bessie Lee, a right good show cow—has always been a winner; to James Thompson, Henfryn, the young bull, Scottish Hero, of the best breeding, and from a good-milking dam. Still have four good young bulls for sale.

CARGILL SHORTHORNS.

Seldom, if ever, has it been the privilege of "The Farmer's Advocate" road representative to have a look over a herd of Shorthorns equal, either from the fashionable-pedigree standpoint or from high-class individuality, to the Cargill herd, numbering at the present time 175 head all told, with about 92 imported breeding cows, representing everything in the line of blood, families or strains that have made Scotch Shorthorns famous the world over, and the get of Scotland's most noted modern sires—an aggregation of Shorthorns that will stand favorable comparison with any herd in the world, representing an immense amount of money. Yet there they are, a living testimonial of the unbounded faith Mr. Cargill has in the country of his birth, a herd that has done and will still do untold benefit for the live-stock interests of Canada. The present stock bulls are: Golden Drop Victor, bred by Wm. Duthie, sired by Nonpareil Victor, by Count Victor, by Count Lavender, representing on his dam's side the three noted strains, Nonpareil, Victoria and Lavender, dam Golden Drop 11th, by Emancipator, by Dauntless; Lord Mistletoe, bred by Duthie, sired by Lovat Champion, by Royal Star, representing on his sire's side the Victoria, Roan Lady and Butternut strains, dam Mistletoe 3rd, by Dauntless, by Feudal Chief, grandam Missie 118, by William of Orange; Merchantman, bred by Duthie, sired by Lovat Champion, dam Mistletoe 4th, by Scottish Archer, grandam Missie 134, by William of Orange. Three bulls whose breeding is not excelled in any herd in the world, and whose individuality leaves mighty little to be desired, while as sires, the success of their get in Toronto and other show-rings show them to be at the top. In the stables at present are about 27 yearling heifers, the equal of which we never saw together, the get of the three stock bulls and Imp. Diamond Rex, Imp. Baron Beaufort, Imp. Count Douglas, Imp. Lavender Star, and Imp. Choice Koral, and all out of imported dams, many of them show heifers of a very high order, while the two and three-year-olds are equally as good. In young bulls, there are on hand about 12, running along about one year of age, out of imported dams, and sired by the above mentioned bulls, an exceptionally nice lot, the making of high-class herd headers, as they show that low-down, thick, beefy, mellow-handling, early-maturing type so eagerly sought after, and being so very fashionably bred they certainly are possessed of all the necessary qualifications that go to make the ideal Shorthorn. Mr. Cargill informed us that the demand for high-class Shorthorns during the past year was decidedly the best they ever experienced. The whole herd, under the skillful care and master hand of Mr. John Clancy, the manager, is in fine condition, reflecting great credit on his management. Mr. Cargill's new catalogue, just out, is gotten up in tabulated form, the first we have ever seen of a Canadian Shorthorn herd, which is a great convenience to intending purchasers, as they can see at a glance the breeding of both sire and dam for five generations back. Parties looking for first-class Shorthorns should look up the advertisement, and write for the catalogue, or, better, call and see the herd.



Good Calves and Poor Ones

You can't grow a big bodied, productive cow or a large fat steer from a calf that won't eat. If you supply sufficient and proper ration, Dr. Hess Stock Food in substantial doses, will do the rest. It gives hearty appetites, and perfect digestion, so that the calf takes on increased growth and is kept free from disease.

DR. HESS STOCK FOOD

Makes your stock healthy and hungry—and what they eat Dr. Hess Stock Food compels them to digest and puts proper use. It is the prescription of Dr. Hess (M.D., D.V.M.), combining tonic for the digestion, iron for the blood, stimulants to excite performance and vitality from the system, and a laxative to regulate the bowels. The ingredients of Dr. Hess Stock Food have the endorsement of the Veterinary Colleges and the Farm Papers, recognized as a medicinal tonic and laxative by our own Government, and sold on a written guarantee at

75 per lb. in 100 lb. casks \$7.50, per \$2.00 smaller quantities at slight advance. Daily sold.

A tablespoonful per day for the average lot. Less than a penny a day for horse, cow or steer. If your dealer cannot supply you, we will.

DR. HESS & CLARK, Ashland, Ohio, U.S.A. Also Manufacturers of Dr. Hess' Family Food and Infant Lactogen.

IMPORTED SCOTCH SHORTHORNS

THREE imported bulls of the best breeding. Good individuals. Good colors. From 9 to 20 months old. Fifteen imported cows and heifers, with calves at foot, for sale.

Also five choice Canadian-bred bulls, mostly from imported stock, from 10 to 18 months old.

A choice selection of Canadian bred cows and heifers from superior families.

H. J. DAVIS, Importer and breeder of Shorthorns and Yorkshires, G.P.R. Woodstock, Ont. G.T.R.

12 Shorthorn Bulls

Choice Scotch bred, for sale at moderate prices. For particulars, apply to J. & W. RUSSELL, Richmond Hill, Ont. Young St. trolley car from Union Station, Toronto, passes the farm.

GLOVER LEA STOCK FARM SHORTHORNS

We are offering at present, two real choice roan bulls from Imp. sires, just ready for service; also one show heifer, 11 months. These are choice animals and are offered at reasonable prices. When you see them, if they are not as represented, we will pay the expense of your trip. Will meet you at Ripley Station.

R. H. REID, Pine River, Ont. Ripley Sta., G.T.R.

FOR SALE—A few young bulls from a few days to six months old; cows and heifers all ages; one bull (calved in May) with Imp. British Statesman and Imp. Diamond Jubilee on top of pedigree; also Loyal Dute = 55095 = (Imp.) FITZGERALD BROS., Mount St. Louis. ELMVALE STATION, G.T.R.

SCOTCH-TOPPED SHORTHORNS.

Three young bulls, from nine to thirteen months old; also several young heifers by Scottish Baron (Imp.) for sale. Prices reasonable.

E. GOLDING & SONS, Thameford, Ont. Stations, Thameford, C.P.R.; Ingersoll, G.T.R.

Shorthorns—Heifer calves from four to eight months old. Also a few young cows in calf. Wm. E. Hermiston, Brickley P.O., Ont. Hastings Station.

# CANADIAN NORTHWEST LANDS

Raised 5,000,000 bushels of wheat ten years ago, and 100,000,000 bushels last year. Why pay rent and interest when you can buy this land for so little money and on such easy terms? Look over the following propositions, and if you do not find anything that you want, write to me, I will be glad to answer:

480 acres, 6 miles from the city of Prince Albert; frame house and barn. 140 acres ready for crop, 200 acres more splendid wheat land, 65 acres hay, balance timber. Price, \$8,000; \$4,000 cash, balance eight annual payments.

180 acres, 1 mile from station; first-class clay loam, open prairie. Price, \$2,300; \$900 cash, balance can be paid by delivering one-third of the crop grown on the land until paid for.

640 acres, 4 miles from two stations; frame house and stable, 325 acres ready for crop, 230 more open prairie, clay loam soil, 25 acres hay land. Price, \$14,000; \$3,500 cash, balance four annual payments at 6%.

330 acres, 2 miles from station; 300 acres good wheat land, balance hay. Price, \$4,200; \$2,700 cash, balance in four annual payments.

For more particulars, let me know the kind of a farm you want, and I will make you a proposition. Address:

**A. B. COOK, Regina, Saskatchewan.**

640 acres, splendid prairie, 9 miles from station; 610 acres wheat land, balance hay. Price, \$7,640; \$3,250 cash, balance in five annual payments. New railway survey within two miles.

480 acres splendid wheat land in one of the best wheat districts; 120 acres ready for crop, 320 more A1 prairie; clay loam soil, clay subsoil. Good frame house; 85 acres hay land; 4 1/2 miles from town and elevators. Price, \$2,980; \$3,000 cash, balance to suit purchaser, or one-half the crop grown on the land until paid for.

640 acres in the highest state of cultivation; 6 miles from the city of Regina, 3 1/2 miles from elevator; 500 acres ready for crop, 140 more splendid wheat land; good frame house, two frame granaries (capacity 4,500 bushels), frame stable; 160 acres fenced. Price, \$19,200; \$8,700 cash, balance to suit purchaser. Over \$8,000 worth of wheat grown and sold from this place last season.

## GOSSIP.

### BRANTFORD, ONT., THE HOME OF THE TELEPHONE.

Any doubt as to the home of the telephone was set at rest at the annual banquet of the Brantford Board of Trade, March 9th, by Prof. Alexander Graham Bell, the inventor himself, who, in reply to a toast, stated the following interesting facts: In his introductory remarks he said that to Brantford he owed his life. All of his brothers had died in the Old Land, and that, given only six months to live by the physicians, he had come to this country in 1847 with his parents. He had come here to die, but had developed into a healthy specimen of manhood.

Removed from all associations with the phone for many years past, Mr. Bell said he had almost forgotten that he was the inventor of it. The speeches of the evening, however, had refreshed his memory, and he proposed to give the assembly the exact facts of the invention, now told, probably, for the first time. In detail he then entered into a consideration of the invention under two heads: First, the birth of the idea of the phone, and, second, the development of the invention and the first actual test.

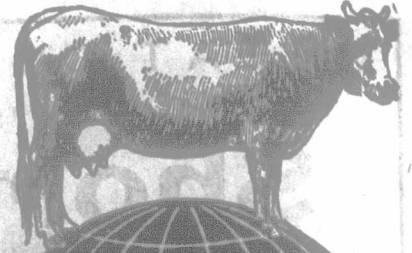
In 1874, Mr. Bell, then residing in Boston, Mass., came to Brantford to visit his father. He had been studying the science of sounds for the teaching of deaf and dumb, and on this occasion brought with him a human ear, which had been taken from a dead person. One day, in examining the ear for special discoveries of the effect of sound, on it he noticed that when he spoke certain bones in the ear seemed to vibrate. The air currents caused by speech set the membrane of the ear in action, and in turn the bones moved as if in the transmission of sound. The process proved interesting to Mr. Bell, and he made further tests. He placed a straw behind the bones, and, laying the ear on a piece of smoked glass, continued to speak into the member. He found that the movements of the bones and straw recorded peculiar marks on the smoked glass, varying in size and shape, according to the tone and volume of voice. Pondering over the experiment, he conceived the idea that if sound vibrating on a thin membrane would cause the heavy bones of the ear to move and apparently record the sound, why could it not be possible to get a heavy membrane to cause iron to vibrate before a magnet, with the same resultant effect in the recording and transmission of sound.

"Out of this thought," said Prof. Bell, "instantly came the conception of the telephone. I conceived that idea in Brantford," he continued. It came as a flash, and Brantford is, therefore, the birthplace of the telephone. Two years passed, during which Mr. Bell had considerable difficulty in practically carrying out his conception. He returned to Boston, where he secured instruments of one kind and another, but it was not until the summer of 1876 that the first actual transmission of speech was made, the first in the history of the world.

It took place over the telegraph wires of the Dominion Company, extending from Brantford to Mount Pleasant, a distance of five miles. Mr. Bell was at the Mount Pleasant, or receiving, end of the wire, the messages being transmitted only one way, as the instruments would not permit of reciprocal service. A given time was fixed when his uncle should speak into the transmitter at Brantford. At the receiving end, Bell waited patiently, and when the time came he heard quite distinctly his uncle's voice five miles distant, the first words being, "To be or not to be." It was a case of to be, the speaker remarked amid applause. Other similar tests followed in various parts, and the inventor then gave his attention to perfecting the invention. This was done in the States.

But Brantford's claim cannot be disputed," he continued. The idea of the phone had its birth in Brantford, and the first actual transmission of speech in the history of the world took place from Brantford. Essentially, therefore, Brantford is the home of the telephone.

Flying Machines are Coming. In closing, Mr. Bell turned to another line of invention, on which he is now working, that of the flying machine. He (Continued on next page.)



# KOW KURE

Not a food, but a REMEDY. A specific remedy for specific troubles. Made for cows only. A most valuable aid to dairymen. KOW KURE has a distinct medicinal value possessed by no other known compound, which makes it the greatest cow remedy on earth. It cures sick cows; it keeps healthy cows well and increases their productive power when fed regularly according to directions. KOW-KURE acts directly on the digestive and generative organs, tones up the entire system and is an unequalled disease preventive—a positive cure for BARRENNESS, ABORTION, SCOURS, RED WATER, BUNCHES, LOST APPETITE, MILK FEVER and RETAINED AFTERBIRTH.

Ridott, Illinois, "I have used Kow-Kure for three or four years. With it alone I have cured all ailments that afflict cows. As a milk producer it has no equal." G. F. Lanterman. We have thousands of similar endorsements. A trial will convince you. If your dealer cannot supply you write us direct. Send for free booklet, "The Cost of a Lost Cow." It contains money-making information for every cow owner. You can't afford to be without it—remember it's free. Write for it today. DAIRY ASSOCIATION CO., Mfrs. Lyndonville, Vt., U. S. A.

## GREENGILL HERD

of high-class SHORTHORNS

We offer for sale 12 bull calves, 2 yearling bulls, a number of them from imported sire and dam; also high-class females, all ages, either imported or Canadian-bred. The herd is headed by (Imp.) Lord Roseberry.

R. MITCHELL & SONS, Nelson P.O., Ont.; Burlington Junc. Sta.

## HILLVIEW STOCK FARM

SHORTHORNS, CLYDESDALES and COTSWOLDS. Present offerings: Choice young bulls and heifers. Also a few good young cows. Apply to JOHN E. DISNEY & SON, Greenwood, Ont. STATIONS: Claremont, C.P.R.; Pickering, G.T.R.; Brooklyn, G.T.R.

## 1864 + HILLHURST FARM + 1868 SHORTHORN CATTLE

Herd of thirty. Stock bull: Scottish Archer (50685), Missie 134th, by William of Orange. Prince Horace, bred by W. S. Marr. Butterfly 46th (Sittytou Butterfly).

JAS. A. COCHRANE, Compton, P. Q.

## GLENAVON STOCK FARM

Shorthorns and Berkshires. Will be sold cheap if sold before the 1st of April, the following: 3 bulls (Shorthorns) and one Berkshire boar. W. B. ROBERTS, Sparta P. O. Sta.: St. Thomas, C.P.R., M.C.R., G.T.R.

## BONNIE BURN STOCK FARM

Offers Scotch and Scotch-topped bulls, cows and heifers, 50 Shropshire rams and ewes, and Berkshire pigs, from imp. dams and sires, not akin. A bargain for quick sale. D. H. RUSSELL, Stouffville, Ont.

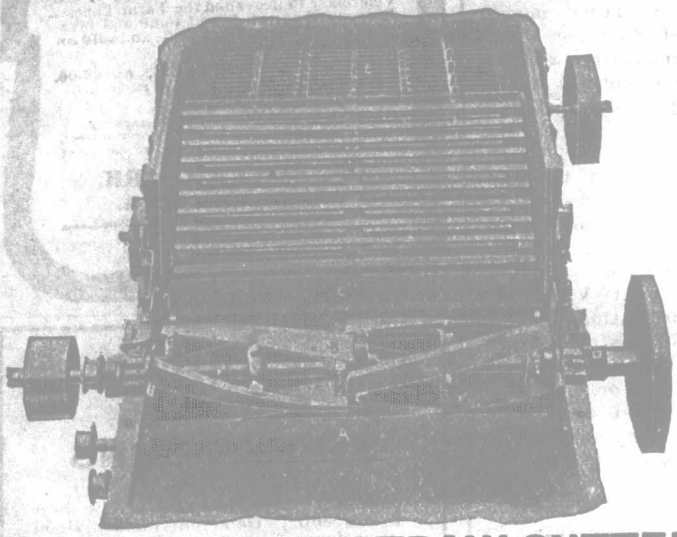
## Willow Bank Stock Farm | Established 1866

Shorthorn Cattle, Leicester Sheep. Imp. Rosierucian of Dalmeny - 45220 - at head of herd. Choice young stock for sale. JAMES DOUGLAS, Caledonia, Ont.

## MAPLE HILL SCOTCH SHORTHORNS STOCK FARM

of best families. Herd headed by the grandly-bred Lavender bull, Wanderer's Star - 45886. A few choice young bulls. Box 426. WM. R. ELLIOTT & SONS, Guelph, Ont.

## CUT YOUR STRAW WHEN YOU THRESH



Yes, by all means do so, but thresh it first, don't cut it first and then thresh—the cut straw cannot mix with the kernels of grain if the grain is separated from the straw before the straw is cut.

### THE STEWART STRAW CUTTER

does its work after the grain has been separated from the straw. Farmers generally think it better to have the grain separated from the straw—long or short—and that's why they put it through a separator, don't you know! Examine the Stewart Straw Cutter system, or ask a farmer who has used one.

THE STEWART STRAW CUTTER MFG. CO. Room 19 Aberdeen Chambers, TORONTO. W. E. ROTHWELL, Manager.

## J. Watt & Son 6 Shorthorn Bulls 6 SHORTHORNS

Have still two very nice bull calves for sale; also a number of good young cows and heifers in calf or with calves at foot, of the most up-to-date pedigrees. SALEM P.O., Elora Stations, G.T.R. and C.P.R.

## SHORTHORN BULLS and HEIFERS

Sired by the Scotch bull, Scottish Lad 45061 FOR SALE. S. DYMENT, Barrie, Ontario.

CHAS. RANKIN, Wyebridge, Ont. Importer and Breeder of SHORTHORN CATTLE and OXFORD DOWN SHEEP. Herd headed by Pride of Scotland (imp.). FOR SALE—Females and bulls, of all ages from noted Scotch families.

## HURON HERD OF HIGH-CLASS SHORTHORNS

The great stock bull, Imp. Broadhocks Golden Fame, at head of herd. Young bulls and females at low prices. A. H. JACOBS, Blyth, Ont.

Glen Gow Shorthorns—Our present offering is 9 bulls, from 6 to 14 months of age, sired by Imp. Ben Loman and Imp. Joy of Morning, and out of imp. and Canadian-bred cows. Also a number of very choice heifers. No fancy prices asked. Long-distance telephons. WM. SMITH, Columbus, P.O. Brooklin and Myrtle Stns.

## S. J. PEARSON, SON & CO., Meadowvale, Ont. Stations: Streetsville and Meadowvale, C. P. R.

## BELMAR PARC SHORTHORNS

10 bull calves. 16 heifers under two years. All of the choicest breeding and practically all of show-yard quality. You can buy anything in the herd at a reasonable figure. JOHN DOUGLAS, PETER WHITE, JR., Manager. Pembroke, Ont.

## PLEASANT VALLEY SHORTHORNS

Herd headed by imp. Old Lancaster = 50068 = Grand champion, Toronto, 1905, and consisting of females of the leading Scotch families; can spare a few young cows bred to imp. Old Lancaster. GEO. AMOS & SON, Moffat Stn. and P.O., C.P.R.

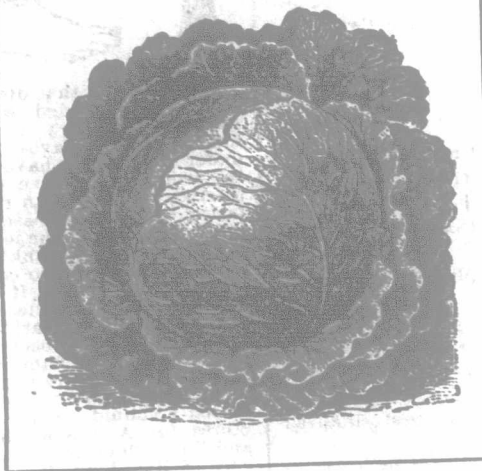
## SHORTHORNS CLYDESDALES

Imp. Keith Baron 35050. Six young bulls from 10 to 18 months old. A lot of 2-year-old heifers in calf and a few young cows. A bunch of heifer calves, cheap. Just now: One pair of matched geldings 5 and 6 years old; show team. JAS. McARTHUR, Goble's, Ont.

Brown Lee Shorthorns—Present offering is 3 young bulls from 9 to 15 months old, a nice straight, good-doing lot, sired by Blenheim Stamp; also females of all ages, daughters of Imp. Sir Christopher and Imp. Beecamp. Prices very reasonable. DOUGLAS BROWN, Ayr P.O. and Station.

# SEEDS

## At Half Price and Less



**FIVE-CENT PACKAGES** of any of the following varieties for..... 24

- Asparagus, large white, ounce, 30c., for..... 10
- Beans, Bush, yellow pod, green pod, or Lima, lb., 35c., for..... 18
- Beans, Pole, yellow or green pod, lb., 35c., for..... 18
- Beets, early round or long, blood, ounce, 20c., for..... 10
- Cabbage, first early, second early, or main crop, ounce, 30c., for..... 15
- Cauliflower, standard ounce, \$1.50, for..... 75
- Carrots, table, early short, intermediate or long garden, ounce, 20c., for..... 10
- Carrots, large white for stock, 1 lb., 25c., for..... 15
- Celery, early fall or winter, ounce, 30c., for..... 30
- Citron, preserving, ounce, 20c., for..... 10
- Corn, table, extra early, medium early or late, lb., 35c., for..... 18
- Corn, for popping, lb., 30c., for..... 15
- Cress, (Peppercress), ounce, 30c., for..... 10
- Cucumber, pickling or slicing, ounce, 25c., for..... 15
- Kale, curled, ounce, 35c., for..... 15
- Lettuce, Butterhead, Crisphead, Cos (upright), ounce, 25c., for..... 15
- Leek, largest, ounce, 35c., for..... 15
- Mangel, large red or yellow, lb., 35c., for..... 20
- Musk Melon, green or salmon flesh, ounce, 30c., for..... 15

### GRASS SEED.

For Lawns, with or without Dutch Clover, lb., 35c., for..... 25

### FLOWER SEEDS.

**FIVE-CENT PACKAGES** of any of the following varieties for..... 24

- Alyssum, Sweet, Larkspur.
- Antirrhinum (Snapdragon), Marigold.
- Asters, mixed, Lobelia, trailing.
- Asters, crimson, Pansy.
- Asters, white, Petunia.
- Balsam, Petunia.
- Balloon Vine (Cardiospermum), Poppy.
- Bachelor's Button (Centaurea), Canterbury Bells (Campanula).
- Candytuft, Portulaca.
- Castor Oil Bean (Ricinus), Carnation.
- Canary Creeper, Stocks, ten weeks.
- Carnation, Sweet William.
- Coxcomb (Celosia), Salvia.
- Climbers, mixed, Scarlet Runner.
- Chrysanthemum, Scabiosa.
- Cypress Vine (Ipomoea), Dianthus Pink, single.
- Dianthus Pink, double, Evening Primrose (Oenothera).
- Everlastings, Verbena.
- Four-o'clock (Marvel of Peru), Forget-Me-Not (Myosotis).
- Gaillardia, Zinnia.
- Godehia, Wild Garden.
- Gourds, Heliotrope.
- Helianthus (Sunflower), Ice Plant.
- Musk Plant (Mimulus), Morning Glory (Convolvulus).
- Phlox Drummondii, Sensitive Plant (Mimosa).
- Scabiosa (Mourning Bride), Tassel Flower (Cacalia).

### ONION SEED.

- Onions, early red, large yellow or white, or pickling, ounce, 30c., for..... 15
- Onion Sets, quart, 35c., for..... 25
- Parsley, curled, ounce, 20c., for..... 10
- Parsnips, table, ounce, 15c., for..... 10
- Pepper, scarlet, 1/2 ounce, 25c., for..... 15
- Peas, early dwarf, second early or late Marrowfat, lb 35c., for..... 18
- Pumpkin, pie, ounce, 20c., for..... 10
- Radish, early round, long or winter, ounce, 20c., for..... 10
- Rhubarb, pie, ounce, 35c., for..... 15
- Salisfy, oyster plant, ounce, 25c., for..... 15
- Squash, early marrow or winter, ounce, 20c., for..... 10
- Spinach, for greens, ounce, 15c., for..... 10
- Sugar Beet, large rose, for cattle, lb., 35c., for..... 20
- Tobacco, large leaf, ounce, 50c., for..... 30
- Tomato, extra early, large medium early, or small preserving, ounce, 35c., for..... 20
- Turnips, white table, yellow or table Swede, ounce, 15c., for..... 10
- Turnip, large field Swede or early feeding, lb., 35c., for..... 25
- Watermelon, early large, ounce, 20c., for..... 10
- Sage, broad leaf, ounce, 25c., for..... 15
- Summer Savory, ounce 25c., for..... 15

### NASTURTIUM.

Tall Climbing or Dwarf, ounce, 20c., for..... 10

### SWEET PEAS.

Over 100 sorts mixed, ounce, 15c., for..... 10

**MARK SORTS WANTED**—Cut out this advt., send cash with order, and you will receive the seeds promptly. Free by parcel post.

MONEY REFUNDED IF NOT SATISFACTORY.

Name.....  
P. O.....  
Amount.....  
Prov.....

### Wm. Rennie Co., Ltd., TORONTO.

## Saskatchewan Farm Lands.

12,000 Acres Prairie Lands for Sale on Easy Terms.

**One of Our Bargains.**—Improved farm, 640 acres; six miles from Regina; two miles from four elevators; 500 acres under cultivation. No waste land. New buildings worth \$3,000. Wells. Fencing. \$6,000 cash handles it. Price and terms easy. This is absolutely the best proposition on the market.  
Clark & Sobott, Regina, Sask.

**NOTICE.** When writing advertisers please mention the Farmer's Advocate.

### GOSSIP.

(Continued from page 480.)

declared that a machine had already been invented that would fly 24 miles in 38 minutes. In the near future the invention would be perfected, and before long, he added, flying machines would be as common as telephones are at the present time. These machines would be particularly valuable and dangerous for use in warfare.

It is not often that an opportunity is given to our readers to get in touch with one of the largest poultry breeders in England, and on another page will be found the advt. of James Houlton, Great Malvern, England. Mr. Houlton makes a specialty of the Wyandottes, and always has on hand the very finest prize-winning specimens of this popular utility breed. Canadian flocks would stand the importation of new blood. Look up this advt. and seriously consider the idea of breeding up your flock by importing some high-class birds.

### A SHORTHORN AND CLYDESDALE DISPERSION.

On another page in this issue will be found the announcement of the dispersion sale by auction, on April 4th, of the entire herd of imported and home-bred Shorthorn cattle belonging to Messrs. W. J. Shean & Co., of Rosevale Stock Farm, Owen Sound, Ont., also of imported and home-bred Clydesdales. The young Shorthorns are principally the progeny of the noted imported Scotch-bred bull, Derby = 32059, of the Sittytton Secret family, and the females of breeding age are either bred to or have calved at foot by that excellent sire. Catalogues may be had on application.

Mr. L. Hooley, Powles' Corners, Ont., writes: "Having had a remarkably good season's sales, I have disposed of all my breeding stock of Yorkshires, except two imp-in-dam sows in farrow, due in June. These are of A1 breeding and choice quality. Also have a litter of choice young pigs that will be fit to ship in April, got by the show boar, Oak Lodge Nobleman 15th, and from the typical show sow, Emsdale Type. This pair weigh about 1,300 lbs. Orders for these pigs will be promptly attended to. Next to farrow is that typical imported sow, Dalmeny Beauty 4th, now in farrow to Orchard Home King, a nephew to Summer Hill Victor 6th, that sold for \$700."

Mr. Robert McEwen, Byron, Ont., writes: "Southdowns are growing in popularity as breeders of sheep here make themselves better acquainted with their grand mutton qualities, and, as surely as in other countries, the taste of the people in this country will gradually become more discriminating in the sort of mutton served on their tables; whereas now many of the choicest mutton carcasses go to supply the demand of the best American hotels. The day is not far off when Canadians will put up the price to keep them at home. This will extend the market for Southdowns, and encourage the use of rams of this breed for crossing purposes. Recent sales from our flock have been: Fifteen ewes to R. & H. Scoville, Ct.; 2 shearling rams to Belding Hall Manig. Co., Mich.; 2 ewe lambs to W. A. McCoy, Pa.; 2 ewes to J. D. Dupuis, Sompra; 4 ewes to H. Shore, Byron; imported ram and 6 ewes to C. Choate, Ingersoll, and 6 ewes to W. H. Smith, Barrie.

Collies, good-looking ones, with brains, the sort that can be depended on to bring the cows while the boy is away at school, continue in demand beyond expectations. This situation I am endeavoring to meet by fresh importations. This week, by the Tritonia, I am getting out the high-class dog, Holyrood Clinker, sired by Seaham Clinker, a son of Champion Wishaw Clinker, and his dam is Alice Rightaway, by Champion Rightaway. This dog is bound to make a reputation as a sire, and become popular at stud. I have also bought a good bitch to be sent out, in whelp to Champion Wishaw Leader, that a few weeks ago won the trophy for the best dog or bitch over all breeds at the Agricultural Hall, London, with nearly 4,000 entries."

## Lump Jaw

The first remedy to cure Lump Jaw was Fleming's Lump Jaw Cure and it remains today the standard treatment, with years of success back of it, known to be a cure and guaranteed to cure. Don't experiment with substitutes or imitations. Use it, no matter how old or bad the case or what else you may have tried—your money back if Fleming's Lump Jaw Cure ever fails. Our fair plan of selling together with exhaustive information on Lump Jaw and its treatment, is given in Fleming's Vest-Pocket Veterinary Adviser. Most complete veterinary book ever printed to be given away. Durably bound, indexed and illustrated. Write us for a free copy.

**FLEMING BROS., Chemists,**  
45 Church Street, Toronto, Ontario.

## Maple Shade

**Cruckshank Shorthorn and Shropshire Sheep**  
15 choice young bulls of Cruckshank breeding, from which you can select high-class herd-leaders. If you wish to see the breeding we shall be pleased to mail a catalogue.

### JOHN DRYDEN & SON, Brooklin, Ont.

Stations (Brooklin, G.T.R. Myrtle C.P.R.) Long-distance telephone.

## Pine Grove Stock Farm.

Breeders of High-class Scotch Shorthorns, Choice Shropshire Sheep, Clydesdale and Hackney Horses. Herd catalogue on application. Address: **C. W. WILSON, Supt., Rockland, Ont. W. C. EDWARDS & Co., Limited Props. on**

## Maple Lodge Stock Farm.

1894. An excellent lot of Shorthorn bulls and heifers for sale now. Have choice milking strains. Have a few Leicesters left yet. Bargain in even.

**A. W. SMITH, Maple Lodge, Ont.**

## Queenston Heights Shorthorns

Choice yearling heifers, Straight Scotch. Two bull calves at easy prices.

**HUDSON USHER, Queenston, Ont.**

## KENWOOD STOCK FARM. SHORTHORNS.

Headed by (Imp.) Jilt Victor—4375, 10 grand young bulls; also heifers; from imp. and home-bred cows, for sale. Choice Lincoln sheep; Berkshire and Tamworth hogs offered.

**HAINING BROS., Highgate, Ont. Kent Co.**

## Riverview Shorthorns and Oxfords

Shorthorns represent Crismon Flock, Athelstan, Lady James and Becca. We have for sale eight bulls, including our stock bull, four yearlings, and the balance calves; also a few one, two and three year-old heifers. A thick, straight, mossy lot. Also some spring and one-year-old Oxford rams.

**Peter Cochran, Almonte, P. O. and Stn.**

## SHORTHORNS AND LINCOLNS.

Present offerings: 4 choice young bulls 6 to 14 months; also a few good heifers, Lincolns, descended from the best English flocks.

**JOHN LEE & SONS,** Highgate, Ont. 40 miles west St. Thomas, on M.C.R. & P.M. Ry.

## A. EDWARD MEYER SHOOT SHORTHORNS.

a specialty. Herd bulls—Scottish Hero (Imp.), a Shethia Rosemary, Radium a Cruckshank Mysie. Correspondence solicited. Visitors welcome. Long-distance phone in house.

**GEORGE D. FLETCHER, Breeder of Scotch Shorthorn Cattle and Large English Yorkshire Swine.** Herd headed by the Dutch-bred bull (Imp.) Joy of Moravia, winner of first prize at Dominion Exhibition, Toronto, 1905.

Present offering: young Shorthorns of either sex; also a choice lot of Yorkshires of either sex, six months old, from imp. sire and dam. Prices easy.  
**Sinkham P. O., Ont. Erie Station and Tel**



MARCH 22, 1906

GOSSIP.

A newspaper man once essayed to write an agricultural item, and said, having in mind the Darwinian theory, that, if the farmers persisted in removing the horns from their cattle, in the course of time all cattle would be born without horns. He was embarrassed when we asked him if he had ever seen a calf born with horns.

BLENDING BLOOD LINES.

The results obtained by the mating of different strains of blood in pure-bred stock is always an interesting and instructive subject to breeders. The beneficial effect of the blend of the old Cumberland strain of Shorthorns with that of the fashionable Scotch lines is remarkable in the case of the bull, Master Millicent, in service in Lord Lovat's herd at Beaufort. He is the sire of four bulls sold at Perth last week, three of them being the highest priced of the Beaufort contingent. This sire is directly descended from Mr. Fawkes' Millicent tribe, that became famous at Beaumont Grange and afterwards at Inglewood, and produced many of the celebrated winners that emanated from the late Mr. Robert Thompson's great herd, including that wonderful prize cow, Molly Millicent. At Mr. T. B. Earle's sale at Aldbro', near Darlington, in 1902, Master Millicent was a smart red 6-months calf, running at the foot of a nice young cow with a well-shaped udder, and was purchased by Mr. George Harrison at 25 gs. His grandam, which came from Mr. Robert Thompson, was a daughter of old Beau Benedict. Mr. Harrison kept on the calf until the following spring, when he was exhibited at the Royal Dublin Show, where he was highly commended in a large class, and bought privately for Lord Lovat. Janisary 3rd, the sire of Master Millicent, was bred by Mr. Wilson, of Pirbright, and won first and champion at the Huntley Show, in 1899; he was by Prince of Fashion, out of Janet 4th, a daughter of Sovereign, a fine bull used by Lord Northbrook, in Hampshire. Mountaineer, the sire of Master Millicent's dam, was also bred by Mr. Wilson, and by Sovereign, thereby introducing a double cross of the Surmise or Silence tribe, one of Mr. Cruickshank's best and favorite families, tracing to a Bates foundation. The blood of this young sire has evidently nicked well with the Beaufort cattle, and he is proving himself a worthy successor to that great bull, Royal Star, that has sired so many prizewinning and high-priced bulls at Perth and Birmingham during the last few years.—[Livestock Journal.

TRADE TOPIC.

BUY CEMENT FOR CASH FROM MANUFACTURERS DIRECT.—It is always a pleasure to speak a good word for a deserving firm that is handling a line of goods the distribution of which means solid benefit and progress to farmers. Cement is one of these things. For barn walls, cellar walls, silos, houses, and a great many other things, cement concrete makes an unexcelled building material—satisfactory, durable and economical. A still greater advantage is it for stable flooring. It is impossible to estimate the saving in fertility of our farms by the substitution of water-tight cement floors for leaking wooden ones. There are two kinds of cement—Portland and rock cement. Both have their uses, but for all ordinary farm work the rock cement commends itself on the score of economy. One brand in particular, the Queenston cement, manufactured by Isaac Usher, Queenston, Ont., has been on the market now for over 20 years, and we believe the claim is perfectly correct that when good material and good judgment have been used, there has never been a failure with it. This cement is sold direct from manufacturer to consumer at the remarkably low price of 70 cents per barrel, f. o. b., at the works. Customers are advised to order early. When a man does not require a carload, let him get his neighbor or someone who intends to build join with him and take advantage of carload freight rates. Write Mr. Usher at once, mentioning "The Farmer's Advocate." We heartily recommend the firm, the goods, and the method of doing business.

Say "Yes"

To This Offer, and See the Good You Will Get.

We Paid \$100,000

Write us if you are ready to try Liquozone. Let us buy the first bottle for you. Let the product itself prove the good it can do. You who are waiting don't know what you miss. There are plenty to tell you if you would ask; for millions have already used it. Some use it to get well; some to keep well; some to cure germ diseases; some as a tonic. You will use it as they do, when you learn what the product does. And you will then regret that you delayed so long.

What Liquozone is.

The virtues of Liquozone are derived solely from gases, by a process requiring large apparatus, and from 8 to 14 days' time. No alcohol, no narcotics are in it. Chemists of the highest class direct the making. The result is to obtain from these harmless gases a powerful tonic-germicide. The great value of Liquozone lies in the fact that it is deadly to germs, yet harmless to you. Germs are of vegetable origin; and this gas-made product, when absorbed by them, stops their activities. We publish an offer of \$1,000 for a disease germ that it cannot kill. But to the body, Liquozone is exhilarating, vitalizing, purifying. It is helpful in the extreme. That is its main distinction. Common germicides are poisons when taken internally. That is why medicine proves so nearly helpless in a germ disease. Liquozone is a tonic.

For the American rights to Liquozone, after hundreds of tests had been made with it. After its power had been demonstrated, again and again, in the most difficult germ diseases. Then we spent, in two years, more than ten times that sum to let others test it at our expense. The result is that millions of people, scattered everywhere, have shared in the benefits of this invention. We make the same offer to you. We ask you to prove, at our cost, how much this product means to you. Let Liquozone itself show how wrong it is to suffer from a trouble that it cures.

Germ Diseases.

Most of our sickness has, in late years, been traced to germ attacks. The list of known germ diseases now numbers about one hundred. Some germs—as in skin troubles—directly attack the tissues. Some create toxins, causing such troubles as Rheumatism, Blood Poison, Kidney Disease and nerve weakness. Some destroy vital organs, as in Consumption. Some—like the germs of Catarrh—create inflammation; some cause indigestion. Directly or indirectly, nearly every serious ailment is a germ result. Such diseases call for Liquozone—not drugs, which can't kill germs. Every germ-attack, no matter what its symptoms, calls for a germicide. The mildness of Liquozone makes some of its results seem almost incredible. But in that mildness lies the power that germ diseases need. And diseases which have resisted medicine for years often yield at once to it.

50c. Bottle Free.

If you need Liquozone, and have never tried it, please send us this coupon. We will then mail you an order on a local druggist for a full-size bottle, and will pay the druggist ourselves for it. This is our free gift, made to convince you to let the product itself show you what it can do. In justice to yourself, please accept it to-day, for it places you under no obligations whatever. Liquozone costs 50c. and \$1.

CUT OUT THIS COUPON.

Fill it out and mail it to The Liquozone Company, 428-464 Wabash Ave., Chicago. My disease is... I have never used Liquozone, but if you will supply me a 50c. bottle free, I will take it. W-144-D Give full address—write plainly.

Note that this offer applies to new users only. Any physician or hospital not yet using Liquozone will be gladly supplied for a test.

IDEAL Woven Wire FENCE Best Hog Fence Made. HERE ARE SOME OF THE REASONS: It is eight wires high and every one of these wires is No. 2 hard steel. It is strong enough and close enough and high enough to turn any hog that lives. You know No. 9 is pretty near the heaviest wire ever used in fencing. Most manufacturers cannot use it at all. Their machines won't weave it. Ideal fence is all made of No. 9 wire. It has no small upright wires to weaken it. If heavily galvanized and cannot rust. Looked at every crossing so firmly that it cannot be rooted or pulled or twisted out of place. It will fit perfectly all level or hilly ground. The wires are spaced from 3 to 7 inches apart, fencing in the little ones as well as the big ones. You can have the same style fence a couple wires higher, making the best all-purpose fence made. While you are buying fence, why not buy for good? Why not buy a good, heavy, permanent fence like the Ideal fence. We have prepared a little book to send out. It shows a style for every purpose. If you are interested in fencing, it will pay you to get it. Write for it to-day. THE McGREGOR-BANWELL FENCE CO., Limited, WALKERVILLE, ONTARIO, Dept. B.

BELL'S STEEL LAND ROLLER. Made in four sizes. Heavier and stronger, size for size, than any other. The drums are specially prepared steel—and can't be dented by rocks or stumps. The frame is all angle steel—never known to sag. Low hitch makes the easiest draft. Steel seat spring—and pressed steel seat. Altogether, the trimmest and best land roller on the market. Free illustrated catalogue if you write for it, mentioning this paper. B. BELL & SON, Limited, St. George, Ont.

AYRSHIRES AND YORKSHIRES. Young bulls, 9 Aug. 1904, sired by Prince of Bar-chestle (imp. in dam); 1 March calf, sired by Royal Star (imp. in dam); 2-year-old calves, 2-year-old heifers and young cows. Young sows ready to mate. Pigs ready to ship. Prices right. Correspondence solicited. ALEX. HUME & CO., Montic, Ont.

HIGH-CLASS AYRSHIRE CATTLE. Bulls and heifer calves, two to nine months old, cows and heifers all ages. Prizewinners from this herd include Tom Brown and White Floss, sweepstakes at Chicago. DAVID BENNING & SON, Glenhurst, Ont.

Wardens Ayrshires.—We are now offering a few young bulls, from 2 to 12 months of age, richly bred and out of producing dams; also females of any age. Will sell cheap for quick sales, as we are over-stocked. F. W. TAYLOR, Wellman's Corners, Heald's Sta., C.T.R.

SPRING BURN STOCK FARM, North Williamsburg, Ont. H. J. WHITEKER & SONS, Proprs. Offer 11 Ayrshire Bulls, from 3 months to 3 years old, from heavy-milking cows with large teats. Also a number of Buff Orpington cockerels and pullets. Prices reasonable.

STOCKWOOD AYRSHIRES FOR SALE. 1 bull 11 months, 2 bull calves 6 months; also a choice lot of cows and heifers coming in Sept. and Oct. A number of heifer calves dropped Aug., 1905. For full particulars address, D. M. WATT, Allan's Corners, Que.

AYRSHIRE BULLS. An extra pair from heavy-milking dams, with grand, good teats. Also a few choice ones from 5 to 6 months old. W. W. BALLANTYNE, Stratford, Ont.

MONEY IS MADE ON WESTERN FARM LANDS EVERY DAY. Write for particulars of what we have to offer. BENSON & HOULTON Calgary, Alberta.

PROGRESSIVE FARMERS all the country "The Farmer's Advocate." Some have read it for 40 years. SUBSCRIPTION PRICE, \$1.50 PER YEAR IN ADVANCE.


**Spramotor** for **WHITEWASHING** or **PAINTING**



Two men with a Spramotor and a ladder will paint the largest barn in half a day. It will apply any kind of paint or white-wash and spreads evenly and thoroughly. It is a strictly high grade, high pressure machine, and will save its cost in the first operation. Made in four styles and 36 sizes, at from \$10 to \$300. Spramotor, as shown, with cash complete ready to operate, \$22. Shipped on approval to responsible parties. Gold Medal at the World Fair and highest awards everywhere. Awarded first place at Government Spraying Contest. Send for booklet C.

**SPRAMOTOR CO.,**  
BUFFALO, N. Y.      LONDON, CAN.

**Burnside Ayrshires**



Imported and Canadian-bred. Prizewinners at all the leading shows. I hold the award of merit given by the Bd. of Dir. of World's Fair, St. Louis, to the breeder of largest number of prizewinning Ayrshires at said Exposition. Females of all ages for sale, imported and Canadian-bred.

**R. R. NESS, JR., HOWICK, QUE., P.O. AND STATION.**

**AYRSHIRES**

The famous Reford Herd at St. Anne de Bellevue, Que., now owned by Sir William C. Macdonald.

Several yearling bulls for sale; also a number of bull calves. Quality and appearance extra good, bred from the best milking strains, noted for robust constitution and large teats.

For particulars apply to

**MACDONALD COLLEGE**  
St. Anne de Bellevue, Quebec.

**Ayrshire Bulls**

For Sale 12 Ayrshire bulls one to two years old. Bred from deep milking stock, both by sire and dam. Price reasonable. Correspondence and inspection solicited.

**W. Owens, Monte Bello, Que.**  
Riverside Farm.

**Meadowside Farm**  
**Ayrshire Cattle**, Shropshire sheep, Berkshire pigs, B. P. Rocks and B. Oringtons. Young stock for sale.

**A. R. YUILL, Prop., Carleton Place, Ont.**

**Maple Cliff Dairy and Stock Farm**  
Breeder of Clydesdale Horses, Ayrshire Cattle, Berkshire and Tamworth Pigs. Young stock for sale at all times.

**R. REID & CO., Hintonburg, Ont.**  
Farm adjoins Central Experimental Farm.

**AYRSHIRES**—Choice stock of either sex, different ages, for sale. Prices reasonable. For particulars apply to

**N. DYMENT, Hickory Hill Stock Farm,**  
Dundas St. & Tel.      Clappison, Ont.

**Registered Ayrshires**—Bright Smile of Maple Grove—16593—5 years old; gave 40 lbs. a day last year on grass alone. Due to calve April 1st Lady Clare, rising two years; sire Signal of Maple Grove; dam Bright Smile, as above; in calf. Joseph Hudson, Lym, Ont.

**HILL AND CENTRE VIEW HOLSTEINS**  
95 head. Stock bulls bred on high-producing lines. Official records 15 to 23 lbs. 20 bulls, 4 to 16 months, by our stock bulls, out of Advanced Registry dams. Females, all ages. Write quick. Guaranteed as represented.

**P. D. EDE, Oxford Centre P.O., Woodstock Station.**

**R. Honey, Brickley,** offers Holstein bull calves of the richest quality at reduced rates for the next two months; also Yorkshires of both sexes.

**High-class Registered Holsteins.** Young stock of either sex for sale. Prices reasonable. Apply to

**THOS. CARLAW & SON,**  
Campbellford Stn.      Warkworth P.O.

**Holsteins, Tamworths, Oxford & Dorset SHEEP FOR SALE.**

At present we have 1 young bull, 8 Oxford ram lambs, Dorsets, 1 yearling and 1 aged rams, Tamworths, both sexes.

**J. A. Richardson, South March P.O. and Stn.**

**Hilton Stock Farm** Holsteins, Cotswolds and Tamworths.

Present offering: Some choice heifer calves; young boars fit for service; young sows ready to breed; and younger ones at reasonable prices.

**R. O. MORROW, Hilton P.O., Brighton Tel. & Stn.**

With Cheese at 12c. and Butter at 25c. why not

**Buy a Holstein Bull**

and Improve Your Dairy Herd? I have them Right in Breeding, Right in Quality, Right in Price. Order early if you want one.

**G. W. CLEMONS, ST. GEORGE, ONT.**

**HOLSTEIN BULL**

to head your herd sired by such noted sires as

**Piebe De Kol,"** whose dam and sire's dam records average 619.9 lbs. milk, 37.31 lbs. butter in 7 days, or "Duchess Aggie De Kol Beryl Wayne," grandson of the famous "Beryl Wayne," 82 lbs. milk in one day, 37.57 lbs. butter in 7 days 17.19 lbs. milk in 101 months. We have 12 imported and home-bred bulls to offer of such breeding; also heifers and young cows. Just imported, 35 head in the past six months. Just head from which to select. It will be to your interest to enquire before buying elsewhere.

**H. E. GEORGE, Campbell, Ont.**  
Seven miles from Ingersoll.

**RIVERSIDE HOLSTEINS**

to head to select from. Six young bulls, from 4 to 7 months old, whose dams have official weekly records from 16 to 21 lbs. butter; sired by Johanna Rue 4th's Lad, a son of Sarastia Lad, Grand Champion prize bull at World's Fair, St. Louis, 1904.

**MRT. RICHARDSON & SON,**  
Oshesheena,      Ontario.

**WOODBINE HOLSTEINS**

Head headed by Sir Mechtilda Poesh, also being the best official-backed sire in Canada. Dam Janthe Jewel Mechtilda, 25.8 pounds; bull in seven days. Champion cow of Canada over all breeds. Sire's dam, Alta, 11 cows, 4th, holds the world's largest two-day public test record—8.6 pounds butter. Young bulls of the choicest quality for sale.

**A. KENNEDY, Ayr, Ont.**  
Ayr, O.P.R.; Paris, G.T.R.

**Lyndale Holsteins.**

**For Sale** A number of bull calves from one to four months old, out of Record of Merit cows, and sired by Beryl Wayne Paul Concordia, whose four nearest dams have official butter records averaging 23 lbs. 11 cows each. We also have three young bulls fit for service.

**BROWN BROS., LYM, ONT.**

**MAPLE GROVE HOLSTEIN-FRIESIANS**

**For Sale:** Three bull calves, sired by Lord Wayne Mechtilda Calamity, and all out of Advanced Registry cows.

Apply

**WALBURN RIVERS, Folden's Corners.**

**Grove Hill Holsteins**—Herd contains 55 head, in the advanced registry. Our stock bulls have all been backed up by high records. Present offering: Several young bulls and a few females.

**F. R. MALLORY, Frankford P.O. and Sta., C.O.R.**

**"GLENAROHY" HOLSTEINS**

We have for immediate sale several young bulls, and a number of young females, that for ideal type and superior quality, backed up by gilt-edged breeding, are unsurpassed.

**G. MACINTYRE, Renfrew P.O. and Stn.**

**HOLSTEINS AND CHESTER WHITES.**

Our Holsteins are producers and prizewinners. Young bulls and a few choice heifers for sale also some extra good young Chester White pigs both sexes.

**D. S. GOODENHAM, Thornhill P.O., G. T. R. and street cars.**

**MAPLE GLEN STOCK FARM**

Can now offer one young bull, born last spring, and four bull calves, born in Aug., Sept. and Oct., from select cows, and sired by the great imp. bull, Sir Alta Poesh Beets. Any female in the herd can be secured at their value.

**G. J. GITROY & SON, Glen Beels, Ont.**

**IMPERIAL STOCK FARM HOLSTEINS**

A prizewinning herd of imported, officially tested stock. Bulls of all ages for sale, also a few cows.

**W. H. SIMMONS, New Durham, Ontario.**

**GOSSIP.**

Mr. A. M. Shaver, Ancaster, Ont., writes: "As I have purchased the Village Blossom bull, Trout Creek Sailor, I will sell Christopher (imp.) 22859, as a number of his heifers are of breeding age. He is grandly bred, and a grand good stock-getter, in nice breeding condition, and has proved himself all that his former owner, Mr. James Douglas, Caledonia, recommended him to be. His calves seem to come better every year, and as he is very active and sure, he should prove a valuable sire in any herd. Our sales, this year, have been very encouraging. We still have one choice, thick eight-months-old bull calf, sired by Christopher, and some choice young cows and heifers."

Mr. R. H. Reid, Pine River, Ont., writes: "I have sold to Mr. Thos. Blair, Lurgan, Ont., the young Short-horn bull, Pride of Lurgan, one of the low-down, blocky sort, with a model head and horn, and carrying one of the greatest coats of hair we have sent out yet. This bull is of excellent breeding, his grandsires being such noted bulls as Royal Sailor (imp.) and Indian Chief (imp.), besides having a decided milking strain on the dam's side. Mr. Blair is a young man, with a liking for good cattle, and is to be congratulated on his enterprising spirit. Have had a good demand for bulls this winter. Have also had an excellent home trade, where our herd is well known, which is very encouraging indeed."

**POST OFFICE AND TELEGRAPHS.**

Mr. Henniker Heaton, M. P., writes in the Grand Magazine, a very interesting paper about the post office. One of the marvels of that institution to which he calls attention is the ever-growing surplus. It yearly causes the British Postmaster-General, he says, to "stare and gasp, like a hen that has unwarily sat on and hatched an emu's egg. It suggests the fabled mill which kept on grinding because the owner had forgotten the formula to be uttered in order to stop it." There is a steady growth of some £250,000 a year in the postal surplus, which is now £3,981,000. Twenty million pounds—that is to say, a seventh part of the British Revenue—is raised by means of the post office. It seems to Mr. Henniker Heaton "scandalous" that with an annual profit of £3,981,000 the department cannot, for instance, set its way to register a letter for a penny instead of exacting twopenny, or to sell post cards at the face (stamp) value.

The telegraphic business of the British post office is, however, "a dismal failure." The average payment received on a telegram is 7d., and the average expenditure on it is 1s.; in other words, there is a loss of 4d. on each message. Last year there was a deficiency of £1,215,000 in the telegraphs account. The postal telegraphs branch, Mr. Henniker Heaton contends, is sadly in need of a process of "reconstruction," as the company promoter terms it. It is still burdened with £278,000 a year of the sum borrowed to buy up the old telegraph companies in 1870; and with £55,000, the value of the messages transmitted free for the railway administrations. If an experienced city man were called in he would, perhaps, say to those responsible for this wastage: "Why not try fourpenny (as in India), threepenny, or even twopenny messages—it would not hurt the wires."

Cables, Mr. Henniker Heaton further points out, are as vital to the Imperial existence of Britain as warships, cannon, or magazine rifles.

It is the more remarkable that our Government is content to leave the Imperial nervous system in the hands of private companies, instead of forming a syndicate with the colonial governments to acquire all British-owned lines for the State. If that were done, not only would the cables be strategically rearranged and extended, but the present exorbitant charges would be instantly cut down. No message to any part of the world should cost more than 1s. a word and under the zone system we might "wire" for 1d. a word to Europe and North America, 2d. a word to India and South Africa, and 3d. to Australia. Our commerce is bound hand and foot with these copper bonds, our power cut off from their friends who emigrate. Social messages only amount to three per cent. of the traffic of World Wide.

**A WOMAN'S BACK IS THE MAINSPRING OF HER PHYSICAL SYSTEM.** The Slightest Backache, if Neglected, is Liable to Cause Years of Terrible Suffering.

No woman can be strong and healthy unless the kidneys are well, and regular in their action. When the kidneys are ill, the whole body is ill, for the poisons which the kidneys ought to have filtered out of the blood are left in the system.

The female constitution is naturally more subject to kidney disease than a man's; and what is more, a woman's work is never done—her whole life is one continuous strain.

How many women have you heard say: "My, how my back aches!" Do you know that backache is one of the first signs of kidney trouble? It is, and should be attended to immediately. Other symptoms are frequent thirst, scanty, thick, cloudy or highly colored urine, burning sensation when urinating, frequent urination, puffing under the eyes, swelling of the feet and ankles, floating specks before the eyes, etc.

These symptoms if not taken in time and cured at once, will cause years of terrible kidney suffering. All these symptoms, and in fact, these diseases may be cured by the use of

**DOAN'S KIDNEY PILLS**

They act directly on the kidneys, and make them strong and healthy.

Mrs. Mary Galley, Auburn, N.S., writes: "For over four months I was troubled with a lame back and was unable to turn in bed without help. I was induced by a friend to try Doan's Kidney Pills. After using two-thirds of a box my back was as well as ever." Price 60 cents per box or three boxes for \$1.25 at all dealers, or sent direct on receipt of price. The Doan Kidney Pill Co., Toronto, Ont.

**Cows from the ANNANDALE HOLSTEIN HERD**

Have won during the past show season at Ottawa first and sweepstakes on cow, first on 3-year-old, first on 2-year-old class. At Guelph (dairy test) first and sweepstakes on cow, first and second in heifers. At Chicago (National) first and sweepstakes on cow, also second-prize cow, second and third on 1-year-olds, second on 1-year-old heifers, and a host of other prizes (different cows at different shows).

Bull calves, 4 months and under only, for sale from great dams and greatest of sires. Buy young if you want them from Annandale Stock Farm.

**GEO. RICE, Tillsonburg, Ont.**

**Asthma**

Chambers wear out, Snakes, Sprays and "Specifics" relieve only temporarily; they cannot cure. Our **CONSTRUCTIVE** treatment, founded 1883, permanently eliminates the CAUSE of Asthma and Hay Fever, so that nothing being back the old symptoms or attacks. Write for BOOK \$7 1/2, containing reports of many illustrative cases that have **STATED CURED** for years. Mailed FREE. Write **P. HAROLD HAYES, Buffalo, N. Y.**

**COTSWOLD SHEEP**

From one of the largest breeders in the home of the breed. We have bred the prizewinners at the leading English shows. Address:

**W. HOULTON, Broadfield Farm, Northleach, Glos., ENGLAND; or S. HOULTON, Calgary, ALBERTA.**  
Canadian representative.

**SOUTHDOWNS**

Having sold short, I am now booking orders for future delivery of show and breeding flocks.

**COLLIES**

At Stud, Holyrood Glinker, Just imported. Fee \$10.00.

**Robt. McEwen, Byron, Ont.**

**ALBERTA FARMS CHEAP**

**Do You Want One? WE SELL THEM.**

**Samis & Bush, Calgary.**

Write to-day.

**Seed Grains and Dorset Horn Rams**

Emmer and Tarter King oats. All grains well cleaned. Write for samples and prices.

Glenairn Farm. **JAMES DICKSON, Orono, Ont.**

BACK IS SPRING OF PHYSICAL

The Slightest Backache, if Neglected, is Years of Terrible Suffering.

Strong and healthy are well, and regular in the kidneys are ill, for the poisons which have filtered out of the system.

Substitution is naturally kidney disease than a more, a woman's work whole life is one con-

Do you hear say: "aches!" Do you know of the first signs of is, and should be at-

Other symptoms scanty, thick, cloudy urine, burning sensation of the feet and before the eyes, etc.

not taken in time and cause years of terrible these symptoms, and may be cured by the

ONEY PILLS

on the kidneys, and healthy. Auburn, N.S., writes: "I was troubled with unable to turn in bed induced by a friend to use. After using two boxes as well as ever."

Box or three boxes for sent direct on request Kidney Pill Co.,

ALSTEIN HERD

past show season repeatsakes on cow, on 2-year-old (ry test) first and first and second in National first and also second prize on 3-year-olds, eifers, and a host ent cows at differ-

and under only, ans and greatest if you want them Farm.

onburg, Ont.

WMA

ays and "Specific" not cure. Our GUARANTEED, permanently eliminates ay Fever, no that nothing attacks. Write for BOOK ay illustrative cases that called FEVER, White Buffalo, N. Y.

SHEEP

est breeders in t. We have bred the leading Eng-

m, Northleach, Glos., at Calgary, ALBERTA, entative.

OWNS

w booking orders for d breeding flocks.

IES d Glinker, Fee \$10.00.

Byron, Ont.

Want One? TELL THEM.

& Bush, gary.

ay.

et Horn Rams

ts. All grains well and prices. KSON, Orono, Ont.

Dairy Barn containing 110 head of Cows. Roofed and Sided with Carey's Roofing



**Far-Seeing Farmers and Stockmen**  
Use Carey's Roofing on ALL farm, stock and poultry buildings, both for roofing and siding. Just the material to apply over your old leaky shingle or metal roof without removing same.


**CAREY'S FLEXIBLE ROOFING**  
CEMENT

Is practically everlasting—is proof against fire, wind, moisture—unaffected by heat, cold or the most severe climate changes. Always flexible. Carey's is the oldest and most widely used roofing. Composed of woolen felt, an asphalt mixture, barlin, and cement compound. Our special lap—a patented feature—insures smooth, waterproof joints and protects nailheads. Sold to you at manufacturers' prices. We have warehouses established at convenient points all over the country. This enables us to ship to you from nearby point at lowest freight rates.

Let us send you free our interesting booklet, a sample of Carey's Roofing, and address of our nearest distributing point. Write to-day.

**THE PHILIP CAREY MFG. CO., Sole Manufacturers.**  
Toronto, Ont. London, Ont. Montreal, Que.

**Shropshire & Cotswold Sheep**  
**SCOTCH SHORTHORNS and CLYDEDALES**



Choice ram and ewe lambs. Also 50 shearing ewes for sale. Apply to

**JOHN BRIGHT,**  
Myrtle Station, Ontario.

**NEWCASTLE HERD OF Tamworth Swine and Shorthorn Cattle**

Still have a lot of beauties to offer in Tamworths of both sexes, from 3 months to 3 years old; a half-dozen March sows that will be bred in October and November. All for sale at moderate prices. Also four young Shorthorn bulls ready for service, and a half-dozen beautiful heifers.

**COLWILL BROS., Newcastle, Ontario.**

**Mount Pleasant Herd of Tamworths and Holsteins.** A large herd of choice pigs of all ages on hand. Mount Pleasant type of hogs are profitable breeders and ideal bacon hogs. Pairs not akin. Herd headed by Colwill's Choice No. 1348. Won sweepstakes and silver medal at Toronto, 1901-2-3. Also a few bulls.

**Bertram Hoskin, The Gully**

**GLENHODSON YORKSHIRES AND POULTRY.**

Sows bred or ready to breed, from choice imp. stock, also young pigs, for sale. Buff Orpington, B.P. Rock and White Wyandotte eggs for hatching at \$1 for 15.

**GLENHODSON COMPANY, Myrtle Station, Ont.**  
Long-distance phone at farm. Lorne Foster, Mgr.

**LARGE ENGLISH YORKSHIRES**

A grand lot of young sows ready for mating, others bred; also young pigs, all from imp. sires and dams. Prices reasonable.

**ALFRED E. SHORE, White Oak, Ont.**

**FOR SALE: IMPROVED CHESTER WHITES**

Of the long, deep, heavy sort. Breeding stock selected from the most noted families, with a view to size and quality. Booking orders for choice spring pigs; also a few fall pigs for sale. Pairs finished not akin. Express charges prepaid. Pedigrees and safe arrival guaranteed.

**H. E. GEORGE, Crampton, Ont.**

**Rosebank Herd of LARGE ENGLISH BERKSHIRES**

Present offering: Choice stock from 6 weeks to 5 months old, sired by Concord Professor and Willow Lodge Crown 8th. Can supply pairs and trios not akin. Satisfaction guaranteed. Express prepaid.

**JOHN BOYES, Jr., Churchill, Ont.**

**Blmfield Yorkshires**

Young stock, both sexes, by imp. sire and dam, and the got of imp. sire and dam, up-to-date type with plenty of bone; also one 13-months-old Short-horn bull, dual-purpose bred. A good one.

**G. B. MUMA, Ayr P.O., Ayr and Paris stations.**

**BERKSHIRES**

Imported and Canadian-bred

**H. M. VANDERLIP, Gainsville,**  
on T. H. & B. and B. & G. division of Grand Trunk. Telephone and telegraph, Gainsville

**HILLCREST HERD OF ENGLISH BERKSHIRES**

For Sale: A lot of very choice young things of various ages. We prepay express charges and guarantee satisfaction. Enquiries promptly answered.

Vine Sta., G. T. R., near Barrie.

**JOHN LAHMER, Vine P.O., Ont**

**AUCTION SALE OF 55 Imported Large Yorkshires**

ON **WEDNESDAY, APRIL 4th, 1906,**

At **NORTH COT FARM.** Also 100 acres of rich loam, with buildings. Morning trains met at New Hamburg and Bright stations.

(See Gossip.)

**GEO. M. SMITH, Haysville, Ont.**

**GOSSIP.**

Attention is called to the advertisement of young Shorthorn bulls, offered for sale, at stated prices, by Valley Farm, property of Mr. Wm. Hendris; the get of the imported bull, Magstrand. For particulars, write the manager, Mr. A. Summers, Aldershot P. O., near Waterdown Station, G. T. R., which is near the city of Hamilton, Ont.

Messrs. J. Crouch & Son, LaFayette, Ind., write: "We have just received 151 head of German Coach, Percheron and Belgian stallions from Europe, which came by special train from New York to LaFayette, Indiana. We now have over 200 head of high-class German Coach, Percheron and Belgian stallions on hand, and can suit prospective buyers in horse and price."

Mr. James Bowman, Guelph, Ont., writes: "Among our recent sales of Aberdeen-Angus cattle, I would mention the young bull, Elm Park Prince 2nd, sired by Prince of Benton (imp.), and out of Imp. Pride of Powrie 11th, to Mr. John Mountain, of Boston Mills, Ont. Mr. Louis Bruder, of Weisenberg, bought a good, growthy, thick bull in Elm Park King 8rd, also by Prince of Benton. Mr. John Lowe, of Elora, has purchased three good females in Elm Park Pride 2nd, out of Pride 2nd of Lynemore, dam of the famous Pride of Powrie 9th, that was champion Angus cow at Royal Show, England, in 1901, and also at Highland Show, Scotland, same year, and he also took two good ones in Elm Park Beauty, and Elm Park Beauty 2nd, both first-prize winners. We expect soon to have Mr. Lowe out to the fall fairs. Mr. John Stewart, of York Mills, has also made a start with Elm Park Keepsake 5th, sired by Lord Val 2nd, an International winner. And Mr. Henry, of Lansing, an old O. A. C. student, has made a start with Bowman's No. 1, and a good bull calf with her. Mr. Geo. Ritchie, of Plainville, has taken one of our best bulls of this season, Elm Park Ringleader 2nd, to head his pure-bred herd at Plainville, Ont. We are pleased and encouraged by the many inquiries we are having for Angus cattle this season. Our stock is in good breeding condition, and our Clydes are also thriving. Our flock of Suffolk sheep are wintering nicely."

MISREPRESENTATIONS OF TREE AGENTS.

A press bulletin from the Ohio Experiment Station says: "We have recently received several letters similar to the following: 'Tree agents are working in this vicinity selling black locusts at \$25 per thousand. They claim that the trees will grow to post size in 4 to 6 years.' They also claim that the trees they are selling will not sprout from the root, and that it will not be necessary to keep live stock away from the young trees.' We are also in receipt of many inquiries as to the advisability of planting locust trees along the line of fences to serve as live posts.

Reliable nurseries in Ohio are cataloguing black locust trees at \$6 to \$10 per thousand. Locust trees will not, ordinarily, grow to post size in less time than 8 to 12 years from planting. They will not sprout from the roots so long as the trees are uncut or uninjured, and the roots unbroken, but as soon as the trees are cut or seriously injured or the roots broken, sprouts will come up from the roots. So far as is known, all black locust trees are alike in this respect, and any claim that they will never sprout is either made through ignorance or for the purpose of deceiving. Live stock, and especially sheep, are almost sure death to young locust trees if allowed to pasture where they are growing. It is not advisable to plant locust trees along the line of fences adjacent to tillable land, because of the fact that the sprouts which grow from the root will, in most cases, become a nuisance. The trees will also be more liable to injury from live stock, as it is not practicable to fence the trees in. In most cases, the trees would of necessity be planted in sod and thus would receive no cultivation. The growth under such conditions would be slow at the best, and the grass would encourage the presence of mice, which are very destructive to young locust trees. Moral.—Nothing is easier for an agent than making tall claims.

CURED HIS WIFE of LA GRIPPE

Quebec Man tells how the Great Consumptive Preventative was an all-round Benefit

"My wife took La Grippe when she was in Ottawa," says R. N. Dafeo of Northfield Farm, Que., in an interview. "She got a bottle of Psychine and after using it for a few days she was quite well. I took a cold and am using it and am getting all right. I think Psychine is one of the best tonics on the market to-day."

There you have the whole matter in a nutshell. La Grippe and colds are among the forerunners of consumption. This man had one, his wife had the other. Psychine not only cured both, but it built them up so that their bodies are strong enough to resist disease. All seeds of consumption are killed by

**PSYCHINE**  
(Pronounced Si-keen)

**50c. Per Bottle**

Larger sizes \$1 and \$2—all druggists.

**DR. T. A. SLOCUM, Limited, Toronto.**

LARGE ENGLISH YORKSHIRES

Pigs of the most approved type, of both sexes, all ages, for sale at all times. We have more imported animals in our herd than all other breeders in Canada combined. We won more first prizes at the large shows this year than all other breeders combined. We won every first but one and all silver medals and Boston prizes at Toronto and London, and at St. Louis we furnished all the first-prize hogs in the breeding classes except two; also supplied both champion and grand champions. Prices reasonable.

**D. C. FLATT & SON, Mississauga, Ont.**

MONKLAND YORKSHIRES

Imported and Canadian-bred. We keep 25 brood sows, and have constantly on hand between 100 and 200 to choose from. Can supply pairs and trios not akin. Quality and type unsurpassed. Prices right.

**JAS. WILSON & SONS, Fergus, Ont.**  
G. T. R. and C. P. R. Long-distance Phone

WOODSTOCK HERD OF BERKSHIRES

A few fall pigs left, sired by Imp. Polgate Doctor. Also am booking orders for spring pigs, for which I can supply pairs not akin at reasonable prices.

ORCHARD HOME HERD OF LARGE ENGLISH YORKSHIRES

Now on hand, Feb. 8th: A choice lot of boars and sows, 3 to 4 months old. We furnish stock of most approved type and high quality. Our record for 1905: Every customer pleased and satisfied. Place orders now for spring pigs. Address:

**S. D. CRANDALL & SONS, Cherry Valley, Ont.**

Glenburn Herd of YORKSHIRES

Now on hand, a number of sows, 5 and 8 months old, for spring farrow; also a large number of September sows and boars. Booking orders for spring pigs.

**DAVID BARR, JR., Box 2, Renfrew, Ont.**

Oakdale Berkshires

Of the largest strains. Imported fresh from England. The produce of these and other noted winners for sale reasonable. Let me book your order for a pair or trio not akin.

**L. E. MORGAN, Mississauga, Ont. and P. O.**

**For Sale**—Ohio Improved Chester Whites, the largest strain, oldest established registered herd in Canada; young sows in farrow; choice young pigs, six weeks to six months old; pairs not akin; express charges prepaid; pedigree and safe delivery guaranteed. Address: **E. D. GEORGE, Putnam, Ont.**

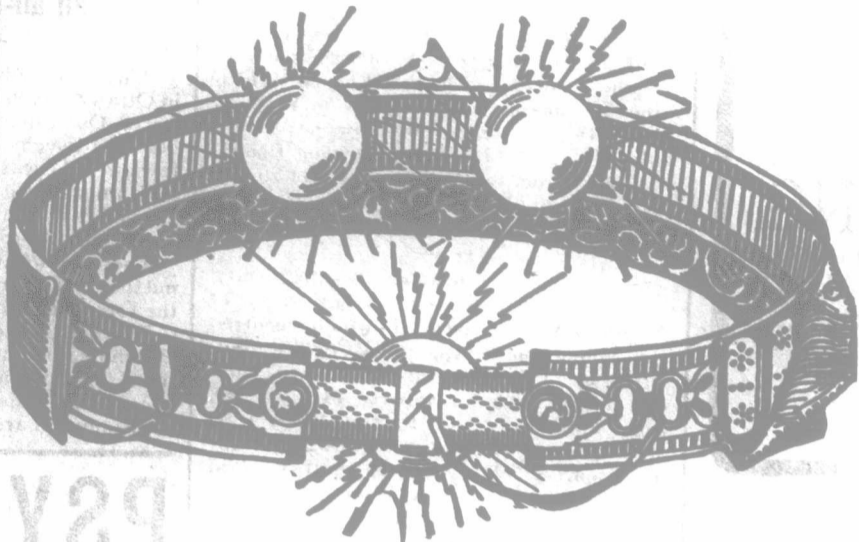


# ELECTRIC BELT ON TRIAL

## Until You Are Cured

### CURED

Brantford, Ont.,  
Oct. 30, 1905.  
Dr. McLaughlin,  
Dear Sir: Having suffered with a pain in my back for over twelve months. I sent for one of your Belts last April and after wearing it for two months, the pain left me altogether, and I have not been troubled with it since. I would have written before, but I was away from home. I remain,  
yours very truly,  
Jas. O. Sullivan,  
35 Oxford Street.



Wherever you are, I think I can give you the name of a man in your town that I have cured. Just send me your address and let me try.

That's a fair and square proposition—ON TRIAL UNTIL YOU ARE CURED. No man can make it unless he knows what he can do.

I'm no novice in the business of curing men. I've been at the business 24 years, and in that time have learned that Electricity will cure hundreds of cases where nothing else will.

I know what kind of cases I can cure, and will not take a case that I can't. When I found that I could feel sure of success in certain cases, I saw then that it was possible to make this proposition—ON TRIAL UNTIL YOU ARE CURED.

Dr. McLaughlin,

Dear Sir,—I must say that your Belt has been most satisfactory. Since wearing it I have never been troubled with rheumatism. I find the Belt is just the thing to do as you say. I have lent it to others, and they speak well of it. Wishing you every success,  
I remain, yours very truly,  
JOHN CRAWLEY.

Collingwood, Ont., Dec. 16, 1905.

Dr. McLaughlin,

Dear Sir,—This is to testify that I have used Dr. McLaughlin's Electric Belt and found it to do me more good than the best doctor I ever consulted could with drugs, as one told me drugs could do me no good. I also found Dr. McLaughlin an honorable man to deal with, as his advice to me, after he had my money, proved him to be so.  
Yours truly,  
MRS. SAMUEL DOWN.

Talbotville, Ont., Dec. 15, 1905.

To the man whose vitality is exhausted and who finds himself, while still young in years, a broken-down wreck of what he ought to be, the Dr. McLaughlin Electric Belt is full of encouragement. It is the success of the age in elevating the condition of men suffering from a loss of vitality. It is worn while you sleep. For six or eight hours every night it pours a steady stream of electricity into the nerve center, saturating the weakened tissues with its life. This is strength. From it comes the vim, the energy, the fire of perfect physical and mental action. It renews the health and happiness of all men.

There may be some people who would not pay me when I cured them. I can take chances on those, as there are very few men who, when they feel the exhilaration from my belt, will not be glad to pay the small price it costs them.

I cure some men for \$5. My \$5 Belt cured one man of lame back who had not been able to bend over to unlace his shoes for five years.

You pay a doctor a little money every month, and a druggist some more for the stuff he sells you to dope your stomach. It's no fun to look back after you have taken the stuff for years, and are just as bad off as when you started—and your stomach the worse for the poison you have put into it.

Electricity is the power that drives every wheel in your body machinery, that enables you to talk, to walk, run, think, eat and everything else you do.

Are you a weak man? Are you nervous, fretful and gloomy? Is your sleep broken? Have you pains and aches in different parts of your body? Is your back weak and painful? Have you lost the vigor of youth? Are you Rheumatic and Gouty? Have you Varicose? These are all the result of the waste of vital force. The gentle stream of Electricity from Dr. McLaughlin's Electric Belt going into the weak nerves for hours every night soon replaces all the lost energy and makes every nerve and muscle perfect. It cures permanently in every case.

To you it's like the steam in an engine. When you have enough you are strong—not enough—then you need my belt.

Maybe you believe that—or not. You will some day.

Anyhow, I am ready to back up everything I say, and all I ask you to spend is your time. And as you wear my belt while you sleep, I don't use much of that.

Some of the things I can cure are: Debility of any organ of the body, decay of youthful vigor and every evidence of it; weakness of kidneys, stomach, liver, rheumatic pains, poor circulation, constipation and general ill health.

Now let's get together. If you would like to be a stronger, younger man than you are, come to me. Call and I'll give you all the satisfaction you want. If you can't call, send this coupon and I'll send you, sealed, free, a book that will tell you how I do these things and of men who have been cured by my belt.

Office Hours, 9 a.m. to 6 p.m. Wednesday and Saturday till 9 p.m. Sunday, 10 to 1. Consultation free.

Dr. M. S. McLaughlin,  
130 Yonge St., Toronto.

Please send me your book free.

NAME.....

ADDRESS.....

2-10-6

### GOSSIP.

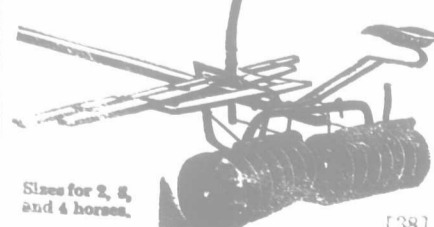
CAUSTIC BALSAM GIVES WONDERFUL RESULTS.

Berlin, Ont., March 22nd, 1904.

The Lawrence-Williams Co., Cleveland, O.

I have been using several bottles of Combaud's Caustic Balsam, and I had wonderful results. Kindly send me full information in regard to agency, as nearly all who once give it a trial want a bottle of it.  
M. S. STROME.

## THE BISSELL



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### QUESTIONS AND ANSWERS. Miscellaneous.

#### DIVISION OF ESTATE.

1. Mr. L— dies without a will. The property, in real estate, stock, etc., is worth, say, \$25,000. When the five children become of age, legally, what share does the widow get, and what share does each child get? There are but six heirs, the widow and five children. Some say five get equal shares, and the widow one-third of all.

2. Does the widow get more than one-third of all personal property, live stock, machinery, money in bank, etc.?

3. There are two boys among the heirs. One, the eldest, worked some years on the place, after the father's death, and has been away now for seven years. The younger boy, now 23, has remained, and worked on the place since boyhood, and is now managing the place, and succeeding in keeping the place up in shape, and laying up a little money in bank for the estate. Does the boy who went away and is in business, get an equal amount of money with the boy who remains on the farm, when the place is sold and a division of proceeds is declared?  
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Ans.—1. The widow is entitled to take a third of the whole estate remaining, after payment of debts and funeral and testamentary expenses, and the children the balance in equal shares.

2. She can claim one-third of the entire net estate, real and personal.

3. Yes, unless there has been some valid agreement to the contrary.

#### MOLDY SILAGE.

What is the cause of silage molding in the silo? We are feeding every day, and there are spots in it that are molding. The corn was very ripe when put in the silo, and was well tramped. There are a lot of cobs in it. Is the corn too dry or not?  
D. W. R.

Ans.—In answer to your inquiry asking whether there is any recent scientific information on the cause of ensilage molding in the silo, as far as I am aware, nothing has recently been done on this question, as the causes for molding of ensilage are well known, as one has only to apply a few principles as to the life of these microscopic plants. Molds require suitable food, moisture and air. Any form of ensilage will suffice for an adequate food supply, and the acidity of the ensilage rather aids than hinders the growth of molds, but unless the other two conditions are present they are prevented from growing. That is to say, lack of moisture and lack of air will prevent their growth, so that if the ensilage is well ripened in the field and allowed to wilt, thereby losing moisture, and thus reducing the water content of the plant tissues, their growth is restrained, similarly also with regard to the amount of air present. If the ensilage is well tramped and packed, and means taken to prevent the access of air, one of the essential conditions for their development is absent, and the molds will be unable to grow. Thus in cases of moldy ensilage occurring in silos, all of the essential requirements for growth will be present to a greater or less extent. The more moisture there is present in the silage, combined with free access of air, will permit the mold spores to grow, and produce the characteristic spotting. These mold spores are partly destroyed by the heating and sweating process in the silo, but fresh spores gain entrance from the outside air, and from the chaff or other material which is used for covering the silage. Any measures taken to prevent free access of air and high-moisture content will tend to reduce the spoilage from this cause.

O. A. C. F. C. HARRISON.

[Note.—The general opinion is that one cause of silage molding is the lack of moisture, making more difficult the packing to exclude air, and watering the silage at it goes into the silo has been practiced with satisfactory results.—Ed.]